

Amy L. Rubenstein Gottschamer. ARTIFACT ANALYSIS FOR THE READER'S POINT VESSEL: A LATE-EIGHTEENTH-CENTURY MERCHANT SHIP FROM ST. ANN'S BAY, JAMAICA. (Under the direction of Professor Gordon P. Watts, Jr.) Department of History, December 1995.

The Reader's Point vessel is located in St. Ann's Bay on the north shore of Jamaica. It was found during the 1991 season of the Columbus Caravels Archaeological Project, while searching for the last two ships sailed by Christopher Columbus. The Reader's Point sloop was found by remote sensing techniques along with five other derelict vessels, probably from a comparable period. This particular vessel was chosen for investigation because of its unique construction, specifically its radial cant frames. A complete analysis of the artifact assemblage was deemed as valuable as a thorough study of the vessel's fabrication.

The remains of the Reader's Point vessel in St. Ann's Bay held a significant, yet typical artifact assemblage. The anaerobic environment provided by sediment covering the vessel preserved the artifact collection for study. Very little is known about the ship. The temporal and geographical location of the sloop to the Hemmings sugar plantation suggest its involvement in the local sugar trade. The vessel is a derelict, abandoned sometime around the last quarter of the eighteenth century. The ship was salvaged, so nothing of value to the last owners was recovered during the 1994 season of the Reader's Point Project. The assemblage provided a *terminus post quem* of 1765, based on the earliest manufacture dates of featheredged creamware found aboard. The rest of the collection yielded dates clustering around 1775. It is believed that the artifacts, on the whole, represent personal or useful objects of the crew as opposed to cargo. All objects appeared

to be British in origin.

This thesis explains the approach taken toward retrieval, documentation, and conservation of the artifacts, but primarily attempts to identify each type of object for function and to place it in its historical context. The collection lends insight into where the sloop sailed, when, by whom, and for what purpose. This work should serve as a useful comparative collection for future students of eighteenth-century British material culture.

**ARTIFACT ANALYSIS FOR THE READER'S POINT VESSEL:
A LATE-EIGHTEENTH-CENTURY MERCHANT SHIP
FROM ST. ANN'S BAY, JAMAICA**

A Thesis
Presented to
the Faculty of the Department of History
East Carolina University

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts in History

by
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I. INTRODUCTION

St. Ann's Bay, located on the north coast of Jamaica, has been the site of extensive archaeological investigation. That research has included both terrestrial and marine surveys and also several site specific excavations. Terrestrial surveys were used to identify the sixteenth century coastline and terrestrial excavations of Spanish occupied areas were also performed. The primary focus of the maritime investigations has been the long running, and to date unsuccessful, search for the vessels lost by Christopher Columbus on his fourth voyage of 1502-1504. The Columbus Caravels Archaeological Project (CCAP) archaeologists searched St. Ann's Bay for Columbus's ships, between 1990 and 1994. Although CCAP did not locate the site of Columbus's abandoned caravels, the project identified several significant vessels associated with later periods of St. Ann's history.

One of those vessels was chosen for further investigation. Based on its unique radial cant frame construction, the Reader's Point vessel was selected to be completely excavated and recorded by the Reader's Point Project (RPP). The Reader's Point vessel was first located during a 1990 remote sensing survey. The site was excavated in 1991 and again in 1992 by CCAP. It was then designated "Site 16," but later named for the nearest geographical location, Reader's Point. The Reader's Point project was a joint venture conducted by graduate students from Texas A&M University and East Carolina University, under the jurisdiction of the Jamaica National Heritage Trust (JNHT). Several private individuals and corporations, the Institute of Nautical Archaeology (INA), and the Fulbright Foundation helped to fund the investigations.

During the 1991 and 1992 test excavations of the Reader's Point site, directors determined the vessel to be an abandoned derelict merchant ship. Material associated with the ship and the structural evidence suggested a late-eighteenth-century date for the vessel. Subsequent excavation of the entire site narrowed that date to post-1765 with an overall mean date of 1768.7, and produced a detailed record of the vessel's construction. Project members recovered an assemblage of eighteenth-century material culture, and also floral and faunal remains. The Reader's Point project produced detailed site plans, a computerized database of the artifact collection, and analyzed both the artifact assemblage and the hull, in order to date the site and place it in an historical context.

The focus of this thesis is identification and interpretation of the artifact assemblage associated with the vessel. There is a lack of available historical information concerning the region around Reader's Point, but what can be found has been incorporated in this research to aid in placing the assemblage and the vessel in an historical context. Analysis of the collection will lend insight into where the sloop sailed, when, by whom, and for what purpose. Analysis of the material culture associated with the Reader's Point site will provide a site specific study collection and will contribute to the interpretation of the final phases of the vessel's active service career.

II. METHODOLOGY

a. Project Location and Geomorphology

Jamaica is an island in the British West Indies with an area of 4,244 square miles. St. Ann's Bay, on the north shore of the island, is surrounded by a coral reef to the north and Pleistocene alluvial gravels and Tertiary limestones to the east and west. It is two miles long and a maximum of 765 yards wide. The bay is divided by Reader's Point, a large point of land projecting from the mainland. Reader's Point is 218 yards from the reef. The east side of the reef provides an opening into St. Ann's Bay (See Figure 1).

A geoarchaeological team from Texas A&M determined the landscape evolution of Reader's Point. Mike Waters and Rick Giardino led the group that performed the geological survey of the area in 1990. Their description of the geomorphology is as follows:

Since A.D. 1500, the deep bay on the northwest side of Readers Point filled with muds and the land prograded 145 feet (45 m) into the bay. Bay mud deposition appears to have been relatively rapid during the eighteenth to nineteenth centuries (at least 5 feet or 1.5 m of mud deposition) and continued into the twentieth century, with as much as 4 feet (1.2 m) of mud deposition in places. The coastline on this side is crenulated and dominated by mangroves, and the bay is no longer deep. On the northwest side of Readers Point, the coastline remains a smooth sandy beach and the beach profile still dips steeply into the bay. Here, high-energy beach deposits have prograded 130 to 200 feet (40 to 60 m) seaward, isolating a late seventeenth- to early eighteenth-century British wharf that once projected into the bay.¹

¹James M. Parrent and Maureen Brown Parrent, eds., "Columbus Caravels Archaeological Project, 1991-1992 Field Seasons St. Ann's Bay, Jamaica" (Port Royal, Jamaica: Jamaica National Heritage Trust, 1993), 26-28.

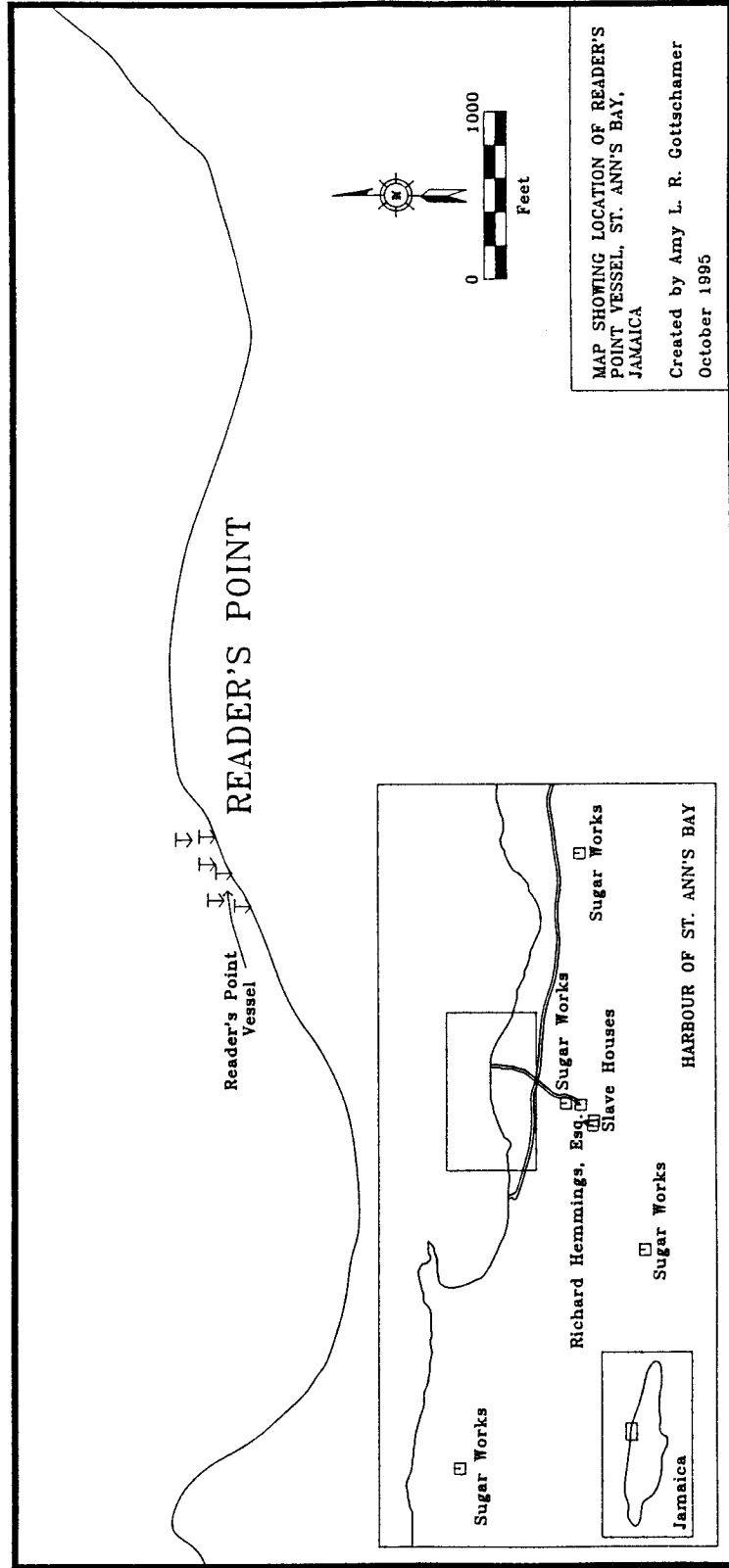


Figure 1-Project Location

b. Previous Work

During 1990, 1991, and 1992 the Institute of Nautical Archaeology conducted a remote sensing survey of St. Ann's Bay to identify potential targets, associated with the remains of two of Columbus's ships abandoned in the bay in 1504. Researchers carried out the survey utilizing a sub-bottom profiler and a magnetometer. Archaeologists tested targets with steel rebar probes and with four-inch diameter vibracore tubes to aid in identification. Once the vessel had been identified, archaeologists dug test trenches on the targets to determine the length, breadth, and depth below sediment of the hull remains. This information, along with the type of vessel construction and the examination of associated artifacts, helped project members to determine the period of use and nation of origin of the vessels uncovered. The Reader's Point vessel was discovered in this manner during the 1991 field season.

The 1991 survey project determined that the Reader's Point vessel lay under three feet of water and four feet of sediment. That year, archaeologists excavated a ten foot by ten foot trench revealing a bow section and the east to west orientation of the vessel. The site was reexamined in 1992, at which time archaeological researchers opened another ten foot by ten foot square, to examine the full breadth of the hull. They exposed its radial cant frame construction and determined the vessel was a derelict from the mid- to late-eighteenth century (See Figure 2).

Archaeologists believed the ship was salvaged and abandoned for several reasons. First, artifacts recovered from the site appeared to be debris; divers recovered nothing of

value to the last owners. Second, the sloop had obvious repairs and replacements. Finally, the location of the vessel suggested that it was in a ship graveyard; the survey project uncovered five derelict vessels nearby. Historical documentation and existing ruins support the claim that the area near Reader's Point was used for sugar production and that shipping warehouses existed further east in the bay. The fact that several well-used, stripped vessels exist in this section away from the main area of activity suggests that the vicinity about Reader's Point was a ship disposal area.

Artifacts recovered in 1991 included kaolin pipe stems, iron fasteners, green glass shards, porcelain, stoneware, slipware, and architectural tile fragments. Similar artifacts were recovered the following year. New additions included agate and pearlware sherds, and a pewter spoon. CCAP archaeologists dated this site to 1765-1780 based on the ceramic sample. The final analysis concerning "Site 16" was that it was a mid- to late-eighteenth-century British derelict.²

c. 1994 Reader's Point Project Methodology

Fieldwork on the Reader's Point Project began in March of 1994. The first objective was to relocate the site and determine the full extent of the hull. Use of survey information from the previous excavations helped to pinpoint the location, while intensive rebar probing outlined a hull section sixty feet long and twenty feet wide.

²Ibid., 104.

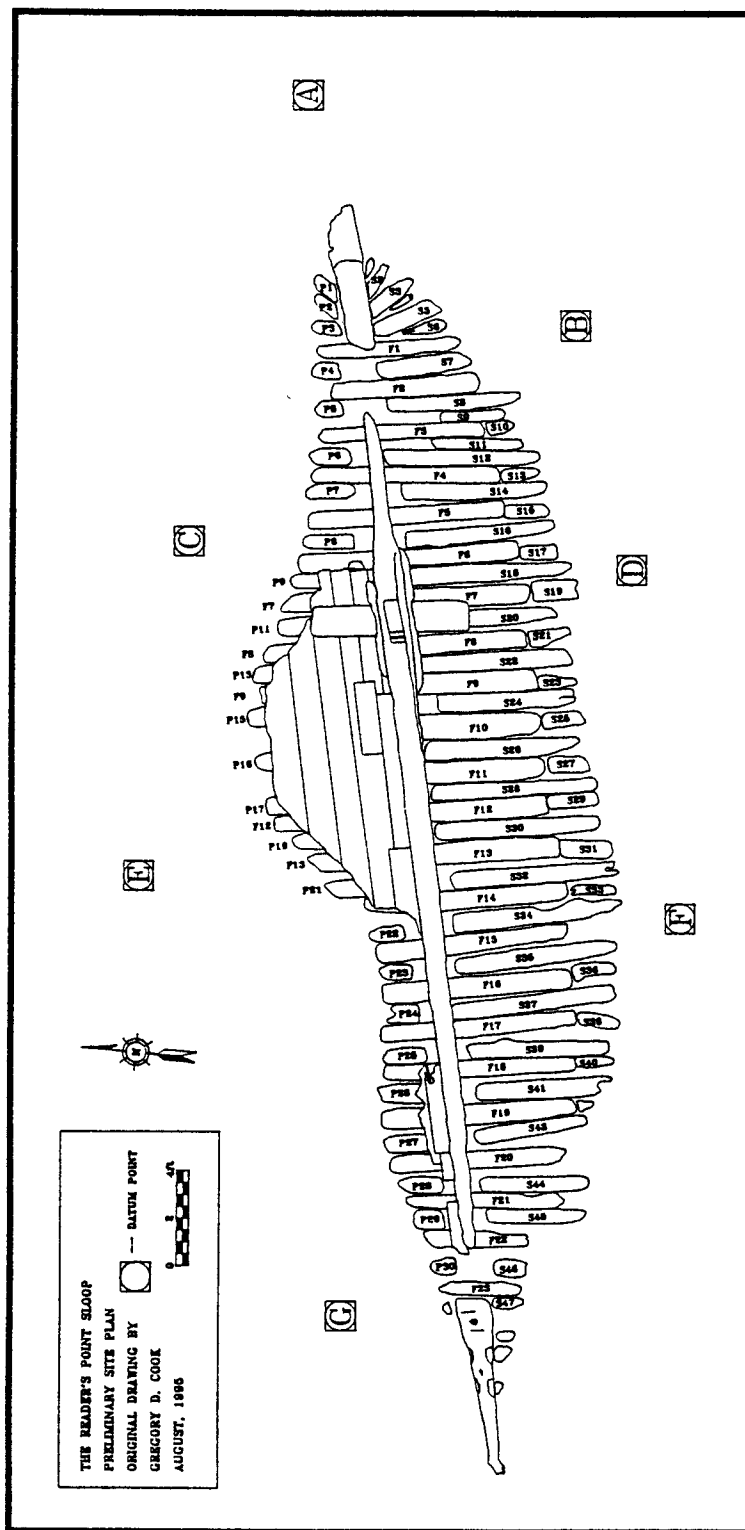


Figure 2-The Reader's Point Sloop Preliminary Site Plan

The work began over previously excavated trenches in the bow section. Two to three divers worked the site at any given time either excavating, recording or photographing. Excavation techniques included dredging and hand fanning with divers working far from each other to reduce problems with visibility. Once archaeological researchers uncovered the bow section and verified the orientation, excavation continued from east to west. A temporary baseline was set along the keelson axis to help guide excavators.

Once previously examined areas were cleared, work began on new areas just to the top of the ballast pile. Given that this was determined to be a salvaged and abandoned vessel, close to shore, and that it was in a dynamic environment in which objects continually washed from the rivers into the bay, we limited artifact recovery to strata with a clear association with the vessel. It was decided that no artifacts would be called "associated with this vessel" unless they met certain criteria. The artifacts must be recovered from within or below the ballast pile, or within the wood layer of the hull. Consequently, archaeological researchers collected no artifacts until they reached the ballast pile.

The next several phases of investigation included mapping of the ballast profile, removal of the ballast, and continued dredging to the western edge of the vessel. As excavation slowed, recording and photographing progressed. Archaeologists measured all scantlings and recorded the hull, both before and after the removal of the ceiling planking on the starboard side. Very little ceiling planking remained on the port side. Detailed

photographs of the site were taken and a photomosaic was constructed.

Recording of the site was done with the aid of the WEB Program, created by Nick Rule of the *Mary Rose* project in Great Britain. (See Figure 3) This program requires only the use of measuring tapes and several datums set at the director's discretion. The WEB computer program utilizes direct survey measurement (D.S.M.), which applies best-fit algorithms to raw field data. That approach provided an accurate site plan and alerted archaeologists to incorrect measurements. By this method, archaeologists take measurements directly to a point with no concern for elevation. The use of D.S.M. eliminates the need for line levels or grids.

Seven datums, designated A through G, were set at various points along the edges of the site pit. The team established permanent datums made of rebar poles sunk in the sediment and measured each pole to several others to establish relative location. Volunteers then measured all points in feet and tenths from at least three and usually four datums. The computer analyzed the data and determined the degree of error in those measurements, based upon an "accepted degree of error" set by the director. For the Reader's Point Project the error was set at five hundredths of a foot.

While WEB does not draw a site plan nor reconstruct the hull, it does provide a check on daily measurements. If the error is beyond acceptable, archaeologists can then remeasure that point from each of the four datums on the next dive. One drawback to the WEB system is data-entry is time-consuming. On the positive side, the accuracy of measurements is guaranteed while the team is still in the field, allowing the creation of an

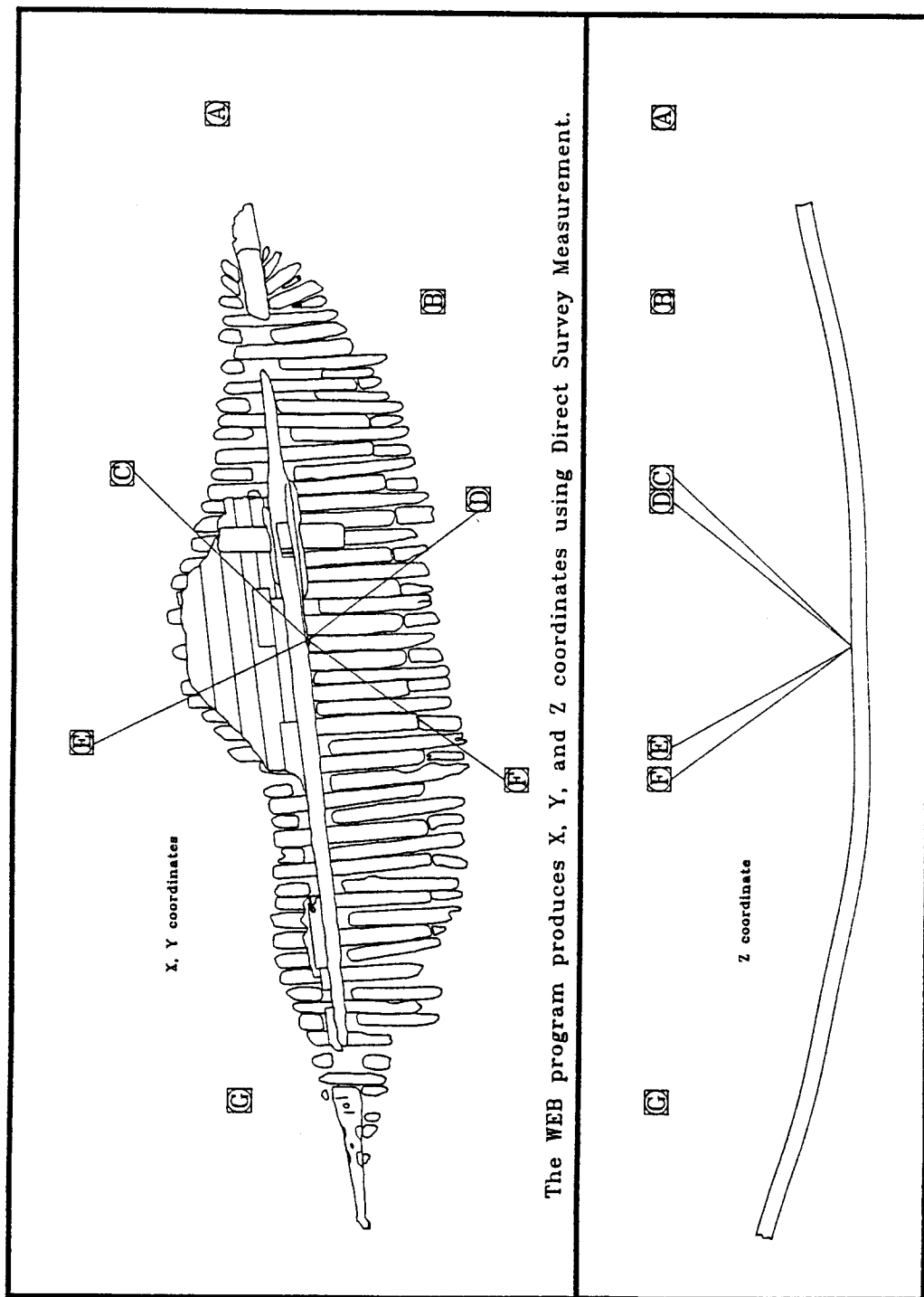


Figure 3-Direct Survey Measurement Diagram

accurate site plan at any time.

Although Reader's Point volunteers also measured the location of some of the artifact assemblage with D.S.M., they recorded most artifact positions in relation to hull timbers, which staff members had already tagged and identified.

d. Reader's Point Hull Remains

Excavation of the Reader's Point vessel exposed what has been identified as a medium-sized lightly-built sloop. She was a derelict vessel found in the eastern half of the bay away from the location of the eighteenth-century warehouse and other active areas. The vessel was close to five other abandoned vessels CCAP members found, which implies this was a disposal area or ship graveyard.

A thick layer of sediment preserved nearly the entire length of the vessel, which was 18 meters (59 ft.) from the bow to the stern knee.³ The keel was maple and averaged 30 cm (11.7 in.) moulded and 24 cm (9.36 in.) sided. The keelson was a single oak timber about 11 meters (36 ft.) in length. A rectangular mortise had been cut in the keelson for the maststep, approximately one third of the vessel's length aft. Wooden chocks were found in the aft section of the mortise. Radial cant frame construction, a technique documented on other eighteenth-century vessels, formed the bow of the Reader's Point

³Greg D. Cook and Amy L. Rubenstein, "The Reader's Point Project: The Excavation of an Eighteenth-Century Sloop in St. Ann's Bay, Jamaica" in *Underwater Archaeology Proceedings from the Society for Historical Archaeology Conference*, ed. Paul F. Johnston (Washington, D.C.: Society for Historical Archaeology, 1995), 103.

vessel.⁴ The majority of the frames were square and even, except for a few that probably were repairs. Horizontal treenails connected floors and futtocks of nine master or "made" frames. Every other floor was a made frame, except amidships where the pattern shifts to every third floor going forward. The remaining futtocks had been treenailed to the hull planking. Unwedged treenails fixed most of the planking, though a few iron nails were detected. The stern knee was a single oak timber.

The vessel bore evidence of heavy use and subsequent damage. In addition to the replaced frames, there were both repaired and replaced ceiling planks. At the maststep, a split had occurred on the starboard side of the keelson extending three meters out from and through the mortise. To repair the keelson, someone drove two iron bolts horizontally through the member, and then horizontally spiked two sister keelsons to either side. He finished the repair with a buttress timber on each side of the sister keelsons, fastened vertically with spikes to the frames below.

The presence of tropical hardwoods suggests that the crew made repairs to the hull in the Caribbean, but wood analysis suggests that construction of the sloop occurred in northeast North America. Around the time of the American Revolutionary War colonists were building their own ships in small shipyards, and using them for the West Indian trade. Those merchant vessels gained a reputation for avoiding larger enemy vessels by being fast and maneuverable.

⁴John William Morris III, "Site 44YO88 The Archaeological Assessment of the Hull Remains at Yorktown, Virginia" (M.A. thesis, East Carolina University, 1991), 62-64 and 79-81.

The Reader's Point merchant vessel was probably a derelict stripped of cargo and valuable items. The few artifacts recovered during the Reader's Point project however, helped to date this vessel and gave clues to where she had traveled. Due to the lack of valuable objects left aboard, it is assumed the vessel was stripped and abandoned. All the artifacts that did remain appeared to be British in origin. This suggests that the vessel took on goods and supplies in British ports and consequently that she traveled in British waters. Ceramic, glass, and metal artifacts were diagnostic and provided a date ranging from 1765-1800. While determining the ending date, it was found that more dates clustered closer to 1775 than 1800.

e. Conservation of the Reader's Point Artifacts

In general, project members measured and promptly recovered all artifacts encountered. Archaeologists photographed several artifacts, such as a complete glass bottle, a carpenter's plane, and a leather shoe, *in situ*. Other photographs were taken at the lab. Project members carried the artifacts to the lab at the end of the day. Excavators identified large encrustations with mylar tags attached by piano wire. Due to the lack of a vehicle, and in an effort to keep encrustations wet until treatment, the team kept the large encrustations underwater in the mangrove roots until the end of the week, at which time they were brought to the lab by truck in buckets of water.

At the lab there was a sixty-gallon aluminum tank which was used as the holding tank. Objects were stored in fresh water to aid in chloride removal. One of the most

important substances required was water without chlorides. We obtained distilled water by collecting the condensate from a commercial refrigerator. This system produced nearly four gallons per twenty-four-hour period.

Initial storage procedures focused necessarily upon keeping the artifacts wet. Uncontrolled air drying of the artifacts could have had disastrous effects, on some of the materials. Project members rotated most artifacts through fresh water baths. Disposal of old water prevented stagnation and bacteria growth, and eliminated any chlorides that might have emerged from the objects. Ferrous metals were soaked in fresh water with sodium bicarbonate as a rust inhibitor. All artifacts remained soaking until they were ready for treatment.

During initial artifact storage, excavators completed the artifact data sheets (Appendix 1). All the data sheets were kept in the Reader's Point Artifact Catalogue. Besides data sheets, a briefer form served as a general inventory for daily retrievals (Appendix 2). Artifacts that required more intensive treatment than fresh water rinses had their conservation procedures recorded on a Conservation Treatment Record card (Appendix 3).

After volunteers recorded the artifacts on data sheets, the conservator assigned each artifact a permanent identifying number. "STA32," which is the J.N.H.T. code identifying the vessel as an historic site in St. Ann's Parish, prefaced all numbers. The next code was RP, which classified this site as the one excavated during the Reader's Point Project. The last three units of the artifact identifier were three numeric digits. This was

simply a sequential number assigned by the conservator as archaeologists retrieved and documented artifacts throughout the season.

The conservator cleaned artifacts to facilitate the conservation treatment, or for aesthetic purposes. Mechanical cleaning included the use of picks, brushes, and a pneumatic aircsibe. Ceramics were cleaned primarily by chemical means. Occasionally the conservator chemically cleaned wood and bone, but only in moderation and depending on the stability of the object. Mechanical cleaning of artifacts was, however, always the conservator's first choice.

Stabilization treatment was necessary for Reader's Point artifacts facing degradation by substances such as salts, bacteria, and ferrous oxides. Salts were the biggest concern; to counteract their effects, the artifacts were moved through several fresh water baths. The team used the silver nitrate method to test qualitatively for chloride presence, as titration supplies were unavailable. Bacteria posed minimal problems and the staff controlled it not with fungicides, but by frequent changing of the water, refrigeration, or freezing. Members immersed objects that were prone to rapid rusting in sodium bicarbonate, a rust inhibitor. Keeping the objects wet, however, was the best way to stabilize them. Members treated the artifacts by bulking, consolidation, or electrolytic reduction.

Treatment

BONES

Most bones were mechanically cleaned with dental picks, while some were treated

with 10% hydrochloric acid to remove encrustation. These objects were fresh water rinsed to remove any acid residue and chlorides. As with the glass, the bones were solvent dehydrated in alcohol and acetone, and consolidated in a 5% solution of PVA in acetone or toluene. Solvent dehydration simply required a series of baths in ever increasing amounts of the solvent. The Reader's Point artifacts went up to 100% alcohol and 100% acetone.

CERAMICS

The ceramic artifacts were the simplest to conserve. The conservator protected the tin and lead glazes by ensuring chloride removal through fresh water rinses. Encrustations were removed by dental pick whenever possible. In other cases, a 10% solution of hydrochloric acid was used. Creamware and Astbury sherds, which had turned grey due to the effects of sea water, were returned to their natural color by means of immersion in a 15% hydrogen peroxide solution. After chloride and chemical removal, the ceramics were allowed to air-dry. Any cross-mending utilized cyanoacrylate or "superglue."

GLASS

Glass objects were mechanically cleaned with dental picks and then consolidated in the following manner. First, they were bathed in 1% nitric acid and alcohol to neutralize devitrifying glass. All glass artifacts were then rinsed in fresh water to remove chlorides

and acids. They were then solvent dehydrated in solutions increased by 25% increments. Finally, the glass artifacts were consolidated with 5% PVA in acetone or toluene. Volunteers performed this method on bone as well as glass artifacts, to enhance consolidation and to seal them from outside moisture, pollution fumes and gases. Sealing the objects will more likely protect them from renewed degradation.

LEATHER

Leather was first mechanically cleaned by washing in water by hand and with toothbrushes. Next these objects went through consecutive dehydration treatments in organic solvents. Finally, the leather objects were air dried between blotting paper.

METALS

All metal artifacts, most of which were iron, went through electrolysis in plastic vats using sodium carbonate as the electrolyte, expanded steel mesh as the anode and a brass bar cathode conductor. Project staff simultaneously suspended several objects from the cathode with alligator clips. Standard two-ply wire was used to connect the clips to the power supply. Three power sources were used, one of which was a standard 6/12 volt battery charger, the other two being variable voltage DC power supplies.

The electrolytic setups were chosen based on several factors. First was artifact size. Most of the metal artifacts were small, the largest being 265 centimeters square with the rest being significantly smaller (no greater than 26 square centimeters). Other

determining factors included the total number of metal objects in the collection, the number of available power supplies, the project budget, and the length of the field season. The electrolytic setup chosen was "3B" according to Hamilton.⁵ The size and condition of the objects dictated current densities. Low current densities, .001-.005 amp/cm², were chosen for delicate and/or clean objects. A moderate current density, .05 amp/cm², was chosen for objects requiring more chloride removal and less mechanical cleaning. For those objects requiring mechanical cleaning by means of heavy hydrogen evolution, the highest current density, .1 amp/cm² was employed.

After electrolytic reduction, iron artifacts were rinsed in alternating hot and cold distilled water baths. This process entailed simply soaking the objects alternately and for many hours in both heated and room-temperature water. Team members continually checked the artifacts at this stage, until the chloride level was stable. The conservator then treated these objects with several coats of tannic acid which formed a ferric tannate film on the surface that is corrosion-resistant. Finally, the objects were sealed in microcrystalline wax. For this step, a pot of wax was heated over a fire built outside and the artifacts were dipped into it. The conservator chose this medium because it is reversible, transparent, and natural-looking, and provides a barrier to moisture and polluting gases and vapors.

Pewter, like iron and cupreous metals, was treated by electrolytic reduction. The

⁵Donny Leon Hamilton, *Conservation of Metal Objects from Underwater Sites: A Study in Methods*, Miscellaneous Papers Number 4 and Publication Number 1 (Austin, Texas: Texas Memorial Museum and Texas Antiquities Committee, 1976), 37.

pewter objects were then polished with sodium bicarbonate, rinsed in boiling and cool distilled water rinses, solvent dehydrated in acetone, and sealed with microcrystalline wax. Time and environment had highly eroded the sample of pewter, which displayed wart-like growths.⁶ Rather than scraping or grinding, it was determined that electrolytic reduction was the best treatment option.

One cupreous piece received electrolytic reduction and a soaking in a 5% solution of sodium sesquicarbonate to remove cuprous chlorides more quickly. The conservator changed this solution several times until the chloride level stabilized. Staff members then rinsed the piece in distilled water, solvent dehydrated it in acetone, polished it with sodium bicarbonate, and immersed it in microcrystalline wax. Other cupreous pieces received electrolytic reduction only, but were treated similarly during rinsing, polishing, and sealing.

Lead objects did not suffer from unstable corrosion products. Volunteers washed and rinsed the lead objects in several boiling and cool water rinses, and allowed them to air-dry.

WOOD

Project staff recovered a variety of artifacts made of wood. The cellular structure of waterlogged wood breaks down over time. When excavators remove wood from a submerged site, the main reason it retains its shape is because water is filling the cell

⁶H.J. Plenderleith and A.E.A. Werner. *The Conservation of Antiquities and Works of Art: Treatment, Repair, and Restoration*. Second Edition. Oxford: Oxford University Press, 1971, 278.

structure. If the wood becomes dehydrated, the cellular structure collapses and the object will shrink and warp.

To protect the Reader's Point wooden artifacts, the acetone-rosin method was chosen. This is a treatment by which a natural pine rosin replaces the water. The conservator pretreated the wood in hydrochloric acid to aid in the penetration of the bulking agent. The amount of time the object was left in the acid depended upon its thickness. Following pretreatment, as for any of the Reader's Point artifacts, volunteers fresh water rinsed the artifacts for several days to remove all acid residues. Successive baths of acetone dehydrated the wood, after which it was left in a sealed container of acetone and rosin.

Plastic buckets served to hold the saturated solution of acetone-rosin (saturation was insured by a thick layer of excess rosin at the bottom of the container). String suspended the artifacts above this layer. No oven was available for keeping the acetone-rosin solution heated to an ideal 52 degrees Celsius. Instead the buckets were left on a ledge where they received some consecutive periods of heat from the sun.

The conservator attempted this plan because the acetone-rosin method is also effective and commonly used at room temperature. The acetone-rosin method was favored because it is less labor intensive, since it does not require continual monitoring and addition of bulking agents. A drawback of the treatment, however, is that it takes considerably longer, and the wooden artifacts have not yet come out of solution.

Storage

The Reader's Point Project recommended that the artifacts be stored at a moderate temperature of less than 70 degrees and a relative humidity of approximately 40%. This should not adversely affect the Reader's Point artifacts or react with the conservation treatments used on them.

PERCENT OF ARTIFACTS BY MATERIAL TYPE

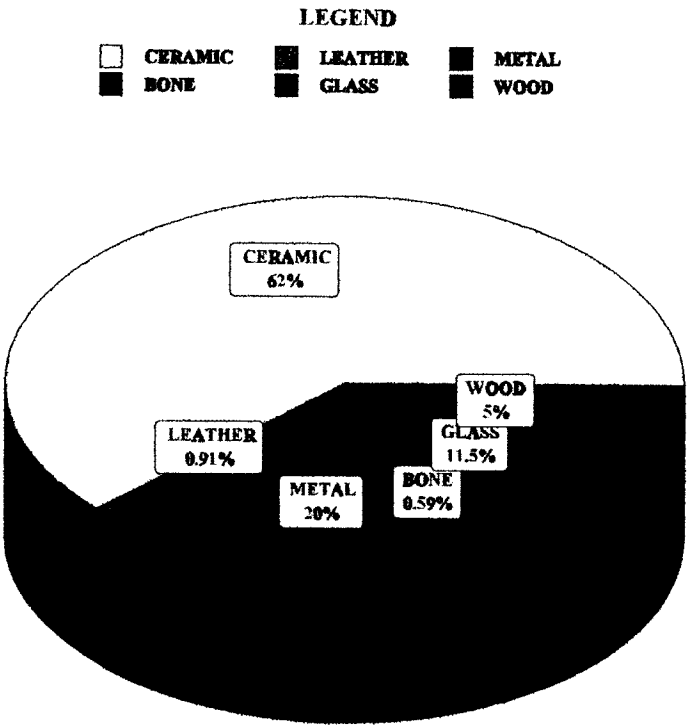


Figure 4-Percent of Artifacts by Material Type

III. ARTIFACT CATALOGUE

a. Introduction to the Collection

This catalogue contains descriptions of all artifacts associated with the Reader's Point vessel and some faunal remains. The following correspond to artifact material type: bone, ceramic, glass, leather, metal, and wood. Each section includes a description of the type of artifact and the specific Reader's Point example, as well as the location of the sample in the hull and any historic and/or datable information.

b. Bone

Buttonmakers covered bone button discs with fabric and slipped nails through the center holes to create eyes. Archaeologists have found these flat bone discs in specific contexts dated to 1750-1770. The Reader's Point sample is similar to South's type fifteen, which he dated to 1726-1865.⁷

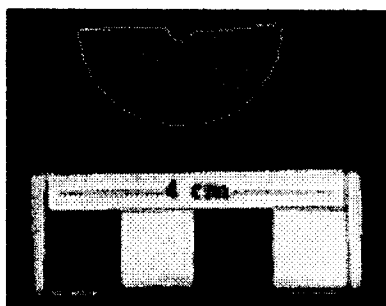


Figure 5-STA32-RP-406-
Bone button disc

Divers uncovered STA32-RP-406, a bone button disc, six feet aft of the starboard maststep buttress, on the outboard edge of the frames. This item, broken in half, had a maximum diameter of 2.2 cm and a thickness of 0.1 cm. There was a single hole in the center. Four scratch marks were present on one side.

⁷Stanley South, "Analysis of the Buttons from Brunswick Town and Fort Fisher" *Florida Anthropologist* XVII, 2 (June 1964): 119.

Volunteers found the remains of a bone comb ten feet aft of the starboard buttress timbers and included it in the Reader's Point collection. STA32-RP-471 was double-sided

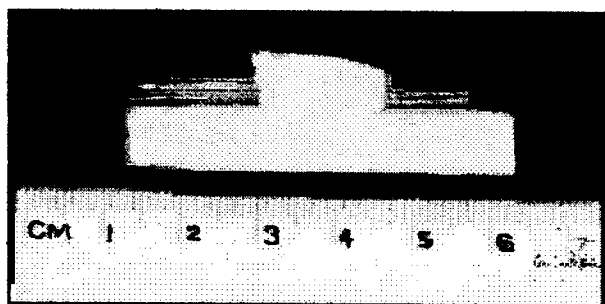


Figure 6-STA32-RP-471-Bone comb

with closely set teeth. The maximum width was 5.0 cm and the thickness 0.15 cm. The purpose of the comb is uncertain, but the possibility exists, due to the small size and close set teeth, that it was a lice comb. This would not be

unusual on board a ship where lice were common.

c. Ceramics

AGATE

Agate is a coarse earthenware created by mixing two different colored clays before firing and glazing. The mixing of the body clays is visible on the interior, exterior, and cross-section of the vessel.⁸ This compound serves for ornamentation and utilitarian purposes. The tempering of one clay with another often made an inferior clay easier to manipulate, increased its strength, or altered its drying and firing characteristics.⁹ Some agate pieces have a clear lead glaze coating and some a thick, black one. South dated

⁸Ivor Noël Hume, *A Guide to Artifacts of Colonial America* (New York: Alfred A. Knopf, 1969, reprint, New York: Vintage Books, 1991), 132.

⁹Prudence M. Rice, *Pottery Analysis: A Sourcebook*, (Chicago, Illinois: University of Chicago Press, 1987), 408.

refined agate to 1740-1775,¹⁰ and Brown dated it to 1720-1775.¹¹ Noël Hume described a thicker light brown agate ware that was common in the third quarter of the eighteenth century.¹² This is the best description for our sample. The collected agate sherds were composed of two distinct clays fired to reddish-brown and pink colors, coated in a clear lead glaze.

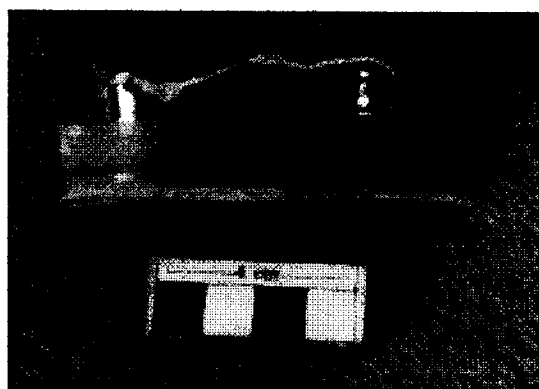


Figure 7-STA32-RP-547-Agate mug

Archaeologists found twenty-seven pieces of agate in the starboard stern quarter of the Reader's Point vessel. Twenty-four of these were probably mug fragments and it is likely that the other three were as well.

Seventeen fragments represent the mug bodies, six pieces were mug rims, and one large piece was a mug base with a one centimeter band of glaze brownish-purple in color. The three questionable objects were two bodies and one rim.

¹⁰Stanley South, *Method and Theory in Historical Archaeology*, Studies in Archaeology Series (New York: Academic Press, 1977), 211.

¹¹Ann R. Brown, "Historic Ceramic Typology with Principal Dates of Manufacture and Descriptive Characteristics for Identification" (Delaware: Delaware Department of Transportation, Division of Highways, Location and Environmental Studies Office, 1982), 22.

¹²Noël Hume, *Artifacts of Colonial America*, 132.

ASTBURY

Astbury is a type of refined earthenware named after a potter from Staffordshire called John Astbury. It is a hard lead-glazed redware that is generally dark brown in color. Kaolin sprigged ornamentation commonly decorates Astbury ware.¹³ Many factories produced this ceramic and some made variations on the theme. Instead of the sprigged ornamentation several potters manufactured a design with kaolin in bands on the rims, feet, and handles. Historians credit Samuel Bell with this creation, which he reportedly produced from 1724 to 1744.¹⁴ South dated Astbury ware to 1725-1750.¹⁵

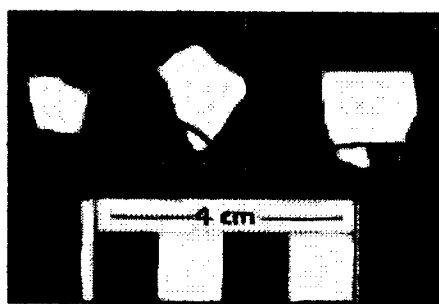


Figure 8-Astbury sherds

The team recovered twenty-five examples of the Astbury tableware throughout the aft end of the vessel. These sherds represented five bodies from an unidentified vessel shape, thirteen bowl bodies and one rim. Six sherds were "banded Astbury." Four of

these fragments were bodies from unidentified vessel types, one a bowl body, and one a bowl rim. Their curvature suggests that all these pieces were from a bowl.

¹³Ivor Noël Hume, *Pottery and Porcelain in Colonial Williamsburg's Archaeological Collections*, Colonial Williamsburg Archaeological Series, No. 2 (Williamsburg, Virginia: The Colonial Williamsburg Foundation, 1969), 35.

¹⁴Noël Hume, *Artifacts of Colonial America*, 123.

¹⁵South, *Method and Theory*, 211.

CREAMWARE

Creamware, known as Wedgwood's cream-coloured ware for its creator Josiah Wedgwood and also called Queen's ware, became popular in the 1750s in contention with porcelain. This was a type of refined earthenware, commonly found as tea and tablewares and made in a variety of forms and patterns. Calcined flint made the creamware clay whiter and stronger and a lead-oxide glaze was used to cover this ceramic.¹⁶ Creamware manufacture began in 1750 and continued into the early nineteenth century.¹⁷

Creamware fragments of many types were found throughout the ship. The creamware pieces retrieved represented plates most of which were nine inches in diameter, possibly mugs, and included bowls mostly of an unknown diameter.

CLOUDED

In the late 1750s, Wedgwood and another potter, Thomas Whieldon, began mixing colors beneath the lead glaze to produce the clouded wares and tortoiseshell wares, classified under the group "Whieldon wares."¹⁸ Noël Hume dated the clouded wares to between 1750 and 1775,¹⁹ while South dated them to between 1740 and 1770, based

¹⁶David Harris Cohen and Catherine Hess. *Looking at European Ceramics-A Guide to Technical Terms* (Malibu, California: The J. Paul Getty Museum in association with British Museum Press, 1993), 31.

¹⁷Brown, "Historic Ceramic Typology," 16-17.

¹⁸Noël Hume, *Pottery and Porcelain*, 19.

¹⁹Noël Hume, *Artifacts of Colonial America*, 124.

on a revised opinion from Noël Hume.²⁰ The Reader's Point collection contained eighteen examples of clouded creamware found all through the vessel. These pieces were mostly green with splashes of red. Stripes of color appeared to radiate outward along the inside of each bowl body. Eight pieces were scalloped and ten were not. Of the scalloped items, two were unidentified body sherds. The other six were bowl fragments, three bases, two bodies, and one rim. The non-scalloped portions represented three unidentified bodies and two unidentified rims. Also found were four bowl bases, two with footing, and one bowl body.

DIAMOND PATTERN

The diamond pattern or diamond-beaded border appears frequently in the Reader's Point collection. Few references concerning this type of molded rim are available. Towner lists four examples of this border, two plates and two cake-dishes, all with straight edges and an octagonal shape.²¹ The plates were 9¼ inches in diameter while the cake-dishes were about 13 inches long. These pieces date to 1770 and were produced at the Melbourne Pottery of Derbyshire. The approximate dates for the duration of this pottery are 1760 to the early nineteenth century. Excavations of the pottery turned up a large quantity of diamond-beaded sherds. Towner also noted that sherds with diamond-beaded borders were found during excavations at a pottery in Little Fenton,

²⁰South, *Method and Theory*, 211.

²¹Donald Towner, *Creamware* (London: Faber and Faber, 1978), 106-115. See plates 47A, 49A, 49B, 50A, 53A, 53B, and 54A. See also Appendix I, plate XI, figure 5.

Staffordshire, which dated to the last third of the eighteenth century.²² One more example was found in the Smithsonian collection at the National Museum of American History. It was a piece of Thomas Whieldon pottery dated to 1760-1770.²³

The team recovered ten pieces of diamond patterned ware from throughout the vessel. These ten were rim sherds, all of which had straight edges as opposed to all other creamware rim sherds which were rounded. If they were plates, they were presumably octagonal and approximately nine inches in diameter.

DOT PATTERN

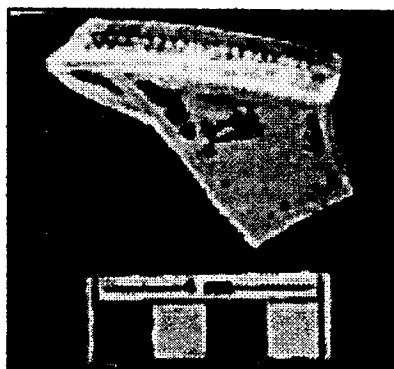


Figure 9-STA32-RP-537-Dot patterned creamware sherd

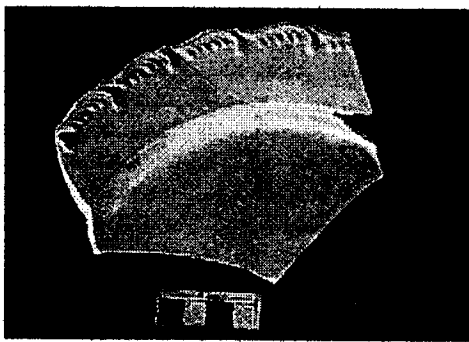
The dot pattern consists of relief molded dots upon vessel rims. There is no color or other design associated with these pieces. No representation of this pattern, nor any textual reference has been located. The dot-patterned sherds made up the smallest subgroup of the Reader's Point Collection. Staff members located these sherds in the starboard stern section. Two sherds

were unidentified rims with an outward folded edge. The other was simply an unidentified rim.

²²Ibid., 84.

²³Janet K. Rockenbaugh, Museum Technician, Personal communication, letter to author, 5 September 1995.

FEATHEREDGED



**Figure 10-Crossmended
featheredged creamware**

This rim pattern is relief-molded in the shape of a feather. The specific feathering design suggests that Reader's Point samples came from either the Rothwell or Leeds pottery factory.²⁴

Josiah Wedgwood created this pattern around 1765. He stopped producing this ware around

1772, although others continued until 1790.²⁵ The eight "featheredged" creamware samples recovered were all similar and came from no one section of the ship. Seven are plate rims with the featheredged molded border and one is a plate base. The base fits one of the rim sherds and was cross-mended.

ROYAL PATTERN

In 1762 Josiah Wedgwood gave Queen Charlotte, wife of George III, King of Great Britain, a breakfast set in a new design. It was similar to the earlier salt glazed "Barley" pattern, but without the barley relief. The barley pattern had a scalloped rim divided by vertical lines into six sections, each section filled by a repeated grain-like design. Soon after Wedgwood also removed the dividing ridges. That which remained he

²⁴Towner, *Creamware*, 212-213. See Appendix I, plate XI, figures 9 and 11, which show molded feather borders of various factories.

²⁵Brown, "Historic Ceramic Typology," 16.

called the "Royal" pattern, which some believed was requested by George III.²⁶ Royal

pattern creamware was popular from 1766 to

1820²⁷. Fifteen examples of the Royal pattern were found across the site. Fourteen were plate rims and one was a plate base. The base was fitted and reattached to one of the rim sherds.

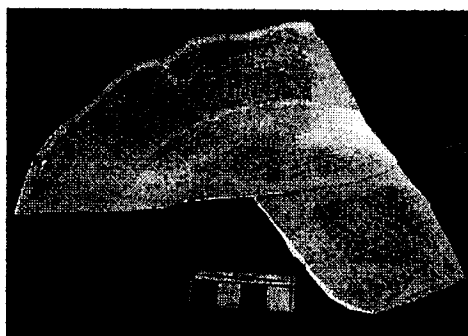


Figure 11-Crossmended royal patterned creamware

UNDECORATED

There were sixty-eight examples of undecorated creamware fragments found across the hull remains. These sherds can only be associated with the general creamware category, which dated from 1750 to the early nineteenth century. There were fourteen bowl sherds and three bowl or mug fragments. There were also twenty-six plate sherds and twenty-four totally unidentifiable sherds. Of these latter twenty-four, twenty-two were bodies and two were rims. Of the plate fragments, seventeen were base fragments, two were rims, and seven were bodies. Bowl fragments included three bodies, four rims, and seven bases with footing. Finally, the three fragments of either a mug or bowl included one rim and two bodies.

²⁶Noël Hume, *Artifacts of Colonial America*, 125.

²⁷Brown, "Historic Ceramic Typology," 16.

DELFT-WARE

Delft-ware is an earthenware coated with a thin lead glaze composed of tin oxide; consequently this type of ceramic is also known as tin-enamel. English and Northern Europeans called it "Delft," the French, "Faïence," and the Mediterraneans, "Maiolica." The generic term for all regions is delft. As delft-ware is extremely fragile, Wedgwood's more stable creamware eclipsed it in popularity.²⁸ Tin-enamel ware dates to as early as the fourteenth century in the Mediterranean. In all other regions, it is dated to the period 1567 to 1800.²⁹ One must consider, however, that this is an eighteenth century site, and due to the Navigation Acts between 1651-1854 which curtailed the quantity of non-British ceramics to the colonies, the likelihood that these fragments are Faïence or Maiolica is slim.³⁰

Volunteers recovered twenty-one pieces from across the site but primarily from the starboard stern quarter. All sherds but two were bodies, from jugs, mugs, or unidentified vessels. The two other were rims. All but four sherds had a black glazed exterior and a bluish-white glazed interior. Three had bluish-white interior and exterior glazes and one had a blue-green interior glaze only.

²⁸Geoffrey A. Godden, *An Illustrated Encyclopedia of British Pottery and Porcelain* (New York: Bonanza Books, 1966), xi.

²⁹Brown, "Historic Ceramic Typology," 13.

³⁰Ralph Davis, *The Rise of the English Shipping Industry in the Seventeenth and Eighteenth Centuries* (Newton Abott, Great Britain: David and Charles, 1962), 307.

EARTHENWARE

BLACK GLAZED

The buff-bodied, black lead-glazed variety made up most of the earthenware recovered. These pieces are not identifiable as any particular ware. The only reference found noted that a son of John Thursfield opened a pottery in 1772 that made black ware not as highly glazed or decorated as Jackfield, and which was made of whitish clay, not red like Jackfield.³¹

The team found seventeen buff-bodied pieces, sixteen of which were in the port bow quarter and the balance of which were in the starboard bow. They are a refined earthenware with no surface decoration. Most had some curvature to them that suggests a hollowware vessel. They were glazed, internally and externally, and average .42 cm in thickness. The thickness of the pieces implied that they come from more utilitarian tableware vessels as opposed to teawares.

BRICK

It would seem that the dating and geographical source of bricks could be determined based on their color, hardness, size, and placement in walls and foundations. These factors deviate so often, however, that bricks are not datable and are rarely ascribed to a particular source. One can immediately eliminate color and hardness as usable characteristics as they vary tremendously in a single firing. Furthermore, while laws

³¹Sir Edward Benthall, "Black Glazed Pottery of the XVIIIth Century," *Apollo: The Magazine of the Arts for Connoisseurs and Collectors* LXII, no. 369 (November, 1955): 141.

regulated the sizes of a bricks in order to establish consistency, several sizes of bricks have been found in a single foundation. In these situations, bricklayers may have made the brick in various sizes or, as was common, they may have taken bricks from abandoned buildings and reused them.

The original measurements of the bricks recovered from the Reader's Point vessel were not discernible. The largest recorded brick fragment from the 1994 excavation was 4.38 inches long. Noël Hume reported the average lengths of seventeenth- and eighteenth-century bricks to be 7.125 inches up to 12.0 inches.³²

The bricks on board were so numerous that, although we excavated them all, we recorded only a few and kept them as samples. The bricks found on the Reader's Point vessel were mostly red to dark-red and sometimes yellow-bodied. They were all broken fragments. The makers of these bricks produced heavily tempered and poor quality items. They were probably on the vessel as ballast rather than as saleable property.

RED CLAY-COARSE

Two types of red clay coarse ware were recovered from the Readers' Point vessel. They were red clay coarse earthenware used as utilitarian vessels and red clay coarse earthenware used as building tiles. Red coarse earthenwares, like bricks, are a type of little diagnostic value. These unrefined, undecorated items recovered from the vessel dated from the mid-seventeenth century on. Additionally, those that appear to be English

³²Noël Hume, *Artifacts of Colonial America*, 81-83.

and European may actually be American copies.³³

The Reader's Point vessel contained two red paste/black glazed sherds, eight red paste/unglazed sherds, and two reddish-brown paste/unglazed sherds. All sherds were small, unidentifiable fragments, the largest being only 25 cm square.

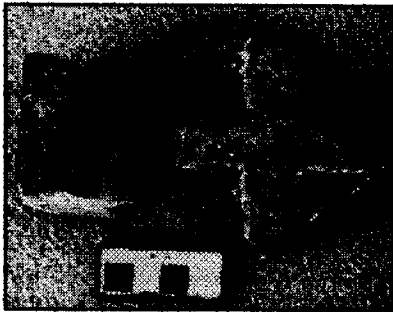


Figure 12-STA32-RP-316 and 125-Unidentified earthenware

There were two potentially significant pieces. Numbers STA32-RP-125 and 316, were moderately refined reddish/brown clays and about 3.5 cm thick. Approximately one-third the thickness was due to the raised relief of a cross pattern on one and an "L"-shaped corner on the other. Reader's Point archaeologists believe they are from the same object. Possibilities

include an object with culinary associations, such as a griddle or some kind of mold.³⁴

Archaeologists found many red clay building tiles throughout the ship. Most were interlocking S-shaped pan roofing tiles. All excavated tiles were similar in appearance. Though it is not certain that they were all pan tiles, none had nail holes which are characteristic of plain roofing tiles. As with the bricks, there were so many undiagnostic fragments, that the project retained only a sample. These twelve recorded tiles were a

³³Brown, "Historic Ceramic Typology," 21.

³⁴Philip L. Armitage, Sanibel Island, Florida letter to Gregory D. Cook, West Palm Beach, Florida, 2 August 1995, Typewritten by Philip L. Armitage. This letter makes reference to the opinions of Dr. Geoff Egan and Mrs. Jackie Pearce of the Museum of London who suggested only the possibility of those purposes, because of hesitancy to make an identification based solely on a photograph.

reddish-orange color and averaged 1.53 cm in thickness. It is not clear whether they were aboard the Reader's Point vessel as part of ballast or the broken remnants of past cargoes.

REFINED EARTHENWARE

Volunteers uncovered a few refined red clay sherds. All were unidentifiable body sherds, two were brown glazed, two were clear lead glazed, and one black glazed. These artifacts are undiagnostic and not datable.

ENGLISH PORCELAIN

Potters made hard-paste white porcelain primarily of kaolin and chinastone. Collectors distinguish these artifacts from their Chinese cousins by their decoration in underglaze blue (as opposed to the Asian hand-painted decorations). The English softer-bodied porcelains were commonly found as tea wares and were made primarily during the period 1755-1775.³⁵ South however, dated this ceramic to 1745-1795.³⁶

Two samples of English porcelain were found in the bow section of the Reaer's Point vessel in 1994. They were small unidentifiable body sherds.

JACKFIELD

Jackfield is a type of black-glazed stoneware, so called for the town in Shropshire

³⁵Noël Hume, *Artifacts of Colonial America*, 137.

³⁶South, *Method and Theory*, 210.

where potters manufactured it. Potteries at Fenton Low and other Staffordshire locations also made this stoneware.³⁷ Original Jackfield had a body fired to purple, while Whieldon's version had a red body and a bright black glaze. Jackfield was in production mostly from 1745 to 1790 and was commonly found in the pitcher and tea ware forms.³⁸ South dated Jackfield to 1740-1780,³⁹ as did Godden.⁴⁰

The team recorded two pitcher body fragments as Jackfield with purple paste. Six unidentifiable body sherds and one pitcher rim were described as Jackfield with red paste. These samples are different from the classic Jackfield, due to their matte black glaze; consequently, they may not in fact be Jackfield.

KAOLIN

Kaolin is a clay that fires hard and white. It contains aluminum silicate and was an essential part of porcelain.⁴¹ It was also the main material used to create European and American tobacco pipes from the sixteenth through the nineteenth century. Tobacco pipes were quite inexpensive and durable, which explains their abundance in the archaeological record. The pipe bowl's shape and relief changed through the years, and archaeologists can date pipes by these characteristic factors. Bowls, however, are less durable than stems

³⁷Noël Hume, *Pottery and Porcelain*, 34.

³⁸Noël Hume, *Artifacts of Colonial America*, 123.

³⁹South, *Method and Theory*, 211.

⁴⁰Godden, *British Pottery and Porcelain*, xiv.

⁴¹Cohen and Hess, *European Ceramics*, 51.

and survive far less often. The pipe stems vary through the centuries becoming, generally, longer and with smaller bores. The longer the stem, the more likely the thick wire used to make the bore would stick to the sides. Thinner wires were commonly used on stems upwards of ten inches. Though thick and thin wires were used concurrently, archaeology has shown that pipe stems became smaller through the mid-eighteenth century, and therefore thinner wire was used over the years. This fact has been borne out by a 1954 study of stems by J.C. Harrington of the U.S. National Park Service.

Project members recovered forty-nine pipe stems in 1994. Bore diameters fell into four categories: the 4/64, the 5/64, 6/64, and the 7/64 divisions. Recorders measured twenty-six pipe stems at 5/64, nineteen were at 4/64, three were at 6/64 and, one at 7/64. According to the "Harrington Theory" most of the stems date to the period 1710-1750.⁴² The second largest grouping falls between 1750 and 1800. The last four fragments date between 1650 and 1710. Presumably these last four fragments, representing only 8 percent of the whole, are anomalies. Ninety-two percent cluster around the 1750 date, giving a *terminus post quem* of 1710 and a *terminus ante quem* of 1800.

Using Dr. Lewis Binford's straight-line regression formula, the conservator achieved a comparable date.⁴³ The number of fragments, 49, was divided into the total of the products, 231, to arrive at a mean hole diameter of 4.714 for the collection. This

⁴²J.C. Harrington, "Dating Stem Fragments of Seventeenth and Eighteenth Century Clay Tobacco Pipes," *Quarterly Bulletin of the Archaeological Society of Virginia* 9 (September, 1954): fifth page.

⁴³Noël Hume, *Artifacts of Colonial America*, 299.

number was multiplied by 38.26, which is the number of years between each sixty-fourth-of-an-inch decrease, giving the number 180.35. This was subtracted from 1931.85, the date when the stem hole would theoretically cease to exist, to give a date of 1751.5.

Binford remarked that the rate of accumulation, size, and representativeness of the sample limits the accuracy of this sample date.⁴⁴

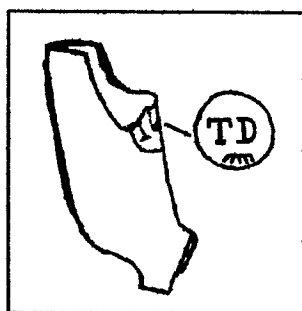


Figure 14-STA32-RP-511-Pipe bowl maker's mark, drawn by David Ames

Project members

recovered five pipe bowls, which were dated by form. The earliest bowl dated between 1690 and 1750.

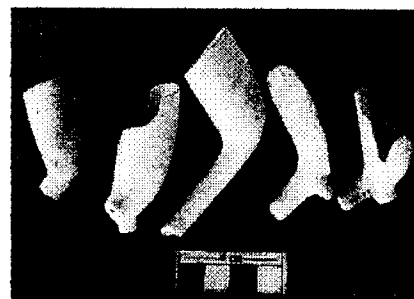


Figure 13-STA32-RP-529, 511, 290, 051, 100-Pipe Bowls

Archaeologists determined the date by bowl and spur shape as no reliefs

were present. The second earliest pipe dated from 1700-

1770. Its heel remained, as did the maker's mark upon the top

inside face of the bowl. The mark consisted of a beaded pattern,

encircling the two capital letters, "TD." The next two bowls fell

between 1720 and 1820. Project members identified these two

by bowl shape. However, this second bowl retained an unidentifiable maker's mark on its

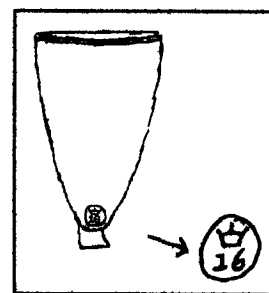


Figure 15-STA32-RP-529-Pipe bowl maker's mark, drawn by David Ames

⁴⁴Lewis R. Binford, "A New Method of Calculating Dates from Kaolin Pipe Stem Samples," *Southeastern Archaeological Conference Newsletter* 9 (June 1962): 21.

lower outer face, near the stem. This mark consisted of an encircled crown above the number "16." The last pipe had a fragmented bowl with an attached heel by which it was dated to between 1730 and 1790.⁴⁵ None of the bowl dates is inconsistent with the dates arrived at for the pipe stems by the Harrington and Binford methods.

Beyond bore diameter and bowl form, archaeologists date pipes according to their maker's marks. Two bowls retained their marks; however, the Reader's Point project could identify only one, STA32-RP-511, or the "TD" pipe. The "TD" pipe is a well documented variety. Adrian Oswald lists twelve makers of pipes with the "TD" mark, two of which are known to have exported pipes to America and the West Indies. These manufacturers are Thomas Dormer, 1748-1770, and Thomas Dormer and Son, 1754-1756.⁴⁶ However, the "TD" pipe became a popular type, one which was available throughout a period of two hundred years, with manufacture continuing into the twentieth century and involving plagiarism of the maker's mark.⁴⁷

SLIPWARE

Slipware is the name given to ceramics bearing liquid clay ornamentation. Several techniques for decorating slipware vessels exist, such as dipping, trailing, and combing or

⁴⁵Noël Hume, *Artifacts of Colonial America*, 303.

⁴⁶Adrian Oswald, *Clay Pipes for the Archaeologist*, British Archaeological Reports 14 (Oxford: TRUEXpress, 1975), 68, 135.

⁴⁷Iain C. Walker, "TD Pipes-A Preliminary Study," *Quarterly Bulletin of the Archaeological Society of Virginia* 20 (June 1966): 100.

feathering.⁴⁸

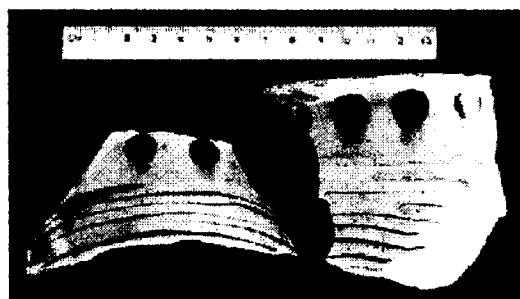


Figure 16-STA32-RP-544 and 524-Dotware slipware

The artifacts recovered from the Reader's Point vessel had feathered accents, most likely made by a toothed instrument drawn through lines of iron oxide or manganese, producing a dark brown color.

Dark brown spots decorated five of the seven buff-bodied pieces of the variety called "dotware." A clear to pale-yellow lead oxide glaze coated these slipware sherds. "Staffordshire" is the name commonly given to this style of ceramic, because this ware was a forte of those potters.⁴⁹ "Staffordshire" dated to 1675-1775.⁵⁰ South dated lead glazed slipware to 1670-1795.⁵¹ The slipware fragments recovered during the Reader's Point excavation were found in one area of the stern.

Of the seven buff-bodied slipware objects found, four appear to be bowl or pitcher fragments. Two were bodies and two rims. One was an unidentifiable body. The last two artifacts were from the same object and were reattached. The two pieces were the base and a handle fragment to a pitcher. All fragments came from the same area of the ship and could be pieces of the same vessel, i.e., all feathered "dot" ware pitcher sherds.

⁴⁸Cohen and Hess, *European Ceramics*, 76.

⁴⁹Noël Hume, *Artifacts of Colonial America*, 135.

⁵⁰Brown, "Historic Ceramic Typology," 15.

⁵¹South, *Method and Theory*, 211.

STONEWARE

FULHAM BROWN SALT-GLAZED STONEWARE

This ceramic type is English and dates between 1690 and 1775.⁵² The examples recovered from the vessel were thick, averaging .65 cm and the glaze was a mottled brown. Divers recovered six brown saltglazed stoneware sherds from the stern half of the vessel. Five of these sherds were unidentifiable bodies and one was an unidentifiable base with footing. The thick and heavy characteristic of these pieces suggests a utilitarian purpose for these unidentified vessels.

BROWN STONEWARE BOTTLES

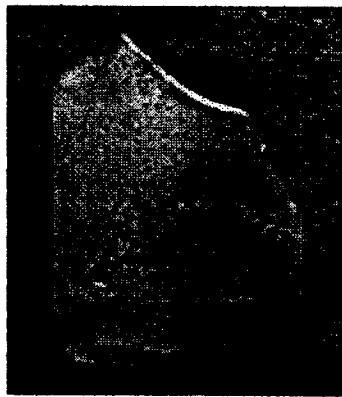


Figure 17-STA32-RP-101-Brown stoneware blacking bottle

These bottles commonly contained ink, beer, etc. and date to 1820-1900+.⁵³ Artifact number STA32-RP-101 was a brown stoneware bottle which contained blacking polish and was recovered from the port side of the vessel, 1.5 feet beyond the extant portion of frames. This piece had a complete base and some body and was incised with the words, "BLACKING BOTT . . . 15 . . . J.B.D."

Identification of the initials was not possible. This is the only

⁵²Brown, "Historic Ceramic Typology," 10.

⁵³South, *Method and Theory*, 210; Brown, "Historic Ceramic Typology," 10; Texas A&M University, Anthropology Department, Nautical Archaeology Program, *Port Royal, Jamaica Underwater Archaeology Field School Manual* (College Station, Texas: Summer 1987), 9-Ceramic Identification.

artifact that falls significantly outside the predicted date range and is most likely not associated with the hull.

WHITE SALT GLAZED

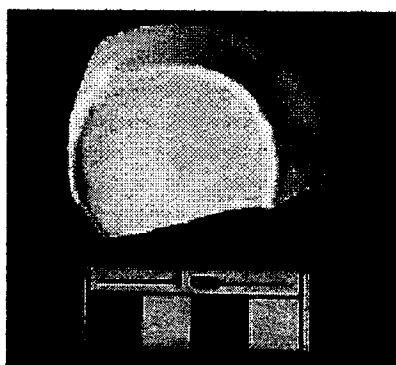


Figure 18-STA32-RP-057-
White salt glazed mug

A grey paste, a white slip, and a salt glaze are characteristic of English white salt glazed ceramics. This type dates to around 1725-1775,⁵⁴ and has been found in the form of mugs, jugs, cups, and plates. Reader's Point archaeologists recovered fourteen white saltglazed pieces from the starboard stern quarter and across the port side.

Five objects were from unidentifiable vessels, four were body sherds and one was a handle. The handle appears, on the basis of its size and thickness, to belong to a mug. Seven other pieces, including two bases, three bodies, and two rims, were identified as mug sherds based on their relative thinness, vertical orientation, curvature, and refinement. The thickness averaged .2 cm as compared to other stoneware pieces averaging .43 cm in thickness. These pieces are vertical and their curvature leans more to the acute than the obtuse. Project members recorded the last two pieces as bowl rims, but upon further analysis, it is believed that they also belong to the mug category, as they have the same characteristics described for the mug sherds.

⁵⁴Brown, "Historic Ceramic Typology," 5.

WHITE SLIPPED-BROWN GLAZED

This stoneware is characterized by a smooth matted brown glaze over a white



Figure 19-White slipped-brown glazed stoneware sherds

slipped surface. If these pieces had a lustered

appearance, they would be classified as

"Nottingham," which South dated to 1700-1810;

however, the sherds recovered from the vessel

were more likely British Brown stoneware, 1690-

1775,⁵⁵ or a locally made reproduction.

Volunteers classified thirty sherds as mug

fragments while six were unidentified. Excavators found these artifacts primarily in the starboard stern quarter, although two sherds were in the port stern section. These objects had a stamped pattern that allowed the white slip to show through. This pattern consisted of vertical and horizontal lines in which the horizontal lines were more widely spaced than the vertical, approximating an elongated checkerboard. The pattern consisted of only two rows.

d. Glass

COLORLESS

For all glass artifacts, we based classification on color, weight, and previously

⁵⁵South, *Method and Theory*, 210.

categorized comparable objects, e.g., eighteenth-century black glass wine bottles. Due to a lack of necessary supplies in Jamaica, chemical analysis of the glass samples recovered from the Reader's Point vessel was not possible and consequently prohibited definitive identification of each artifact's components.⁵⁶ Soda-lime and potash-lime are both colorless glasses and probably comprise our colorless glass collection.

Thirteen colorless glass objects were recovered during excavation of the Reader's Point vessel. Eight pieces were associated and appeared to come from the same container. Archaeologists located four rim shards and four body shards under the keelson between

futtock P28 and the opposite starboard futtock. These shards were sharply curved horizontally, yet long and straight, as if from a drinking glass. It was not possible to cross-mend any of the pieces.

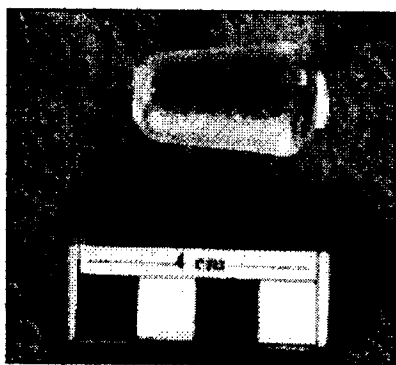


Figure 20-STA32-RP-061-
Glass stopper shank

A stopper, STA32-RP-061, was recovered from the port bow section. That piece was a shank only and was missing its finial. The shank tapered and had a rounded bottom, described as cracked-off, i.e., detached

from the blowpipe during manufacture. The glassblower ground this shank. Grinding the shank was a practice recorded as early as 1665, but that did not become usual in England

⁵⁶Olive Jones and Catherine Sullivan, *The Parks Canada Glass Glossary for the Description of Containers, Tableware, Flat Glass, and Closures*, rev. ed., (Ottawa, Canada: Environment Canada-Parks, 1989), 10.

until 1745.⁵⁷

GREEN

Dark green or "black" glass made up a large portion of the glass collection. This type was called "lime glass" because lime, not the customary lead, was used as the stabilizer. Iron oxide gave the glass its rich, dark green color.⁵⁸ There were sixty catalogued artifacts of this type. Forty-four were unidentified body shards, all but three of which were found midships and aft. There were seven necks, five bases, two lips, a large portion of a body, and one complete undersized beer bottle.

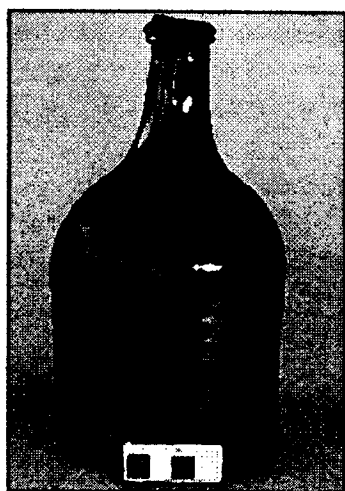


Figure 21-STA32-RP-607-Undersized beer bottle

Two black glass neck fragments were complete enough for analysis using Jones' regression formula.⁵⁹ Reader's Point staff found STA32-RP-208 in the starboard stern section and dated it to 1795 with an error factor of +/- 22.4 years. Neck number 206, found in the same section, dated to 1783 +/- 22.4 years. All dates reflected a 95 percent chance the manufacturer made that bottle within that period. Preservation was sufficient for analysis on three bases. Number 235, located on the outboard port side,

⁵⁷Ibid., 151, 156.

⁵⁸Ibid., 12.

⁵⁹Black glass analysis was performed and reported by Greg Cook with consultation of: Olive R. Jones, *Cylindrical English Wine and Beer Bottles 1735-1850*, (Ottawa, Canada: Environment Canada-Parks, 1986).

dated to 1756, while number 050, found in the bow, dated to 1804, and number 266, unearthed in the starboard midship section near the keelson, dated to 1801. All dates for bases included an error factor of ± 33 years. This date range is so wide that it prevents the drawing of meaningful conclusions. A complete bottle, STA32-RP-607, recovered from under the keelson between F20 and P29, was dated to 1794 ± 15 years. This bottle was dip molded and, when compared with other bottle forms, most closely fit with the undersized beer bottle classification.

Reader's Point volunteers retrieved thirteen light green shards. Eleven were from the starboard stern quarter and two from the port bow. Twelve were unidentified bodies and one was a bottle neck fragment.

LEADED

Potash-lead glass is heavy and colorless. It contains potash, lead oxide, and flint, hence the name flint glass, which is synonymous with leaded glass. In a marine

environment leaded glass becomes covered in a black lead sulphide film.⁶⁰ There were six recorded pieces of this type, from two distinct objects.



Figure 22-STA32-RP-636-B2-Two glass base fragments

Two base fragments made up STA32-RP-636-B2, and these fit together. Project members recovered these pieces from under the keelson in the stern. These

⁶⁰Donny L. Hamilton, *Conservation of Cultural Resources*, Class Handouts for Anthropology 605 (College Station, Texas: Texas A&M University, 1991), 50 and Jones and Sullivan, *Parks Canada Glass Glossary*, 12.

pieces seemed to make up the bottom of a drinking glass or bottle due to their being curved horizontally, while long and straight. The base was shallow concave and the maximum diameter was 6.3 cm.



Figure 23-STA32-RP-145-
Unidentified leaded glass
vessel

The last four pieces were part of a second vessel. These were recovered from just aft of the maststep near the port outboard edge. STA32-RP-145 was the base of an unidentified tableware object which the glass blower had pattern molded with a recurring diamond design.

The pattern molding process was popular in England as early as the 1570s and one American manufacturer used it between 1765 and 1774.⁶¹ Glassmakers used diamond molding on the bases of jugs and tankards into the late eighteenth century.⁶² The piece recovered from the Reader's Point vessel has a straight edged, vertical rim. The bowl's shape is that of a sweetmeat glass. It is wider than it is deep and the form is that of a large bowl upon a smaller one, a form called a "double-ogee bowl," 1700-1800.⁶³ The differences are that sweetmeat glasses usually had a stem and foot, and a horizontal flange for the rim of the bowl. However,

⁶¹Jones and Sullivan, *Parks Canada Glass Glossary*, 31-32.

⁶²W.A. Thorpe, *English and Irish Glass*, (London: The Medici Society, 1927), 14.

⁶³*Ibid.*, 13.

collectors have found some examples of sweetmeat glasses with no inverted rims.⁶⁴

This Reader's Point artifact had a shallow concave base measuring 7.25 cm. The vessel height was 4.1 cm. and the rim diameter 9.25 cm. The conservator cross-mended numbers 236 and 250 to 145. Number 240, though it did not connect to 145, was of the same form and material. Possible identification would be either a sweetmeat dish or a bowl, perhaps a covered bowl for sugar or a finger bowl. Extensive research has unearthed no comparable example of this unique artifact.

SODA

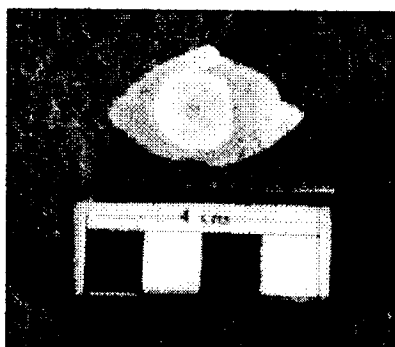


Figure 24-STA32-RP-237-
Soda glass push-up

Soda-lime glass uses soda ash as a flux and generally is blue or green in color due to impurities. Iron and chromium produce green glass, while cobalt blue and cupric oxide produce blue glass.⁶⁵ Two examples of soda glass were recovered from the vessel. Number 237 was the push-up portion of a small vial and bore the pontil mark. This piece was perhaps a medicine or ointment

bottle. These bottles served many domestic purposes, including containers for love potions, magic charms, and home remedies.⁶⁶ The piece was blue in color and had a long

⁶⁴Douglas Ash, *How to Identify English Drinking Glasses and Decanters 1680-1830*, (London: G. Bell and Sons, 1962), 62.

⁶⁵Hamilton, *Cultural Resources*, 49.

⁶⁶Ivor Noël Hume, "Neglected Glass" *Country Life*, CXVI, 3007, 2 September 1954, 716.

crack through the center. Glassmakers commonly made small vials in a pale or blue-green color. In the early eighteenth century manufacturers produced miniature blue bottles in the shape of seventeenth-century wine bottles. The other sample of soda glass was an unidentified shard. It was blue, thin, and sharply curved on one side.

e. Leather

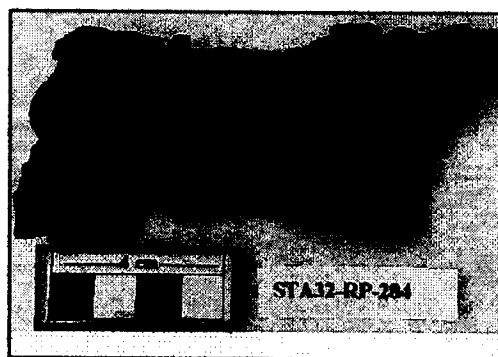


Figure 25-STA32-RP-284-Possible shoe quarter

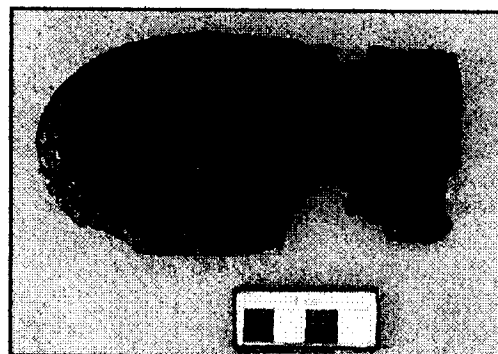


Figure 26-STA32-RP-602-B2-Shoe heel

The conservator included six leather samples in the artifact assemblage. Three pieces, STA32-RP-372-B2 and STA32-RP-417, were unidentifiable. Volunteers found those pieces about ten feet aft of the maststep and five feet to starboard. They had no discernible shape or function. There were no stitches or marks of any kind. These fragments were not diagnostic. Three other fragments were from shoes. Archaeologists located these samples about midships and five feet to starboard. Artifact STA32-RP-284, was a long thin piece with no marks or stitching. It may be the quarter section

from a shoe or boot upper.⁶⁷ Due to its highly eroded condition, it was unknown whether any stitching was ever present.

STA32-RP-602-B2 was a shoe heel and an associated sole fragment. The heel fragment had a preserved length of 8.0 cm and a width of 6.3 cm. It had an approximate thickness of 1.0 cm. Well-worn rounded edges showed heavy use. The heel contained two thick layers to give it height, one being the top lift and the other the inner lift. The rest of the artifact was a section of the outer sole. This heel section had remaining, twenty-three wooden heel pegs all along its outer edge. Four more pegs were within this outer circle.⁶⁸ This fragment is called "straight last" because there is no curvature to the middle of it. It is for neither left nor right feet specifically. The lack of stitching and the straight last feature indicate manufacture before the early nineteenth century, when

machine manufacture became prevalent in the United States.

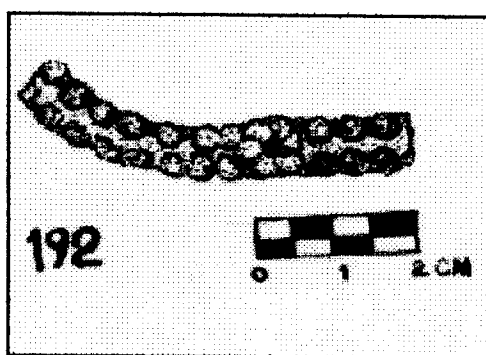


Figure 27-STA32-RP-192-Buckle fragment, drawn by Clive Chapman

f. Metals

CUPREOUS

Three cupreous buckle fragments were found on the Reader's Point vessel. In the

⁶⁷Ernest W. Peterkin, "An Introduction to the Construction, Styles and Description of Historical Footwear," in *Workshop on Historical Footwear at the Society of Historical Archaeology Annual Meeting in Baltimore, Maryland, 1989*, 6.

⁶⁸Ibid., 7.

eighteenth century, buckles were extraordinarily common and used for shoes, belts, spurs, breeches, harnesses, and weapon slings. Many were cast brass, though some were pewter, silver, iron, or steel.⁶⁹ The Reader's Points samples were molded frames with mainly floral

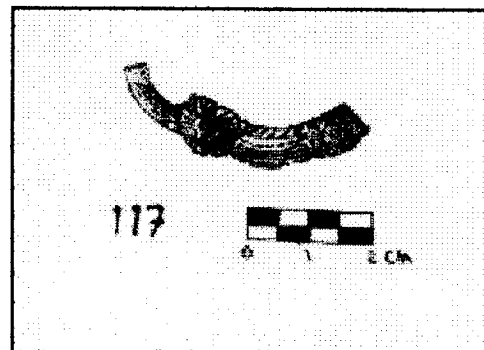


Figure 28-STA32-RP-117-Buckle fragment, drawn by Clive Chapman

designs. STA32-RP-192, located three feet aft of the maststep and one foot to the port side, was single framed and had a small hole to take the rivet. STA32-RP-117, found on the forward side of the port buttress at the maststep, was strikingly similar to Noël Hume's single framed silver belt buckle dated to the second half of the 17th century.⁷⁰ The third buckle, recovered from the deadwood in the stern, was a single frame and was nearly complete. Its maximum dimensions were 5.2

by 6.3 cm, with a thickness of .8 cm.

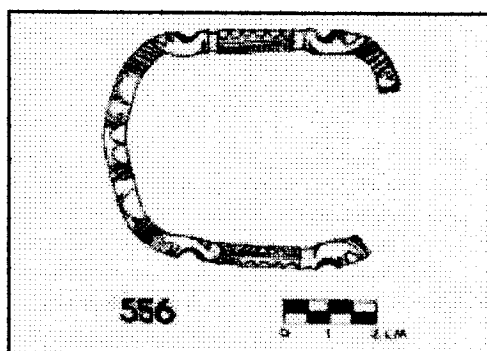


Figure 29-STA32-RP-556-Buckle fragment, drawn by Clive Chapman

Project members discovered one button, with no marks and a diameter of 1.8 cm, four feet from the keelson between frames F17 and S39.

This object closely approximated Stanley South's type eight version.⁷¹ The button was a cast

⁶⁹George C. Neumann and Frank Kravic, *Collector's Illustrated Encyclopedia of the American Revolution* (Texarkana, Texas: Rebel Publishing, 1975), 53.

⁷⁰Noël Hume, *Artifacts of Colonial America*, 85, figure 6.

cupreous disc without a spun back. It had a plain face and on the back, a center boss where the eye had been. South dated this type to 1726-1776. Stanley Olsen's figure 1D, dating to 1760-1785 was also similar.⁷²

IRON

Barrel Strap-Barrel straps held together the staves that comprised wooden containers. Project members recorded eight samples of strap from throughout the vessel and redeposited them. Measurements of thickness varied depending on the amount of concretion present. All samples were similar and typical. Excavators recorded a larger sample *in situ*, since it remained in an arch as though still encircling a cask. This example measured 1.7 feet in diameter. This dimension is too small for a regular sized eighteenth century barrel, so it must have been from another type of container. This dimension

represents something about 50% larger than a five-gallon bucket (perhaps a vat), or some similar container as illustrated by Diderot.⁷³

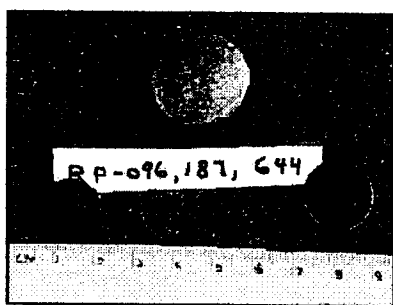


Figure 30-STA32-RP-096, 187, 644-Iron buttons

Buttons-Divers recovered three plain buttons from the vessel. Civilians used plain-faced buttons, while military men had buttons with dates, regiment numbers,

⁷¹South, "Analysis of the Buttons," 117.

⁷²Stanley J. Olsen, "Dating Early Plain Buttons by Their Form," *American Antiquity* 28, 4 (April, 1963): 553.

⁷³Denis Diderot, *Diderot Encyclopedia-The Complete Illustrations 1762-1777* (Paris: Le Breton, Briasson, David, and Durand, 1777; reprint, New York: Harry N. Abrams, Inc., 1978), 2464-2465.

anchors, etc. upon them. In the eighteenth century, Britons found their selection of buttons limited by law to those of precious metals or those covered with textile twists. In 1741 this law was revoked, and there was an immediate change to common metal buttons.⁷⁴ STA32-RP-096, found in the port bow section was a cast flat disc with no apparent mold seam. The buttonmaker drilled the shank for the eye. This artifact closely resembled Olsen's figure 1A, which dated to 1700-1765.⁷⁵ Number 187, found amidships near the keelson, was round and hollow with a hairline seam where the two domed halves met. Adhesive flux commonly fastened the front and back pieces. A center boss

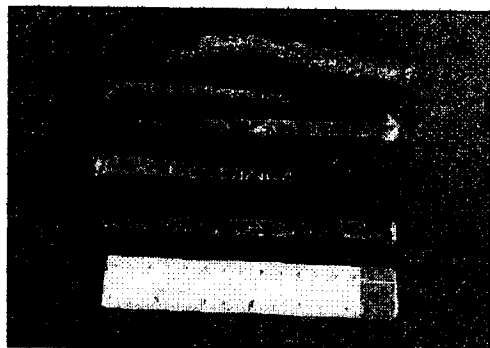


Figure 31-Iron fasteners

surrounded the eye. This piece was most similar to South's type six, which dated to 1726-1776.⁷⁶ Number 631, located under the keelson between P28 and the opposite starboard futtock, was ellipsoidal and solid. It was a one-piece cast eye-and-button with no markings or decoration. The edges of this button had turned upwards and it

appeared excessively beaten. This object most closely approximated South's type 11,

⁷⁴L.G.G. Ramsey, ed. *The Concise Encyclopedia of Antiques* (New York: Hawthorn Books, 1959), s.v. "Metal Buttons," by Edward Perry.

⁷⁵Olsen, "Dating Early Buttons," 553.

⁷⁶South, "Analysis of the Buttons," 116.

1726-1865⁷⁷ and Olsen's figure 1E, 1750-1812.⁷⁸ All three pieces were pitted.

Fasteners-The conservator recorded sixty fasteners in the Reader's Point

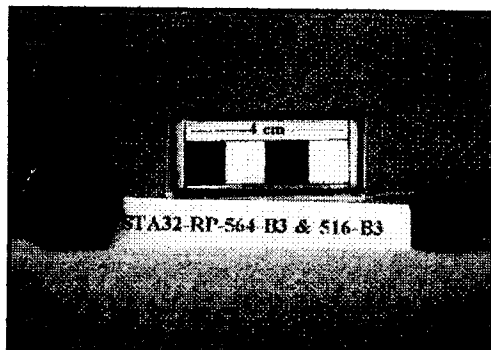


Figure 32-Rose head fasteners

collection. Nails, spikes, bolts, and one unidentified object, all from throughout the vessel, made up this group. Nails and spikes were hand-wrought; and, although colonists in the seventeenth and eighteenth century did manufacture their own nails, they nonetheless relied heavily on imports. Beginning around the

time of the American Revolution, the colonists became more dependent on local sources for nails. By 1790

machine-cut nails became common in some places, though a transition from wrought

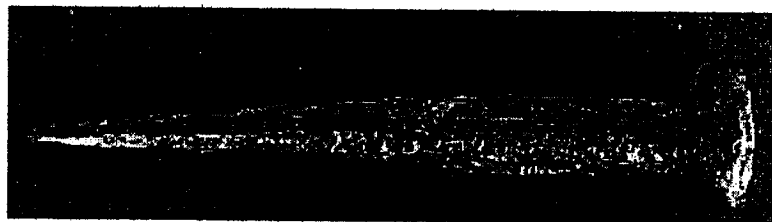


Figure 33-STA32-RP-293-Unidentified fastener

to cut nails existed from 1790 to 1830.⁷⁹ For the purposes of this description, nails were defined as square and less than 8.89 cm or 3.5 inches. Spikes were square and larger than

⁷⁷Ibid., 118.

⁷⁸Olsen, "Dating Early Buttons," 553.

⁷⁹Lee H. Nelson, "Nail Chronology as an Aid to Dating Old Buildings, Technical Leaflet Number 15," *History News* 19, 2 (December 1963): 2nd p.

8.89 cm.⁸⁰ One nail of twenty-eight recovered and five spikes out of eighteen from the collection had rose heads. The thirteen bolts were round sectioned and averaged 19 cm. Very few heads were identifiable. The unidentified object was the only fastener recovered in its entirety. Divers recovered that piece just aft of midships about four feet starboard of the keelson. It was cast and had a flat round head. It was 5 cm in diameter and had a length of 23.5 cm. The maximum diameter of the shank was 2.5 cm. This artifact could have been an axle, driven in to hold something in place.

Archaeologists also located two washers from the stern of the vessel. One had an outer diameter of 4.2 cm, an inner diameter of 2.2, and a thickness of .4. The other was a broken concretion, the recorded dimensions of which were 3.7 cm outer diameter and .7 cm for the thickness.

Tools-A cast concretion, STA32-RP-527, revealed a blade, possibly from a carpenter's plane or maybe a wedge. The concretion, found in the starboard stern quarter next to the keelson, measured 12.3 x 4.7 x .9 cm. The marine environment had highly eroded it and the original measurements and any beveled edges were undeterminable.

⁸⁰W.A. McEwen and A.H. Lewis, *Encyclopedia of Nautical Knowledge* (Centreville, Maryland: Cornell Maritime Press, 1953), 522.

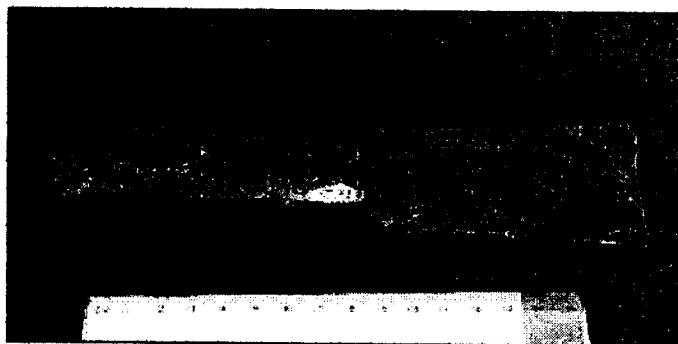


Figure 34-STA32-RP-640-Socketed chisel

Another cast concretion was a socketed chisel, number STA32-RP-640, unearthed on the port beside the keelson and just aft of midships. This tool was common to shipwrights as they

preferred the socketed wooden-handled type of chisel.⁸¹ The preserved length of the blade was 9.4 cm and the thickness was 1.0 cm near the handle tapering to .6 cm. The width was 3.9 cm gradually widening to 4.9 near the tip. As the tip was broken, there was no

discernible beveled edge. There were minimal remains of a wooden handle in the six-faced socket, which measured 2.8 cm at its maximum diameter. Through comparison with Franklin's research, the team identified this artifact as a woodworking chisel.⁸² Without the tip, however, the chisel's specific purpose cannot be determined.

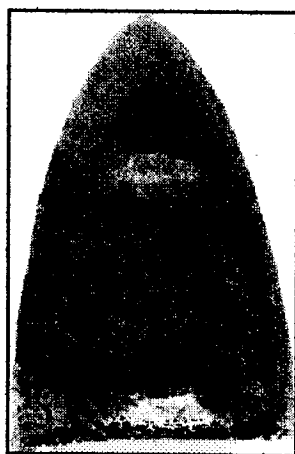


Figure 35-STA32-RP-107-Pressing iron

Others-Archaeological divers recovered a completely encrusted flat pressing iron from the outboard

⁸¹John E. Horsley, *Tools of the Maritime Trades* (Camden, Maine: International Marine Publishing Company, 1978), 120.

⁸²Marianne Franklin, "Wrought Iron Hand Tools in Port Royal, Jamaica: A Study based upon a Collection of the Tools Recovered from Archaeological Excavations and on Tools Listed in the Probate Inventories of Colonial Port Royal, c. 1692", (M.A. Thesis, Texas A&M University, 1992), 81-82.

port bow section of the vessel. Civilians and military men alike used irons for pressing clothes and uniforms. A comparable iron, dated to 1760-1777 can be seen in Neumann's and Kravic's work.⁸³ The Reader's Point iron measured 8.5 x 13.0 x 2.5 cm. It was a rough triangular shape with beveled edges on top and two raised areas where the handle would have been. There was no evidence of rivets for holding the handle in place.

Volunteers uncovered a concreted mold for a hook in the starboard stern section between the frames. Though not castable, it was added to the collection. It measured 2.0 cm in diameter with an extant length of about 8 cm. Both ends were broken off. Sailors may have used it for fishing.

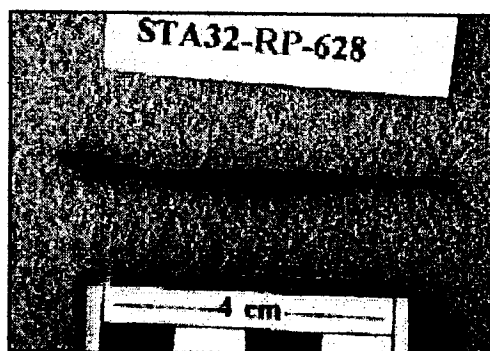


Figure 36-STA32-RP-628-
Unidentified pin

Finally, project staff unearthed STA32-RP-628, a long thin pin, from between F19 and S41 on the outer hull planking three feet from the keelson. It was possibly a hair pin, a needle, or an awl missing its handle. Diderot had similar looking and contemporaneous items under his categories of jewelry making, box making, and chest manufacturing equipment.⁸⁴ It measured 5.6 cm long by .3 cm in diameter.

LEAD

Archaeologists retrieved four pieces of lead shot, measuring 1.3, 1.5, 2.1, and 2.4

⁸³Neumann and Kravic, *Encyclopedia of the American Revolution*, 168.

⁸⁴Diderot, *Encyclopedia*, 618, 1177, and 1854.

cm. Two of the objects were located in the port bow section between the radial cant frames and near the keelson. The third was found just aft of the starboard buttress and the fourth was from between frames F22 and P30. None of the objects was flat or had any indications that it had been fired. Two had mold marks. The two largest pieces were too eroded to be the original diameters. The smallest were .51 and .59 caliber shot. With this information a guess can be made about the type of weapon they came from. The first might have fit a .51 caliber American rifle dating to 1775-1790. The English rifle of the same period was a .58 caliber weapon. The second may have fit a .59 caliber American fowler dating to 1755-1759. The English musket of this period was .78 caliber.⁸⁵

Project members also recovered two pieces of lead slag from the stern and one bead, or weight, from amidships and aft of the starboard buttress. This last piece had a circular center hole with an inner diameter of .4 cm and an outer diameter of 1.6 cm, and may have been a weight for fishing.

PEWTER

Pewter is an alloy composed of tin and a small amount of lead and copper. Some alloys also included less than 1% of bismuth, zinc, and arsenic. The combination of tin and antimony, known as Britannia metal, was popular in the late eighteenth century.⁸⁶

Pewter was popular and people throughout the Old and New World used it.

⁸⁵George C. Neumann, *The History of Weapons of the American Revolution* (New York: Bonanza Books, 1967), 66,96, and 144-46.

⁸⁶Cathryn Ann Wadley, "Historical Analysis of Pewter Spoons Recovered from the Sunken City of Port Royal, Jamaica" (M.A. Thesis., Texas A&M University, 1985), 17-18.

However, there is a lack of early samples in the archaeological record for two reasons. Pewter spoons (like those recovered from the Reader's Point vessel) were considered to be of little value to the owner, and were easily lost. Also, because pewter is a soft metal and is damaged easily, pewterers often melted down old pieces to create new wares. Makers' marks are really the only means by which one can tell if a piece was made in Europe or North America.⁸⁷

Three pewter objects were found on the Reader's Point vessel, all of which were portions of spoons. The marine environment had highly eroded every piece. One artifact was a moderately complete spoon, while the other two were only fragments, a bowl and a stem finial. The stem, STA32-RP-551, uncovered near the deadwood, was very similar to an Early Round End that, according to Wadley, dated to post-1700.⁸⁸ There were no marks on this finial. It had a plain end and was four-sided. The bowl, STA32-RP-321, found between frames in the starboard stern section, had a highly pitted surface with no recognizable marks and no rat-tail. It closely resembled long narrow bowls known as the Wavy End and the Round End, both dating to post-1700.

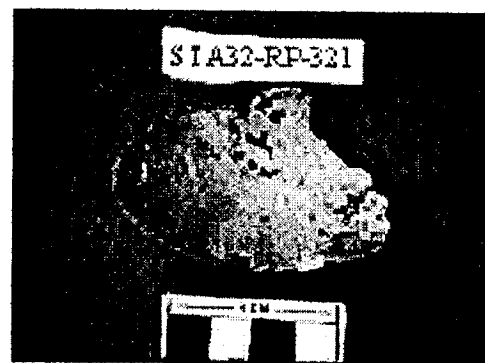


Figure 37-STA32-RP-321-Pewter spoon bowl

⁸⁷Ledlie Irwin Laughlin, *Pewter in America Its Makers and Their Marks* (Boston: Houghton Mifflin, 1940), 38.

⁸⁸Wadley, "Pewter Spoons," 39.

However, a wider bowl was developed around 1730. STA32-RP-321 might be one of these wider bowls.⁸⁹

STA32-RP-489, recovered from the starboard stern section almost at the deadwood, had a Round End finial, and, in view of its long egg shape, either a Round End or Wavy End bowl. This spoon also had a drop that indicated a Round End post-1730 rat-tail. It is likely that this spoon is the Round End type dating to post-1730.⁹⁰ The stem had three barely discernible relief-cast letters near the finial on the reverse side. Two of

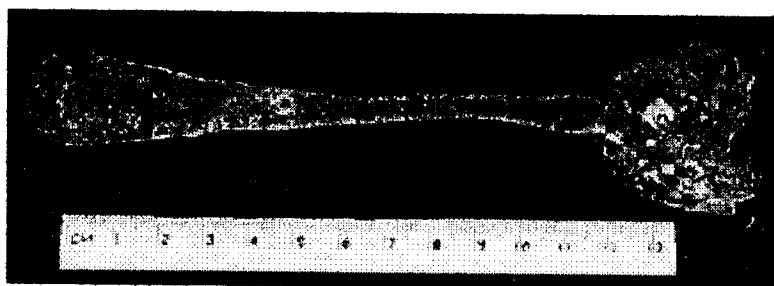


Figure 38-STA32-RP-489-Pewter spoon

these were legible, and they were "L...M." Closer to the bowl, there was a "X," which may have been a quality mark. In Britain, after 1690, a crowned "X"

was placed on pewter to indicate fine quality wares. German and American colonists used the "X" for this same purpose.⁹¹ An unidentified mark followed the "X," and possibly two pineapples followed this. The last mark was oval with perhaps two letters inside. The letters were questionable, but appeared to be "M...K" or "H...K." No material or literary clues remained to assist in identifying these last letters. There was a pewterer in Port

⁸⁹Ibid., 40.

⁹⁰Ibid., 41.

⁹¹Ibid., 36.

Royal, however, who used the pineapple as his touchmark.⁹² Comparisons revealed that the touchmarks were not similar. Simon Benning, the pewterer of Port Royal, included an "S" and a "B" around his pineapple, all of which was encircled by an oval rope braid. The Reader's Point example had a square around it and no initials.

g. Wood

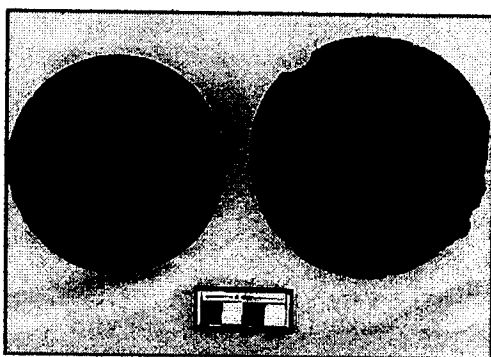


Figure 39-Wood sheaves

Four sheaves were recovered from the Reader's Point vessel. A sheave is a solid round wheel, scored around the circumference, which is fitted in a block and revolves around an axis. Rope goes through the block and around one or more sheaves.⁹³ Archaeologists recovered all of

these sheaves from the starboard stern quarter of the vessel. Numbers 329, 359, and 594, were complete examples, the largest measuring 2.5 cm in thickness and 16.5 in diameter. The fourth object was a fragment with the dimensions 8.2 x 4.1 x 2.0 cm. All pieces were in good condition, reflecting only damage obtained after disposal. Number 359 showed no wear marks at all.

⁹²D.L. Hamilton, "Simon Benning, Pewterer of Port Royal," in *Text-Aided Archaeology*, ed. Barbara J. Little (Boca Raton, Florida: CRC Press, 1992), 46.

⁹³George Biddlecombe, *The Art of Rigging Containing an Explanation of Terms and Phrases and the Progressive Method of Rigging Expressly Adapted for Sailing Ships* (Salem Massachusetts: Marine Research Society, 1925; reprint, New York: Dover Publications, 1990), 3, 27.

The art of coopering (constructing wooden containers) began as early as the first century A.D. Europeans brought the art to the New World in the seventeenth century.⁹⁴ Wooden containers were used extensively both on land and at sea as shipping containers.⁹⁵ Evidence of coopering products was recovered from the Reader's Point vessel. One artifact, STA32-RP-390, was a bung. This was the plug for a hole in a wooden cask through which the merchant could fill the cask. Volunteers located this piece directly between the maststep and deadwood on the outboard starboard side. The circumference showed wear marks, while one side of the flat surface was beaten. It was 6.7 cm in diameter and 2.15 cm thick. Objects STA32-RP-424 and 642 were portions of barrel heads, the circular pieces of wood creating the top and bottom of barrels.⁹⁶

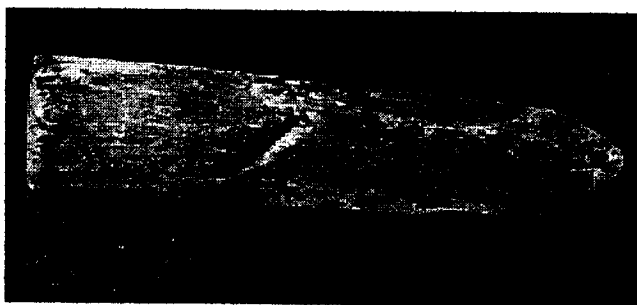


Figure 40-STA32-RP-330-B2 (A)-Treenail

Archaeologists recovered these from the outboard starboard edge about thirteen feet aft of the maststep. One had a preserved size near half its original, while the other was perhaps at one-fourth. The largest section

measured 29.5 cm, which is near its maximum diameter of 35 cm, by 7.7 cm and 1.2 cm in

⁹⁴Marilyn Arbor, *Tools & Trades of America's Past The Mercer Collection* (Doylestown, Pennsylvania: Bucks County Historical Society, 1981), 26.

⁹⁵*Ibid.*

⁹⁶*Ibid.*, 27.

thickness. This, however, is too little to fit a regular sized eighteenth-century barrel. The legal size of a salt fish barrel in 1765, for example, was 50 wine gallons. This would hold 41.6 imperial gallons and with a diameter of 35 cm would have to be five feet high!⁹⁷

Perhaps the head was from a diminutive cask, bucket, tub, vat, or churn.

Treenails are wooden pins used to fasten ships' planking. Five examples were uncovered on the vessel. Three of these, numbered 220, 226, and 330-B2 (B) are questionable because they look natural. If manufactured, they are highly eroded. The

remaining two, 330-B2 (A) and 560 were shaped and measured 10.2 x 2.3 cm and 9.9 x 3.0 cm, respectively. The former had a tip that had been cut to a four-sided point.

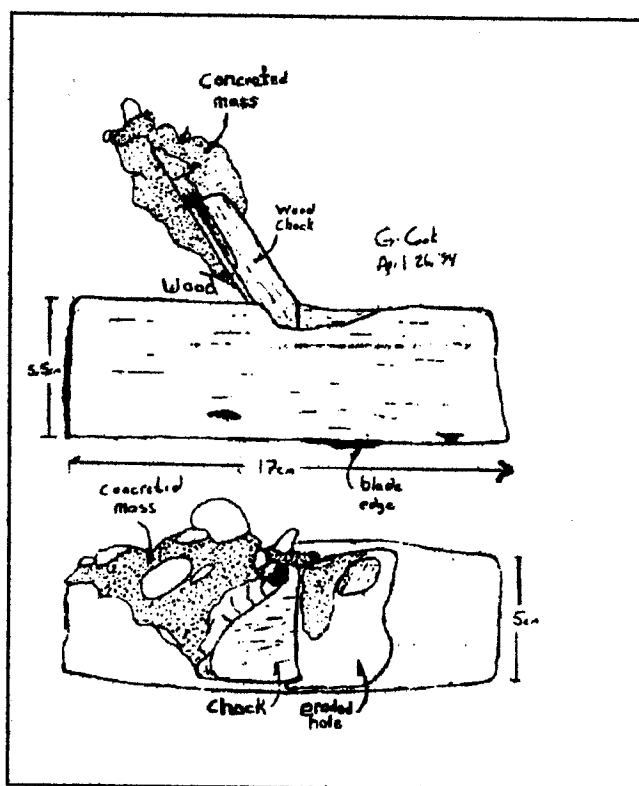


Figure 41-STA32-RP-575-Carpenter's plane,
sketch by Gregory D. Cook

A carpenter's block plane was also unearthed. Woodworkers commonly used this tool for finishing work, instead of for smoothing boards. Its small size made it useful in tight areas. It had no handles and workers held it by hand.⁹⁸ Many

⁹⁷Horsley, *Tools of Maritime Trades*, 294.

surviving planes have extensive carved decoration, whereas the contemporary drawings often indicated they were unadorned.⁹⁹ Diderot included many unadorned examples in his encyclopedia from the late eighteenth century. Diderot's planes were used in chest manufacturing, bridge making, and cabinet making.¹⁰⁰ American planes were commonly undecorated and were quite numerous in the workshop. That may explain why few collectors saved them.¹⁰¹

Reader's Point divers unearthed an apparent smoothing plane, number STA2-RP-575 measuring 17.0 by 6.0 by 5.5 cm. It was not a molding plane and was at midships next to the keelson on the starboard side. Two wooden wedges accompanied the plane near where the iron or blade would have been. No metal existed, only concretion remained, and the wood block was eroded but solid.

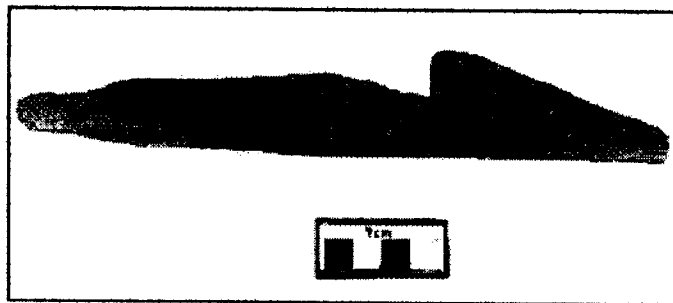


Figure 42-STA32-RP-082-Possible tent stake

Volunteers recovered STA32-RP-082 from the port bow section about one foot above the wood layer. We believed it to be a tent stake or an object for locking

⁹⁸Henry Mercer, *Ancient Carpenters' Tools Illustrated and Explained Together with the Implements of the Lumberman, Joiner, and Cabinet Maker in Use in the Eighteenth Century*, 3d ed., (Doylestown, Pennsylvania: Bucks County Historical Society, 1960), 105.

⁹⁹W.L. Goodman, *The History of Woodworking Tools* (London: G. Bell and Sons, 1962; reprint, Trowbridge, Wiltshire, Great Britain: Redwood Press, 1972), 65-67.

¹⁰⁰Diderot, *Encyclopedia*, 501, 619, and 714.

¹⁰¹Eric Sloane, *A Museum of Early American Tools* (New York: Ballantine Books, 1973), 56.

or fastening something in place.

The Reader's Point wooden artifact collection contains six objects classified as unidentifiable, both in form and function. Twenty objects made up the total wood sample in the collection. The lack of a wood specialist made it impractical to identify the wood type for any of the objects.

h. Faunal Remains

The Reader's Point project submitted 285 bones for zooarchaeological analysis to Dr. Philip L. Armitage.¹⁰² Dr. Armitage could identify 170 bone elements, most of which were remains of food debris. The zooarchaeological report noted that salted beef apparently made up the largest portion of the meals, followed by salted pork. Multiple-chopped cattle bones seemed to suggest the preparation of soup or broth. Possibly the cook chopped and boiled the bones after the crew ate the salted beef rations. Some mutton, domestic fowl, and rabbit were also included in the crew's diet. Rabbit remains could indicate that crew members brought fresh meat on board for the captain's table. The small size of the rabbit bones indicated that it was likely warren-bred, and therefore possibly purchased in port. Live fowl, on the other hand, were a common source of fresh meat.

The most significant bone found was a Gopher tortoise humerus. This animal is

¹⁰²Philip L. Armitage, "Report on the Mammalian, Bird, Reptile, and Fish Bones Excavated from the Shipwreck of a Late Eighteenth-Century British Merchant Vessel, St. Ann's Bay, North Shore of Jamaica" (Sanibel Island, Florida: 1995), 42-47.

not found in Jamaica or the West Indies. Commonly, people locate the Gopher tortoise in the southeastern seaboard of North America, including southwestern South Carolina, southern Georgia, Florida, Alabama, Mississippi, Louisiana, and into southeastern Texas. This was the only item recovered that provided a clue concerning the ports this vessel might have visited.

Fish bone remains were surprising, considering the lack of staple species such as cod and herring in the sample. All the identified fish were common for the Caribbean. These included the green moray eel, the black tip shark, and two grouper fish. Moray eel has never been a typical food source; therefore, these remains were most likely intrusive. The shark vertebrae and the grouper dentaries might also have been intrusive, considering that grouper commonly habitate shipwrecks.

A rat skull and associated bones, however, were not unexpected. The zooarchaeologist identified the remains as that of the Norwegian brown rat, *Rattus norvegicus*. The brown rat first appeared in Britain in the 1720s and its numbers surpassed those of the black rat by the 1740s and 1750s. It is believed that the brown rat immediately began boarding vessels to the Americas. We can assume our rat could have infested the Reader's Point vessel in northeastern North America by the 1740s and 1750s as well.¹⁰³ This gives a *terminus post quem* based on when the rat boarded, though does not tell us whether the rat boarded this vessel in Britain, North America, or elsewhere.

¹⁰³Philip L. Armitage, Zooarchaeologist, Personal communication, letter to author, 16 October 1995.

Two anomalous bones completed the identified collection. These were a dog bone and a human finger bone. An accident may explain the finger but the dog remains are more difficult. The owner would have removed a live dog when the crew abandoned the vessel. A sailor would have thrown a dead dog overboard and not left it to rot in the bilges.

i. Summary of Collection

From the artifact assemblage analysis it is known that the Reader's Point vessel was active during the third quarter of the eighteenth century and abandoned after 1765. Also, archaeologists look towards a British/British colonial origination for the vessel due to the British manufactured objects that imply voyages were between British ports and that probably a British crew manned the vessel. Finally, identification of the Gopher tortoise humerus led to the conclusion that the vessel had visited ports in the southeastern seaboard of North America, which corroborates the wood analysis evidence that suggested the shipwright constructed the vessel in North America.

As valuable as the archaeological data is, historical information can support it greatly. An examination of the history of Jamaica, the Seville estate, and other plantations can provide the archaeologist with geographic relevance for the Reader's Point site. A further examination of trade restrictions and relations and the general economic history of the region can provide valuable information to allow the archaeologist to place the material culture and therefore the entire site in its historical context.

IV. HISTORICAL BACKGROUND

Jamaica was first visited by Europeans during Christopher Columbus's second voyage to the New World. Columbus again visited the island during his fourth and last voyage to the New World. In May 1502, while still on his quest for a strait to China, Columbus lost two of his four ships near Panama. With his two remaining ships in poor condition, he decided to give up his search and sail to Hispaniola. On June 25, 1503, Columbus's last two ships, the *Capitana* and *Santiago*, were unable to sail against contrary winds. Now very unseaworthy, those two ships limped into Santa Gloria (St. Ann's Bay, Jamaica), where the sailors remained stranded for over a year.

Meanwhile, Columbus sent one of his men, Diego Mendez, in a canoe to Hispaniola (present day Haiti and Dominican Republic) for help. However, Don Nicolas de Ovando, the governor of Hispaniola, hated Columbus and refused to assist in his rescue. Mendez had to privately charter vessels himself and on June 24, 1504 rescued Columbus and his remaining crew. Columbus would never see the New World again. He returned to Spain and died shortly thereafter. His son, Diego Columbus, became the Governor of the Indies in 1508, and in 1510 founded the first Spanish settlement near present day St. Ann's Bay called Sevilla la Nueva (New Seville).¹⁰⁴

Sevilla la Nueva survived for only a short period. Of the eighty people who originally settled there in 1510, only twenty resided at the site in 1534. None of those remaining were healthy or successful. The settlers established the town too close to

¹⁰⁴J.H. Parry and P.M. Sherlock, *A Short History of the West Indies*, 2nd ed. (London: MacMillan, 1963), 20.

disease-ridden swamps and creeks, resulting in continuous outbreaks of malaria and other forms of infection.¹⁰⁵ Although many babies were born during the twenty-five years at Sevilla la Nueva, only ten children survived to adulthood. In addition to health problems, the settlers had economic difficulties. At least two sugar mills existed in the 1520s, but they were only profitable to a small segment of the society, primarily the king and the governor. Those men may have also profited from cattle farming. The rest of the population languished in poverty. With labor more difficult to find, the town went into a rapid economic decline. The townspeople requested royal consent to import three hundred African slaves,¹⁰⁶ but the economic situation did not improve. As a result, the settlement relocated to the existing town of Villa de la Vega (present day Spanish Town) on the south side of the island.

A formal decree on July 28, 1534 officially shifted the capital to Villa de la Vega. Subsequently the settlers abandoned Sevilla la Nueva.¹⁰⁷ The move south proved advantageous. Villa de la Vega contained sources of fresh water and its navigable ports made it a regular port of call for vessels serving the Caribbean. The lack of an adequate anchorage at Sevilla la Nueva also contributed to the north shore's abandonment. Sevilla la Nueva slowly slipped into obscurity with time. There are accounts that in 1554 French

¹⁰⁵William B. Goodwin, *Spanish and English Ruins in Jamaica* (Boston: Meador Publishing, 1946), 102.

¹⁰⁶Robin P. Woodward, "The Charles Cotter Collection: A Study of the Ceramic and Faunal Remains" (MA Thesis, Texas A&M University, 1988), 15.

¹⁰⁷*Ibid.*, 17.

corsairs attacked the site of Sevilla la Nueva.¹⁰⁸ Maroon oral history cites that the Maroons (the freed Spanish slaves) destroyed the area, and that a later earthquake further decimated it.¹⁰⁹

Under Spanish rule, Jamaica was a supply base for the conquest and colonization of the Americas. Internal conflict weakened this important bastion of colonial power. There was tremendous infighting, between the church and sacrilegious governors, and between the Spanish and the Jews who emigrated from Portugal.¹¹⁰ Jamaica failed politically and economically under Spanish rule. When the English captured Jamaica in 1655 they started from scratch, as the colony had not developed well under the Spanish.¹¹¹

The English took possession of Jamaica in the mid-seventeenth century. In 1655, Oliver Cromwell sent out a fleet as part of the "Western Design," a plan to take all of the territories held by Spain in the Caribbean. Admiral William Penn commanded the fleet, while the army was under the able command of General Robert Venables. In December 1654 the fleet sailed to Barbados, where it seized eleven Dutch ships and recruited additional men for an attack on Santo Domingo, Hispaniola. That strong force, however,

¹⁰⁸Goodwin, *Spanish and English Ruins*, 106.

¹⁰⁹George A. Aarons, "Sevilla la Nueva: Microcosm of Spain in Jamaica, Part 1: The Historical Background," *Jamaica Journal Quarterly of the Institute of Jamaica* 16:4 (1983): 42.

¹¹⁰Clinton V. Black, *The Story of Jamaica from Prehistory to Present* (Revised edition of *History of Jamaica*, 1958; London: Collins, 1965), 38.

¹¹¹Richard S. Dunn, *Sugar and Slaves-The Rise of the Planter Class in the English West Indies, 1624-1713* (Chapel Hill, North Carolina: University of North Carolina Press, 1972; reprint, New York: W.W. Norton, 1973), 151.

failed to capture Santo Domingo.

To avert total failure of the campaign and to appease Cromwell, Penn and Venables decided to attack Jamaica.¹¹² The island fell quickly to the English. While debating the terms of their surrender, the Spanish freed their slaves, released their cattle, took their valuables and headed for the north shore. From north shore ports they fled to Hispaniola. The freed slaves took refuge in the hills and became known as the Maroons, adept in guerilla warfare.¹¹³ Cromwell punished Penn and Venables for their failure in Hispaniola, but the English government gave support to the colony in Jamaica. General Robert Venables of the English army described the condition of the island after the English took possession:

This is all I can say of this Iland, for at present it is pore, But it may be made one of the riches spotes in the wordell ; the Spaniard doth call it the Garden of the Indges, But this I will say, the Gardeners haue bin very bad, for heare is very litell more then that which groweth naterallie.¹¹⁴

The Spanish government did not recognize English control of the island until the Treaty of Madrid in 1670.¹¹⁵

In the mid-seventeenth century buccaneering was on the rise in the Caribbean.

¹¹²Cyril Hamshire, *The British in the Caribbean* (Cambridge, Massachusetts: Harvard University Press, 1972), 69.

¹¹³Mavis C. Campbell, *The Maroons of Jamaica, 1655-1796 A History of Resistance, Collaboration & Betrayal* (Granby, Massachusetts: Bergin & Garvey, 1988), 2.

¹¹⁴C.H. Firth, ed., *Extracts from Henry Whistler's Journal of the West India Expedition* (London: Longmans, Green, & Co., 1900), 169. This is Appendix E-"The Narrative of General Venables."

¹¹⁵Hamshire, *The British in the Caribbean*, 87.

English, French, and Dutch pirates began raiding Spanish possessions. The French and English governments issued "letters of marque." Later called privateers, these vessels had governmental support and the legal right to raid.¹¹⁶ The English government did not discourage raids on the Spanish until the signing of the Treaty of Madrid. After that they began to revoke commissions, announced a general pardon, and offered incentives for the men to become planters, tradesmen, or sailors in the Royal Navy.¹¹⁷

Jamaica was in social and political turmoil during this period. Planters fought with the buccaneers to control the colony. Sir Thomas Lynch replaced Sir Thomas Modyford as governor and, being from the planter class, actively suppressed the buccaneers. In return, the buccaneers began attacking English vessels and trading with the northern colonies. Because of this conflict, local support of the buccaneers in Jamaica began to wane by 1682.¹¹⁸ The golden era of the buccaneers was ended. The final blow occurred on June 7, 1692. Port Royal, the main refuge of the buccaneers, chief port, and trading center of Jamaica, suffered an earthquake that plunged half the city into the sea. Port Royal never recovered its standing as the "Wickedest city in Christendom" and the era of the buccaneers was over.

There was a rise in the development of large plantations by the end of the

¹¹⁶Michael Pawson and David Buisseret, *Port Royal, Jamaica* (Oxford: Clarendon Press, 1975), 21.

¹¹⁷C.H. Haring, *The Buccaneers in the West Indies in the XVII Century* (Hamden, Connecticut: Archon Books, 1966), 200.

¹¹⁸*Ibid.*, 230.

seventeenth century. The dissolution of the buccaneers left the big planters in control of the local government. Those large plantations grew and slowly displaced the small farmers. Many large plantation proprietors disliked the tropics and chose to return to England. They left the care of their plantations to overseers. In time black slaves, controlled by a small group of overseers, dominated the island's population.¹¹⁹

The West Indian islands produced primarily sugar on those plantations, which they sold as a surplus to the northern colonies. The northern colonies used sugar and often bills of exchange to pay for the large quantity of items they imported from Britain. Britain took the raw materials from the Caribbean and North America and manufactured goods for reexport. Industries in Britain grew exponentially during the first half of the eighteenth century so that by 1750, their export capacity had increased more than 75%. The North American colonies alone exacted 11% of British exports at that time.¹²⁰ It is clear how important the trade relations were to the three regions. Each was strong economically only in terms of what they could export and import from each other.

Plantation crops such as sugar and cocoa, however, were not the only items for trade. The logwood trade became an important source of income, next to sugar, for settlers of the Caribbean and Jamaica. Shippers on the north shore probably played some part in that profitable trade along with their counterparts around Jamaica. The logwood

¹¹⁹Dunn, *Sugar and Slaves*, 151.

¹²⁰James A. Henretta, *The Evolution of American Society, 1700-1815 An Interdisciplinary Analysis* (Lexington, Massachusetts, 1973), 45-49.

trade not only was lucrative but also became a primary cause of friction between the British and Spanish during the seventeenth and eighteenth centuries. Britain and Spain continually fought over the right to cut logwood in what is now Belize. The Spanish were concerned not only with the loss of the logwood trade itself, but with the possibility of a permanent English settlement in that territory. It took over a hundred years to settle the dispute.

The logwood cutting industry resulted in an unusual trade arrangement between the logwood settlements and Jamaica. It was unusual because logwood was traded directly for large quantities of Jamaican rum instead of specie.¹²¹ As important as the New World trades were to the English, the Caribbean traders were as dependent upon the Spanish for specie.¹²² The Jamaicans desired to pay their debts in sugar and rum, but sugar products from the French islands were available at a lower cost. As a result, the Jamaicans were forced to obtain specie elsewhere. The obvious solution was to use the bullion acquired from the Spanish Main, via the logwood trade. That continual source of money caused both logwood and specie to become contraband goods according to the Navigation Acts.¹²³

¹²¹Alan Craig, "Logwood as a Factor in the Settlement of British Honduras," *Caribbean Studies* 9:1 (April 1969): 60.

¹²²Frank Wesley Pitman, *The Development of the British West Indies 1700-1763* (New Haven, Conn.: Archon Books, 1967), 138.

¹²³J.H. Parry, P.M. Sherlock, and A.P. Maingot, *A Short History of the West Indies* Fourth Edition (New York: St. Martin's Press, 1987), 86; Pitman, *Development of the British West Indies*, 138.

The Navigation Acts regulated the majority of trade markets during the eighteenth century, but had been in effect since the seventeenth century. Those acts affected all the colonies in the Americas. The Navigation Act of 1660 forbade merchants from importing goods to or exporting goods from their colonies, be they in Asia, Africa, or America, and owned by or potentially owned by the King unless under certain circumstances.

Merchants could only ship those goods in English owned vessels, mastered by an Englishman with a crew three-quarters English. "English" meant a subject of his Majesty from England, Ireland, or the Plantations. One section of the 1660 act forbade aliens from being factors or merchants in the plantations and another required that shippers brought foreign goods into England only in English ships. The act, revised in 1663, 1673, and 1696, compelled all foreign ships to go through ports in the mother country and gave England a monopoly in foreign trade.¹²⁴ This did not mean England excluded foreign products, just that the government routed goods through England and thus, the products sustained increased duties.

By the turn of the eighteenth century the Navigation Acts were well established. They outlined the rules of trade and punishment for deviation. These acts primarily created a monopoly of trade for the benefit of England and built up the shipbuilding industry and other related maritime fields on both sides of the Atlantic. Though the acts were intended to benefit England, both the northern and West Indian colonies prospered

¹²⁴Oliver M. Dickerson, *The Navigation Acts and the American Revolution* (Philadelphia: University of Pennsylvania Press, 1951), 7-8.

under them.

In 1733 Parliament instituted the Molasses Act to respond to the flow of foreign (primarily French) sugar products to the British colonies. The low price of French sugar was potentially damaging to the economies of the British sugar islands. The act forbade import of foreign sugar to British dominions without payment of an import duty.

Merchants ignored the Molasses Act almost from the beginning. Smuggling went on nearly unchecked because of a lack of British enforcement. Smuggling was to cause serious problems over the next three decades.

As the West Indian economy prospered so did that of North America and Britain. Economic interdependence developed among the three regions. Jamaican traders imported food, livestock, and timber from North America and some goods from Europe, but the cargos of the West Indies and North America were more vital to England. The historian Ralph Davis even claimed that merchants from England were hard pressed to obtain a full outward bound cargo to counter balance the sugar, tobacco, and dyestuff from the Caribbean and North America.¹²⁵

Although Britain was thriving economically during the mid-eighteenth century, illicit trading between France and Britain grew. War during this period caused an increase in the price of goods. The West Indians had to pay more for northern provisions and in return Northerners had to pay more for West Indian sugar. If the Molasses Act had not

¹²⁵Ralph Davis, *The Rise of the English Shipping Industry in the Seventeenth and Eighteenth Centuries* (Newton Abbot, Devon, Great Britain: David and Charles, 1972), 186.

prohibited trade interaction with the French sugar islands, Northerners could have purchased sugar products at a lower cost. That would have reduced the costs of northern exports to the British sugar islands.¹²⁶

The two largest centers for illegal trading between the northern colonies and the French were Jamaica and the British Virgin Islands. This trade was a double-edged sword. While it caused specie to flow away from Britain, it brought goods to the northern colonies at a cheaper cost and effectively eliminated the enumeration duties, which the British merchants would have had to pay otherwise.

Because of the Molasses Act, the British sugar islands lost the North American market to the French. To relieve their dependence on the north, the West Indian colonists tried to improve industrialization and agriculture and import foodstuffs from Britain instead of the northern colonies. To regain that trade the British government realized it had to both cut the French off commercially and take steps against the uncooperative colonists. Consequently, illicit trading became synonymous with traitorous activity. Massachusetts passed an act in June 1744, proclaiming trade with an enemy to be an act of treason which brought the death penalty.

When the French and Indian War ended in 1763, smugglers resisted giving up this trade. Merchants frequently reexported to Great Britain inexpensive French sugar as English sugar for a higher price. The French also, enjoyed those trade relations that

¹²⁶Pitman, *The Development of the British West Indies*, 310-312.

brought them all the provisions they needed, as well as, specie. Britain and the British sugar planters, desirous of the northern market, worked to maintain the regulations and continue the British monopoly. The British government supported that position because many members of Parliament were plantation owners who were losing money to illicit trade during the war.

The taxation and trade restrictions enacted to fight the illegal trade also led directly to a revolt and eventual revolution among the North American colonists. During the War for Independence, Jamaicans, sharing many of the same grievances, supported the colonists' cause. However, though they sympathized with the Americans, the British West Indians could not openly join against Britain for fear of losing the protection of the Royal Navy. The British West Indies wished to stay out of the fight, but the islanders became involved in the conflict when France declared war on Britain. When the Spanish entered the fray, fighting broke out in Central America as well. By 1782, Britain held only Barbados, Antigua, and Jamaica. In the Treaty of Versailles, which ended the war in September 1783, little changed in the geopolitical situation of the Caribbean. The only exchange of territory was that Spain received Florida from Britain.¹²⁷

After peace came, North America became a foreign entity. The terms of trade with the Americans changed for the British West Indian colonies. Since Jamaica was heavily dependent upon North America for many trade goods such as corn, flour, salt-fish,

¹²⁷Parry and Sherlock, *A Short History of the West Indies*, 139.

timber, boards, shingles, and staves and hoops for making sugar hogsheads, these changes dramatically affected the islanders. Jamaican staples such as, rum, molasses, sugar, coffee, and pimento could still be exported to the United States under the new rules. However, British ships had to transport imports from the United States. Jamaicans could not import meat and fish from the United States at all. In extreme situations the government made exceptions to these rules. During 1784, a hurricane destroyed all food supplies on the island. To prevent starvation the governor authorized importation of supplies from foreign powers on board foreign ships, e.g., the United States.¹²⁸

Sugar and slavery are the two institutions that well characterize the eighteenth-century plantation society. The first settlers in the Caribbean tried cultivating tobacco, indigo, and cocoa before they realized the profitability of sugar crops. Sugar was not native to the West Indies, but came to Europe from the Pacific and then to the Caribbean. Columbus brought sugar cane to Hispaniola on his second voyage. The English began raising sugar cane in Barbados in 1640. When they realized how lucrative it was, they expanded its production. The author Richard Dunn wrote that Governor Modyford started sugar production (as far as the English were concerned) on Jamaica in 1664 and by 1673, sugar was the primary staple crop in Jamaica.¹²⁹ However, sugar cane production did exist at Sevilla la Nueva (near St. Ann's Bay) and Villa de la Vega (Spanish Town) as early as the 1530s when Governor Garay and the King of Spain went into that business

¹²⁸Black, *Story of Jamaica*, 115.

¹²⁹Dunn, *Sugar and Slaves*, 154.

together.¹³⁰ Sugar continued to be a primary product well into the eighteenth century. New settlers built warehouses and wharves in the Sevilla la Nueva area, now called Seville by the British. Construction continued during the late seventeenth and through the eighteenth century. Because of sugar production, St. Ann's Bay developed into a successful settlement by 1722.

There is a large gap in the written information concerning Sevilla la Nueva from the mid-sixteenth century until the end of the seventeenth century, when Captain Richard Hemmings, Esq. acquired the site. A map from 1690 shows a two-storied greathouse, slave quarters, warehouses, and wharves near what later became the town of St. Ann's Bay.¹³¹ The Hemmings estate was a typical large plantation producing sugar cane and its byproducts.

The present Seville greathouse on the Hemmings estate was built in 1745, and historians believe it replaced a former greathouse destroyed by a hurricane in 1744. The governor used this house as his residence when visiting the north shore.¹³² By 1792, the Seville estate had increased with the addition of more warehouses and piers, an overseer's house, a bookkeeper's house, a boiling house, and a factory building. By the end of the eighteenth century, besides sugar, coconuts were grown in increasing quantities. Planters were also cultivating pimento, lime, coffee, and cocoa. Though coconuts remained an

¹³⁰Goodwin, *Spanish and English Ruins in Jamaica*, 102.

¹³¹Aarons, "Sevilla la Nueva," 42.

¹³²Goodwin, *Spanish and English Ruins in Jamaica*, 165.

important crop, banana cultivation replaced sugar when sugar production decreased.¹³³

While very little information is available on the Seville estate plantation, some basic inferences can be made based on what is known of a comparable estate. The Drax Hall plantation is located nearby in St. Ann's Parish. This estate was founded in 1690 about the same time that Richard Hemmings came to Seville. Drax Hall, like Seville, was an immense sugar plantation with a large slave population. Drax Hall had its own pier from which it traded sugar and sugar byproducts for manufactured goods. The Drax Hall slave house areas, when excavated, yielded internationally marketed ceramics, which merchants probably traded for sugar from the plantation. Given the ordinary quality of these objects, it is likely that similar pieces also made up part of the ceramic assemblage associated with the nearby Seville Great House slave quarters. Although the north shore was not regularly used for colonial trading, coastal merchant vessels travelled between various plantations on the island and Kingston. Transport over the mountains was not practical; therefore, merchant ships transported raw materials, manufactured goods, and slaves to the large plantations around the island.

Large plantations such as those at Seville and Drax Hall required a great deal of land and a large labor pool to operate successfully. Since the production of sugar was labor intensive and the Spanish had eliminated the indigenous population through outright destruction and disease, slavers traded Africans to West Indian planters in large numbers.

¹³³Douglas V. Armstrong, *The Old Village and the Great House: An Archaeological and Historical Examination of Drax Hall Plantation St. Ann's Bay, Jamaica* (Urbana and Chicago, Illinois: University of Illinois Press, 1990), 17.

By the mid-eighteenth century the British had become the largest slave traders in the West Indies.¹³⁴

The system of slavery had begun to cease by the end of the eighteenth century, cutting off the source of the huge labor force supporting sugar production. British abolition of slavery began in 1772. On June 22 of that year Lord Mansfield, Lord Chief Justice, freed all the slaves in Britain.¹³⁵ Following that, on January 1, 1808 the Abolition Bill made the slave trade illegal. It did not, however, free those already enslaved. On August 29, 1833 Parliament passed the bill that emancipated all slaves but provided for a period of apprenticeship, so that owners would not lose all their "property" at once. Parliament also appropriated £20,000,000 for the owners to divide as compensation.¹³⁶ The apprenticeship system did not work well because the planters were resentful of paying, caring for, and teaching those they had previously owned. Often the planters treated their former slaves even more harshly than before. Finally, on August 1, 1838, Britain declared all slavery unlawful and abolished the apprenticeship system.¹³⁷ This heralded the end of the sugar industry on Jamaica and its standing as the most important British colony in the Caribbean.

¹³⁴Richard Pares, *War and Trade in the West Indies 1739-1763* (London: Frank Cass, 1963), 10.

¹³⁵Parry and Sherlock, *A Short History of the West Indies*, 178.

¹³⁶Hamshire, *The British in the Caribbean*, 147.

¹³⁷Morley Ayearst, *The British West Indies The Search for Self-Government* (Washington Square: New York University Press, 1960), 24.

With the abolition of slavery the sugar industry went into a period of decline and the Seville estate declined in importance. The Hemmings family maintained the estate until the first decade of the twentieth century when they sold it. Various people owned the estate or parts of it until 1969 when the Jamaica National Trust obtained possession. The site eventually became the Seville Great House and Heritage Park.

TABLES OF MEAN DATES

TABLE 1

MEAN CERAMIC DATES

Agate	1720-1775	1747.5
Astbury	1725-1750	1737.5
Banded Astbury	1724-1744	1734
Clouded Creamware	1740-1775	1757.5
Diamond-Beaded Creamware	1760-1800	1780
Feather-edged Creamware	1765-1790	1777.5
Royal pattern Creamware	1766-1820	1793
Undecorated Creamware	1750-1800	1775
Delft	1567-1800	1683.5
English Porcelain	1745-1795	1770
Kaolin-Pipe Stems	1650-1800	1750
Kaolin-Pipe Bowl Forms	1690-1820	1755
Slipware	1670-1795	1732.5
Fulham Brown Salt-Glazed Stoneware	1690-1775	1732.5
Brown Stoneware Bottles	1820-1900	1860
White Salt-Glazed Stoneware	1725-1775	1750
	Mean Ceramic Date	1758.5

TABLE 2
MEAN GLASS DATES

Black Glass Neck, STA32-RP-206	1760.6-1805.4	1783
Black Glass Neck, STA32-RP-208	1772.6-1817.4	1795
Black Glass Base, STA32-RO-050	1771-1837	1804
Black Glass Base, STA32-RP-235	1723-1789	1756
Black Glass Base, STA32-RP-266	1768-1834	1801
Undersized Beer Bottle, STA32-RP-607	1779-1809	1794
	Mean Glass Date	1789

TABLE 3
MEAN METAL DATES

Pewter Spoon Bowl, STA32-RP-321		post-1700
Pewter Spoon, STA32-RP-489		post-1730
Pewter Spoon Stem, STA32-RP-551		post-1700
Cupreous Button, STA32-RP-644	1726-1785	1755.5
Iron Button, STA32-RP-096	1700-1765	1732.5
Iron Button, STA32-RP-187	1726-1776	1751
Iron Button, STA32-RP-631	1726-1865	1795.5
	Mean Metal Date	1758.6

TABLE 4
OVERALL DATES

Mean Ceramic Date		1758.5
Mean Glass Date		1789
Mean Metal Date		1758.6
	Overall Mean Date	1768.7

V. CONCLUSIONS

Investigation of the Reader's Point vessel produced a limited collection of associated cultural material. Although limited, that collection contributed to establishing a date for the site and a British cultural affiliation. The Reader's Point artifact assemblage is a collection of typical eighteenth-century artifacts. These objects were common and probably represented low-economic-status possessions, such as one would expect to find on a small merchant ship. It is believed that most of the artifacts, were personal or utilitarian possessions of the crew as opposed to cargo.

This ship was probably a derelict. Several factors support that conclusion. First, the Reader's Point vessel contained few artifacts and most of those that archaeologists recovered were broken, suggesting that crew members deposited them as trash. Second, the location of the site itself, away from the Hemmings wharf and warehouse area, next to five other derelicts, and in the shallows at the end of the deep channel, suggests the Reader's Point vessel was abandoned. Finally, this ship had been repaired and was probably worn out or damaged when it was left. The crew likely stripped the vessel of valuable supplies and cargo and ran it aground. Since, the life expectancy of a merchant vessel then was on the average ten to fifteen years, the ship likely was abandoned because it had outlived its usefulness.

The size of the vessel indicates that it was built for coastal trading rather than for transatlantic voyages. Wood analysis suggested that the ship was constructed in North America based on the occurrence of white oak. The voyage from North America to the Caribbean was probably the longest trip this ship made. Perhaps it was on this voyage that

the vessel took on the Gopher tortoise somewhere along the southeastern coast of North America.

The artifacts provided little information about what ports the vessel visited. However, the predominance of British manufactured objects leads one to conclude that the crew and vessel were British. "British," though, includes any of the colonies as well as England. It is impossible to tell if any one of the artifacts was obtained specifically in Jamaica, Britain, or North America. The lack of artifacts from non-British lands could lend credence to the theory that the vessel sailed only within British waters and that the crew was purchasing British manufactured goods.

The glass assemblage, though small, is made up primarily of the typical English black glass. The likelihood that manufacturers from Britain produced the entire Reader's Point glass collection is high. Although glass factories existed in the colonies in the seventeenth and eighteenth century, their output was small and presented little competition to the British trade.¹³⁸

Timber was an important commodity to North American colonists. Britain and the West Indies were profitable markets for the American timber traders. Those colonies exported boards, masts, and staves, along with naval stores such as tar and turpentine. During the eighteenth century the colonists realized large exports of lumber.¹³⁹ It is quite possible then that coopering products found aboard the Reader's Point vessel originally

¹³⁸Ivor Noël Hume, "The Glass Wine Bottle in Colonial Virginia," *Journal of Glass Studies* 3 (1961): 94.

¹³⁹Arbor, *Tools and Trades*, 56.

came from North America. This is a likely origin even for the vessel itself.

The only object that was possibly or likely produced in Jamaica was the pewter spoon (number 489). The presence of the pineapple mark provides a clue. The pineapple represented Jamaica and became part of Jamaica's seal in the 1660s. Though the mark does not identify a particular pewterer, such as Simon Benning, it could suggest that locals made the spoon or possibly that Britons made it for the Jamaican trade market.

During the seventeenth and eighteenth centuries, Britain regulated trade by means of the Navigation Acts. All imports and exports had to be unladen and reladen in Britain. Trade with foreign powers was prohibited and created a unique monopoly for England and her colonies. That might explain why the Reader's Point merchant vessel carried only British artifacts and support the belief that she traded only in British ports. Since the Navigation acts required transport in British ships it is likely the Reader's Point vessel is British. Due to import and export taxes, it was more expensive to purchase foreign goods when they had been routed through England. Therefore, the colonists might have bought the cheaper British goods. All this, however, overlooks the fact that a great deal of illicit trade was occurring, particularly in response to the Molasses act. The Reader's Point vessel, constructed as she was for speed, may have been part of that trade. The vessel may have been involved in the dyestuff trade also, due to Jamaican involvement in Belize and the quantity of logwood being shipped through Jamaica.

However, the location of the vessel near the wharf related to the Hemmings Seville

estate suggests the vessel's probable involvement in the sugar trade. This ship's possible association with the sugar trade makes it representative of the larger trade network going on between the British North American colonies, the British West Indian colonies, and Great Britain. The strong trade relationship between these three places consisted of an intense and complex bond of interdependence, which was disrupted by the War for American Independence.

Though the Reader's Point vessel was geographically and temporally associated with the Hemmings estate, little historical information was available to support conclusions regarding the material culture. Consequently, a comparison was made with the nearby Drax Hall estate. Drax Hall was also a sugar plantation of the late eighteenth century located in St. Ann's Parish.

Not surprisingly, creamware is a ceramic type found in great quantities at Drax Hall and aboard the Reader's Point vessel as well. Tin- and lead-glazed wares, slipwares and delftware exist, both at Drax Hall and on the Reader's Point vessel. The latter two types possibly represent reuse patterns, due to their longer and earlier date ranges.¹⁴⁰ Brown salt-glazed stoneware mugs were found at the Drax Hall "Old Village" slave settlement and sherds of that type were found at Reader's Point. Fragments of dark green and light green glass were found in both places, as were samples of dipmolded bottles and ointment or pharmaceutical bottles. Almost no examples of stemware were found at Drax

¹⁴⁰Armstrong, *The Old Village and the Great House*, 137.

Hall and archaeologists recovered none from the vessel. The lack of this type of glassware at the slave settlement is presumed to suggest a lower economic status.¹⁴¹ The same may be true of the Reader's Point derelict, but if a few pieces were on board for special use they would have been taken when the ship was abandoned. The slave house areas also contained wrought nails with rose heads and machine-cut nails with hand made heads. Both types were common to the late eighteenth century and rose head examples were found on the Reader's Point ship.

In contrast, the Drax Hall Great House had quantities of Chinese porcelain, fine stemware, and window glass. Examples (even fragments) of these more expensive items were not found on the derelict. The common ceramic types present at the Drax Hall Great House included agateware, white and brown salt-glazed stoneware, creamware, delftware, and lead-glazed slipware, samples of which crew members recovered at Reader's Point.¹⁴² Another similarity can be found in the recovery of a kaolin pipe bowl with the ubiquitous "TD" maker's mark found in both the North American and Western European continents, often over a period of two hundred years.

This comparison with a plantation of the same period does illustrate the common quality of the artifacts associated with the Reader's Point vessel. The contrast with the Drax greathouse collection supports the idea that the Reader's Point assemblage represents articles of personal or group use and not of cargo, and that those articles were

¹⁴¹Ibid., 163.

¹⁴²Ibid., 199.

not of an expensive nature, but that they served very utilitarian purposes. It is assumed that a comparison with Drax Hall of the late eighteenth century would be quite similar to one with the Seville estate if that information were available.

The assemblage provided a date for the abandonment of the vessel. The presence of featheredged creamware definitely dates the ship to post-1765. All of the associated artifacts support the belief that the Reader's Point vessel was abandoned after 1765. Analysis of the artifact date ranges indicates a cluster of beginning and ending dates around 1775 (See Figure 41), which may support the idea of a period of maximum use and then abandonment just before the American Revolutionary War. The overall mean date for the datable objects was 1768.7.

The Reader's Point artifact collection has given us a better understanding of the vessel. It verified that this vessel was a derelict merchant ship that was probably abandoned between 1765 and 1775. The assemblage, supported by available historic literature, helped place the vessel in an historical context. The British origin of the artifacts seems to show that the ship visited British (probably coastal Jamaican) ports, may even have been built in a British port, and was likely operated by a British crew. Analysis led to the conclusion that the collection was composed of material commonly associated with personal use and likely represents the belongings of the crew. The vessel was probably involved in the local sugar trade due to its geographical and temporal association with the Hemmings plantation. Thus, it represented the greater trading relationship existing between Britain, North America, and the British West Indies. This study has

provided a wealth of information to date and the conservation of the assemblage will allow its use as a comparative collection. It is our hope that the documentation of this archaeological investigation and the assemblage will assist future researchers, of late-eighteenth-century colonial artifacts, in making their own comparisons and analyses.

ARTIFACT DATE RANGES

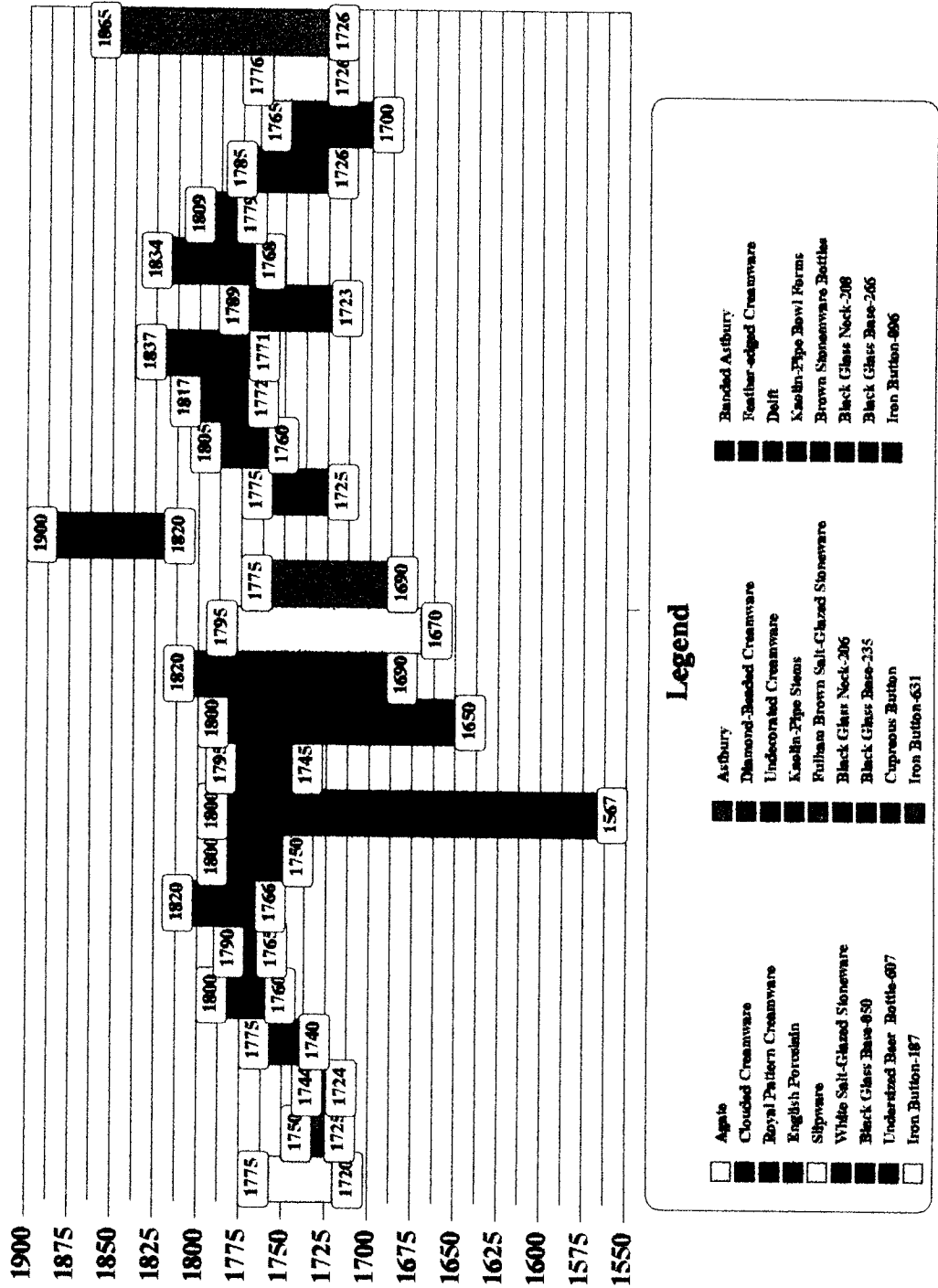


Figure 43-Artifact Date Ranges

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APPENDIX 1

Artifact Number

READER'S POINT PROJECT ARTIFACT DATA SHEET

Identification:

Excavator:

Date:

Associations:

Location (Four D.S.M. measurements or as accurate a provenience as possible.)

Dimensions (also note on artifact sketch):

max. width:

max. length:

max. thickness/diameter- ϕ

Photographed: Date _____ Roll# _____ Framed _____ ASA _____ Color or B/W? _____

Comments:

Initials:

ARTIFACT SKETCH ON REVERSE SIDE! (Include Scale)

Disposition:

APPENDIX 2

READER'S POINT PROJECT 94
ARTIFACT INVENTORY DATA

DATE _____

Artifact #	Excavator	Description	Dimensions	Location (Quad/ Level)	d-base Record #	Your Initials

READER'S POINT ARTIFACT TREATMENT RECORD

Artifact Number _____ Identification of Artifact _____
 Date of Recovery ____/____/____ Conservation Begins ____/____/____ Conservation ends ____/____/____
 Excavator _____ Conservator _____
 Condition of Artifact--Excellent Good Fair Poor --Treatment Priority--High Medium Low
 Dimensions--Weight _____ Height _____ Length _____ Width _____
 Description of Artifact Prior to Conservation _____

APPENDIX 3

Photographic Record		Material Type
Recovery	Before Treatment	Post Treatment
____/____/____	____/____/____	____/____/____
_____	_____	_____
_____	_____	_____
Photographs Attached? Y N	Final Drawings Attached? Y N	Treatment
Analysis _____		
Summary _____		