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Fieldwork on the Charleston Harbor Stone Fleets

By Jim Spirek

Bundled up and huddled against the bulkhead on the Marine Research Division's (MRDs) *C-Hawk*, volunteer Bruce Orr chattered, "It's snowing." Ashley Deming, looking about the aft deck, deadpanned that he was mistaken, it wasn't snow rather it was the PVC of our tarp support simply shedding white flakes. Whether natural or man-made white stuff, it was sure cold that day, which coincided with one of the coldest days in the recorded history of Charleston. Poking our nose out into the harbor, we succumbed to the cold, stiff breeze, lumpy seas and turned the boat around and headed back to the landing. Unfortunately, an all too familiar conclusion to many a day on the harbor earlier this year in our efforts to document the 29 shipwrecks associated with the two stone fleets sunk off Charleston Harbor by the Union Navy during the Civil War. Prognostications of only worsening weather for the remainder of the week caused us to call off the

first week of diving operations in early March. We hoped that in several weeks more time, we would find sunnier and warmer days and smoother waters. The first week, however, was only a precursor to the weather interfering with our six weeks of fieldwork. As mentioned in my article in the previous edition of *Legacy* about our archival research trip to DC (see, Vol. 18, No. 1, June 2014, pp. 20-21), in which a snow storm caused us to lose valuable time at the National Archives, bad weather continued to plague our efforts to document the remains of the First and Second Stone Fleets. Of the six weeks and potential 30 days to conduct remote sensing and diving operations, we only managed to work offshore for 18 days. Despite the limitations imposed upon us by forces beyond our control, we completed dives on 13 of the 29 wreck sites. Due to the shortened time, we did not dive on those sites we had previously investigated, which numbered eight

wrecks, although we did return to one site to record several iron knees, a structural element used to brace a frame to the underside of a deck beam, which rested on one of the rock mounds (Figure 1).

Sneaking out between bouts of bad weather, our initial efforts concentrated on the First Stone Fleet sunk at the entrance to the Main Ship Channel. During a previous project, we had located 15 of the 16 rock mounds associated with this fleet. We had also dove on five of the wrecks, including one that bore evidence of burning, which suggested the remains of the whale ship *Robin Hood*, of Mystic, Connecticut, the only vessel burned,

a fiery finger to the Confederacy, if you will, announcing the attempted closure of the Main Ship Channel. Therefore, we wanted to find the last shipwreck and to dive on the remaining 11 wrecks. When relocating one of the ballast mounds to prepare for visual investigations, we found that the extent of the site had apparently shrunk in size. Finding only a sliver of a rock mound, instead of a large-sized ballast mound as pictured in our original 2010 sonogram, we posited that perhaps the site had been partially covered in sediments. This seemed improbable; as the rest of the stone fleet rock mounds stand proud of the bottom anywhere from 8-10 feet in height. Diving the site did not reveal similar diagnostic features the other sites exhibited, i.e., copper-alloy fasteners or amount and height of the rocks. Unsure whether this ballast mound was related to the stone fleet or perhaps from another historic period forced us to drop the site total number down to 14 shipwrecks. Fortunately, as soon as we lost one, we found one that was detected during sonar operations at a nearby stone fleet wreck. This wreck was a stone fleet vessel that had a large amount of exposed worm-eaten wooden structure, along with some well-preserved wood here and there, on one end of the ballast mound (Figure 2). Our total once again returned to 15 shipwrecks. Conducting additional remote sensing at one of the other stone fleet wrecks, we encountered another shipwreck, but diving on this site determined it was not part of the stone fleet. The shipwreck had a limited quantity of small cobblestones, a portion of a windlass, and most likely was a small wooden sailing vessel dating to the 19th century. Further investigations may assist in pinpointing a more certain date, origin or potential name of the shipwreck.

Next, we turned our attention to locating the shipwrecks associated with the Second Stone Fleet sunk at the entrance to Maffitt's or Beach Channel. During our previous grant work, we had



Figure 1: Volunteer Bruce Orr helping University of Rhode Island graduate student Jessica Glickman Irwin suit up for a dive on a stone fleet shipwreck. (SCIAA photo by Joe Beatty)

discovered one shipwreck during our remote sensing operations, and had dove on two shipwrecks marked on modern nautical charts. In an earlier foray in late 2013 in support of our current grant, we had located an additional two shipwrecks, with one in close proximity to one of the charted wrecks. Initially, I had thought the three previously investigated wrecks were not related to the Second Stone Fleet, but perhaps were barges used to transport the stones used to construct the Charleston Harbor jetties and reported sunk during the hurricane of 1885. This assessment was based on the extremely large-sized rocks on these sites, including one site that has stones with quarrying marks similar to ones visible along the Fort Moultrie waterfront at Sullivan's Island.

The discovery of these two additional shipwrecks suggested that perhaps the aforementioned wrecks were indeed associated with the Second Stone Fleet. At this point, we had located five of the 13 shipwrecks sunk at the entrance of the channel. To find the remaining eight ballast mounds, we began additional remote sensing survey; filling in gaps between our original survey lines spaced 164 feet (50 meters) apart and headed further east and west. Despite squeezing in lanes and broadening our survey area, we succeeded in only finding one additional ballast mound. Diving on that ballast mound, we noted a large quantity of stone, which suggested affiliation with the stone fleet, and several right-angle iron knees lying about the rocks. We also detected a small mound of rocks, but circumstances prevented us from diving on the site until a later date to determine its relationship, if any, to the stone fleet.

One of the more intriguing wrecks of the Second Stone Fleet is the ship *Bogota*, 302 tons, purchased in New York City. Historical research in support of the grant has resulted in a great amount of information composed of whaling logs, newspaper articles, lawsuits, reminiscences, ship registries, and other documents for 44 of the 45 vessels of the two fleets. Historical information about the ship *Bogota*, however, had proved

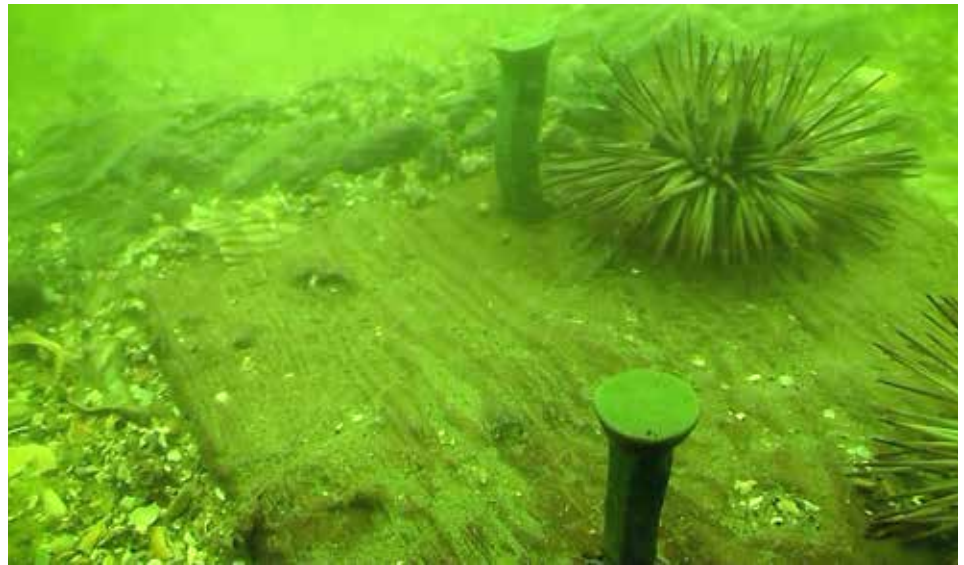


Figure 2: Two copper-alloy round-headed and square-shanked fasteners protruding four to five inches above a well preserved wooden structural element and guarded by sea urchin sentinels. (SCIAA photo)

elusive. Newspaper articles in New York City did mention a ship *Bogota* regularly plying between Cartagena, New Granada (now Colombia), and New York City from the late 1840s until disappearing from the papers in 1850. A ship *Bogota* does not resurface in the New York City papers and other documents until 1860. USS *Crusader*, Captain John N. Maffitt, captured this *Bogota*, purportedly hailing from New York City, off the coast of Cuba with a load of between 400-500 African slaves destined to the island's sugar cane fields. The freed Africans, temporarily housed in Key West, ultimately returned to Liberia in Africa through the efforts of the American Colonization Society. The slave ship was condemned by the US government and then purchased by a Key West businessman. *Bogota* then entered the coasting trade carrying cotton from New Orleans and sugar from Cuba to New York City. So the question became was the slaver and the stone ship *Bogota* one and the same?

In an 1860 ship registry, the reported tonnage or carrying capacity of the ship was 232 tons, quite a different tonnage than the 302 tons reported in the late 1861 newspaper article about purchasing the vessel for naval use. An advertisement in the newspapers in the fall of 1860 offered the fine bark *Bogota*, 100 feet in length, 25 feet in breadth, 12 ½ feet in depth,

coppered, and copper-fastened, and 301 tons. Again a conflicting tonnage between the slaver *Bogota*, although corresponding to the stone ship *Bogota*. Interestingly in the ship registry, the vessel was stated as having been built in Honfleur, France in 1852, along with another useful tidbit - the vessel was constructed with iron knees. Using the powers of the internet and Google translate, I succeeded in locating online French historical newspapers and other sources having information about a ship *Bogota* in France that operated as a packet ship plying between Havre, France and South American ports from 1852 to 1859. I also found testimony of a slave case brought by the French government against a Havre merchant charged with outfitting the ship *Bogota* as a slaver in late 1859. The document consisted of the lawyer of the defendant attempting to persuade the judge of his client's innocence, which provided interesting details of the ship's outfitting, voyage, and capture off Cuba. But, doubt still remained as to whether the slaver and the stone ship were the same vessels.

Results of the Google searches also located a couple of articles about the capture of *Bogota* and two other slavers off Cuba written by Corey Malcolm with the Mel Fisher Maritime Heritage Society in Key West. Reaching out to Corey, whom I had met a couple of times in the past,



Figure 3: Large rectangular rock covered in marine growth and patrolled by the finny tribe on Second Stone Fleet. (SCIAA photo)

for any information about the ship, he graciously provided me with *Bogota's* passenger manifest dated 1861 at the port of New York City. The manifest reported *Bogota* was 302 tons, along with the name of the captain that corresponded to previous voyages of the ship when mentioned as 232 tons. As an aside, I have found that the reported tonnages of the stone fleet vessels were apt to change, usually only slight differences, but sometimes by over 100 tons. Unfortunately, among the purchasing papers for the stone fleets located at the National Archives, there was no mention of when the *Bogota* was actually purchased, but the vessel was in the port of New York City while assembling the second contingent of stone vessels bound south. The combination of sources seems to have sealed the identity of the stone ship *Bogota*, as a French-built ship captured as a slaver off the coast of Cuba.

As for the iron knees mentioned above and a potential signature to identify the wreck as the remains of *Bogota*, we have now found two sites that have iron knees in the Second Stone Fleet search area. Having two sites with iron knees certainly casts uncertainties as to which ballast mound marks the final resting place of the ex-slaver. One of the ballast mounds

has the more traditional right-angle iron knees, while the other has staple-knees - think of a staple used to fasten papers together. This type of iron knee was more robust and instead of simply connecting a frame to an upper deck beam, this particular style of knee also joined the two aforementioned structural components to the lower deck/floor beam for additional strength. Perhaps the strength needed for a ship traversing the Atlantic Ocean between France and South America. In an ironic twist of fate, *Bogota* was sunk in Maffitt's Channel, named in honor of the Charleston coastal survey work in the

1850s by John N. Maffitt, the captain of the US Navy ship that captured the French slaver, and who incidentally later joined the Confederate cause.

During our diving inspections of the sites, one of the curious features was the extremely large size of some of the rocks on these ballast mounds. New England lore states that farmers robbed their fences and fields of stones and sold them to the government for 50 cents a pound. This seems to imply that the stones were movable and manageable by one to two people. While some of the smaller rocks may have been acquired in that manner, the larger ones, several feet in length, breadth, and depth, obviously required mechanical and industrial means to move them from their source to on-board the ships (Figure 3). Most of these large rocks were rectangular in shape, although a number were also rounded - picture extremely large cobblestones. These two types of rocks apparently came from boulder and surface ledge quarries. The rounded boulders were deposited on the New England landscape during the last glacial retreat, while the rectangular stones were most likely acquired from surface ledges, areas of exposed bedrock oftentimes on hillsides, although some may have also come from deep pit quarries. One of the Second Stone Fleet shipwrecks had a number of rectangular rocks bearing evidence of the plug and feather method used by stonemasons to

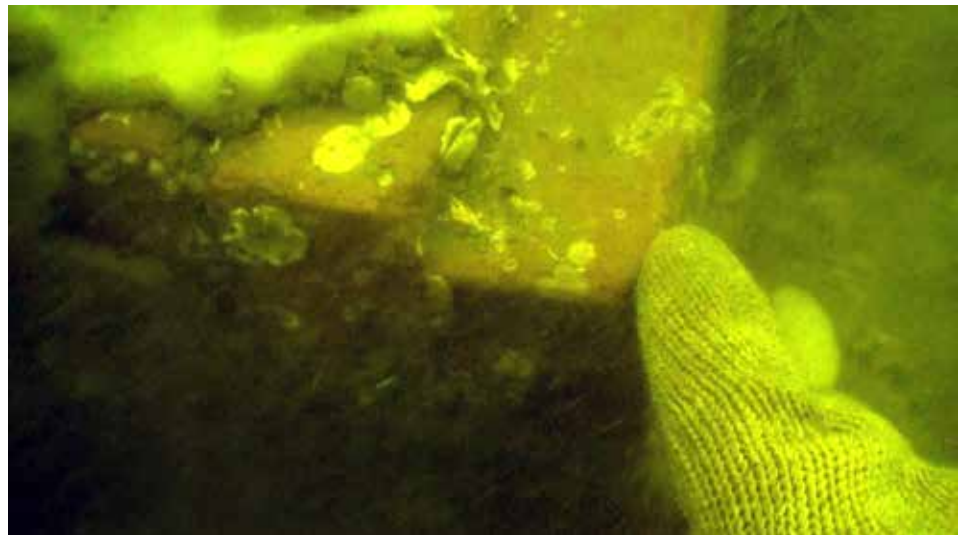


Figure 4: Debris presumably from demolished brick structure on ballast mound. (SCIAA photo)

split rocks to desirable sizes and shapes. Most of the stones at this time are believed to be granite. One of the First Stone Fleet shipwrecks, however, had about half its load composed of bricks, some loose, but others mortared together, suggesting the use of debris from a demolished structure (Figure 4). In some instances, there was a large amount of smaller traditional cobblestones on a site along with a quantity of larger stones. Some of the purchased merchant ships presumably had remaining ballast on-board from their previous voyage and may have required fewer stones to make the load. The whaling vessels on the other hand probably required a greater amount of purchased stones, as they typically used as ballast casks filled with water and as the voyage proceeded replaced that liquid with whale oil. In the case of the whaling bark *Messenger* of Salem, Massachusetts, this pre-conception may be tempered by the fact the whaler already had on-board 60 tons of ballast, and the agent purchased an additional 151 tons to ready the vessel for sinking.

Despite the limitations imposed upon us by Mother Nature, we persevered to document a number of the shipwrecks composing the First and Second Stone Fleets (Figure 5). We intend to continue our fieldwork next spring to detect and record the seven elusive ballast mounds composing the Second Stone Fleet, to pinpoint the last remaining First Stone

Fleet ballast mound, and to document more fully several of the sites. Look to future newsletter articles about this ongoing work to document these two obstructions on the Charleston Harbor Naval Battlefield. In the meantime, the reader may visit the website, *New B Under the Sea* (www.newbunderthesea.com), prepared by the New Bedford Whaling National Historical Park, that features our stone fleet work including two videos from our dives and other information, as well as information about other whaling-related shipwrecks. I would like to thank the staff of the MRD - Ashley Deming, Joe Beatty, and Nathan Fulmer, for their efforts on the project, and a number of volunteers that included Ted Churchill, Bruce Orr, and Rick Presnell. We also had on board several graduate students namely Jessica Glickman Irwin, from the University of Rhode Island, who worked with us for three weeks, along with Ryan Bradley and Philip Hartmeyer, from East Carolina University, who were with us for a week. I also want to thank Corey Malcolm of the Mel Fisher Maritime Heritage Society in Key West for his research assistance concerning the ship *Bogota*. A National Park Service Historic Preservation Fund grant administered by the South Carolina Department of Archives and History with matching funds from the University of South Carolina, Columbia, funds the work described in this article.

Ashley Deming Accepts New Opportunity

By James Spirek



Ashley Deming diving in the Combahee River recovering artifacts from a Yamassee Indian settlement site. (SCIAA photo)

Ashley Deming, coordinator of public education and outreach, and manager of the Charleston Field Office for the Maritime Research Division, announced her last day at SCIAA is the 31st December. Ashley has accepted the position of Director of Education and Administration at the Michigan Maritime Museum in South Haven, Michigan. She returns to her home state, and colder climes, to advance the appreciation and awareness of the maritime legacy of Michigan and the Great Lakes. During her five year tenure at the MRD and SCIAA, Ashley has reinvigorated our public education offerings with artifact identification workshops, underwater archaeology field training courses, and presentations, and our outreach efforts with diver socials, annual oyster roast, quarterly newsletter, and volunteer opportunities. The core mission of the Charleston Field Office is the management of the Hobby Diver License program and through her efforts has increased the partnership between the fossil and artifact collecting sport diving community and the MRD. By opening more lines of communication and partnerships between these two groups, Ashley leaves behind a significant increase in participation with the licensing program and a much better relationship between these two groups. Through these endeavors Ashley has helped to advance the MRD mission to study and preserve the maritime archaeological legacy in the rivers and coastal waters of South Carolina. As Ashley moves on to new challenges, we wish her the best in her future endeavors and have enjoyed working together these past five years. While the MRD loses a valuable member of the team, we do look forward to continuing the momentum that Ashley has created in our outreach and educational mission and welcoming aboard a new colleague to the division early next year.



Figure 5: Spirek inspecting copper-alloy fastener sticking out along the periphery of a ballast mound. (SCIAA photo)