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12-2000

## Legacy - December 2000

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

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# Legacy

South Carolina Institute of Archaeology and Anthropology

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## *H. L. Hunley* Completes the Journey Home

By Christopher F. Amer

At 8:40 AM on August 8, 2000, history was made when the submarine *H. L. Hunley* rose out of the waters off Charleston Harbor and was placed on a barge in preparation for completing its final journey home. It had been 136 years since the boat had last seen the light of day.

For all those years the *Hunley* had lain beneath the sediments of the sea floor waiting for someone to discover it. That day arrived in early May 1995, when a team of divers from the National Underwater Marine Agency (NUMA), working in cooperation

with the South Carolina Institute of Archaeology and Anthropology, got their first glimpse of the forward hatch and snorkel box of the silent submarine. What happened after that is no less a dramatic story than that of the submarine's original exploits.

It was to take almost a year and a half to sort out the ownership/custodianship issue and over half a decade before the sub would break the surface. Many of our readers are familiar with the early history of the

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The graceful bow of the *Hunley*. Note the incurved line of the bow, reminiscent of the bows of dreadnought battleships. (SCIAA photo by Christopher Amer)

# Vista

By Bruce Rippeteau, Director

**Legacy, published twice this year, is the newsletter of the SC Institute of Archaeology and Anthropology, University of South Carolina**  
**Bruce Rippeteau, Director**  
**Nena Powell Rice, Editor**

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It has been a grand last several months at USC's SCIAA. SCIAA's Underwater Archaeology Division strongly assisted in the joint State of South Carolina, Friends of the *Hunley*, National Park Service, and Naval Historic Center raising of the Confederate submarine *H. L. Hunley* on August 8, 2000. The *Hunley*, which directly presaged the modern naval balance of power, was lost outside Charleston Harbor the night of February 17, 1864, after its successful sinking of the blockade ship USS *Housatonic*. Undiscovered until 1995 when author Clive Cussler, in cooperation with SCIAA, funded a successful search, the *Hunley* was the first submarine to sink a ship as an act of war. Then Deputy State Archaeologist Christopher Amer and his staff, with the help of other divisions of the Institute, dived repeatedly with colleagues from the Navy to affix lift cables and structure. The *Hunley* was barged to the splendid new Warren Lasch Conservation Center at the old Naval Yard, to great media, citizen acclaim, and

coverage.

The Allendale Paleoindian Expedition, under the direction of Albert Goodyear, had its field season in southwestern South Carolina at the Topper site in May and June, 2000. In addition to recent coverage by *Newsweek* and *US News and World Report*, Albert is covered in the September, 2000 issue of *Scientific American* and in the December, 2000 issue of *National Geographic*. Scientifically, Al and his team have recovered evidence for ice age humans in North America at a much earlier date than textbooks allow. His team consists of many enthusiastic volunteers and several distinguished geologists who specialize in early man sites.

The SCIAA was again the lead agency for the Ninth Annual South Carolina Archaeology Month. Coordinator Nena Rice, SCIAA's Director of Outreach, and her committees prepared a poster focusing on ancient gardening in South Carolina, a booklet of over 100 events offered throughout South Carolina, and helped plan the month's culmination at the 13th Annual Archaeology Festival, with the Archaeological Society of South Carolina and the SC Department of Parks, Recreation, and Tourism, held at Sesquicentennial State Park in Columbia on October 6-7, 2000. Also on September 8, 2000, Governor Hodges signed a Proclamation for Archaeology Month 2000.

In April, 2000, I was appointed to the Governor's Task Force on Historic Preservation and Heritage Tourism, joining four other agency heads and 15 citizens. Recommendations were presented to Governor Hodges in October and legislation will be introduced in the general



Bruce Rippeteau, Director and State Archaeologist. (SCIAA photo by Daryl P. Miller)

assembly in 2001.

We have a new State Archaeologist and a new State Underwater Archaeologist. After two years of effort and with the help of Senator John R. Russell, Senator Joe Wilson, and Representative Jimmy C. Bales, SCIAA's Enabling Act of 1963, was amended into law on May 30, 2000 by Governor Hodges. This amendment provided for our requested separation of the role of State Archaeologist from the Director (heretofore joint for 27 years), and created a new position of State Underwater Archaeologist. Jonathan M. Leader, formerly Deputy State Archaeologist, was advanced to be the fourth State Archaeologist of South Carolina, and Christopher F. Amer was advanced to the first ever State Underwater Archaeologist.

After a hiatus of 31 years, SCIAA's Stanley South returned to the famous Charles Towne Landing State Historic Site near Charleston with funding from the SC Department of Parks, Recreation, and Tourism.

Stanley is considered by many a principal founder of American



Hernan Arrango, underwater specialist and filmmaker from Cali, Colombia visited Bruce Rippeteau and Christopher Amer to discuss mutual areas of interest. (SCIAA photo)

Historical Archaeology.

SCIAA's Archaeological Research Trust (ART) has met regularly to raise funds to advance the Institute's research and education. Recent gifts have brought the endowment now to \$235,901.29. Other endowment and projects have raised an additional \$200,000. ART also recently awarded \$7,380 to three



Elliot Marshall (center), an editor for *Science* magazine, visited Bruce Rippeteau and Albert Goodyear in preparation for an article on the Topper site. (SCIAA photo)



Governor Hodges proclaimed September, 2000 as South Carolina Archaeology Month. From left to right: Chris Gillam (ASSC), David Jones (State Parks), Wayne Roberts (President ASSC), Nena Rice (Archaeology Month Coordinator), Van Stickle (State Parks), Rodger Stroup (State Historic Preservation Officer), Bruce Rippeteau (Director, SCIAA), Dan Turpin (State Parks), Jonathan Leader (State Archaeologist), and Antony C. Harper (Archaeological Research Trust Board Member). (Photo by State House photographer)

SCIAA researchers, and is cooperating with staff from the USC Educational Foundation to remain a success story in the University of South Carolina's successful \$300 million fund drive.

After a year of study, Jonathan Leader's Office of State Archaeologist is now

digitizing all past SCIAA publications (some 30,000 pages), and has continued our SCIAA-USC interaction with both the Governor's Schools of Science and Math and of Arts and Humanities. Cooperatively with SC Department of Archives and History and the Council of South Carolina Professional Archaeologists, the Institute publicized the first statewide Standard and Guidelines for Archaeological Investigations.

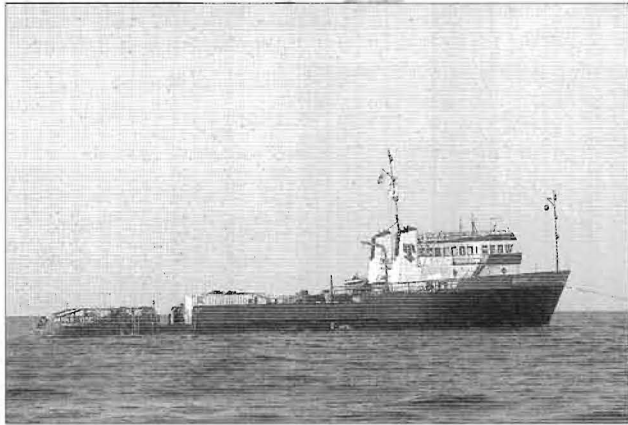
African American archaeology has been advanced with cooperative efforts of SCIAA's Cultural Resource Consulting Division and the National Council of Negro Women. The homesite of Dr. Mary McLeod Bethune is being restored, and Christopher Clement's survey was key.

The Savannah River Archaeological Research Program, long a stalwart role in American Archaeology, has had the US Department of Energy, even in these financially hard times, not only hold level but seriously increase funding levels this year for research and outreach.



## HUNLEY, From Page 1

submarine, its discovery, and the events leading up to the decision to recover the boat. It is to this latter subject and the completion of the journey home that I will devote this article. For those readers who would like to bone up on the history of the *Hunley* and the history of the project since 1995, here are some places to go for information: <http://www.cla.sc.edu/sciaa/hunley1.html>; <http://www.hunley.org>; and *Hunley* updates in past issues of *Legacy*, Vol. 1, Nos. 1 and 2; Vol. 2, Nos. 1, 2 and 3; Vol. 3, No. 2; Vol. 4, Nos. 1-3; and Vol. 5, No. 1.



The 180-foot rig tender, *Marks Tide*, used for the first phase of the *Hunley* Recovery Project. (SCIAA photo by Christopher Amer)

## Why Bring The *Hunley* Up

By early 1999, it was apparent to everyone involved in the *Hunley* Project that the submarine would have to be recovered. Issues loomed large in the face of the South Carolina *Hunley* Commission. Foremost among these issues was the protection of the *Hunley*, which by an agreement signed by the State and Federal governments in 1996, belonged to the Federal government but would remain in the care of the State in perpetuity. Rumors of a bounty placed on any part of the *Hunley* that could be recovered were rampant, and the round-the-clock surveillance by the Navy and Coast

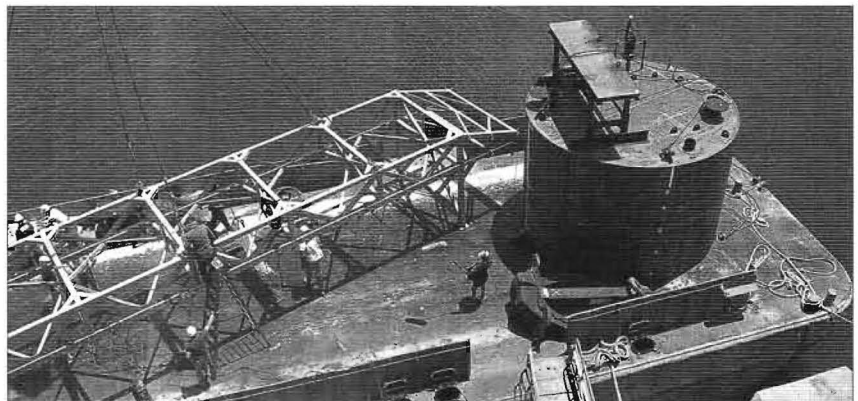
Guard was eating up the budget.

Then there was the conservation issue. While the *Hunley* was entombed in its protective mantle of sediments, it remained in a relative state of equilibrium, with its environment isolated from the deleterious effects of seawater and oxygen. However, after the 1996 assessment, which exposed approximately one-third of the hull, those effects could once again nibble away at the boat's fabric.

Then there was the pressure from the political arena, as well as demands from the public, to protect the

boat and provide the world with a view of this artifact that had come to represent to many the spirit of the Confederacy—the underdog in the conflict sometimes referred to as “The Unnecessary War.” And recovery would

provide the brave crew, who perished in the *Hunley*'s final voyage, with an appropriate burial along side the *Hunley*'s two other fallen crews. To add to the tension, all this was happening at a time when South Carolinians were hotly debating the



Oceanengineering team members are dwarfed by the recovery truss and one of the 40-ton suction piles aboard the materials barge. (SCIAA photo by Christopher Amer)



SCIAA staffer Joe Beatty checks dive helmet fittings for Christopher Amer prior to a dive. (SCIAA photo by James Spirek)

disposition of the Confederate Battle Flag, then flying atop the State House dome.

Lastly, though by no means least, was the scientific reason. The *Hunley* can be considered the great-grandfather of the modern-day leviathans that silently slip beneath the oceans of the world. The feat of a submarine sinking an enemy ship was not to be repeated for over half a century, when German U-Boats sank Allied ships during the First World War. It was readily apparent to those of us in the 1996 assessment that the *Hunley* was much more sophisticated than had been previously imagined. Far from being a product of desperation,

slapped together from a boiler and spare parts, the exterior of this submarine was sleek and suggested a sophistication of design and implementation born of experience and testing. After all, James McClintock, Baxter Watson, Horace Hunley and the members of the Singer Submarine Corps (aka. the Confederate Secret Service) had already built and tested two other designs before embarking on the *Hunley*. If the exterior surprised us in that way, surely the interior must hold far more surprises that had the potential to rewrite, or at least add a substantial chapter to, the history of submarine development.



*Hunley* Recovery Project Director Bob Neyland working on the forward hatch, while the 13-ton recovery truss looms overhead. (Photo courtesy of Friends of the *Hunley*)

### Who, How, When, How Much

With all that in mind, the questions became obvious to the Commission: Who would raise the sub? How would it be raised, conserved, and exhibited? When would all this happen? And the



The *Hunley* sees daylight for the first time in 136 years. (SCIAA photo by Christopher Amer)

ultimate question, how much would all this cost? Since as early as 1995, SCIAA had addressed the issue of cost when the *Hunley* Project Working group released its management plan for dealing with the site. At the request of the *Hunley* Commission, the group estimated between 12 and 20 million dollars for the recovery and conservation effort, a number that has stood the test of time. For the next half decade, the Commission would focus its attention on putting a team together to recover the boat, raising funds, and securing a place for the submarine to reside in perpetuity.

With an approximate dollar value in mind, the *Hunley* Commission formed the Friends of the *Hunley* to provide fundraising and management oversight for the project. In the Fall of 1999, the Friends sponsored the *Hunley* Symposium. The purpose

of this three-day-meeting was to gather together many of the world's top marine metals conservators and experts who had dealt with large metal objects, especially submarines, and come up with a consensus of how to raise and preserve the *Hunley*. Dr. Robert Neyland, *Hunley* Project

Manager, opened the meeting by saying that, "*Hunley* is the most difficult composite iron artifact ever undertaken, and it is by far the largest and most complex object ever recovered." The work that had been undertaken to date and the planning that emanated from the symposium

working sessions, led Michael McCarthy from the Western Australian Maritime Museum's Department



Jim Spirek sorting artifacts at one of the screens used to separate historical objects from bottom sediments. (SCIAA photo by Christopher Amer)

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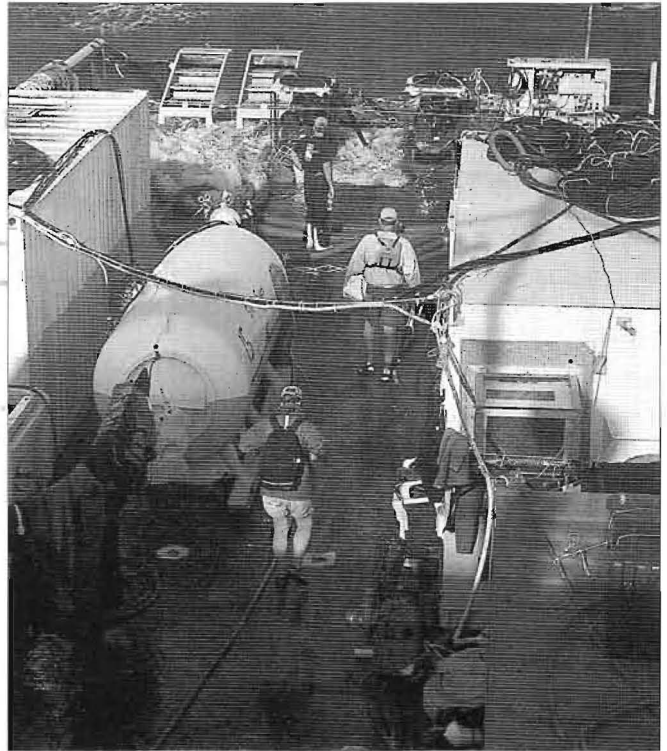
## HUNLEY, From Page 5

of Maritime Archaeology to state, "Hunley is raising the bar for underwater archaeology and conservation. Not only is she viewed as a significant object of history, but also a significant research and science project; this is perhaps the most exciting find of the century." From this meeting-of-the-minds, came the plan that to recover the *Hunley* was to be implemented the following year.

While securing a building that would be transformed into a state-of-the-art conservation facility for the submarine, the *Hunley* Commission and Friends of the *Hunley* set about selecting the players who would actually do the work. Dr. Robert Neyland had been brought in to head up the recovery project. Oceaneering International, Inc. was selected to draft the recovery plan and drive the recovery operation. Archaeology would be conducted by archaeologists from the Naval Historical

Center, National Park Service's Submerged Cultural Resource Unit, the Underwater Archaeology Division of SCIAA, and a number of contract archaeologists. This international team would work beside the Oceaneering team to recover not only the submarine, but also the information contained at the

site, and ensure that the operation was a success. Unlike most other underwater archaeology projects, the recovery of the *Hunley* would be conducted as a commercial operation. To do that the archaeologists had to be trained in commercial diving protocols and in the use of commercial diving equipment. Through April 2000, Division staff spent many long hours



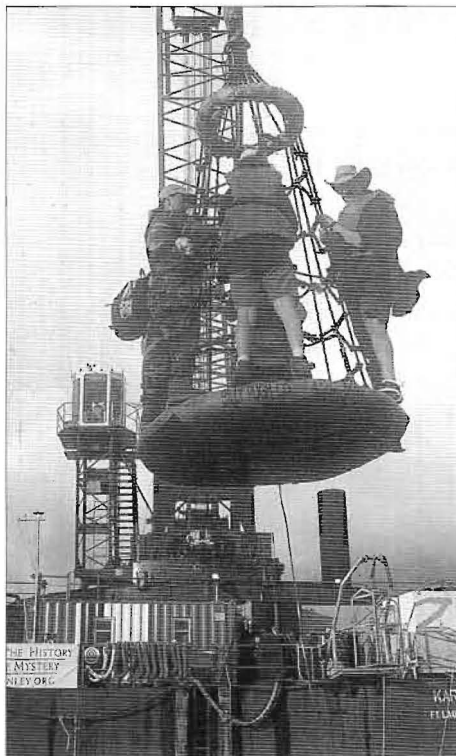
Aft deck of the *Marks Tide* filled with project equipment, including the air compressor (the diver's source of air) (left), recompression chamber (middle), and communications station (right). (SCIAA photo by Christopher Amer)

with the recovery team training in the use of the Superlyte 17 diving helmets in the low visibility water off Charleston.

On the afternoon of May 12, 2000, Senator Glenn McConnell announced at a press conference that the *Hunley* Recovery Project had begun. Now started a

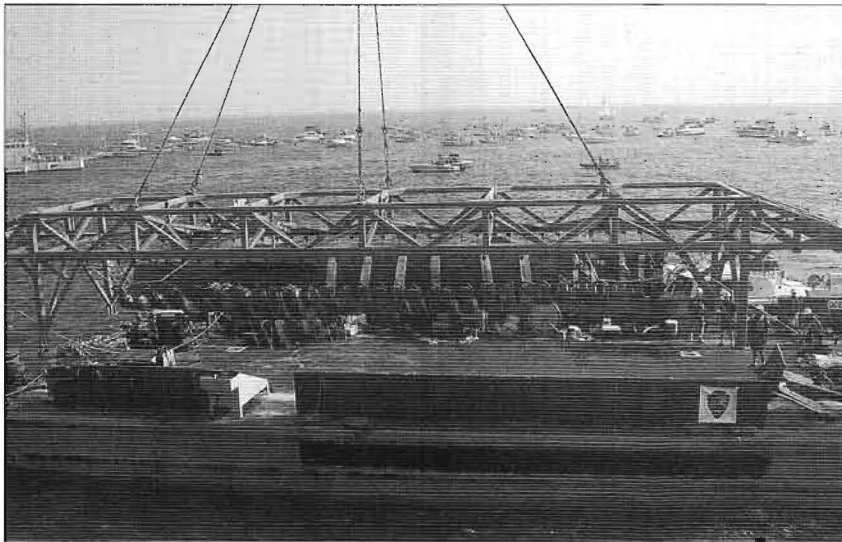
battle against time to get the submarine up before hurricane season and the inevitable bad weather that would descend on the South Carolina coast. The project was divided into two phases. During the first phase, the team would work to expose the hull, which lay from three to eight feet below the sediments of the seafloor. Diving from a 180-ft oil rig tender, the team worked 12-hour days, each team member logging up to four-and-one-half-hours per dive, digging a trench around the sub 100 ft long and 40 ft wide and five ft deep to prepare the boat to receive the lifting equipment.

By the end of June, the site was ready for the suction piles and lifting truss to be installed. The plan was to sink suction piles into the sea floor approximately four feet forward and astern of the hull's extremities. These piles, each weighing 40 tons, would become a stable base for positioning the lifting truss over the submarine.



Crew members are transferred between two barges on a Billy Pugh, a rope cone attached to the 300-ton lift crane aboard the jack-up barge, *Karlissa B.* (SCIAA photo by Christopher Amer)



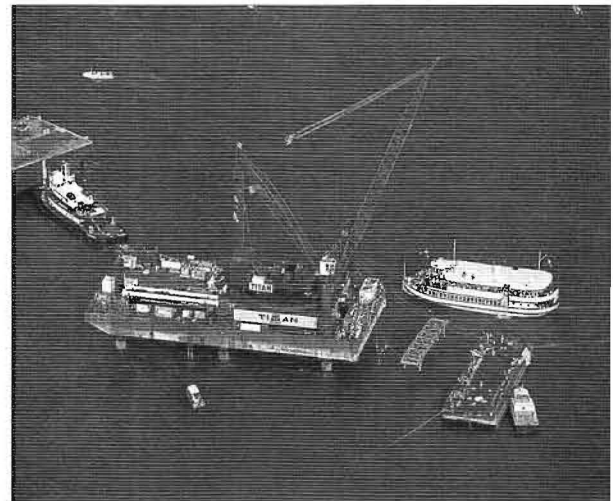


Edisto resident and *Karlissa B.* crane operator, Jenkins Montgomery, gingerly places the *Hunley* and its protective truss on the deck of the transport barge. (SCIAA photo by Christopher Amer)

The hull would then be slung beneath the 13-ton truss and the sub and truss lifted as a unit. Positioning these heavy materials would require the utmost precision and full cooperation from the weather, as they would be deployed from a floating barge crane. Unfortunately, the weather was not totally understanding in this matter. While the summer winds occasionally abated, the rough waters and ground swells, characteristic of this stretch of water, did not.

Plan B necessitated using a stable platform to complete the second phase of the project, the recovery. After much searching, red tape, and

paperwork, this platform was secured. In late July, the 600-ton jack-up crane barge, *Karlissa B.*, slowly made its way through Charleston Harbor to Pier Mike at the old Naval Base. The *B.* had been under tow for almost two weeks on its trip from the Dominican Republic to South Carolina. When it arrived, more than



At approximately 8:40 AM, August 8, 2000, the *Karlissa B.*'s crane lifted the *Hunley* from its watery grave. The *B.* is dwarfed by a gigantic hopper barge, loaned to the project to act as a breakwater during the lift. (Photo Courtesy of Friends of the *Hunley*)



The *Hunley* is escorted into Charleston Harbor by a veritable flotilla of onlookers. (Photo Courtesy of Friends of the *Hunley*)

a few of us were scratching our heads, wondering what we were in for.

Working off the *Karlissa B.* turned out to be quite an experience, one that most of us will not soon forget. For the final

phase of the operation, we went to a 24-hour work schedule with 12-hour shifts (Joe Beatty and I won the draw for the not-so-coveted night shift, while Jim Spirek worked the day). The "vampire shift," as the 7:00 PM to 7:00 AM shift came to be affectionately known, turned out to be fairly decent. We experienced very few visitors, press, or VIPs to slow down the work and the lights, both underwater and topside, lent a Disneyland-like air to the work. For each dive, from two to four divers descended into the murky water in a cage on a motorized hoist—two archaeologists and two Oceaneering divers. Visibility on the bottom at 30

to 40 ft varied from zero to two or three ft, and very rarely exceeded that. Consequently, it usually made little difference what time of the day one dived, except that when the visibility improved, there was more sea life visible at night, as the nocturnal creatures came out to feed and frolic around one's face plate, drawn to it by the helmet lights.

The *Karlissa B.* was stationed some 75-ft to port of the *Hunley*, while a materials barge was moored

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## HUNLEY, From Page 7

off the boat's starboard side. The materials barge carried the suction piles and truss, as well as the excavation equipment and spare anchors. It would also become the transport vessel for the submarine on its voyage through Charleston Harbor. Personnel transportation to-and-from the two barges was facilitated by a Billy Pugh or by boat, although many of us preferred the aerial ride because of the spectacular views each ride afforded us (some people pay money for such rides).

Working around the clock, the *Hunley* Recovery Team carefully, and with rocket-science-accuracy (well, almost), placed the suction piles and installed the truss over the hull of the *Hunley*. The divers used water jets to



The *Hunley*'s forward hatch with the one-quarter-inch iron cutwater (right) forward of the hatch. Note the conservation packing material plugging the five-inch hole in the forward face of the hatch coaming. (SCIAA photo by Christopher Amer)

carve tunnels beneath the hull so that the nylon lifting straps could be installed. By the end of the first week of August, all 32 slings were in place and taking the full weight of the submarine. A computer on the surface monitored the strain on each sling via load cells installed on the truss. Everything was checked and rechecked, then checked again. In each person's mind was the knowledge that we were about to lift a

prototype. There would be no second chance if things went wrong.

August 8th dawned with sunny skies and a slight breeze that kicked up small waves atop the perennial ground swell. Onboard the *Karlissa B.*

preparations for the lift had been in full swing since before dawn. A



A tired *Hunley* Recovery Team watches as the barge carrying both them and the *Hunley* approaches the Cooper River Bridge. (SCIAA photo by Christopher Amer)

National Geographic Society team was busily fitting cameras onto the three-ton lifting block of the crane to capture images of the sub rising out of the water, while the rest of the recovery team finished their chores and secured positions from which to view the *Hunley*

making its appearance. By 8:00 AM, one of the hopper barges used for collecting and disposing of channel and harbor sediments had been placed up-wind to act as a breakwater. These barges are the largest of their type in the world. This one dwarfed the *B.*, which itself stood 30 feet above the waves.

At 8:40 AM, the cable on the 300-ton crane became taught and slowly the *Hunley* made its way into

daylight. With kid gloves, crane operator Jenkins Montgomery gingerly placed the 23-ton load on the deck of the heavy materials barge, and the load was readied for its three-hour trip to the Warren Lasch Conservation Center at the old Charleston Naval Base. Today, looking at the news footage of the voyage, it is truly amazing—500+ boats accompanying the barge, reenactors on shore firing 21-gun salutes, crowds along every inch of waterfront from Fort Moultrie to the bridges. From the vantage point of



The *Hunley*'s three-foot-diameter iron propeller. The propeller shroud is missing on the port side. (SCIAA photo by Christopher Amer)





The 45,000-square foot Warren Lasch Conservation Laboratory. (SCIAA photo by Christopher Amer)

riding in on the barge, it was magical. Despite being at the epicenter of the festivities, it was the first time that those of us who had worked for so many years on the submarine had actually seen the entire boat. Those of us lucky enough to have been on dives sporting good visibility could remember seeing both hatches from the same vantage point, but never the entire hull.

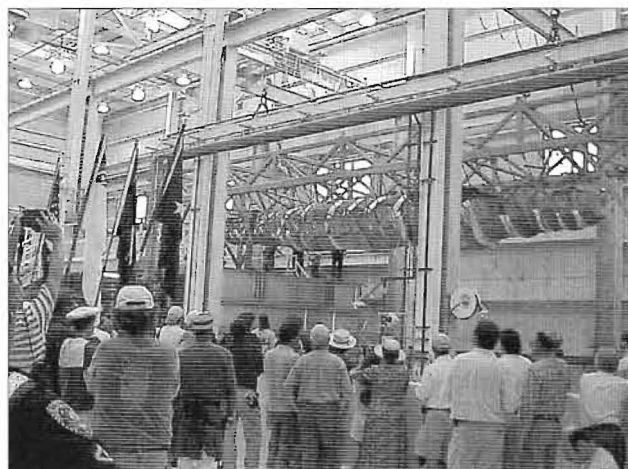
Much of the early part of the barge ride was spent checking the

having take-out-pizza delivered to us mid-harbor by the harbor police.

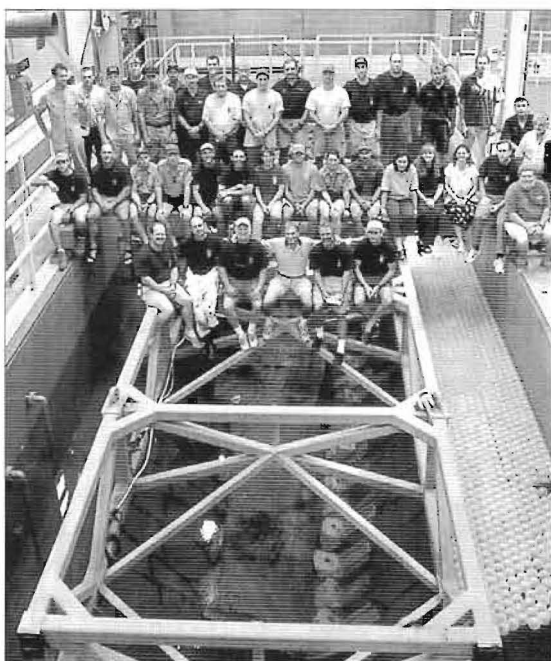
Too soon for many of us, we arrived at Pier Juliet. One last leg in the journey home had yet to be completed. Slung beneath a huge mobile

sprinkler system that kept the hull wet and studying the details that had eluded us for so many years. However, the sheer magnitude of the boat escort and spectators soon drew our attention from the *Hunley*. Perhaps one of the more interesting points of the trip was

The hull will go through a lengthy conservation process (up to 10 years), while the salts are removed from the cast and wrought-iron components and the hull is made stable for curation. Then, and only then, will the historic submarine be put on display in a yet-to-be-built wing of The Charleston Museum. The proposed exhibition will focus on the *Hunley*, its foe, USS *Housatonic*, and submersible development during the Civil War. The *Hunley* will be the centerpiece, but the exhibition will also include artifacts from inside the submarine and the *Housatonic* to tell



The *Hunley* is lowered into the conservation tank by two 20-ton hoists. (SCIAA photo by Christopher Amer)



The 2000 *Hunley* Recovery Team on the conservation tank. (Photo Courtesy of Friends of the *Hunley*)

crane, the 137-year-old submarine made its way along the last one-quarter mile to the Warren Lasch Conservation Center. There it would enter its final phase of the work. Its protective mantle of concreted sediments that had helped to preserve its fabric for so long will be removed so the archaeologists can gain entry to the hull and explore its secrets.

the story, as well as a scale replica of James McClintock's first submarine, *Pioneer*. The replica was built by interns at the Bosch Company, in Charleston, and was donated to The Charleston Museum last year.

Probably one of the more significant and fitting aspects of the project will be the burial of the *Hunley*'s last crew. The remains of Lieutenant George Dixon and his crew will be exhumed from their iron coffin this spring and laid to rest beside their fallen comrades—the crews from the first two sinkings—at Magnolia Cemetery. At that point their mission will be finally ended.

# Underwater Archaeology

## Mepkin Wreck Project Continues: Is Vessel Henry Laurens' Plantation Boat Baker?

By Lynn Harris

SCIAA work on the *Mepkin* wreck, located near Mepkin Abbey on the west branch of the Cooper River Underwater Heritage Trail, continued in Fall 2000 with the aid of a grant from the Archaeological Research Trust (ART) Board. Lou Edens, Board Member and owner of Rice Hope Plantation, very generously offered our underwater team accommodations at this beautiful historic B & B, conveniently situated on the bank of the Cooper River.

Historical research, detailed site mapping, and the reconstruction and redeposition of the rudder on the site were the primary objectives for this year.

With the donation of threaded fiberglass rods from Strongwell Corporation in Bristol, Virginia, the separate rudder components

recovered in the 1980s have been successfully united and can be viewed on site when the trail reopens in the spring of 2001. We were also fortunate to have the assistance of our former intern and current graduate student, Sue Vezeau, who joined us from Texas A & M Nautical

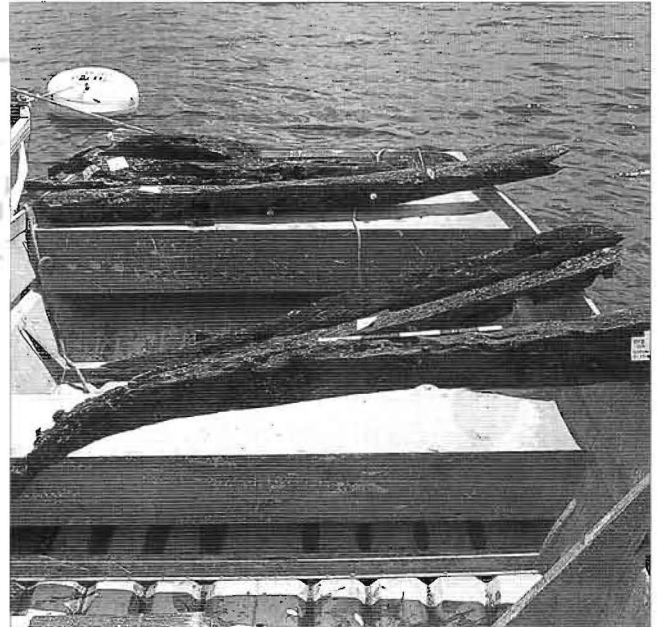
Archaeology Program, along with her goniometer to take hull lines as a reconstruction project for a term paper. We look forward to the results.

The possible association of the wreck with Henry Laurens, a successful merchant, planter, Revolutionary War leader, and President of the Continental Congress, makes this wreck one of the few riverine hulks to which

we might be able to attach some sort of locational history. Fortunately for us, Laurens was a prolific correspondent, writing not only about political issues, but also about the day-to-day activities involved in running a plantation. These activities included boat operations.

On December 7, 1773, while Henry Laurens was in England, he received a letter from his brother James, informing him about the condition of his Mepkin plantation boat, the *Baker*. James explained that the vessel had recently been taken to a carpenter for repairs and "it now appears that her bottom is so bad, that it remains a doubt that she will swim with a Load of Wood."

Despite the liability of the worm-eaten *Baker*, the boat continued to be used for a variety of plantation tasks with the crew "taking care not to



Loose timbers brought to the surface for recording are lined up on seats of SCIAA's john boat. These and all timbers recovered from the *Mepkin* wreck were subsequently returned to the wreck. (SCIAA photo by Lynn Harris)



Lou Edens, left, covers up from the sun as she talks to Jim Spirek and Doug Boehme during a break in the diving. (SCIAA photo by Christopher Amer)

Load (the cargo) too deep," in case she sank. Evidently the boat was used for at least another six months, when on July 19, 1774, the carpenters advised James that the vessel was unfit for service, and it would be as "expensive to repair her as to build a New Vessel of Equal Burthern." In subsequent years, a nameless plantation boat is mentioned in the Laurens' records as servicing Mepkin, and there is no longer any mention of the *Baker*.

Did they continue to use the *Baker* in her unfit state until she finally plummeted into the murky depths of the Cooper River still carrying the cargo of wood we see jammed onto the starboard side of the wreck today? Or was she replaced by a similar boat that came to its demise many years later?

Artifacts found in proximity to the wreck, like stoneware jugs, date to the 1700s and 1800s. Like most waterfront areas adjacent to historic plantations, artifacts may represent the refuse or losses of many years of habitation on the Mepkin tract

rather than a cargo that provides archaeologists with a neatly packaged date range.

Riverine shipwrecks, like log piles, also become roadblocks in a riverbend trapping both modern and historic trash. Neither do most wooden wrecks found in the tidal areas of rivers have any decking or superstructure left that would hold cargo items firmly in place. In this

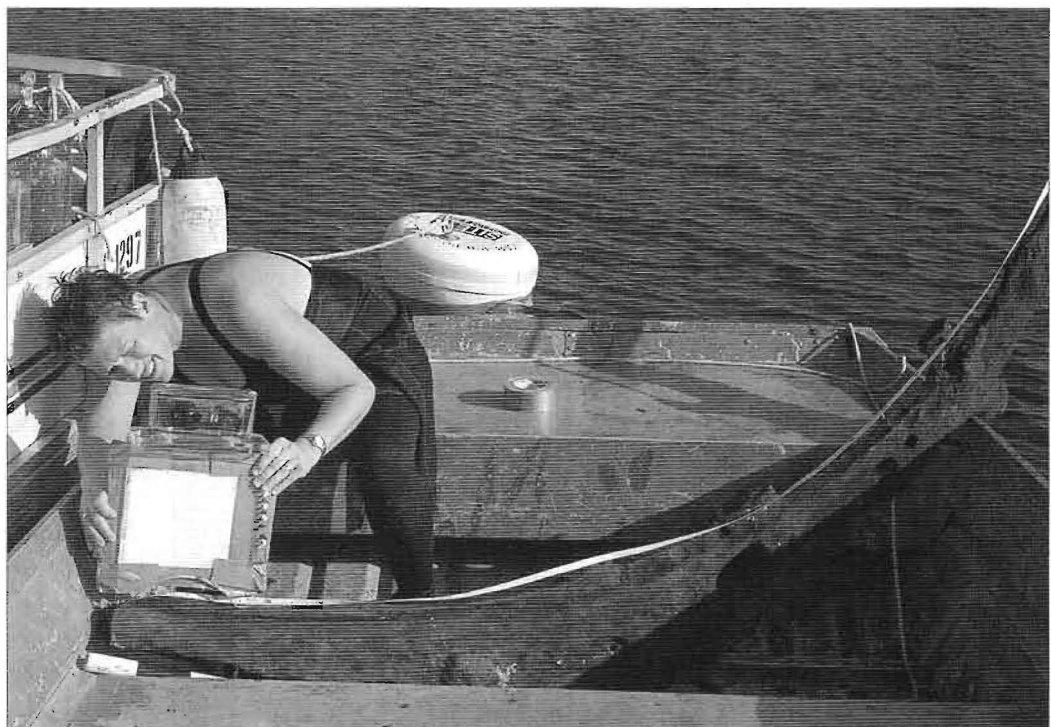
instance, the construction of the boat might yield more definitive clues about the identity and context.

We know that the vessel was southern built. The frames, apron, stem, maststep, and sternpost are oak. The keelson and outer hull planks are southern pine and the treenails are bald cypress. Although the shipbuilding lumber was likely to have been obtained locally, Laurens notes that vessels built in South Carolina have all their materials for rigging and sails imported.

In 1763, Timothy Creamer, Laurens' overseer purchased the

boatman, but also a rebellious troublemaker and an obvious risk. In 1777, surprisingly, Scaramouch was placed in charge of one of the coastal vessels. In this year, Tom Peas became a plantation patroon—only to die in 1778—much to the distress of an overseer who wrote that, "I am at loss for a patroon, and white men are not to be hired."

In 1771, Laurens ordered that the *Baker* be converted from a schooner rig into a single mast rig. He describes how he saw many sloops in his travels to Pennsylvania and Jersey, and that a sloop with a similar



Sue Vezeau, a graduate student with the Texas A & M Nautical Archaeology Program and former SCIAA intern, runs a tape out along the vessel's frame to measure curvature. (SCIAA photo by Lynn Harris)

Mepkin property, and arranged for a schooner to be built at a James Island shipyard as the plantation boat. The timing suggests that this was most probably the *Baker*. In a Mepkin estate inventory dating to 1766, the *Baker* was valued at 2,600 pounds with four slave crewmen aboard. At this time, slave patroon Scaramouch, was in charge of Henry Laurens' boats. He was portrayed as a skillfull

hull design to the *Baker*, not only had "some Advantage gained in Point of Sailing," but also the "Labour and Expencc of at Least one Man is saved by such Rigging."

If we assume the *Baker* lasted until 1774, this is a lifespan of 11 years for the vessel, which was to be expected of locally-built vessels. Comparing the archaeological record to the historical information, it is

**See MEPKIN WRECK, Page 12**



## MEPKIN WRECK, From Page 11

interesting to note that the keelson of this relatively small vessel is comprised of two distinct sections, scarphed just aft of the saddle-style maststep. Additionally, the keelson aft of the scarph was chamfered, but forward of the the scarph, it was not.

Generally, for a riverine vessel of this size (around 48 ft), a single timber was utilized for the keelson. This might reflect a later modification in rigging design or alternatively major repairs. Furthermore, a saddle maststep for a small vessel is also unusual. Could this step design have facilitated versatility of mast positioning on a rig that local shipwrights were less familiar with than the more popular Carolina schooner, as noted by Laurens in 1774? Was this maststep more

common in Carolina than in the middle colony boat designs at that time? More comparative research on this maststep may be our most important construction clue yet.

Other design features observed on this boat that are not present on any other vessels we have studied in South Carolina, are three shallow notches on top of the keelson. These notches were probably used to support stanchions for an awning or tarpaulin to protect the cargo. This might suggest that the vessel was undecked or semi-decked.

There is a possibility that early navigation regulations may have influenced boat design in South Carolina. A clause in an Act of Trade that dealt with boat registration in the colonies specified it was only

applicable to "decked" ocean-going or coastal vessels, and not to "undecked" watercraft doing business in plantation waters. Instead, boats like the *Baker* were given permits by local naval officers and made exempt from taking out bonds. This may have led to a proliferation of building undecked plantation boats with

designs and hull lines that would not be construed as sea-going.

Historical records reveal that there were often differences in opinion by authorities about what constituted a "decked" and a "sea-going" vessel. Breaches in Navigation Acts occurred frequently in unwatched rivers and sounds. Under the cover of darkness, small craft could land and load barrels onto ships and secret hiding places along the shoreline. As part of a class of vessels that did not require formal registration, these undecked smallcraft had much more leeway in illegal trading activities.

Henry Laurens was a successful merchant, but his frustrations with navigation regulations are obvious in his papers. As the colony started to break the economic umbilical with England and tensions grew, he increasingly became a target of the officials. It would seem likely that he might build a boat in such a way that it could easily avoid the stifling laws.

Our research into the identity of the boat continues as more of the later Laurens documents become available through the USC History Department.

Author's Note: See our next newsletter for the *Mepkin* wreck site plan, hull reconstruction, and research conclusions. Many thanks to all those who helped with this project including volunteers Doug Boehme, George Pledger, Rusty Clark, Sue Vezeau, Charleston Scuba staff, Gunter Weber for helping with photography and video footage, and Lou Edens for providing luxurious housing.



Sue Vezeau runs a tape out along the vessel's sternpost to measure the timber's features. (SCIAA photo by Lynn Harris)

# Diver Completes Report on Willtown

By Lynn Harris

In 1682, the Lords Proprietors planned a town that would rival Charleston in its facilities for overseas trade and would offer a more salubrious climate. It was called New London, but later renamed Willtown, and had streets and stairways running down a bluff to the Edisto River. Although this riverine community could not compete with Charleston harbor as a trading depot and slowly disintegrated during the 18th century, evidence of the old English settlement still exist in the archaeological and historical record on land and underwater.

In 1969, Drew Ruddy, then a college student, secured one of the first underwater salvage licenses from SCIAA to recover artifacts from Willtown. Today, 31 years later, he has undertaken to tell the story of his early experiences as a diver and collector. As a current SCIAA Research Affiliate and Hobby Diver, he has recently produced a unique and highly readable report on his Willtown findings.

He writes in his introduction: "It is with amazement that I reflect

today on how two teenagers with some diving experience but no archaeological training or background were able to secure a one-year salvage license. Today, I find myself in a different place in my life, a different level of maturity, and although not a professional archaeologist, I have acquired a greater sense of appreciation for the precision and documentation necessary to work and record an underwater historic site."

Going back to his early maps and artifact logs, Drew and his diving buddy, Steve Howard, attempted to map and reconstruct where they found artifacts in former project years. In his overview of collected materials, Drew explores possible reasons for distribution patterns related to both land and water usage during historic times.



Martha Demosthenes, Curator of the Colleton County Museum in Walterboro, stands beside the Willtown artifact exhibit that she designed. (Photo courtesy of Drew Ruddy)

Drew's report provides a historic background of Willtown slanted towards the maritime activities, including early English explorations in the area, tensions with the Spanish, Indian trade, the Yamassee War, Stono Rebellion, and the 1863 gunboat expedition. Filled with colorful graphics such as historic maps, aerial views of the Willtown waterfront, and photographs of artifacts, the report is indeed an extremely valuable addition to the literature on South Carolina's underwater heritage. Congratulations Drew!

Author's Note: *Willtown Bluff, "...a convenient fertill piece of land fitt to build a town on...": An Avocational Underwater Archaeological Report* by Drew Ruddy (2000) is available in various local libraries. Anybody who wishes to obtain a copy should contact Drew Ruddy at (843) 761-3632.



Drew Ruddy, seated in center, presents a copy of his recently finished Willtown report to Dr. Bruce Rippeteau, Institute Director. Also at the presentation are Lynn Harris, seated on right, and Joe Beatty and Carl Naylor, standing. (SCIAA photo by Jacci Newton)



# Storming Normandy: A Recovery Mission to the French Archives of Rouen and Caen

By James Spirek

Recently, Chester DePratter and I received a Robert L. Stephenson Archaeological Research Fund (RLSARF) grant to continue our quest to learn more about *Le Prince*, a French ship that sank off Port Royal Sound in early 1577. The RLSARF monetary award of \$4,059 allowed us to contract with Dr. Bernard Allaire, a French researcher specializing in 16th-century French maritime endeavors, to conduct research in Normandy archives for documents related to the ship. He was, as readers may remember, also responsible for locating the first five French documents related to the corsair and detailed in previous *Legacy* articles (See *Legacy* Vol. 3, No. 3, 1998, pp. 10-13 and Vol. 4, Nos. 1-3, 1999, p. 27). Allaire's mission was to spend three weeks looking for documents in the notarial archives of the Normandy port cities of Le Havre, Rouen, and Honfleur. The notarial archives of Le Havre and Rouen are located at the Archives départementales de la Seine-Maritime (ADSM) in Rouen and the Honfleur records are housed at the Archives départementales du Calvados (ADC) in Caen. Our research strategy was based on information drawn from the previous five documents that pertain to business conducted at Le Havre and surrounding towns in 1575 and 1576. In addition, Allaire was to seek out materials related to privateering and other seafaring activities, such as earlier and contemporary voyages, outfitting, and ordnance.

Before launching into the results of our research project, an explanation of the adversary that Allaire was up against—the notarial archive, or

*tabellionage*—is in order. In 16th-century France, many commercial contracts and transactions were drawn up by notaries, or *tabellions*, employed by the king. These transactions were prepared in a volume, folio style, written one transaction after the other in chronological order to fill a page (see figure). These volumes were classified based on the nature of the transactions as either *héritages* or *meubles*. The *héritages* volumes consist of contracts related to possessions transmitted by inheritance, bill of sales for houses or land, and mortgage loans. The *meubles* volumes consist of all other types of documents, and most importantly, commercial transactions involving seafaring ventures. Some volumes, however, contain a mixed bag of documents. The Rouen *tabellionage* consists of 10 to 15 volumes per year, Le Havre four volumes per year, and Honfleur one or two volumes a year. For the most part, the archives are complete for the time period under study and have survived wars and Acts of God, except for a critical loss of four Rouen *meubles* volumes dating from January to June 1575, which of course leads one to suspect that they may have contained information relevant to the corsair, among other valuable information.

Results of the *Le Prince* document search included the identification of 25 additional documents related to the corsair, all from the ADSM, to add to the five documents previously found there. A total of 168 documents relevant to contemporary Normandy seafaring ventures were also identified from the ADSM and

ADC. The funds also permitted the transcription of three documents and their translation into modern French and English. The newly found documents relate to the 1575 voyage to the Cape Verde Islands or the adjacent African coast, to Sierra Leone on the west coast of Africa, and then to Peru (West Indies) as described in the *Le Prince* Charter-Party document already obtained by Allaire. Based on these new documents, the 1575 voyage occurred during a three-month period with a departure from Le Havre in mid-May or early June with a return in late August or early September. Another important aspect of these documents is the mention of other notaries and cities in France where notarized transactions occurred, most notably in Paris. Therefore, these documents point Allaire, for instance, to the Paris *tabellionage* to retrieve the *meubles* volumes written by these specific notaries rather than search, perhaps fruitlessly, through countless volumes of Paris notaries looking for *Le Prince* related documents. Unfortunately, no additional 1576 documents were found that relate to the final voyage of the ship. The absence of 1576 documents at Le Havre suggests that most of the major business transactions were occurring in Brest where the ship was at port based on information from the two 1576 documents already in our possession. Therefore, the hunt must continue at the Brest archives in search of materials related to the final voyage.

The majority of the new documents revolve around the efforts of the noblemen Mathe Fapoco, owner

of *Le Prince*, and Oratio Rosso, captain of the ship, to secure investors to finance the voyage. Investors included two royal officials, merchants, innkeepers, a carter, a butcher, and members of the ship's crew. These investors bought shares in the voyage that were used to buy victuals for the ship and merchandise to trade and barter during the voyage. The return on their investment depended on the interest they secured, while acknowledging that profits depended on "...the risks and fortunes of the sea, in the said ship." Several of the documents relate to the outfitting and victualling of the vessel. Some of the documents detail the purchase of two kinds of casks hooped with iron and chestnut, and subsequent payment for them. Other transactions concern the sale of parts of the rigging associated with the artillery and to secure funds for repairs and other

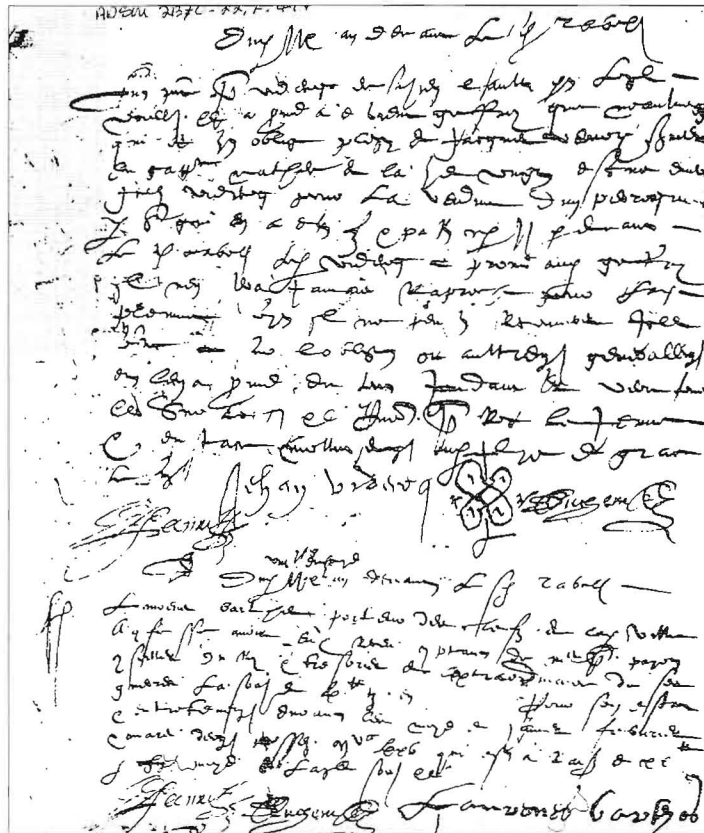
necessities for the ship. Two other documents deal with the purchase of *clairret* [claret] wine and biscuits for drink and food aboard the ship. Another pair of documents unrelated to the voyage itself concern the purchase of a parrot by Rosso from a Rouen merchant, however, these documents do provide confirmation that the ship was out to sea during the month of June.

In addition to looking solely for

*Le Prince* documents, Allaire also noted relevant transactions regarding corsairing and seafaring endeavors during this period. These documents describe the organization and financing of similar triangular voyages undertaken by *Le Prince* to Africa, to the West Indies, and then back to France, the sale of merchandise from these voyages, ordnance, privateering, and other miscella-

Documents about coopery mention the use of chestnut hoops, along with iron ones, to bind the cask staves together. This type of specific information will help to distinguish the remains of a ship hailing from France rather than those from Spain, England, or elsewhere in Europe.

In conclusion, the research to uncover documents related to *Le Prince* and similar ventures was successful from both a historical and archaeological viewpoint. The documents have expanded our knowledge about the finances, people, and outfitting surrounding the genesis of a voyage to Africa and the West Indies by the French in the 1570s. Importantly, they have revealed other avenues to travel in France to gather more information about *Le Prince*. All of this information should help in our upcoming survey to look for *Le Prince* and other casualties on the shoals and sandbars at the entrance to Port Royal Sound. Chester and I wish to thank the trustees of the RLSARF grant for the funds to conduct this research. If you would like to help sponsor additional archival



Top document relates to a *Le Prince* transaction concerning the captain Oratio Rosso. (SCIAA photo)

neous materials. The documents also note the involvement of people associated with the 1575 *Le Prince* voyage financing similar voyages. Other documents are of archaeological importance, specifically those dealing with naval ordnance and coopery. Some of the transactions describe in great detail the types and markings on the artillery, and the variety of woods used to construct the gun carriages and wheels.

research, the translation of documents, or fieldwork activities for the continuing investigation into the saga of *Le Prince*, please consider a tax-deductible contribution to the Archaeological Research Trust earmarked for this project. For additional information about the project, contact Jim Spirek (spirek@sc.edu), Chester DePratter (depratter@sc.edu), or reach us by phone at (803) 777-8170.

# Remote Sensing Survey of the Great Pee Dee River To Inventory Underwater Archaeological Sites

By James Spirek

In November of 1999, the Underwater Archaeology Division in collaboration with Dr. Ernest L. (Chip) Helms, III, an ART Board member, and other local individuals inaugurated the Great Pee Dee River Survey. The purpose of the survey is to document shipwrecks, landings, and other underwater archaeological sites between Mars Bluff and Cheraw, South Carolina. When completed, the survey will have covered over 58 miles as the fish swims. Our research strategy to accomplish our objective includes using electronic equipment, interviewing local informants, and reviewing prior historical and archaeological research. Our remote sensing ensemble, the ADAP III system, consists of a cesium magnetometer (to locate ferromagnetic metal, i.e., iron and steel), a side scan sonar (to acoustically picture the river bottom), a fathometer (to determine river depth), all tied together to a Differential Global Positioning System (DGPS). Ongoing interviews with local informants will help to build a database of potential archaeological sites along this stretch of the river. We also drew on data from the state archaeological site files to determine previously recorded sites in and adjacent to the river. Historical materials from the files of Dr. Linda Stine proved helpful in learning about past riverine traffic on the river. Data obtained from the survey will be used to inventory sites to the state archaeological site files and to aid in planning future work in the river and other riverine areas in South Carolina.

The survey on the Great Pee Dee

River was our first deployment of the electronic equipment in a Piedmont riverine environment. Riverine perils included submerged logs, sandbars, rapids, and the twists and turns of the river. All of these obstacles were more or less successfully negotiated while towing the costly array beside and behind us. We surveyed three different stretches of the river: upriver from Mars Bluff, around Society Hill, and downriver from Cheraw for a combined total of approximately 24 miles. This leaves us with approximately 34 miles remaining to complete the survey. During the course of the survey we encountered a number of potential archaeological sites ranging from sections of unidentified wooden structures to the remains of historic fish weirs. A local landowner showed us the fragment of a prehistoric canoe, as well as the sandbar on which he found it.

Following the fieldwork, we returned to the comfort of the office to post-process and analyze our data.

The survey lanes and magnetic data were overlaid on 7.5 USGS topographical maps of the river for visual representation of our work. We are still analyzing the data to identify magnetic and acoustic anomalies that

might relate to significant historical or archaeological submerged cultural resources. We were greatly assisted in post-processing our electronic data into a Geographical Information System (GIS) format by "Buz" Kloot and Elzbieta Covington from the Center for Manufacturing and Technology at USC. We also received assistance from Chris Gillam and Holly Gillam at SCIAA.

Perhaps the best part of the survey was meeting the many individuals that Dr. Helms rounded up to support and to assist in our venture. There are simply not enough ways to express our appreciation for the hospitality afforded to us by our hosts and the local communities during our first three-week phase of the survey. Additional work is slated during the spring of 2001, to complete the survey. Hopefully, during these next survey legs we will find the water high, the currents lazy, the weather optimal, and our hosts' arms wide open to receive us back into their homes.



Survey boat on the Great Pee Dee River. (SCIAA photo)

# Dive Club Concerned About Overcollection

By Carl Naylor

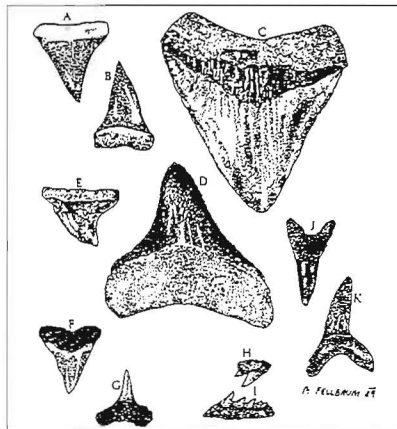
Concerned about what they see as overcollecting of fossil shark's teeth in state waters, the Hilton Head Island Dive Club invited me to address their October 2000 meeting.

After a slide presentation on SCIAA, the Underwater Archaeology Division, and the Underwater Antiquities Act, the floor was opened up to questions and comments from the 15 or so club members who attended the October 12 meeting at Island Scuba Dive & Travel dive shop.

Amber Hester, President of the club and employee at the dive shop, expressed the concern that some divers, with only Hobby Diver Licenses, are commercially collecting shark's teeth from the waters in and around Beaufort County. These divers are then selling the teeth through internet web pages and elsewhere.

While the collection of artifacts and fossils is legal under the present Underwater Antiquities Act (as long as the diver has a valid Hobby Diver License, the fossils were not collected using mechanical means, and the activity is reported to the State Museum on Fossil Report Forms) the law states that Hobby Licenses are for divers who want to conduct "recreational, small scale, non-commercial search and recovery of submerged archaeological historic property or submerged paleontological property."

Unfortunately, SCIAA has no means to monitor the sale of artifacts or fossils and no way to verify that artifacts and fossils offered for sale on the internet or elsewhere were collected from state waters. Under the law, the South Carolina State



Fossil shark teeth. (SCIAA drawings by Marcus Fellbaum)

Museum is the custodian of all submerged paleontological material and all Fossil Report Forms filed by Hobby Divers go to the State Museum.

When contacted about the dive club's concerns, Jim Knight, who monitors fossil collection by Hobby Divers for the State Museum, stated he didn't care about shark's teeth, since from a scientific point of view they had no value.

Despite this, many members of the club felt there should be more restrictions on those who sell artifacts and fossils and suggested that the law be revised to include a "commercial collectors" license for these divers. Some of the restrictions proposed included a higher fee and requiring that "commercial collectors" have business licenses and pay taxes on their revenues.

The staff of SCIAA's Underwater Division is taking preliminary steps to revise the current law and would like to hear from the diving public. If anyone would like a copy of the South Carolina Underwater Antiquities Act of 1991, or would like to comment on the law, please contact Carl Naylor at (843) 762-6105.

## REMINDER NOTICES SENT TO DELINQUENT HOBBY DIVERS

By Carl Naylor

Licensed Hobby Divers who have gone several quarters without sending in their quarterly report forms will be receiving reminder notices as part of an effort by the Sport Diver Archaeology Management Program to improve diver reporting.

So far, more than 75 licensed Hobby Divers have received notices informing them that they are delinquent in their reporting.

Under the S. C. Underwater Antiquities Act of 1991, Hobby Divers are required to file their report forms no later than ten days after the end of the quarter whether collecting has occurred or not.

Divers are reminded that they must submit two report forms each quarter. Artifact Report Forms are submitted to the Charleston Office of SCIAA's Underwater Archaeology Division. Fossil Report Forms are submitted to the South Carolina State Museum in Columbia.

To assist divers in reporting their finds, both the Artifact Report Forms and the Fossil Report Forms, which are supplied to the diver with his license package, have pre-printed addresses on the back.

Divers who fail to submit reports after receiving the reminder run the risk of having their license revoked. They will also be barred from reapplying for a license in the future.

## UNDERWATER ARCHAEOLOGY FIELD TRAINING COURSE

By Lynn Harris

The Underwater Archaeology Field Training Course will be held April 20-22, 2001. The classroom session will be held at the SC Department of Natural Resources, 217 Fort Johnson Road, Marine Resources Building, James Island, Charleston. The pool session will be held at the St. Andrews Recreation Center, West Ashley. The open water dive on the Cooper River will take place May 12-13, 2001 in Monks Corner. Black water river diving experience is necessary. The cost is \$150. A deposit of \$70 is required by April 6, 2001 to secure a place. Please contact Lynn Harris or Carl Naylor at the Charleston Field Office at (843) 762-6105 to apply.



# Research

## Topper Site: Results of the 2000 Allendale Paleoindian Expedition

By Albert C. Goodyear

The 2000 Allendale Paleoindian Expedition was the largest one ever. Over 100 volunteers participated as donor-excavators for an excavation that lasted for five weeks, from May 1-June 3. The staff stayed on for another three weeks for a geology study of the Topper site and nearby environs using geological consultants.

Excavations this year focused on gathering more archaeological data from the pre-Clovis zone in the area of the initial discovery in 1998 (N244, E130). Here, unusual clusters of rocks were found, which have turned out to be chert knapping loci where pieces of local chert were reduced. This was also the area where in 1999 possible post stains were encountered. Few such stains were found

this year nor any obvious spatial patterns. An exceptionally dry period preceded fieldwork this year as in 1999, rendering organic stain detection difficult in all cultural levels.

In May 2000, excavations concentrated on two block excavations. A large 4 x 8 m unit (Figure 1) was dug from E128 to E136 along the N242 and N244 grid lines. This was in the flatter area of the terrace. A 2 x 4 m unit was dug 10 m east of here going up the hill on the N244 line from E146 to E150. Excavation in the 4

x 8 m unit proceeded by 2-meter squares in 10 cm levels to 100 cm below surface (cmbs), which includes the full Holocene archaeological record in this part of the terrace. This would include Clovis through Mississippian. In the absence of finished fluted points, recognition of Clovis at Topper and the other Allendale chert quarry-related sites continues to rely on the transversely flaked and basally-thinned biface blanks, of which we have now excavated several examples (Figure 2). An optically stimulated



Figure 1: The 4 x 8 m excavation unit from E128-136 in the 2000 season at Topper. (SCIAA photo by Daryl P. Miller)

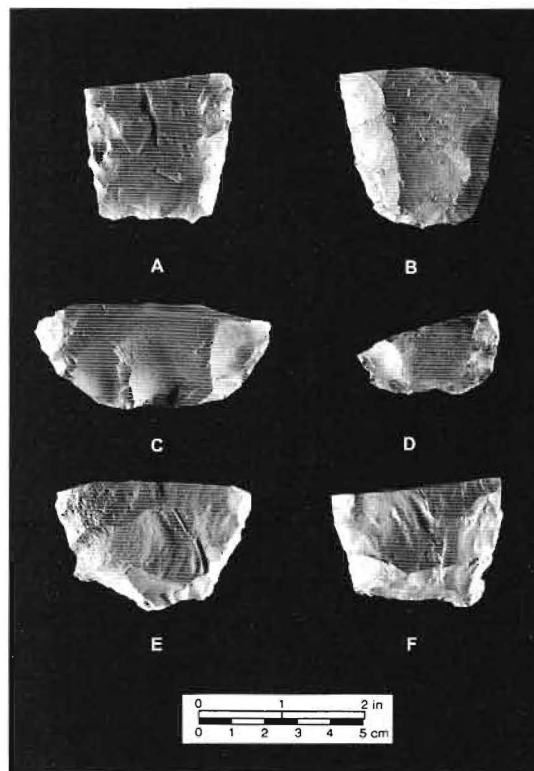


Figure 2: Examples of Clovis biface preforms from the Topper site. (SCIAA photo by Daryl P. Miller)

luminescence (OSL) date taken from the base of the Holocene colluvial unit returned 13,000 to 14,000 calendar years ago, which is in line with expectations since Clovis dates about 13,000 calendar years ago. In the 4 x 8 m block, upon reaching 100 cmbs, construction plastic was nailed over the profile walls to prevent Holocene age artifacts from falling down into the lower levels (Figure 1). At 100 cmbs, excavations changed to five cm levels and one m units to gain finer spatial control.

In the 2 x 4 m unit, excavation continued in 10 cm levels all the way to the base of the sands terminating at about 220 cmbs on a terrace. As expected, the Holocene deposit here was deeper, being at the base of the



hill with 140 cm of slopewash sands accumulating. Soil lamellae were also present in the lower portion of the unit (Figure 3). At the bottom of the unit, large weathered cobbles and boulders of chert were encountered, which are believed to be the source of the pre-Clovis raw materials. Some of these show signs of human alteration by repeated smashing.

In the 4 x 8 m block, the normal stratigraphic pattern observed in 1998 and

1999 was repeated. Here approximately 200 cm of artifact bearing sands overlies a scoured gray silty clay terrace, which appears to be archaeologically sterile. Below about 100 cmbs, the chert typically utilized by Holocene age peoples, consisting of bedrock boulders available in the creek bed in the hillside and river

cobble chert, ceases to occur. Below that and intensifying at about 130-140 cmbs, cortical lithic debris increases along with the unusual small microlith-like chert tools made from highly weathered cortical chert (Figure 4). At approximately 150 cmbs, larger pieces of cortical chert appear, often occurring as feature-

like concentrations (Figure 5). These concentrations are comprised of chunks of the cortical chert, some split open, along with quartz pebbles and cobbles with some showing modification by battering and splitting (Figure 6). The rock features occur as clusters of lithic items lying basically on a common surface rather than in pits. Owing to leaching by groundwater, no in situ charcoal survives anywhere in these lower sands.

The lithic artifacts found between 130 and about 210 cmbs thus far appear to be essentially microlithic in character (Figure 4). Including the 2000 field season, this is based on 78 square meters of excavation. Numerous small utilized chert flakes, unifacially retouched flakes, burins, burin spalls, and microblades dominate the tools. What appear to be two microblade cores were found this year (Figure 7). No bifaces have been found nor any definite flakes from bifacial retouch. Thermally-

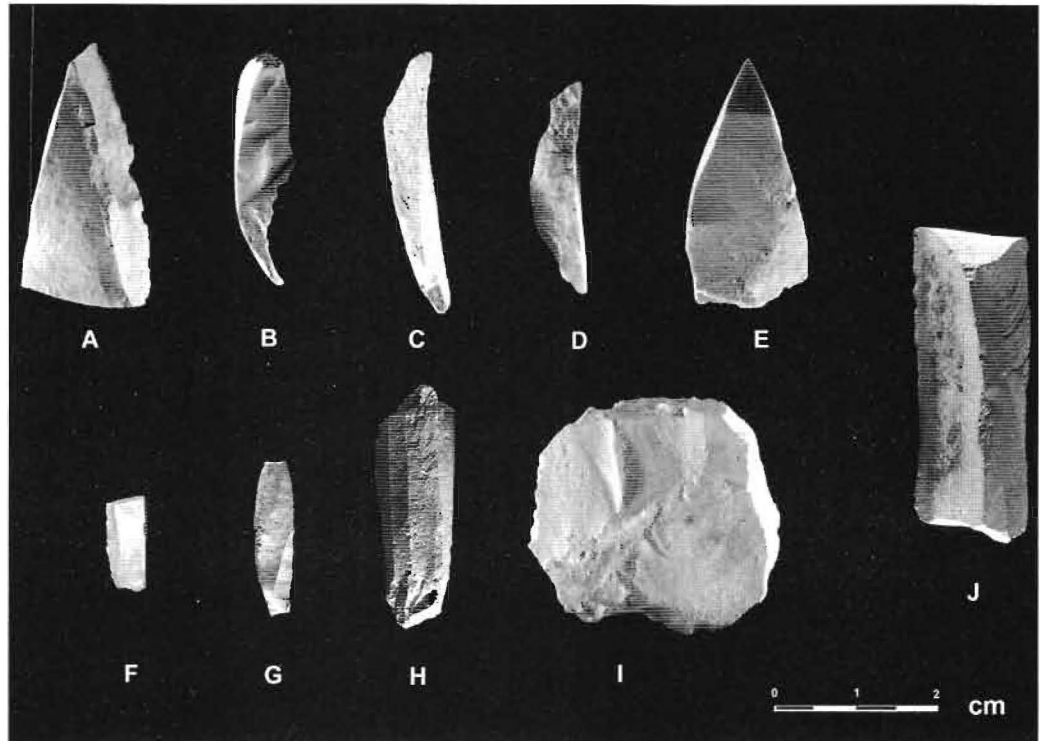


Figure 4. Microlithic tools from the pre-Clovis occupation at the Topper site: A-E, burins and spalls; F-G, microblades; H, microcore; I, scraper; J, blade-like tool. (SCIAA photo by Daryl P. Miller)

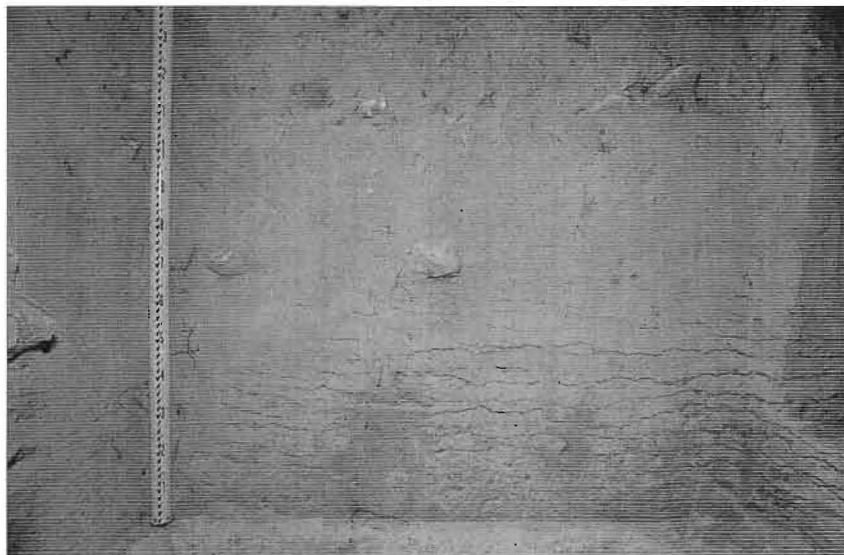


Figure 3: North profile of N244, E146 in the 2 x 4 m unit showing Pleistocene-Holocene stratigraphy with lamellae in the lower portion of profile. (SCIAA photo by Daryl P. Miller)

See ALLENDALE, Page 20

## ALLENDALE, From Page 19

altered and damaged chert flakes occur in every level. It is clear from our lab studies that quartz was also utilized. Quartz artifacts show up as pebble cores, hammerstones, unifaces, and flake tools. The quartz used in the pre-Clovis assemblage is derived from the hillside and is represented by small, clean, unstained alluvial gravels from ancient terrace material high up on the hillside. These gravels are typically small pebbles and cobbles and suitable only for flaking small cores and flakes. This is in contrast to the larger iron-stained quartz pebbles and cobbles found in the Savannah River today, which were available beginning in Clovis times and which are present at the Topper site in the upper meter of Holocene age occupations as hammerstones and firecracked rock.

Analysis of these technologies and the reduction strategies represented is currently underway. Larger chert boulders naturally available at the base of the hill appear to be smashed open. This is indicated by chunks and spalls with strong force lines observable in the more siliceous portions. This seems logical given the lack of large cobble hammerstones available for initial nodule

reduction. Fire may also have been used in quarrying based on the presence of thermally altered chunks and flakes. Quartz hammerstones in the pre-Clovis zone are typically small (<8cm) and suitable for

producing the small (<2cm) flakes, which exhibit striking platforms and bulbs of force. Most of the artifacts represent cortical debris. This is expected since the chert boulders serving as the pre-Clovis lithic source were for the most part poorly silicified with good cryptocrystalline material present only in minor portions. The cortical debitage ranges from angular to sub-angular chunks to cortical flakes with enough silica present to produce distinct striking platforms and bulbs. While gener-



Figure 5: Feature-like concentrations of cortical chert in the pre-Clovis zone in the 4 x 8 m excavation unit. (SCIAA photo by Daryl P. Miller)

ally speaking the pre-Clovis chert falls within the range of what is normally described as Allendale, we are beginning to see some differences in color and texture between cherts found in the upper versus the lower

meter of the site. It is not certain if the differences are due simply to degree of weathering and age or if another variety of chert is present. A detailed petrologic study of the pre-Clovis chert is being planned to elucidate the physiochemical basis of these macroscopic differences.

A major goal of the 2000 field season was to conduct a geological study of the Topper site and related landforms to securely locate the archaeology within a regional geochronological framework. A

team consisting of Dr. Steven Forman, University of Illinois at Chicago; Dr. John E. Foss, University of Tennessee; Dr. Thomas Stafford, Stafford Laboratories, Boulder, Colorado; and Dr. Michael Waters, Texas A & M University, worked from June 12-24, 2000 at Topper and nearby landforms. Although these consultants are currently pulling together their findings, some of the more salient results can be reported here.

In 1998, it was initially thought that the entire 2.0+ m of upper sand was colluvium, i.e. derived from the hillside as slopewash. Colluvium is indicated as contour elevations gradually increase approaching the hill and sands can be seen washing down the road today during rainstorms.

However, during the brief reconnaissance made by these geologists in 1999, (Figure 8) when a much larger profile was exposed, it was revealed that the lowest meter of the sands were fluvially deposited and/or

modified. Drs. Waters, Forman, and Stafford were able to detect chute channels paralleling the Savannah River in the lower sands including small pieces of the underlying gray silty clay terrace (rip up clasts), which resulted from energetic flooding. Thus, extensive backhoe trenching was planned for Topper this year as well as other loci on the 70 ft and 80 ft terraces in an effort to reconstruct the regional geology of Topper and related archaeological sites.

Thirteen backhoe trenches were opened up at Topper in an effort to identify and map the geological stratigraphy. Using long continuous trenches, a clear difference was revealed between the upper meter of colluvial sands and the fluvially modified sands below. A photograph taken of the 1999 season block excavation neatly illustrates the three basic stratigraphic zones surrounding the archaeology at Topper (Figure 8). The upper meter of sands are typically discolored a light brown grading from darker to lighter by depth. According to the project soil morphologist, Dr. John Foss, this is a result of weak pedogenesis (Bw). Only modest soil development is possible due to the coarse nature of the parent material (quartz sands) and the lack of available fines where only iron and organic matter are available for weathering and translocation. As mentioned, an OSL date of 13,000 to 14,000 calendar years ago was obtained from the base of this zone. This date matches quite well our archaeological interpretation of the age of this level as this is the stratigraphic location of the Clovis preforms. Based on the OSL date and the time-sensitive Holocene artifact distributions by depth, approximately 110 cm of sands washed down the hill over a 13,000-



Figure 6: Feature 61, a concentration of split cortical chert and quartz cobbles in the pre-Clovis zone in the 4 x 8 m unit. (SCIAA photo by Daryl P. Miller)

14,000 year period. Using the estimate of 13,500 years, this would be an average of 8.15 cm of slopewash accumulating per thousand years.

The lower approximate one meter of sands as seen in the photo (Figure 8) is fluvially deposited and/or modified. The term "modified" is used since we are not certain how much of the sand is coming off the hillside and being fluvially reworked by floods versus alluvial deposition. It is a clean white sand of a similar texture to the upper meter. Chute channels with small quartz pebble gravels can be detected in this unit. The pre-Clovis artifacts and unusual feature-like rock concentrations occur in lower half of this zone. An OSL date of 15,000 to 16,000 years ago was obtained from the top of the alluvium. This sample was taken from underneath the 13,000-14,000 K. A. date at the base of the colluvium. This date would indicate that the pre-Clovis artifacts, which are found predominantly in the lower half of this unit, are at least 16,000 years old

and probably older. These sands overlies a dark colored overbank unit (the gray silty clay terrace) enriched by silt and clay of alluvial origin. The top of this unit is scoured and bioturbated as indicated by cracks and probably root holes (Figure 8). In the 1999 field season, hand excavations were conducted up to a meter deep in this unit. A few small possible flakes were found suggesting they were bioturbated into this unit.

For purposes of geological dating, it was hoped that charcoal might be preserved in the gray silty clay terrace immediately underlying the pre-Clovis zone, but none was observed. Radiocarbon dates from this unit would provide a maximal age for the pre-Clovis zone lying immediately above it. In 1999, an attempt by Dr. Tom Stafford to date sediments (humic acids) from the upper gray silty clay unit was unsuccessful as the date was only 8,270 +/- 60 RC yrs B. P. There are artifacts older than this found over a meter above indicating contamination

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tion of sediments by later humic acids. The lower sands of the pre-Clovis zone and the gray silty clay terrace top are in a zone of groundwater flow as we observed during the rainy season in 1998. However, in 1999, Stafford was able to collect sediment samples from underneath the gray clay terrace, which is about 1.5 m thick. Immediately under this terrace he obtained two humic acid radiocarbon dates from discrete alluvial layers that dated 19,280 +/-

140 R. C. yrs B. P. and 20,860 +/- 90 R. C. yrs B. P. This year he was able to obtain additional sediment samples from underneath this terrace from the bottom of backhoe trench 12. We are planning to date two more sediment samples

taken from a different location to confirm these early dates. Radiocarbon dates of 18,570 +/- 100 R. C. yrs B. P. and 25,330 +/- 130 R. C. yrs B. P. on plant macrofossils obtained elsewhere from alluvium at elevations comparable to the gray clay terrace at Topper suggest these humic acid dates may be accurate.

Perhaps the most important finding by the geologists this year was the documentation of the Topper site stratigraphy. They were able to show conclusively that the 2.0+ m sand deposit of the site is of two

different origins. The upper sands, which are colluvial, began forming from 14,000 to 13,000 years ago and represent the system of sedimentation operating today. Importantly, this system began operating several centuries, if not a couple of thousand years before the first Clovis people arrived. No evidence of flooding is observable in this unit indicating the Savannah had downcut to its present base level some time prior to that time. The river cobble chert, with its

hillside at Topper. Like the river cobble chert, this chert source appears to have been unavailable to the pre-Clovis occupants. When the Savannah River downcut during the late Pleistocene, it would have lowered the creek drainage gradient causing it to incise. By the time Clovis folk arrived, the high-quality bedrock cherts were exposed.

Below this unit lies approximately a meter of fluvial sands, which were deposited and modified

by the Pleistocene Savannah River. It is known that the Savannah, like many of the major rivers of the Southeastern U. S., was flowing at higher bank levels during full and late glacial times. Toward the end of the glacial period, about 14,000 to 13,000 R. C. yrs B. P., major climatic changes occurred in the Southeast as world climate began to warm. With this dramatic change in temperature and

precipitation came major hydrologic changes resulting in an erosion of river valleys as streams downcut to their modern levels. In the project area, the Paleoindian sites of Charles and Big Pine Tree, located on the 70-ft contour, overlie a heavily scoured terrace.

Dating the time of the late Pleistocene scour and downcut of the Savannah River will help confirm the age of the pre-Clovis remains at Topper. The pre-Clovis archaeological remains are housed in alluvium. Whenever the Savannah cut to its

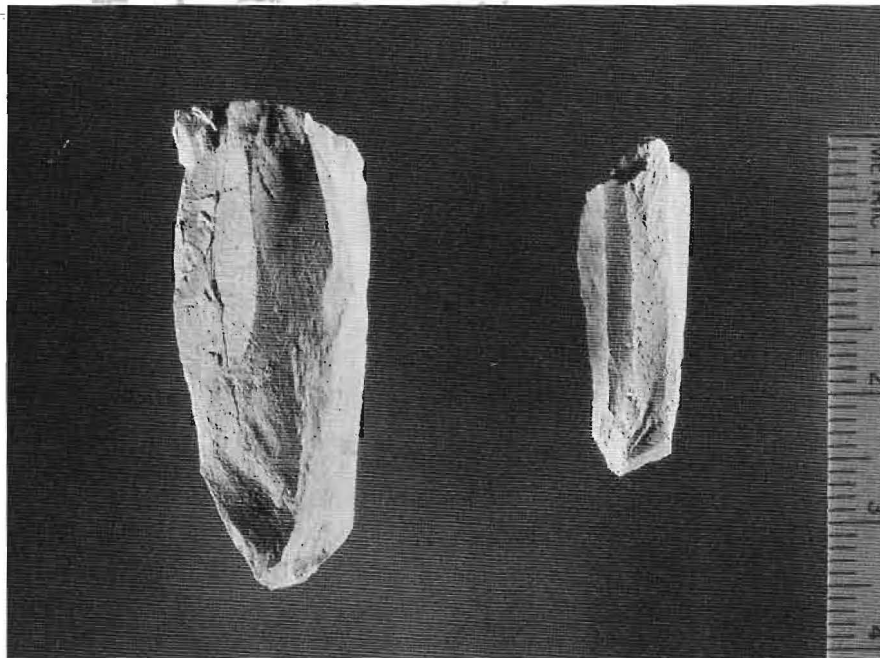


Figure 7: Probable microblade cores from the pre-Clovis zone in the 4 x 8 m unit. (SCIAA photo by Daryl P. Miller)

characteristic water worn cortex, is only associated with this unit. By the time Clovis people arrived, the Savannah had already cleaned itself out and exposed the chert cobbles and large iron-stained quartz cobbles, which were so extensively exploited in the Allendale County region by Paleoindian and Archaic groups. Large pieces of high quality bedrock chert exhibiting massive well-silicified sections also are associated with this upper unit. This material can be seen today in the bottom of the creek, which has cut into the



modern level, the pre-Clovis at Topper must date no younger than this event. After the scour, the Savannah would have been incapable of reaching the Topper site elevation. To date this event will require extensive geological studies of the Savannah River alluvial history in the project area.

Toward that end, our project benefited greatly this year from another geology team headed by Dr. Douglas Williams of USC's Geology Department and his colleagues Dr. Zhenya Karabanov, Dr. Sasha Prokopenko, and Dr. Paul Gayes of Coastal Carolina University. They have been joined by Dr. Tom Stafford of Stafford Laboratories to work on fluvial geology and dating problems. These scientists graciously brought their vibracoring technology and students to the project area in June and November 2000 (Figure 9). The purpose of the coring is to study alluvial sediments in riverine deposits near the

Topper site in order to reconstruct the hydrological history of the Savannah River over the past approximately 25,000 years. For archaeological purposes at Topper, their work is critical to help date the end of Savannah River alluviation at the 80-90-ft contour elevation. Preliminary radiocarbon dating results from the vibracores indicate deposits of

Savannah River alluvium as old as 25,000 to 37,000 R. C. years ago in the lower portions of the stratigraphy. These dates are based on Stafford's dating of plant remains. It is hoped that plant macrofossils and pollen grains are sufficiently preserved to allow environmental reconstruction

horizontally, we may see spatial patterns in the rock clusters and artifacts. We also intend to excavate just the Holocene zone (0-100 cmbs) in an area toward the river. From N228 to N246, in an area about 12 x 20 m, four Clovis-related biface fragments have been found suggest-

ing Clovis biface making loci. By continuing to recover the fluted Clovis blanks and perhaps a fluted point itself, we can further reinforce our interpretation of the reality of Clovis in the lower portion of the colluvial unit.

Because of the pre-Clovis discovery at Topper, the site continues to receive attention in the media. During May, the excavation was on the front pages of the *Charlotte Observer* and the *Charleston Post and Courier*. During the geology study in June, *Scientific American* sent a writer down from New York and interviewed us "in the trenches." An interesting article on the early peopling of the western hemisphere appeared in the

September issue of that magazine, which included Topper. And, in the December issue of *National Geographic*, Topper was included in their similar review of the search for the earliest Americans. In December, 2000, *Science Magazine* sent a writer to SCIAA in preparation for a similar article being published in early March. In April, I'm scheduled to

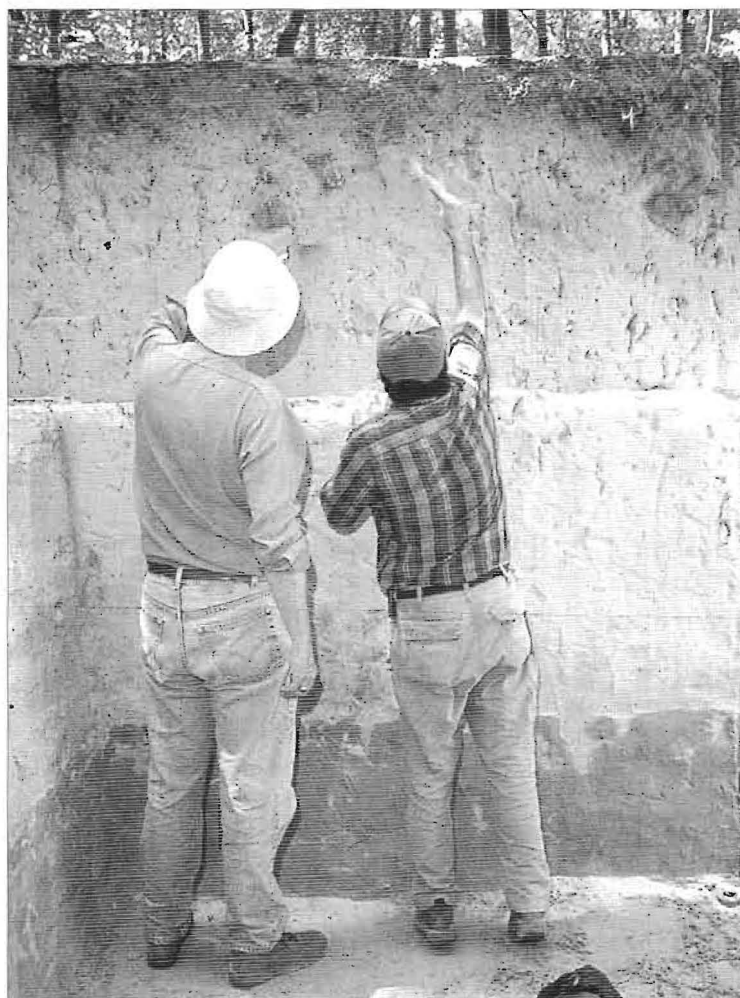


Figure 8. South profile of N208, E134 unit showing three basic stratigraphic zones at the Topper site (1999 season). (SCIAA photo by Daryl P. Miller)

of the Ice Age flora in this region.

In the 2001 field season, we plan to continue excavating adjacent to the area of the 4 x 8 m block of this year seeking to recover more of the unusual microlithic technology. Thus far, this is the only area of the site where the rock features and what may be post stains from structures, have shown up. By expanding

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present a paper at the annual meeting of the Society for American Archaeology in New Orleans, providing an update on our findings.

The supervisory staff this year included Tommy Charles, David Butler, Grayal Farr, Van Steen, Kenn Steffy, and John White. Without their help and that of the many talented volunteers who have returned year after year, a dig of this size couldn't be successfully accomplished. Susan Hollyday, Bob Cole, Darrell Barnes, John Conners, and Bill Lyles all lent able assistance to the technical recording. My thanks to them for their dedicated and enthusiastic work. Daryl P. Miller, project photographer, worked hard at getting everyone's picture plus many of the scientific shots. We have received great assistance in the lab, both in the field and at SCIAA, from Kenn Steffy, Bill Lyles, Bill Larson, John White, Darrell Barnes, Van Steen, Perry Mack, and Norm Cox.

Several people and organizations helped to make the 2000 dig a success. Without the 100+ donor-volunteers, there would have been no dig. Thanks to each one of you as listed below. Some volunteers have now come for five and six years in a row, driving from as far as Maine and Texas. Ms. Iola Brooker and her family of Brooker's Restaurant in Barnwell, continue to provide hearty southern fare as only they can do. Clariant Corporation is the owner of the project area and our gracious host. Their provision of the picnic shelter for camping and cooking and other site logistics are important amenities to our expedition. Key personnel at Clariant include Dan Packer, Director of Technical Operations, Bill Hartford, Site Manager, Susan Yates, Human Resources Manager, Tom Pinkney, Head of Security, and John Thompson



Figure 9: Geology team from USC and Coastal Carolina University vibracoring marsh at the Turnaround site November 2000. (SCIAA photo by Daryl P. Miller)

backhoe operator extraordinaire. Betty Stringfellow and her adventurous friends from Johns Island provided our crew with another memorable picnic on the site, which they have been doing since 1996. Board members of the Archaeological Research Trust of SCIAA and their guests had a BBQ party and stayed for a board meeting and tour the next day. Charlie Phlegar, then Executive Director of USC's Educational Foundation and Dr. Bruce Rippeteau led a tour of the excavation with several invited guests. Dr. David G. Anderson and his wife Jenalee Muse once again threw their famous Paleo-Carnivore dinner party at their home in Williston, feeding steaks to our team and many guests.

This year we are going again for five weeks beginning April 30 ending June 2, 2001. It will take that long, plus about 100 donor-volunteers to accomplish all that we intend. A sign-up notice (insert) is included in this newsletter. At SCIAA we need volunteers to come help sort and classify the hundreds of artifacts. Kenn Steffy and Van Steen have been operating the artifact lab nearly every day since last summer with the help of volunteers (Figure 10) who come in for a few hours a week. They also

have an evening session for those who work during the day. Anyone interested in working in the lab, please call Kenn Steffy at SCIAA at (803) 777-8170 or email me at goodyear@sc.edu. He will train you to recognize the material.

The Allendale Paleoindian Expedition is substantially supported by private gifts. We are continuing to solicit donations for the ongoing work in the lab and the field. Funds are needed for more radiocarbon and OSL dates, a petrology study of the pre-Clovis chert, and running the laboratory. The services of a professional land surveying company are also needed to precisely measure the different site elevations along the river terraces. If any foundation, business, or individual would like to support our work, they should please contact me. A hearty thanks to all who have contributed to the Allendale work thus far and who have brought us to our present exciting state of development.

### Thanks to the donor-volunteers listed by week:

#### First Week

Bob Cole, Hopkins, SC  
Sallie Connah, Charleston, SC

John Conners, Waco, TX  
 Nelle Crowley, Columbia, SC  
 Nan Faile, Columbia, SC  
 Cliff Fontenot, Port St. John, FL  
 Berne Hannon, Taylors, SC  
 Susan Hollyday, Nashville, TN  
 Marty Howes, Sylvania, GA  
 Grace Larsen, Stuart, FL  
 Thor Larsen, Stuart, FL  
 William Larson, Santee, SC  
 Daniel Lorentz, Charleston, SC  
 Steve Miller, Columbia, SC  
 Robert Phillips, Jacksonville, FL  
 Janis Rodriguez, Cumming, GA  
 Helen Vose, Carthage, TN  
 Henry Wilkinson, Charlotte, NC  
 Neill Wilkinson, Charlotte, NC

**Second Week**

Robert Allison, Cary, NC  
 Darrell Barnes, Blythewood, SC  
 Carole Bennett, Folly Beach, SC  
 Scot Bowling, Chapel Hill, NC  
 Gary Brown, Southport, NC  
 Bob Cole, Hopkins, SC  
 John Conners, Waco, TX  
 Jamie Destefano, Marietta, GA  
 Cliff Fontenot, Port St. John, FL  
 Robert Hanlin, Charleston, SC  
 Margaret Harris, Charleston, SC  
 Crist Holden, New Hill, NC  
 Susan Hollyday, Nashville, TN  
 Bill Lyles, Lexington, SC  
 Anne-Marie Moran, Lakeland, FL

Marjorie Plummer, Princeton, NJ  
 Nancy Smith, Folly Beach, SC  
 Mike Toothill, Piedmont, SC

**Third Week**

William Anderson, Nashville, TN  
 Rebecca Barrera, Columbia, SC  
 Bob Cole, Hopkins, SC  
 John Conners, Waco, TX  
 Virginia Culp, Mountain Rest, SC  
 Rebecca Diamond, Lawrenceville, NJ  
 Joel Evans, Bryson City, NC  
 John Farris, Hermitage, TN  
 Cliff Fontenot, Port St. John, FL  
 Robert Hammond, Westbrook, ME  
 Agnes Holladay, Fairview, NC  
 Curtis Holladay, Fairview, NC  
 Terry Hynes, Atlanta, GA  
 Arthur Libourel, Southampton, NJ  
 Bill Lyles, Lexington, SC  
 Holly Norton, Columbia, SC  
 Nancy Olsen, Newnan, GA  
 Clayton Parham, Latta, SC  
 Jennifer Secrest, Cary, NC  
 Alison, Simpson, Greenville, SC  
 John Simpson, Greenville, SC  
 Mark Tolly, Nashville, TN  
 Ruth Wetmore, Brevard, NC  
 Connie White, Atlanta, GA  
 Brian Whittington, Wilkesboro, NC  
 Dennis Zeunert, Virginia Beach, VA

**Fourth Week**

Darrell Barnes, Blythewood, SC

Mark Bracken, Decatur, GA  
 Bob Cole, Hopkins, SC  
 Sallie Connah, Charleston, SC  
 John Conners, Waco, TX  
 Cynthia Curry, Charlotte, NC  
 Hal Curry, Charlotte, NC  
 Desca Dubois, Lake Park, FL  
 Robert Ferguson, Safety Harbor, FL  
 Cliff Fontenot, Port St. John, FL  
 Robert Foxworth, Tampa, FL  
 Roger Hagler, Raleigh, NC  
 Susan Hollyday, Nashville, TN  
 Terry Hynes, Atlanta, GA  
 Ann Judd, Charlotte, NC  
 Patricia Morris, Tampa, FL  
 Kelly Mulvihill, Parkin, AR  
 Tom Pertierra, Greenville, FL  
 Gregory Pfanstiel, Indianapolis, IN  
 Grady Spann, Parkin, AR  
 Ruza Vacek, St. Petersburg, FL  
 Darryl Wally, Pittsboro, NC  
 Jayne White, Charlotte, NC  
 Dennis Zeunert, Virginia Beach, VA

**Fifth Week**

Depy Adams, Charlotte, NC  
 Lezlie, Barker, Greenville, SC  
 Claire Buffkin, Charlotte, NC  
 Carla Daws, Athens, AL  
 Cliff Fontenot, Port St. John, FL  
 Sara Jane Frazier, Decatur, GA  
 Kevin Gallagher, Wading River, NY  
 April Gordon, Rock Hill, SC  
 Don Gordon, Rock Hill, SC  
 Susan Hollyday, Nashville, TN  
 Terry Hynes, Atlanta, GA  
 Bill Larson, Santee, SC  
 David Leaphart, Greer, SC  
 Elizabeth Leaphart, Greer, SC  
 Sallie Legare, Columbia, SC  
 Bill Lyles, Lexington, SC  
 Brian Marcel, Ann Arbor, MI  
 Rick McDonnell, Brooksville, FL  
 Dot Moore, New Smyrna Beach, FL  
 Gary Scrivano, Seymour, CT  
 Brian Siegel, Greenville, SC  
 Wanda Stover, Charlotte, NC  
 Ted Tsovolos, Chapin, SC  
 Ned Wallace, Columbia, SC  
 Jim Way, Dorchester, SC



Figure 10: The lab team sorting artifacts from the Topper site at SCIAA. Standing: Bill Larsen, and Al Goodyear; Sitting: Van Steen, Kenn Steffy, and Norm Cox. (SCIAA photo by Daryl P. Miller)

# Delineation of an African-American Cemetery (38BU1895B) on Parris Island, South Carolina

By Chester DePratter and James Legg

In July 2000, historic map research by the authors led to the identification of an unmarked African-American cemetery (38BU1895B) on the Parris Island Marine Corps reservation. The cemetery appears on at least four USMC maps dating between 1916 and 1921. The site was deliberately avoided when an extensive temporary barracks complex, the West Wing Extension (38BU1895A), consisting of barracks, messhalls, latrines, and a hospital, was constructed in the area during World War I (Figure 1). The barracks were removed in 1927, and the cemetery site appears intact on a 1933 map. Apparently any surface indications of graves were removed some 60 years ago, when several small warehouses were built around the edges of the cemetery, and knowledge of the cemetery began to fade.

This cemetery is one of at least four cemeteries on the island containing graves of slaves, freedmen, and later island residents. In the decades prior to the Civil War,

there were about 500 slaves living on several Parris Island plantations. In the years after the war, the island had between 500 and 800 African-American residents. When the U. S. government began purchasing large tracts of Parris Island land during World War I, Black residents were permitted to remain on the island under a lease arrangement. In 1927, all residents except those who were employed by the Marine Corps were forced to leave, and in 1937, the

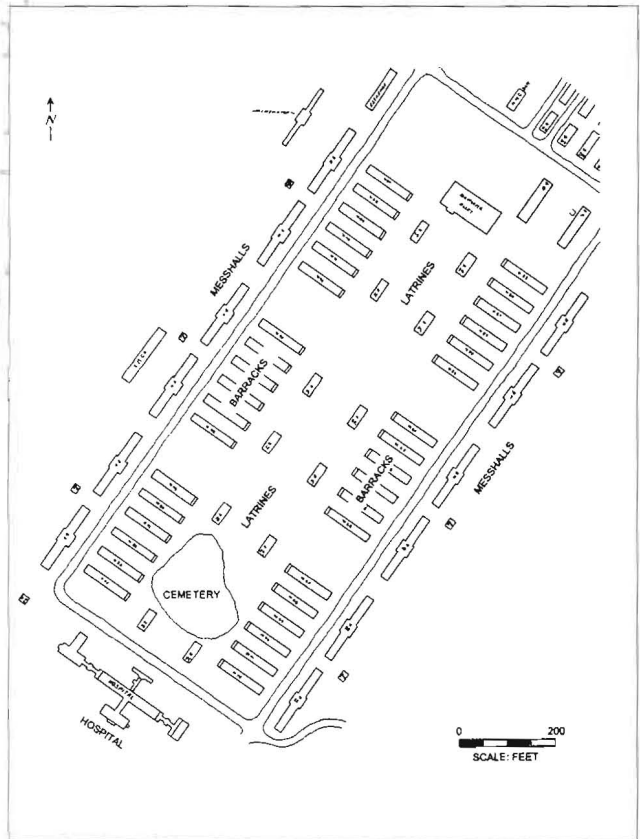


Figure 1: Detail of a 1919 USMC map showing the West Wing Extension barracks complex built in 1918. Building identifications have been added by the authors. (SCIAA map)

last Black residents were relocated off of the island.

The cemetery's location was misplotted by previous researchers who placed it beneath a recruit mess hall located approximately 1,000 ft from its actual position. When we notified the Marine Corps of the actual location, they immediately requested that we conduct fieldwork sufficient to delineate the boundaries of the cemetery. The tract occupied by the cemetery is a grassy, sparsely wooded recreation area with picnic tables, horseshoe pits, and a volleyball court.

A ground-penetrating radar survey of the site was undertaken in August by a team consisting of Dr.



Figure 2: A ground penetrating radar survey preceded test excavations at the cemetery. Left to right, Nina Serman, Rebecca Barrera, and Dr. Kent Schneider. (SCIAA photo)

Ervan Garrison and Nina Serman from the University of Georgia and Dr. Kent Schneider of the U. S. Forest Service (Figure 2). The radar results were intriguing but were too ambiguous for site delineation, although final results of this work are pending.

Boundaries were established through test excavations conducted by Santa Elena Project staff between September 5-14, 2000. Twenty-eight, shallow (1.0 ft to 1.5 ft-deep) backhoe trenches totaling 935 ft in length were excavated, screened, cleaned, drawn, and mapped (Figure 3). Trenches were excavated only to the base of the topsoil layer in order to limit intrusion into graves. All or portions of 55 grave features were recorded (Figure 4). The maximum dimensions of the cemetery were revealed to be

about 265 ft X 165 ft, with the total number of burials estimated at between 450 and 500. The cemetery was found to lay substantially undisturbed, with only minor infringements by the warehouse complex (Buildings 856, 866, and 867 on Figure 3) developed during World War II. The size of the cemetery, among other clues, suggests that it

may have been in use for several generations, and it is reasonable to suppose that 38BU1895B was originally the cemetery for the slaves of one of the five or six major plantations that occupied Parris Island after the mid-18th century.

Sea Island African-American cemeteries dating to the late-19th and

other had a broken whiteware bowl. In addition, a small collection of other items that were possibly grave goods was recovered from disturbed, topsoil context, including parts of several pressed glass vessels and a porcelain dog figurine. The general scarcity of grave goods at 38BU1895B suggests either that the practice of

placing personal items on top of graves was not common among Parris Island residents, or, more likely, that landscaping during World War I barracks construction or World War II warehouse development resulted in removal of most such materials. All grave-related artifacts have been analyzed and photographed, and all will be re-buried at their original locations in December, 2000.

Our testing yielded evidence of other occupations of the 38BU1895 area. A variety of prehistoric materials was recovered, including

ceramic sherds and three projectile points, spanning a period from about 4,000 to about 500 years ago. A possible Late Archaic period (4,000-3,000 B. C.) habitation site was suggested by a cluster of Stallings Island fiber-tempered potsherds in association with a faded, linear stain that may be a house wall feature. The 1918 West Wing Extension complex was

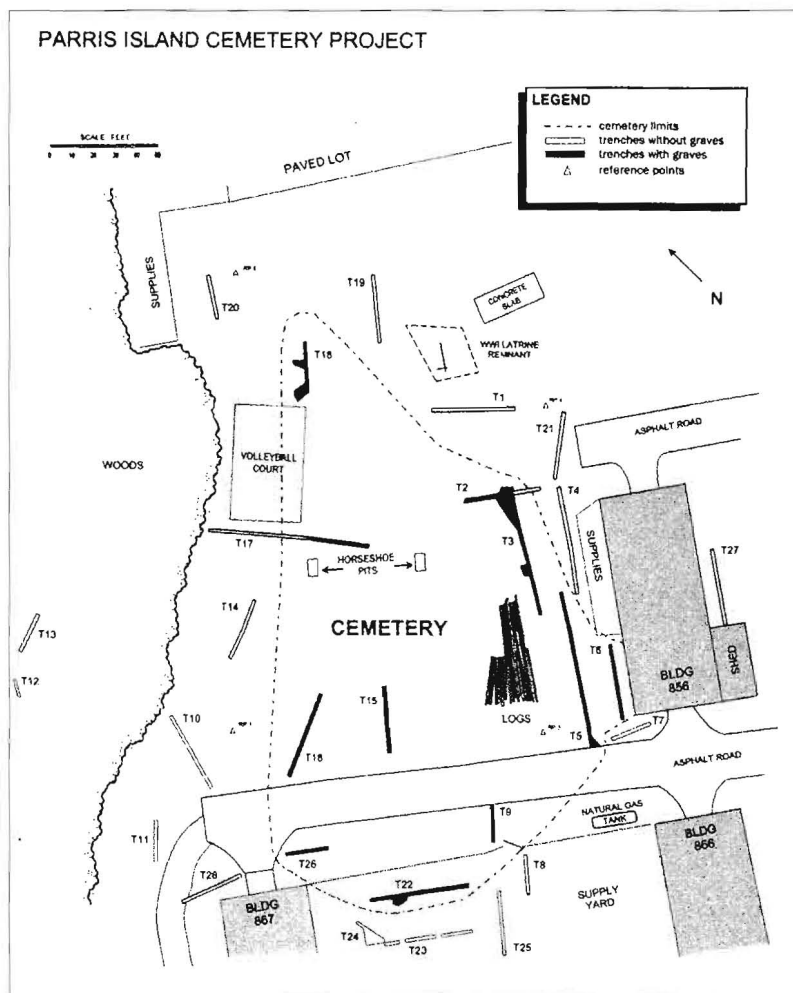


Figure 3: 38BU1895B site map. (SCIAA map drawn by Lisa Hudgins)

early-20th centuries typically exhibited an array of surface grave goods such as bottles, ceramic vessels, clocks, whelk shells, etc. No such objects were present on the surface at 38BU1895B, and only two of the 55 graves encountered had associated artifacts—one had a collection of glass bottles and tumblers dating to ca. 1900, and the





Figure 4: One of the 28 backhoe test trenches dug to define the limits of the cemetery. The features with light, subsoil fill are graves; Building 856 is to the right. (SCIAA photo)

represented by World War I USMC artifacts, including uniform buttons, web equipment hardware, rifle and pistol cartridges, and architectural debris (Figure 5). A posthole, foundation rubble, and iron pipes from a 1918 latrine/bathroom building were found just beyond the northeast edge of the cemetery.

Although this work was a departure from our long-time involvement in

research at Santa Elena, it turned out to be an interesting project. Our work on this cemetery will allow it to be preserved and protected from disturbance. A final report on this project will be completed in Spring, 2001.

Field crew for this project consisted of Chester DePratter, James Legg, Kris Asher, John Kirby, Lisa Hudgins, and Rebecca Barrera. Transit work was done by Stanley South and Chester DePratter; Lisa Hudgins produced the final site map. The laboratory crew consisted of James Legg, Kris Asher, John Kirby, Erica Bruchko, and Frank Talbot. The backhoe was provided by Patterson Construction Company and was operated by Kenny

Bennett. Work on the site was funded by a grant from the U. S. Marine Corps.



Figure 5: World War I USMC artifacts from the West Wing Extension occupation. Items include an unfired .30'06 cartridge, a blank .30'06 cartridge, a .30 caliber rifle bullet, an unfired .45 caliber automatic pistol cartridge, a Springfield .30'06 5-round clip, a web equipment strap end, a bootlace tip, and USMC uniform buttons. (SCIAA photo)

## SANTA ELENA DESIGNATED AS NATIONAL LANDMARK By Chester DePratter



Save America's Treasures 2000 Logo

In January 2001, Santa Elena will be officially designated a National Historic Landmark by Secretary of the Interior Bruce Babbitt. The new designation covering 67 acres includes the remnants of Charlesfort and the town of Santa Elena and its two known forts. Dr. Mark Barnes, Senior Archeologist, National Register Programs Division, National Park Service, began work on this nomination more than a decade ago and finally achieved success through dogged persistence.

Also, the site recently was designated an official Save America's Treasures site. Save America's Treasures is a partnership between the National Trust for Historic Preservation and the White House Millennium Council.

Plans are currently being made for a May, 2001, ceremony on the Charlesfort/Santa Elena site to celebrate these two important listings. For information concerning this event, contact Chester DePratter at SCIAA.

*Save America's Treasures is a White House Millennium Council initiative created by President and Mrs. Clinton as part of the National Millennium Commemoration and was established February 2, 1998. It is a national effort focused on "protecting America's threatened cultural treasures..., including significant documents, works of art, maps, journals, and historic structures that document and illuminate the history and culture of the United States."*

# Cultural Resources Consulting Division

## Interim Report on the Sandy Island Research Program Excavations at 38GE469

By Christopher Ohm Clement

In May and June of 2000, the Cultural Resources Consulting Division kicked off what we hope is a long-term research effort on Sandy Island in Georgetown County, South Carolina, by conducting preliminary excavations at 38GE469. The project was funded by the Historic Ricefields Foundation and by SCIAA's Robert L. Stephenson Archaeological Research Trust. The success of our fieldwork was greatly enhanced through the cooperation of the South Carolina Department of Transportation and The Nature Conservancy, owners and managers of Sandy Island, respectively. Although analysis of the artifacts and other material recovered has not been completed, 38GE469 is a fascinating site that should contribute a great deal to our understanding of the Native Americans who lived in Georgetown County, both before European colonization and during the period our state was being colonized. A word of warning: although archaeologists are typically thought of in the Indiana Jones mold, swashbuckling their way around the globe in search of fantastic relics, in reality archaeologists deal with the more mundane cast-off remnants of everyday life. Our goal is to understand how people lived in the past in as much detail as possible. As a result, the popular image of the archaeologist is less than half the story. The bulk of our time is spent in the laboratory, where each artifact is painstakingly washed, identified, described in detail, and listed in a

computer data base. Only after these rather basic tasks have been accomplished does the real fun—answering the question, what does it all mean?—start. We have not yet reached this stage with the Sandy Island material.

Without having completed the analysis, what can we say for sure about 38GE469? First, the site was last occupied during the early 1700s. We can say this with certainty because several small glass "seed beads," manufactured in Europe primarily for trade with the Indians, were found during the project. The beads were a surprise, as previous work at the site found no evidence of a historic occupation. In particular, a "Cornaline d'Aleppo" bead found at the site was manufactured as early as the 16th century but most commonly occurs during the late-17th or early-18th century in South Carolina. Its presence tells us that we are investigating a particularly important and exciting period, when Native Americans were struggling to maintain their ancestral ways in the face of European encroachment.

When the site was first occupied

is less secure. Pottery on the site includes some that is decorated with small, applied pellets around the rim, characteristic of the contact period. Other pottery on the site is cord-marked or check-stamped, both decorative motifs that were used over a long period of time across the Southeast, including possibly into the 18th century. One of our principal goals for this project is to begin figuring out just when these and other decorative styles were in use on Sandy Island.

Second, the site was intensively occupied, meaning that the people who lived on it did so for an extended period. The primary deposit at the site is a dense lens of "midden," dark, organically-enriched soil resulting from the continual deposition of trash (think your

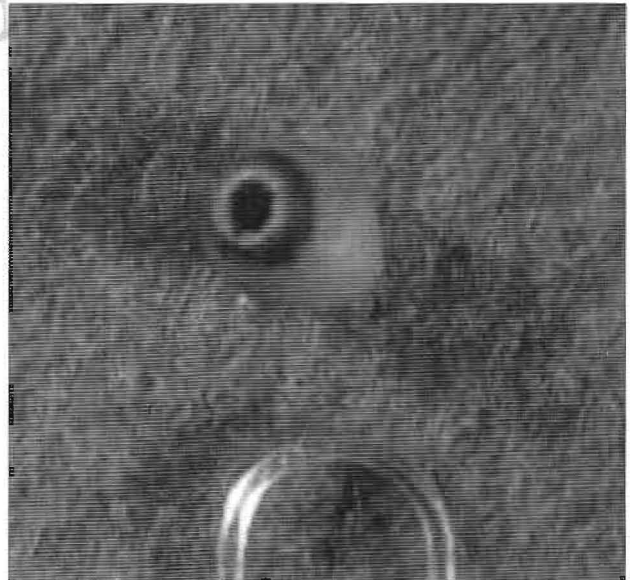


Figure 1: Cornaline d'Aleppos are drawn glass beads characterized by a dark green core (visible around the hole) and an opaque red exterior. This one, recovered from 38GE469, helps date the site to the early 18th century. The object at bottom is a paper clip for scale. (SCIAA photo)

See SANDY ISLAND, Page 30

## SANDY ISLAND, From Page 29

compost heap), measuring up to 20 cms thick. Most likely, 38GE469 was occupied year-round for at least part of its existence, but all we can say for sure at this point is that it was occupied between September and April. This is based on the presence of several roasting pits containing clam shell. Research across the Southeast has demonstrated that, as we do today and for the same health reasons, prehistoric peoples preferred to gather and eat their shell fish during the cooler months, those with an "r" in their names. Of course, the shell recovered from 38GE469 will have to be analyzed by an expert before we can draw this conclusion with certainty. For the time being, suffice it to say that 38GE469 was a hamlet, or small village, occupied by up to several extended families during the early historic period. Why they selected Sandy Island for settlement, what additional resources they exploited, and how they organized themselves must await further examination of the data from 38GE469.

Our most basic goal in excavating 38GE469 was to gather enough pottery to begin creating a temporal framework for the island. Pottery styles changed through time in the same way that, for example, people's style of dress have changed. In my lifetime—40 years (give or take)—we've gone through jeans rolled at the cuffs and white t-shirts, through bell bottoms and tie-dye, khakis and izods, to whatever it is kids these days wear (hemp of all things, and

those really baggy pants). Pottery styles also changed through time, though at a much slower rate, with particular styles being introduced, gradually growing in popularity, reaching a zenith, and then just as gradually being replaced by new styles. Statisticians refer to this phenomenon as a normal curve. If you graphed the number of pottery fragments of a particular style through time on a horizontal axis, it would be bell-shaped, with the



Figure 2: The dark soil stain being cleaned by Ramona Grunden is a roasting pit, which can also be seen in the wall extending downwards from the midden layer. The white objects are clam shells. (SCIAA photo)

introduction on the left, the zenith in the center, and abandonment on the right. Unfortunately, it's not always so simple. Confusing the issue, while one style was gaining in popularity, two others might be losing. Some styles remain somewhat popular for a long period of time. Finally, sometimes a style may be all but gone from the archaeological record, only to be resurrected and become popular again at a later date. These are the basic patterns we will be looking for as we get further into analysis of the more than 1,500 pottery fragments recovered by the project. To help in

this process, a small grant from SCIAA's Archaeological Research Trust (ART) was received. This will allow us to date organic material (primarily charcoal and shell) from the site, correlating these dates with the changes we see in pottery styles.

A second basic goal of the project is to begin understanding Sandy Island itself, from a geological perspective. Archaeologically, this is important baseline information. By understanding the geological processes at work on the island, we can better understand the environment inhabited by prehistoric peoples and the factors effecting the way the archaeological record was formed. Both are crucial to our ultimate goal of understanding Sandy Island's past. To this end, a team of geologists and geoarchaeologists from the University of South Carolina, Coastal Carolina University, and Georgia College will join our own

efforts, conducting research on Sandy Island in support of the archaeological work. They will work both on the sites we are excavating in an attempt to help us better understand their internal structure, and in other locations on the island where we hope to learn when and why such an unusual geological phenomenon as Sandy Island came about. Sandy Island is a very special place, with unique natural habitat and beautifully preserved archaeological sites. Fortunately, it is protected from development and encroachment by legal covenants. Beyond the South Carolina Department of Transporta-

tion and The Nature Conservancy, other Federal and State agencies as well as private groups also play a vital role in Sandy Island's preservation and management for future generations. Currently, we are setting up a Memorandum of Agreement with all of these stakeholders, a partnership that we hope will allow more streamlined access to Sandy Island for further research while continuing to protect the island's unique resources. Until that task is accomplished, we are focusing our efforts on organizing and understanding the material from 38GE469.



Figure 3: Drs. Scott Harris (left) and Eric Wright, both geologists with Coastal Carolina University, preparing a lacquer peel from one of our excavation units. Lacquer peels are essentially long strips of lacquer-impregnated cheese cloth. When they are pressed against the wall of an excavation unit, a continuous record of the different soil layers adheres. These can then be closely examined in the lab, and clarify both local environmental processes and human activities. (SCIAA photo)

**ANNOUNCING A NEW BOOK: TRADITIONS OF THE SWAMP FOX BY WILLIAM WILLIS BODDIE**

GENERAL FRANCIS MARION, the Revolutionary War partisan commander known as the Swamp Fox, may well be the most famous personality in all South Carolina history. A man of outstanding abilities with a personality that commanded admiration and loyalty, this commander of a small band of ragged partisans baffled English officers like Lord Rawdon and Banastre Tarleton. For two years Marion's regiment was the only significant force in Lowcountry South Carolina. Usually associated with his "lair" on Snow's Island, Marion operated in the region of the Lynches Creek and along the Pee Dee and Black Rivers, emerging from the swamps

and rivers at night to strike at forces much larger than his own and disappearing into the bogs and forests by day.

*Traditions of the Swamp Fox* by William Willis Boddie, is a contribution not to the scholarly pursuit of the elusive partisan general but to the great body of folklore and legend that has grown up around this colorful figure. In an excellent scholarly introduction to this volume, Steven D. Smith, Head of the Cultural Resources Consulting Division at SCIAA and an archaeologist and Marion researcher, explains the difficulties in the Marion tradition, places Boddie's work in the context of other biographies of the Swamp Fox, gives the background of the

present publication, and summarizes the life of William Willis Boddie V, an amateur historian who wrote hundreds of sketches about Williamsburg County and the region around Kingstree. Admitting that this book is "mythical but spiced with the reality that Marion did exist," Smith invites the reader to "sit back and enjoy history as it was told many years ago: at a fancy table in the parlor of a great house plantation, around the hearths of backcountry farmers or lowcountry slaves, around general-store stoves, or around grandma's rocker. Read and enjoy it as our ancestors did, with a cup of reverence, a tablespoon of patriotism, and several grains of salt."

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# Savannah River Archaeological Research

## Historic Data or Just Old Maps?: The Digital Mills' Atlas Project at the SRARP

By J. Christopher Gillam

### Introduction

Recent research at the Savannah River Archaeological Research Program (SRARP) demonstrates the prospects of Geographic Information Systems (GIS) technology for improving historic map accuracy. This was accomplished by digitizing portions of the Barnwell District map from the 1825 Mills' Atlas of South Carolina to form a geographic database, converting it to the modern UTM coordinate system, rubber-sheeting the data to modern landscape features, and measuring the distance from the map location of four known sites to GPS-verified site locations for a determination of map accuracy. It is illustrated that the Barnwell District map has very poor horizontal accuracy, but improvements of nearly 45 percent are possible through manipulation of the mapped data.

### Background

The Mills' Atlas has national significance, representing the earliest statewide mapping project in the United States. The atlas contains 28 provincial maps and was published by the famous engineer and architect, Robert Mills, in 1825. Nineteen different surveyors conducted the original surveys between 1816 and 1824. Originally contracted for the production of John Wilson's 1822 State Map of South Carolina, the provincial maps were refined and re-drafted by Mills at a consistent scale of 1:125,000 for the atlas.

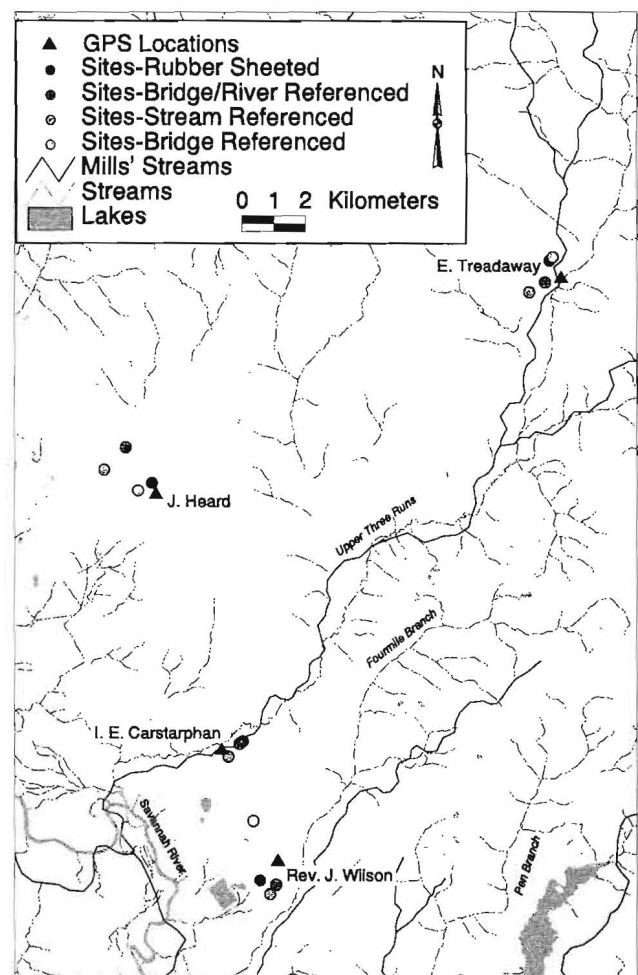
Thomas Anderson conducted the survey for the Barnwell District map in 1818. Like the other provincial maps, it contains a wealth of information about the cultural and environmental landscape of the era. In all, there are 80 cultural features depicted in the vicinity of the modern Savannah River Site (SRS) boundary. These features consist of 13 mills, 51 homesites, five churches, one warehouse, two ferries, three landings, and five bridges.

Documents of the cultural resources in this area suggested that at least four of Mills' sites had been

previously identified by archaeological survey. These consist of four homesites belonging to Ernest Treadaway, John Heard, I. E. Carstarphan, and the Reverend Jackson Wilson, consecutively. These sites were recorded during the normal compliance activities of the SRARP and were ground-truthed using a high-accuracy Global Positioning System (GPS) for this project.

### Methods

The methods of this research included tasks of data development and analysis common to most GIS systems.



Distribution map illustrating rectified and rubber-sheeted site locations relative to their GPS-verified locations. (SCIAA drawing)

The map data were input into the GIS with a large digitizer, but a large-format scanner could be used instead. These processes are similar, the former representing a map-to-map rectification and the latter representing an image-to-map rectification. The coordinates were then updated in the map layer's associated database file and the layer subsequently projected to the UTM coordinate system. Once rectified to UTM meters, the historic features were rubber-sheeted to match modern landscape features. Then, the distances from the digitized locations to the GPS-verified locations of the four sites were calculated. Finally, summary statistics were generated from the distance measures, and a map was designed for cartographic output.

The data were rectified to the UTM coordinate system using control points derived from natural and cultural features discernable in the historic map and modern USGS 7.5' topographic quadrangles. The UTM coordinates of all control points were derived from the GIS data layers developed from the original USGS 7.5' topographic quads. To facilitate comparison and to refine the results, three separate sets of control points were used to produce three separate representations of the Mills' Atlas data in the GIS. The first used only natural landscape features (n=14), specifically major stream confluences and a large Carolina Bay. The second set of control points were based upon stable cultural features (n=7), bridges over the major tributaries of the Savannah River. The third set, a hybrid of the first two, used the bridges and the major stream confluences with the Savannah River (n=13). These mapped data are statistically compared to the final rubber-sheeted data in the following table.

## Results

The great amount of variation in point location accuracy for the rectified data layers is evident in the output map. Even the best results indicate that the Barnwell District map has very poor horizontal accuracy (see table). However, rubber-sheeting the data to modern map features improves the accuracy by nearly 45 percent over the best of the other rectification processes (average distance of 627 m, compared to 905 m for the Bridge/River referenced data). With an average distance error of over 600 m, the data do not come close to meeting today's map accuracy standards. To illustrate this point further, the USGS standard for a 1:125,000 scale map requires that not more than 10 percent of points tested be in error of more than 64 m of their actual on-the-ground location. The error exhibited by the Mills' Atlas data is nearly 10-fold greater than that of the modern standard.

Despite its poor accuracy, rubber-sheeting enables the data to be normalized relative to modern landscape features. This improves the absolute horizontal accuracy of the data and permits the delineation of archaeological survey areas by narrowing down likely areas of site occurrence. The automated determination of site location is possible to within approximately 600 m.

Likewise, visual interpretation of historic map data is aided by incorporating modern landscape features. The potential for site destruction, protection, and discovery are just a few examples of visual analyses enabled by the automation of the data in a GIS environment. Hardcopy maps can also be produced and given to relatively inexperienced field crews, requiring minimal interpretation skills to comprehend modern and historic landscape relationships.

### Distance and summary statistic measures (m) from the rectified to the GPS-verified locations.

	Bridge Ref.	Stream Ref.	Bridge/River Ref.	Rubber Sheet
Heard Site	566	1,774	1,710	329
Carstarphan Site	2,476	327	568	703
Wilson Site	3,793	1,109	794	855
Treadaway Site	662	1,138	546	620
Mean	1,874	1,087	905	627

# Archaeological Research Trust

## SCIAA Researchers Funded By ART 2001

By Nena Powell Rice

On November 17, 2000, the Board of Trustees of the Archaeological Research Trust (ART) made decisions to fund three SCIAA researchers for the year 2001. A total of \$7,380 was given.

### Sandy Island Archaeological Project

Christopher Clement received \$3,940 to fund six radiometric dates and four AMS dates from three different excavation contexts from the Sandy Island Archaeological Project in Georgetown County, South Carolina. The Cultural Resources Consulting Division recently conducted a three-week field effort at 38GE469, a site on Sandy Island (See pp 29-31). Over 12 cubic m of soil was excavated in eight excavation units. The site contains artifacts from the Woodland to Protohistoric periods, and pit features are also present. Although a full artifact count is not yet available as analysis is ongoing, it is estimated that approximately 1,500 ceramic sherds were recovered. These include all of the principal decorative techniques known in coastal South Carolina and North Carolina, as well as most of the known tempering materials. Identifying and ordering the Sandy Island ceramics has been a primary goal of the research. The funds from ART will pay for radiocarbon dates of organic material associated with the recovered ceramics.

### Le Prince Research Project

James Spirek received \$2,000 to undertake research at the Archivo General de las Indias (AGI) in Seville,

Spain. A contract will be set up with Sr. Claudio Bonifacio, a resident of Seville and an experienced researcher of over 20 years in the archives, to conduct the research. Sr. Bonifacio will undertake 120 hours of research in the archives to locate materials related to *Le Prince*, also known as *El Principe* to contemporary Spaniards, in the AGI. He will also note relevant documents concerning corsairing in general during the 16th century. Intended results of this research include additional information to aid in interpreting the remains of the vessel, historical background information regarding French and other foreign corsairs in the West Indies, and most importantly, testimony by the captured *Le Prince* survivors concerning the voyage and incidents surrounding the wrecking.

### Allendale Paleoindian Expedition

Albert Goodyear received \$1,440 to bring in a paleobotanical specialist to sample and analyze plant remains from ancient river sediments located in a floodplain near the Topper site in Allendale County, South Carolina. The Topper site is considered to be a pre-Clovis archaeological site dating between 18,000 and 16,000 years ago.



Paul Gayes and Coastal Carolina University students with Tom Stafford examining vibracore sediments from the Savannah River floodplain. (SCIAA photo by Albert Goodyear)

It has been determined that the oldest artifacts are located in ancient river soil deposited sometime during the last Ice Age. Since no charcoal or plant remains are preserved there, Dr. Goodyear and his team have turned to an adjacent floodplain to date the age of the flood sediments. Radiocarbon dates between 37,810 and 18,570 yrs B. P. have been obtained there on plant remains. Plant remains are known to be preserved here and should be useful for explaining the ancient environment and climate during the pre-Clovis era. Dr. Lucinda McWeeny has agreed to come to USC and collect specimens for study in her laboratory. This is a pilot study to determine density and degree of preservation for a more extended study. Her identifications will also aid us in selecting plant remains for radiocarbon studies, which are ongoing.

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# ART Board Activities in 2000

By Nena Powell Rice

2000 was a great year for the Archaeological Research Trust (ART) Board of Trustees. The board meets four times a year in different areas around the state in conjunction with SCIAA archaeological projects in progress. These projects give the board the opportunity to meet the staff and allow the board to see the fieldwork being conducted first hand. We also combine these meetings with archaeological education and provide opportunities to meet the local community with several social gatherings planned.

On February 18-19, 2000, we held the meeting in Columbia in conjunction with the 26th Annual Conference on South Carolina archaeology, with the opportunity to meet Dr. Tom Dillehay, well known for his early man work at Monte Verde, Chile. On Friday, Chair John Frierson and his wife Sissy hosted a special dinner at their home in Lexington following an Archaeology Colloquium by Dr. Dillehay. On Saturday, the ART Board had the opportunity to attend

the full-day conference and learn about the current archaeological research being conducted in South Carolina.

Our next gathering was on May 19, 2000, in conjunction with Albert Goodyear's Allendale Paleoindian Expedition.

Albert provided a wonderful catered dinner for us, and we toured the Allendale excavation the next morning following the board meeting, with lunch on site. This project has been very exciting, and Albert is very appreciative of the role the board plays in partially providing funding to this project.

We were very fortunate to be invited to the mid-upstate for the August 17-18, 2000 meeting, where



Jonathan Leader (State Archaeologist) and Christopher Amer (the new State Underwater Archaeologist) flank the Dean of the College of Liberal Arts, Dr. Joan Hinde Stewart. (SCIAA photo)

of the property from the main residence, barn, and corrals holding horses and cows. It was the idyllic setting for a lovely catered dinner with several interesting invited guests from the community. We had our meeting the next morning overlooking the tranquil lake, then caravanned to an area where Tommy Charles led us to several rock art (petroglyph) sites.

we gathered at Board Member Russ Burns and his wife Judy's beautiful 900+-acre farm near Laurens, South Carolina. The house where we had our meeting is situated on a beautiful lake surrounded by hardwood forests and pastures, and is located on the opposite side

Our last meeting of the year was held on November 16-17, 2000 in the Charleston area. This meeting was graciously hosted by Board Member Lou Edens at her 19th-century Rice Hope Plantation on the Cooper River. Board Member Cyndy Hernandez and her husband Pepe hosted a very special dinner on the evening before the meeting at their beautiful home on Hobcaw Creek in Mt. Pleasant. The location of their home is the site of the colonial Pritchard's Shipyard, which the Hernandez' family helped preserve and assisted in funding the excavations previous to the home construction. Many people from the community were also invited, and evening lectures were given by



Lynn Harris, (left), gives an explanation of the *Mepkin* wreck rudder to the Archaeological Research Trust Board of Trustees at Rice Hope Plantation. The rudder was being conserved and will be replaced on the wreck spring 2000. (SCIAA photo by Nena Powell Rice)

See ART, Page 40

# Special Activities

## 2000 South Carolina Archaeology Month

By Nena Powell Rice

South Carolina Archaeology Month was celebrated September 8 - October 7 in over 50 locations throughout South Carolina. Events and programs were developed by dedicated professionals and organizations in order to bring our state's colorful past to life for all ages. Through such public outreach efforts, the archaeological community hoped to build regional and local public support for the preservation of our Native American, African, European, and other heritages.

Coordinated by the South Carolina Institute of Archaeology and Anthropology at the University of South Carolina, tours, lectures, demonstrations, exhibits, canoe trips, and open excavations were scheduled during September and October in several communities and state and national parks around South Carolina. The theme for the 9th annual SC Archaeology Month poster was "Ancient Gardening in South Carolina, 10,000 BC - AD 1685."

"Most people will probably be surprised to learn that corn, beans, and squash have only recently been grown by American Indians and that for thousands of years before that other native lesser known and now extinct crops were a staple in Indian diet," says Dr. Gail Wagner, paleoethnobotanist at the Department of Anthropology at USC and author of the text on the back of the poster. "Another surprise is the fact that when Europeans first set foot in South Carolina, they did not find untouched virgin forests stretching to the Mississippi River. Instead, Indians had been managing the landscape for at least the last 10,000



Visitors to the Archaeology Festival participate in a pike drill led by The Men of Menendez, Spanish reenactors from St. Augustine. (ASSC photo by Nena Powell Rice)

years."

In September 2000, Archaeology Month programs included an open excavation at Galphins Trading Post at Silver Bluff, several archaeology canoe trips on the Ashley and Congaree Rivers, daily programs at the Coastal Discovery Museum on Hilton Head Island, several programs at the South Carolina State Museum, Historic Brattonsville, and the Sewee Visitor and Environmental Education Center, a burial custom lecture at The Penn Center on St. Helena Island, an archaeological extravaganza at The Charleston Museum, a popular Old Time Horse Farmers Gathering near Blackville, several festivals, including the Columbia Historic Foundation's Festival of Heritage, USC McKissick Museum's Fall Folklife Festival, and the 11th Annual Yap Ye Iswa, sponsored by the Catawba Cultural Preservation Project, and numerous cultural programs at over 20 state parks across the state.

Archaeology Month activities culminated with the 13th annual Archaeology Festival at Sesquicentennial State Park in Columbia, on

October 6-7, 2001. Sponsored by the Archaeological Society of South Carolina, SC Department of Parks, Recreation, and Tourism, and the SC Institute of Archaeology and Anthropology, this major event offered demonstrations of prehistoric and historic technologies and highlighted performances by the Catawba Indian Nation, a New World Food Festival, storytelling, pottery making, stone tool making, blow guns, wrought-iron making, children's games, artifact identification, exhibits, music, and a popular archaeological auction. Friday night offered a Lantern Tour Through Time, where participants met prehistoric people of the Pleistocene and Archaic periods and historic characters from the Spanish, colonial, Antebellum, and Civil War eras.

Organizers of next year's events are already working. The theme for the poster in 2001 will celebrate the 25th anniversary of the Heritage Trust Program in the SC Department of Natural Resources. The text and illustrations on the back of the poster will focus on 11 cultural preserves in the Heritage Trust Preserve Program.

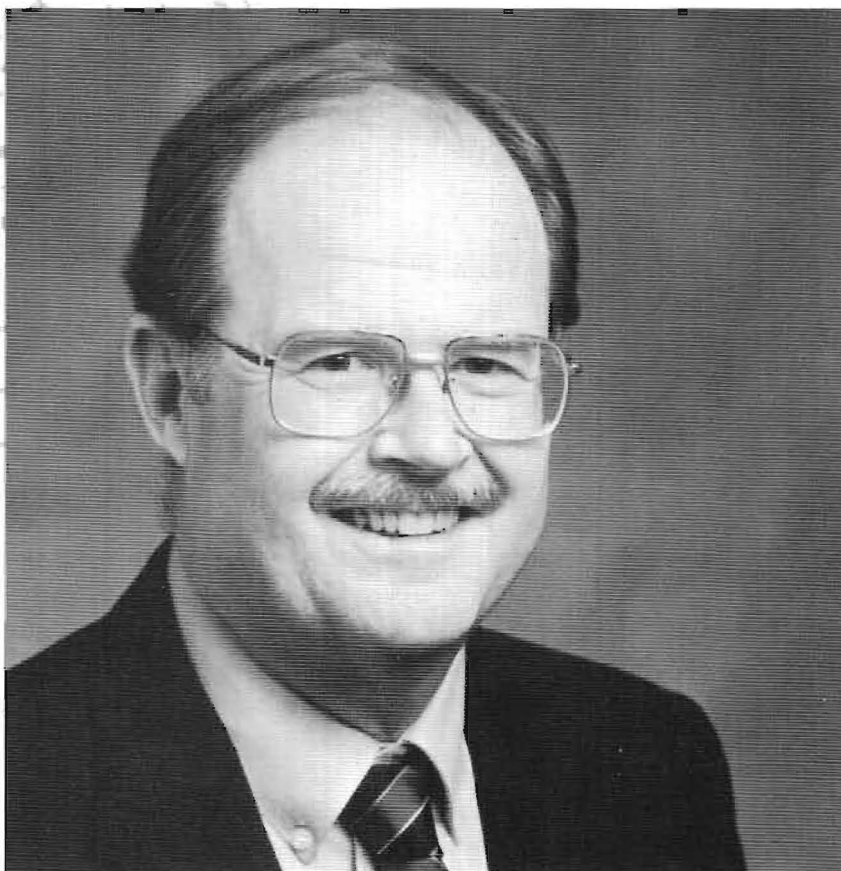
# Dr. George F. Bass, Premier Underwater Archaeologist, to Speak at Annual Archaeology Conference February 17

By Nena P. Rice

The 27th Annual Conference on South Carolina Archaeology will be held on Saturday, February 17, 2001, at the Capstone Building on the University of South Carolina, Columbia campus. Admission to the conference is \$10 for non-members, \$8 for adult members, and \$5 for students/children. (You may apply for membership at the event to receive the reduced rate.) There will be a luncheon for \$7 and the evening banquet, featuring Dr. George F. Bass as the distinguished honorary speaker, will be \$18. The evening lecture is titled, "Nautical Archaeology and the Phoenicians of Homer." Dr. Bass will also present a lecture at a SCIAA Archaeology Colloquium on Friday afternoon in Harper College (on the Horseshoe), Gressette Room, 3rd floor, at 3:00 P.M. The title of his special afternoon lecture is "*Serçe Limina: A Medieval Shipwreck off the Turkish Coast.*" To register early for the conference, luncheon, and banquet featuring Dr. Bass' lecture, please send a check to Treasurer Nena Rice, made payable to the ASSC. For further information, please contact Nena Rice at (803) 777-8170.

## George Fletcher Bass

George F. Bass was born in Columbia, South Carolina, on December 9, 1932, but grew up mostly in Annapolis, Maryland. He graduated from The Johns Hopkins University in 1955 with a M. A. in Near Eastern archaeology, and then attended the American School of Classical Studies at Athens, Greece, for two years. During that time, he gained excava-



Dr. George Fletcher Bass. (Photo courtesy of Texas A & M)

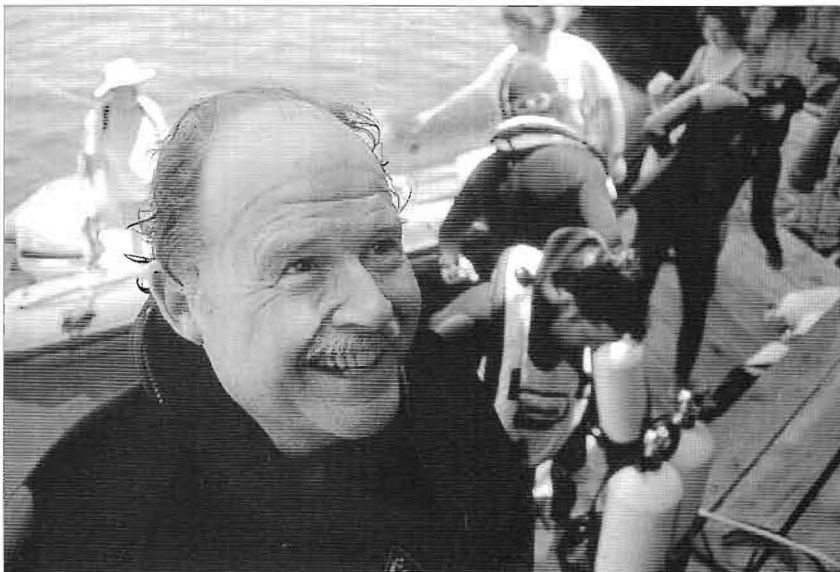
tion experience at Lerna, in Greece, and Gordion, in Turkey. From 1957 to 1959, he served as a lieutenant in the U. S. Army, mostly in Korea, and then began doctoral studies in classical archaeology at The University of Pennsylvania. In 1960, he was asked by his professor, Rodney S. Young, if he would learn to dive in order to direct the excavation of a Bronze Age shipwreck reported off Cape Gelidonya, Turkey, by journalist Peter Throckmorton; it became the first ancient shipwreck to be excavated in its entirety on the seabed, and led to the then controversial conclusion that Greeks did not hold a monopoly on maritime commerce during the Late Bronze Age, but that

early Phoenician traders were already active in the Aegean.

Bass devoted the rest of the 1960s to the excavation of two Byzantine shipwrecks off Yassiada, Turkey, where he developed new tools and techniques for underwater research: a submersible decompression chamber, a method of mapping underwater by stereo-photogrammetry, and a two-person submarine, the *Asherah*, launched in 1964, the year he received his doctorate and joined the University of Pennsylvania faculty. In 1967, his team was the first to locate an ancient wreck with sonar. In 1968, however, he returned to land archaeology to spend a summer with Professor Spiridon

Marinatos in the initial excavation campaign at Akrotiri, the Bronze Age city covered by volcanic ash on the island of Santorini.

In 1973, Bass left the University of Pennsylvania in order to found the Institute of Nautical Archaeology, which in 1976 affiliated with Texas A & M University, where he is now the George T. and Gladys H. Abell Distinguished Professor of Nautical Archaeology and also holds the George O. Yamini Family chair in Nautical Archaeology. The Institute conducts research on four continents, and has excavated the oldest known wrecks in the Mediterranean and Caribbean seas, but Bass continues to concentrate on shipwrecks in Turkey, including an 11th-century medieval ship with a large cargo of Islamic glass, and a 14th-century B. C. wreck with a cargo of copper, tin, ivory, glass, amber, gold, silver, and ebony, which has provided unique information for Homeric studies, Egyptology, and the histories of trade, literacy, technology, religion, art, and metrology. In 1999, he began to excavate a wreck from the Golden Age of Greece, the fifth century B. C., and in 2000 is using a new two-person



Dr. Bass diving off the southern coast of Turkey. (Photo courtesy of Texas A & M)

submersible to locate other wrecks.

In 1986, Bass received a Lowell Thomas Award from the Explorers Club of New York, and the Archaeological Institute of America's Gold Medal for Distinguished Archaeological Achievement. The following year he received an honorary doctorate from Bogaziçi University in Istanbul, and in 1998, received a similar degree from the University of Liverpool. The National Geographic Society awarded him its La Gorce Gold Medal in 1979 and, in 1988, one

of its fifteen Centennial Awards.

He has written or edited seven books and more than a hundred articles, and has lectured around the world; his projects have been televised internationally. With his wife Ann, he divides his time between College Station, Texas, and Bodrum, Turkey, where he was made an honorary citizen of the city. They have two grown sons, Gordon and Alan.

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## ART, From Page 36

Charlie Sneed on his tall-ship project, the *Spirit of South Carolina*, and Christopher Amer spoke on "Raising of the *Hunley*."

The Board meeting was held the next morning at Rice Hope Plantation. We had a very productive meeting in approving the SCIAA staff awards that are given each year, election of new officers, and approval of new Board Members. There were several special guests in attendance including the new Dean of the College of Liberal Arts, Dr. Joan Hinde Stewart. Sadly, several of our Board Members rotated off this year after serving two two-year terms. They were Andee Steen (Past Chair), Mark Brooks, Ernest L. "Chip" Helms, Jonathan Leader, Nadia Elena Mostafa, and Lindsay Pettus. John Frierson stepped down as Chair and will now serve as Past-Chair for one year. James Kirby will serve as Chair, Antony C. Harper will serve as Vice-Chair, and Cyndy Hernandez will again serve as Secretary. New Board Members include Past Chair Lezlie Mills Barker from Greenville (after a two-year hiatus she will rotate back on), Charles Peery from Charleston, and Walter Wilkinson from Darlington. New SCIAA Board Members include Christopher

Clement, Chester DePratter, and Adam King.

The most exciting part of our gathering was to walk around the Rice Hope grounds and prepare for a boat tour of the Cooper River Underwater Shipwreck Heritage Trail conducted by Fish Eagle Tours and the SCIAA Underwater Archaeology Division staff—Christopher Amer (State Underwater Archaeologist), Lynn Harris, Jim Spirek, Joe Beatty, and Carl Naylor. We boarded our boat and cruised upriver for three hours in a brisk, cold, and windy November day, but all of us

marveled at the beauty of the river and plantation landscapes as well as several bald eagles soaring and landing in nearby trees. The Underwater Archaeology Division was very educational in explaining the six different shipwrecks that were established as an Underwater Shipwreck Heritage Trail. We ended our trip at the Santee Canal Park, where we toured the very interesting Interpretive Center and walked along part of the canal. Our boat docked at the Dockside Restaurant in Moncks Corner, and we parted ways until the next meeting.



ART Board boarding the Fish Eagle Boat for a tour of the Cooper River Underwater Shipwreck Heritage Trail. (SCIAA photo by Bruce Rippeteau)

### Legacy

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