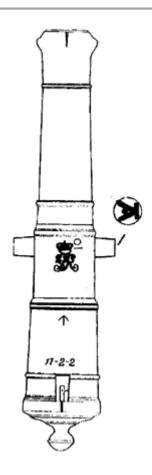
CRL Report 10: Site 8SJ3478, possibly the *Industry*: a British 18th-century shipwreck

Introduction

This report has been created for inclusion on the Texas A&M Conservation Research Laboratory (CRL) Website. The primary purpose of this document is to allow interested parties to track the progress of work on site **8SJ3478** as the excavation continues in the laboratory. Progress will be updated monthly. A brief summary of the project to date, including previous work and historical context which may aid in analysis follows. Those looking for more detailed discussion of this site and all other projects conducted by Southern Oceans Archaeological Research, Inc. (SOAR) are directed to SOAR publications listed and available for acquisition at the end of this report. Cited references are also appended at the end of this report.



Summary of Work to Date

SOAR began work in St. Augustine in 1995. Principal investigation to date has been shared by J.W. Morris III and Marianne Franklin. Initial funding was provided by several private sources as well as the Florida Bureau of Historic Preservation, Division of Historical Resources, Florida Department of State, assisted by the Historic Preservation Advisory Council. Funding through July of 2000 has been awarded by the St. Augustine Lighthouse & Museum.

Archival research in 1995 created a collection of historic maps and charts that were digitized and overlaid to choose areas of priority for remote sensing survey. An initial magnetometer survey provided 48 targets offshore and five inshore, that have been systematically ground-truthed as time, funding, and weather conditions permit.

The remote sensing survey continues as funding and access to equipment allows.

The initial survey was conducted with the gracious donation of time and equipment by Tidewater Atlantic Research, Inc. of Washington, North Carolina under the direction of Dr. Gordon P. Watts. Refinement of targets has been accomplished with the use of magnetometers borrowed from the Florida Bureau of Archaeological Research and East Carolina University's Program in Maritime History.

Site 8SJ3478 lies in the initial offshore survey area in approximately eighteen feet of water, less than a mile southeast of the lighthouse. This location would place the wreck in line with the approach to the channel entrance among the bars extant in the eighteenth century.

The sight was ground-truthed and eight cannons and three anchors discovered during the last day of fieldwork scheduled for 1997. One more week of recording the exposed features took place in 1997. The site was relocated and one cannon recovered in June of 1998. After cleaning, the cannon was identified as a 6-pound gun marked with the British Broad Arrow, the crest of King George II (1727-1760), and its weight in hundredweights, marked 17-2-2. Figure 1 shows the gun after cleaning. The gun has been inscribed with the number "10" on the starboard side of the crest. One trunnion bears the marking of a stylized "A" that has yet to be attributed to a certain maker. The gun is currently undergoing electrolytic reduction in a tank situated on the grounds of the St. Augustine Lighthouse & Museum.

Fieldwork in 1998 and 1999 has focused primarily on delineating the boundaries of the site. To date, no extant hull structure has been discovered or recorded. The anchors and guns were clearly stowed at the time of the wreck. Most timbers uncovered have been attributed to a palette or temporary deck structure built for the guns stowage. The amount and concentration of iron deposited on the sea floor has caused most of the wood discovered to be heavily mineralized.

Artifacts recovered in 1998 were stabilized and some conserved in SOAR facilities in Pensacola. The amount of ferrous material encountered in 1999 required the use of a conservation facility with greater capabilities. At the end of the 1999 field season all artifacts were transported to the Conservation Research Laboratory at Texas A&M University for treatment.

Florida law dictates that all artifacts recovered remain the property of the state. Florida policy allows for long term loan of historic artifacts to qualified facilities for public display and historic interpretation. The Florida Bureau of Archaeological Research, Southern Oceans Archaeological Research, and the St. Augustine Lighthouse & Museum are working towards a permanent exhibit of material recovered from site 8SJ3478 and other wrecks excavated and mapped in the St. Augustine area at the Lighthouse & Museum.

Historical & Archival Context

Florida was ceded from the Spanish to the British by the Treaty of Paris in 1763. Though East Florida remained a British possession until only 1783, considerable strides were made in the occupation and development of East and West Florida during this brief period. Florida's location, situated directly along the routes for both trade and navigation between the Old World and the New, guaranteed a large amount of vessel traffic. Coastal navigation also served as the main

means of trade and distribution between the Floridas until the development of the railroad in the 19th century.

Documents discovered in 1998 suggest that the identification of the vessel lost at site 8SJ3478 may have played an integral part in Britain's occupation of the Floridas. The following excerpts from SOAR's Survey Report No.3, published in May of 1999 detail the historical and archival context of site 8SJ3478 (Franklin et al, pp23-26).

Preliminary research into the identity of this vessel has provided a strong candidate. The sloop *Industry* was wrecked on the bar near St. Augustine on May 6, 1764 (Gage Papers, Reel 1,Vol.18,6, 13 May 1764, Ogilvie to Gage). The vessel set out from New York carrying the subsistence money, 6-pound guns and ammunition, and "artificers tools" as requested to supply several of the outposts and settlements being taken over from the Spanish after the ownership of East and West Florida was ceded to England by the Treaty of Paris of 1763.

The following document transcript excerpts from the Gage Papers tell the story of the vessel's loss and its devastating effect on the British who were struggling to cope with the protection of East and West Florida quite succinctly. Gage was the Commander of British Forces and stationed in New York. Ogilvie was the Commander of the Garrison at St. Augustine.

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(Reel 1, Vol. 16,3)
5 April 1764, New York, Gage to Ogilvie "Sir,
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Colonel Eyre, sends you by this occasion a proportion of the tools for the use of the garrison of St. Augustine, for which you will give the master of the transport a separate receipt, and you'll be pleased to take charge of the same, and be particularly careful, that they are not Mislaid, or abused, but solely made use of in such Publick Works, as may be carryed on for the King.

I am, Sir, Gage

(Reel 1, Vol 18.1)

6 May 1764, Gage to Ogilvie

"I hope the ship **Industry** arrived safe with my letter on ___ and that you have received the Provisions, Artillery, & subsistence money, which I forwarded to you by this opportunity".

(Reel 1, Vol. 18, 2)

7 May 1764

Gage to Forbes, Commander of Pensacola sent 1400 pounds on board the **INDUSTRY** to the 9th Regiment (Ogilvie)

(Reel 1,Vol.18,6) 13 May 1764, Ogilvie to Gage *Sir*, I have the Hon'r of Your Excellency's letter, I am extremely sorry to acquaint you that the Industry Transport, Commanded by Captain Lauranes (sic) was unfortunately cast away off the Bar of St. Augustine the 6th Inst. Sent all boats in this Post out to her Assistance ordered a Guard to take care of the wreck, fortunately sav'd six Boxes of Money some Flower and carpenter's tools. Shall send a Return of them to Col. Robertson in order to lay it before you. Now Sr. I ant by leave to observe that this Post must be ruined & undone if their is not some step taken to put a stop to the Villainous proceedings of Loseing Vessels on the Bar here which are insured above their value: I am told that Capt. Laurences's Vessel was insur'd, he never sent to acquaint me that he was off, by that means the (Reg't (?)) was lost, not having Boats to bring him in. The Inhabitants of East Florida consist of a set of People who have absconded from other Colonies for Debts & other Causes, as the wreck was greatly scattered along the coast it was impossible for the Guard to extend itself so far, so that the inhabitants have taken a great many of the King's Arms, propose making a search in order to see if I can detect any of them. If I do I shall be glad to know from your Excellency whether or not my power extends so far as to make an example of some of them, which would be absolutely necessary for the good of this Colony, have sent express the sloop Anne to acquaint you of this disaster. A Mr. (Furst?) informs me that the Creek Indians are very tardy in giving Satisfaction for the murder they have Committed in the back Settlement of a South Carolinian. In case an Indian War the small artillery are absolutely necessary for the defence of the advanced Posts, you may be assured I'll do everything in my power for securing these Posts in the best manner possible. The Capt. of the Transport who I have sent to you with the Express have chartered his am to pay for the vessel two hundred and thirty mill Dollars she is obliged to go to New York & return to St. Augustine. Is not to be...under the Penalty of three hundred pounds sterling money, he has acted as Pilot here, has good ability and has brought in all the vessels he went out for extremely well. Would have sent her to Pensacola, as most of the Artificers tools are lost thought it more proper to acquaint you of our misfortune than to send him there without those tools. Wrote to you by Capt. De., which I hope came to your hand in which I told you I had received a letter from Capt. Harries in which he told me in his passing to Appalachi he was obliged to throw a great part of his Provision and Artillery over Board that he would be obliged to abandon the Post if their is not a supply sent him....). Continues on for 2 more pgs. re Provo, Indians,

Received May 30 by the sloop *Anne*, and answered by the *Anne*

(Reel 1, Vol. 19, 2)

3 June 1764, New York, Gage to Capt. Harries or Officer Commanding at Appalachi "Sir.

I am sorry to acquaint you of the loss of the **Industry** Transport, in which the subsistence money for the troops in Florida, with the Artificers & (?) tools & ea for the several Forts were embarked. She was wrecked on the Bar of St. Augustine, and very little saved".

(Reel 1, Vol.20,2)

20 June 1764, Gage to Harries at Appalcahi "Sir.

You will have been disappointed in the stores intended which were forwarded from here some time ago in the **Industry**, which vessel unfortunately ran upon the bar of St. Augustine, was

wrecked. I hope you will receive everything you shall be in want of by this opportunity". (saved 2 carriages for 6 pounders which were left at Pensacola & will send, should receive guns and carriages soon).

Four sloops were detailed to supply the garrison at St. Augustine according to shipping manifests dated September 1764, covering a period between 4 April and 22 June, 1764. The vessels for St. Augustine were listed as follows:

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"St. Augustine:
sloop Industry, Captain Daniel Lawrence
sloop Peggy, Captain James Devereaux
sloop Anne, Captain Jonathan Porter
sloop Live Oak, Captain Jonathan Lawrence"
(Gage Papers, Microfilm, Reel #2 140G, On file at the P.K. Yonge Collection).
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Further research into the scantlings of the vessel *Industry*, as well as a manifest of the exact cargo she was reported to be carrying should exist and may be located. Further historical research to supplement the archaeological evidence is currently being undertaken (Franklin et al, May 1999 23-26).

Letters dated after the wreck detail that 6-pound guns were sent to replace those that were lost on board the Industry. While no manifest detailing the exact cargo of the Industry has been discovered to date, this years recovery of more tools, including a box of axe heads, and the discovery of more shovel blades, seem to indicate there is a good chance that site 8SJ3478 may be positively identified as at least a portion of Captain Lawrence's lost vessel, the *Industry*.

Additional research has been discovered that describes the use of the vessel *Industry* by the Spaniards to evacuate St. Augustine's citizens to Havana before the British takeover (Gold 1969:72). Currently, back editions of the South Carolina Gazette and other 18th-century publications are being studied in order to further refine historical background and analysis of the vessel and her captain.

The Artifacts

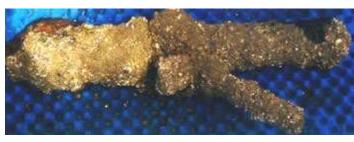
Artifacts recovered from site 8SJ3478 to date have been primarily inorganic in nature, in part probably due to the dynamic nature of the vessel's shallow water, open ocean deposition. A study of the mineralized ferrous encrustations located at the site suggest that the remains recorded to date cover and uncover frequently due to storm surge and currents. Many of the artifacts were encrusted with marine growth.

During the 1999 field season, a variety of artifacts were recovered that are currently undergoing treatment at the CRL lab. Objects such as a small swivel gun (8SJ3478-39) and a cast iron cauldron (8SJ3478-38) were transported while still encrusted to aid in their protection. In addition, several unidentified concretions have been recovered that will be need to be x-rayed and mechanically cleaned or cast before they may be identified. The purpose of this section is

not to describe all artifacts, but to outline and describe work undertaken to date so that interested parties may follow along with the excavation as it continues in the laboratory.

The Artifacts: The Swivel Gun 8SJ3478-39

The swivel gun was discovered at the start of the 1999 field season after the site was salvaged and pillaged by persons unknown. Prop wash deflectors were used to clear the site and two of the six cast iron guns still on the bottom were stolen, sometime prior to July. The mailboxes that were used exposed an area approximately one meter deep all around the perimeter of the stowed cannons and the anchors previously recorded. At 47.58 cm below the SOAR datum established at the site, the swivel gun was discovered between and slightly below two of the larger guns. Plans were immediately made to recover and conserve the gun to protect it from further illegal salvage.



The gun was recovered in July and transported to the Conservation Research Laboratory in College Station, Texas in September of 1999. Figure Two shows the encrusted gun tube, yoke, and wedge concreted as one unit. The gun was hooked up to a power supply and allowed to undergo electrolysis for approximately

one month to help loosen the outer layer of marine growth before mechanical cleaning with an air scribe. Figure 3 shows a photograph of the gun after mechanical cleaning. While the final outer layer of corrosion products was left undisturbed in order to encourage electrolytic reduction, it seems at this time that the swivel gun is free of all markings. It appears that there is no weight or Broad Arrow etched on the gun.



The bore of swivel gun 8SJ3478-39 is still slightly encrusted, but appears to measure at least one and 1/4 inches (3.5cm). This would suggest that the gun fired .50 pound or .75 pound balls. A gun similar in size and appearance was recovered from Arnold's gondola the *Philadelphia* in Lake Champlain. The Philadelphia gun fired a .75 pound ball and its bore measured 1-7/8 inches (Bratten 1997:185).

Swivel guns mounted on deck were also sometimes loaded with musket balls to be used as anti-personnel weapons at close range. Historic documents suggest that swivel guns were greatly favored by early colonial merchant ships (Tucker 1989:98). Tucker also states that the typical swivel gun varied between 34 and 36 inches in length, 1.5 to 1.75 inches in bore, and utilized shot that weighed either .50 or .75 pounds (1989:98).

Swivel gun 8SJ3478 measures 33.5 inches (86 cm) in overall length. A small portion of the monkey tail that would have held a wooden swivel grip assembly extends from the cascabel. The wedge still inserted between the gun tube and the yoke suggests that, if the gun was mounted, it would be locked into a position to repel boarders. The touch hole is visible, and there is no lighting platform or pan.

After mechanical cleaning and recording swivel gun 8SJ3478-39 was reattached to a low voltage, high density current in three places: at the wedge, on the yoke pivot mount, and just aft of the bell. The gun will continue to

undergo carefully monitored electrolytic reduction (see Figure above.)



The Artifacts: The Cast Iron Cauldron 8SJ3478-38

The iron cauldron was also uncovered by the prop wash deflectors. The cauldron lay approximately .50 meters below the datum, just below the southernmost edges of the anchors. After sampling contents in situ on the sea floor, the cauldron was recovered for conservation and analysis.

Figure 5 shows the cauldron being recorded before mechanical cleaning. Note the concreted tool on the bottom of the kettle. After transportation to CRL in Texas, the cauldron underwent mechanical cleaning before being set up in a tank for electrolytic reduction.

Previous experience has shown that fragile cast iron objects often disintegrate during electrolytic reduction. This suggested that the prudent course of conservation would be to clean the exterior of the kettle only, which would allow the object to evolve during electrolysis, while the marine growth on the interior helped to maintain the integrity of the object. This also allowed careful



documentation of the cauldron before electrolytic treatment was begun. Figure 6 shows the cauldron after mechanical cleaning. Cauldron 8SJ3478-38 measures approximately 39 cm in overall height. The maximum outer diameter is 41 cm, and thickness is approximately 0.5 cm at the rim. One of the legs is missing, while the two remaining legs seem to be hollow and of differing heights. Three reinforce rings were observed around the outside of the cauldron.



The Artifacts: The Boxes and Their Contents: 8SJ3478-59,60 and 61

Three boxes were discovered during the 1999 field season. The first two boxes found were still sealed with iron fasteners. The third box had only two of its original wooden sides remaining on top of a concreted mass which consisted of the spilled ferrous contents of the box, primarily axe heads. Faint writing is visible beneath the marine encrustation on box 8SJ3478-59, and is quite distinct and legible on box 8SJ3478-60. Figure 7 shows box 8SJ3478-60 on the dock just after recovery. The original dimensions of the boxes would be 15 inches (37 cm) in length, approximately 9 and 3/4 inches (24.5 cm) in width, and just under 8 inches (20cm) in height. The boxes appear to be made of pine. The script



writing that is distinct contains the words "Illinoise" and "Ax's 20".

The boxes are currently undergoing a series of fresh water rinses to remove as much of the salt as possible. After x-ray, a treatment plan will be determined based on the amount and condition of the boxes contents.

*** UPDATE: Identification of the Foundry ***

The mark on the trunnion of the cannon has been identified. Ruth Rhynas Brown ("Identifying 18th-century Trunnion Marks on British Iron Guns: A Discussion", IJNA, 1989:18:4") has provided information from additional research in the Board of Ordnance to be published by the Royal Armouries next year.

The A on the trunnion is from the Ashburnham Furnace in Sussex, Southern England. Brown states that during this time period "the furnace was run by the Crowley family, at first two brothers, Ambrose and John"; and after their deaths, "by their mother and sister, both called Theodosia. The guns of this period usually have the A on the right-

handed trunnion and have a crooked bar. It was probably cast either for the war of Austrian Succession 1744-49, or the earlier period of the Seven Years' War" (Brown, personal communication, May 2000).



B. Square Marble Base 8SJ3478-05

The marble base (8SJ3478-05) was recovered during the 1998 field season. Figure 8 shows the object. The base measures 12.3 cm by 12.2 cm and is 3.2 cm thick. The center circle impression measures 5 cm in diameter and is 1.6cm deep. The four adjacent circular impressions measure just under 3 cm outer diameter, and are .08 cm deep. Various suggestions for identification of the object include a base for an hourglass and a pipe stand. To date, no positive identification has been made.



C. Lead Box Container 8SJ3478-36

This lead box-like object was recovered during the 1999 field season. An additional identical container was recorded in situ and not recovered. Figure 9 shows lead object 8SJ3478-36 after recovery. The container measures 8.5 cm square at its base and is 13.5 cm high. Average thickness is 0.6 cm. A hole (0.4 cm diameter), probably for a handle, is punched in each of the two "lugs" which measure 2 cm by 1.6.1 cm. Objects similar in size and identical in design have

been recovered from Port Royal, Jamaica (Hamilton, personal communication 1999) and several other British shipwrecks sites (Larn, IJNA 1984:13.2:113-119). No positive identification of any of the lead containers has been found to date. An unpublished student manuscript on file at CRL shows that the containers recovered span the date range between sites from 1684 through 1778. One specimen was stamped with the reversed date of 1675.



D. Millstone 8SJ3478-04

At least two similar stones have been observed on site. Stone 8SJ3478-04 was first observed in 1997 and recovered in 1998. Figure 10 shows the millstone after cleaning. The numbers 0-3-0 are etched on one side of the stone. This denotes the weight of the stone in hundredweights: three-fourths of one hundredweight, or 84 pounds. The stone measures 20 inches (50cm) in diameter and is 3 inches thick (7 cm). The hole in the center measures 2.5 inches (6.0cm) square. A second "0" is etched beneath the center of the stone. Cross-hatch marks are etched onto the face of the stone.

Information on millstones recovered from comparative sites is requested. In addition, any ideas on the type of mechanism that would have held the stone to work the grain would be helpful. Studies of Diderot and numerous contemporaneous texts describing millwork have turned up similar stones and mechanisms, but none are exact.

Lab Work Update: 24 February 2000

Work in the lab this month has been focused on the continuing "excavation" of artifact # 8SJ3478-61, one of three wooden boxes recovered during the 1999 field season. When discovered in situ this box had only two of its wooden side panels remaining. The box was upside down and a concreted mass of ferrous artifacts was "spilling" from the bottom. The figure below shows the box after one of the wooden sides was cleaned mechanically to allow for x-ray analysis. The bands around the box are withy. Though the fasteners are gone, impressions left in the wood show the withy was attached with wrought iron tacks that ranged between 0.25

cm and 0.40 cm square at the top of the shank. The holes where fasteners were used to seal the box measure 0.5 cm square.



Next the box was flipped and the contents were photographed. After documentation, an air scribe was used to begin the painstaking process of separating the mass of ferrous corrosion products and concretion that encrusts the box's contents so that the individual components of the artifact may undergo separate procedures for conservation, as well as analysis. Recovered first from the very surface were twenty-three .69 caliber lead shot (8SJ3478-61-01). The next item recovered was one of two brass straight pins (8SJ3478-61-02). The figure below gives an idea of the scale of the work.



The next object removed from the box was an encrusted mold of an iron tool (8SJ3478-61-03, with a wooden handle strengthened by an iron band or ferrule still intact. After x-ray analysis the object will be cleaned mechanically and the mold cast with epoxy resin to recover the surface of the original tool. The figure below shows artifact 8SJ3478-61-03 after recovery.



As cleaning continues the surface of two axe heads have been exposed (8SJ3478-61-04,05). The axes appear to be felling axes that were in very good condition at the time of their loss. Their cutting edges are flat, not sharpened to a bevel. More will be determined after the axe heads are completely excavated and recorded. The figure below shows the axe heads and the brass pin.



Lab Work Update: 17 May 2000



The separation of artifacts in Box 8SJ3478-61 has been completed. At final count, fourteen American style felling axes, seventeen brass straight pins, one silver button, and the encrusted tool shown above (8SJ3478-61-03) were removed from the broken box. The axes were packed carefully into place, alternating from blade to poll. Several of the axe heads are stamped "R BOYD".



The button was recovered from between two of the axe heads in the box, next to the scale in the view shown above. It is silver, with no apparent markings. There are two holes on the reverse face of the button, as well as a crushed loop.

Artifact number 8SJ3478-61-03 was shown above in its concreted form. The object was concreted to the axe heads in Box 61. The artifact has been cleaned of concretion and identified as a tool. A mold has been made in order to replicate the iron portion of the tool that was too degraded to preserve. The tool is some sort of trowel with a very small, rounded blade, for smoothing. It is most similar to a "tuck trowel" in modern tool catalogues.

The photo shows the tool being cleaned and reassembled after casting. The handle is wooden, and the blade was held into place by an iron ferrule. Although the ferrule had completely degraded, a mold remained in the encrustation that allowed a cast to be made matching its original dimensions.





The final cleaning of the remains of a large concretion (8SJ3478-30) that was encrusted to the six-pound cannon recovered in 1998 has revealed nine shovel blades. Some of the blades have lost all of their metal content, and have been drawn and cast only. A few blades have enough iron remaining to undergo electrolysis.

The swivel gun, 8SJ3478, has undergone a final mechanical cleaning before continuing treatment in electrolysis. The area around the yoke has been cleared. What was originally thought to be a wedge, has proved to be a part of the yoke assembly. One side of the yoke was split in two at the Y, drawn back through and hammered flat.



There are no markings at all on the gun barrel. Though swivel guns of all shaped and sizes were ubiquitous on merchant vessels during this time period, the 8SJ3478-39 swivel gun and yoke assembly are remarkably similar to a gun recovered from Lake Champlain (see Bass, Ships and Seafaring, 1976:300). Although recovered later, the gun was probably from one of two French ships scuttled in Cumberland Bay in 1759 (Kevin Crisman, personal communication 2000, and Dennis Lewis, "An Interim Report on the History of the Sloop Boscawen", September 1984 for the Fort Ticonderoga-Champlain Maritime Society).

The French vessels had been attempting to reach their fort at "Ile-aux-Noix". This provides a second possible tie to the British Army operating in New York. It has been suggested that the "Illinoise" that marks the boxes of axes (8SJ3478-59 and 60) may be an anglicized version of

"Ile-aux-Noix". Ile-aux-Noix was destroyed by British forces in 1760. British Public Record Office (PRO: WO 34/51 and 34/51 96) documents contain correspondence to Amherst which describe the British efforts to recover the stores, cannon, and a "quantity of iron" from Ile-aux-Noix dated 30 October, 1760. Further research is ongoing.

Lab Work Update: 2 June 2000



One other new tool type that has recently been discovered in the artifact encrustations that have been cleaned to date is a 1" gouge made of iron, possibly a lathing gouge (8SJ3478-53). Though some of the iron had completely degraded, a mold was used while cleaning to allow a perfect replica tool to be cast.

Artifact number 8SJ3478-55 is a concretion that has recently been cleaned. In between two shovel blades that have completely degraded, the remains of a broken wooden haft has been mineralized. The fastener markings detail the shape of the missing socket and show how the shovel blade would have been attached. A mold is currently being made to allow the creation of a cast replica of the shovel blade that may be attached to the wooden handle.





The majority of recent work at the lab has been focused on the two remaining sealed wooden boxes, numbered 8SJ3478-59 and 8SJ3478-60. The lids have been carefully removed after cleaning, revealing the contents.

As labeled, both boxes contain twenty American style felling axes. This makes a total of fifty-four identical axe heads that have been recovered from the site.





The majority of the axes are stamped with a makers mark. Above the name "R BOYD" is a second stamp that shows two crossed axes.

Box 60 has been completely cleaned and emptied in preparation for conservation treatment. Work on Box 59 is ongoing.

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May 1999 Marianne Franklin, J.W. Morris III, N. Carroll, K. Bumpass and A. P. White "The St. Augustine Maritime Survey 1998", Southern Oceans Archaeological Research, Survey Report No. 3, SOAR, PO Box 13512, Pensacola, Florida 32591.

January 1998 J.W. Morris, M. Franklin and N. Carroll "The St. Augustine Maritime Survey 1997", <u>Southern Oceans Archaeological Research</u>, <u>Survey Report No. 2</u>, SOAR, PO Box 13512, Pensacola, Florida 32591.

May 1996 Marianne Franklin and J. W. Morris III "The St. Augustine Shipwreck Survey, Phase One", Southern Oceans Archaeological Research, Survey Report No. 1, SOAR, PO Box 13512, Pensacola, Florida 32591.

November 1995 J. W. Morris III and Marianne Franklin "An Archaeological Assessment of the Vessel Remains at Town Point, Site 8SR983", <u>Southern Oceans Archaeological Research</u>, <u>Site Report No. 1</u>, SOAR, PO Box 13512, Pensacola, Florida 32591.

Citation Information:

Franklin, Marianne

2000, Site 8SJ3478, possibly the *Industry*: A British 18th-Century Shipwreck, Conservation Research Laboratory Research Report #10, World Wide Web, URL, http://nautarch.tamu.edu/CRL/Report10/introduction. Nautical Archaeology Program,

Texas A&M University

Pages combined and converted to PDF 2025.