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PLAN of the Town & Port of EDENTON
in Chowan County

NORTH CAROLINA

REFERENCE

A, Church; B, Court House; C, Goal; D, School House;
E, Town Yard; F, Wind Mill; G, Flag Staff; H, Wharf.

Survey'd & Drawn in June 1763. By G. J. Southair.

Scale: 1 inch = 100 Fathoms.

East Carolina's Maritime Studies
Program Staff Archaeologist
Frank Cantelas, center,
coordinates student mapping
of the Edenton, North Carolina
wreck site during the 2001
summer field school.

(Photo by Scott D. Taylor)

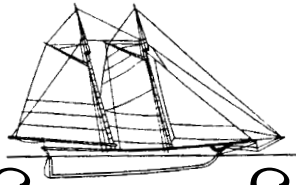


Summer Field School 2001
Mapping the Edenton wreck site

BAY

Albermarl

South



Stem to Stern

... a newsletter of East Carolina University's
Program in Maritime Studies

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Published annually by the Program in
Maritime Studies, East Carolina University.
Readers are encouraged to submit information
and news to the editor. Any suggestions or
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We look forward to hearing from you.

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Stem to Stern

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2,600 copies of this public document were printed at a cost of \$2440.71,
or \$.9387 per copy. Printed on recycled paper.

From the Editor:

The Maritime Studies Program experienced another busy year in 2001. This year's edition of *Stem to Stern* highlights ECU Maritime Studies student projects and activities in the Great Lakes, Bermuda, Florida, Washington state, Hawaii, and here in our own backyard in North Carolina. ECU students continue to be actively involved in the ongoing *Monitor* and *Queen Anne's Revenge* recovery and conservation efforts. This summer's field school examined a newly-discovered wreck along the shores of Edenton, North Carolina, where ECU's R/V *Perkins* served as both research center and home away from home. The fall field project returned to familiar territory along the shores of Wisconsin in Lake Michigan. The new Coastal Resources Management Ph.D. program continues to add new students with diverse backgrounds to the core Maritime classes.

The computer lab and library at Admiral Eller House continue to be fully utilized by the old and new students alike. The entering class of Maritime students brings a diverse set of life experiences to the Maritime Studies Program, and many have already identified and started research on their theses projects. A significant number of Maritime Studies students participated in the planning and made presentations at the Sixth Maritime Heritage Conference held in Wilmington, North Carolina, in October 2001.

This year we welcome back a former ECU Maritime History graduate, Dr. Annalies Corbin, as a new faculty member to the Maritime Studies Program. She has developed a particular interest and expertise in nineteenth-century western river steamboats, and has directed projects at the Firehole River in Yellowstone Park and on a wreck in the Red River. Dr. Corbin also created and directs a foundation to involve K-12 grade level school children in archaeology projects. Her enthusiasm has already "infected" a number of students, and many are looking forward to her new courses at ECU. All in all, this has been another busy and productive year for those of us here at Admiral Eller House. Thanks to all of you who have supported us throughout the year.

— Steve Workman

From the Director:

The past twelve months have been dominated by a single day—September 11, 2001. On that day the Maritime Studies Program was going about business as usual, save for the visit to the campus by Curtiss Peterson of the Mariners' Museum in Newport News, VA, and conservator of the USS *Monitor*. Curtiss came to present his analysis of the problems involved in conserving the famous Civil War vessel that fought the CSS *Virginia* and later sank off Cape Hatteras on New Year's Eve 1862. Curtiss was also here to talk with students about helping with the *Monitor* project. The seminar room at Eller House was filled to capacity.

For some of us, our minds wandered because we had family or friends in New York City, Washington, DC, or traveling, and their safety was uppermost in our thoughts. This included me. Son Mike was working for a computer-training firm on a project in Manhattan. Son Chris had worked the past two years in Kazakhstan; he decided to visit Afghanistan last January, where he was arrested by the Taliban and taken to Herat for interrogation. He spent a night in jail where he learned that the Taliban forgot about the 'bread and water.' He was released. But Curtiss, with his calm demeanor and down-home personality (he plays well in eastern North Carolina), helped everyone keep a perspective on events well beyond anyone's control by giving an engrossing slide presentation on USS *Monitor*.

A few months have passed. Americans view world affairs and their circumstances differently. Our overseas friends have shared their concerns through e-mails and calls. But what are we to do? My friend Atle Thowsen, director of the Bergen Maritime

Museum in Norway shared his thoughts. Concerning a conference of the International Commission for Maritime History scheduled in December in Fremantle, Australia, he asked: "Can we go on meeting like this? How can we justify traveling abroad to conferences in a world dominated by terror, suffering and vital needs?" Is what we do as students of underwater archaeology and maritime history of sufficient significance to justify our enormous investment of time and energy? His answer was, "If ever there was a time for researchers and academics to gather on an international level, the time is now. (I am almost tempted to add, "At all costs.") Our different international meetings are all based on the freedom of opinion and expression, not only in relation to maritime history, but also in the more informal sphere to themes of a general and existential nature. Let us not be deterred by others from a free and face-to-face exchange of often highly different views that conferences offer us. If we isolate ourselves, afraid of crossing borders instead of protecting these values we may end up with a global society that..." We must reaffirm a future and continue our work!

Notable developments in the Maritime Studies Program this year include the addition of Dr. Annalies Corbin to our faculty as a tenure-track assistant professor. Dr. Corbin brings a new strength and vitality to our program that we all welcome. We also lost a good friend and supporter with the passing of Barbara Teasley Landers, who with husband Matthew, established the Landers Fellowship for students in the Maritime Program. Our summer field school at Edenton, NC, investigated a mysterious vessel nearly 85 ft in length in very low to zero visibility water which the newspapers heralded as "possibly the oldest vessel found in North Carolina." Further investigations will determine that judgment. The citizens and town government of Edenton were wonderful hosts. We are thankful for the financial support from Dr. Anna Marguerette McCann and Robert Taggart and the Friends of R/V *Perkins* led by Jim Cheatham. Your support was critical to the success of the field school attended by a dozen students. Our work underwater ranged from the stormy waters off Cape Hatteras, site of the USS *Monitor* to the cool waters of Lake Michigan at Sturgeon Bay, and the Olympic Coast National Marine Sanctuary off Washington state. We are making preparations to use the former US Coast Guard Station at Ocracoke on the Outer Banks as a research center. This is an exciting prospect that has inspired a research project and grant proposals to identify shipwrecks in the areas. Support from North Carolina Sea Grant funded two student proposals this year: a search for Blackbeard's "other" ship, *Adventure*, and for a shipwreck survey to produce a model dive card for a sport diver education program. This brings the total to four student grants funded in the past few years. Support from several Currituck organizations allowed Larry Babits and students to survey the major portion of Currituck Sound in search of historic small craft. Our program was a major participant in the Sixth Maritime Heritage Conference held in Wilmington, NC, 25-28 October attended by over 300 maritime professionals and students. The forty sessions provided a forum for presentations covering such diverse topics as large ship preservation, museum exhibits, the life-saving service, lighthouses, national historic landmarks and underwater archaeology. Capt. David Scheu and his staff at the WW II battleship *North Carolina* were excellent hosts. Capt. Channing Zucker, executive director of the Historic Naval Ships Association, Kevin Foster and Hallie Brooker of the maritime heritage office of the National Park Service helped with the planning. I served as program chair assisted by students Steve Workman and Vicky Martindale, and our secretary Karen Underwood. All of the numerous projects undertaken by the Maritime Program are completed only because of the many hands that step up to the task. Our thanks to you all.

– Tim Runyan

Landers Fellowship

The Landers Fellowship is a prized award for students in the Maritime Studies Program. Awardees have included Cathy (Fach) Green, Mark Padover, Russell Green, Victoria Martindale, Matthew Lawrence and Jeff DiPrizito. This year the Landers went to second year MA students Keith Meverden and Stephen Workman. Keith is a graduate of the University of Wisconsin-Madison. He returned to Wisconsin this past September for the fall field school at Sturgeon Bay.

Steve came to the Program after completing a naval career as an intelligence officer, last serving on the carrier *Abraham Lincoln* (CVN 72). Steve serves as editor of *Stem to Stern* and the *Newsletter* of the North American Society for Oceanic History. ♪

In Memoriam

BARBARA TEASLEY LANDERS

The Maritime Studies Program lost a friend and students a major supporter on May 12, 2001. Barbara Teasley Landers and husband Matthew established the Barbara and Matthew Landers Fellowship for students in the Maritime Studies program. Their contributions, combined with matching funds by Matt's former employer, Pfizer Pharmaceuticals Corporation, created a \$100,000 endowment. Fellowship awards have amounted to as much as \$3,000 per student.

Barbara radiated energy. Raised in Elberton, Georgia, where she was captain of the girls basketball team, she moved on to Alabama where she worked as a teletype operator. Barbara followed her three brothers into World War II by joining the US Navy's WAVES. She trained at Hunter College, NYC, and Miami University in Ohio. She served at Naval Headquarters for the Pacific Fleet in San Francisco on Treasure Island as a Radioman First Class until the end of the war.

At age 23 she became the bride of Matthew Landers, a marriage that lasted 56-years. After the war she worked at Ethyl Corporation in New York, but left to raise two daughters (Suzanne Stevens of Croton-on-Hudson, New York and Elizabeth Lawlor of Tempe, Arizona) and a son (Gregory, Captain, USN-Ret.). While living on Long Island in Ossining, New York, Barbara volunteered with Lighthouse for the Blind, St. Margaret's Parish Church, Phelps Memorial Hospital, and the Girl Scouts. When Matt retired from Pfizer where he served as treasurer, they moved to Greenville, North Carolina in 1982. She continued her volunteer work in Greenville, establishing a soup kitchen, participating in Kiwanis Club, and numerous projects at St Gabriel's Roman Catholic Church until their recent move to Tempe, Arizona.

Barbara was delighted to meet some of the women in the Maritime Studies Program and to learn that one-third of our students are women. A person of good cheer and humor, Barbara's good works will continue to be appreciated through the fellowship created by her and Matthew for students in the Maritime Studies Program.

Community Supports Research Effort. . .

Summer Field School Investigates Undocumented Ship Site in Edenton



A shoreline view of the wreck site.

The 2001 ECU Maritime Studies summer field school took place in Edenton, North Carolina, under the direction of Dr. Brad Rodgers, where maritime students examined a wreck discovered by Edenton resident Gil Burroughs. The student research team conducted a Phase II and III investigation of the site, which included an overall assessment of the remains, the production of plan view map, a survey map of the wreck's orientation to the shoreline, and a preliminary analysis of diagnostic artifacts now being conserved at the ECU conservation lab.

Founded in 1712, the town of Edenton served as North Carolina's capital until 1746. It enjoyed great prosperity as an inland port throughout the eighteenth century, receiving ships from England and her various colonies in the New World.

During this time the area of the wreck site, about half mile from the town, served as a shipyard and perhaps a ship graveyard.

During the nineteenth-century several geographical and political changes combined to cause Edenton's decline. In 1808, the new Dismal Swamp Canal connecting the Albemarle Sound to the lower Chesapeake region redirected traffic to nearby Elizabeth City. In 1828, Currituck Inlet along North Carolina's Outer Banks closed during a storm, greatly reducing the viability of Edenton's maritime trade. Commercial vessels relied on this inlet for trade in the state's northeastern Albemarle Sound region. From the early nineteenth century until recently, Edenton's economy was based primarily on fishing and agriculture. Today the economy has been augmented with the growth of a successful tourist industry.

The Burroughs wreck is located .6 miles west of the Edenton waterfront, near the mouth of Pembroke Creek. Water visibility on the site varied from zero to a few feet. The wreck lies in 2 to 5 ft of water, making documentation fairly easy, and our time was limited only by the amount of air in our scuba tanks. The area was rich in wildlife such as Cyprus trees, water lilies, fish, birds, but most notably for us, snakes and leeches. The leeches in particular enjoyed our extended bottom times.

We traveled to Edenton from Washington, North Carolina, on ECU's research vessel, the R/V *Perkins* through the Pamlico Sound, the Intercoastal Waterway and Albemarle Sound. The *Perkins* also served as our home for the three weeks we were there. During the first week of field school the team researched the history of Edenton, conducted an initial evaluation of the wreck, and pounded pieces of PVC pipe into the mud at the ends of the frames to outline the hull remains. The crew also constructed a baseline from the bow to twenty-five feet beyond the stern. At this site, we used a metal cable drawn tight, using a hand winch for the baseline. The position of the baseline is plotted into a map of the surrounding area using surveying equipment, and is used as reference for measurements of the wreck.

The following week a ten-foot wide sweep of surface debris and mud was cleaned from amidships across the wreck using a water induction dredge. Material from the debris layer was sorted and analyzed at the surface. This material consisted of silt, leaves and mud, as well as some refuse from a nineteenth century lumber mill, such as log scabs, bark, and log dogs (iron chain



ECU's research vessel, R/V *Perkins*, served as the base of operations in Edenton, NC, for the summer.

connected to iron wedges used to secure logs together). Pieces of charred wood and charcoal were also found among the debris, which along with the burned frame ends on the wreck, suggested that the vessel had been burned to the water line. After examination of the test area, students swept the port side of the wreck. Very few diagnostic artifacts were found. Most were photographed and returned to the site. Only a few of these artifacts were recovered and kept for conservation and analysis at ECU.

During the last week of field school each student documented a five-foot section of the vessel's port side. Each diver had a measuring tape and plumb bob in order to accurately map points of interest on the wreck, such as trunnels, bolts, frames, planking, mast steps, and artifacts onto a Mylar covered slate. A profile of the wreck was drawn, and an overall site map completed, recording the wreck's exact location using a transit and EDM (electronic distance meter).

The hull is quite intact from bow to stern and from the keel to the turn of the bilge, except for a Cyprus tree defiantly growing through the center of the wreck near the bow. The ship is made almost entirely of white oak with sacrificial pine planking on the outside of the hull. The presence of sacrificial planking indicates that the ship traveled in warm ocean waters where wooden hulls are susceptible to damage by burrowing marine organisms such as teredo worms. Sacrificial planking was applied to hulls to decrease the risk of damage. By the late eighteenth century copper sheathing replaced sacrificial planking as the preferred method of hull protection. The vessel has a moderate draft, considerable dead rise and lacks a centerboard. It is single framed and the frames are notched to fit the keel; the keelson is notched to fit the frames, indicating it was built without a great deal of iron as a resource. Frames are constructed using scarf chocks. The keelson is also joined with a hook and wedge scarf with the keys still in place. All of these construction techniques help date the ship to

the eighteenth century.

The eroded remains of a rider keelson are fastened to the keelson with long iron drift pins. The rider keelson increased the longitudinal strength decreasing the affects of hogging. One mast step (most likely for the mizzen mast) is located on the rider at 70 feet from the bow. The rudder is still attached to the sternpost with an iron gudgeon and pintle, turned slightly to starboard. The rabbet (a notch to accept the

rope was found, as well as several wood sheaves and wooden block pieces. One intact wooden block with working sheaves was discovered. A few pieces of green glass and three pieces of European imitation porcelain are amongst the artifacts found on the site.

The ship was 85 ft in length, between 20 to 25 ft in beam, and 200 to 240 tons burden. We estimate it drew roughly six to nine feet of water and was most likely a



ECU students Marc Porter and Kate Goodall document data from the wreck site.

outer hull planking) can be felt in the stem and sternposts.

Among the artifacts found within the vessel were intrusive chains, log scabs, log dogs, and several nineteenth- and early twentieth-century glass bottles. The artifacts most likely associated with the wreck fall into four categories: fastenings, weaponry, rigging material, and ceramic and glass fragments. The fasteners include eight-sided wooden trunnels, long iron drift pins, and wrought iron nails and spikes. All the fasteners were hand made and no two appear to be identical. A piece of grape or canister shot and a piece of star or Spanish shot were found on the site. Both types of shot were fired from a cannon. A large amount of charred

“ It is highly likely that the shipwreck may be one of the oldest yet discovered in North Carolina. ”

three-masted vessel. It is unclear due to the relative dearth of artifacts whether or not it was a merchant vessel or warship. From the evidence of fire, location in shallow water, and the lack of ballast and artifacts it appears the vessel was abandoned, then burned. A great deal of research remains to be done in order to identify the vessel and place it into the historical context of colonial Edenton. It is likely that the shipwreck may be one of the oldest yet discovered in North Carolina.

The project could not have taken place without the help and hospitality of the people of Edenton, especially town manager Anne-Marie Knighton, the sheriff's department, members of the town council, Gil Burroughs, Jeff and Rae Knox. We received a friendly welcome and very much enjoyed our stay in one of the most picturesque towns in North Carolina.

– Kate Goodall

2001: A *Monitor* Odyssey

The summer of 2001 will be known as the summer of the *Monitor*. It was the summer when the Navy, NOAA, and The Mariners' Museum all came together to achieve the deepest controlled archaeological lift ever conducted, the raising of the 30-plus ton Ericsson vibrating side lever engine from 230 ft below the waves. Over 150 Navy divers, a 300 ft by 90 ft barge, two research vessels, a submersible, and ten scientific divers from East Carolina University took part in the project.

The ECU Maritime Studies Program and the Diving Safety Office participated in Phase I and Phase III of this year's *Monitor* Expedition. Phase I was conducted for two weeks between March and April. Working with the National Undersea Research Center (NURC) at the University of North Carolina at Wilmington, ECU divers suffered through 40-degree water and poor visibility to take measurements of the Engine Recovery Structure (ERS) and its orientation to the site below it. These tasks aided the Navy when they lowered the Engine Lifting Frame (ELF) into the correct position over the *Monitor*'s hull. Severe storms and high winds took their toll during this phase, as the divers were only able to dive for half of the designated days.

In June, the Navy arrived at the site and operated off the D.B. *Wotan*, a 300 ft barge moored over the *Monitor*. Working in two shifts, 24 hours a day, the Navy removed the hull plating and excavated around the engine cylinder with different dive teams using surface-supplied and saturation diving techniques. The surface-supplied divers had limited bottom time (25 minutes), but they were able to put down five, two-man teams over a 12-hour shift. The saturation divers could only send one diver out in a 4-hour shift, but the slow, methodical excavation demanded a continuous presence on the bottom that only the saturation divers were able to provide. The saturation divers lived in a chamber for nearly seven days and worked out of a diving bell, while the NOAA scientists were in constant communication and watched through cameras mounted on their

helmets. The Navy has not often used saturation diving in the past thirty years and it definitely proved its worth when the *Monitor*'s engine was raised on July 16, 2001.

Phase III of the project was conducted over a four week period between July and August. ECU's return after the engine's removal marked the first time that surface-supplied, saturation, and scuba divers had all been involved concurrently on an archaeological site. The objectives now were to document and remove artifacts exposed by the engine excavation, survey the armor belt and decking that will be removed in preparation for the turret recovery in 2002, and survey the interior of the turret. On the first dive, a saturation diver working on the *Monitor*'s armor belt and an ROV hovering over the excavation area shared the site with the ECU divers, making it more difficult to concentrate on locating artifacts. The team documented and recovered portions of three lanterns, engine bearings of differing sizes, a lantern mount, bottle fragments, and a large intact ceramic jug.

The armor belt and decking survey was conducted by removing pieces of debris and visually searching the area. The divers also used the prop-wash from a diver propulsion vehicle (DPV) on its lowest power setting to carefully remove the surface sediment. Once the sediment was removed divers searched once again for possible artifacts. The area was then documented and readied for its removal in 2002.

The interior survey of the *Monitor*'s turret began by documenting a gun carriage and hand wheel that Navy divers exposed during a test excavation to verify the gun's location. They were then recovered along with sand to preserve them until next year's excavation. This information will aid the NOAA scientists in determining how the two 11-inch Dahlgren guns lay inside the turret.

Dr. David Mindell from the Massachusetts Institute of Technology joined the

team at this point to conduct a sub-bottom profiler survey of the turret. Mindell designed a sensor to give a much more accurate and focused picture of objects under the sediment than most other sensors. He used this sub-bottom profiler on the CSS *Hunley*, and deep-water shipwrecks sites with Dr. Robert Ballard in the Black Sea and Skerki Banks in the Mediterranean Sea. The sensor is usually mounted on a remotely operated vehicle and flown over the site, but for the *Monitor* the sensor was lowered off a research vessel to divers in the water who then took it to the bottom. The divers themselves conducted the survey by moving the sensor at a constant depth over the turret in a predetermined pattern. A video camera recorded the divers location over the turret and that data was later matched to the sub-bottom profiler readout for a concise map of the turrets interior. The data collected not only showed there were large objects inside the turret, but it also marked the first time ever that divers in-water conducted a successful sub-bottom profiler survey.

The 2001 *Monitor* field season was a success, and raising of the 30-ton engine was a unique feat in engineering and archaeology. Planning is currently underway for the 2002 field season, and ECU's Maritime Studies Program will be an integral part of the excavation and documentation of the *Monitor*'s most famous feature, its revolving gun turret.



ECU scientific diver recording measurements on *Monitor*.

The *Monitor* National Marine Sanctuary would like to thank all of the ECU participants in the 2001 *Monitor* Expedition: Gary Byrd, Chuck Campbell, Frank Cantelas, Tane Casserley, Alena Derby, Don Froning, Joe Hoyt, Mark Keusenkothen, Keith Meverden, and Steve Sellers.

— Tane Casserley

Goals reached despite stormy weather. . .

Fall 2001 Wisconsin Field Project

The East Carolina University Fall field semester of 2001 returned to Door County, Wisconsin, to continue research in Sturgeon Bay. Last year a number of known wrecks were visited at this location, but detailed mapping was postponed. The most significant of these wrecks was a scow schooner that operated in the stone trade, transporting dolomitic limestone from the local quarries. The student participants this year were Alena Derby, Kate Goodall, Jason Paling, John Hart Asher, and Keith Meverden. The instructors were Dr. Brad Rodgers and Dr. Annalies Corbin from East Carolina University and Jeff Gray, Russ Green, and Cathy Green from the Wisconsin Historical Society. We stayed in Wisconsin for three weeks, from September 16 through October 5, making our home base at Birmingham's Cottages, just steps away from the dive site.

The focus of our field school was the documentation of the scow schooner, known by locals as the *Dan Hayes*. On the first day, we were given an orientation to the area, and then suited up in wetsuits and snorkels to go exploring in the bay. Dragging buoys and ropes, the students performed a line search to locate and mark all of the scattered wreckage. The next few days were occupied with the laying down, tightening up, and measuring of a baseline. Crosslines were also established at ten-foot intervals.

Our daylight hours were spent mapping the shipwreck, then warming up after the chilly dives in Lake Michigan waters, even with drysuits. The evenings were occupied with creating the base map of the site and updating the website, *Notes from the Field* <http://shsw.wisc.edu/shipwrecks/notes>, sponsored by the Wisconsin State Historical Society.

Bad weather for a few days forced us to visit land sites and learn a bit more of the local history in alternative classroom situations. An examination of the stern section of the *Mueller*, a wooden-hulled screw propeller located in a nearby park,

gave insight on dating a ship by its machinery. We explored the bowels of the *Straits of Mackinac*, a retired car ferry whose destiny is to be cleaned and then sunk in Lake Michigan as a recreational dive destination. A day in Jacksonport gave us the opportunity to dive on several other schooners that were lost while tied to a pier. We also visited the Maritime Museum in Gills Rock and the Door County Maritime Museum in Sturgeon Bay. Bill Thiesen, an ECU Maritime Studies Program graduate, gave us a personal tour of the Manitowoc Maritime Museum and its collections.

Mapping of the scow site then began in earnest the middle of the second week. Students were given ten-foot grids to measure and draw. During the evenings, the information from the dive slates was transcribed onto a scale site map. Watching the map grow up from the graph paper, based upon mylar sketches, into something that resembled a shipwreck was quite rewarding. While the students were in the water, the instructors conducted a



Dr. Brad Rodgers (far right) briefs the five-student dive team prior to an orientation snorkel dive.

land survey of the area in order to create a map of the jetties and shoreline. Additional measurements were made by wading a stadia-rod into the bay to measure the depth contours and underwater reef structures.

Time eventually ran short for completion of the survey and as it came down to the wire, everyone extended their bottom times in the frigid water to finish mapping the wreck. Unfortunately, storms and windy weather limited our diving opportunities, and we were not able to explore as many sites as had been originally planned, but we finished our goal, the site map of the *Dan Hayes*. Trying to beat the next impending snowstorm, we removed the baseline and packed up for the long drive home to North Carolina.

– Alena Derby



ECU student divers document their measurements on a mylar slate.

ECU Mariners Conduct Currituck Sound Survey

A number of students from the ECU Maritime Studies Program found themselves on the waters of Currituck Sound this past summer, participating in an intensive remote sensing survey. The survey was conducted throughout June and July 2001, and included a magnetometer and side-scan sonar survey as well as a visual survey of the shoreline. The project's goal was to discover historic shipwrecks, abandoned vessels, inundated terrestrial sites, intentionally inserted sites, and prehistoric sites throughout the sound.

Currituck County has a rich and diverse background, dating well before English exploration in the sixteenth-century. The area was originally occupied by Native Americans who took advantage of the rich sound and ocean resources as well as those of the mainland. After English settlement near the end of the seventeenth-century, Currituck Sound became an important regional shipping zone. In 1859, the Albemarle and Chesapeake Canal was completed, connecting Chesapeake Bay with Albemarle Sound and routing much commercial traffic through the area. Throughout history, and today as well, prolific local boat traffic provided an efficient means of travel about the area.

Because Currituck Sound is almost 450 square kilometers, a random sampling

design was chosen. Five hundred meter square search areas were randomly selected and surveyed with a proton precession magnetometer and 600 kHz side-scan sonar. Hypack Max marine survey software processed magnetometer data and controlled navigation.

The survey was conducted aboard ECU's sturdy 25 ft Privateer, which departed the dock at six o'clock every morning to survey three 500 m areas per day. Innumerable crab pots and occasional shoals kept the survey crew busy through the long days, highlighted by the occasional pot snagged with the towfish. During the four and a half weeks of remote sensing, the Privateer traveled nearly 1000 kilometers of survey lanes to survey approximately four percent of Currituck Sound.

While graduate student Keith Meverden conducted the remote sensing survey aboard the Privateer, Professor Larry Babits conducted the visual shoreline survey aboard a locally built skiff piloted by lifetime



Keith Meverden, on the boat, and Mike Overfield prepare for an early start surveying Currituck Sound.

processed, but preliminary information proves promising. At least one wreck site discovered during the survey has been confirmed, and many magnetic anomalies and side-scan sonar targets are being discovered. Once data processing is completed, the survey results will be used to structure future work in the area.

The Currituck Sound project was made possible entirely through local support. Currituck County, Currituck Historical Society, Currituck County Genealogical Society, Currituck Wildlife Guild, Outer Banks Conservation, East Carolina Bank, and Travis Morris provided cash funds to offset project expenses. The crew was treated to nightly feasts in residents' homes. There were so many offers to provide evening meals that some had to be reluctantly turned down. Special thanks go to Barbara and Wilson Snowden, who handled logistics, graciously opened their own home to the crew, and were a never-ending source of maritime history. Many residents provided information based on their tremendous knowledge of local history, environmental conditions, and family backgrounds. The hospitality, interest, and support of Currituck County residents made the project thoroughly enjoyable and an example for future efforts to record North Carolina's maritime heritage.

— Keith Meverden



Keith Meverden navigates the Privateer in confined waters.

Archaeological Examination of the Welland Sailing Canal Ship, *Sligo*

A combined American and Canadian survey team, led by ECU Maritime student Kimberly Monk, rendezvoused in Toronto this summer to participate in a 14-day investigation of a Welland Sailing Canal ship sunk in Humber Bay.

The goal of this research was to define a Great Lakes vessel type, the Welland Sailing Canal ship. With the construction of the Welland Canal between Lakes Erie and Ontario in the early 1800s, came new opportunities and markets for shipbuilders. This resulted in developing a ship type to maximize profits for investors. The canal's influences and impact on ship design were evident with the first Welland Canal in 1829. It would be the enlargement and successive opening of the second Welland Canal in 1846, however, that resulted in a more pronounced and defined hull shape. Through documenting the sunken canal ship *Sligo* and defining both her career and construction modifications, this study will attempt to show that this type of ship was shaped both by landscape and changing bulk goods markets.

Originally launched in 1860 as the bark, *Prince of Wales*, at the Shickluna Shipyard in St. Catharines, Ontario, she measured 137 ft in length with a 23 ft beam and a 12 ft depth of hold. Built for high-

volume, low-value bulk goods markets for forwarding to the port of Kingston, Ontario, cargoes would then either be shipped down the St. Lawrence River by steamers or forwarded by railroad to Quebec for carriage to Europe. Mainly engaged in timber and wheat export, her owners also tested her in direct shipment from Sarnia, Ontario, to Liverpool, England, with a cargo of coal oil in 1862.

Rebuilt in 1874 at the Shickluna shipyard with a three-and-aft schooner rig, she was renamed *Sligo*. Continuing to service timber and wheat markets, *Sligo* also carried supplies to Windsor and Port Arthur, Ontario, for the construction of the Canadian Pacific and Algoma Railroads. The final transition took place in 1909 when she was cut down to a single masted tow barge at the John Simpson yard in Oakville, Ontario. Employed in carrying limestone for Point Anne Quarries in the Bay of Quinte, she unloaded her stone cargo in both Toronto and Hamilton for use in concrete work for highway construction.

In the early hours of September 5, 1918, the *Sligo* was in tow of the steamer *City of New York* and bound for the Western entrance to Toronto. Due to heavy rain, both steamer and barge took on more water than their pumps could manage. The steamer was forced to cut the tow line and run into

port, thereby forcing the *Sligo*'s crew of five to escape the fated barge by yawl boat. *Sligo* foundered at a depth of 65 ft two miles west of downtown Toronto.

The focus for 2001 field investigations was a Phase II predisturbance archaeological survey of the sunken schooner-barge *Sligo*. Although zebra mussels have distorted and weighed heavily on vessel superstructure, the team members were offered excellent photo and video opportunities. Hovering at a constant depth of 50 feet with 40 foot visibility, video footage was recorded over eight lanes while ensuring a 40% overlap to facilitate development of a photomosaic. A total of 90 minutes of video was recorded that provided data to generate both plan and profile views of the *Sligo*. Video and photo documentation were complimented with scantling measurements including structure and cargo sample collection.

Absolute thanks to project team members Eric Van Velzen, Craig Stull, Serena Oyama and Mark Norder for their outstanding efforts both in and out of the field, and to the Boulevard Club for providing the research vessel *Sharon III*. For additional information about the project please visit the following website: <http://www.tamug.edu/sligo>

– Kimberly Monk



Photo mosaic of the *Sligo*, a Welland Sailing Canal ship.

ECU Student Involved in Shipwreck Documentation Project in Hawaii

In June and July of 2001, led by East Carolina University alumnus Hans Van Tilburg, Kelly Gleason joined 15 other students and staff of the University of Hawaii's Maritime Archaeology Survey Techniques Course in a ten-day expedition to conduct a non-intrusive survey work of the beach and in the water on Lana'i's north shore, Awalua Bay. Lana'i Island is one of the eight main Hawaiian Islands. Its north shore, commonly referred to as 'Shipwreck Beach' is known to be the resting place for numerous historic and modern wrecks. The remains scattered along the 8-mile stretch of beach possess a valuable record of the maritime past of both Hawai'i and the Pacific.

The Kalohi Channel between Lanai and Molokai is subject to strong northeast trade winds and associated swells. The ocean over the wide reef flat is usually murky and choppy, creating challenging conditions for the underwater work. Underwater visibility tended to range from 0-10 ft as we worked in depths of 2-15 ft.

In June 1999, Van Tilburg led a group of volunteers on a small-scale survey

of the north shore of Lana'i, from Awalua (where we returned in 2001 to camp and work) to Maunalei. Just before beginning the 2001 course, Van Tilburg along with ECU alumnus Don Froning conducted an aerial reconnaissance from a small single-engine private plane over Shipwreck Beach. Photographs revealed further details of land and water sites documented in 1999, as well as several wreck sites in close proximity to the shoreline that were previously unseen. Rather than complete the entire survey of Shipwreck Beach, the MAST 2001 course could only begin to reveal some of the many historic remains on the north shore of Lana'i.

Thanks to the generosity of several individuals on Lana'i including Joelle and Alton Aki, Darrell Stokes and Dee Kaufman, the students and staff were able to build a camp on Awalua and make trips to town for water and ice, since Awalua was located on the remote north shore only



A student examines offshore wreckage.

reachable by four wheel drive vehicles. We conducted photographic documentation and measured sketches of feature details and site maps were made of several different locations.

The locations we focused on were the remains of a Hawaiian fish trap, an abandoned navy auxiliary oil tanker, a large wooden hull Pacific steamship, and an unknown vessel of wooden construction. A shoreline map created with basic surveying equipment helped us to place these sites in their proper locations. Further fieldwork is currently in the planning stages for the summer of 2002. Shipwreck Beach is a relatively untouched source of historical information on the maritime past, and provided an amazing encounter with the maritime history of the Hawaiian Islands. Further information can be found at the website: <http://www.hawaii.edu/mop/lanai2001intro.htm>.

– Kelly Gleason

Ajax Reef Archaeological Project: Cooperation between Avocational, Student, and Professional Archaeologists

The submerged bottomlands of Biscayne National Park, near Miami, Florida, offer a rich international maritime heritage and an appropriate location for hosting and encouraging communication between international avocational groups. In an effort to promote scholarly research by avocationalists, the Ajax Reef Archaeological Project in association with its umbrella organization Maritime Archaeological Research Initiative, was established by ECU graduate student Kimberly Monk and Coastal Maritime Archaeology Resources president Mark Norder to offer opportunities for avocational, student, and professional archaeologists to work together.

Under the guidance of Biscayne Park Cultural Resource managers Jim Adams and Brenda Lanzendorf, three sites were the focus of the 5-day 2001 field investigations. The first site under examination was the

Spanish steamer *Alicia*. Hailing from Bilbao, Spain and en route from Liverpool to Havana she ran aground on Ajax Reef on April 20, 1905. The wreck lies in 26 ft of water and is comprised largely of riveted steel plates, iron frames, and engine components scattered over a quarter square mile area.

The second site investigated was *Second Wreck*, lying in 12 ft of water on Ajax Reef. An extensive amount of ballast, over what appears to be the lower hull timbers of a ship, fastened with iron pins and spikes are concentrated in a relatively small area. Pig iron, various types of fasteners, and a five-foot iron ring, all located in 20 feet of water provides evidence of the third site to be investigated, known as the *Ring Wreck*.

Archaeological fieldwork in 2001 included preliminary survey and wreck photomosaics to define the extent of cultural

remains at each of these sites. Initial triangulation was conducted on the *Alicia* site with a focus on engine and hull components. Additionally, mosaics compiled for each site area will aid in generating a more detailed site map assisting in interpretation and site formation process analysis. Fieldwork will aid in preparation of a detailed survey plan for the main project, to be hosted over a four-week period in July of 2002. For more information about this project please visit the website at <http://www.marhomepage.com>

Special thanks to archaeologists Jim Adams and Brenda Lanzendorf for their support and guidance, project team members Carol Linteau and Patrick Smith, and to historian Robert Schwemmer for his tireless efforts in the archives.

– Kimberly Monk

Olympic Coast National Marine Sanctuary Shipwreck Survey, Part II

On 17 September 2001, three ECU Maritime Studies Program students and one program alumnus traveled to the Olympic Coast National Marine Sanctuary (OCNMS) in Washington state in search of three shipwrecks. The National Oceanic and Atmospheric Administration (NOAA) administers the National Marine Sanctuary system throughout the nation and is responsible for inventorying and managing the submerged cultural resources within each sanctuary. NOAA provided a grant for the ECU archaeologists to conduct a remote sensing survey in the waters near La Push, Washington. La Push, the principal town within the Quileute Indian Reservation, is on the west coast of the Olympic Peninsula roughly sixty miles southwest of Port Angeles, Washington.

The research team consisted of Maritime Studies Program alumnus Jeff Morris of Nauticos and the U. S. Navy, and current Maritime Studies Program student Mike Plakos of the *Queen Anne's Revenge* Shipwreck Project both of whom brought extensive remote sensing knowledge to the project; the other two students, Deborah Marx and Matthew Lawrence, hoped to learn from the experience of the more seasoned team members. Both Jeff Morris and Mike Plakos, along with Maritime Studies Program student Matthew Muldorf, conducted a remote sensing survey in the OCNMS during September 2000 in the vicinity of Destruction Island.

As compared to the September 2000 survey that focused on a geographic feature responsible for the loss of several ships, the September 2001 survey sought to locate three specific ships all wrecked within five miles of La Push, Washington. The ships were the British steel-hulled freighter *Temple Bar* wrecked in 1939, the Russian steel-hulled freighter *Lamut* wrecked in 1943, and the Chilean five-masted iron schooner barge *W. J. Pirrie* wrecked in 1920. Each of the wrecks had a relatively precise sinking location; the *Temple Bar*

and *Lamut* were photographed after wrecking. The ships' iron and steel hulls were expected to have survived in the high-energy environment of the Pacific coast and to exhibit significant magnetic signatures.

Over a period of eight days, the research team surveyed three distinct areas covering 6.34 square miles of ocean. The sanctuary's 42-ft R/V *Tatoosh* provided the ideal platform for the deployment of a 600 KHz side scan sonar and a cesium magnetometer. Side scan sonar revealed remains of the *Temple Bar* at the position extrapolated from photographs of the wreck. Salvage subsequent to the vessel's grounding removed most of its cargo of scrap iron. Sonar images indicated that much of the vessel's hull was salvaged as well. Several large hull pieces were strewn across the bottom, likely a result of wave action rather than salvage.



Jeff Morris, Mike Plakos, and Matthew Lawrence recovering the side scan sonar.

Preliminary data analysis for the *Lamut* shipwreck site revealed a very large magnetic anomaly located between a high cliff and a rock pinnacle. The narrow channel between the cliff and rock necessitated the use of the sanctuary's inflatable boat to survey the area and precluded the

use of side scan sonar to image the wreck. Researchers recorded smaller magnetic anomalies on either end of the rocky channel suggesting the breakup of the *Lamut*'s hull.

The *W. J. Pirrie* survey area was the project's largest and most difficult. Several days of searching revealed neither acoustic nor magnetic anomalies. Historical research indicated that the *W. J. Pirrie* struck Cake Rock or the unnamed rocks just north of Cake Rock. Water depths around Cake Rock were sufficient for a comprehensive search of the area around the pinnacle. Unfortunately, the rocks north of Cake Rock proved too hazardous to approach in the *Tatoosh*. Several large wash rocks and partially exposed pinnacles waited in that area to snag the remote sensing gear or the vessel.

The beautiful yet foggy and dangerous waters of the Olympic Coast National Marine Sanctuary provided a fantastic opportunity for remote sensing fieldwork. Locating two out of the three vessels also made the project an unqualified success for

the East Carolina team. Many thanks go to Bruce Terrell, NOAA's archaeologist, and to Frank Cantelas for making the opportunity available to students. For further information contact Matthew Lawrence at MSL0808@mail.ecu.edu.

– Matthew Lawrence

Maritime Studies Program Adds First Female to Faculty

Annalies Corbin, who left East Carolina University in 1995 after receiving her M.A. in Maritime History and Nautical Archaeology, returned to ECU this past fall as the program's first female faculty member, filling in the vacancy left by the retirement of Dr. Gordon Watts last year. Dr. Corbin, who has most recently been involved with steamboat and other river projects in the West, is excited about her return to ECU. "I knew I would be back, someday," she related. "When I left here, I knew I was going on to a Ph.D. program, and that I wanted to teach maritime archaeology, so it was only natural that I would return to ECU, home of one of only three nautical archaeology programs in the country." Although she says she is glad to be back at ECU, she is also happy that she was able to leave and be able to develop her own areas of expertise and point of view.



Dr. Annalies Corbin directing documentation on Red River steamboat project, 2001.

Dr. Corbin's interests in the past few years have focused primarily on Western riverboats and other projects involving river archeology, as well as development of archaeology programs aimed at K-12 students. "I want to maintain my involvement in those areas," she stated, "but I'm also excited about taking on new areas of research, including projects in the Caribbean and sites dealing with the slave trade." She also acknowledged her pioneering role as one of the first female faculty members in the field of maritime archaeology. "The last time I counted them with my colleagues, there were only eight women with Ph.D.s actively working in maritime archaeology. All my mentors have been men. I'm looking forward to helping more women develop interests in the field," she said.

During the coming year, Dr. Corbin is scheduled to teach four courses as part of

the Maritime Studies curriculum. They are: HIST 6640, Maritime Cultural Resources; HIST 6840, Conservation; HIST 6820, Research Methods; and HIST 6850, Fall Field Project. She has already developed her own course outlines, and looks forward to teaching new classes. "I see Maritime Cultural Resources as an excellent companion to Brad's (Dr. Brad Rodgers) ship construction class," she explained. "This course will take a global perspective, evaluating the roles of trade routes and economics, in our study of material culture from both classical and Old World sites. I also plan to change the focus of the Research Methods course this semester," she stated. "This year, it will be even more 'hands-on' than before. The students will experience an intensive one-week field trip that will focus on learning field techniques, mapping, and remote sensing tools and equipment. We'll also emphasize the documentation process, historical research, and writing site reports." ↴

The Marshall-Firehole Archaeology Project

The Marshall-Firehole Hotel was a crude hotel built in 1884 in Yellowstone National Park and operated until 1891. The hotel complex was virtually a small frontier town, the precursor of modern tourist communities in the Yellowstone Park area. The Marshall-Firehole Hotel archaeological site is arguably one of the more important cultural resources relating to the National Park system's developmental history. It was the first facility of its kind built within a National Park strictly to serve tourists.

Although the land-based portion of the site is not in immediate danger, a riverine trash dump is rapidly being destroyed by bottle and other artifact collectors. The Marshall-Firehole Underwater Archaeology Project was undertaken in response to this vandalism. Project objectives are:

- 1) To identify the range of archaeological resources at the site and their physical locations;
- 2) Identify site elements impacted by past and present park, public, and natural actions;
- 3) Recommend protection and interpretation alternatives; and
- 4) Provide an educational opportunity for a group of high school students and their teachers.

The project is a cooperative venture between the National Park Service (NPS) and the PAST Foundation and partially funded through a NPS-Intermountain Region Challenge Cost Share grant. Participants include archaeologists and volunteers from Yellowstone National Park, NPS-Midwest Archaeological Center, PAST Foundation, East Carolina University, and students from the Lincoln Public Schools Science Program School (Zoo School) in Nebraska. ↴

More about Annalies Corbin

PROFESSIONAL WORK:

- Assistant Professor of Nautical Archaeology, Program in Maritime Studies, ECU.
- Executive Director, The P.A.S.T. Foundation. A foundation established to develop a K-12 curriculum to bring archaeology into classrooms worldwide and sponsor new archaeological research projects.
- Board of Directors, JONA (Journal of Northwest Anthropology), a regional scholarly journal.
- Book Review Editor and Associate Editor, *Historical Archaeology*, Society for Historical Archaeology, 2000-2001.

EDUCATION:

- University of Idaho – Ph.D. (Historical Archaeology), Moscow, ID, 1999. Department of History - western history and historical archaeology.
- East Carolina University – M.A., Greenville, NC, December 1995. Department of History, Program in Maritime History and Nautical Archaeology.
- University of South Dakota – B.S., Vermillion, SD, May 1993. Majored in Anthropology with a concentration in archaeology.

BOOKS:

- 2000 *The Material Culture of Steamboat Passengers: Archaeological Evidence from the Missouri River*. New York: Plenum Press (Underwater Archaeology Series).

ECU Maritimers, Past and Present, Gather at Kingston

Former and present East Carolina University students and faculty made up one of the largest contingents at the joint North American Society for Oceanic History/Canadian Nautical Research Society conference in Kingston, Ontario, held in May 2001. The three-day conference, "Canadian-American Relations on the Great Lakes in Peace and War," was held at the Royal Military College of Canada and the Howard Johnson Confederation Place Hotel. Conference speakers presented papers on a wide range of topics dating from colonial times to the Cold War. Evening social events included a reception at the Royal Military College Staff Mess, a tour and reception at the Maritime Museum of the Great Lakes, and a 'dining-in' banquet and Old Fort Henry. The 2002 NASOH conference will be held in Honolulu, Hawaii, 15-18 May. ⚓



Maritimers in attendance at the NASOH conference included, from left: John Jensen, Wilson West, Kimberly Monk, Dr. Tim Runyan, Dr. Bill Still, Jr., Scott Emmert, Steve Workman, and Kevin Foster.

Maritime Students Visit *Hunley* Conservation Center



In May 2001, ECU Maritime Studies faculty and students visited the Warren Lasch Conservation Center in Charleston, SC, home of the CSS *H. L. Hunley* conservation effort. This state-of-the-art conservation center is located on the old Charleston Naval Base in a building specifically rebuilt to house the *Hunley* remains at a cost of \$ 2.75 million, and guarded by uniformed members of the South Carolina State Patrol & Protective Service. The ECU students were treated to a behind-the-scenes tour of the facility by Naval Historical Center archaeologist Dr. Robert Neyland. The ECU student visit occurred just prior to the conservation team discovering Lieutenant Dixon's remains and his twenty dollar gold piece. In the photo, the Maritimers are observing the conservation team at work inside the *Hunley* hull. Shown L-R are Dr. Bob Neyland, Scott Whitesides, Dr. Tim Runyan, Chris Cartellone, Steve Workman, Scott Emmert, Heather Cain, Brian Clayton, Alena Derby, and Marc Porter. ⚓

NC State Archaeologist Visits ECU to Discuss QAR Artifact Conservation Effort and Visit with Maritime Students

Steve Claggett, North Carolina state archaeologist, visited the ECU campus and spoke with faculty and students of the Maritime Program. He met with students to discuss his experiences in archaeological work throughout the state. Meetings were also held with ECU faculty concerning the Maritime Studies Program's continued work on the Blackbeard/*Queen Anne's Revenge* shipwreck project and the possibility of an expanded role in the conservation of artifacts from the vessel. Shown L-R are: Russ Lewis, Andy Weir, Steve Claggett, Sam Blake, Kelly Gleason, Steve Workman, and in front, Melissa Hendrickson. ⚓



Summer Internship at the Graveyard of the Atlantic Museum

This summer I spent a month at the beach, Cape Hatteras to be exact. For shipwrecks and maritime history, there are few places with more examples than the Outer Banks of North Carolina. The waters off the coast are known as the Graveyard of the Atlantic, due to the hundreds of shipwrecks that litter the waters. There are two opposing currents which meet here, the cold Labrador Current from the north, and the warm Gulf Stream from the Caribbean. This convergence creates nasty, ever-changing shoals that have snagged many ships, while storms, hurricanes, and even German U-boats grabbed not only a few more. Before modern technology to guide them, ship pilots maximized the prevalent currents, and navigated as close to shore as they would dare, unfortunately sometimes meeting their demise.

So, what better place to build a museum dedicated to the maritime history and the shipwrecks that have played an influential

role in the development of the Outer Banks? The *Graveyard of the Atlantic Museum* is currently under construction in Hatteras, NC, just across from the ferry docks. Archeological work on the *USS Monitor* encouraged local interest in creating a museum on the Outer Banks about shipwrecks. The museum was designed to imitate the graceful curved lines of a ship, while the architects included measures to insure that the building will withstand the catastrophic weather of the coast. The exhibit gallery will have 5,300 square-feet of temperature- and humidity-controlled space, adjacent to the storage and work areas. The exhibit areas will emphasize the following main themes: Shipwrecks; Discovery, Research and Interpretation; Piracy and Warfare; and Exploration, Transportation and Commerce.

Since this museum has grown from local roots it only seems natural to draw on the historical resources of the local region.

Many of the local inhabitants have artifacts that are deserving of display. Often these treasures have been found on the beach after storms, salvaged from stranded vessels, or passed down through the generations. Part of my internship with the museum this summer was to initiate community involvement, encouraging residents to donate artifacts to the museum so that they might be examined and included in an exhibit for all to appreciate their value. The most fascinating aspect of my work was the oral histories that I recorded from local residents about their ancestry. I often met with folks in their homes, and examined artifacts that they might be willing to donate to the museum. As the museum is not prepared at this time to care for and store these artifacts, they have not begun collecting them. I created a database of the artifacts available, and what conditions they were in, so that the museum will have a reference in the future. When the exhibits are prepared, the curators will be able to choose which artifacts will be able to help tell the story of shipwrecks and their influences on life of the Outer Banks. It was a great summer, getting to know the locals of a historically rich area, while having an excuse to play in the waves.

– Alena Derby

Internships at the San Francisco National Maritime Historic Park

ECU maritime students Deborah Marx and Matthew Lawrence traveled to California in July 2001 for a month long internship with the San Francisco National Maritime Historic Park. Our internship was with museum exhibits curator Richard Everett who wanted to update an exhibit on the California Gold Rush in the museum lobby. The new display focused on the maritime aspect of the gold rush by presenting the stories of the *Frolic*, *Niantic*, and *Apollo*. The exhibit combined each vessel's historical record with artifactual material recovered from each site.

The *Frolic* was a Baltimore clipper built in 1844 for the opium trade between China and India. The California Gold Rush created a new opportunity for the

Frolic and its owners transferred it to the trade route between China and San Francisco. On its maiden voyage to California in 1850 the ship hit a rocky ledge north of the city. In 1984, San Jose State University archaeologist Thomas Laden rediscovered the wreck during a field school after finding Chinese pottery at a Pomo Indian site 15 miles from the Mendocino coast. Over the next five years he documented the wreck and recovered numerous artifacts.



Deborah Marx, far right, onboard the *Alma* on San Francisco Bay.

The ship *Niantic* was built in 1833 for trade between Canton and New York but it also made a few trips as a whale ship. While preparing for a whaling voyage

in the South Pacific Ocean in 1849, the ship's captain learned of the gold rush and the need for passenger transportation from Panama. After picking up several hundred gold seekers in Panama, the *Niantic* headed directly for San Francisco. Upon its arrival the crew deserted and the vessel sold. Its new owners decided that more money could be made by turning the ship into a store-ship rather than trying to outfit it for another voyage. The *Niantic* became the first ship to be hauled up into the San Francisco's mud and converted into a place to rent rooms, store goods, and conduct business. A fire in 1851 destroyed most but not all of the ship. While excavating for a new building in San Francisco the workers uncovered the *Niantic's* hull in 1978. Time and financial problems only allowed a few days to record the hull and recover artifacts before the ship was demolished. The *Apollo's* history mirrors that of the *Niantic*. The ship *Apollo* was built in 1831 for packet service and subsequently arrived in San Francisco in 1850. It too was used as a store-ship and burned during the fire of 1851. It was rediscovered in 1925 during construction and quickly reburied with no documentation and only a small number of artifacts saved.

Our internship consisted of visiting numerous libraries around the San Francisco Bay area to research the *Niantic's* and the *Apollo's* history. After combing the maritime museum's artifact collection for representative specimens we designed an exhibit plan that encompassed all three gold rush vessels. Aside from the learning about exhibit design, the internship provided us with an opportunity to learn how the San Francisco National Maritime Historic Park operates and manages historic vessels. Some of the month's highlights were our trip to examine the 1895 wooden lumber schooner *C.A. Thayer* in dry-dock, sailing on the 1891 wooden scow schooner *Alma*, and taking a close look at the engine room of the 1914 British steam paddle tug *Eppleton Hall*. The internship provided valuable hands on experience in combining maritime archaeology and history and presenting it in a museum atmosphere.

—Deborah Marx

A Summer Near the Water at Beaufort

This past summer, Paul Fontenoy, the Curator of Maritime Research, and an ECU Maritime Studies graduate, offered me the opportunity to work as an intern at the North Carolina Maritime Museum in Beaufort, North Carolina. Museum management is one of the potential careers I'm interested in pursuing after completion of my studies at ECU, so I jumped at the chance to spend six weeks of my summer at the North Carolina Maritime Museum. I had previously visited the museum on a number of occasions, so I was already impressed by the quality of their exhibits and educational programs.

During my first few weeks at Beaufort, I had a chance to work with Pam Adams, the development director for the "Friends of the Museum." The "Friends" are a non-profit support group that help the museum conduct activities not funded by the state budget portion of their operating expenses. Popular "Friends"-supported programs include the summer youth sailing program plus seminars and other educational activities at Cape Lookout. The North Carolina Maritime Museum is a state-run facility under the administration of the Office of Archives and History, an agency of the Department of Cultural Resources. As a state agency, the museum is limited by state regulations that govern its budget funding and activities. One of the projects I researched was to gather membership information and brochures from a number of other Council of American Maritime Museums (Camm) member museums, to determine what changes in NCMM's "Friends" membership structure might be appropriate in the future.

Every summer the museum conducts a wide range of educational programs for children ranging from pre-school to high school grade levels. I had a chance to assist in the teaching of a one-week "Introduction to Maritime Archaeology" program developed for junior high school-age students. The course was conducted by two former ECU graduates, Dave Moore, the museum's maritime archaeologist, and Sam Newell, a middle school teacher in Greenville. Students learned about the history of underwater archaeology, North Carolina's involvement with Blackbeard, and the recent recovery and excavation efforts at the *Queen Anne's Revenge* site. The students had a chance to perform some "hands-on" learning about baselines, grid systems, and the documentation process. They even had a chance to snorkel and visit a documented wreck site on the shoreline near Cape Lookout. Sam helped teach me how to "manage" young teenagers.

I also had a chance to research the museum's photo archives for pictures of a particular type of watercraft, and inventory a portion of the museum's rare book collection. One of the strongest impressions I gained through my work at the museum was just how important a well-organized team of volunteers is to the successful day-to-day operation of the museum. The museum's volunteers are the "front-lines" in the interaction with the public, and the volunteers at Beaufort do an excellent job of presenting "their" museum to both local residents and substantial numbers of visiting tourists.

I had a very enjoyable and rewarding experience working at the NCMM, despite my daily 3+ hour daily commute from Greenville to Beaufort. I want to thank the "Friends" and museum staff, including Paul Fontenoy, Pam Adams, Dave Moore, JoAnne Powell, Bob Springle, Scott Kucera, Jane Wolff, Josh Loftin, Roger Allen, Connie Mason, and Michelle Bennett for their patience and help in expanding my understanding of the "nuts and bolts" of museum management.

— Steve Workman

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The internship provided valuable
hands on experience in combining
maritime archaeology and history”

continued on page 17

ECU Student Investigates Bermuda's Whaling History

A headline in the March 31, 1840 edition of the *Bermuda Royal Gazette* read "Melancholy Accident." The article was a brief announcement of a black Southampton whaling boat crewman who drowned when his boat capsized during a pursuit. Henry Taylor was the unfortunate victim that day. Fortunately, however, the article continues to mention that another whaling boat picked up the survivors before the boat and crew were dashed on a breaker. More often than not, this was the kind of article that appeared periodically in the *Royal Gazette*. Whaling was as dangerous in Bermuda as it was in the open seas.

Whalers in Bermuda participated in shore-based whaling, as opposed to pelagic whaling, where whalers pursued whales by ship in the open oceans. Shore whalers remained vigilant at shoreline whaling stations, and waited for migrating whales to pass. They then chased these leviathans in 27-30 ft boats. Bermudan whalers not only encountered extremely hazardous surf and reefs, but if towed out to sea by a fastened whale, there was no ship to search for them if they did not immediately return. Bermudan whalers certainly knew the dangers of this industry; nevertheless the practice of whaling on the island persisted for over three hundred and fifty years.

ECU graduate student Jason Paling, along with colleagues from Vanderbilt University and staff members of the Bermuda Maritime Museum (BMM), studied the history of Bermuda whaling in August of 2001. Research for the project was set in motion the previous year by Paling, and this year the goal was to begin assembling a cohesive history of whaling in Bermuda from 1840 to 1941. This one hundred year period is not only symbolic to Bermuda's whaling past, but it also signifies the zenith of American whaling (1840s). Moreover, this period includes the demise of the American whaling industry (1860s-70s). Examinations have already indicated that Bermuda continued to support a small whaling industry well beyond the termination of the American industry. In fact, the last whale taken by Bermudan whalers was around the time the United States was entering World War II. The same boat that captured that whale in 1941 was later converted into a tugboat, which was used to escort battle-ready US naval ships in and out of Bermuda's harbors.

Located in Hamilton, the Bermuda National Archives houses numerous volumes pertaining to the nation's history. Paling spent a number of hours examining import/export ledgers, church registers,

newspaper articles, and historical volumes. Information collected suggested that although Bermuda's whaling industry was never as competitive and successful as the United States or Canada, the island itself had a major impact on the industry. For example, import/export ledgers from 1861-1863 suggest that a sizeable amount of whale oil was entering Bermuda from the United States. Export tallies of those years also suggest that the same amount of oil was returning to the United States. One view holds there were numerous Confederate sympathizers in Bermuda, and the cargo being imported from the US was being redirected into the South. This is one example of information being discovered about Bermudan whaling, and will be examined in further research.

Paling carried out other areas of exploration through the direction of Dr. Edward Harris, director of the BMM. Under his guidance, a number of whaling stations were studied and photographed. Also, a number of local informants were interviewed that offered oral accounts of the lives of local whalers and talked about their impressions of island whaling. The highlight of the project was the discovery of the *Bonito*, a whaling boat that belonged to local whaler 'Gunny' Astwood. For a number of years, the boat was left decaying in a field near the Sonesta Beach Hotel until Dr. Harris rescued the bow of the vessel. Led by Paling, a few members of Vanderbilt's field school recorded and measured the vessel. Paling intends to present a construction model of this whaleboat after completion of the research analysis.

No actual artifacts were collected during this field season, and Paling believes that not all research in the subject is complete. Bermuda is riddled with several whaling stations and camps. Only a small sample was actually surveyed. The information gathered this season will be prepared and presented to the ECU Maritime Studies and History departments. Further research teams will examine the information and archaeological evidence that remains on the island.

— Jason S. R. Paling



Jason Paling measures the *Bonito*.

In Search of *Adventure*

During the second week of the Summer Field School 2001, students from the Maritime Studies Program participated in the search for *Adventure*. The *Adventure*, a sloop accompanying Blackbeard's *Queen Anne's Revenge*, is also believed to have wrecked in the Beaufort Inlet area during the first week of June 1718.

Operating under a permit for exploration granted by the North Carolina Department of Cultural Resources and under the direction of Mike Overfield, a four-day remote sensing survey was conducted in the Beaufort Inlet in an attempt to locate the remains of the *Adventure*. Students participated on a rotational basis between

the Beaufort Inlet Survey and the Edenton field school site from June 4-9, 2001.

The students operated a wide variety of remote sensing equipment including a Geometric G-886 Magnetometer, Coastal Oceanographic Hypack Max hydrographic software and Marine Sonic Sea Scan 600 MHz side-scan sonar. Maritime Studies Program staff archaeologist Frank Cantelas provided invaluable assistance and on-the-job training for students.

Approximately two nautical miles of the inlet were surveyed during the four days, covering over eighty percent of the inlet. The data recovered by the maritime students will be reviewed and analyzed during the winter semester. Plans include returning to the inlet in March 2002 for diver ground truthing of specific target areas.

Special thanks to Dr. Tim Runyan, Dr. Larry Babits, and Dr. Brad Rodgers for including this project in the Summer Field School program, Frank Cantelas for his love of survey work, Keith Meverden (for keeping the boat on-line), John Hart



Keith Meverden, Frank Cantelas, and Mike Overfield double check their equipment prior to shoving off at Beaufort.

Asher, Carrie Bell, Alena Derby, Matt Lawrence, Dede Marx, Jason Paling, and Steve Williams for their professional work ethics and support.

– Mike Overfield

NORTH CAROLINA SEA GRANT FUNDING

The Beaufort Inlet Survey Project conducted from June 4-9, 2001 received "mini-grant" funding provided by North Carolina Sea Grant. The proposal was written and submitted for funding to North Carolina Sea Grant by Mike Overfield, project director of the Beaufort Inlet survey project. The funds awarded will be used to reimburse the students who participated in the survey for their out of pocket expenses as well as funding the March 2002 phase of the project.

A unique strength of the Sea Grant Program is its ability to test new ideas, augment on-going research efforts, stimulate innovation and respond to short-range, critical needs. This is the first year that Sea Grant has included nautical archaeology as one of its funding categories and the Beaufort Inlet survey project was one of the first recipients of the new funding.

The proposal for a Sea Grant "mini-grant" consists of a short description of the work to be performed (two pages or less), and a well-defined budget. Mini-budgets do not include indirect costs and are generally in the amount of \$5,000 or less. Cost sharing is not required so the project gets the entire grant award. Mini-grant proposals may be submitted at any time during the regular Sea Grant funding cycle. The original and one copy of the proposal should be submitted to: Director, NC Sea Grant, Box 8605, Raleigh, NC 27695-8605.

– Mike Overfield

INTERNSHIPS, continued from page 15

My Summer with HABS/HAER

I spent much of the summer working as a historian for the National Park Service's Historic American Engineering Record (HAER). This Park Service office in conjunction with its twin, the Historic American Building Survey (HABS), is charged with recording significant facets of American architectural, industrial, and technological history. HABS/HAER deploys teams of architects, historians, and photographers throughout the nation during the summer months. These teams record important sites by creating detailed architectural drawings and large-format photographs. The Library of Congress is currently working to make the reports available on-line. For his assignment, I traveled to San Francisco where I spent a month researching the histories of six ships owned by the National Park Service and managed by the San Francisco Maritime Park. The majority of the archival materials relating to the vessels under study were located in the park's J. Porter Shaw Library, an excellent repository of West Coast maritime history that has extensive holdings of primary source material, including a vast collection of historic photographs. The library can be reached at: <http://www.nps.gov/safr/local/lib/libtop.html>. Information about the San Francisco Maritime Park and its vessels can be accessed at: <http://www.nps.gov/safr>. After my time in San Francisco, I spent two months in HAER's Washington, DC office. This time was spent reviewing the information collected in San Francisco and using it to write historical reports for each vessel. Interested students should note that HABS/HAER hires graduate students for three month contracts during the summer months. Detailed information about HABS/HAER, its mission, and employment possibilities can be found at: <http://www.cr.nps.gov/habshaer>

– Marc Porter

MARITIME STUDIES PROGRAM IN THE NEWS

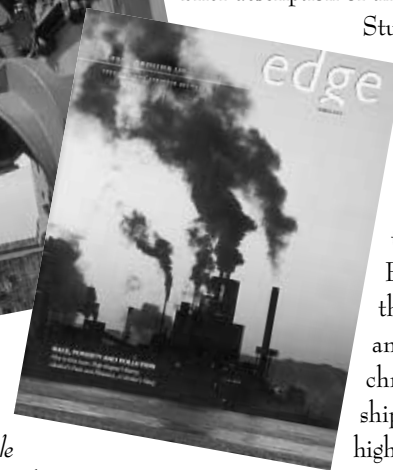
Over this past summer, the faculty and students of the Maritimes Studies Program were featured in two of East Carolina University's publications and a North Carolina state publication. The articles recount the most recent work done at this past Summer Field School as well as previous work by the faculty on Civil War vessels.



The first article "Civil War Shipwrecks keep Maritime Program 'Awash in History,'" from *The ECU Report*, was a reprint of an article that appeared in *edge*, a publication of the Division of Research and Graduate Studies, entitled "Awash in History,". The article, written by Garnett Bass, recounts the work of the students and faculty of the Maritime Studies Program on Civil War vessels and stresses the need to remember the naval aspect of the Civil War. The article looks at the *Black Warrior*, a commercial schooner pressed for service; the *Monitor*, one of the first ironclads; the *USS Southfield*, a ferry fitted out as a gunboat; the *USS Maple Leaf*, a former passenger steamer; the *CSS Alabama*, the most successful Confederate blockade runner; and whaling vessels sunk by the *CSS Shenandoah*.



A second article, "Underwater Explorers: ECU Students Uncover Edenton Shipwreck," appears in the August 2001 edition of *Coastwatch*. Written by Ann Green, it is an overview of the Edenton site, where an eighteenth century wreck site was found, and the 2001 Summer Field school that investigated the site. It also provides a brief description of the Maritime Studies Program.



Immediately after this article is a short narrative on how ECU acquired the *R/V Perkins* and briefly chronicled the ship's history, highlighting its time at Lake Erie;

the trek to Washington, NC, the home port; and the ship's current uses.

— Richard Watts

News from the Diving and Water Safety Office

The Diving and Water Safety (DWS) Office at East Carolina University oversees training certification and safety of compressed gas diving, for both educational and scientific purposes. Director of Diving and Water Safety Steven Sellers, Diving Safety Officer Gary Byrd, and graduate assistant Mark Keusenkothen provide the services of the office. In January 2001, the DWS office hired Eric Diaddorio as the Marine Dockmaster. Diaddorio is charged with overseeing the 'fleet' of university research vessels.

This past year the office supported nautical archaeology, geology, and biology field projects. The early part of the season was devoted to scientific dive training course, COAS 5000, and participation in Phase I of the *USS Monitor* Expedition. The traditional field season kicked off with the open water training portion of scientific

diver training with the office providing support for the Maritime Studies field school in Edenton, NC. Phase II *Monitor* Expedition found the US Navy raising the steam engine and was followed by a combined ECU/NOAA dive team participating in Phase III to conduct a closer examination of the engineering spaces of the vessel. The summer field season drew to a close with the office providing support for the Maritime Studies field project in Wisconsin, conducting a video survey of natural hard bottom for Dr. Stephen Norton of the Biology Department, and another joint ECU/NOAA project to investigate a mystery shipwreck off of Islamorada in the Florida Keys.

In September, members of the Diving and Water Safety Office attended the 2001 American Academy of Underwater Sciences (AAUS) scientific diver symposium

held in Alaska.

In additional news, the Diving and Water Safety office will host the 2003 AAUS Symposium during the Spring Break of 2003, with strong Maritime and Geology emphasis. For more information on the diving safety program, or for a schedule of the upcoming training, visit our web site at: <http://www.ecu.edu/diving>

ECU SCIENTIFIC DIVER TRAINING

Zero Visibility! Deep Diving! Nitrox! Drysuit Training! This is just a sample of the modules East Carolina University students are trained in during the Scientific Diver course, COAS 5000, offered during the Spring Semester. This course is taught by Steve Sellers, Director of DWS, Gary Byrd, Diving Safety officer, ECU staff archaeologist Frank Cantelas, and Biology professor Steve Norton.

Meet the New Maritime Studies Program Students

In early August 2001, the newest class of the Maritime Studies Program entered the doors of East Carolina University for the Fall Semester. This diverse group comprises the twenty-first class to enter the program.

Sam Blake was born in New Hampshire and received his B.A. in Anthropology from Beloit College in Wisconsin. His research interests include Union and Confederate submersibles during the Civil War, as well as research on submarine warfare in World War Two. His ideal field project would be to search for the French cruiser submarine, *Surcouf*, which was lost in 1942.

Joshua Howard was raised on the North Carolina coast. He attended ECU for a short time before transferring to Appalachian State University, in Boone, NC, where he graduated with a B.S. in Public History and a minor in Archaeology. He spent the early part of his life working on shrimp and scallop trawlers, and most currently worked as a conservation intern at the *Queen Anne's Revenge* Project. His research interests include the African-American sailors of the Civil War and the Continental Navy of North Carolina.

Brian Jaeschke is a native of Wyoming, Michigan. He grew up in Glenview, Illinois and received his B.S. in Sociology from Lake Superior University. He has worked the last five years sailing on the lake freighters for numerous steel companies on the Great Lakes. He is a licensed able-bodied seaman, amateur photographer, and collector of ship memorabilia. His current research interests are museology, naval history, and Great Lakes maritime culture.

James Moore was raised in Abingdon, Virginia. Despite the fact that he grew up in the mountains he always had a love of marine life and nautical archaeology. He attended Eckerd College in St. Petersburg, Florida, where he graduated with a B.S. in Marine Biology. Before attending ECU he spent a year working at Janus Research, an archaeology firm in St. Petersburg. His current interests include nineteenth century steamships and liners, artifact conservation, and deep-sea exploration technology.



The 2001 entering Maritime Studies class: (front row) Richard Watts, James Moore, Chris Valvano, Heather White, Jackie Piero; (back row) Andrew Pietruszka, Brian Jaeschke, Josh Howard, Andrew Weir, and Sam Blake. Not pictured is Steve Williams.

Jackie Piero is from Columbus, Ohio. She graduated from Miami University of Ohio with a degree in Anthropology. She spent the summer after graduation in Mystic, Connecticut, studying in the Munson Institute Summer Graduate Program in Maritime History. After spending the winter working in England, she returned to intern at the Chesapeake Bay Maritime Museum before beginning at ECU. Her research interests include the Napoleonic Wars and the early years of the US Navy.

Andrew Pietruszka originally grew up in Tampa before going off to the University of Central Florida, which is near Orlando. He graduated in 2001 with a B.S. in Biology and a minor in Environmental Studies. He plans to focus on remote sensing while at ECU.

Chris Valvano is from Scranton, PA. He began his undergraduate career at Keystone College and graduated from Mercyhurst College in Erie, PA with a degree in Anthropology. His research interests include Dutch maritime history.

Richard Watts was born in Laredo, TX but because he moved around he considers Charleston, SC his home, where he has lived for the past nine years. He attended The Citadel where he graduated from the Honors Program with a B.A. in History. He is fluent in Spanish from his years in Uruguay and Argentina.

His research interests include military history, colonial America, and South Carolina during the American Revolution.

Andrew Weir was born and raised in Jonesville, MI. He graduated from Western Michigan University, in Kalamazoo, MI and received a B.A. in Anthropology and Comparative Religion. Prior to attending the Maritime Program at ECU, Andrew was a staff archaeologist for a cultural resource management firm based out of Jackson, MI. Andrew is an avid mountain biker.

Heather White is a native of eastern North Carolina. She graduated from East Carolina University in the fall of 2000 with a degree in Anthropology and a minor in Coastal and Marine Studies. During her undergraduate work, Heather concentrated in historical archaeology. Her research interests include North Carolina maritime heritage and conservation.

Stephen Williams is from Mannington, West Virginia. He graduated from West Virginia University with a B.A. in History. While there, he was an Undergraduate Research Fellow at the Region Research Institute. His research interests include such varied topics as Spanish maritime policy in the Mississippi Valley, ancient Basque culture, and GIS applications in archaeology.

– Richard Watts

Coastal Resources Management Ph.D. Program Underway

With the belief that no single academic discipline is sufficient to meet the challenge of effectively managing the interplay of social and natural systems in the coastal environment, the University of North Carolina System authorized East Carolina University to establish a Ph.D. Program in Coastal Resources Management (CRM) in 1998. The program was developed to meet the need for scientifically trained specialists able to move effectively between the worlds of research, policy, and management.



New maritime-track CRM Ph.D. students Russ Lewis and Kelly Gleason.

The inter- and multidisciplinary program is designed to build substantive understanding of coastal science, develop skills in the acquisition, interpretation and synthesis of scientific data on coastal environments, promote an understanding of the role of science in the policy process and contribute to the national need for trained individuals to pursue careers in coastal resources management.

Students pursue a program of classroom instruction, field research, an internship, and a doctoral dissertation. Study requires a concentration in one of four areas, with complementary work in two additional tracks. These are: *Coastal and Estuarine Ecology*, which focuses on near-shore and estuarine processes important for living marine resources and environmental quality; *Geosciences*, which emphasizes coastal processes, geomorphology, and hydrology as they affect use and development of the coastal margin; *Social Science and Coastal Policy*, which focuses on natural resource economics, politics and public

policy, demographic trends and social behaviors as they relate to coastal management; and *Maritime Studies*, cultural and historical dimensions of coastal resources with a focus on maritime history, nautical archaeology, and the role of maritime heritage in coastal use and development.

The Coastal Resources Management welcomed two new students this year, Russ Lewis and Kelly Gleason. Both are pursuing Maritime Studies as their primary track in the Coastal Resources Management doctoral program. Russ is a North Carolina native who comes to ECU after completing an M.S. in Environmental Science at the University of Guam and a B.A. in Geography from East Carolina University. Kelly moved to Greenville from Southern California. She received an M.Litt from the Scottish Institute of Maritime Studies at St. Andrews University in Scotland and a B.A. in the Program of Liberal Studies from the University of Notre Dame.

– Kelly Gleason

Great Lakes ‘Summer Cruising’ Aboard the Brig *Niagara*

Following the tradition set by many Maritimers before me, I spent three weeks volunteering on the Brig *Niagara* this summer. The Brig spent this summer solely on the Great Lakes, visiting Toronto and Kingston in Ontario, and was present for the reenactment of the Battle of Georgian Bay-Penetanguishene in Ontario. I was on board for most of the month of July when the *Niagara* pulled into port for the Great Lakes Tall Ship Challenge in Cleveland Ohio, and when it took part in a Parade of Sail for Detroit’s Tricentenary in Michigan.

At first, I was a little unsure of myself. There were so many things to do around the ship, and so many orders that I did not understand. There was a way of thinking and a way of doing things on the ship that was different than on land. We received three delicious meals a day, but got very little sleep at night. We rotated shifts throughout the day and night, so I was expected to stand watch at either 2:00am or 4:00am,

come hell or high water (and sometimes we got both). I lived in fear of tying a weak knot or pulling the wrong rope. My first time aloft was an eye opening experience. I found myself 80 feet in the air standing on a worn piece of rope, with another rope behind my back, and my crewmates expected me to let go of the sail (the only thing to hold onto) and help them furl.

After a couple of days, however, I managed to adjust. I soon got used to stealing an hour of sleep in a corner below decks during a break. I learned my knots and my lines, and I grew to love going aloft. By the time we pulled into Cleveland, I felt like an old salt (even though I still have a lot to learn). While in Cleveland and Detroit we provided tours to about 5000 people around the ship each day. They stomped around below decks, unable to believe that we actually ate and slept in such a small space. Although the tours were often the most tiring part of the job, they were also the

most rewarding. People were truly interested and open to learn about the maritime history and ship construction.

I also received an invaluable learning experience aboard the *Niagara*, one that I would recommend to anyone interested in maritime history. Most of my education so far has involved shipwrecks and learning about everything from the keel to the turn of the bilge, so it was useful and fascinating to see and feel a living, working ship. Not only did I learn about the physical workings of a ship, I got to observe the social functions of life aboard ship, and received short a glimpse of the hardships of life at sea.

If you would like to learn more about the U.S. Brig *Niagara* at the Erie Maritime Museum, in Erie, PA, please call (814) 452-BRIG, or alternatively, visit www.brigniagara.org, or email sail@brigniagara.org

– Kate Goodall

Lawrence E. Babits

JOURNAL ARTICLES . . .

- 2001 Pirates. *Tributaries* 11:7-13.
- "Book Archaeology" of the Cowpens Battlefield. *Fields of Conflict: Progress and Prospect in Battlefield Archaeology. British Archaeological Reports International Series* 958:117-126. Edited by P. W. M. Freeman and A. Pollard. Archaeopress, Oxford.

REPORTS

- 2001 Preliminary Report on Underwater Survey of the Newbold-White House Waterfront. Report submitted to the Newbold-White House, Hertford, NC.

BOOK REVIEWS . . .

- 2001 *Battle of Paoli*. Thomas J. McGuire. *Pennsylvania Magazine of History and Biography* (January/April 2001):132-134.
- *Creating Freedom: Material Culture and African American Identity at Oakley Plantation, Louisiana, 1840-1950*. Laurie A. Wilkie. *Choice* July.
- *Iron and Steamship Archaeology: Success and Failure on the SS Xantho* Michael McCarthy. *Choice* July.
- *Above and Under Hatches Recollections of James Anthony Gardner*. Edited by R. Vesey Hamilty and John Knox Laughton. *Nautical Research Journal* 46 (1):58.
- *Fiction as Fact: The Horse Soldiers and Popular Memory*. Neil L. York. *Choice* PAPERS and SYMPOSIA PRESENTED . . .

- 2001 "Book Learning, Living History: A Landsman's Practical Education." Sixth Maritime Heritage Conference, Wilmington, North Carolina.
- "Kirkwood's Delawares At Cowpens and Hobkirk's Hill: Observations on Company Formation and Casualties." Delaware Authors Day, Delaware Heritage Commission, Dover.

Michael A. Palmer

- Chair, Warfare and Plenary Session, International First Flight Symposium, Raleigh, NC, 24 October 2001.
- "12 O'Clock High: Manuscript, Book, and Movie." Paper presented at the International First Flight Symposium, Raleigh, NC, 23 October 2001.
- "12 O'Clock High: From the Aviator as Flier, to the Aviator as Manager," Paper presented at the International First Flight Symposium, Raleigh, NC, 23 October 2001.

Bradley Rodgers

PUBLICATIONS . . .

- Preliminary Site Analysis, Burrough's Site 0007EDS, Edenton, NC, 2001.
- Preliminary Site Analysis, Birmingham Scow Site, Sturgeon Bay, WI, 2001.
- Contributing Author, *Encyclopedia of Naval History*, ABC Clio Press, Editor Spencer Tucker, 2001.
- *The 1999 Bullhead Point Stone Barge Investigation, Interim Report*, Technical Publication No. 5, State Historical Society of Wisconsin, 2001, contributor.

PRESENTATIONS . . .

- "The Edenton Site," with Kate Goodall, Sixth Maritime Heritage Conference, Wilmington, NC, October 2001.

Timothy Runyan

- "Naval Power and Maritime Technology during the Hundred Years War, chapter in *Power and Domination: Europe and Armed Force at Sea during the Middle Ages and Renaissance*, eds. J. Hattendorf and R. Unger, in press, Boydell and Brewer, UK.
- Book Reviews in *Sea History, The Northern Mariner, Albion, Nautical Research Journal, Journal of Military History*.
- Presentations (2): Society for Historical Archaeology, Long Beach, CA. Several regional presentations.
- Program chair, Sixth Maritime Heritage Conference, Wilmington, NC.
- Chairman, the National Maritime Alliance. The Alliance is an umbrella organization that represents US maritime organizations nationally to gain public support for America's maritime heritage.
- Invited member of Marine Forensics Panel, Society of Naval Architects and Marine Engineers, Washington, DC
- Honorary Chair, benefit for the SS *William G. Mather* (618-foot Great Lakes bulk carrier), Cleveland, OH.
- Team-taught course for doctoral students in Coastal Resources Management program with David Cecelski, visiting Whichard Professor at East Carolina University.

Carl Swanson

BOOK REVIEWS . . .

- *Theories of Empire, 1450-1800*, edited by David Armitage. Reviewed in *Canadian Journal of History/Annales canadiennes d'histoire*, 36 (April 2001), 213-215.
- *Captain Blakely and the Wasp: The Cruise of 1814*, by Stephen W. H. Duffy. Reviewed in *Nautical Research Journal*, 46 (September 2001), 188.

CONFERENCE PRESENTATIONS . . .

- Commentator, "The Economics of War in the Age of Sail," paper presented at the annual meeting of the American Economics Association, New Orleans, Louisiana, 5 January 2001.

ECU MARITIMER THESES: 2000-2001

Beshears, Jemison R.

- (2001) *The Monte Cristi Pipewreck: An Archaeological Assessment of the Hull Remains of a Seventeenth Century Merchant Vessel at Monte Cristi, Dominican Republic*, M.A. thesis, Department of History, East Carolina University, Greenville. Timothy J. Runyan, Thesis Director.

Church, Robert A.

- (2000) *Depletion of the Sylvan Sea Seventeenth-Century English Shipbuilding*, M.A. thesis, Department of History, East Carolina University, Greenville. Timothy J. Runyan, Thesis Director.

Fontanez, Richard

- (2001) *Archaeological and Historical Investigation of the Spanish-American War Steamer Antonio Lopez*, M.A. thesis, Department of History, East Carolina University, Greenville. Timothy J. Runyan, Thesis Director.

Marcinko, Thomas

- (2000) *The Maritime History of Hatteras Inlet, North Carolina, 1846-1862*, M.A. thesis, Department of History, East Carolina University, Greenville.

McGuinn, Phil

- (2000) *Shell Castle, A North Carolina Enrpot, 1789-1820: An Historical and Archaeological Investigation*, M.A. thesis, Department of History, East Carolina University, Greenville. Gordon Watts, Thesis Director.

Morris, Jeff

- (2000) *A Historical and Archaeological Investigation of the Chickahominy Shipyard Site*, M.A. thesis, Department of History, East Carolina University, Greenville. Carl Swanson, Thesis Director.

O'Regan, Deirdre

- (2001) *Sailmaking in Nineteenth Century Southern New England*, M.A. thesis, Department of History, East Carolina University, Greenville. Timothy J. Runyan, Thesis Director

Tubby, Ray

- (2000) *Historical and Archaeological Investigation of the 1750 Spanish Plate Fleet Vessel El Salvador*, M.A. thesis, Department of History, East Carolina University, Greenville. Gordon Watts, Thesis Director.

Watts, Jenna

- (2000) *Archaeological Investigation of the Workboat Widgeon: A Possible Chesapeake Bay Schooner*, M.A. thesis, Department of History, East Carolina University, Greenville. Lawrence Babits, Thesis Director.

Williams, Kimberly

- (2000) *The Development of Alexandria's Maritime Economy and Ptolemaic Naval Policy*, M.A. thesis, Department of History, East Carolina University, Greenville. Anthony Papalas, Thesis Director.

Wolfe, Sarah

- (2001) *Historical and Cultural Study of Anglo-American Naval Edged Weapons - 1797-1815*, M.A. thesis, Department of History, East Carolina University, Greenville. Lawrence Babits, Thesis Director.

Where Are They Now? - 2002

A

James Allen - Institute for Western Maritime Archaeology, Berkeley, CA
Ray Ashley - Director, Maritime Museum of San Diego
Adrienne Askins - Archaeologist, Southwest Archaeological Center, National Park Service
Paul Avery - University of Maine Law School

B

David Beard - Independence Seaport Museum, Philadelphia
Colin Bentley - Sailing Dockmaster, College of Charleston
Kathryn Bequette - Director, Maritime Archaeology and Research, OELS, Westminster, CO and consultant with Denver Ocean Journey Aquarium
Jemison Beshears - Butterfield & Butterfield Auction House
Robert Browning, Ph.D. - Historian, US Coast Guard, Washington, DC
Steve Brodie* - Nautical Archaeologist, Tidewater Atlantic Research

C

Frank Cantelas - Staff Archaeologist, Maritime Studies Program, ECU
Tane Casserley* - Nautical Archaeologist, Monitor National Marine Sanctuary
Robert Church - Nautical Archaeologist, C&C Technologies Survey Services
Wendy Coble - Aviation Archaeology Specialist, Naval Historical Center
Patrick Cole - Writer living in Barcelona, Spain
Edwin Combs - Ph.D. candidate, University of Alabama
Michael Coogan - Offering Development Manager, Federal Sources Incorporated, McLean, VA
David Cooper - Resource Manager, Grand Portage National Monument, MN
Diane Cooper - Consultant for the San Francisco Maritime National Historic Park.
Lee Cox - Contract Nautical Archaeologist, Dolan Research, Philadelphia, PA

D

James P. Delgado - Executive Director, Vancouver Maritime Museum, Canada
Jeff DiPrizito - High School Teacher, New Hampshire
Robert Dickens - DVM candidate, University of North Carolina School of Veterinary Medicine
Wade Dudley, Ph.D. - Visiting Assistant Professor, Department of History, ECU
Stan Duncan - Regional sales consultant for NUS Consulting Group, Inc., an energy consultation firm

E

Rusty Earl* - Computer Science, NC State University
Rita Folse-Elliot - Archaeologist, PBS&J, Texas
James Embrey - Archaeologist, John Milner and Associates
Scott Emory - Maritime Archaeologist, McCormick, Taylor and Associates, Cherry Hill, NJ

Jeff Enright - Nautical Archaeologist and Diving Supervisor, PBS&J, Austin, TX

F

Sabrina S. Faber - Fulbright Coordinator, AMIDEAST, Yemen
Cathy (Fach) Green* - Assistant State Underwater Archaeologist, State Historical Society of Wisconsin
Patrick Fleming - Computing Company, Raleigh, NC
Richard Fontanez - Contract Archaeologist, Puerto Rico
Paul Fontenoy - Curator of Maritime Research and Technology, NC Maritime Museum
Kevin Foster - National Maritime Initiative, National Park Service, Washington DC
Joe Friday - Greenville Police Department

G

Jeff Gray - State Underwater Archaeologist, State Historical Society of Wisconsin
Joe Greeley - Interpretation Supervisor for the Dove, Historic St Mary's Citty, Maryland.
Russ Green* - Assistant State Underwater Archaeologist, State Historical Society of Wisconsin

H

Richard Haiduven* - Contract Archaeologist, Miami, FL
Wesley K. Hall - Director, Mid-Atlantic Technology, Wilmington, NC
Lynn B. Harris - Assistant Head, Underwater Division, South Carolina Institute of Archaeology and Anthropology.
Ryan Harris* - Underwater Archaeologist, Parks Canada
Nathan Henry* - Conservator, Underwater Archaeology Branch, NC Division of Archives & History
William Herring - Senior Account Executive, Sprint, Ph.D. Candidate, ECU Coastal Resources Management Program
Robert Holcombe - Senior Naval Historian and Curator, Port Columbus Civil War Naval Center, Columbus, GA

J

Claude V. Jackson - Book Editor, Wilmington, NC
John O. Jensen, Ph.D. - Assistant Professor, Department of History, University of Connecticut at Avery Point
Doug Jones* - Nautical Archaeologist, PBS&J, Austin, TX
Rick Jones - Ph.D. Candidate, ECU Coastal Resources Management Program

K

John Kennington - Manager, Borders Books, Atlanta, GA
Kurt Knoerl - Maritime Archaeological and Historical Society, Washington, DC
Mike Krivor - Nautical Archaeologist, Panamerican Maritime, Memphis, TN

L

Wayne Lusardi - Conservator, Queen Anne's Revenge Project, NC Division of Archives and History

M

Richard Mannesto - Great Lakes Shipwreck Historical Society, Sault Ste. Marie, MI
Amy (Knowles) Marshall - Archaeologist, US Army, Fort Bliss, TX
Timothy Marshall - Archaeologist, Fort Bliss, TX
Coral Magnusson - International Archaeological Research Institute, Honolulu, HI.
Tom Marcinko - South Carolina Department of Natural Resources, Charleston
Rodrick Mather, Ph.D. - Assistant Professor, Department of History, University of Rhode Island
Peter McCracken - Reference Librarian, University of Washington, Seattle, WA
John McWatters - Ph.D. candidate, Bowling Green State University, OH
Phillip H. McGuinn - Underwater Communications, Bedminster, NJ
Salvatore Mercogliano - Ph.D. candidate, University of Alabama and Visiting Assistant Professor, Department of History, ECU
Ann Merriman - Ph.D. candidate, University College London, and Minnesota Transportation Museum, Site Administrator
Sarah Milstead* - Conservator and archaeologist, R. Christopher Goodwin & Associates
Amy Mitchell - Ph.D. candidate, Pennsylvania State University
David Moore - Maritime Archaeologist, North Carolina Maritime Museum, Beaufort, NC
Scott Moore, Ph.D. - Lecturer, Department of History, University of Dayton
Shawn Holland Moore - Cooperative Education, East Carolina University
Stuart Morgan - Public Information Director, South Carolina Association of Counties
Jeff Morris - Office of Naval Intelligence
John W. (Billy Ray) Morris - Ph.D. candidate, University of Florida, and Director, Lighthouse Archaeological Maritime Program, St. Augustine, FL

N

Sam Newell - Greenville Public School Teacher

O

Chris Olson - Curator, Minnesota Transportation Museum, Railroad and Minnetonka Divisions
Deirdre O'Regan - Instructor, Seamester Program, Long Island University
Glenn Overton* - Owner, Cape Fear Yacht Sales and Carolina Beach Inlet Marina

P

Martin Peebles - Archaeological Illustrator, St. Petersburg, FL
Mike Plakos* - Project Archaeologist, Queen Anne's Revenge Project
Larkin Post* - Nautical archaeologist, R. Christopher Goodwin and Associates
Edward Prados - Consultant Navy Memorial Foundation, Technical Advisor, AMIDEAST, Yemen

Are They Now?

R

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

Phillip Reid - Consultant, Wilmington, NC

Shannon Adamczyk (nee Richardson)* - Government Loan Underwriter, Buffalo, NY

Todd Robinson - Librarian, Medical College of South Carolina, Charleston

Filippo Ronca* - Underwater Archaeology Intern, Parks Canada

Amy (Rubenstein) Gottschamer - owns real estate brokerage company in Santa Fe, NM and Lawrence, KS

Matthew Russell - Submerged Resources Center, National Park Service

S

John Schaefer - Management Consultant, Sacramento, CA

James Schmidt - Nautical Archaeologist, Naval Historical Center, Washington, DC

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

Joshua Smith - Ph.D. candidate, University of Maine, Orono

Chris Southerly* - NC Underwater Archaeology Branch, NC Division of Archives & History

Kathy Southerly* - GIS Technician, 3Di, Technologies, Wilmington, NC

James Spirek - Underwater Archaeologist, SC Institute of Archaeology & Anthropology

T

Bruce Terrell - Maritime Historian and Maritime Archaeologist, NOAA

William H. Thiesen, Ph.D. - Assistant Director and Curator, Wisconsin Maritime Museum

Hans Van Tilburg - Ph.D. candidate, University of Hawaii

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

Lex Turner - G.I.S. Coordinator, City of Greenville, NC

W

Kimberly Watson* - Ph.D. candidate, University of St. Andrews, Scotland

Daniel Warren - Nautical Archaeologist, C&C Technologies Survey Services

Sarah Waters - Instructor, Seamester Program, Long Island University

Gordon P. Watts - Retired from ECU Faculty in 2001, Director of Tidewater Atlantic Research and International Institute of Maritime Archaeology, Washington, NC

Jenna Watts - Archaeologist, PBS&J, Austin, TX

Wilson West - Ph.D. candidate, University of Alabama

Robert Westrick - Consultant, Toledo, OH

Sarah Wolfe - Conservator, Maryland Archaeological Conservation Laboratory

Judy Wood* - Archaeologist, Savannah District, Army Corps of Engineers

GRADUATE SCHOLARSHIP AWARDS FOR 2001/2002

Each academic year, the Graduate Department in History annually awards several scholarships to exceptional students. This year the following awards were made on December 7, 2001 (Pearl Harbor Day) at the Mendenhall Student Center.

- **The R.N. Lokken Scholarship in Early American History** was awarded to *Rob Thompson* and *Kate Goodall*. This award of \$3,000 is made to students whose thesis prospectus involve the study of early American history.
- **The Admiral Ernest M. Eller Prize in Modern Naval History** of \$300 was awarded to first- year graduate student *Joshua Howard*.
- **The Paul Murray Graduate Fellowship in History** for \$1,000 was awarded to *Alena Derby*.
- **The Lawrence F. Brewster Fellowship in History** is awarded to the most promising first year graduate students. *Joshua Howard* and *Samuel Blake* each earned a scholarship of \$1,500.
- **The John and Evelyn Boyette Graduate Scholarship in History** was awarded to *Rob Thompson* with a prize of \$500.
- **The Matthew and Barbara Landers Scholarship** of \$3,000 each was awarded to two outstanding Maritime History Students, *Steve Workman* and *Keith Meverden*.

MSA News MSA News MSA News

MSA NEWS

The Maritime Studies Association (MSA) is sailing strong at East Carolina University. Officers for the 2001-2002 academic year are: Steve Workman, President and ECU Graduate Student Advisory Council Rep; Chris Cartellone, Vice President and Professional Activities Coordinator; Keith Meverden, Secretary and Diving Activities Coordinator; John Hart Asher, Social Activities Coordinator; and Vicky Martindale, Treasurer. Throughout the year MSA sponsors social and professional activities, and provides a forum for graduate student members to discuss program-related concerns.

This year MSA assisted incoming maritime students by sending out 'welcome aboard' packets with information on the program and surrounding community. MSA started the year with a social reception for the new class and returning students. Other social functions included a Halloween party and a Christmas party.

Professionally, MSA sponsored students attending and speaking at the Sixth Maritime Heritage Conference, hosted this year by our program in Wilmington, NC, from October 25-28. MSA will provide financial assistance to students attending the Society for Historical Archaeology's 2002 Conference on Historic and Underwater Archaeology, held 8-12 January in Mobile, Alabama. Maritime students M.J. Harris and Scott Whitesides will be presenting findings from their thesis work at this conference. MSA is also coordinating social and professional functions with the Anthropology department's graduate students. In the spring MSA will support professional guest lecturers and help fund field trips to museums.

- Chris Cartellone

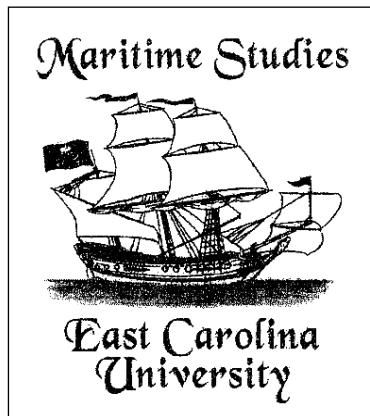
* degree pending completion of thesis

Now available for 2002 . . .

New Maritime Studies Association Shirts

For the current academic year, the Maritime Studies Association is offering some exciting new T-shirt and sweat-shirt/polo shirt designs.

T-shirts feature Graphic Attack's "Pirates and Pirate Hunters" design dis-



playing the images of fifteen different types of sailing craft on the back, plus the customized "Maritime Studies - East Carolina University" pirate ship logo on the front (shown at left). T-shirts are available in adult sizes from Small to 2XL at a price of \$10 each (price includes tax and shipping).

Sweatshirts and polo shirts feature an embroidered Maritime Studies Program logo created by former ECU Maritime student Tane Casserley. The logo includes the lettering, "Program in Maritime Studies / East Carolina University + Maritime History / Nautical Archaeology." In the center of

the logo are two crossed cannons and an anchor. The embroidered logo measures 2 3/4 inches across.



Sweatshirts are available in navy, gray, and red. Polo shirts are available in black, navy, green, red, and burgundy. Sweatshirts and polo shirts are available in adult sizes from Small to 2XL at a price of \$25 each (price includes tax and shipping).

For more information, contact Karen Underwood at the Maritime Studies Program office at Eller House, 252-328-6097.

Stem to Stern

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