

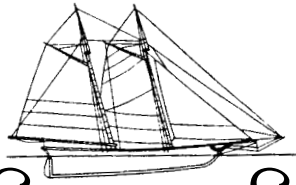
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Jackie Piero and Andrew Weir document a site in Leinster Bay, St. John, U.S. Virgin Islands.



Summer Field School 2002
Surveying in the warm, clear waters . . .



Stem to Stern

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

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We look forward to hearing from you.

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Stem to Stern

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From the Editor:

ECU's Maritime Studies and Coastal Resources Management Programs have had another year of interesting projects, and a new class of diverse and capable students has arrived. The Maritime Studies Program started a new summer field school in St. John, U.S. Virgin Islands and the fall field school returned to the Great Lakes, and to a new site on the Missouri River. Student projects were undertaken in various locations. We all congratulate our seven colleagues who successfully defended their theses. For details see www.ecu.edu/maritime.

As a member of the entering class, I am impressed both with the quality of the program faculty and the caliber of my fellow students. I look forward to working with them over the next two years, and anticipate great things from all of them. As always, thanks for your continued support. ⚓

— Jason Rogers

From the Director:

The past year has included a number of new departures for the Maritime Studies Program. Chief among those was the establishment of a memorandum of agreement with the St. John U.S. Virgin Islands National Park and Coral Reef Monument. After a visit to Cruz Bay and meetings with NPS archaeologist Ken Wild, Rafe Boulon and other staff members and Superintendent John King, we agreed to assist the Park in assessing its submerged cultural resources. We assisted the Friends of the Virgin Island National Park led by director Joe Kessler, by conducting a remote sensing survey at Hurricane Hole in order to place mooring buoys there to protect the coral. We followed with our first field school at St. John in June. It was an exciting opportunity and we are appreciative of the friendly reception we received. Maggie Day provided us with great accommodations at the ecologically-minded Maho Bay Camp. The Park Service is a great partner. We are very grateful for the support of Princess Cruises for transporting two students and a ton of scientific equipment from Florida to St. Thomas and back.

The program was honored with an award from the American Association for State and Local History for "Schooner in the Sand: Unraveling the Secrets of a Great Lakes Shipwreck." Nearly a decade of work went into the investigation of this 1830s vessel found at Naubinway, Michigan in the Upper Peninsula. It was truly a mystery. It required the forensic abilities of the scientists at the North Carolina State Bureau of Investigation who used ultraviolet light to read inscriptions on barrelheads from the shipwreck to determine its origin.

Further attention came to the program when our fall field semester for second year MA students began work along Lake Michigan. Brad Rodgers and Annalies Corbin led the effort to document shipwreck sites with the State of Wisconsin and Wisconsin Maritime Museum. The result was a good learning experience for the students, described on the front page of the Green Bay newspaper. This was followed by work in St. Charles on the Missouri River where the identification of the huge riverboat *Montana* made the front page of the St. Louis Post-Dispatch and later was a feature on National Public Radio.

We have been aided in all we do by members of the university administration. Dr. Thomas Feldbush has assisted with our external agreements and research, Arts and Sciences Dean Keats Sparrow supports our continued growth, most recently through the allocation of a new tenure-track faculty member for 2003. Our growing number of doctoral students in the interdisciplinary Coastal Resources Management Program is an increased challenge and welcome addition. They are a great stimulant. The four new doctoral candidates are profiled below.

We appreciate the support of CRM director Dr. Lorry King.

The new MA students are a unique blend. Evgenia Anichtchenko hails from St. Petersburg, Russia, while others have come from universities in California, Florida, Wisconsin, Connecticut and elsewhere. Their backgrounds range from Classics to industrial psychology.

Our research efforts are focused on several areas relating to ongoing projects and new ones. Larry Babits began an examination of the relationship of terrestrial and maritime sites – the land/sea interface on St. John. A grant from the National Oceanic and Atmospheric Administration – Ocean Exploration involves myself, Frank Cantelas and doctoral students Kelly Gleason and Russ Lewis. We are exploring the Outer Banks of North Carolina using our research vessels R/V *Perkins* and *Parker* to locate shipwrecks and other submerged sites. We are all impressed with the enthusiasm of NOAA-OE led by Captain Craig McLean and the NOAA National Marine Sanctuaries Program led by Dan Basta.

Our partnership with the North Carolina Department of Cultural Resources to establish a conservation laboratory for the artifacts recovered from Blackbeard's ship *Queen Anne's Revenge* (1718) is an exciting opportunity. Construction of the facility is underway and will bring new opportunities for faculty and students. Also, our partners, the NC Office of State Construction and Applegate Architects, completed planning for the Maritime Research Center at the former Ocracoke Coast Guard Station.

ECU library staff members Carroll Varner, Jon Dembo, Mary Boccacio, Ralph Scott, Jean Hiebert, Bryna Coonan, Henry York and Diana Williams, among others, continue to develop excellent collections for research.

Our volunteers and supporters continue to buoy us in the face of state budget shortfalls and other difficulties. Capt. Wally van Horn, Harry Stetser and Bob Richards have been superb in their dedication to the *Perkins*, as have George Harrell, Mike Vanderven and his staff at ECU. Jim and Bren Cheatham continue to encourage our progress. We welcome new supporters Jean Longhill, Don and Jeanne Leatherwood, and Russ Newell. All student recipients of scholarships are appreciative of donors such as Matt and the late Barbara Landers.

To all our friends we thank you for all your help this past year. ♡

– Tim Runyan

And of Special Note

And of Special Note:

The American Association for State and Local History honored the Maritime program with its **Certificate of Commendation** for "Schooner in the Sand: Unlocking the Secrets of a Great Lakes Shipwreck." The award is the culmination of the nation's "most prestigious competition for recognition of achievement in

local, state and regional history," wrote Terry L. Davis, the association's executive director, in a letter to ECU. Maritime Program faculty and staff worked at the Upper Peninsula of Michigan site from 1991 and conserved artifacts at the ECU laboratory. Artifacts included an unopened wooden box of Chinese tea. Materials from the 1830s shipwreck formed a popular exhibit at the Michigan Historical Museum in

Lansing which shared in the award. ECU faculty Frank Cantelas, Brad Rodgers and Tim Runyan (L-R) are shown receiving the award in Raleigh from Deputy Secretary of the North Carolina Department of Cultural Resources Dr. Jeffrey Crow. ♡



And then it happened . . .

The Bath Survey Expedition

It is 2:00 o'clock in the afternoon and the crew is weary from the June heat. Since 8:00 A.M. they have been navigating their research vessel through the shallows of Bath Creek, staring into computer screens that never seem to change. Then it happens.

"Mag Hit! Mark target time 02...03...57."

"Target Marked, course steady."

"Frank are you getting anything on sonar?"

"I see it. Linear object port side."

"Mark Target."

"Watch depth."

"Got it."

"Depth four feet. Depth four feet. Depth three feet. Watch the towfish."

The crew, distracted by the excitement of the hit, has ventured into shallow water. With one wrong move the equipment would be damaged or even lost, and with it all the team's hard work.

"Watch the fish."

"Got it"

"Depth two feet! Pull the fish now!"

"Fish up?"

"Fish Clear."

Close calls and potential targets provided excitement for a group of East Carolina University graduate students assisted by Frank Cantelas, staff archeologist for the Maritime Studies Program, during the Bath Creek Submerged Cultural Resource Survey. For a week in June 2002 residents of Bath, North Carolina once again saw pirates sailing on their waters. This time, instead of Blackbeard and his crew, it was Andrew Pietruszka and his crew of ECU pirates. Using the 25-foot *Privateer* as their flagship the team conducted a remote sensing survey of Bath Creek. Andrew developed the project in support of his M.A. thesis for which he is currently compiling a maritime history of Bath and evaluat-

continued on page 5

Field Schools: Field Schools:

2002 Fall Research Project...
Lake Michigan, Missouri River

Sails, Propellers, and Paddlewheels

The 2002 Fall Field Semester focused on shipwrecks in the Great Lakes and the Missouri River. Students had an opportunity to examine many types of wrecks in two different locations. Graduate students Jackie Piero, James Moore, Sam Blake, Brian Jaeschke, Andrew Weir, Chris Valvano, Andrew Pietruszka along with Dr. Annalies Corbin and Dr. Bradley Rogers traveled to Wisconsin in early September. The first stop on the five-week field school was Manitowoc, Wisconsin.

During the four-day stay in Manitowoc, students toured the Wisconsin Maritime Museum currently under renovation. Curator and Assistant Director Bill Thiesen, an ECU Maritime Studies graduate, gave us a personal tour of the new facilities. One of the centerpieces of the renovation will be the restored triple expansion steam engine

from the car ferry *Chief Wawatam*.

Students also got a unique first glimpse of how the engine worked as it had just become operational. The museum is also home to the USS *Cobia*, a World War II submarine.

On Saturday September 7, students performed a hull survey of the *Cobia*. The hull was photographed and examined for zebra mussel build-up. The submarine was in dry dock two years previously for scraping, and already mussel build-up was thick. On Saturday night, students had the opportunity to participate in the museum's educational overnight program on board the *Cobia*. Local school, scout, and other groups spend the night on the submarine learning about naval history through activities on board.

The group then proceeded to Birmingham's Resorts in Sturgeon Bay,



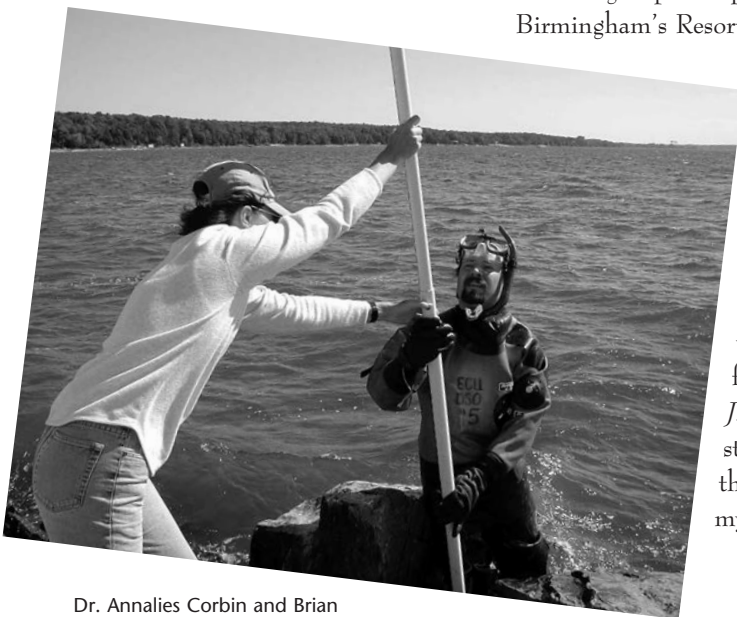
Brian Jaeschke, Andrew Pietruszka, Jackie Piero, James Moore, Chris Valvano, Andrew Weir, and Sam Blake in the Wisconsin Maritime Museum.

Wisconsin. The next two weeks were spent diving on three wrecks off the end of the old Graef and Nebel Quarry dock. Two of the wrecks were identified as the schooner *J. S. Williams* and steamer *Cleveland*, the third remains a mystery. During the

two weeks in Wisconsin, Russ and Cathy Green from the Wisconsin Historical Society were on site assisting with diving and updating the website. Students kept a daily journal informing the public of the activities on the Historical Society's internet web site: www.wisconsinhistory.org/shipwrecks/notes.

Besides diving on the three project wrecks, warm weather and water temperature enabled the team to explore other local vessels. These included the schooners *Fleetwing*, *Dan Hayes*, *Ida Corning*, *Oakleaf*, and the steamer *Empire State*. Rainy days allowed the class to tour the Door County Maritime Museum in Sturgeon Bay and to work on mapping the three wrecks. As each was mapped, a better understanding of its construction and disposition on the lake bottom became apparent. Research in area archives along with information provided by the diving showed that the three wrecks were intentionally sunk for use as foundations for the quarry dock.

After two weeks in Wisconsin, the team proceeded south to St. Charles, Missouri. The focus of the project was a large wreck along the Missouri River, believed to be the *Montana*. The *Montana* was built in 1879 and was one of the largest paddlewheel steamers to ply the river. In 1884, a snag caught one of her rudders forcing the ship into a railroad bridge. Today, the vessel's remains are partly submerged at the river's edge.



Dr. Annalies Corbin and Brian Jaeschke set up for a survey in Sturgeon Bay, WI.

Students focused on mapping the wreck site which included engine rails and a boiler brick pile on shore. Besides mapping, the students did extensive excavation in and around the ship's hull. The vessel was discovered to have skegs which were not found on many vessels until the turn of the century. The team was assisted by Steve Dasovich of SCI Engineering. The excavation received extensive media coverage including a front-page article in the St. Louis Post-Dispatch, a live news broadcast from the site, and a five minute feature on National Public Radio. Students updated a daily journal on the Maritime Studies website called 'Waterlogged': www.ecu.edu/maritime/Steamboat.htm.

During the two-week project, the group recovered artifacts including iron



At left: Dr. Bradley Rodgers and Jackie Piero at work excavating the Montana. Above, Sam Blake takes notes as the crew excavates the Montana.

nails and fasteners, a lead pencil, and cordage. The items will be catalogued, conserved, and returned to the state of Missouri. Overall, the five-week field semester produced important data and

maps, and allowed students to study many different aspects of maritime commerce and transport. ⚓

– Brian Jaeschke

Field Schools continue on page 6

THE BATH SURVEY EXPEDITION, continued from page 3

ing the potential of Bath Creek as a site of submerged cultural resources.

The area of Bath and Back Creeks, which make up the port of Bath, are vital to understand colonial North Carolina. This area was one of the first settled in Eastern North Carolina by English colonists. On March 8, 1705, the North Carolina general assembly passed an act incorporating Bath Town. In 1716 the Lords Proprietors designated Bath as one of the five ports of entry in colonial North Carolina. Maritime commerce in Bath was most prominent from 1706 to 1730. During this period Bath serviced both the Neuse and Pamlico Rivers, marking this as the height of shipping in the port.

Although Bath lost its significance as a port of entry by the end of the Revolutionary War, the town continued

to have a communal maritime context. Bath has existed uninterrupted from its founding in 1705 until the present. During this time residents of Bath continued fishing and shipping in the area. Along with Port Bath's shipping tradition it was also the location of a small, but important, ship building industry, which has existed since the town's beginning.

Bath's 300 years of maritime history make it a prime location for assessment of submerged cultural resources in Eastern North Carolina. The survey of Bath Creek covered approximately two nautical miles from the North Carolina Highway 92 Bridge to the confluence with the Pamlico River. Navigation was difficult at times due to the shallows of the creek and the numerous crab pots that littered the area like mines. A series of lanes were developed for navigation

purposes using Oceanographics Hypack Max hydrographic software, which allowed the team to conduct a systematic survey of the creek. Data was collected using a proton procession magnetometer and a 600 kHz side scan sonar. The data collected will be analyzed over the winter to determine potential targets for ground truthing in the spring.

Special thanks to Dr. Annalies Corbin for her guidance and support of the project, Frank Cantelas for his passion for remote sensing, Dave Krop for his diligent monitoring of the sonar, Mike Hughes and Kate Goodhall for their professional work, and to the residents of Bath for their support of the survey. ⚓

– Andrew Pietruszka

2002 Summer Field School...
St. John, U.S. Virgin Islands

Strong Currents, Sea Urchins, and Fire Coral

The ECU Program in Maritime Studies conducted its annual summer field school in the warm, clear waters of St. John, U.S. Virgin Islands June 2-22, 2002. Under the guidance of Dr. Brad Rodgers and Dr. Annalies Corbin, students performed the first systematic underwater surveys of Leinster Bay, Water Creek, and the *Santa Monica*, an English warship that sank in 1782. The field crew worked hand-in-hand with the U.S. National Park Service's park archaeologist Ken Wild. St. John Park Superintendent John King and Dr. Tim Runyan recently signed a five-year Memorandum of Agreement for cooperative work. Runyan worked with students and the Park Service along with faculty members Dr. Larry Babits and Frank Cantelas. David Brewer, archaeologist for the U.S. Virgin Islands based at St. Thomas, provided valuable support.

Inhabited since pre-Columbian times, St. John is rich in maritime history.



Dr. Bradley Rodgers, John King (Superintendent, National Park Service St. John), Dr. Timothy Runyan, Ken Wild (Archaeologist, National Park Service St. John), and Frank Cantelas.



Sam Blake records the Leinster Bay site.

Danish colonists first settled the island in the late 1600's. In colonial times, seventy percent of the plantations grew sugar cane in an effort to quench the Old-World's sweet tooth. Plantations demanded a massive labor supply from Africa and St. John became a critical stopover on the Middle Passage of the triangular trade. Captains received sugar, molasses, and rum in exchange for their human cargo. In response to their horrible treatment, slaves organized a major revolt in 1733 that was eventually put down by French soldiers. The Virgin Islands were sold by Denmark in 1917 to the United States. The Rockefeller family acquired a portion of St. John and in 1956 donated a significant portion of their property to the U.S. government. The National Park Service now monitors and protects two-thirds of St. John, including much of the surrounding coral reef.

The first week of fieldwork focused on the water and shores surrounding Leinster Bay on the north coast of the St. John. Leinster Bay is the site of Annaberg Plantation, a sugar plantation that thrived during the eighteenth and nine-

teenth century and is now a popular tourist attraction. Initial objectives included relocating a previously discovered ballast pile, mapping and photographing the wreck and entire bay, and locating other submerged cultural resources in the area. Students divided into three field crews. Included with the ECU students were Will Spoon of Warren Wilson College, Asheville, NC, and Brooke Lowry of St. Mary's College, San Francisco, CA. Crew chiefs were Alena Derby, Kelly Gleason and Russ Lewis.

Crew 1 conducted a shoreline survey of the bay. By using an E.D.M. and transit, the maritime students fixed a shore datum and recorded measurements later used for constructing the site map. Crew 2 located the ballast pile in eight to ten feet of water a few hundred yards off shore. The third crew performed a line search to locate objects relating to the wreck site. Strong currents, sea urchins, and fire coral slightly hindered the search. A baseline was put in place. Students then mapped the ballast pile.

National Park Service archaeologist Ken Wild requested an extensive remote sensing survey of Leinster Bay in an attempt to discover magnetic anomalies and locate distinctive features of the seabed. ECU staff archaeologist Frank Cantelas captained the *Beluga*, a Park Service boat equipped with ECU's pro-

ton procession magnetometer and 600 kHz side-scan sonar. The *Beluga* pulled the magnetometer on an eighty-foot cable while Hypac Max marine survey software recorded the raw data from the remote sensing equipment. Cantelas guided the boat over hundreds of track lines using a geo-rectified satellite photo of St. John in conjunction with a grid overlay on a laptop computer. The data are currently being evaluated.

While remote sensing continued, Dr. Rodgers excavated two test trenches on the ballast pile. Trench I failed to expose any part of the ship or artifacts. Trench II exposed a significant portion of the hull and a few artifacts, including a highly concreted brown glass bottle bottom, red bricks, one piece of lead caulking used for repairing the vessel, and numerous flint cobbles. The glass bottle bottom and flint cobbles were shipped to ECU for further conservation and the remaining artifacts were photographed digitally and returned to the site. The second test trench revealed important diagnostic features about the vessel. Futtocks, floor, and outer hull planking were visible, though no ceiling planking was found. The presence of sacrificial planking, probably pine, and sheathing suggest the vessel worked primarily in warm waters where marine wood-borers thrive. Sheathing and sacrificial planking were used to prevent worms from reaching the critical hull structures. The hull, however, showed extensive damage from teredo worms.

The presence of the worms, combined with the lack of ballast trail, indicates the vessel likely sank while moored or anchored in the bay.

Only twenty-five percent of the hull remains. The vessel has ten-inch sided and eight-inch molded timbers. The ship was between 100 and 200 feet in length and was approximately 200 to 250 tons

burden. The field crew estimates it drew six to eight feet of water and was likely a 3-masted vessel rigged in a coasting configuration. The vessel is double-framed; two pieces of wood are joined with butt scarphs, a technique popular from the 1790's to 1820's. This fact, combined with the size and placement of parts and small number of iron nails, suggests a construction date from the late eighteenth century to early nineteenth century (Federal Period), during the heyday of Annaberg Plantation.

While students conducted the initial investigations at Leinster Bay, Dr. Larry Babits and doctoral student Melissa Hendrickson researched archival records concerning plantations and fortifications on St. John. After discovering the remains of what appeared to be an old wharf a few hundred yards from the wreck site, they examined numerous maps of Annaberg Plantation hoping to confirm their suspicions. Dr. Babits conducted additional research in the Danish archives in Copenhagen the following fall, but turned up no written evi-



National Park Service boat used to transport team members and supplies.

dence of the wharf. The structure consists of large two- and three-foot carved stones extending forty-five feet from the shore, a mere twenty feet from the remains of an old Danish road. The wharf is approximately ten feet wide and many stones have been washed out. The majority of the cobbles are completely

submerged, even at low tide. The seabed on the east side of the wharf consists of fine sand and reaches a depth of four to five feet, ideal for loading and unloading of cargo and passengers. Although time was limited, maritime students recorded the measurements of the structure and took compass bearings with the intent of further research. The wharf, combined with the ruins of the sugar plantation, is a reminder of the importance of colonial goods and their role in shaping trade in the Caribbean.

The second week of field school took place in Water Creek, off Hurricane Hole, on the eastern end of St. John. The shore surrounding the creek slopes down at a sixty-degree angle and the water depth drops quickly to thirty feet. This distinctive feature made Water Creek a popular location for careening and refitting ships. Objectives for the week included locating the "Creamware Wreck," a reported shipwreck in the creek, and mapping the bay with the location of the shipwreck. Secondary objectives concerned documenting and

dating a cannon buried upright on the rocky shoreline and locating the ruins of a plantation great house and well used to provision ships.

Maritime students conducted an initial survey of Water Creek. Five students staged at ten-foot intervals swept the waters around the supposed wreck site searching for significant diagnostic items. Ken Wild followed the divers with a metal detector. Fine layers of sand and silt can easily

cover a vessel, making the metal detector a vital tool for locating a wreck in such an environment.

In addition to the metal detector, a water induction dredge allowed students to remove sand, silt, and other debris. The material was pumped to the surface

Continued on page 8

FIELD SCHOOLS, continued

where it was analyzed in detail. The use of the dredge reduced underwater visibility in the area of study from forty feet to five feet in a matter of minutes. The search for the “Creamware Wreck” proved futile by the end of the week, but students received valuable training in the proper use and handling of a water induction dredge.

Due to the fact that Water Creek was a popular careening spot for vessels, the large iron cannon buried upright on the shore was not unusual. Crews most likely moored their vessels to the cannon while they made repairs. Two maritime students performed a partial excavation of the cannon in order to determine its approximate age and other identifying features. Two feet of the barrel stood above the rocks and broken coral on the beach. The bore was filled with dirt and debris and the entire cannon was highly corroded and rusted. The cannon was also home to three small scorpions, common residents on St. John. After the excavation of a few feet of soil, the students recorded the basic features of the cannon. The muzzle is two feet in circumference and the bore is three inches in diameter. A double-reinforce is located three feet, four and one-half inches from the muzzle and all other reinforces have long since been corroded. The true diagnostic features of the cannon, the trunnions, are located three feet eight inches from the muzzle and are positioned on the edge of the cannon as opposed to the center. All measurements are approximate due to the extreme nature of corrosion on the weapon. Taking these features into considera-

tion, the cannon most likely dates to the late 1600s.

Historian and St. Thomas resident David Knight addressed the cannon in a presentation to the maritime students. In 1718, the Danish established a fortification in the vicinity of Water Creek. A fort may have existed earlier, but no solid evidence exists. The fort was purposely destroyed in 1733 after the slave revolt and the troops moved west to Cruz Bay. Knight believes the cannon came from the 1718 fort and was buried after the destruction of the fort. He concurs with the estimated late seventeenth century date of founding for the cannon. It was common practice to move cannon from fort to fort or ship to ship.

A small field crew received permission from the National Park Service to locate and document the remains of a plantation great house and well on the slopes surrounding Water Creek. The heat, rocky terrain, and dense growths of mangroves, cacti, and brambles made work more difficult than expected. Although maritime students failed to locate the great house, they did discover the well used to provision vessels. The well is composed of large stones and cobbles stacked upon one another, and the stones above ground are joined with

crude cement. The well is nineteen feet, six inches deep and twelve feet in diameter. The stones extend two feet, six inches above ground level. The well was obviously used within the past century due to the presence of a trough extending twenty-three feet from the side.

Husbandry was popular on the island and goats and mules continue to populate the adjacent hills. The students photographed, measured, and diagramed the well. The exact location of the watering hole was marked with a hand-held G.P.S. unit. The site is littered with red bricks, pot handles, bowl rims, and brown glass and may relate to the ruins of the great house.

The final week of field school focused on Hanson Bay, the wreck site of the *Santa Monica*. The field crew relocated the ill-fated vessel, mapped the site, and fixed shore datum with an E.D.M. and transit. The *Santa Monica* rests in 30-50 feet of water and approximately one-third of the hull is visible. All frames and planks have collapsed inward and heavy metal sheathing and massive through pins are exposed. The exposed wood has been mineralized. The keelson and mast saddle are the most prominent features of the site. The massive dimensions of the timbers, twelve inches by ten

inches, and the solid framing suggest the vessel was a formidable warship. The bow of the vessel points directly at the shore. The overall wrecking process suggests a buoyant hull wreck type.

The *Santa Monica* was initially a 25-gun Spanish frigate. The British captured the vessel off Gibraltar in 1779 and increased the number of guns to 36 eighteen-pounder guns. The *Santa Monica* was



Heather White and Andrew Weir work together on the Leinster Bay shipwreck, St. John, U.S. Virgin Islands.

a fifth-rate vessel with a standard crew of 250 seamen but carried up to 450 seamen in times of war. The British Admiralty sent the vessel to the Caribbean to stop American ships from attacking Tortola in 1782. After provisioning for a major voyage, the vessel hit bottom four times in a storm and immediately began sinking. Captain John Lindsey attempted to run the ship aground. Much of the cargo was salvaged.

Salvors relocated the wreck in 1970 and further looted the site. The *Santa Monica* is historically significant and demands further study. The vessel fought in the European wars and the American Revolutionary War and will provide an excellent site for future field-work.

The ECU Program in Maritime Studies owes special thanks to National Park Service superintendent John King,

archaeologist Ken Wild, and diving officer Thomas Kelly for their invaluable support. Additional thanks goes out to Friends of the Park director Joe Kessler, historian David Knight, ECU diving safety officer Gary Byrd and Maggie Day and her accommodating staff at the eco-friendly Maho Bay Camps. ⚓

– Dave Krop

Ocracoke Field Week 2002...

Mapping, Excavation, and Remote Sensing

From April 8 to 12, 2002, Maritime students were trained in research methods and ship construction classes on Ocracoke Island. The week-long program covered mapping techniques, use of the Red Light electronic distance measure for shoreline survey, remote sensing, and provided students with a hands-on opportunity to observe ship construction techniques, which they had previously studied through the construction of models. The classes were led by Dr. Bradley Rodgers, instructor for the ship construction course, Dr. Annalies Corbin, who taught Research Methods, Frank Cantelas, staff archaeologist and Wayne Lusardi, an ECU alumnus working on the *Queen Anne's Revenge* project. Student participants included Andrew Pietruzska, Andrew Weir, Chris Valvano, Samuel Blake, Brian Clayton, Jackie Piero, Kelly Gleason, Russ Lewis, Steve Workman, Heather White, Keith Meverden, Danielle LaFleur, Jeanne Hiebert, Dave Krop, Josh Howard, James Moore, Mike Overfield, Brian Jaeschke, and Steve Williams. Students sailed to Ocracoke



Maritime Studies Program vessels R/V Perkins and R/V Parker at Ocracoke next to the Cedar Island ferry.

aboard the 65-foot R/V Perkins, and the 25-foot Parker and performed various sea duties aboard the two vessels.

Once on Ocracoke, students were divided into three groups, one of which learned remote sensing with Frank Cantelas. The other two groups, led by Drs. Rodgers and Corbin, studied the wreck of the *Cathy*. Local lore has it that the *Cathy* was wrecked in 1882, during a storm. Students received instruction in excavation techniques, then Dr. Rodgers led a discussion of the relevant construction techniques and materials, which could be seen on the wreck. The next two days were devoted to mapping, excavation, remote sensing, and shoreline survey techniques. Each student was responsible for keeping a field notebook.

Perhaps the highlight of the trip was the great Shrimp Off of 2002, which took place on Thursday night at a local restaurant. On one side of the table, representing the Maritime faculty was Frank Cantelas, on the other was Chris Valvano, representing the student body. The contestants amazed the onlookers. After an exciting battle Frank succeeded in downing 235 shrimp, to Chris's 219!! A good time was had by all the spectators, although it must be said that afterwards both competitors seemed a little under the weather. It was an excellent way to cap off the week's activities. The following morning was spent packing up and returning to ECU. ⚓

– Sam Blake

Monitor Update:

An exciting summer at the USS *Monitor* concluded with the successful recovery of the ironclad's turret by the US Navy. It was moved to the Mariners' Museum (<http://www.mariner.org>) in Newport News, Virginia, where it will undergo conservation and be displayed in the new *Monitor* Center. This exciting climax came after many years of effort by John Broadwater and his staff at the Monitor National Marine Sanctuary (<http://monitor.nos.noaa.gov>), one of thirteen national sanctuaries administered by the National Oceanic and Atmospheric Administration.

While the navy gets the lion's share of the credit for the recovery, the NOAA dive team composed of several groups and individuals provided support and expertise for site recording and archaeological documentation. Coordinating this effort was the job of the National Undersea Research Center based at UNC Wilmington. It included nine divers from ECU's Maritime Studies Program and the Office of Diving and Water Safety.



Tane Casserley working on the *Monitor* site.

The navy arrived on site in June aboard the 300-foot derrick barge *Wotan* ready for around the clock operations. Throughout the 45-day mission over 150 navy divers rotated through the

project using surface supplied and saturation diving techniques to prepare the turret for recovery. Surface supply divers worked in teams of two with a bottom time of 25 minutes. The saturation divers, living in a chamber and working from a diving bell, spent 5-hour shifts on the site and remained in saturation for seven days. Using helmet-mounted cameras divers were in constant communication with NOAA archaeologists including Tane Casserley, a maritime graduate student.

When the *Monitor* sank, it capsized and the turret landed on the bottom before the hull came to rest on it. The first big task for the navy was to cut away a section of the armor belt and decking overlaying the turret and move the material a safe distance off the site. A lifting device called the "spider", designed to go over the turret and grasp it from the bottom, was lowered to the bottom using the huge crane on the D/B *Wotan*. Navy divers partially excavated the turret's interior to place supporting straps around the huge Dahlgren cannons. Unexpectedly, they encountered human remains, one of two unfortunate sailors found in the turret. Recovery operations slowed as the remains were carefully removed for later military burial. On August 5, with everything ready, *Wotan's* crane lifted the turret and spider, weighing 220 tons, and placed it gently on the barge's deck.

Through much of the project, the NOAA dive team operated off the R/V



ECU crew working with sub-bottom profiler on *Monitor* site.

Cape Fear dropping 8 to 10 divers on the site every day. Breathing tri-mix, a mixture of helium, oxygen, and nitrogen, divers stayed on the bottom for 25 minutes, but because of the great depth, 240 feet, it took another 84 minutes to decompress before they could surface. The dive team devoted their dives to documenting the site on video concentrating on the areas impacted by the turret lift. They also mapped the affected area and recovered many small artifacts. East Carolina's participants included Gary Byrd, Frank Cantelas, Tane Casserley, Alena Derby, Joe Hoyt, Mike Hughes, Mark Keusenkothen, Earl Parker, and Steve Sellers.

Following the lift, the turret was transported to Newport News, Virginia, by barge where it was placed on a truck and moved to the Mariners' Museum. Under partnership with NOAA, Mariners' Museum conserves and curates all materials recovered from the *Monitor*. The museum is also developing the *Monitor* Center, a new building where *Monitor* artifacts will be displayed and the history of the *Monitor* interpreted. Upon arrival, the turret was placed in a 95,000-gallon tank built by Newport News Shipbuilding. According to curator Curtiss Peterson, conservation will take 12 to 15 years. Maritime graduate Wayne Lusardi spent part of the fall as assistant conservator, treating artifacts and helping direct the turret excavation.

Through the remainder of the summer and fall NOAA and museum staff methodically excavated the turret's interior, making many unexpected discoveries. The remains of two sailors were excavated along with many pieces of silverware. By far the most impressive features are the two 11-inch Dahlgren cannons, which were fired against the *CSS Virginia*. These massive guns still rest in their carriages. Several people from the Maritime Program assisted with the fall excavation: Frank Cantelas, Alena Derby, Kate Goodall, Mike Hughes, and Jason Paling.

Undoubtedly, many exciting discoveries will be made as the large components recovered from the *Monitor* in the past few years are dismantled and undergo conservation. Major pieces recovered from the wreck, including the propeller, engine, and turret, could take decades to completely conserve and place on display. ⚓

– Frank Cantelas



Frank Cantelas standing next to the muzzle of the *Monitor's* starboard cannon.

Executive-in-Residence Lecture Series Initiated

Highlighting the multidisciplinary mindset of the Coastal Resources Management program, the CRM program, with the support of NOAA's Coastal Ocean Program, has initiated a two-year Executive-in-Residence lecture series, linking academic perspectives with professional experience by inviting academics and professionals alike to speak on a variety of topics concerning the coast. Despite rigorous classroom and research requirements, graduate students in coastal studies have limited opportunities to learn about the day-to-day realities that confront professional coastal resource managers. Senior executives drawn from federal, state, and regional agencies, as well as non-governmental advocacy groups, and private industry, will be invited to ECU for several days. During their visit, they make informal and formal presentations, visit with students and faculty, and deliver at least one major presentation open to the campus community and public.

The Executive-in-Residence series has featured such speakers as Dr. Donald Davis, Administrator, Louisiana Applied and Education Oil Spill Research and Development Program, Dr. Larry McKinney, Senior Director for Aquatic Resources for the Texas Parks and Wildlife Department, Dennis Galvin, former deputy director of the National Park Service, and Dr. Joshua Reichert of the Pew Trust.

An invaluable educational opportunity was also offered to the students and faculty of ECU when 12 participants representing several different organizations met at ECU to discuss the UN sponsored Global Terrestrial Observing System program. The expert meeting

developed the elements of an implementation plan for coastal activities within GTOS. This was the first of three workshops planned to accomplish that goal. The focus was on current and emerging observational requirements and the availability of terrestrial/coastal data for global studies, including issues related to data access and harmonization, data management and the use of key datasets. Another main theme of the conference was to develop a coastal module of GTOS, including defining boundaries, measurements needed, and the technology needed. CRM'ers were treated to an inside view of how policy is formed and how compromises are made in the real world. This visit provided an opportunity to hear about management on the front lines, as well as the chance to visit in small groups with senior executives. ⚓

– Jessica Curci

New CRM Students

The Coastal Resources Management program welcomes four new students this year, Stephen Workman, Mark Wilde-Ramsing, Bill Herring, and Jessica Curci.

Steve is from Minnesota, where he received a BS in Business Administration from Mankato State University. An intelligence officer in the U.S. Navy from 1977-2000, he served aboard the aircraft carriers *Ranger*, *Kitty Hawk*, and *Abraham Lincoln*. Steve has an MA in Government from Georgetown University and recently completed his MA in Maritime Studies at ECU.

Mark received his BA from Wake Forest University and his MA from Catholic University of America. He later joined the North Carolina Division of Archives and History/Underwater Archaeology Branch, where he developed their sub-merged cultural resource management pro-

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New CRM Students, continued

gram. During his career with the state, Mark has surveyed many miles of North Carolina waters, supervised the investigations of countless submerged resources from preliminary examinations to salvage recovery—dugout canoes to twentieth-century steamers, and written numerous position papers regarding their management.

Bill received his BA in History from ECU and MA in the program in Maritime Studies. He worked for the NC Division of Archives and History. He is employed by Sprint.

Jessica received her BA in Art History and English from Boston University, and then worked with the city archaeologist of Boston, while employed as an assistant editor of an art magazine. She moved to Greenville from New York after receiving an MSc in Archaeology from the University of Southampton in England. ⚓

— Jessica Curci



ECU MARITIME PROGRAM GRADUATE . . . Rob Church returned to Greenville to lecture and meet with students and faculty concerning the remarkable discovery of the WW II German submarine U-166. The U-boat was discovered by Rob and ECU graduate Dan Warren in 5,000 feet of water using an AUV with sonar. Rob and Dan are employed as nautical archaeologists for C&C Technologies in Lafayette, LA. The story made national headlines and continues to receive attention.

CRM trip to Washington, DC

Coastal Resources Management PhD students spent three days in Washington, DC this past March with Dr. Timothy Runyan. The objectives were not only to meet with government officials involved with coastal and maritime issues, but also to advocate for the National Maritime Heritage Act (NMHA), a congressional funding source for maritime research and education. Stops on the three-day tour included sit-down sessions with William Dudley, Director of the Naval Historical Center at the Washington Navy Yard; Dwight Pitcaithley, Chief Historian of the National Park service and ECU-Maritime Studies alumnus Kevin Foster from the NPS Maritime Heritage Office; Thomas Mayes, lawyer for the National Trust for Historic Preservation; and Captain Craig Maclean, head of NOAA's Office of Ocean Exploration.

A significant part of the trip was a meeting with congressional staffers in the office of NC Senator John Edwards. Staff members Kathryn Marks (representing Senator Edwards of NC), Wayne Boyles (representing Senator Helms of NC) and Sheila Duffy (representing Senator Dodd of CT) met with ECU PhD candidates and discussed the NMHA, alternate funding sources, and strategies for moving the bill to the Senate floor. The work/study trip has yielded results beyond expectation by renewing interest in revision of the current NMHA and opening doors for a NOAA-ECU ocean exploration partnership. ⚓

— Russ Lewis



From left to right: Russ Lewis, Wayne Boyles (from the office of NC senator Jesse Helms), Kathryn Marks (from the office of NC senator John Edwards), Sheila Duffy (from the office of CT senator Christopher Dodd), Tim Runyan, Kelly Gleason, Chris Ellis, and Melissa Hendrickson.



NORTH CAROLINA HISTORIAN . . . David Stick, author of books on the Outer Banks and the popular *Graveyard of the Atlantic* visited Eller House in April to share his knowledge and experiences. Shown from left to right are Dani LaFleur, Tim Runyan, Josh Howard, Heather White, David Stick, James Moore, Annalies Corbin, Dede Marx, Brad Rodgers, and Andrew Pietruszka.

National Park Service Internship

“Toss me the stern line.” Matt Russell stood on the dock next to the National Park Service boat, ready to tie it up for the evening. We had just finished our first day of remote sensing in New York Harbor, during which my major victory was won in not falling overboard. Aware of my limited experience with boats, Matt made sure before we left to show me where everything was and what not to touch. Consequently, I now knew what the stern line was and where it was kept. No problem. I grabbed the stern line and tossed it lightly into Matt’s hands, pleased with myself until I saw the bemused expression on his face. “Do you want to attach it to the boat first?” He asked.

This little episode was embarrassingly typical of my internship with the National Park Service Submerged Cultural Resources Center team, but each time it was gently suggested that I try whatever I was doing another way. I learned. Oh, did I learn. I learned how to tie a bowline knot. I learned that you really can figure out incomprehensible devices if you read the instruction manual long enough. I discovered that everything is fixable if you have enough duct tape. I know now that the most important people to be friends with are the maintenance staff. Fed Ex is your friend. If there is air in your tank or film in your camera, stay in the water. Always keep your cool: grin at inconvenience, smirk at disaster. Zero-visibility dredging can actually be fun. Always have at least three extra pencils with you while mapping. Keep at it until the job is done right.

I cannot possibly condense all that I learned this summer into one article. Most importantly, I now know that I want to be an underwater archaeologist. I like the mapping, the research, the sur-

veying, the odd hours, and the teamwork. I am sure now that it is not simply an excuse to work in the water, not a romantic dream of exotic locales and treasure. Working in the Hudson River for six weeks convinced me of that. ♪

– Jackie Piero

Maritime Museum Summer Internship

In the summer of 2002, I did a short internship with the North Carolina Maritime Museum in Beaufort, North Carolina. I interned at the museum to help facilitate my understanding in the operation, job descriptions, and daily routines of the museum personnel. The internship was fulfilling and met my expectations. My daily routine consisted of working on the Barbour Boat collection. This collection was acquired by the museum when the facility housing the artifacts in New Bern, NC was to be torn down and the property transferred to nearby Tryon Palace. Most of the documents and photographs were transferred to Special Collections at East Carolina University’s Joyner Library. The material that I worked with included the lines plans or naval architectural drawings of various vessels that the company built or retrofitted. I worked with “Re: discovery” software used to track collections by recording artifact data. My previous experience in the boat manufacturing industry and a year of naval architecture school helped me to understand the drawings and transfer the data to the program. The drawings ranged from the 1940s to the 1980s. The majority of the work done at Barbour Boat Works consisted of US Naval vessel retrofits. Overall the internship was interesting and the people I worked with were very helpful. ♪

– Brian Clayton

Where the River Meets the Sea:

A Journey to the NC Estuarium

Standing on the newly constructed riverwalk I calmly observed the sights that totally surrounded me. A few mullet periodically jump out of the flowing river before me while a great blue heron wanders around the marsh behind me in search of its next meal. Directly beneath me a couple of turtles pop their heads out of the water and lazily swim to the bottom. A fisherman sailing by waves politely, and as I wave back I happen to glance at my watch. Break time is over, and its time to go back to work. I use the term “work” loosely as I am volunteering at the North Carolina Estuarium in Washington, North Carolina. My tasks for the day are quite important nonetheless. For the past few weeks I have been photographing and documenting the entire collection of historical artifacts that has been donated or loaned to the Estuarium. Not only am I learning more about Washington’s cultural history, but locals and visitors alike will be able to better understand just how precious these items are in representing their local historical values.

The North Carolina Estuarium is located on the eastward end of Washington’s scenic and newly refurbished waterfront complex and is directly behind the docking area of ECU’s research vessel Perkins. The Estuarium focuses on educating the public about water systems where fresh or brackish water flows into a large body of salt water. The North Carolina Estuarium’s goal is to teach visitors about the ecology and history of the Pamlico River estuary system, which is the second largest such system in the country after the Chesapeake Bay.

The Estuarium currently features four central and interactive exhibits. The first exhibit is a sculpture designed and built by Whiting Tolar, a local artist. This particular sculpture, however, is so

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ESTUARIUM, continued

large it takes up almost the entire front lobby. The sculpture represents North Carolina's water cycle, and small rubber balls roll around a suspended track to simulate nature's continuous reuse of the same water molecules.

The Estuarium's remaining exhibits educate visitors about the ecology of the Pamlico River estuary system, the area's cultural history, and the necessity of water conservation and pollution reduction. During the spring semester of 2003, I plan on aiding the Estuarium further by gathering one or two ECU students and setting up a permanent exhibit that will educate the public about Washington's maritime history. This exhibit will display information on various topics such as the area's fishing industry and the archaeological surveys that were conducted around Castle Island, which is in the middle of the Pamlico River and happens to be directly in front of the Estuarium.

Volunteering at the Estuarium was extremely gratifying in that I have learned something new about the area's history and ecology, and the pleasant location doesn't hurt either. A nominal admission fee is charged, and your contribution will help the Estuarium become bigger and better. There is probably no place better to take in the sights and sounds that define this region of North Carolina. ♪

— James Moore

Shown at right with the Washington "Mystery Cannon" are (l to r), Steve Workman, Washington City Manager R.L. Willoughby, Timothy Runyan, Annalies Corbin, and Bradley Rodgers.

Efforts to Identify Origin Continue...

ECU Maritime Conservation Lab Treats Washington "Mystery Cannon"

In late January 2002, R. L. Willoughby, City Manager of Washington, North Carolina, contacted Dr. Tim Runyan, Director of ECU's Maritime Studies Program, with exciting news. City employees had uncovered a small iron cannon during excavation of the Washington waterfront. Willoughby asked whether ECU might be interested in conserving and refurbishing the cannon for the city. Runyan, Dr. Brad Rodgers, Dr. Annalies Corbin, and graduate student Steve Workman visited Washington and inspected the cannon. They determined that the cannon was in good condition and that a conservation effort could be attempted.

The City of Washington delivered the cannon to the ECU Maritime Conservation Lab in February, and the conservation effort began shortly thereafter. Cannon recovered from saltwater environments typically require a lengthy conservation process of four to ten years to successfully stabilize. Since there was no evidence that the cannon had been submerged in salt water, Dr. Rodgers expected that the time required to conserve this cannon should be significantly shorter.

Preliminary measurements of the Washington cannon's dimensions revealed a number of intriguing features. The cannon dimensions are larger than those normally manufactured during the colonial period. Muzzle and bore dimensions indicate it may have been sized to fire six-pound (3.49 in. diameter) projectiles. Measurements of the interior of the bore await the completion of the first phase of the conservation process.

Until the conservation effort is complete, or founder's marks or royal monograms are revealed, it will be difficult to positively identify the cannon's manufacturing origin and age. Based on our limited research of known design features, however, we have reached some preliminary conclusions that might help guide further research efforts. Scandinavian or Dutch national origin is considered most likely, with Spanish or Colonial American origin considered possible, and British or French origin considered to be unlikely. The late 1600s are considered to be the most likely time period of manufacture, with early to mid-1700s considered possible, and late 1700s or 1800s considered unlikely. This cannon could be contemporary with the period of the pirate Blackbeard's activity in North Carolina.



Following the satisfactory conclusion of the conservation process, the cannon will be returned to the City of Washington. Plans are being developed to place the cannon on public display. The City of Washington currently provides docking and logistics support for ECU's research vessel, R/V *Perkins*, and has worked closely with the Maritime Studies Program in the past. Continued coordination with the City of Washington is planned to ensure ECU's involvement with future discoveries. ♪

— Steve Workman



NOAA – Ocean Exploration Grant Funds Outer Banks Shipwreck Survey

The National Oceanic and Atmospheric Administration awarded a grant of \$86,000 to the ECU Maritime Studies Program to search for shipwrecks near Ocracoke on the North Carolina Coast. The principal investigator is program director Timothy Runyan. Frank Cantelas directs the remote sensing assisted by Coastal Resources Management doctoral students Russ Lewis and Kelly Gleason. The compilation of a historical database of shipwrecks is a first step. Mike Overfield has assisted with research and Merry Hartford and Calvin Mires are compiling the database. Survey work with magnetometer and sonar is followed by diving on the identified targets whenever possible. The project is expected to continue supported by a NOAA-OE grant for 2003-04. This is an exciting opportunity to explore the "Graveyard of the Atlantic." ↴

ECU Represented at PCMAS Workshop

As an intern at the Santa Barbara Maritime Museum (SBMM) with the Pacific Coast Maritime Archaeological Summary (PCMAS) project during the summer of 2002, I had the opportunity to participate in the planning of what would prove to be an exciting and productive workshop. On September 9, 2002, approximately 40 specialists who deal with submerged cultural resources arrived at the SBMM to take part in the PCMAS workshop. Participants included representatives from state and national agencies who have an interest in managing the submerged cultural resources that lie in the waters off the Pacific Coast. Tim Runyan from East Carolina was a participant. Also in attendance with ECU connections were NOAA archaeologists Bruce Terrell and Tane Casserley, Jim Allan of St. Mary's College, Jim Delgado, and adjunct faculty member John Broadwater. The purpose of the workshop was to identify submerged cultural resources that may exist, analyze data, and prioritize targets into projects that can be properly explored, located, identified and managed.

The PCMAS project represents a partnership between the SBMM and the National Oceanic and Atmospheric Administration (NOAA), and is an attempt to coordinate the resources and abilities of state and federal agencies with the skills and resources of the private sector. Funded by a grant from NOAA, the PCMAS project aims to identify significant maritime heritage resources that may exist off the Pacific



Tim Runyan, Kelly Gleason, and Tane Casserley at the Santa Barbara Maritime Museum.

Coast of the continental United States.

The PCMAS workshop concluded with closing remarks from James Delgado of the Vancouver Maritime Museum and Charles Alexander of NOAA. All involved expressed their gratitude for NOAA's interest in supporting the management of submerged cultural resources. The focus will now shift to the Gulf and the Great Lakes. ↴

– Kelly Gleason

Agreement announced . . .

ECU Lab to Preserve Artifacts From Blackbeard's Queen Anne's Revenge

North Carolina Department of Cultural Resources Secretary Lisbeth Evans and East Carolina University Chancellor William Muse signed a memorandum of agreement for the purpose of establishing a conservation laboratory at ECU's West Campus (Voice of America site) to preserve the remains of the pirate Blackbeard's ship *Queen Anne's Revenge*. The ship sank in 1718, and was discovered in 1996. Thousands of artifacts have been recovered under the supervision of the NC Underwater Archaeology Branch.

The artifacts and timbers will be moved from Morehead City to ECU. The state appointed as new lab director, Sarah Watkins-Kenney. She is a graduate of the University of Wales, Cardiff and City University, London in archaeological conservation and museum and gallery management. Her work experience includes six years at the Institute of Archaeology, Oxford University, the Bristol Museum and Art Gallery, Wiltshire County Conservation officer, and since 1994, Head of the Section for Ceramics, Glass and Metals, Department of Conservation, The British Museum, London. She is the author of numerous publications on conservation. ECU students will have the opportunity to assist

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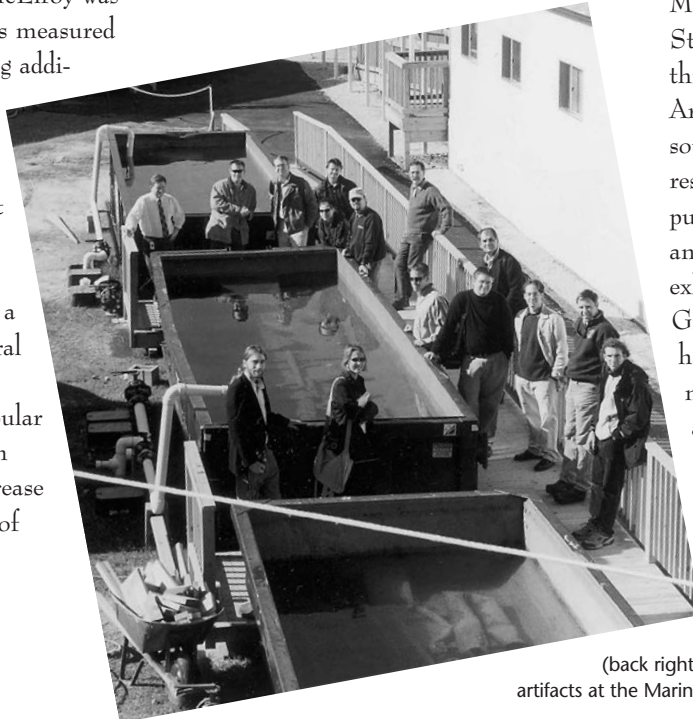
Conservation Lab, continued

in the conservation of the "Blackbeard" artifacts.

We welcome her to ECU and the opportunity to work more closely with Department of Cultural Resources personnel. Principal representatives are Deputy Secretary Dr. Jeffrey Crow, Director of Historical Resources David Olson, State Archaeologist Stephen Claggett, and Underwater Archaeology Branch head Richard Lawrence and project director Mark Wilde-Ramsing. ♪

NC Sea Grant Supports Diver Education Project

North Carolina Sea Grant awarded \$5,000 to Dr. Timothy Runyan and Coastal Resources Management doctoral student Bill Herring to survey a popular dive site off the North Carolina coast to produce a model dive slate. The vessel selected was the *Indra*, sunk purposely to form an artificial reef. It is usually covered with fish and sits in about 70 feet of water. The dive team included Tim Runyan, Bill Herring, Frank Cantelas and Chris Valvano. Jerry McElroy was boat captain. The vessel was measured and photographed. Following additional research, the text for a dive slate was created. The goal was to create an informative plastic slate that sport divers could purchase and use to understand the shipwreck and to emphasize a respect for submerged cultural resources. If slates are produced for the numerous popular shipwreck sites on the North Carolina coast, it could decrease the destruction and looting of shipwreck sites. ♪



Behind the scenes . . .

Visit to the Mariners' Museum

On 8 November 2002, fourteen students and faculty from ECU's programs in Maritime Studies and Coastal Resources Management visited the Mariners' Museum in Newport News, Virginia. In the morning, they were guided by Lyles Forbes, Small Craft Curator, on a behind-the-scenes tour of various projects with which the museum is currently involved. The students viewed the USS *Monitor's* gun turret, raised this summer and under conservation at the Mariners' Museum. Curtiss Peterson, director of the *Monitor's* conservation, described the logistics and conditions sailors faced in the gun turret. Assisted by NOAA archaeologist Tane Casserley, he explained conservation methods while students stood at the top of the tank containing the gun turret and looked down at its cannons and a dent from a shot by the *Virginia*. Forbes next showed and



Mariners' Museum vice President and Library Director Susan Berg discusses research opportunities and materials.

discussed the plans for new small craft center that will display small watercraft from around the world. Students explored the museum's repository, where naval paintings and artifacts are stored when not on display.

Lunch provided an opportunity for the students to talk to John Broadwater, NOAA director of the *Monitor* National Marine Sanctuary. Broadwater discussed his experiences in underwater archaeology and in establishing the *Monitor* as the first of thirteen National Marine Sanctuaries in the United States. After lunch, students were led through the Research Library and Archives at Mariners' Museum, a great source for any maritime scholar or researcher. Students then had time to pursue their own research in the library and walk through the museum's other exhibits before driving back to Greenville. All members on the trip had a great and informative time at the museum. They deeply thank everyone at the Mariners' Museum for their kindness and hospitality. ♪

– Calvin Mires

Lyles Forbes (back left) and Curtiss Peterson (back right) guided ECU Maritimers through the *Monitor* artifacts at the Mariners' Museum.

Meet the New Maritime Studies Program Students

Evguenia Anichtchenko is from St. Petersburg, Russia. She has a BA degree in History from St. Petersburg State University and an MA in Medieval Studies from Central European University in Budapest. Her main interests are medieval maritime history of the Mediterranean, and Russian maritime history.

Jacob Betz hails from De Pere, Wisconsin, and attended the University of Wisconsin for his undergraduate degree. He earned B.A. degrees in Anthropology and History in May of 2001. After graduation he went to work for the State Historical Society of Wisconsin as a field and laboratory archaeologist. He is interested in Great Lakes maritime archaeology and underwater photography.

Jeffrey Bowdoin is from Glen Burnie, Maryland. He is interested in nautical and underwater archaeology, conservation, and underwater photography. He double-majored in Anthropology and Sociology at Towson University in Maryland. After graduation, he spent the next year working as a field archaeologist on sites in South Carolina, Georgia, and Alabama.

Matthew Brenckle was born in Tulsa, Oklahoma, but for the past five years has called Westport, Massachusetts home. He attended Brown University where he received a B.A. in both Classics and Old World Archaeology and Art. His research interests cover a wide range of topics, including among others, ancient Mediterranean ship technology, daily life at sea, Napoleonic naval warfare, historical costume, maritime arts, and small boats of the 18th and 19th centuries.

Eric Fladung grew up in the western suburbs of Chicago, Illinois. He received his B.A. in History and Philosophy from Marquette University. His primary research interests include the Dutch slave trade in the Americas as well as the effects of artificial reef systems, especially those of North Carolina.

Meredith Hartford graduated with a BA in Anthropology from New York University. After interning at South Street Seaport Museum she became interested in New England coastal communities. She hopes to base her thesis work within this general interest.



The 2002 entering Maritime Studies class: Jeff Bowdoin, Calvin Mires, Meredith Hartford, Dani LaFleur, Dave Krop, Matthew Brenckle, Travis Snyder, Evguenia Anichtchenko, Jason Rogers, Eric Fladung, Lyle Lentz, Jacob Betz, and Dave Nelson. Not pictured is Lauren Hermley.

Lauren Hermley is from Syracuse, New York and graduated from Penn State University in May 1995 with a degree in Industrial Psychology. Her work experience has been in the fields of marketing and non-profit management. She lives with her husband in Beaufort, North Carolina. Lauren is primarily interested in North Carolina maritime history.

Dave Krop is a native of Virginia Beach, Virginia. He attended James Madison University in Harrisonburg, Virginia where he received a BA in History. He is the editor of the North American Society for Oceanic History newsletter. He will present a paper at the 2003 SHA conference on Historical and Underwater Archaeology discussing flint cobbles discovered on a wreck site off the coast of St. John, U.S. Virgin Islands. His research interests include piracy on the Chesapeake Bay, Caribbean history, and conservation.

Dani LaFleur is from DeWitt, Michigan. She earned her Bachelor of Arts in Anthropology from Ball State University in Muncie, Indiana. Since coming to ECU in January, she has worked the on the NASOH and *Tributaries* newsletters as well as the Maritime Studies and NASOH websites. Her research interest is comparative metal conservation.

Lyle Lentz is a native of Philadelphia, PA. He graduated from Moravian College, in Bethlehem, PA with a double major in History and Spanish. His research interests include the maritime history of Latin America and European exploration in the New World.

Calvin Mires was raised in Montana. He received his BA from the University of Montana in Latin and Classical Civilizations. For the last four years, he taught Latin and Greek at independent schools in Boston and Harrisburg, PA. During his summer breaks, he volunteered as a diver on the underwater excavations at the ancient harbor in Caesarea, Israel. His research interests include western maritime heritage, late 18th century shipping, and conservation.

Dave Nelson is a graduate of the University of Colorado. His historical research interests are focused on the area of technical and operational developments from Mahan through the Second World War. He and his wife Jocelyn, and their children, Beth and James, are enjoying the new environment of Greenville.

Jason Rogers grew up in northern California and received a BA from the University of California, Santa Barbara. For the last ten years he has lived and worked in various places, including Seattle, Washington and the Czech Republic. His interests are wide and include the maritime archaeology of the Mediterranean and British Isles.

Travis Snyder was raised in Virginia Beach, Virginia. He worked as a corpsman in the U.S. Navy from 1991-1995. After the navy, he spent two years designing and installing computer networks for the U.S. Navy and the Veterans Administration Hospital System. He received his BA in Philosophy from East Carolina University in 2002. His research interests are steam navigation, antebellum merchant shipping, and Civil War blockade running. ⚓

Where Are They Now? - 2002

A

James Allan, Ph.D. – Lecturer, St Mary's College of California
Ray Ashley, Ph.D. – Director, Maritime Museum of San Diego
Adrienne Askins – Archaeologist, National Park Service
Paul Avery – University of Maine Law School

B

David Beard – Curator, Independence Seaport Museum, Philadelphia
Sam Belcher – US Navy Corpsman, Quantico, VA
Colin Bentley – Sailing Dock Master, 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

C

Tane Casserley* – Nautical Archaeologist, USS 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
Alena Derby – Nautical Archaeologist, Greenville, NC
Jeff DiPrizito – High School teacher in New Hampshire
Robert Dickens – Doctor of Veterinary Medicine, Raleigh, NC
Wade Dudley, Ph.D. – Visiting Assistant Professor, Department of History, ECU
Stan Duncan – Regional Sales Consultant, NUS Consulting Group, Inc.

E

Rita Folse-Elliot – Senior Archaeologist, Southern Research Historic Preservation Consultants and Education Coordinator, LAMAR Institute
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, Texas

F

Sabrina S. Faber – Fulbright Coordinator, AMIDEAST, Yemen
Cathy (Fach) Green* – Underwater Archaeologist, Wisconsin State Historical Society
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 – Manager, NOAA Thunder Bay National Marine Sanctuary, MI
Joe Greeley – Curator and Nautical Interpreter, St Mary's City, MD
Russ Green – Underwater Archaeologist, Wisconsin Historical Society

H

Richard Haiduven* – Contract Archaeologist, Miami, FL
Wesley K. Hall – Director, Mid-Atlantic Technology, Wilmington, NC
Stephen Hammack* – Archaeologist, Ellis Environmental Group, Macon, GA
Lynn B. Harris, Ph.D. – Assistant Head, Underwater Division, South Carolina Institute of Archaeology and Anthropology.
Ryan Harris* – Underwater Archaeologist, Parks Canada, Ottawa
Nathan Henry* – Conservator, Underwater Archaeology Branch, NC Division of Archives & History
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. – Exhibits Research Fellow, Mystic Seaport, Mystic, CT
Doug Jones* – Nautical Archaeologist, PBS&J, Austin, Texas
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

Matthew Lawrence* – Landfall Archaeological Resource Consultants, CA
Wayne Lusardi – Michigan Maritime Archaeologist and research coordinator for Thunder Bay National Marine Sanctuary and Underwater Preserve

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
Deborah Marx – Landfall Archaeological Resource Consultants, CA
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 – Principal, founder, Serials Solutions, 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; instructor, Campbell College, NC
Ann Merriman – Ph.D. candidate, University College London; Minnesota Transportation Museum, Site Administrator
Amy Mitchell – Ph.D. candidate, Pennsylvania State University
David Moore – Registrar, North Carolina Maritime Museum, Beaufort, NC
Scott Moore, Ph.D. – Assistant Professor, Indiana University of Pennsylvania
Shawn Holland Moore – Cooperative Education, East Carolina University
Stuart Morgan – Public Information Director, South Carolina Association of Counties
Jeff Morris – Chief Scientist, Nauticos Corporation, Hanover, MD
John W. (Billy Ray) Morris – Ph.D. candidate, University of Florida, and Director, Lighthouse Archaeological Maritime Program, St. Augustine, FL

N

Sam Newell – Greenville, NC, public school teacher
Kevin Nichols – Ph.D. candidate, Western Michigan University

O

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

P

Mark Padover* – Nautical Archaeologist, Tidewater Atlantic Research, Washington, NC
Martin Peebles – Archaeological Illustrator, St. Petersburg, FL
Mike Plakos* – Nautical Archaeologist, Nauticos Corporation, Hanover, MD
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
- Todd Robinson** – Librarian, Medical College of South Carolina, Charleston
- Filippo Ronca*** – Underwater Archaeologist, Parks Canada, Ottawa
- Amy (Rubenstein) Gottschamer** – Real estate broker in Santa Fe, NM, and Lawrence, KS
- Matthew Russell** – Submerged Resources Center, National Park Service, Santa Fe, NM

S

- John Schaefer** – Schoolteacher, Washington, NC
- 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.** – Maritime Archaeologist, 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; Miami, FL
- Daniel Warren** – Nautical Archaeologist, C&C Technologies Survey Services
- Sarah Waters** – Instructor, Seamester Program, Long Island University
- Gordon P. Watts, Ph.D.** – Retired from ECU 2001, Director, Tidewater Atlantic Research and International Institute of Maritime Archaeology, Washington, NC
- Jenna Watts** – Archaeologist, PBS&J, Austin, Texas
- Wilson West** – Ph.D. candidate, University of Alabama
- Robert Westrick** – Consultant, Toledo, OH
- Scott Whitesides*** – Maritime Curator, NC Maritime Museum on Roanoke Island
- Sarah Wolfe-Emmert** – Curator, Museum of Aviation, Warner Robins, GA
- Judy Wood*** – Archaeologist, Savannah District, Army Corps of Engineers
- Steve Workman** – Ph.D. candidate, ECU Coastal Resources Management Program

* degree pending completion of thesis

FELLOWSHIP AWARDS FOR 2002-03



AT LEFT, TOP ROW:

Matt Brenckle
(Brewster Fellowship)

Josh Howard
(Brewster Fellowship,
and Eller Award)

Jackie Piero
(Landers Fellowship)

Calvin Mires
(Brewster Fellowship)

BOTTOM ROW:

Evguenia Anichtchenko
(Landers Fellowship)

Alena Derby
(Wilkinson Fellowship,
Mariners' Museum).

MSA Update

The Maritime Studies Association has had a busy semester. The graduate student organization started right away in August by buying a picnic table for students to enjoy while at Eller House. From there, it has been working with the Graduate Student Advisory Council to help graduate students across campus. MSA threw a wonderful Halloween party and will be represented at the SHA conference in Providence, Rhode Island, in January 2003. On top of all of that, they are going to be selling this year's t-shirts at the end of this semester and the beginning of next. MSA is looking forward to a productive spring. ⚓

– Dani LaFleur



Calvin Mires, Carolyn Mires, and Lauren Hermley enjoy the Maritime Studies Fall Reception.

ECU MARITIME STUDIES THESES 2001 – 2002

- **Samuel Belcher:** “Dr. William S. W. Ruschenberger and Medical Professionalism in the Early 19th Century American Navy”
- **Alena Derby:** “The U.S. Schooner *Alligator* and the U.S. Navy’s Campaign to Suppress the Trans-Atlantic Slave Trade and West Indian Piracy”
- **Russ Green:** “The Devereaux Cove Vessel and the Penobscot Expedition of 1779: Historical and Archaeological Interpretation of Vessel Remains at Devereaux Cove, Stockton Springs, Maine”
- **Deborah Marx:** “...With the Speed of a Stag Hound: The Steamship *Winfield Scott*: A Case Study in Early United States Steam Navigation”
- **Kevin Nichols:** “Logistics of Invasion: The Anglo-Saxon Movements to Post-Roman Britain”
- **Michael Overfield:** “Search for *Adventure*”
- **Robert Westrick:** “The USS *Peterhoff*: An Historical and Archaeological Investigation of a Civil War Shipwreck”
- **Stephen Workman:** “Politician Generals, Gunboat Commanders, and Army-Navy Joint Operations in Coastal and Inland Eastern North Carolina, 1861-1865: Interservice Rivalry or Cooperation?”

Now available for 2003 . . .

New Maritime Studies Association Shirts

T-shirts are available for \$10 each, sweatshirts and polo shirts for \$25 each. For more information please contact Karen Underwood at the Maritime Studies Program office at Eller House, 252-328-6097 or underwoodk@mail.ecu.edu.



Stem to Stern

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