7-1998

Flotsam and Jetsam - July 1998

South Carolina Institute of Archaeology and Anthropology--University of South Carolina

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The Fort Frederick Barrel Well

By James D. Spirek

During the Port Royal Sound Survey, a barrel well was recorded adjacent to Fort Frederick (38BU102/110) on the Beaufort River (See Legacy 2(3), Dec. 1997, p.23). The barrel well had been previously identified by Christopher Judge of the South Carolina Heritage Trust Program of the Department of Natural Resources and archaeologist James Legg, who in turn brought it to our attention. The barrel well was exposed along the river bank due to the erosive forces of water and waves.

During 1726, construction commenced to erect a permanent fort on Port Royal Island to protect the town of Beaufort and the surrounding area. Work on Fort Prince Frederick was especially slow and after five years of work the bastions were only partially completed. The work was finally completed in 1735, but the fort had fallen into disrepair by 1740 and was sporadically manned through the 1740s and 1750s. The walls, fabricated from a mixture of lime, shell, and sand, were 5 feet high and 5 feet thick at the top. During the Civil War, the fort was on the property of the Smith plantation, called Old Fort plantation. By this time, local legend suggested the fort was built by the Spanish. Union forces occupied the plantation and used the grounds and houses as an encampment, hospital, and schools for the recently freed slaves. Today, the ruins of the fort, with portions of its walls in the Beaufort River, are on the grounds of the Naval Hospital.

The barrel well is approximately 32 meters upriver of the north tabby wall of the fort. The well was constructed by digging down to the water table and then placing barrels atop one another to the desired level and then backfilling. The structure may be associated with the original use of the fort, the plantation period, or with the occupying Federal troops. The uppermost barrel is partially exposed and appears to be fairly complete, although slightly distorted into an oblong shape. The barrel is approximately 65 cm in diameter and is made up of 28 staves that are 16 mm thick. The croze grooves for the header piece(s) are visible along the upper part of the staves. A wooden post, 20 cm in diameter, runs through the center of the barrel. While visiting the site during low tide, waves, caused by passing boat wakes, were crashing into the barrel.

After initially assessing the site environment, we decided to stabilize the well to prevent, or at least slow, further erosion. On our next visit, we placed twenty sandbags and GeoFabric™ around and over the well with the help of sport diver George Pledger. This endeavor was meant simply to slow down the erosion process and to give us some time to plan a long-term solution. At each subsequent visit to the well, we have found the sandbags and fabric in disarray. We suspect that curious beachcombers may move the bags and fabric to look at what is being protected, or and the more likely reason, is that during the daily tidal fluctuation waves generated by passing boat wakes pound into and dislodge the...
protective berm. On my last visit, not only were the bags and fabric scattered, but the barrel staves were exposed about a foot above the ground, and now are more vulnerable to damage. Whatever the cause or causes for the berm’s disintegration, erosion caused by boat wakes and natural processes will continue at the site and planning is necessary to develop a solution to protecting the barrel from the elements.

There are several management options available to us, but the more feasible are, 1) stabilization, or 2) excavation and then stabilization. The first option is to try and stabilize the barrel well and forestall its eventual disintegration with a combination of sandbags, GeoFabric™, and GeoWeb™ to control erosion. The second plan is for the Underwater Archaeology Division to perform a rescue operation to save the exposed barrel. We would excavate the interior and exterior of the exposed barrel and then disassemble it stave by stave. Incidental artifacts will also be retrieved that may aid in identifying the operational date of the well. After removing the barrel and associated artifacts, these components will be brought back to the Institute’s conservation facilities. The staves, and other wooden objects, will be conserved using polyethyleneglycol (PEG) to preserve the wood. Other types of artifacts will be treated by appropriate methods. Following the excavation, and if another barrel is below the visible one, we would then place sediment controls at the site to try and forestall the erosion of the lower barrel.

A rescue operation will preserve the barrel and other artifacts before they slip into the Beaufort River. In order to conserve the wooden barrel staves, however, one piece of conservation equipment is required. A special circulating pump, to constantly move the PEG solution around the staves, needs to be acquired. The desired pump is a 4 HP Honda-Powered 2” Semi-Trash Pump or equivalent. The estimated cost of the pump is $430.00. If you would like to assist in this conservation project with a tax deductible contribution, please contact Jim Spirek at (803) 777-8170 or e-mail at SpirekJ@Garnet.cla.sc.edu. After the conservation treatment is completed the barrel will be either curated in Columbia, or returned to Beaufort for display.
H.L. Hunley Featured at Seabrook Island

By Christopher Amer

On June 6, 1998 the Seabrook Island Symposium Committee presented their 40th symposium entitled, “The Discovery and Recovery of the CSA H.L. Hunley.” Featured speakers included, Mr. Warren Lasch, Chairman of the South Carolina Hunley Commission’s fundraising organization “Friends of the Hunley,” myself, and Dr. John Brumgardt, Director of The Charleston Museum.

Senator Glenn McConnell, who was scheduled to address the gathering, was unable to attend due to pressing commitments.

Ms. Drucie Horton, Seabrook Island Symposium Committee member, kicked off the evening by discussing the Hunley’s significance.

Mr. Lasch presented a history of the development and operation of the Hunley and placed the submarine within an historical context of the Civil War and submarine development. Since I was co-principal investigator of the 1996 assessment project, I presented a slide-illustrated lecture detailing the results of that project, which was conducted by the Underwater Archaeology Division of SCIAA, the National Park Service’s Submerged Cultural Resource Unit, and the Naval Historical Center. Dr. Brumgardt addressed the future of the Hunley, which included possible scenarios for conserving the iron-hulled boat and unveiled plans for a Hunley wing to be added to the The Charleston Museum. Following the presentations, Seabrook resident Mr. John Horton moderated an audience discussion period, which included numerous questions from the audience, many of whom are retired professionals.

Earlier this Spring, the South Carolina Hunley Commission announced its decision that The Charleston Museum would conserve, curate, and display the ill-fated submarine. In response to this, Dr. John Brumgardt, Director of The Charleston Museum, Mr. Glenn Keyes, Architect, and Dr. Jonathan Leader traveled to Maryland in April to visit the new Jefferson Patterson Park and Museum Conservation Facility.

Dr. Robert Neyland, Naval Historical Center, met the group at the airport and ferried them to the laboratory. Ms. Betty Seifert, Chief Conservator, then spent several hours leading the tour and gave a detailed explanation of the facility’s planning and operation. The state-of-the-art facility is very interesting and incorporates design elements that may have a direct bearing on the Charleston Museum Facility to be designed.

SCIAA staff Mr. Jim Spirek, myself, Dr. Jonathan Leader, and Mr. Steve Smith continue to provide public lectures on the Hunley to organizations like the Sons of Confederate Veterans, citizen groups like the Civitans and Rotary, and at professional conferences.
During March and April many sport divers volunteered on the Cooper River Underwater Trail Project. Braving the chilly spring water temperatures (around 40 degrees!), enthusiastic teams helped to take underwater photographs, identify local wildlife, map and measure timbers on dock structures and shipwrecks, and attempt artistic renditions in low visibility conditions. Despite the challenging conditions, the divers always completed the task and even added a little extra detail if they had the time.

Many thanks to all those who were part of this project: Gunter and Peggy Weber, Anna and Grey Davis, Avery Currie, Drew Ruddy, George Pledger, Doug Boehme, Brian Johanek, Charlie Nelson, Joseph Lewis, Chantalle Brunson, Michael Bove, Jonathan Pennington, and Bill Barr. Thanks also to all the Field Training Course students from Virginia-Wayne Lee, Donald Tuten, Dave Gararo, Thomas Coleman, and Elizabeth Lamons. We are most appreciative of all those who came to the taskforce meetings in Charleston and made useful suggestions about the trail implementation—especially the representatives from local dive stores like East Coast Dive Connection, The Wet Shop, and Charleston Scuba. Useful input also came from historic preservation and heritage tourism aficionados representing the Historic Charleston Foundation and the South Carolina Heritage Corridor in the low country.

SCIAA Underwater Division Staff members are currently designing the underwater slates for the trail and planning the logistics for placing mooring blocks and trail marker buoys on each of the sites. The trail is scheduled to be officially open by October. Slates with site maps, and historical and environmental information will be distributed through local dive stores. Pamphlets will be placed in visitor centers and dive clubs. The three-mile long trail includes a diverse selection of underwater sites such as: a Revolutionary War shipwreck, a colonial ferry landing, an 18th-century barge, an ocean-going sailing vessel, and a plantation wharf and shipwreck. We hope that the trail will enhance the safety, accessibility, and public education potential of underwater sites in the state.

This project was funded in part through a grant from the National Recreation Trails Grant Program in cooperation with the South Carolina Department of Parks, Recreation, and Tourism and the Federal Highway Administration of the US Department of Transportation.
SCIAA RECEIVES STATE-OF-THE-ART MARINE REMOTE SENSING EQUIPMENT
By Christopher Amer

During the 1997 legislative session, the South Carolina General Assembly appropriated $109,000 for the Underwater Archaeology Division to purchase an integrated marine remote sensing package. The purpose of the equipment is to allow the Division to continue monitoring the Confederate submarine, H.L. Hunley, sunk off Charleston Harbor, and to implement underwater archaeological surveys in state waterways. The package, called ADAP III, is a combination of diverse electronic components arranged into a state-of-the-art integrated marine remote sensing array. The ensemble consists of a cesium magnetometer (to detect ferrous metals, i.e., steel and iron) a high resolution, digital side scan sonar (to acoustically picture the bottom), digital fathometer, and a Differentially-corrected Global Positioning System (DGPS). Three on-board computers are used in the set-up to gather the diverse data, along with a helmsman digital guide to maintain straight transects over a targeted area. The collected data will then aid in guiding future underwater archaeological investigations at the H.L. Hunley and other submerged cultural sites in state waterways. The package, custom designed at Sandia Research Facility in Albuquerque, New Mexico, is the first of its kind to be produced. A second unit, assembled for the Mexico Subdireccion del Archeologia Subacuatica, Instituto National Anthropologia e Historic, was delivered to Mexico City this month.

SCIAA'S NEW MARITIME WEB PAGE
By Lynn Harris

(http://www.cla.sc.edu/sciaa/staff/amerc/index.html). The SCIAA home page has a new component—a maritime web page. The hobby diver licensing system, sport diver education program, underwater sites and projects, and a variety of topics related to South Carolina's maritime history are covered in this richly-illustrated page. These topics include information about the history of shipbuilding and different vessel types like canoes, sailing vessels, and barges.

The web page is designed to be part of the Underwater Archaeology Division's education program for sport divers. Lists of references after each theme provides references for further reading making it a potentially valuable research tool for university students and other maritime specialists. Illustrations and descriptions of underwater work in South Carolina give the non-diving public a brief glimpse into the regional realm of aquatic antiquity.

Production of the page is funded in part through a grant from the South Carolina Humanities Council.