

Graduate students in East Carolina University's Program in Maritime History and Nautical Archaeology map a seventeenth century shipwreck site in Bermuda. From left to right are Robert Church, Tom Marcinko, and Kelly Bumpass. (Photo by Gordon Watts, Jr.)

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Stem to Stern

Newsletter of
East Carolina University's
Program in Maritime History
and Nautical Archaeology

Faculty:

Timothy J. Runyan, Ph.D.,
Interim Director

Lawrence E. Babits, Ph.D.
Michael A. Palmer, Ph.D.
Anthony J. Papalas, Ph.D.
Bradley A. Rodgers, Ph.D.
Richard A. Stephenson, Ph.D.
Carl E. Swanson, Ph.D.
John A. Tilley, Ph.D.
Gordon P. Watts, Jr., M.A.

Staff Archaeologist:

Frank Cantelas, M.A.

Office Manager:

Karen Underwood

Editor: Peter H. McCracken, M.S.L.S.

Contributors: Larry Babits, Frank Cantelas, Robert Church, Molly Conlin, Michael Coogan, Rusty Earl, Jeff Gray, Nathan Henry, Eleftheria Mantzouka, Peter McCracken, Phil McGuin, John McWatters, Ann Merriman, Kerry O'Malley, Tim Runyan, Jinky Smalley

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Stem to Stern

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Admiral Ernest M. Eller House
East Carolina University
Greenville, NC 27858-4353



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NATIONAL MARITIME HERITAGE ACT PASSES

The National Maritime Heritage Act was signed into law by President Clinton in November 1994. Passage of the Act was the work of the National Maritime Alliance, an umbrella organization composed of board members from numerous maritime organizations. **Timothy Runyan** has served as secretary/treasurer since 1992. Emeritus faculty member **William Still** is a board member. Other participants include board chairman Rafe Parker of Sea Education Association; Jerry Enzler from the Mississippi River Museum; maritime consultant Ralph Eshelman; David Brink, SAIL, Inc.; Peter Neill, South Street Seaport; Revell Carr, Mystic Seaport; Paul Johnston, Smithsonian Institution; Wayne Wheeler, U.S. Lighthouse Society; Peter Stanford, the National Maritime Historical Society; and Channing Zucker, Historic Naval Ships Association. The Alliance achieved a remarkable success when Congress approved the bill quickly. The purpose of the Act is to

provide ongoing federal funds (for the first time in U.S. history) dedicated to the preservation of America's maritime heritage. Funds are generated from the sale of vessels for scrap in the National Defense Reserve Fleet which has produced \$715,000 to date. Because of environmental restrictions by the EPA ships can no longer be scrapped abroad. Domestic scrapping is not cost effective. All involved parties are working on a solution to the problem..

The Alliance is a partner with the National Trust for Historic Preservation to help allocate funds generated by the Act. Proposals will be evaluated by a panel responding to the Secretary of the Interior. Hopefully, a request for proposals will be announced in 1996 when all the administrative procedures are in place. Program graduate **Kevin Foster**, director of the National Maritime Initiative of the National Park Service (an agency of the Department of the Interior), will help administer the Act.

CIVIL WAR HISTORIAN JOINS HISTORY DEPT.

Dr. David Long is the History Department's faculty member. Dr. Long's interests focus on the Civil War and Abraham Lincoln. Dr. Long has worked as a criminal defense and trial lawyer, prosecuting first-degree murder cases in Florida. Recognizing that he wanted to write, and wanted to write about history, Dr. Long began taking courses at Florida State University, where he earned his doctorate in history in 1993.

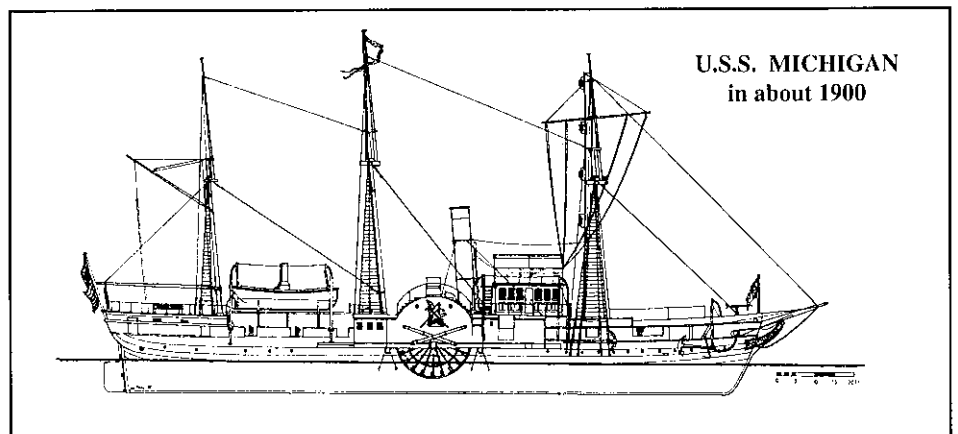
His dissertation, published in 1994 as *The Jewel of Liberty: Abraham Lincoln's Re-election and the End of Slavery* (Mechanicsburg, PA: Stackpole Books), has received extensive accolades, and has been nominated for numerous major prizes, including the Alfred Beveridge Award, the

Francis Parkman Prize, the Bancroft Prize, and the Pulitzer Prize.

Dr. Long has a variety of projects in the works at the moment, including two book projects and various articles and agreements for encyclopedia entries. In addition, Dr. Long is currently scheduled to speak at events in all corners of the country, from Boston to West Palm Beach to Southern California to the Pacific Northwest. He is also leading several history cruises, including one next May out of Washington, DC, aboard the *Nantucket Clipper*.

The Program in Maritime History welcomes Dr. Long to East Carolina, and we are pleased to have him here.

Peter McCracken



The USS Michigan is the subject of **Bradley A. Rodgers'** new book *Guardian of the Great Lakes: The U. S. Paddle Frigate Michigan*, published by University of Michigan Press. The illustration was drawn by **John A. Tilley**.

PAMLICO DRAINAGE SURVEY UPDATE

Since 1993, ECU students under the direction of ECU associate professor **Larry Babits** have been engaged in a shoreline survey of tributary streams in the Pamlico River drainage. The initial segment covered the Pamlico River's north shore from Bath Creek to Wades Point and was supervised by **Jeff Morris**. During that survey researchers located 22 confirmed vessels and another 53 magnetic anomalies which will require additional inspection. The second stage of the survey, supervised by **Annalies C. Kjorness**, continued along the Pungo River's western shore as far as Woodstock Point. Another 53 vessels were located, but very few magnetic targets were discovered. In addition to the underwater sites, researchers also recorded five new prehistoric and eleven historic sites, including a marine railway and several swamp/marsh lumbering sites. A third survey, from Woodstock Point and up Pungo Creek will effectively circumscribe a peninsula of land south of Route 92 between the Pungo and Bath Creek.

The survey project was initiated by graduate student comments following a canoe trip which located a number of ship graveyards. **Edward Prados** and **Dan Warren** suggested that a systematic survey of estuarine streams might produce a wealth of abandoned vessels in multicomponent depositions with considerable time depth. During the fall of 1992, a grant was prepared and submitted. The Office of the State Archaeologist awarded a survey and planning grant to carry out the first stage of the survey. A second grant was awarded and a third is now being prepared.

Several reasons made the Pamlico basin an ideal site for research. First, it was convenient to East Carolina University but not very well known. Since the Pamlico is also situated between the Chesapeake Bay and the southeastern coast of the US, two traditional boatbuilding areas, it was possible that a combination of vernacular construction traits might be found. Although it was not planned, the initial survey developed rapport with long time residents who provided additional details, including vessel names, owners, site locations, and vignettes of both vessels and owners.

Most importantly, one person, Glen Credle, had already completed a survey of grave markers in the survey area. His work complemented the survey by providing a wealth of genealogical information to embellish vessel-related materials. In effect, the graveyard survey provided a crucial link between the water and the land through

the names of people who worked on both as part of a diversified maritime subsistence strategy.

The survey encountered a wide variety of vessel types, such as iron barges, sunken pontoon houseboats, an incredible variety of workboats (skiffs to trawlers and "run boats"), and some pleasure craft. Nine major multicomponent graveyards were located that contained recent vessels overlying much earlier ones visible as frames and planks. At least two vessels were deposited during the period of the survey.

Research is continuing. Some sites have been inspected as students look for thesis topics. At least six sites contain centerboard schooners or bateaus. There are at least twenty skiffs under thirty feet. The area contains two larger vessels which were converted from sail to engine power, as well as one large wooden barge and two iron barges.

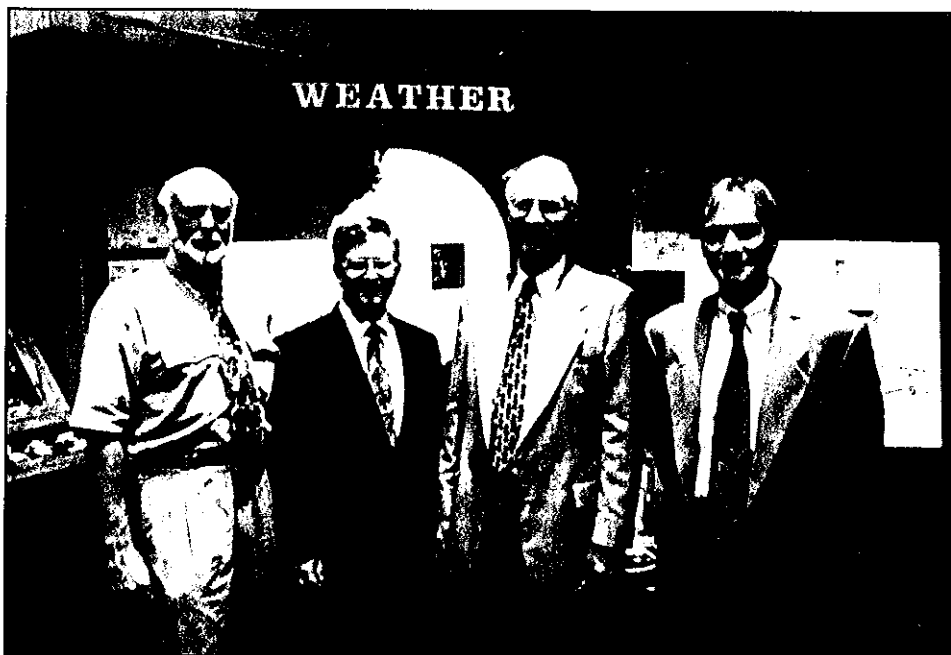
The survey work produced a number of observations relating to a working model of ship discard which is still being refined.

The vessels were used as part of a diversified subsistence strategy involving both land and water resources. Sites relating to this activity are most likely located at points where good (well drained and higher) land intersects with both deep water and a road to the interior. This configuration of good land, road, and deep water is usually an "insert site" where docks and structures relating to maritime activities will be found on land and some debris will be found in the water. It is likely that vessels were built there in many cases.

Worn out vessels were disposed of in nearby streams which were too shallow for use or did not provide access to an interior road network. Most often, these graveyard complexes are on secondary or tertiary streams off a major waterway and are usually in a location where winds will not move discarded vessels. These graveyards have been used over considerable time in some cases. Thus, the vessel remains can provide localized chronologies for interpretive purposes.

Larry Babits

NAVAL HISTORIANS SPEAK AT BEAUFORT MUSEUM



Speakers from the Naval Historical Center in Washington, DC, visit Beaufort, NC, for a conference co-sponsored by ECU's Program in Maritime Studies and the North Carolina Maritime Museum in Beaufort. Attending the conference, titled "North Carolina in World War II: A Maritime Perspective," were (from left to right) Rodney Barfield, director of the North Carolina Maritime Museum; Dr. Edward Marolda, head of the Contemporary History Branch of the Naval Historical Center in Washington, DC; Dr. Timothy Runyan, director of ECU's Program in Maritime Studies; and Dr. Robert Neyland, underwater archaeologist for the Department of the Navy. The conference followed a Symposium on "Seapower, Naval History and Archaeology," held November 2 at ECU. Neyland and Marolda were joined by Dr. James Tritten of the Naval Doctrine Command in Norfolk, VA.

16TH CENTURY WRECK EXPLORED IN COASTAL FLORIDA

Last summer I had the opportunity to work for the State of Florida's Bureau of Archaeological Research, researching a sixteenth century Spanish wreck in Pensacola Bay. The project was coordinated by Roger Smith, underwater archaeologist for the state. **Jim Spirek**, an ECU graduate, was the field director. The project particularly interested me because my thesis is on sixteenth and seventeenth century Spanish ship construction, and I had been assured by ECU student **Stu Derrow**, who worked on the project the summer before, that I would learn a lot and that Joe Paddi's was the best

place to buy good, fresh seafood, both of which turned out to be true.

The Emanuel Point site is on a sand bar in ten feet of water, just east of the Pensacola Bay Bridge.

This was the fourth consecutive field season on the site. Unless or until more funding is raised or appropriated by the state, the field work is over. Conservation is continuing on the artifacts, and they will be displayed at the T. T. Wentworth Museum in Pensacola.

The wreck has been tentatively identified as one of Tristan de Luna's 1559 expe-

dition ships, bringing settlers to the Pensacola Bay area. The ships arrived safely in the bay, but before a settlement site was chosen and the ships could be unloaded, a hurricane hit the bay, just like two this past summer. All but one of the ships were blown onto various sandbanks and wrecked.

The artifacts and hull remains indicate a mid-sixteenth century vessel. The earliest possible date for the vessel—the *terminus post quem*—is the early 1550s, as several pounds of mercury were recovered and mercury was first employed in refining sil-

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SUMMER "WORK" AT THE UNITED STATES COAST GUARD ACADEMY MUSEUM

I spent last summer serving a ten-week internship at the United States Coast Guard Academy Museum in New London, Connecticut. It was a positive and successful experience in every respect, and it is not an exaggeration to claim that this adventure had, and will continue to have, a profound effect on my life and on my career.

It all began in the Spring 1995 semester, when ECU Nautical Archaeology Professor **Gordon Watts** invited Dr. **Mary Cauley**, director of East Carolina University's Cooperative Education Program, to speak to his Methods in Nautical Archaeology class concerning job opportunities available through the Co-op Program. I was in that class, and as Ms. Cauley gave her informative talk, I remember thinking, "Yeah, right, this is the kind of stuff that happens to everyone else, not me." Nevertheless, a few days later, just so I could say I did it, I ventured over to the Cooperative Education office in the General Classroom Building, submitted my application, and went on my way, convinced that was the end of it.

I returned home from class several weeks later to find a message from Dr. Cauley waiting for me. Through a series of unusual circumstances, a ten-week, paid internship, for which academic credit would be given, was available at the Coast Guard Museum, and would I be interested in that position? Well, yes, I was. Associate Professor **John Tilley** kindly agreed to serve as my advisor for the internship, and so, on June 24, 1995,

I left my wife, Anita, and my five-year old daughter, Meghan, in Greenville, and headed north, coaxing my much-traveled Chevy up the coast and then east along the northern shore of Long Island Sound to New London. When I arrived Sunday evening I met the museum's one and only employee, curator Cindee Herrick. I reported for work at 8:00 a.m. the following morning.

The Coast Guard Academy is situated on the sloping west bank of the Thames River, just north of New London. Most of the cadets had gone home for the summer, and the hilly streets were quiet. The academy's library and the museum share the Waesche Building, named for a prominent Coast Guard Admiral, and it was here that I would spend much, but by no means all, of the next ten weeks of my life. Which was fine with me, as it was much too hot to be outside that summer.

My primary task for the ten-week assignment was to catalogue and register the museum's 4,000-plus artifact collection for later entry in a new computer database. The museum opened in 1967, and throughout its existence artifact registration and documentation, when it was done at all, was done poorly and erratically. Much of the information concerning the artifacts is spotty or is missing entirely, and documentation that does exist was scattered among several drawers and file cabinets. Ms. Herrick was hired to fix this problem; I was hired to help her.

My job quickly took on two distinct phases. First, and most importantly, I assisted Ms. Herrick in identifying individual objects, accessioning them when necessary, and organizing the information for the data-

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STUDENT NARRATIVES: SUMMER RESEARCH AND PROJECTS

These pages highlights projects undertaken by students in the Program in Maritime History and Nautical Archaeology which are unrelated to the program. These projects were generally completed during summer sessions, and each shows the broad and fascinating interests of students currently enrolled in the maritime history program. We want to highlight these activities, not only because they make significant contributions to maritime history and underwater archaeology, but because the people who have taken on these activities show the broad interests of Program students.

—The Editor

NUMEROUS WINE AMPHORAE DISCOVERED IN GREEK SHIPWRECK

In 1985, the largest Classical Age shipwreck yet known was discovered off the Greek island of Alonnesos, in the Northern Sporades. In 1991, a survey was organized by Dr. Elpida Hadjidakis, then Director of the Department of Marine Antiquities in Athens, to inspect the vessel. She subsequently served as the primary investigator during the 1992 and 1993 seasons.

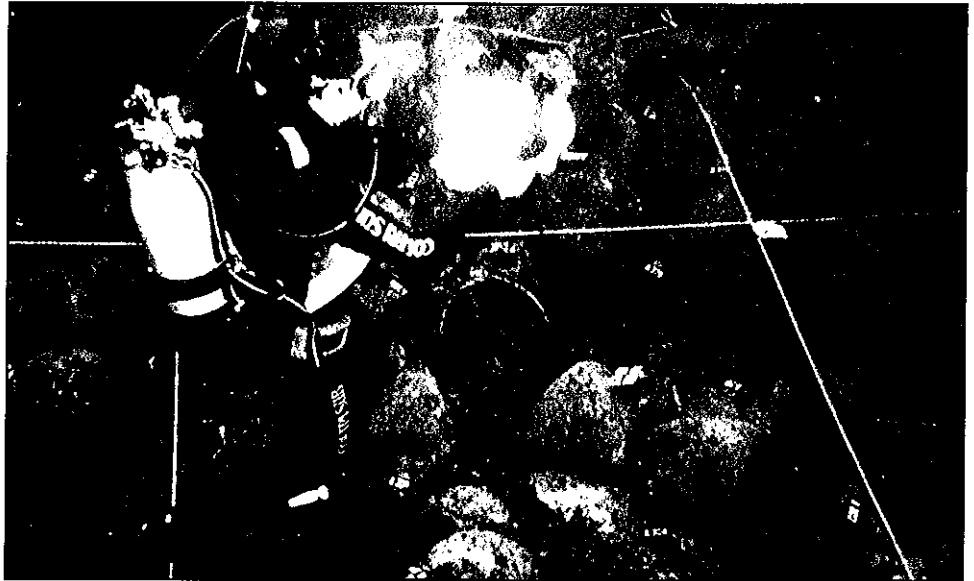
The vessel lies on a sloping, sandy bottom between 22 and 30 meters deep. The large number of amphorae forms a mound 25 meters long and 10 meters wide. The orientation of the mound, with one end pointing 120° southeast, suggests that the ship sank while listing to port. The amphorae were initially thought to be arranged in at least two layers, with most of the mouths facing west. To date, four layers of amphorae have been identified. Most of the amphorae are intact, although their stoppers are gone. Samples have dated the amphorae to approximately 400 B.C. The main cargo seems to have been wine, which originated in the Macedonian port of Mende and the island of Skopelos (ancient Peparethos),

and was probably bound for Athens. Mende was well known for its excellent wine.

During the 1992 excavating season, researchers created a 24 by 12 meter grid over

the wreck site. The grid was used with two other surveying methods to provide precise measurements. In preliminary recordings, the team labeled 976 amphorae lying in the

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A diver shoots underwater video of trenches, showing numbered amphorae.

SUMMER INTERNSHIP AT USCGA MUSEUM

(Continued from page 4)

base. I spent many hours on the second floor of the storage room, rummaging through an amazing assortment of old swords, uniforms, scrimshaw, and ship models. One old model of the *Santa Maria* was truly amazing; I'll never forget that old thing. Within a couple of days, Ms. Herrick and I had developed a fast but simple system of working with the artifacts, and the job progressed swiftly.

The second part of my task was to try to build artifact files by going through the piles of letters, donor cards, and various other documents in the museum's files. I did this work in Ms. Herrick's office, usually when she was gone or busy with other matters. There was another intern working at the academy, a fiery Eastern Connecticut University student named Stacey, but she was usually involved in her own projects, so I was left on my own when Ms. Herrick was gone. I accomplished much, but, frankly, there are still piles of papers awaiting the attention of some other poor fool.

Happily, I can report that Ms. Herrick and I were able to work through all the artifacts that were at the museum building at the time, either in storage or on display. Other objects remained scattered throughout the other academy buildings, but we left

those for another day. Shortly after I left, the information we collected was submitted to the "computer man" for entry into the data base. Mission, for the most part, accomplished.

Though these were my two principle tasks, Ms. Herrick insisted that I be introduced to other aspects of museum work. Consequently, among other things, I helped design an exhibit that focused on the Coast

As I sat on the
quarterdeck, I watched
many of the swabs
being lashed to the
lee rail so they
wouldn't drop overboard
while tossing their cookies
into Long Island Sound.

Guard's actions in World War II, began work on a display that would explain the origins of the United States Revenue Cutter Service precursor of today's the Coast Guard, assisted in the construction of a special display case to display a Medal of Honor received by a Coast Guardsman for bravery at Guadalcanal, and spoke with

many museum visitors. I also worked with volunteers, most of whom were retired Coast Guard officers and enlisted men. I even got to supervise a work detail of cadets who were doing some painting in the museum, but I was easy on them. By the time I departed New London, I had gained considerable experience in many aspects of real-life museum work.

That is a brief description of my day-to-day life as a museum intern for the Coast Guard Academy. The experiences did not stop there, however. One "job" Ms. Herrick "forced" me to do was go for a five-day cruise on the USCG Barque *Eagle*, the Coast Guard's sail training vessel. The *Eagle* is a gorgeous, German-built, 295-foot barque received as war reparations following World War II. Each year, all incoming cadets, known as swabs, receive some of their first lessons in seamanship aboard the *Eagle*. I, however, just went along for the ride.

The first day was probably the best. Under nearly full sail, we were hurtling across a very choppy Long Island Sound at an estimated thirteen knots. To say we were bouncing along would be an understatement. As I sat on the quarterdeck, I watched many of the swabs being lashed to the lee

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16TH CENTURY WRECK EXPLORED OFF COAST OF FLORIDA

(Continued from page 4)

ver in the early 1550s. Early style Spanish olive jars were also found. Early style starts to give way to middle style in about the 1580s, so this becomes the latest possible date—the *terminus ante quem*. Nothing has yet been found that positively links the wreck with the Luna expedition, but that is the only documented voyage to that area in that time.

About twenty percent of the site has been excavated to date. The areas explored include the lower hull, from the sternpost forward to the after end of the keelson, the stern artifact scatter area, and the maststep area. There are several interesting things about the hull. All the rudder hardware is present and most of it is still attached, so the rudder fitting can be reconstructed in scale drawings. These drawings show that the rudder hung somewhat below the keel. This arrangement also appears to be the case in the *San Diego*, a galleon wrecked in 1600 and recently excavated in the Philippines.

The wreck site also contained a lot of lead sheathing, but not enough to completely cover the hull, although more than enough

for covering the seams. This pattern of intermediate sheathing has not been found on other wrecks of the period.

Among the many artifacts that were recovered are a breast plate, stone shot (all the artillery was probably salvaged at the time), Aztec pottery, a single coin, various animal remains and the wood carving of a ship silhouette. The carving, which was found

Many of the rats on board had rickets, as they were not getting enough Vitamin D.

between the frames in the bilge, fosters a personal connection to the ship. It must have been carved by a sailor in his spare time, and holding the carving in the palm of one's hand produces a feeling of connection to that sailor four centuries ago.

A fascinating, though not terribly glamorous, find was a collection of rat bones. These bones were sent to a specialist, who reported that many of the rats on board had rickets, as if they were not getting enough Vitamin D.

The single coin has been dated to the reign of Henry IV of Castile, Isabel's brother who preceded her on the throne. As Henry IV's rule ended in 1474, the coin was very old at the time of the wreck—perhaps it was a family heirloom?

Closing the site was difficult, since I knew how much more was there, but it is completely covered and should be safe for future work. The first of the two summer hurricanes came through a few weeks after the backfilling was completed. The site was subsequently checked and had not been uncovered during the hurricane. The final weeks of the internship were taken up with conservation and report writing. A site report is currently making its way through the government channels in Tallahassee and may be out as early as spring 1996.

I learned a lot, had a chance to perfect my stippling technique while creating the site plan, and worked with good people. In the evenings I joined the Pensacola Little Theater and performed in a melodrama, where I formed friendships with several native Pensacolians. It was a good experience.

Jinky Smalley

SUMMER INTERNSHIP AT THE UNITED STATES NAVY MEMORIAL FOUNDATION STRENGTHENS CONNECTION WITH ECU

The United States Navy Memorial Foundation (USNMF) was established in 1978 to promote the understanding of our country's naval heritage. The Foundation's strong connection with ECU was recently strengthened when **Edward Prados**, a graduate of the ECU Program in Maritime History and Nautical Archaeology, was hired as Assistant Director of Education. This past summer, Edward helped arrange a student internship with ECU. As a first year student in the program at ECU, I was pleased to have an opportunity to work at the Foundation. My duties were to design and construct two exhibits for the Foundation.

The first exhibit was scheduled to coincide with the Foundation's summer seminar titled "The Decision to Drop the Bomb." (See article, page 15.) The exhibit utilized a photo collection at the Foundation. The selection of photos accompanied a time line of World War II.

The second exhibit dealt with the nature of the Foundation and stressed its commitment to public awareness, and the Foundation's vital role in preserving and present-

ing the naval heritage of our country. A small mock-up of the USNMF Center was designed and displayed in the front window. The display will hopefully attract more visitors to the Center, for while the Foundation has a beautiful location in downtown Washington, D.C., its public resources cannot be fully appreciated or understood from the small window fronts on Pennsylvania Avenue. Not many passing pedestrians realize the wealth of space and information the Foundation has to offer them, literally below their feet. The quarter-deck where one enters the Visitor's Center, now referred to as the Naval Heritage Center, can mislead one into thinking that the place is very small. The Center actually extends one flight down and houses a huge state-of-the-art theater, as well as a gift shop, the president's room, and ample space for temporary exhibits. There is also a log room, which contains the Navy Log, a listing of all Navy service personnel.

Over the summer, Mr. Prados and I developed an exhibit on the Battle of Mobile Bay, scheduled to coincide with the Cen-

ter's celebration of the anniversary of that historic event. Works by former ECU graduate student **Martin Peebles**, and maps and diagrams put together by ECU staff archaeologist **Frank Cantelas** were set up in the Center. This temporary exhibit was coupled with the efforts of the Center to bring the history of the event to the public by presenting some re-enactors in costume. The representational actors gave the public a greater understanding of the living conditions during the period of the Battle of Mobile Bay.

The Special Collections Division of East Carolina's Joyner Library is the home of the USNMF's Manuscript Collection. The Collection contains correspondence and personal letters of World War II service veterans.

Edward Prados, along with Admiral Miller and the whole staff at the USNMF, was very appreciative of the work and effort supplied by ECU, especially this past summer. Both sides hope the bond between the two institutions will continue to strengthen.

Molly Conlin

ECU AND NAVAL HISTORIANS GATHER IN WASHINGTON, D.C.



Admiral James Miller, Director of the Navy Memorial Foundation in Washington, D.C. (center), stands with several other participants in a conference co-sponsored by the Navy Memorial Foundation and East Carolina University's Program in Maritime Studies. From left to right stands Dr. Timothy Runyan, Director of ECU's Maritime Studies Program and organizer of the conference; panelist Norman Polmar, naval historian and author of numerous books; Adm. Miller; former Ambassador Paul Nitze, a featured speaker at the conference; and panelist Dr. Michael Palmer, author and a member of ECU's Department of History. The conference, which took place July 25, 1995, was titled "Truman's Decision to Drop the Atomic Bomb."

MYSTERY OF THE CLAFLIN POINT WRECK

Once again North met South when East Carolina University's Program in Maritime History and Nautical Archaeology joined forces with the State Historical Society of Wisconsin (SHSW) to document one of the numerous historical vessels submerged in the Badger State's bottom lands. This project was a Phase II pre-disturbance, non-intrusive archaeological survey of a wooden vessel, resting in the waters just outside of Sturgeon Bay, Wisconsin. A Phase II investigation is the documentation of a vessel's remains without disturbing the contents or environment. This is achieved through maps, photographs, video, and archaeological sketches.

The 1995 fall field school returned ECU's assistant professor **Bradley A. Rodgers**, and program archaeologist **Frank Cantelas**, to their old stomping grounds. Accompanying them were ECU graduate students **Nathan Henry**, **Jeff Gray**, and **Wendy Coble**. The State of Wisconsin was represented by SHSW archaeologists and ECU alumni **David Cooper** and **David Beard**. ECU's Dive Safety Officer **Steve Sellers** joined the group to oversee all diving activities and offer his expertise. Trav-

eling all the way from California, **Hans "Goro" Van Tillburg**, a recent program graduate, rounded out the team. The crew lived in two nearby waterfront cottages which allowed easy access to the site by boat via adjacent Green Bay.

The Door Peninsula stretches for a total of ninety miles, separating the waters of Lake Michigan to the East and the Bay of Green Bay to its West. Sturgeon Bay sits almost half way up the Peninsula, on the bay side. In the 1880s this area experienced a major surge in maritime activity with the completion of the Sturgeon Bay Ship Canal, linking Lake Michigan and Green Bay. This canal not only shortened the traveling distance between Green Bay and Chicago or Milwaukee, but also allowed ships to avoid the treacherous waters at the tip of the Peninsula, known as Death's Door.

The wreck site is located a few miles southwest of Sturgeon Bay in Little Sturgeon Bay, just off Claflin Point. Increase Claflin was the Door's first white settler. He homesteaded near the site in 1835. The wreck site has become a popular site for local recreational divers and has ideal conditions for an underwater investigation, due

to its shallow depth (less than twenty feet), good visibility, and easy accessibility.

"This sure was massively built," echoed over the communication console as a group of divers made their first descent on the ship's remains. This description was certainly accurate! With none of the superstructure or machinery present, the 137 foot long keelson is the most prominent feature of the wreck, while a section of the fantail lies aft of the keel. The goal of this year's field season was to record as many of the wreck's dimensions and features as possible, to identify the ship type. Due to the excellent preservation, a detailed plan view and four cross-sections of the hull were completed. Through reconstruction, it has been determined that the vessel was approximately 166 feet long and had a beam of 24 feet.

The Claflin Point Wreck was ruggedly built to face the harsh conditions of Lake Michigan. It also has a very high length to beam ratio, nearly 7:1. These two factors explain the stout construction. To control hogging, the shipbuilders used tie rods with turnbuckles, bilge keelsons, ceiling arches,

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TWELFTH ANNUAL BERMUDA FIELD SCHOOL EXPLORES SHIPWRECK SITES

For a number of years, the fall field schools have become a focal point in the graduate career of many Maritime History students. The beginning of the 1995 Fall semester saw eleven students join faculty member **Gordon Watts** for the twelfth-annual Bermuda Field School. Leaving North Carolina on September 5th, seven students, **Rob Church, Tom Marcinko, Karen Kozlowski, Cissy Deas, Rusty Earl, Scott Emory, and Steve Brodie**, joined a group of students already in Bermuda. **Sarah Waters, Rick Jones, Kimberly Watson, and Kelly Bumpass** had left earlier in the summer to work on their Bermuda thesis projects, or on another site project. To-

for three days, but the ECU students passed the time by crashing a pirate costume party, sightseeing, and engaging in other forms of intellectual debauchery.

When work resumed, students began mapping and recording the features of the site using grid squares and plum-bobs. Work continued on the dredging, and as space was cleared, more grid sections were set up. In this manner, the entire starboard side, and much of the port side, of the wreck was mapped. In addition to a site map, the contour lines of the vessel were measured, artifacts from the wreck were recovered and recorded, and research on the site was carried out at the Bermuda Archives. Among

the artifacts recovered were a straight pin, part of a belt buckle, lace point, a lice comb, pig and fish bones, seeds, several coconut shells, one of which contained an intricate carving of a sun burst and possibly palm trees, and many pot sherds of majolica and polychrome ceramics and salt glazed and terra-cotta earthen ware. The majority of the ceramics had Spanish or New World origins, and an olive jar was reconstructed from the recovered earthenware pieces in the lab. Evidence from the site indicates that the vessel was owned and operated by the Spanish around 1680. The construction of the vessel indicates that the ship may have had English origins. The vessel grossed approximately 150 tons, but the name of the ship, and any knowledge of its history remain unknown.

After work on the 'Stonewall' site had been completed, six students were sent to assist Sarah Waters with her work on the *L'Hermanie* site, while the remainder of the group returned to the 'Stonewall' to back fill the site and insure its protection for future researchers. The *L'Hermanie* was a French frigate that broke up on a reef in the 1830s. The artifactual remains of the wreck are now scattered over a wide area of the reef. The exposed features of the wreck were plotted and detailed measurements and drawings made of artifacts included cannons, a carronade, and recently discovered hull remains.

(Continued on page 9)



(L to R) Karen Kozlowski, Rick Jones, Steve Brodie, Tom Marcinko, and Scott Emory provide surface support for divers in Bermuda by running the dredge pump, monitoring the divers below, and checking gear for their next dive. (Photo: Cissy Deas)

gether, the ECU team would set out to complete a site plan of Kelly Bumpass's thesis project, the 'Stonewall' site.

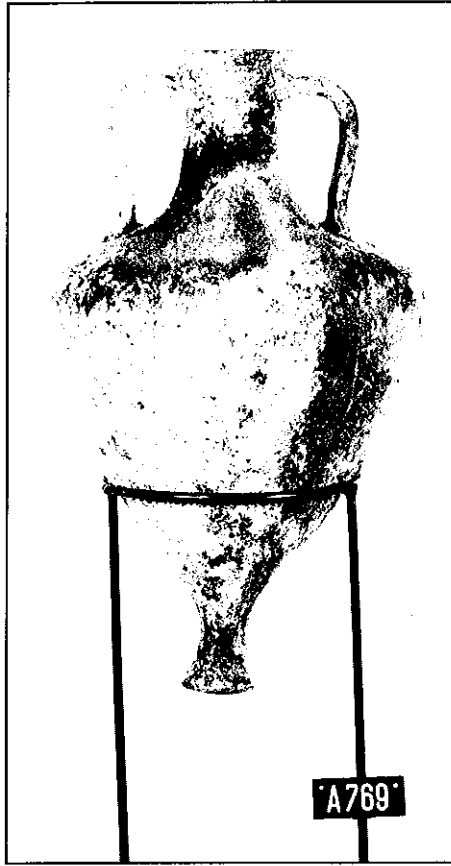
After arriving at the Bermuda airport, the group was picked up in boats and taken to the Bermuda Maritime Museum. The museum is housed in an impressive two-hundred year old English fort, and was home to the students for the next four weeks. Initial work on the 'Stonewall' site included uncovering the stern area that the 1994 field school had mapped, and beginning a systematic dredging of sand and dirt from that area forward. Care had to be taken due to the presence of undisturbed areas of sediment, and the students worked in two teams of three. In each team one diver worked a dredge, one diver moved rocks, and a third diver helped search for any artifacts uncovered by the dredge. With this system, an area large enough to set up four, two-meter grid squares was cleared fairly rapidly. The major hindrance during the first few weeks came from a hurricane that passed close to the island. Hurricane Luis ended site work



(L to R) Robert Church, Kimberly Watson, and Kelly Bumpass map the wreck of the 'Stonewall' site. (Photo: Gordon Watts, Jr.)

AMPHORAE DISCOVERED IN GREEK SHIPWRECK

(Continued from page 5)



Wine amphora from Mende A769. At least 1000 amphorae were found in the surface layer and at least three other layers suggest an estimated total of approximately 4000 amphorae in a cargo of over 100 tons.

BERMUDA FIELD SCHOOL CONTINUES

(Continued from page 8)

The work accomplished on the 'Stonewall' and *L'Hermanie* sites made for a successful 1995 Fall field school. Including the aforementioned sites, the group had the opportunity to visit nine wreck sites and search for potential sites by tow-boarding along the reef. Students also received valuable conservation experience such as removing concretions, cleaning, and recording artifacts in the Maritime Museum laboratory under the direction of Dr. Lesley Dean. Besides adding to our understanding of the Bermuda maritime heritage, the Bermuda field school allowed the students to gain valuable field experience and training, while at the same time enjoying the wonderful culture and history of Bermuda.

Robert A. Church, Rusty Earl

top layer. Excavation began with a trench at the west end of the mound. It identified three layers of amphorae; 65 were recovered, along with 35 other artifacts. The 1993 season continued in an adjacent trench where 68 amphorae were removed from four layers. This trench also yielded a number of other artifacts.

The importance of this shipwreck lies in its cargo, and in the possibility of discovering vessel remains preserved in the sand. At least 1000 amphorae in the surface layer and at least three other layers suggest an estimated total of approximately 4000 amphorae in a cargo of over 100 tons. This estimation contradicts earlier estimates that burdens of 75 tons did not appear until the first century B.C. This is also the first time so many Mendeian and Peperethian amphorae have been found in one site. The wreck location suggests that there was a particular sea route for trade between Athens, Macedonia, Byzantium, and ports on the Black Sea. Literary evidence of the trade relations between Greek towns on the north coast of the Black Sea, the city of Mende, and Athens is well known. This shipwreck will answer questions about trade relations and also provide a more consistent amphora typology for the late fifth century B.C.

At the end of the 1993 excavation, approximately 190 amphorae were transferred to the Department of Marine Antiquities where they were conserved and stored for further study. During the summer of 1995, the author, having received permission from

Dr. Hadjidakis, started the research and study of the amphorae. Working at the Department of Marine Antiquities from June until the end of September, I created a typology for the 146 amphorae recovered from the two excavation trenches.

A number of methodological processes were used to accomplish this goal. First, at least ten dimensional measurements were taken from each amphora, including height, maximum diameter, handles' height, neck height, toe height, etc. Second, photography was used to document each vessel. Each amphora was placed on a tripod and photographed against a white background to define the body of the artifact. The distance between each artifact and the camera was kept fairly constant to eliminate any distortion due to the spherical shape of the artifact. Third, 25 selected amphorae were drawn, first on 1:1 scale in pencil, and then on 1:2 in ink.

Finally, capacity measurements on 20 Mendeian amphorae were taken in order to approximate the volume of wine carried, and as a consequence, any loading standards used during the late fifth century B.C.

The collected data, along with the historical background of the period, will be the basis of my M.A. thesis. The thesis will examine the amphora cargo not only typologically, recognizing the cities from whence the wine originated, but also as evidence of wine trade in vessels on the north Aegean Sea having capacities greater than 100 tons.

Eleftheria Mantzouka

LINK WITH STATE ARCHAEOLOGY OFFICE STRENGTHENS

Traditionally, students in East Carolina's Program in Maritime History and Nautical Archaeology have pursued summer internships offered by the North Carolina Department of Cultural Resources' Underwater Archaeology Unit (UAU). These internships provide an opportunity for students to get first-hand experience in underwater cultural resource management. Many consider the UAU to be the finest organization of its kind in the country and the staff are enthusiastic about the internship program.

This past summer, two ECU graduate students, **Ann Merriman** and **Nathan Henry**, took advantage of this program and spent ten weeks working at the UAU's facility at Fort Fisher. Ann reorganized the UAU's research files and updated the bibliography of site files. Nathan worked in the preservation lab, documenting and conserving artifacts from a number of sites. In addition, both students participated with the UAU staff in an underwater archaeological study of Fort Fisher's Civil War shipwrecks, sponsored by the National Park Service.

The UAU plans to offer internships again in the summer of 1996. Applicants must have in-state student residency status and plan to return to school in the fall of 1996. The application deadline is January 18. For more information about summer internships, contact the ECU Director of Cooperative Education at (919) 328-6979.

Nathan Henry

UNIQUE VESSEL INVESTIGATED IN BEAUFORT COUNTY; BELIEVED TO BE THE ONLY SCOW SCHOONER YET UNCOVERED IN NORTH CAROLINA

The Cypress Landing Shipwreck (0017PMR) lies in one to eight feet of water on the south shore of Chocowinity Bay, in Beaufort County, North Carolina. Discovered accidentally in the spring of 1994 during the construction of Weyerhaeuser Real Estate Company's Cypress Landing Marine Complex and investigated by North Carolina's Underwater Archaeology Unit in the summer of 1994, the Cypress Landing Shipwreck initially appeared to be a centerboard schooner with unusual dimensions, measuring approximately 83 feet by 14 feet with a 28 inch depth of hold. The wreck's extreme length to beam ratio was enough to warrant a Phase III intrusive excavation of the site, as it suggested the vessel was purpose-built for a specific cargo type or narrow waterway. The Phase III investigation utilizes extensive dredging and artifact collection. East Carolina University's Program in Maritime History and Nautical Archaeology conducted a full excavation of the Cypress Landing Shipwreck's port side in June 1995. This graduate level field school, under the direction of professor **Larry Babits**, offered two

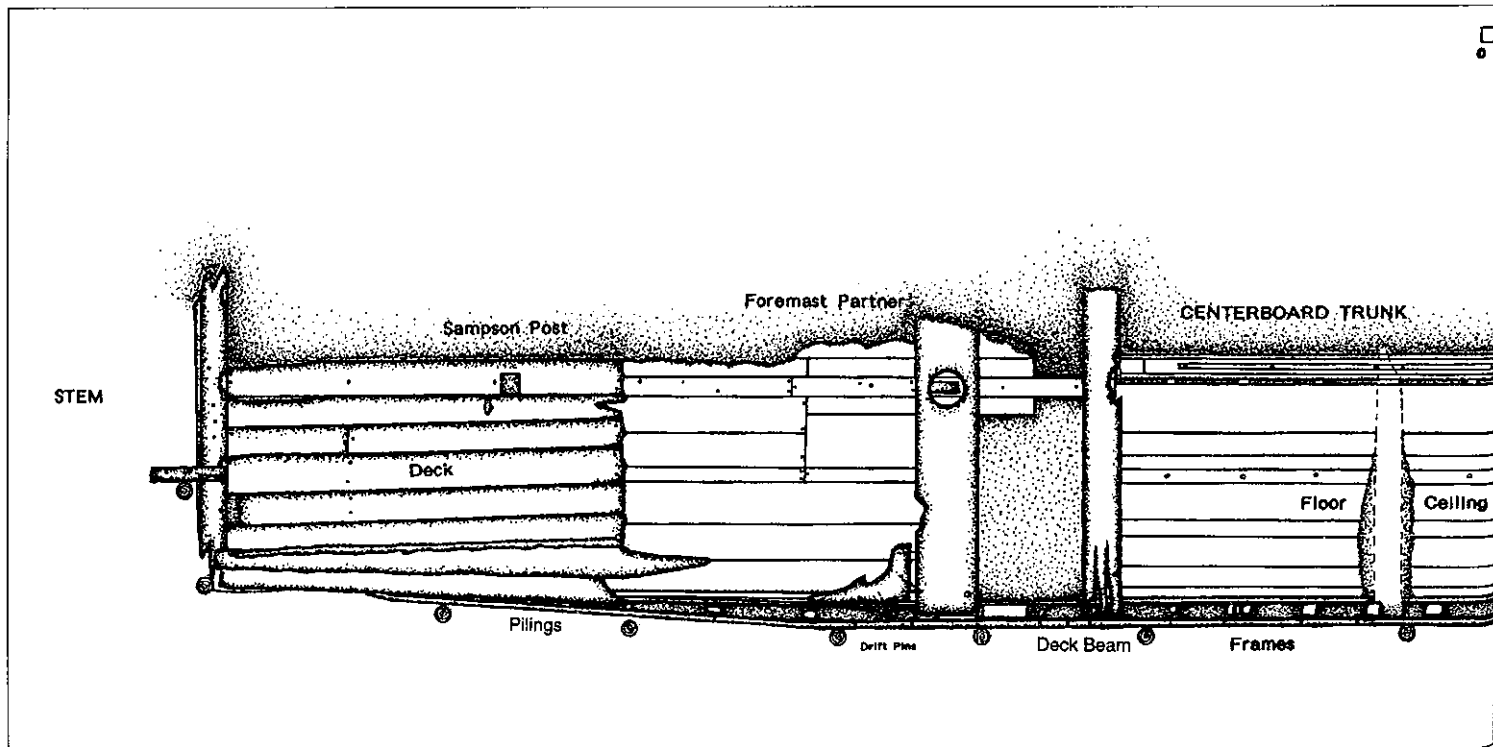
academic credits to course participants and gave them the opportunity to train in a shallow water environment with limited visibility, in preparation for a deeper site with very low visibility.

After five days of site preparation, undertaken by ECU graduate assistant crew chiefs **Edwin Combs, Rick Jones, Chris Kirby, Annalies Corbin-Kjorness, and Christopher Olson**, volunteer **Fil Ronca**, and writer **Ann Merriman**, the crew began documenting the site. This work revealed the wreck's true dimensions to be 73 feet by 14 feet. In addition, the significance of this site greatly increased upon the discovery of the vessel's transom bow, which classified the wreck as a scow schooner. Scow schooners were used extensively in the Great Lakes and along the Pacific Coast, and many historical accounts of scow schooner construction and use in these areas exist, but few archaeological investigations of scow schooners have been undertaken. The Cypress Landing Shipwreck represents the only known scow schooner wreck in North Carolina waters and possibly the only one of this vessel type investigated archaeolog-

ically in the Eastern United States.

Graduate students **Robert Church, Cissy Deas, Rusty Earl, Glen Forrest, Jeff Gray, Tom Marcinko, Sarah Waters**, and visiting undergraduate student **Robby Archer** documented the wreck's port side. Students measured visible features such as the stern post, centerboard, mast steps, mast partners, planking, and keelsons. Each student added their drawings to the site plan and kept a field school notebook describing their daily progress.

The wreck exhibited some peculiar characteristics, particularly its discontinuous keelson and sister keelsons, its mainmast partner repair, its extreme length to beam ratio (5.2:1), and the extremely shallow depth of hold (27.25 inches). With these dimensions, the vessel may have begun its life as an unrigged flatboat, and was later converted to a two masted sailing vessel with a centerboard. The wreck's port side hull had ten pilings wedged against it, indicating the vessels was intentionally sunk to act as a breakwater. Historical research in surviving shipping records identified eighteen North Carolina vessels with transom



The 1995 Summer Field School Cypress Landing Shipwreck Site Plan. Port side excavation and documentation.

CYPRESS LANDING VESSEL

bows and sterns similar to the Cypress Landing Shipwreck. The wreck remains nameless, but nine of the aforementioned vessels approximate the Cypress Landing Shipwreck's dimensions. Combining historical and archaeological information, the Cypress Landing Shipwreck's date of construction most likely falls between 1869 and 1890.

Artifacts recovered from the site include a Union Army leather shoe, a leather boot, a bullseye, various iron fittings, wooden trunnels, wooden molding pieces, and two iron chains. The Army shoe may have been sold as surplus after the Civil War. The artifacts underwent conservation in ECU's Nautical Archaeology Conservation Lab. Hopefully, the artifacts will find a home in Washington, North Carolina, where they can be used to educate the public about the area's maritime history and archaeology.

Based on site conditions, location, and historical research, this vessel probably worked in eastern North Carolina's shallow tributaries and canals, transporting goods to mercantile centers and lightering cargo to sea-going vessels. Perhaps during its later years it carried brick from a nearby brickyard until its mainmast partner completely failed. It may have then worked as an unrigged scow until its intentional placement as a breakwater to aid in on-loading of

bricks in the late 19th or early 20th century.

The Program in Maritime History and Nautical Archaeology would like to thank Weyerhaeuser Real Estate Company's John Doughty and Kip Peregoy for their help during this summer's field school. Without their support this important find would not have come to light. Thanks also go to Robert Smith and Artie Rawls of Wimco Construc-

tion, and to architect Robert M. Chiles. And as always, the staff of North Carolina's Underwater Archaeology Unit provided invaluable advice, historical and archaeological resources, and moral support during the excavation and report preparation. The crew offers many thanks to these talented individuals.

Ann Merriman

CHICOD CREEK WRECK PROVIDES VALUABLE EXPERIENCE

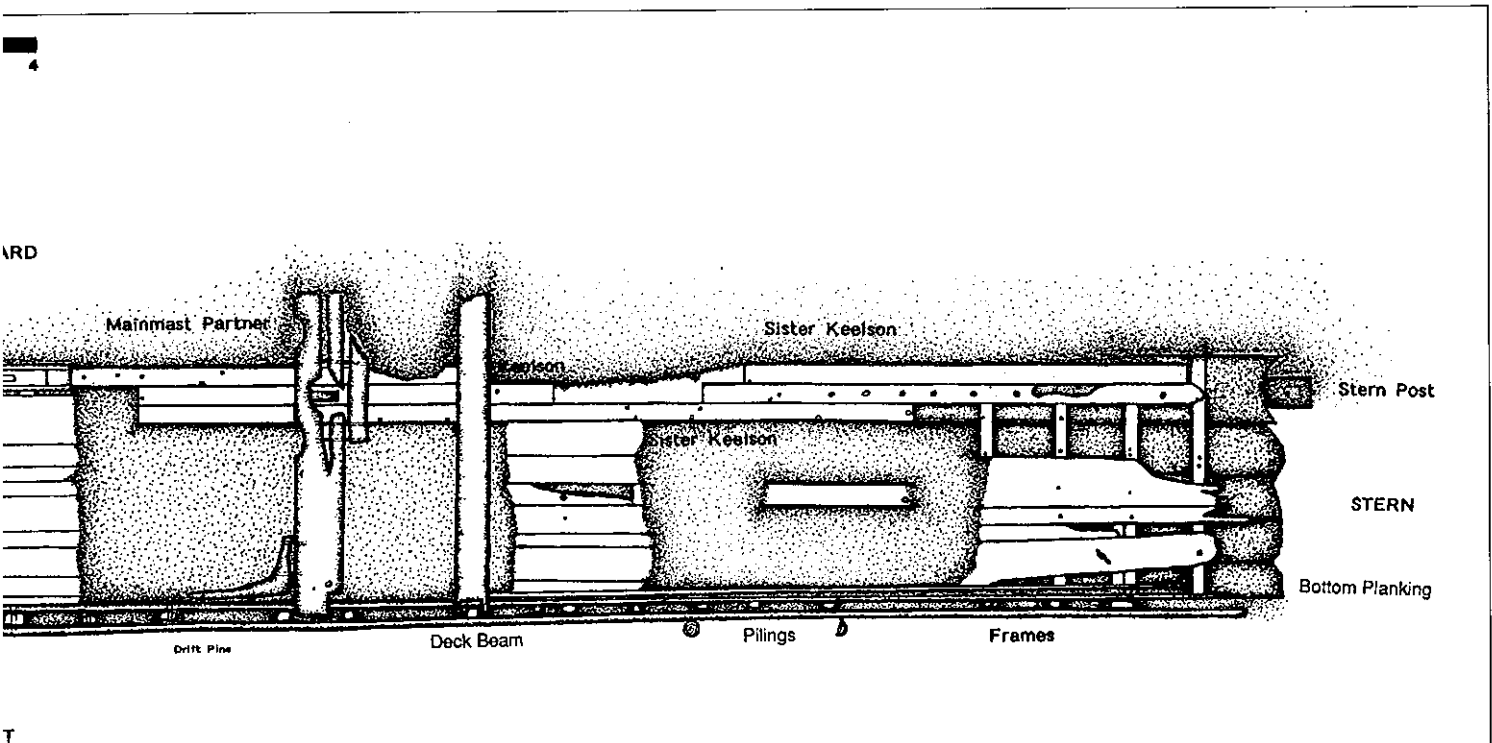
The second half of the 1995 summer Underwater Archaeology Field School investigated the remains of a wooden Confederate gunboat in a creek near Grimesland, North Carolina. This vessel was apparently a 151-foot Porter Class vessel constructed in Washington, North Carolina, during 1862. When Federal forces took control of Pamlico Sound, the unfinished vessel was moved upstream into a small creek off the Tar River. Unable to finish it, the Confederates burned the vessel to the waterline.

The project was supervised by graduate student **Edwin Combs** under the direction of associate professor **Larry Babits**.

Approximately sixty feet of the port side were recorded by the now-experienced students and crew members from the Cypress Landing Vessel. (See article, page 10) The bow and stern were in a fair state of preservation. The final thirty feet of the stern includes portions of the berth deck.

The few artifacts on the vessel are fasteners. There are some wood shavings and construction debris along the keelson, as might be expected in a vessel which had not yet been completed. The recording will be completed in the summer field school in 1996. A final report is anticipated by December 1996.

Larry Babits



Chocowinity Bay, Beaufort County, North Carolina.

SHELL CASTLE DIVE EXPLORES OCRACOCKE HISTORY

In a 1795 public relations booklet about Ocracoke Inlet, Francis X. Martin described Shell Castle Island as "the site of a commercial town, which will one day serve as a common warehouse and place of shipment, for all the produce collected on Neuse, Trent, Tar, and Roanoke" rivers. The maritime trading post near the mouth of Ocracoke Inlet, North Carolina, was established by John Gray Blount of Washington, North Carolina, and John Wallace of Portsmouth Island in 1790 on a 25 acre oyster shell and rock island. It soon grew to include a warehouse, windmill, and landing, that supported the forty people who lived and worked there. In addition, the eastern part of the island was deeded to the US government to erect a lighthouse. **Gordon Watts, Jr.**, Director of Nautical Archaeology at East Carolina University says that "for the period it operated, from 1790 to the 1820s, Shell Castle was probably the most important trading center in North Carolina. Shell Castle was uniquely situated between the bar—the shallow sand bar at the entrance to the inlet—and the swash—the shallowest part of the channels leading into the sounds—to serve as a transshipment point for commerce."

Shell Castle Island is an important submerged terrestrial site and contains valuable information about North Carolina's maritime heritage. Today, the island belongs to the National Audubon Society. **Phil McGuinn**, who is researching Shell Castle for his thesis, obtained funding from the International Institute for Maritime Research to underwrite the project and received additional support from the North Carolina Underwater Archaeology Unit at Fort Fisher, Cape Hatteras National Seashore Unit, Ocracoke Preservation Society, the National Audubon Society, and East Carolina University's Maritime History and Nautical Archaeology Program to conduct the five day project.

In addition to Gordon Watts and Phil McGuinn, the team consisted of several other East Carolina University students. **Rick Jones, Mike Coogan, Tim Marshall, Chris Kirby,** and **Lauren Lampe,**

plus Diving Safety Officer Jim Sibthorp; Underwater Archaeology Unit Director Richard Lawrence and staff members Julep Gillman-Bryant and Mark Wilde-Ramsing; and International Institute for Maritime Research staffers Karl Gottschamer and Jack Neville all assisted in the project.

The first several trips from Ocracoke Harbor to Shell Castle were escorted by either the US Coast Guard or a National Park Service Ranger as the channels are treacherous and shifting. Once on-site, the

tacts. Richard Lawrence and Julep Gillman-Bryant then conducted diver reconnaissance to investigate the buoy contacts.

Weather, tides, and currents affected both mapping and diving operations. After two days, high winds forced the early cancellation of the operation. A third day was also canceled. Poor visibility caused by suspended particulate matter that increased as slack tide passed limited research. Wave activity due to high winds was another hindrance, despite the shallow water. Tidal currents that reached up to two knots also limited the divers' working time.

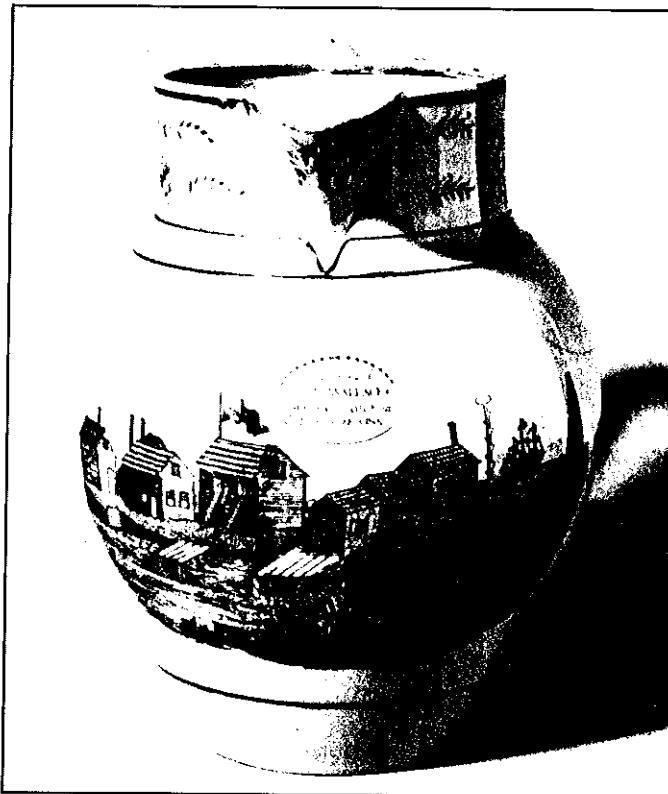
The size of Shell Castle was probably somewhat larger than reported in the historic record. The exposed foundations of several buildings covered an area which extended about 120 feet farther than the 420 feet reported in one resident's letters. The exposed foundations on the southeastern corner of the island extended into the water and formed a large group of interlocking rectangles. Without excavation to expose the portions that continue under the sand on the island, it is impossible to determine whether or not these foundations represent buildings or the cribbing of a sea wall or landing.

Richard Lawrence and Mark Wilde-Ramsing investigated an anomaly that was discovered using the side scan sonar. The anomaly was an unusually large rock pile located in the channel about two hundred yards east of the main part of Shell Castle. Although currents and visibility prevented detailed investigation,

the size of the pile, approximately 60 to 80 feet in diameter, could represent the foundations for the lighthouse. Historical record indicate a similar size for the lighthouse and this was the only evidence of a large concentration of foundation or ballast stones.

The magnetometer survey identified several potential contacts in the channel to the southwest of the main island. A number of artifacts, consisting mainly of pottery and ceramic sherds, were collected from the surface debris. Chris Kirby conducted a preliminary analysis and determined a mean ceramic date of 1802 which is just a few

(Continued on page 14)



A Liverpool-style transfer print pitcher showing the maritime trading facility on Shell Castle Island, about 1798 to 1803. (Photo: North Carolina Department of Archives and History)

work involved mapping the terrain of the island and its contours at depths of one, three and five feet. Detailed surveys were conducted of the visible stone and wood foundations. Rick Jones, Mike Coogan and Lauren Lampe set up and operated the transit and Electronic Distance Measurer. Tim Marshall and Chris Kirby began mapping an interlocking group of rectangles formed by exposed beams.

Gordon Watts, Karl Gottschamer and Jack Neville spent two days conducting remote sensing surveys using side-scan sonar and magnetometer. Wallace's channel, where the island is located, was surveyed and buoys were dropped at suspected con-

CIVIL WAR BOMB REMAINS A MYSTERY

As Fort Fisher's Confederate defenders anxiously awaited the arrival of Old Saint Nick and Christmas Day festivities, the Union Navy delivered a gift of their own. Early in the morning of 24 December 1864, the USS *Louisiana*, an iron-hulled screw steamer loaded with approximately 215 tons of black powder and an intricate fuse system, steamed to within 300 yards of Fort Fisher. Around 2:00 A.M., the *Louisiana* detonated in a series of explosions. Despite the force of these explosions, the fort remained unscathed. As part of a combined operation to capture the fort and end Confederate blockade running at Wilmington, North Carolina, the powder ship scheme, along with naval bombardments and subsequent landed assault, ended in Union failure.

Beginning in July 1995, as part of the National Park Service's Civil War Battlefield Protection Program, East Carolina University and North Carolina's Underwater Archaeology Unit returned to site 0008NEI—thought to be the remains of USS *Louisiana*—using a Motorola Miniranger and a magnetometer survey. Once the wreck was located, divers set three buoys as temporary site markers over the site's largest features—the propeller shaft, the propeller, and the engine.

ECU graduate students **Steve Brodie, Kelly Bumpass, Mike Coogan, Nathan Henry, Chris Kirby, Tim Marshall, and Paul Steinberg** worked with ECU faculty member **Gordon Watts**, graduate **Billy Ray Morris**, and several members of the UAU squad to explore and record the wreck site.

The primary focus of the investigation contained three goals. First, researchers tried to determine the present condition of the wreckage and assess the overall degradation that has occurred since preliminary surveys were conducted during the mid-1980's. Second, researchers needed to positively identify the wreckage as that of the powder ship USS *Louisiana* by comparing historical records with field research. Finally, the crew worked to produce a detailed and comprehensive site plan through examining and recording the engine, boiler, propulsion system, hull fragments, and all other major features.

The site is situated approximately half a mile off Fort Fisher in twenty-five feet of water. Diving conditions proved extremely difficult due to low visibility and coastal surge. Bottom sediment consisted of a fine mud layer approximately six inches thick with sand and shell underneath. Sponge, coral, and other concreted growth covered the exposed iron machinery.

Divers located all of the wreck's major components and established a feature-to-feature baseline. The baseline began at the propeller, extended down the propeller shaft, over the engine, and out to a towing bitt. The overall length between propeller and bitt was approximately 140 feet. The main baseline was used to accurately locate all subsequent site materials and allowed for a better understanding of feature-to-feature relationships. Researchers mapped the propeller, propeller shaft, engine, and boiler in detail and completed all triangulations necessary to create a site map scaled at 1/4 inch to the foot.

Divers found a large debris field forward of the engine and boiler. Other discoveries included a leather shoe, knife handles, and iron-ware ceramic shards. Using a dredge and a jet-probe, divers cut test pits on both sides of the propeller shaft aft of the engine and around the propeller. These pits, measuring approximately three feet by four feet and two to four feet deep, were cut in an attempt to locate the *Louisiana*'s iron hull.

Given the nature of the artifacts discovered, as well as discrepancies between the *Louisiana*'s historical machinery and the machinery found on the site, positive identification of the wreckage remains a serious problem. A number of possible explanations might clarify the identity of site 0008NEI. For example, the *Louisiana* possessed an iron hull and no such remains have yet been found at the site. A wooden-hulled steamer, the *Twilight*, a virtual sistership to the *Louisiana* in all respects except for her hull construction, wrecked near New Inlet, off Fort Fisher, shortly after the Civil War. As a result, site 0008NEI might very well be the *Twilight*. Moreover, the Christmas Eve explosion might have left no trace of the *Louisiana*, but historical records seem to indicate the opposite. Identifying site 0008NEI and locating the powder ship *Louisiana* depend on additional and more extensive excavation, as well as continued artifact analysis.

Michael P. Coogan

AMERICAN NEPTUNE PUBLISHED AT EAST CAROLINA

The quarterly journal *The American Neptune*, founded by Samuel Eliot Morison and others at the Peabody Essex Museum, Salem, Massachusetts, in 1941, was produced at Eller House in 1994-95. Editor **Timothy Runyan** was assisted by **Paul Steinberg, Molly Conlin, Eleftheria Mantzouka, and Jinky Smalley**.

CLAFLIN POINT WRECK

(Continued from page 7)

massive timbers, iron strapping, and a large number of fasteners. Iron sheathing was found on the bow and keel, probably for protection against ice.

The sawmill industry, established in Sturgeon Bay in the 1850s, was a driving force in the development of the area. In peak years, as many as 7,000 vessels towed more than 600,000,000 board feet of timber per season through the area. Mills, situated on the waterfront, led to boarding houses, docking facilities, wharves, and stores. Maritime communities such as Little Sturgeon Bay often developed around the mills. Quarried stone was another major player in Door County's economy. Limestone was quarried and shipped to other ports on Lake Michigan, where it was often used for harbor improvements. On the Claflin Point wreck site, remnants from a sawmill operation and large quantities of stone were found. This evidence suggests that the vessel may have been involved in the lumber or stone hauling trades.

The vessel could also have served as a tug, bulk or passenger steamer. Further research is being conducted by staff and students to clarify this issue. This fall's field school only marks the beginning of the inquiry into the mystery of the Claflin Point Wreck.

Those students who participated in the 1995 Wisconsin Field School received valuable hands-on experience in the field of nautical archaeology, participating in all facets of the investigation, during and after the field season. Working side-by-side with professionals, students had an opportunity to observe and discuss the "nuts and bolts" of the operation. Instruction in proper site management, mapping techniques, and nineteenth century ship construction techniques were all integral components of the learning experience. The Claflin Point survey became a chance to learn about a maritime culture very different from that of North Carolina. The ECU team also investigated other sites in the area, such as the passenger steamer *Empire State*, the schooner barge *Ida Corning*, and the three-masted schooner *Oak Leaf*.

Congratulations go out to all who contributed to this very successful field semester, particularly the SHSW. Their participation, knowledge, and equipment (especially the dry suits) were essential to the expedition. We are also grateful to the University of Wisconsin Sea Grant Institute for allowing the use of their Boston Whaler *UWM Orion*.

Nathan Henry, Jeff Gray

GRADUATE THESES IN MARITIME HISTORY

The following theses were completed in 1995 by students in the Program in Maritime History:

Frank Cantelas: "An Archaeological Investigation of the Steamboat *Maple Leaf*."

Diane Cooper: "From Small Ways to Big Business: The Growth of the Wooden Ship Construction and Waterborne Industries Along the United States' Pacific Coast, 1875-1900."

Paul Fontenoy: "Development and Economic Success of Steamboats in Northeast America."

Amy L. R. Gottschamer: "Artifact Analysis for the Reader's Point Vessel: A Late-Eighteenth-Century Merchant Ship from St. Ann's Bay, Jamaica."

Sheridan Richard Jones: "Historical and Archaeological Investigation of the MacKnight Shipyard Wreck (0001NCR)."

Annalies Corbin Kjorness: "Material Culture of Nineteenth Century Steamboat Passengers on the *Bertrand* and *Arabia*."

GRADUATE STUDENTS RECEIVE AWARDS

Many ECU students have received awards and recognition in the past year. **Joshua Smith** received the Richard C. Todd Phi Alpha Theta award. **Molly Conlin** and **Peter McCracken** each received Admiral Ernest M. Eller Prizes in Modern Naval History for New Graduate Students; **John McWatters** received the Eller Prize in Modern Naval History for a Continuing Graduate Student. **Josh Smith** was selected as the outstanding student at Mystic Seaport's Summer Munson Institute Graduate Program.

Off campus, **Amy (Knowles) Marshall** was selected by the Mariners' Museum Library as the Museum's first William D. Wilkinson Research Fellow. **Ann Merriman** wrote a paper selected by the North Carolina Maritime Council for publication in the Fall, 1995, issue of their journal *Tributaries*.

EXPLORATION AT SHELL CASTLE CONTINUES

(Continued from page 12)

years prior to Shell Castle's apex.

The site plan is in development and several artifacts are being conserved at East Carolina University. These will be returned to Ellen Marie Cloud of the Ocracoke Preservation Society for inclusion in the Society's Museum collection on Ocracoke. Future research planned for Shell Castle Island includes additional site visits to map the suspected lighthouse foundation and to examine changes to the site caused by the hurricanes and northeasters since May.

As part of a community outreach program during the project, several students from the Ocracoke High School spent an afternoon working with the researchers. The students helped search for additional foundations, map structures, and identify surface scatter artifacts for analysis.

Phil McGuin

GRADUATE IDENTIFIES UNEXPLORED TOPICS IN PACIFIC COAST MARITIME HISTORY

Diane Cooper, currently Coordinator of Volunteers at the San Francisco Maritime National Historical Park, returned to Greenville in early October, and gave several presentations to students currently enrolled in the Maritime History Program.

Ms. Cooper returned to defend her thesis, but also sought an opportunity to meet with students and faculty in a variety of settings. Ms. Cooper spoke with students and faculty in an informal lecture titled "The Pacific Basin: Maritime History Waiting to be Written." She defined numerous areas of potential research in Pacific Coast maritime history, citing a broad range of topics she has identified in her past three years at the museum.

Such topics ranged from Athabaskan and Eskimo histories and studies of their traditional craft, to histories of any of the numerous shipbuilders along the west coast, or even histories of specific vessels, such as the preserved lumber schooners *C. A. Thayer*

in San Francisco or *Wawona* in Seattle. She also mentioned numerous manuscript collections at the museum that have not yet been studied, plus Pacific-based trades such as fishing, sealing, and whaling. A variety of vessels specific to the region also are awaiting close scrutiny.

Ms. Cooper worked at the Treasure Island Naval Marine Corps and Coast Guard Museum in San Francisco for several years before joining her present employer, the National Maritime Museum Association. The National Maritime Museum is home to the San Francisco Maritime Historical Park, the largest maritime museum on the west coast. Both are a part of the National Park Service.

Prior to taking her current position, Ms. Cooper spent several years working in the museum's documents and collections divisions, processing manuscripts, working with conservators on storage concerns for artifacts, and a variety of other projects. Her

current work, as coordinator of volunteers, requires a great deal of time, effort, and attention to detail. Being responsible for more than 150 regular volunteers is a significant challenge, she says. The burn-out rate among volunteer coordinators is quite high, and for good reason.

Ms. Cooper described her work in this position when speaking with associate professor **John Tilley's** Museum Studies class. She identified recruitment, training, and recognition as three crucial areas of work for volunteer coordinators. Through her discussion in the class students got a strong understanding of the work involved in such a role, and those who attended her lecture learned of many new avenues for potential research.

Ms. Cooper's thesis is titled, "From Small Ways to Big Business: Ship Construction on the United States' Pacific Coast, 1850-1900."

Peter McCracken

PROGRAM EXPECTED ON WORLD WIDE WEB SOON

The Program in Maritime Studies will soon have a presence on the Internet, as part of East Carolina University's efforts to share the University's resources with the world. Students **Rusty Earl** and **Rob Church** have been working with staff archaeologist **Frank Cantelas** to create a series of pages describing the Program and its goals on the World Wide Web. The page should be completed soon, and will be accessible from the University's home page at <http://www.ecu.edu>.

Graduate student **Peter McCracken** has created a collection of links to a variety of maritime history resources around the world. The pages, titled "Maritime History on the Internet," are available at <http://ils.unc.edu/maritime/home.html>.

ECU AND USNMF SPONSOR CONFERENCE

The ECU Maritime Program and the Navy Memorial Foundation jointly sponsored a conference at the Foundation's Center at 700 Pennsylvania Avenue, Washington, DC, on Truman and the decision to drop the atomic bomb. **Timothy Runyan** worked on the program with Rear Admiral Bill Thompson. (See photograph, page 7.)

Runyan gave opening remarks at the meeting which included a stellar list of participants such as former ambassador Paul Nitze (whose name is attached to the Johns Hopkins School of Advanced International Studies), Admiral Thomas Moorer, former chair of the Joint Chiefs of Staff, authors Thomas Buell of the University of North Carolina, Gar Alperowitz of the University of Maryland, Tom Allen, author of numer-

ous works and publications for *National Geographic*, Tami Davis Biddle of Duke University, James Reston, Jr., author and television host, and others, including ECU faculty member **Michael Palmer**. Palmer's comments helped direct the closing discussions involving the audience. His position supported Truman's decision to use the atomic bomb, given the circumstances following the fighting at Okinawa and the diplomatic exchanges with the Japanese.

Strong emphasis was given to naval issues at the end of World War II. The controversial exhibition planned for the Smithsonian Institution regarding the *Enola Gay*, the B-29 which carried the bomb, was a stimulus to hold the conference.

SUMMER INTERNSHIP AT USCGA MUSEUM

(Continued from page 5)

rail so they wouldn't drop overboard while they were tossing their cookies into the Sound. Now that's entertainment!

The rest of the voyage was less exciting, but no less enjoyable. The weather was perfect throughout the cruise. I spent most of the time on deck, reading the *Eagle* Seamanship Manual and watching the theories being put into action. Five days after leaving New London, we finally sailed into Fall River, Massachusetts, as part of a tall ship rally being held in conjunction with both the opening of a new exhibit at the town's maritime museum and a local festival. So ended a very entertaining, yet very educational, work week.

I traveled regularly, especially on weekends, as I was not familiar with this part of the Northeast. I visited sections of Massachusetts, New York, Vermont, Delaware, New Hampshire, and Maine. I also managed two forays into Canada, the first to Quebec and the second to New Brunswick. I walked the ramparts of Fort Ticonderoga, ferried across Lake Champlain, visited Revolutionary War sites and Fenway Park in Boston, and even returned to the Long Island neighborhood in which I grew up. Closer to home, I took in a couple of ball games, and spent some time in nearby Mystic Seaport, eating onion rings while studying the rigging pattern of the nine-

teenth-century whaling vessel *Charles W. Morgan*. I found time to have my wife, daughter, and even my brother from California come up to see me, while I made two trips home to see Anita and Meghan. Last, but by no means least, I was a member of a VIP group that toured the USS *San Juan*, an improved Los Angeles-class nuclear submarine, and I got to stand atop its sail as it cruised into Long Island Sound during an "underway." What a rush that was!

But all good things must end, and so did my internship. By the last week of August, all the cadets had returned. The once quiet, serene academy was quiet no more. I had to be back in class at ECU anyway, so on Saturday, September 2, 1995, I drove out of New London for the last time, and late that evening I pulled the trusty old Chevy into my driveway in Greenville. The great adventure was over.

Well, perhaps not quite. It turned out that one of the volunteers I had worked with was a retired Coast Guard captain who had served as executive officer aboard a polar ice-breaking vessel. My long-dormant interest in the Arctic and Antarctic immediately awakened. I found a thesis topic in the USCG Cutter *Northwind*, a polar ice-breaker, active in the Arctic, Antarctic, and Great Lakes from 1945 to 1989. I discovered that the Academy and its library will become valuable sources for my research.

I also made several contacts within the museum field, contacts that are sure to be helpful in the years to come. The internship may be over, but the benefits linger on.

As should be quite clear by now, my entire ten-week internship was tremendous. I gained significant experience in museum work, and found the work enjoyable. The people were wonderful, the pay outstanding, the "fringe benefits" terrific, and I received six hours of academic credit for my efforts.

The internship may be offered again in 1996, but details have not yet been confirmed. ECU students interested in such a position should talk to the people at Cooperative Education about this, or other internships, as soon as possible.

Ms. Herrick went out of her way time and time again to see to it that I experienced as many aspects of the museum business as possible, and Dr. **Robert Browning**, ECU Maritime History Program alumnus and Coast Guard Historian, arranged and assisted in the operation of the entire internship. Gordon Watts, Dr. Cauley, the Coast Guard Academy Library Staff, Dr. Tilley, and many others also helped make this wonderful, crazy, and exceptionally valuable educational adventure possible. Finally, remember:

SEMPER PARATUS !

John McWatters

MARITIME STUDIES ASSOCIATION PROVIDES VALUABLE SUPPORT TO STUDENTS

The Maritime Studies Association (MSA) was established in 1992 as a non-profit organization to help graduate students reach their scholastic and professional goals. MSA assists graduate students through support for research and attendance at professional conferences, dissemination of current maritime information, and promotion of maritime cultural resources to the local community.

In the hustle and bustle of graduate school, students become isolated in their own classes and research. MSA acts as a conduit of information for first and second year students by bringing students together every two weeks throughout the school year. These meetings promote communication among all the students in the Program in Maritime History and Nautical Archaeology. By helping to locate sources, such as out of print books, MSA helps students find information to further their research.

Professional conference attendance also serves as an avenue for the dissemination of information. The ultimate goal of every member in our program is employment in the maritime occupation of their choice. Through MSA financial assistance, students attend professional conferences to gain knowledge and make professional contacts. Recently, five members of MSA attended the Twelfth Naval History Symposium in Annapolis, Maryland. MSA member **Joshua Smith** presented a paper on the US Navy and Jefferson's Embargo. (See Graduate Student Publications, starting on

page 19.) MSA members plan to attend and present papers at the Society for Historical Archeology conference in Cincinnati and the North American Society for Oceanic History conference in Boston. Also, MSA helped support the Seapower, Naval History and Archeology Symposium at ECU in October.

MSA plans on organizing lectures for the local community this coming spring. This effort helps further the general public's interest in maritime history and nautical archaeology. By communicating past achievements to the general public, MSA will be building support for future interest in maritime activities.

To further MSA members' professional goals, MSA invites all program alumni to send a note of interest in talking to us about your ECU and vocational experience. Alumni experience is of great interest to the current students.

If you wish to contribute to the MSA Trust Fund, please make your checks payable to: Maritime Studies Association Trust Fund. Anyone donating \$25 dollars or more receives a Maritime History and Nautical Archaeology tee-shirt in appreciation. (See design, this page.) In addition, anyone interested in becoming an Associate or Alumni member of MSA may write to: MSA President, c/o ECU Program in Maritime History and Nautical Archaeology, Admiral Ernest M. Eller House, East Carolina University, Greenville, NC 27858-4353.

Kerry O'Malley

RUPPE LIBRARY SEEKS ADDITIONAL SUPPORT

The Program in Maritime History and Nautical Archaeology continues to seek texts for the Ruppe Library, currently located in the Admiral Ernest M. Eller House. The Program is specifically seeking basic archaeology and underwater archaeology textbooks, histories of underwater archaeology, artifact identification texts, and site/survey reports. Anyone interested in donating books, supplies, or funds to the library is encouraged to contact Dr. Babits through the Maritime History program office at (919) 328-6788.

MSA UNVEILS NEW SHIRT DESIGN

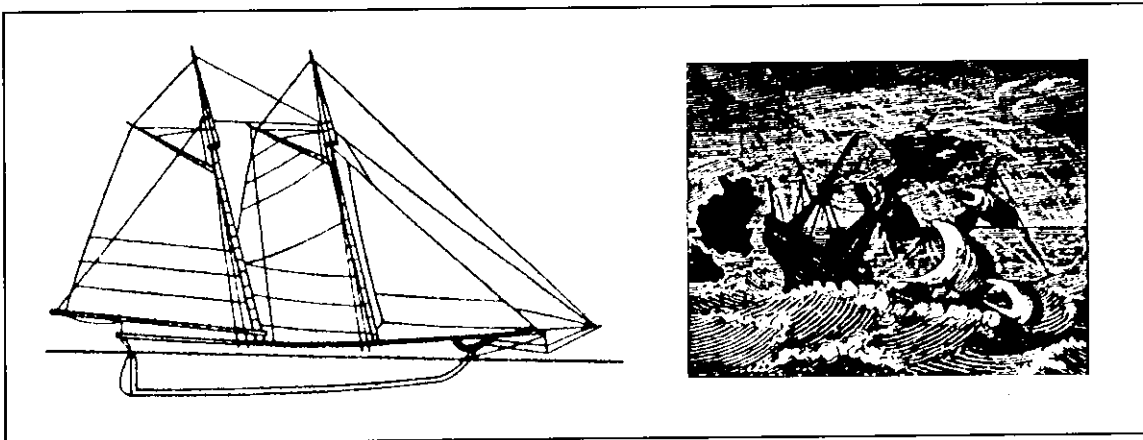
The Maritime Studies Association (MSA) is pleased to announce the availability of two different styles and designs of shirts highlighting ECU's Program in Maritime History and Nautical Archaeology.

With the "Classic" design, you can feel like Richard Brown in our 1996 polo like the popular yacht *America* design. The three-button collared polo golf shirt is available in five different colors: ash, dark green, navy, black, and white. *America* appears on the left chest. The shirt is available in large and extra-large sizes, and costs \$22 for MSA members, and \$24 for non-members.

The new "Shipwreck" design features the pattern below and the phrase "Figure 1. Site Formation Process" on the back. A brig in less precarious conditions appears on the left chest of the front of the 100% cotton tee-shirt. The short-sleeve tee-shirt comes in navy, white, and dark green, and in large and extra large sizes. The shirts cost \$11 for

MSA members and \$16 for non-members, and those contributing \$25 to the MSA Trust Fund (see accompanying article) will receive one free.

To order a tee-shirt, indicate the design, color, and size of the shirt you want, and send it with a check made out to MSA, Program in Maritime History, Adm. Ernest M. Eller House, East Carolina University, Greenville, NC, 27858-4353.



MSA's new shirt designs are now available. The "Classic" design, featuring the yacht *America* (left), is available in a polo style, while the new "Shipwreck" design at right is available as a tee-shirt.

WHERE ARE THEY NOW?

James Allen - Institute for Western Maritime Archaeology, Berkeley, CA

Ray Ashley - Director, Maritime Museum of San Diego, CA

Adrienne Askins - Submerged Cultural Resources Unit, National Park Service, Santa Fe, NM

David Baumer - Curator of Small Boats, Mariners' Museum, Newport News, VA

David Beard - Underwater Archaeologist, State Historical Society of Wisconsin, Madison, WI

Colin Bentley - Sailing Instructor, College of Charleston

Kathryn Bequette - Director, Maritime Archaeology and Research, OELS, Evergreen, CO

Jemison Beshears - Vice President, Panamerican Consultants, Memphis, TN

Robert Browning, Ph.D. - Historian, US Coast Guard, Washington, DC

Frank Cantelas - Staff Archaeologist, East Carolina University, Greenville, NC

David J. Cooper - State Underwater Archaeologist, State Historical Society of Wisconsin, Madison, WI

Diane Cooper - Coordinator of Volunteers, San Francisco Maritime National Historic Park

Lee Cox - Contract Nautical Archaeologist, Dolan Research, Philadelphia, PA

James P. Delgado - Executive Director, Vancouver Maritime Museum, Canada

Stanley K. Duncan - Nautical Archaeologist, Panamerican Consultants, Memphis

Rita Folsie-Elliott - Archaeologist, LAMAR Institute, GA

Robert Feingold - Program Specialist, NOAA, Florida Keys, FL

Paul Fontenoy - North Carolina Maritime Museum, Beaufort, NC

Kevin Foster - Maritime Historian, National Park Service, Washington, DC

Wesley K. Hall - Director, Mid-Atlantic Technology, Wilmington, NC

Lynn B. Harris - Assistant Head, Underwater Division, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia, SC

Rick Heron - Doctoral candidate, Texas A&M University

Bob Holcombe - Director, Confederate Naval Museum, Columbus, GA

Claude V. (Sandy) Jackson - Underwater Archaeology Unit, State of North Carolina, Ft. Fisher, NC

John O. Jensen - Doctoral candidate, Carnegie Mellon University, Pittsburgh

Richard Mannesto - Great Lakes Historical Shipwreck Museum, Ste. Sault Marie, MI

Amy (Knowles) Marshall - Museum Curator, US Coast Guard, Washington, DC

I. Roderick Mather - Doctoral candidate, Oxford University

Amy Mitchell - Nautical Archaeologist, Panamerican Consultants, Memphis, TN

Dave Moore - Director of Archaeology, St. John's Expeditions, East Palatka, FL

Stuart Morgan - Doctoral candidate, University of South Carolina

John W. (Billy Ray) Morris - Doctoral candidate, University of Florida, and Director, Southern Oceans Archaeological Research

Kaea Morris - Archaeologist, Zuni, NM

Sam Newell - Public School Teacher, Greenville, NC and volunteer underwater archaeologist

Martin Peebles - Underwater Archaeology Unit, State of North Carolina, Ft. Fisher, NC

Edward F. Prados - Assistant Director of Education, United States Navy Memorial Foundation, Washington, DC

Heidi Primo - Professor of Social Studies and Pacific Islands History, College of Micronesia, Kohlonia, Pohnpei, Federated States of Micronesia

James R. Reedy, Jr. - Contract Archaeologist, Beaufort, NC

Shannon Richardson - Archaeologist, Fort Niagara, NY

Matthew Russell - Submerged Cultural Resources Unit, National Park Service, Santa Fe, NM

John Schaefer - Researcher, Naval Memorial Foundation, Washington, DC

James S. (Steve) Schmidt - Nautical Archaeologist, Espey Huston Associates, Houston, TX

Robert Schneller, Ph.D. - Historian, Naval Historical Center, Washington, DC

James Spirek - Underwater Archaeologist

Thomas Stoltman - Northwest Maritime Museum, Empire, MI

Hans Van Tillburg - Maritime Archaeology Instructor, University of Hawaii Marine Options Program; Archaeological Consultant, SHIP (Society for Historical Investigation and Preservation), Chuuk (Trak), Micronesia

Bruce G. Terrell - Maritime Historian and Acting Maritime Archaeologist, NOAA, Washington, DC

William H. Thiesen - Doctoral candidate, University of Delaware

Ray Tubby - Nautical Archaeologist, Tidewater Atlantic Research, Washington, NC

Lolly Vann - Contract Archaeologist, MD

Daniel Warren - Archaeologist, Missouri Department of Transportation

Wilson West - National Maritime Initiative, Washington, DC

PH.D. PROPOSAL

UPDATE

A proposal for an interdisciplinary Ph.D. in Maritime Studies was drafted this year and has received the approval of the university's graduate council and long range planning committees. The planning committee placed it as the first priority among other proposed graduate programs. Since the meeting with the UNC General Administration in Chapel Hill last January, Program director **Timothy Runyan** has crafted a proposal which he hopes will win the support of the state Board of Governors. North Carolina, like many other states, is reviewing existing proposals to determine which should continue or be terminated. However, strong new proposals are still welcomed and the maritime studies proposal is in this camp according to all of the reviewing bodies and the ECU administration. ECU Chancellor **Richard Eakin** announced the establishment of the doctorate as one of the university's goals in his fall convocation address.

The next step is the review and determination by the General Administration and Board of Governors in Chapel Hill. Once authorization to plan is granted a proposal to implement will be submitted. The proposal includes the participation of **Charles Ewen** and **David Phelps** from Anthropology, **Stanley Riggs** in Geology, and **Richard Stephenson** in Planning. A decision is expected this spring.

QUOTE,

To close this section [on teaching maritime history] on a happier note let us turn to East Carolina University. Here is located the largest collection of maritime historians and archaeologists in the United States. Offering a broad array of maritime-related courses, including extensive underwater research (a field sadly neglected in this country), East Carolina may soon become our first and only institution to offer a Ph.D. in the field.

- Benjamin W. Labaree, "The State of American Maritime History in the 1990s," in John Hattendorf, ed., *Ubi Sumus?: The State of Naval and Maritime History* (Newport, Rhode Island: Naval War College Press, 1994): 364.

UNQUOTE

FACULTY PUBLICATIONS

The following list of publications by faculty reflects those works completed in the past year or not previously noted in *Stem to Stern*.

Lawrence E. Babits. A Survey of the Pungo River: Wade's Point to Woodstock Point, Beaufort County, North Carolina. Raleigh, North Carolina: Office of State Archaeologist, 1995. Report on file. With Annalies C. Kjorness.

A Survey of the North Shore Pamlico River: Bath Creek to Wade's Point. Raleigh, North Carolina: Office of State Archaeologist, 1995. With Jeff Morris and Annalies C. Kjorness.

Review of *Tidewater Time Capsule: History Beneath the Patuxent*, by Donald Shomette. *Choice* 33 (September 1995): 207.

Review of *Look to the Earth: Historical Archeology and the American Civil War*, by Clarence R. Geier and Susan E. Winter. *Choice* 32 (July/August 1995): 207.

Review of *The Fortifications of Ile aux Noix: A Portrait of the Defense Strategy on the Upper Richelieu Border in the 18th and 19th Centuries*, by Andre Charbonneau. *Historical Archaeology* 29 (no. 3, 1995).

Review of *Maryland Archaeology*, by Barbara J. Little and Richard J. Dent. *Historical Archaeology* 29 (no. 2, 1995): 106-107.

Review of *Boats: A Manual for their Documentation*, ed. Paul Lipke, Peter Spectre, and Benjamin A. G. Fuller. *Historical Archaeology* 29 (no. 2, 1995): 100-102.

Review of *America's National Battlefield Parks: A Guide*, by Joseph E. Stevens. *Historical Archaeology* 29 (no. 1, 1995): 126.

Frank Cantelas. "Battle of Mobile Bay" – Exhibit designed for Naval Memorial Foundation; Washington, D.C., July 1995.

Frank Cantelas and Bradley Rodgers. "Maple Leaf: A Case Study in Cost-Effective Zero-Visibility Riverine Archaeology." *International Journal of Nautical Archaeology*. 23 (no. 4, 1994): 271-282.

Michael A. Palmer. "The Navy" in *Encyclopedia of the American Military*, John E. Jessup, ed. 3 vols. New York: Scribner's, 1994. I: 365-80.

Review of *Sunken Treaties: Naval Arms Control Between the War*, by Emily O. Goldman. *Northern Mariner* 5 (July 1995): 107-108.

Review of *The Washington Conference, 1921-22: Naval Rivalry, East Asian Stability and the Road to Pearl Harbor*, ed. Erik Goldstein and John Maurer. *Northern Mariner* 5 (July 1995): 107-108.

Review of *How Navies Fight: The US*

Navy and its Allies, by Farnk Uhlig, Jr. *Naval War College Review* 48 (Spring 1995): 144-46.

Review of *Joint Air Operations: Pursuit of Unity in Command and Control, 1942-1991*, by James A. Winnefeld and Dana A. Johnson. *Armed Forces and Society* 21 (Spring 1995): 482-484.

Review of *Victory: The Reagan Administration's Secret Strategy That Hastened the Collapse of the Soviet Union*, by Peter Schweitzer. *Proceedings of the United States Naval Institute* 121 (January 1995): 83-85.

Review of *The Great Transition: American-Soviet Relations and the End of the Cold War*, by Raymond L. Garthoff. *Proceedings of the United States Naval Institute* 121 (January 1995): 83-85.

Review of *Federal Union, Modern World: The Law of Nations in an Age of Revolution, 1776-1814*, by Peter Onuf and Nicholas Onuf. *North Carolina Historical Review* 72 (January 1995): 105-106.

Review of *Oil, the Persian Gulf States, and the United States*, by Vo Xuân Hân. *International Journal of Middle East Studies* (1995): 100-101.

Bradley Rodgers. *Guardian of the Great Lakes: The U.S. Paddle Frigate Michigan*. Ann Arbor: University of Michigan Press, 1995.

Review of *Wooden Shipbuilding and the Interpretation of Shipwrecks*, by J. Richard Steffy. *Northern Mariner* 5 (July 1995): 81-82.

Review of *Paddle Warships: The Earliest Steam Powered Fighting Ships, 1815-1850*, by D. K. Brown. *Northern Mariner* 5 (April 1995): 98.

Timothy J. Runyan. "Lake Transportation," in *Encyclopedia of Cleveland History*. Bloomington, Indiana: Indiana University Press, forthcoming.

Review of *Dark Age Naval Power: A Reassessment of Frankish and Anglo-Saxon Seafaring Activity* by John Haywood. *Naval War College Review* 49 (Winter 1996).

Review of *War, Politics and Culture in Fourteenth Century England*, by James Sherborne. *Mariner's Mirror* (1995).

Review of *The Art of Medieval Technology: Images of Noah the Shipbuilder*, by Richard W. Unger. *Speculum* 70 (October 1995): 673-4.

Carl Swanson. Review of *The Intellectual Construction of America: Exceptionalism and Identity from 1492 to 1800*, by Jack P. Greene. *Association of Historians in North Carolina* 3 (Fall 1995): 118-20.

Review of *Origins of the American Navy: Sea Power in the Colonies and the New Nation*, by Raymond G. O'Conner. *Mariner's Mirror* 81 (February 1995): 111-12.

Review of *Old Ironsides: The Rise, Decline, and Resurrection of the USS Constitution*, by Thomas C. Gillmer. *Northern Mariner* 4 (October 1994): 76-77.

John Tilley. "Coast Guard, United States," in *Collier's Encyclopedia*. New York: P.F. Collier, 1995.

Gordon P. Watts, Jr. "Investigation of an 18th-Century English Shipwreck in Bermuda." *International Journal of Nautical Archaeology* 24 (May 1995): 97-108. With Michael Krivor.

"A Preliminary Description of the Excavation, Timber Recording, Hull Construction, and Cultural Material Analysis of a Sixteenth-Century Iberian Vessel Wrecked on Western Ledge Reef, Bermuda" in *Proceedings of the Conference on Underwater Archaeology*, Vancouver, BC; 1994.

RECENT FACULTY PAPERS AND PRESENTATIONS

Frank Cantelas. "The 1994 Millecoquins Shipwreck Excavation" – Paper presented at Association for Great Lakes Maritime History Annual Meeting; Cleveland: September 1995.

"Michigan's Oldest Shipwreck" – Talk presented at Michigan Maritime Museum; South Haven, Michigan: September 1995.

Anthony Papalas. Commentator, "The Development of the Trireme" – Twelfth Naval History Symposium; Annapolis, Maryland: October 1995.

Michael Palmer. Featured speaker, opening of new exhibit "Through Their Eyes: State Veterans Remember World War II." – Battleship *North Carolina* Museum; Wilmington, North Carolina: March 1995.

Timothy J. Runyan. "Ship Construction and Transport by Sea, 1300-1500" – Paper presented at International Congress of Historical Sciences; Montreal, Canada: August 1995.

Carl Swanson. Chair and commentator, "Age of Fighting Sail" – Twelfth Naval History Symposium; Annapolis, Maryland: October 1995.

Recipient of ECU Department of History's Research Assignment Leave Award for spring semester 1996 to continue research on study of the Charles Town, South Carolina, merchant community during the eighteenth century.

Gordon Watts, Jr. "The Evolution of 18th-Century Framing Patterns" – Conference on Underwater Archaeology; St. Louis: 1995.

GRADUATE STUDENT RESEARCH PROJECTS

The following list reflects current research interests of Program students:

Adriane Askins: Site Report on the *Sacred Heart of Jesus*, Edenton, NC.

Charles Bayman: Operational Difficulties Experienced by Admirals Graves, Shuldhham, and Howe on the North American Station, 1775-1778.

Jemison Beshears: Dutch Maritime Trade in the Caribbean and Related Shipwreck Sites

Mark Burdette: Development of United States Navy Air Defense, 1929-1941

Darryl Byrd: Development and Demise of Port Tobacco, Maryland

Joe Cato: Imperial Japanese Naval Planning and Maneuver Warfare

Marlo Chittick: Great Lakes Maritime History, Specifically the Great Storm of 1913

Wendy Coble: S.S. *Paraguay* and What Her History Can Tell Us About Her Time Period, 1900-1927

Edwin Combs: On Duty at Wilmington: Confederate Navy on the Cape Fear River

Molly Conlin: World War II Aviation

Mike Coogan: Historical and Archaeological Investigation of USS *Louisiana*—Powdership Destroyed off of Fort Fisher, NC, December 1864.

Cissy Deas: The "New Old Spaniard": A Dutch East Indiaman in Bermuda

Stuart Derrow: Historical and Archaeological Study of Sixteenth-Century Span-

ish Shipboard Subsistence

Wade Dudley: British Blockade of the United States, 1812-1815

Ted Dunlap: Development of US Naval Regulation Over its Historic Shipwrecks

Rusty Earl: American Naval Administration at the Turn of the 19th Century

Scott Emory: The Wilson Vineyard Shipyard: From Sail to Steam, 1896-1974

Sabrina Faber: Mineretts and Lighthouses in the Arab World

Patrick Fleming: Rumrunners of the Eastern US Seaboard, 1920-1934

Steve Gibbons: Piracy and Economics of the Carolinas, 1675-1725: Emphasis on North Carolina after 1700

(Continued on page 20)

RECENT PUBLICATIONS BY GRADUATE STUDENTS

The following list is selection of articles, papers, and projects completed by students in the Program in Maritime History and Nautical Archaeology in the past year or for the near future:

Wendy Coble: [untitled, regarding 1994 Field School, researching Hawaiian PBY Catalina flying boat], *Wings of Gold*, forthcoming.

Edwin Combs: "Confederate Shipbuilding on the Cape Fear River" – Paper presented at North American Society for Oceanic History Conference; Wilmington, North Carolina: March 1995.

Michael Coogan: "The USS *Louisiana* and Union Blockading Tactics in North Carolina During the Civil War" – Paper presented at North American Society for Oceanic History Conference; Wilmington, North Carolina: March 1995.

"Untangling the Civil War (and post-Civil War) Shipwrecks off Fort Fisher" – Talk presented at North Carolina Maritime Workshop, North Carolina Maritime Museum; Beaufort, NC: November, 1995.

"The *Louisiana* Shipwreck Site (008NEI): An Interim Report of a Union Gunboat Wrecked off Kure Beach, North Carolina" – Paper to be presented at Society for Historical Archaeology Conference; Cincinnati, Ohio: January 1996.

Sheridan R. Jones: "The MacKnight Shipyard Wreck: An Interim Report," in *Underwater Archaeology Proceedings from the Society for Historical Archaeology Conference*, ed. Paul Forsythe Johnston, Washington, DC: Society for Historical Archaeology, 1995.

Amy (Knowles) Marshall: *A History of Buoys and Tenders*. Insert to US Coast Guard Commandant's Bulletin: November 1995.

Phil McGuinn: "Blount Family Connection" – Paper presented at North American Society for Oceanic History Confer-

ence; Wilmington, NC: March 1995.

Ann Merriman: "S.R. Fowle Company: Coastal Trade and Schooners." *Tributaries* 5 (October 1995): 23-27.

The Cypress Landing Shipwreck (0017PMR). Program in Maritime History and Nautical Archaeology, East Carolina University, 1995. With Larry Babits.

Bibliography of North Carolina Underwater Archaeology. Raleigh, North Carolina: North Carolina Underwater Archaeology Unit, 1995. With Barbara Brooks and Mark Wilde-Ramsing.

"The Cypress Landing Shipwreck 1995 Field School" – Talk presented at North Carolina Maritime Workshop, North Carolina Maritime Museum: Beaufort, NC, November 1995. Talks also presented to the Bath, North Carolina, Elementary School; Washington, North Carolina, Boy Scout Troops; and the Cypress Glen Retirement Community in Greenville.

"Nineteenth-Century North Carolina Schooners and Coastal Trade" – Paper presented at North American Society for Oceanic History Conference; Wilmington, North Carolina, March 1995.

Christopher Olson: "Investigations of the CSS *Curlw*: A Victim of the Battle of Roanoke Island, North Carolina," in *Underwater Archaeology Proceedings from the Society for Historical Archaeology Conference*, ed. Paul Forsythe Johnston, Washington, DC: Society for Historical Archaeology, 1995.

"Investigations of the CSS *Curlw*: A Victim of the Battle of Roanoke Island, North Carolina" – Paper presented at Society for Historical Archaeology Conference, Washington, D.C.: January 1995 and North American Society for Oceanic History Conference, Wilmington, North Carolina: March 1995.

Martin Peebles: "CSS *Raleigh*: The History and Archaeology of a Confederate

Ironclad in the Cape Fear River," in *Underwater Archaeology Proceedings from the Society for Historical Archaeology Conference*, ed. Paul Forsythe Johnston, Washington, DC: Society for Historical Archaeology, 1995.

Jinky Smalley: "Manila Galleons, the First Trans-Pacific Shipping Line: The Trade, the Ships and the People" – Paper presented at the Symposium on Maritime Archaeology and History of Pacific; University of Hawaii: February 1995.

"Light for War: Lighting Devices from the *Maple Leaf*" – Paper presented at Society for Historical Archaeology Annual Conference; Washington, DC: January 1995.

"Life on Board Manila Galleons" – Paper presented at Australian Institute for Maritime Archaeology Annual Conference; Brisbane, Australia: October 1994.

"The New World" in *California Shipwrecks: Historical Profiles*, ed. Marilyn Ann Pelkoffer. Sacramento: California State Lands Commission, Submerged Cultural Resources Unit, 1993.

Joshua Smith: "Sentinels of the Republic: Customs Collectors and the Growth of Federal Authority, 1789-1820" – Paper presented at Association of Historians in North Carolina meeting; Raleigh, NC: April 1995.

"'So Far Distant From the Eyes of Authority': The US Navy and Jefferson's Embargo, 1807-1809" – Paper presented at Twelfth Naval Symposium, US Naval Academy; Annapolis, Maryland: October 1995.

C. Alexander Turner III: "A Preliminary Report on the *Scuppernon*: A Mid-Nineteenth Century, North Carolina-Built Centerboard Schooner," in *Underwater Archaeology Proceedings from the Society for Historical Archaeology Conference*, ed. Paul Forsythe Johnston, Washington, DC: Society for Historical Archaeology, 1995.

GRADUATE STUDENT RESEARCH

(Continued from page 19)

Amy Gottschamer: Conservation and Artifact Assemblage of an Eighteenth-Century British Merchant Vessel in St. Ann's Bay, Jamaica

Jeff Gray: Claffin Point Wreck: Great Lakes Tugs, Steamers, and Lumber Trade

Richard Haiduven: Historical and Archaeological Examination of the Steamboat *Madison*

Tim Hastings: History and Archaeological Site Report of the CSS *Gaines* Sunk at the Battle of Mobile Bay

Nathan Henry: Analysis of Material Remains From the Civil War Gunboat USS *Underwriter*

Rick Jones: Site Report on the MacKnight Shipyard Wreck, Currituck County, NC

Chris Kirby: Confederate Torpedo Boats: A Design, Construction, and Historical Survey

Amy Jo Knowles: History and Development of Minor Aids to Navigation in US Waters

Mike Krivor: Research and Documentation of an Eighteenth-Century British Collier in Bermuda

Eleftheria Mantazouka: Classical Transport Amphorae from a Shipwreck at Alonnesos, Northern Sporades, Greece

Tom Marcinko: Maritime History of

Hatteras Inlet, North Carolina

Tim Marshall: Historical and Archaeological Examination of the Steamship *Ara-bian*

Heather McAllister: Eighteenth-Century Silver Trade From Mexico to Spain

Peter McCracken: History of USS *Constitution* in Song

Phil McGuinn: Shell Castle, A North Carolina Entrepôt: A Historical and Archaeological Investigation

John McWatters: US Coast Guard Cutter *Northwind*, 1945-1989

Ann Merriman: Quantitative Statistical Analysis of 19th Century Schooner Use in Eastern North Carolina and the S.R. Fowle and Son Company of Washington, North Carolina.

Christopher Miller: Potential for Underwater Archaeology on the Coast of Peru

Chris Olson: History and Archaeological Site Report on the CSS *Curlew*

Kerry O'Malley: North Carolina Privateering in the War of 1812

Harry Pecorelli: The B and B Wreck: An Eighteenth Century South Carolina Schooner

Martin Peebles: Site Report on the *Raleigh*, Fort Fisher, NC

Darren Poupore: United States Naval Operations During the Battle of the Santa Cruz Islands, 26 October 1942

Coral Rasmussen: Flensing Stations of

the Late Whaling Era in the Southern US
Shannon Richardson: History and Future of Waterlogged Artifacts Conservation

John Rossi: Habsburg Imperial Navy during the Thirty Years War, 1625-1630

Matthew Russell: Historical and Archaeological Investigation of Three Hall-Built Pacific Coast Lumber Schooners: *Dora Blum*, *Comet*, and *J.M. Colman*, Located in the Channel Islands National Park

Jinky Smalley: Manila Galleon Trade and its Relation to Spanish, Filipino, and Chinese Intercourse as Evidenced in Ship Construction, Trade Goods, and Ship Components

Joshua Smith: Sentinels of the Republic: Customs Collectors and the Rise of Federal Authority in the District of Maine, 1789-1820

Paul Steinberg: Historical and Archaeological Investigation of the USS *Flambeau*: A Civil War Blockader Located off Fort Fisher, NC

Lex Turner: Site Report of the Civil War Era Merchant Schooner *Scuppernon*

Dan Warren: History of the Steamship *Monumental City* and the Impact of American Shipping on British Colonial Policy in Australia

Rob Westrick: British Royal Navy in America, 1763-1813

Avraham Witz: History of the America's Cup

Stem to Stern

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