The Goody Bag - September 1991

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

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PRIVATE DOCK STRADDLES ANCIENT SHIPWRECK

On July 15, 1991 a crew from Docks Unlimited located a ca. 1790-1840 shipwreck while constructing a private dock in a creek in Mount Pleasant. Sean Barnes and Tom Clauson, co-owners of Docks Unlimited, contacted SCIAA about their discovery as required by the conditions of their permit from the South Carolina Coastal Council.

A team from SCIAA's Underwater Archaeology Division office aboard the N.S.Savannah at Patriots Point Naval and Maritime Museum made an assessment of the site on July 17. Approximately six feet of the stern of the vessel was exposed in the bank at low tide. From this area the dock builders had recovered several ceramic sherds and pipe bowl fragments with a mean date of 1820, as well as some small ballast stones. The builders also located the almost intact rudder of the vessel.

Probing in the marsh covering the wreck determined that the remaining hull measured approximately 40 feet long by 12 feet wide, and consisted of little more than the keel, lower hull planking, floor timbers, and keelson. Some stern deadwoods were also present. It is not known at this time how closely the remaining hull dimensions match original length and breadth of the vessel.

Due to the distance the vessel was located up the creek and the shallowness of the water at low tide, it was determined that the vessel, possibly a fairly flat-bottomed coasting schooner or sloop, had probably been taken up the creek on a high tide, driven ashore and abandoned. It may well have been stripped of any usable materials or even burned in order to recover iron fasteners for reuse.

SCIAA personnel documented the exposed portions of the stern, both with measured drawings and scaled photographs. The rudder was also recorded, removed from the site and reburied in the creek to prevent further deterioration. Plans have been made to cover the exposed stern with sandbags to protect it from the effects of erosion. Some interest has been shown by the developers of the adjacent property to retrieve and preserve the rudder for display in their community center.

Docks Unlimited personnel deserve a great deal of credit for the way they handled their discovery. In the past, there have been instances where contractors have destroyed fragile archaeological sites because of the fear that by reporting such finds their operation would be shut down. By working together, SCIAA and Docks Unlimited were able to determine what alterations to the original dock configuration were necessary to avoid impacting the site further. The changes were fairly minor and the presence of the dock over the wreck may in fact help to stabilize the site by acting as a catchment for floating grass and other debris which will then become deposited over the wreck.
DIVERS COMPLETE 1991 FIELDSCHOOL
by Lynn Harris

Congratulations to recently certified Archaeological Sport Divers Jeff Bannister, Dave Elkins, Clay Mims, Jimmy Moss, Stewart Pabst and Ron Parker. Steve Kelsey and Tom Robinson were certified as Sport Diver Archaeological Instructors. They will both be offering PADI Underwater Archaeology courses in the near future. Tom can be contacted at Charleston Scuba (722-1120) and Steve Kelsey at Exotic Fish and Scuba in Greenville (268-0631). Stuart Pabst, Curator for Horry County Museum in Conway, is a good contact for sport divers in the Georgetown and Myrtle Beach area (248-6489). Jeff Bannister and Dave Elkins are hobby divers from the Beaufort area who are particularly interested in historical battles. Jeff also became an expert in wooden ship construction during the course of the fieldschool. He is especially knowledgable about grapes! Jimmy Moss from Abbeville is very familiar with diving sites in the Cooper River. His interests are Native American ceramics, and historic and pre-historic pipes. Clay Mims is a hobby diver from Harleyville, and Ron Parker is a hobby diver from Columbia.

The Second Annual Underwater Archaeology Fieldschool took place from May 28 to May 31. This year SCIAA used our own home-made replica shipwreck for the pool session to teach archaeological mapping techniques. In contrast to the fiberglass model "sinkentine" borrowed from East Carolina University last year, our "floatentine" (it required 300 pounds of lead to sink!) was made with wood by the University Carpenter and Engineering Shop staff. Thanks to engineering technician Gary Dowdy (the weight dynamics expert!). Additional thanks to willing archaeological assistants, Carl and Joe and work-study student, Cameron Sebastian. This replica is available to dive stores for teaching purposes at a minimal rental fee.

The open water exercises took place in the west branch of the Cooper River which is an area associated with a great deal of activity during the Revolutionary War, colonial and pre-historic times. The students worked on three different sites - a wooden sailboat wreck, a plantation site which included both a historic and pre-historic artifact component and a Revolutionary War shipwreck. The training exercises included recording and making observations about construction details on the wrecks, mapping the locations of artifacts found in proximity to the plantation site and keeping an archaeological field notebook. The last day of the fieldschool, held in Charleston aboard the USS Yorktown, involved sorting and identifying recovered artifact and fossils. A written exam followed and all students passed with flying colors.

Divers who have experience in low visibility diving are welcome to start applying for the 1992 fieldschool. Dive instructors who participate in the fieldschool may use the SCIAA course or aspects of the fieldschool for their river or wreck diving specialities, or to compose an outline to send to National Sport Diving Agencies for the purposes of developing a local Underwater Archaeology Certification Course.

NEW QUARTERLY HOBBY REPORTS

Hobby divers are now only required to send in reports on a quarterly basis (once every three months starting from the time you received your license). Even if you do not recover anything during this time period you should tick of the "no recovery" box. Until your hobby license is renewed, use the old report forms. Send artifact reports to: SCIAA UNDERWATER ARCHEOLOGY FIELD OFFICE, 40 PATRIOTS POINT, SC 29464. Fossil reports should be sent to: MICHAEL RAY, CURATOR OF NATURAL HISTORY, SOUTH CAROLINA STATE MUSEUM, P.O. 100107, COLUMBIA SC 29202. When you apply for a license or renew a license you will receive our newly designed report forms which are self addressed. Call or write us if you want using the new forms before this time at 881-8536 (Charleston) or 777-8170/734-0567/799-1963 (Columbia). Ask for Jamie Browne or Lynn Harris.

NOTICE FROM COLUMBIA:

As the licensing process is now taking place through both the Charleston and the Columbia office, please allow us at least two weeks to send your license. Do not call us two days before you want to go diving!

If you want to order books remember to include the payment with your order. The university will not allow us to sell publications on a cash on delivery basis.
HOBBY REPORTS AND QUESTIONS

Westerwald Jug – W. Clifton: Enclosed is a rough sketch of a jug found in the Combahee on July 23. It is light in color/off white or cream. Blue flower designs appear to be stamped, and each flower design is circled (on the shoulders). There is also a flower design where the handle attaches to the jug. The blue line around the lip is about 12 inches high. Can you possibly help me to trace its origin (obviously colonial) maker, age etc. (See drawing on page 4)

Answer:
First of all let me say that all of us from the Charleston office were impressed with your July report. Not only did the descriptions of the artifacts indicate an above average understanding of artifact identification but your drawing of the stoneware jug was superb. We would very much like to publish your drawing in our newsletter, "The Goody Bag."

The jug appears to be a Rhenish (first made in the Rhineland of Germany and later imported to America) stoneware similar to types commonly called "Westerwald." I am enclosing an excerpt from "A Guide to Artifacts of Colonial America," by Ivor Noel Hume, pertaining to Rhenish stoneware and Westerwald stoneware in particular. Early Westerwald stoneware from an American site dates to the 1640's. By the 1760's it had lost popularity and was no longer imported after the Revolution.

Westerwald products are easily recognizable by their colors and design. The bodies are grey to light grey with cobalt blue incised floral and geometric designs. These designs are commonly found on cups, mugs, jugs and chamber pots.

Complete Colono ware Bowl—Lynn and John Jamieson
While conducting a hobby license check on the Cooper River SCIAA staff met Lynn and John Jamieson. They had just recovered a complete colono ware bowl. Due to similarities with prehistoric pottery, archaeologists originally associated this ware with the contact period between Europeans and Native Americans. Later, after looking at pottery from Africa, they realized that it was more likely to be pottery made by African slaves working on the plantations. Colono ware resembles plain style Native American pottery except it often has decorations copied from Europeans like rim designs and applied base rims.

Rice-hook – Butch Lishka
Butch, one of the volunteers for the Waccamaw River Project, found a rice-hook during a swim search for artifacts associated with the barge site. The artifact was complete and in good condition. The handle was made from wood and the hook was metal. Rice hooks were commonly used on plantations during the hey day of the rice culture period during the eighteenth century.

Radiation Levels in Fossils – Si Ballenger
Hobby diver, Si Ballenger recently recovered a number of fossilized shark teeth, bone and wood from the Cooper River. When he took them to the nuclear station where he is employed to show interested co-workers, the radiation monitors went into an alarm state. They then performed a radiation survey on the fossils and got readings as high as 2,000 counts per minute on contact using an RM-14 FRISKER. He also had an isotopic analysis of the emitted radiation performed in the radiation protection lab. The radiation emitting isotopes were determined to be Actinium 227, Potassium 40, Bismuth 214, Lead 214, Radium 226, and Thorium 228.

We called Si to find out if the levels of radiation in the fossils were potentially harmful to humans and what caused it. Apparently all these isotopes are naturally occurring long-life isotopes that are associated with the mineral environment of the fossils and were not dangerous. However, he did say that it probably would not be a good idea to sleep with buckets of fossils in your room every night!
A new law for divers in South Carolina now makes greater concessions to underwater collectors while at the same time providing a stronger measure of protection for the rich cultural heritage to be found under the State's waters.

During nearly three years of reviewing federal legislation and laws in other states concerning protection of submerged cultural resources, and listening to divers throughout the state, it was apparent that South Carolina's 1976 act (amended in 1982) was both inadequate to protect the state's cultural heritage and increasingly unacceptable and ambiguous for those of you who have to obey the law. Under that law, sport divers desiring to collect historic or prehistoric artifacts, or fossils, from beneath South Carolina's rivers and navigable waterways were required to obtain a yearly renewable licence. They were further required to make monthly reports of their findings. The state, by law, could then retain up to 50% of the diver's finds.

Our task then was to attempt to meet the sport divers' demands for greater freedom to enjoy collecting while ensuring the preservation of the public's ownership of cultural resources that have only just begun to be studied by archaeologists. This was accomplished through redrafting South Carolina's underwater legislation, and meeting with divers, salvors and other members of the interested public to discuss the draft and solicit public input. The bill that passed to law in June of this year contains many of your ideas and is a compromise position for the state.

State officials compromised by allowing Hobby divers 100% of their finds, by permitting divers without a license to use metal detectors and other remote sensing equipment, and by cutting down the reporting requirement to only four times a year. The law also mandates the maintenance of an educational program. This specialized training program teaches aspects of underwater archaeology and provides an "Archaeological Diver" certificate to sport divers who complete the intensive four day course. Many sport divers have already attended this course, offered annually by the Underwater Archaeology Division of the SCIAA.

The new law also requires salvors to work to professional archaeological standards and allows the public a greater role in the licensing process by providing for public hearings for commercial license applications. In short, the revised act provides the citizen greater access to the state's submerged cultural and palaeontological resources for recreational purposes while it provides the Institute greater authority to oversee commercial salvage activities.

One immediate change you will notice on your Hobby license application is a new fee structure for licenses. Hobby licenses now can be obtained for a 6-month or 2-year duration. Weekend licenses will come into effect later this year. The complete fee schedule is shown below.

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<tr>
<th>LICENSE</th>
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<th>OUT OF STATE</th>
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<tr>
<td>Hobby License</td>
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<tr>
<td>6-month</td>
<td>5.00</td>
<td>10.00</td>
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<tr>
<td>2-year</td>
<td>18.00</td>
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<tr>
<td>Instructional License</td>
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<tr>
<td>(1-year)</td>
<td>40.00</td>
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* Optional weekend license
(issued by dive stores or clubs)

5.00 and a portion of the fee goes to the store or club

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<tr>
<td>Intensive Survey License</td>
<td>50.00</td>
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<tr>
<td>Data Recovery License</td>
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For anyone who is interested in receiving a more detailed summary of the South Carolina Underwater Antiquities Act of 1991 or a copy of the complete Act, please contact either Christopher Amer at the SCIAA Columbia office (1321 Pendleton St., Columbia, S.C. 29208, Tel. (803) 777-8170, or Lynn Harris at the Underwater Archaeology Division's Charleston office (40 Patriot's Point Rd., Mt. Pleasant, 29464, Tel. (803) 881-8536).

NOTE:
FROM THE EDITORS
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MEET "NIPPLE TOOTH"
AMERICAN MASTODON
Mammut americanum (Kerr), 1791
by Michael Ray

The American mastodon is one of the best known Pleistocene mammals. Fossil remains have been found throughout North America from Alaska to Florida. These proboscideans were part of the same mammal order as elephants and mammoths. The earliest records of mastodons in North America date back to the beginning of the Pleistocene Epoch about 1.8 million years ago. Some think that it may have survived until about 8,000 years ago.

The scientific name "Mammut" means "earth burrower." In the Middle Ages gigantic bones of this creature were found when European farmers plowed their fields. They believed that the bones belonged to a monstrosus burrowing beast. In the early 1800's, Curvier, the great French naturalist, gave it the more descriptive name of "mastodon" which means "nipple tooth." This name describes the large, cone-shaped chewing surface of the tooth. These teeth are prized finds for divers. Three teeth were present in each half of the jaw of the animals. Only the third molar remained in older mammals. Both sexes carried tusks. The males tusks were larger than the females. Fossil tusk material can be easily identified because the cross section shows traces of annular growth rings. Look for this and a faint "cross hatch" pattern. It is difficult even for experts to determine mastodon tusk fragments. The mastodon used its tusks to pull down the leaves, bark and twigs of Jack pine and spruce trees. These trees were common in South Carolina's Ice Age. The cone shaped teeth would then crush the food for swallowing.

Mastodons probably lived in dense forests near rivers and swamps. A Wisconsin mastodon skull was recently found that had a small piece of hair attached. Scientists determined from this specimen that the average length of the mastodons hair would have been three inches long. This long fur would have been an excellent insulator from Ice Age cold. The under-fur was twisted. Animals that live in or near water have this type of underfur to help repel water. With this new evidence it is believed that the mastodon preferred a habitat near swampy areas.

Around 8,000 years ago, about the time man entered the area, the mastodon became extinct. In this period the region was becoming drier, which changed the vegetation. Loss of habitat and food were the major factors that caused the mastodons extinction. Little evidence has been found that man had a major role in the disappearance of the mastodons. However, the South Carolina State Museum has a fossil mastodon rib bone which shows marks believed to have been made by man cutting flesh from the bone.

Fossil material of the mastodon can be found in many of the Coastal Plain rivers. Fishermen even pull up fossils from 40 miles off the coast. The ocean level was lower during the Pleistocene allowing the mastodons to roam the entire continental shelf area. Storms often wash up fossils onto the beach from great depths where the mastodon once roamed on dry land.

As is true of most mammal fossils from South Carolina, it is rare to find complete skeletal remains of the mastodon. The South Carolina State Museum would be interested to see any good fossil bones of the mastodon that you might find.

We will help you identify the material and record information about your find for future research. With your help we may one day have an idea of how many mastodons inhabited South Carolina during the Pleistocene Epoch.

For more information contact Michael A. Ray, Curator of Natural History, at the South Carolina State Museum, P.O. Box 100107, Columbia SC 29202-3107 or call 803/737-4943.

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THE BOOK LOCKER

by Carleton Allen Naylor


Boy, what I wouldn't have given to have had this publication when I was a novice sport diver exploring the waters of the Edisto River with a goody bag in one hand and a never-quotie-bright-enough light in the other. Here in one manual is all the stuff I used to spend hours searching for in the library. There are sections on conservation, the use of maps, lithics (that's arrowheads, spear points and other Indian stone tools to us non-archaeologist types), pre-historic ceramics, fossils, bottles and glassware, historic ceramics, pipes, hardware (things like nails, hinges, locks, ... that sort of stuff), anchors, ordnance, and old navigation instruments. What's better yet is that there are plenty of pictures, drawings actually, comparing things like clay pipe bowl shapes, the chronological development of projectile points, shark's teeth, old wine bottles, ceramic patterns, ... the list is endless, or at least longer than I have space for.

In addition, the manual contains a section on the history of the state's sport diver program, and a section on archaeological concepts, such as site mapping, artifact recording, and something called "visual observations of the underwater environment," ... just the kind of stuff archaeologists talk about over coffee and donuts.

The aim of the manual is, I suspect, more than just to help the diver identify his or her finds. Using the information provided in the manual divers will be able to more completely report their finds to the Institute on their monthly reports, and thereby help the staff do their jobs easier and better. It's amazing how often a report comes in saying that on a certain dive, often in a vaguely-located site, that the diver simply found "some old bottles." Oh, I know what some of you are thinking. ... If you tell us exactly where you found a treasured artifact, we're going to come and dive the place ourselves and strip it of all the goodies. Honestly, we don't do that, and actually just the opposite may occur. If, for instance, we learn through divers' reports that a site may have had some historical significance we can monitor that site and protect it from any development, such as the construction of a pier or a seawall, that may destroy your favorite dive spot forever.

One unique feature of the manual is the list of Speciality Contacts appearing in the back. Here is a list of names and telephone numbers of real-live people-experts, who you can talk to (even "experts" get lonely).

As the book concludes" The information presented in the manual is neither a complete guide to artifact identification, nor a means to become an "instant" underwater archaeologist. But it sure will go a long way to make your artifact diving more enjoyable and rewarding.

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Bottle Books

Perhaps no artifact is as interesting to find nor as informative about the past as a glass or ceramic bottle. This is as true for the underwater archaeologist as it is for the sport diver. And, armed with some basic knowledge, the average sport diver can make bottles talk, or at least answer some basic questions about themselves. Questions such as, What was it used for? How old is it? and, How rare is it? Unfortunately there is no single source that provides us with all the knowledge we need to get a bottle to answer these questions. One soon learns a variety of sources need to be consulted.

While certainly not a complete nor exhaustive list, the following books will start you on the right track:


An excellent book giving general information about bottles. The text contains many dating clues concerning specific bottles.


Perhaps one of the best books for identifying specific bottles as it contains reproductions of catalogs of many of the large bottle manufacturers of the late 19th century. (Sally, get this one).


An excellent book on the history of bottles and bottlemaking in America, however, it comes up a little short as a reference guide to specific bottles. Unfortunately too much of the book is devoted to historic flasks, which, while quite valuable, are almost never found locally.


A review of this book was also published in the October 1990 issue of The Goody Bag. Since then we have learned this book has been reprinted in paperback form and is available in local bookstores. Get it!


Although concerned mostly with Canadian bottles this book contains one of the best bottle dating guides to be found in any publication.


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**FOSSIL FAIR AT THE STATE MUSEUM ON 9 & 10 NOVEMBER**

A fossil fair will be held by the Myrtle Beach Fossil Club in November. It will be hosted by the SC State Museum in Columbia. Bring your fossils to be identified. Curators from the Museum and the Smithsonian Institute will be there to identify your finds. For more information phone the museum at 737-4921. The fair is open to members of the public.

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**Electrolysis Prevents Deterioration**

by Darryl Boyd and Butch Lishka

(Editors Note: Two hobby divers, Darryl and Butch, successfully conserved an anchor that they recovered from the Savannah River. With some background reading on how to set up electrolysis, they discovered that it was a fairly simple and inexpensive procedure. Here is their story.)

In order to conserve a large rusty anchor recovered from a fresh water river we decided to do some reading on electrolysis (see footnote on publications used). Electrolysis does take time, but is inexpensive to set up, run and maintain. To begin you will need the following:

1. A tank – it must be large enough to hold (totally submerged) the artifact and part of the anode. A plastic container for small objects or swimming pool for large objects make good tanks.

2. An electrolyte solution – a good solution may be created by mixing one ounce of sodium carbonate per gallon of water.

3. A D.C. power supply – a battery charger, 6 or 12 volt, Very little current is required for electrolysis, i.e. 3 amps to treat a 3000 pound cannon, 1/2 amp for buttons and coins.

4. Anode – the best metal to use is stainless steel. A knife, fork or piece of scrap is adequate.

In setting up your system, first position your tank in a selected secluded place, then put the artifact, with the negative electrode attached inside. Next, fill the tank with electrolyte solution so that the artifact is totally submerged. Afterwards, position the anode in the solution, but be sure the point where the positive electrode attaches to the anode is out of the electrolyte solution. Also, be sure the anode and artifact do not touch! Then plug in your DC power supply.

When encrusted iron objects are being treated the encrustation will loosen within two to six weeks. At this time it is a good idea to drain the tank and knock off the encrustation and replenish the system with fresh electrolyte solution. Also, from time to timeshift the position of the anode to redirect current flow through the artifact and thus assure uniform purging of salt from the metal (if the item was recovered from a salt water environment).

After an iron object is treated, it is important to remove electrolyte salts from the metal.
accomplished by attaching the anode (positive wire) to the artifact and detaching the negative wire. Then allow the current, which is now reversed to flow for two or three days or a week for large objects. Do not do this for brass or bronze objects. If you have any artifacts to conserve just remember to be patient and keep them wet, especially if they are iron. When you are finished treating the object, rinse away all traces of electrolyte solution and allow it to dry. Then mechanically remove any remaining traces of rust, encrustation or other material on the surface and cover with a protective coat of paint, acrylic, varnish or whatever is appropriate to protect the artifact.

Electrolysis of metal artifacts is both an art and a science, no one can say exactly how long an artifact must be treated. It depends on many factors: object size, type of metal, current amperage, and quantity of trapped salts. Small objects may require less than a week, large objects may require one or two years. If symptoms of rusting occur after your treatment you may have to start all over again. In the case of our anchor, the process lasted approximately three months and all the rust fell off to bare metal. The artifact was dried and covered with a clear coat of marine varnish and it looks almost new!

Because this system involves electricity, safety must be stressed. Wear safety goggles, rubber gloves or protective clothing and set up your system where it will not create a safety hazard. Electrolysis does work and can be mastered by anyone with a little patience.

References:
“Cleaning and Stabilizing Metal Artifacts by means of Electrolysis and Protective Coatings”, Florida Division of Historical Resources Public Document.


SCIAAA PATROLS CHECK HOBBY LICENSES

Since June this year staff members from the Institute have been patrolling South Carolina rivers in fast boats to check that divers who are collecting artifacts and fossils have hobby licenses ... in date hobby licenses. So far, at least five boats carrying divers sans licenses have been encountered in the Cooper River. Although we are currently taking a soft line and only issuing warnings to offenders or handing out application or renewal forms - beware! Beginning January 1, 1992, we will start confiscating finds.

The primary objective of the licensing system is to obtain information from licensed divers about their finds through quarterly reports, not enforcement. However, the program is also accompanied by a law protecting South Carolina’s underwater heritage and in order for any law to have teeth some enforcement is necessary. It is also becoming evident that it is extremely annoying for the law abiding divers to witness or hear about non-licensed divers flaunting their activities. For those divers, who are not licensed or do not send in reports because they are afraid the State will confiscate their “neat” finds - this is untrue. In fact, the new 1991 Underwater Antiquities Act specifically states that you receive 100% of your recoveries - on condition that you report your finds to the Institute. The bottom line is: divers keep the artifacts and fossils, the Institute and State Museum receive the information.

Since the patrols started, application forms have been flowing into our office. We have also met and socialized with several groups divers who were in the past simply names and hobby license numbers to us (we were probably just “the State” to them), helped them to identify finds, and gave out newsletters and copies of the legislation. We are also realizing that not all divers are found in dive stores and dive club meetings - the only place to find them is actually out on the water.

So, look out for us next time you go diving. We intend to patrol a different river or part of the coast every month.

STATE OF SOUTH CAROLINA
SOUTH CAROLINA INSTITUTE OF ARCHAEOLOGY & ANTHROPOLOGY

NAME: John J. Doe
CITY: Anytown   STATE: SC   EXP: 1/12/92

Christopher F. Amer, Head
Underwater Division.
Bruce E. Rippeteau, Director
State Archaeologist.
Local legend has it that during the American Revolution a group of British soldiers were caught off-guard by Colonial forces under the command of Wade Hampton while looting Lewisfield Plantation on the West Branch of the Cooper River near Moncks Corner. Hampton’s troops reportedly took the British as prisoners and burned two small sailing vessels used by the British during their looting spree.

In 1985 divers located a shipwreck in the river near the site known historically as Little Landing. This wreck, known as LL1, had three cannons on it — two six-pounder long guns and one four-pounder swivel gun — which dated to the late eighteenth-century. A salvage license was awarded to the finders of the wreck with the stipulation that SCIAA archaeologists conduct the excavations on this important site. The divers were entitled to 50% of the artifacts after they had been catalogued and studied by SCIAA. SCIAA archaeologists excavated the vessel from 1986-1989. The last season, spring of 1989, ended when 3/4 of the vessel, including all spaces between frames and under ceiling planks, had been fully excavated and vessel’s architecture completely documented. Very few artifacts were recovered from within the hull, most likely as a result of Hampton’s men removing all portable objects before they burned the vessel. Ballast was returned to the interior of the hull to provide for an interesting dive site for divers wishing to see what an eighteenth-century shipwreck looks like.

During SCIAA’s spring 1991 Underwater Archaeology Fieldschool for Sport Divers the LL1 site was visited as part of the training program. It was discovered that much of the ballast had been removed and ceiling planks and frames had been torn from the vessel and scattered about the site. Due to this act of senseless vandalism, it was determined that the hull, the single most important artifact on the site, should be stabilized and covered with sand to protect it.

During late July and early August, SCIAA Underwater Archaeology Division personnel, assisted by several sport divers, spent three days pumping sand into the hull. As an additional barrier against vandalism, large sections of a link fence were placed over the wreck and more sand pumped on top of that. It is hoped that these measures will be enough to deter any further destruction of this fragile archaeological site at the hands of vandals.

It is a shame that the wreck had to be covered, making it essentially inaccessible to sport divers. It was hoped that by leaving the site exposed for divers to explore, more appreciation could be fostered for shipwrecks as important artifacts in themselves and not just containers of interesting, portable artifacts. Due to the actions of a few thoughtless individuals, South Carolina sport divers have been deprived of the ability to explore and enjoy an important part of their state’s maritime heritage. What could these individuals have possibly hoped to find under the planks of the vessel which would justify this destruction? A musket ball? A button? A pipe bowl? Or possibly all of that treasure that everybody knows is hidden in shipwrecks? It is hoped that responsible divers will be vigilant and report criminal acts such as this which threaten their hobby.

SCIAA would like to extend its appreciation to sport divers Clay Mims, Scott Heavin and Earl Larson for their assistance with this very labor-intensive project. Jim Errante, a USC graduate student in Anthropology, also assisted in the project and his help was greatly appreciated.

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The Mountain Boats

by

Mark M. Newell

One of the most romantic — and least documented — eras of South Carolina river travel is that of the Mountain Boatmen.

Late in the 18th century and on into most of the 19th — as tobacco and cotton farms were developed in the foothills of the Blue Ridge Mountains — there was a need for transportation of these goods to coastal ports and inland railheads. As with most areas of the State, the most direct transportation routes were the rivers.

As any of you know if you have tried the diving at upstate locations, these rivers are shallow, fast and filled with rapids. Getting a large number of 500 lb hogsheads of tobacco or 300 lb
cotton bales down such a river required a very special boat - and some very special boatmen. There has been a lot of debate about the how the mountain boat was introduced into - or invented in - America. According to one source, late in the 18th century the family of a Virginia tobacco planter invented the design and even successfully sued other planters who used the design after he had received a patent for it.

This doesn’t clear up the question of where the mountain boat came from. Well before the time of the Virginia planter, a similar vessel called a “Durham Boat” was operating on northern rivers. Centuries before this, specially designed vessels were running barrels of Stockholm tar down Finnish Rivers, barrels of wine down the Duoro River in Portugal and barrels of salt and Kohl Nuts up rivers in West Africa.

All of these vessels had similar features - which figures since they were carrying similar cargoes in similar environments. The craft we have found in archival sources in South Carolina, Virginia and Georgia were extremely long for their beam - ranging from four to six feet wide and 50 to 60 feet long. Draft on these craft was little more than six inches and they were usually flat-bottomed. A common feature was a huge steering oar balanced on a pin set into a small deck area at the 'stern' - actually the only photo we have of one of these boats shows the same feature in the bow. This probably means that the steering oar could be quickly lifted and carried from one end of the boat to the other in the event the vessel spun around in the current. The oar usually had an iron-sheathed blade.

Planks were set on the cargo or attached to the gunwale for the crew to walk on. It was their job to use iron-tipped poles to help steer the boat and fend off from rocks and snags.

Bringing a fully loaded mountain boat down river was quite an adventure. In one account and old-timer likened to job to “rollin’ a lead shot down the back of a snake!” On low water the boat had to shoot down rapids with only the split second timing of the oarsman and the skill of the polemen to fend of instant disaster. Often crews waited for freshets to give them more water - but the ride was just as hazardous and doubtless even faster. It must have been a pretty exhilarating ride!

For all the speed and fun of the down river trip - the upriver journey was more than enough to daunt all but the hardiest of souls. The steering oar was probably shipped and all the men would lean into the current with their poles after getting a purchase on a nearby rock or the river bottom. They would then walk the boat against the current. It was slow and tortuous work and obviously took a great deal more time than the downstream journey.

Similar pole fragments were found when we excavated the Santee Canal. They were found to have two types of tips - a single spike at one end and a two fingered prong at the other.

We know the boats operated on the Santee River system and the Savannah River - and suspected that they also ran other upland rivers of the Waccamaw system as well. So far no record of wreckage has come to light. This is where the sport diving community can help. If you have ever spotted a wreck which a great deal longer than it is wide and has the appearance of a double-ender, chances are you may have found a mountain boat. The only wrecks so far to have been documented were found in a basin of a canal in Richmond Virginia shortly before it was filled to make way for an office block. Very little recording was done. We are hoping that South Carolina may be the first State to find and fully document one these craft.
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