The Goody Bag - September 1992

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

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VIETNAMESE SAMPAN HELD CAPTIVE AT PATRIOTS POINT
By Jennifer Cummings

As part of an independent study program with the College of Charleston, we have been investigating a small Vietnamese craft that is presently being held at Patriots Point. This craft, known as a sampan, was captured by the U.S. Navy in 1967 on Bassac River in South Vietnam. It is a typical harbor sampan, about 4.99 meters (16 ft. 4.5 in.) in length overall and is normally propelled by a single steering oar over the starboard quarter.

The sampan is a planked "canoe" with small framing members and floor timbers. The nine framing members are notched to fit around the upper side strake. V-shaped limber holes are cut in the center of each floor timber. There are two planks and a gunwale above the chine; below the chine are two floor planks. One extant ceiling plank is nailed to the floor timbers, and there were possibly others that were either loose or removable because there was no other evidence of nail holes. The outer

(Continued on p. 9)
hull planks are fastened together by modern steel nails inserted into knife-cut grooves from both the outside and inside.

It is difficult to distinguish between the stem and the bow of the boat. We have determined the bow of the boat by a hole in the seat that could be used to tie the boat to a dock. At the stem of the boat there is a series of four planks nailed together to fit loosely over the thwarts. There is a notch in one side of the end plank which allows it to be held in place by one of the framing members. It could possibly be used as a seat or standing area for the person steering the boat or as a mount for the motor. Buddy Sturgis, a Vietnam veteran and staff member at Patriots Point, notes that vipers, King cobras, or hand-grenades were often placed under these boards to protect important Viet Cong military documents, maps, or orders. On the port side of the stem is a plank that is notched to fit around the frames and is through-notched to be used perhaps as a holding area for a steering oar.

The study of this vessel is important for underwater archaeologists of today, since this vessel was used in ways similar to South Carolina's small craft of the past, such as native American dugouts, and colonial canoes. Also, although it is a contemporary boat, it was built by traditional methods, i.e., without any power tools. Finding out more information about these boats will allow us to understand the context of disarticulated or broken up structural components of the wrecks of small craft we find in South Carolina.

**General Dimensions**

<table>
<thead>
<tr>
<th>Description</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOA (length overall)</td>
<td>4.99 m.</td>
</tr>
<tr>
<td>length along center line</td>
<td>4.33 m.</td>
</tr>
<tr>
<td>width at midships section</td>
<td>1.10 m.</td>
</tr>
<tr>
<td>at the bow</td>
<td>.48 m.</td>
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<tr>
<td>at the stern</td>
<td>.50 m.</td>
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<tr>
<td>Outer hull planks</td>
<td></td>
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<tr>
<td>sided</td>
<td>.01 m.</td>
</tr>
<tr>
<td>moulded</td>
<td>.18 m.</td>
</tr>
<tr>
<td>Ceiling (inner hull) planks</td>
<td></td>
</tr>
<tr>
<td>sided</td>
<td>.009 m.</td>
</tr>
<tr>
<td>moulded</td>
<td>.21 m.</td>
</tr>
<tr>
<td>Frames</td>
<td></td>
</tr>
<tr>
<td>floor</td>
<td>.033 m.</td>
</tr>
<tr>
<td>- sided</td>
<td>.07 m.</td>
</tr>
<tr>
<td>- moulded</td>
<td></td>
</tr>
<tr>
<td>framing members</td>
<td></td>
</tr>
<tr>
<td>- sided at head</td>
<td>.034 m.</td>
</tr>
<tr>
<td>- sided at heel</td>
<td>.034 m.</td>
</tr>
</tbody>
</table>

**Author's Note:** I would like to thank the Patriots Point staff for allowing me the opportunity to study this craft. Their patience as well as their expertise were greatly appreciated.

Drawing of Vietnamese Sampan at Patriots Point
Drawings By Fieldschool Students

Front View

Threaded inside

Side View

From: CSS Boston
Object: oil lamp base
Material: cast & machined brass
L. J. Strobel, Jr.
9/16/75
Scale: actual size

To scale

Shark's tooth
20/8/82

Turtle shell fragment
(sheet size: 7 x 9 inches)
C. Elmore 9/30/75
By Carl Naylor

Perhaps the most exciting, and certainly the most romantic, period in South Carolina's maritime history involved the blockade runners of the Civil War. The captains of these swift and elusive ships risked everything to smuggle needed and luxury goods into a blockaded Charleston.

With this in mind, we thought we would provide a short bibliography of sources on these blockade runners. The list has been edited somewhat to include those sources that are easy to find or have information specific to South Carolina.


Horn, David. The Blockade Runners: True Tales of Running the Yankee Blockade of the Confederate Coast. (New York: Dodd, Mead & Co., 1968.)


Orvin, Maxwell Clayton. In South Carolina Water, 1861 - 1865. (Charleston: Author, 1988.)


Soley, James Russell. The Navy in the Civil War: Blockade and the Cruisers. (New York: Scribner and Sons, 1883.)


Taylor, Thomas E. Running the Blockade, A Personal Narrative of Adventures, Risks, and Escapes During the American Civil War. (London, John Murray, 1863.)
Fall '92 Fieldschool

First Combined SCIAA/NAS Students Graduate

Congratulations to the first combined NAS (Nautical Archaeology Society)/SCIAA fieldschool graduates - Edward Bostain, Avery Currie, Chris Elmore, Van Deacon, Danny McDaniel, Robyn Kelly, Marianne Reeves, and Bud Starnes.

Edward and Danny are hobby divers from the Beaufort area who heard about the fieldschool from their dive buddies who attended the '90 class - Dave Elkins and Jeff Bannister. (Maybe we should start a Beaufort Field Office too!) Avery Currie works for the Scuba Connection in Taylor, SC, and developed an interest in underwater archaeology after working on the avocational archaeology project on the Waccamaw River with Hamp Shuping. Chris Elmore is a long time SCIAA aficionado! His interests are cave diving, piloting, computer programs, surveying, fish otoliths (“Are these religious statues of fish?” asks Carl) and just about anything else you can think of. Robyn Kelly attends the Governors High School in Columbia and is currently doing an independent study with SCIAA’s Underwater Archaeology Division.

Participation in the fieldschool is an excellent opportunity for high school or university students with diving certification who are interested in learning more about underwater archaeology, perhaps even as a career. Marianne Reeves, an anthropology graduate from USC who is working more exposure to underwater archaeology. Once again we had a student from Tennessee. Judge Van Deacon is contemplating starting an underwater archaeology club or organization in Tennessee. He is particularly interested in Civil War time period (We also know that the idiom “as sober as a judge” is untrue!) Bud Starnes is a hobby diver and geotechnical engineer from Central, S.C. As you can imagine, he excelled in the archaeological drafting session.

Many thanks to the new SCIAA staff members, Elizabeth Collins and Bill Barr, and to the hobby divers, Tony Houk and Rod O’Connor, who assisted in teaching the fieldschool. We are also very grateful to Jim Radz, NAS administrator from Florida, who came to South Carolina to talk about the Society and its’ goals.

We are now considering offering NAS Part II combined with advanced SCIAA certifications for students who have already been through the fieldschool. This will involve a specific project or a topic of interest to the student. Essentially, this will be an independent study (two to three full days) selected by the student or group of students with the advice and possible assistance of the Sport Diver Archaeology Program. If any fieldschool graduate is interested (many of you have already spoken with us) please let us know so that we can start planning for 1993.

Comings and Goings

* David Beard, an underwater archaeologist at the Charleston Field Office, left SCIAA in July to take another job with Goodwin and Associates, a private sector archaeological company based in New Orleans, Louisiana. David helped a great deal with the Sport Diver Program, fieldschools, and the Waccamaw River Project. We wish him the very best of luck with his new appointment.

* Bill Barr, a new graduate anthropology student with the University of South Carolina, originally from Texas and Alaska, has a graduate assistship to work with the Underwater Archaeology Division for the 1992/93 academic year. Bill is interested in a master thesis research topic on some type of underwater site. He is still in the process of exploring various project options.

* Jennifer Cummings is a senior majoring in archaeology at the College of Charleston and certified scuba diver who is doing an independent study on underwater archaeology with the Charleston Field Office. Jennifer is considering

* Dana Phillips is a sophomore at the College of Charleston and certified scuba diver who is also doing a study with the Charleston Field Office.
LAND HO!

By Dana Phillips

Navigation was extremely important to seafarers. Without it they couldn’t determine their location and were unable to sail their vessels to any specific location.

During the early periods of sea travel, navigation was simply staying in sight of land, sailing only during the day, and anchoring at night. Often after a surprise storm arose and blew a ship out to sea, no one in the crew was able to tell where they were or in which direction they should go to get to land. Ships were literally lost at sea.

It took hundreds of years to develop simple ideas and inventions that allowed sailors to measure time, depth, and speed, as well as location. Through the development and use of the astrolabe, cross staff, back staff, sextant, compass, sandglass, ship’s log, and sounding lead, the ship could get to its destination safely, and with a fair amount of accuracy.

Astrolabe — used during the fifteenth century to determine a vessel’s north-south position by measuring the altitude of heavenly bodies, it was originally developed by Arabs for use on land and later modified by Portuguese mariners for use at sea — mostly around the west coast of Africa. The astrolabe was disc-shaped with a pointer in the center of the disc and a ring at the top so it could be held by the viewer.

Cross staff — uses one or more sliding cross-pieces on a horizontal bar. Both the cross staff and the back staff are merely refined or more advanced astrolabes.

Back staff — uses a mirror to superimpose an image of the sun on the horizon.

Sextant — invented in 1731 to help determine latitude, it had a mirror and a ground glass screen so the observer could see the sun (or star) and the horizon at the same time. The sextant was much more accurate than the astrolabe, cross staff, or back staff.

Compass — discovered in either the tenth or eleventh century, it came into prominence during the thirteenth century. The early compasses took various forms, from a magnetized needle on a piece of wood which floating in a bowl of water to a pivoted needle swinging above the compass card. However, not much was known about magnetic variation at this time so while navigation errors were minor, they were impossible to avoid. During the 1550s, the compass was refined by mounting it on gimbals — rings pivoted at right angles of each other — enabling the compass to stay level no matter how much the ship tossed or rolled about.

Dividers — used since the fifteenth century, and probably earlier, they were utilized to measure distances on charts. Usually made from brass, these instruments are still used by today’s navigators.

The Sandglass — one of those terrible inventions of time, it wasn’t accurate and relied on being turned over at the precise point necessary — a detail that was often forgotten. However, the sandglass was all the early mariners had for telling time since a clocks’ pendulum was easily disrupted by the motion of the vessel.

The ship’s log — developed in the early sixteenth century to determine the speed of a vessel, it was a simple invention using a round piece of wood tied to a long sturdy rope. The rope was knotted at regular intervals and as the piece of wood or “log” was trailed behind the vessel for a specific amount of time measured by the sandglass, these knots were counted as they went over the stern of the boat. Thus the ship’s speed was recorded in “knots.” The ship’s log was fairly accurate when noting the boat’s progress while moving forward.

The sounding lead — a devise used to measure the depth of water when the captain of a ship suspected he was near land, it was composed of a large elongated piece of lead, tied to a long rope or line. It had a spinning meter attached fairly closely to the lead which stopped the meter when the lead hit the bottom. A sophisticated invention, the lead had a hollow bottom which was often filled with bee’s wax to obtain a sample of the ocean floor.

Many of these ancient navigation instruments have been recovered. Two astrolabes dating around the early 1500s were recovered in the waters near the Padre Islands off Texas in the Gulf of Mexico.

During the mid 1970s, a joint archaeological
investigation by the Brazilian Ministry of Education and Culture supervised by Professor Ulyssco Pernambuco de Mello studied the ship Sacremento which lay at the bottom of Bahia’s Bay of All Saints since 1668. They found in the Sacremento, amongst a lot of different artifacts, two brass astrolabes, brass rulers, and dividers, as well as sounding leads of various sizes.

In the early 1980s, during an excavation in Labrador of what was once a well-known Basque whaling center, a Parks Canada archaeology team recovered two wooden discs and fire spindles representing what was once a sandglass. They also came upon a binnacle housing navigation instruments and a compass dating from the mid-sixteenth century.

A Davis Quadrant, which is a form of back staff, was found here in South Carolina when the Brown’s Ferry vessel was raised from the Black River by institute personnel in 1976.

While these instruments may seem crude by today’s standards, they enabled the early sailors to leave sight of land and return home.

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**Early Navigation Instruments**


For those of you who are truly adventurous and like spending hours in a library, the South Caroliniana Library on the USC campus in Columbia has a manuscript collection containing primary source information on blockade running. Specifically, these include a journal of the capture by federal forces off Port Royal of the British Steamship *Emilie* for blockade running (in manuscript collection #47), letters from William and Thomas Reeder describing blockade running (in manuscript collection #1778), an account of W.H. Smith’s experiences as a pilot for Confederate vessels running the blockade (in manuscript collection #1937), Capt. Frank Bonnan’s account of blockade running (in manuscript collection #2381), letters from Richard M. Cornell discussing blockade duties off South Carolina (in manuscript collection #2382), and even the record of a claim for a share of prize money in the capture of a blockade runner off Charleston (in manuscript collection #2452).
Bottle and Pot - Emory Vaughn (#2797) found this well preserved bottle and earthenware pot recently in the Cooper River. The shape of the bottle indicates that it is English-made, wine bottle dating to the second quarter of the 18th century, and a descendent, so to speak, of the famous "onion bottle" of the mid-to-late 17th century and the first quarter of the 18th. This "evolution" eventually led to the cylindrical wine bottles we are familiar with today. Contrary to what many believe, the glass in these bottles is not black, but a dark green. Green is the natural color of glass (other materials have to be added to make it clear, blue, brown, or red), and the dark color protected the wine from color loss. While parts of these bottles are common in South Carolina rivers, an intact bottle such as this one appears to be is an unusual find. The earthenware pot appears to be what is called Colono-ware. Thought to be slave made, Colono-ware, and this particular utilitarian pot, dates to the late 1700's and the early 1800's.

Bottle — Darryl Boyd (#2691) found this cylindrical, dark-green glass wine bottle in the Waccamaw River. Its shape, particularly the bottle's lip, indicates a date in the early 1800's. Darryl is one of the divers presently participating in the Waccamaw-Richmond Hill Waterfront Area Project which is an archaeological project conducted by sport divers from around the state. Hampton Shuping, a hobby diver from Conway, is directing the project with guidance from SCIAA's Sport Diver Archaeology Management Program (that's us). The objective of the project is to document a number of barge wrecks and dock structures in the Waccamaw River. Darryl has participated in this project since 1990 and recently has been designated by Hamp as an assistant project director supervising a crew in documenting one of the four barge wrecks.

South Carolina bottles — We are presently soliciting photos, drawings, and descriptions of embossed South Carolina bottles. This would include pharmaceutical bottles, brewery bottles, soda bottles, anything that relates directly to South Carolina except dispensary bottles. We are collecting these for a future publication on the bottles of South Carolina. Send your photos, drawings, whatever to Carl Naylor, Underwater Archaeology Division, 40 Patriots Point Road, Mt. Pleasant, SC 29464.
So, You want to be an Underwater Archaeologist?
By Lynn Harris

At the South Carolina Institute of Archaeology and Anthropology (SCIAA) we regularly receive requests from students and the diving public regarding career opportunities in underwater archaeology. What qualifications are required and where can one receive the necessary training? How easy is it to find a job and does it pay well? Does SCIAA or the University of South Carolina have a graduate or undergraduate program in underwater archaeology? Here are some of the answers to these questions.

To become a professional underwater archaeologist these days you will ideally need a masters degree from one of the universities that offer a formal program in this specialization. Unfortunately, choices are rather limited. There are only two such programs in the USA. One offered by the Program in Maritime History and Underwater Research at East Carolina University in Greenville, North Carolina and the other by the Nautical Archaeology Program at Texas A & M University at College Station, Texas. In other parts of the world, programs are offered through St. Andrews University in Scotland, the University of North Wales, the University of Haifa in Israel, and the University of Western Australia. In South Carolina there is SCIAA, a rather unique research institute at the University of South Carolina which has an Underwater Archaeology Division. This enables students from the Anthropology Department to obtain work study funding or graduate assistantships to work with this division either for experience or on an undergraduate thesis topic.

The Underwater Archaeology Division also has a field office at the Patriots Point Maritime Museum in Charleston. Recently this office has started accepting undergraduate anthropology students from the College of Charleston who are conducting independent studies for credit earned through the college. This study is considered an introduction to underwater archaeology with an emphasis on practical skills and training both in the office and the field.

To enroll in a formal graduate program in underwater archaeology students will need undergraduate credits in subjects such as archaeology, anthropology and history. Although not required, it is also useful to have some background in the sciences like chemistry, geography and math. These subjects will be helpful for artifact conservation, site surveying, drafting and mapping. Scuba diving certification is obviously necessary. Any chance you might have to obtain experience in boat handling, sailing and seamanship in general, survey techniques and equipment, maintenance and basic repair of small motors and pumps will also be to your benefit. Many small archaeology units do not have the luxury of a position specifically for a dive technician and the underwater archaeologist is expected to manage the equipment in addition to conducting archaeological research.

Without a degree in archaeology there is also the possibility of becoming an archaeological assistant or technician. This requires dive training and a competence in working with equipment and boats. To improve your chances in this area, you might consider taking speciality courses at dive stores or technical courses through community colleges.

Career opportunities in underwater archaeology are probably better in the USA than anywhere else in the world. There are jobs available at universities (teaching), research institutes (often affiliated to universities), state agencies (many states have a state underwater archaeology unit), federal agencies (like the National Park Service, NOAA, or Corps. of Engineers) and in the private sector (archaeological consulting or engineering companies). There is also the option of a non-diving career in a maritime museum where a background in maritime history and ship or watercraft construction is important.

Jobs are advertised through archaeological newsletters (Society for Historical Archaeology Newsletter), on university, archaeology unit, and museum bulletin boards, and at conferences. The annual CUA (Conference in Underwater Archaeology), held at various venues in the USA and Carribean islands, is a good place to start looking for a job. There is actually an employment opportunity table where you can find job notices and leave your resume. Interviews for jobs are often conducted at this conference. Even if you do not find a job immediately you might meet important contacts and learn about current projects. The more experience you get as a student by volunteering on projects or participating in fieldschools the more competitive you will eventually be in the job market.

Archaeology is not a very well paid profession - so make sure you really are going to enjoy what you do (or marry somebody who earns more than you will!). Even with a masters degree and some experience the average starting salary for a state position in South Carolina, for example, is around $20,000 to $28,000 per annum. An archaeological technician earns between $14,000 to $18,000 per annum. Of course if you become the Head of a Department you might earn more, but your job will become increasingly administrative with less fieldwork time.

All these salary ranges will vary slightly in different states like any other profession. You will probably earn about $5000 per annum more working for a private company but might not have all the medical benefits associated with a state or federal position.

For more information or addresses of institutions that offer opportunities in underwater archaeology you are welcome to contact either Christopher Amer or Lynn Harris.