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Sarah Milstead documents the Hunter Galley during the 1998 Bermuda Field School

# Stem to Stern

Newsletter of  
East Carolina University's  
Program in Maritime Studies

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## Stem to Stern

Program in Maritime Studies  
Admiral Ernest M. Eller House  
East Carolina University  
Greenville, NC 27858-4353

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# From the Editor

The past few years have been ones of changes, growth and advancement for the Maritime Studies program at East Carolina University and 1998 has proven to be no different. Academic changes are top on the list with the maritime history and underwater archaeology curriculum changing for the first time since the program began in 1981. The current 45-semester hour program has changed to 36-semester hours and has been restructured to allow students to follow a more focused path of study pertinent to their professional interests. It is hoped that this modification will make ECU's program more competitive with the growing number of universities offering similar programs. A maritime studies track is also being established in the newly approved Coastal Resources Management Ph.D. program. Ph.D. candidates will be accepted beginning in the fall of 1999.

The maritime program has undergone changes in its equipment roster as well. The old 24' Privateer was sent to Bermuda with a new engine and equipment for use with the fall field schools and two new boats have been added. The first is a 25' Parker with a deep-vee hull, extended cabin and twin Yamaha 150 engines. The second is a 65' research vessel formerly used by the EPA in the Great Lakes. The R/V *Hydra* will be renamed the R/V *Perkins* and be docked at Washington, NC, when it finally makes its way from Michigan.

Fieldwork this last year ranged from work as close to home as Washington and Beaufort, North Carolina, to St. Leonard's, Maryland, and internationally to Bermuda. Upcoming field projects include local sites in North Carolina, Maine and Bermuda. These projects and changes in the program, combined with modifications to scientific diver training promise to make 1999 another outstanding year of opportunities for students, faculty and staff.

## In Brief

This year Dr. Bodo Nischan became Interim Chair of the History Department, and Dr. Anthony Papalas became the new director of Graduate Studies. Drs. Nischan and Papalas replace Dr. Roger Biles who assumed responsibility for both positions after the retirement of Dr. Fred Ragan as director of Graduate Studies. Dr. Biles resigned as Chair.

Dr. Timothy Runyan was appointed a member and chairperson of the National Maritime Heritage Grants Advisory Committee by U.S. Secretary of the Interior Bruce Babbitt. The committee worked with the National Park Service's, National Maritime initiative and staff Kevin Foster and Hallie Brooker over the past year. They reviewed proposals generated by the National Maritime Heritage Act of 1994. The 21-member committee rated 342 proposals. The committee was drawn from maritime specialists from across the United States. Grants totaled \$670,000. Efforts are now underway to continue and expand funding for the program.

## MARITIME HISTORY STUDENTS RECEIVE RECOGNITION

Department of History scholarships for the 1998-1999 academic year were awarded to: Ryan P. Harris and Samuel W. Belcher, Lawrence F. Brewster Fellowships; Jason M. Osborne, Paul Murray Graduate Fellowship; Kimberly L. Eslinger and Sarah A. Milstead, first and second year Admiral Ernest M. Eller Fellowships in Modern Naval History; Jeffrey M. Enright, Early American Graduate Scholarship; and Catherine M. Fach, Barbara and Matthew Landers Fellowship.

Private benefactors fund these awards to uphold and encourage high standards of student research in the field of Maritime History. The graduate committee in the Department of History chose this year's winners based on their academic performance.

## FROM THE DIRECTOR . . .

Since the last edition of *Stem to Stern*, activities in the maritime program have continued at a rapid pace. The core of any academic program is its faculty and student body. Our faculty has continued its high level of productivity resulting in several publications and field projects. The students admitted to the program in the past two classes are graduates of universities in Canada, Puerto Rico, Hawaii, Washington, Texas, Maine and Rhode Island, to highlight just a few. The diversity also is represented in the academic preparation of the students whose majors included Archaeology, Anthropology, Marine Biology, History, English, Finance, and Psychology. Our faculty members

hold degrees in Archaeology, Anthropology and History.

Ours is an interdisciplinary program, and we will become more interdisciplinary in the future. We have established a Maritime Studies track in the new Coastal Resources Management Ph.D. program. Beginning in August 1999 we will enroll students in the doctoral program that will be shared with faculty and students in the complementary tracks of Ecology, Geoscience and Social Sciences.

The new track in Maritime Studies will focus on nautical archaeology and cultural resource management. Building upon the MA program established in 1981, the Ph.D. program in CRM will provide

a broad-based educational experience drawing upon the strengths of many programs at East Carolina University.

The settlement of people in, and the investment of resources on, coastal regions is one of the more notable phenomena of recent history. It is appropriate that our program participates in a doctoral degree focused on the understanding and management of coastal resources -- human, animal, environmental, natural and cultural. Submerged cultural resources are but an extension of these interests. We are excited about the opportunity to offer a Ph.D.

*Dr. Timothy Runyan*

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## FIRST LANDERS FELLOWSHIP AWARDED



*(L-R) Captain Greg Landers (USN Retired) of San Jose, CA, Cathy Fach, Mrs. Barbara Landers, and Mr. Matthew Landers at the Landers' home in Greenville, NC.*

A new fellowship for graduate students in the maritime program will help future generations of students. Through the generosity of Barbara and Matthew Landers, formerly of New York, now residing in Greenville, students have a new source of financial support. The first Landers Award of \$2,000.00 drawn from interest on the endow-

ment was made to Catherine Fach in October 1998 on the recommendation of the History Department Graduate Committee. Cathy is a graduate of Indiana University, worked at the Bermuda Maritime Museum, and is currently working on a material conservation project with Dr. Bradley Rodgers. Mr. Lander's former employer, Pfizer

Corporation, has matched the Landers' contributions. The total endowment of nearly \$80,000 marks a substantial addition to scholarship funds and may continue to grow as the Landers are excited about the work of the maritime program and its efforts to attract outstanding students.

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## DR. CROW'S VISIT

Dr. Jeffrey Crow, Director of Archives and History for the State of North Carolina, and the State Historic Preservation Officer, visited ECU fall semester 1998. He discussed the alleged Blackbeard shipwreck *Queen Anne's Revenge*, focusing on legal questions and state claims and policies. The State of North Carolina has signed an agreement with Intersal, the salvors who found the wreck. The state has claimed the wreck and is directing the archaeological work. While at ECU, Crow toured the Conservation Laboratory and manuscripts collection. *See photo page 7.*

## JOYNER LIBRARY ACQUIRES NEW MARITIME HISTORY BOOKS

Over the past year, Joyner Library's collections in maritime history have grown dramatically. One gap that has been filled is in the library's holdings of *Mariner's Mirror*, the standard British journal of maritime history. Kathy D'Angelo, Joyner's collection development librarian, was instrumental in securing the funds to purchase the missing volumes. The volumes were shipped from London and will soon be available for students' use.

The Friends of Joyner Library gave a grant of \$2000 per year for five years to expand the maritime history and nautical archaeology collection. Joyner's collection will be expanded with publications from the Navy Records Society. To date, the Library has purchased 20 of the volumes missing from the collection and is waiting for information on several more volumes.

Joyner Library is still awaiting the delivery of a dozen books from Australia that cover aspects of Australian maritime history, such as histories of Captain Cook and other explorers in the Pacific, and piracy and trade in the South Pacific.

Out-of-print books on maritime subjects are also being added to the library. Some of these books may receive limited use, but as the importance of Joyner Library's maritime collection grows, these sources will find interested readers.

The library is also considering several databases to add to its holdings. One is a database of shipwrecks throughout North America and the West Indies. Maritime Abstracts, published by the National Maritime Research Center, has also been approved for purchase. The "Seattle Public Library Boat File," a specialized index of articles and books on boat construction, maintenance, repair, and plans from the 1950s to 1992, will soon be available for researchers in the Reference Department.

The multi-disciplinary nature of maritime studies causes many books to slip through the financial cracks when the library orders new books. Reference librarian, Peter McCracken, has been granted a budget specifically for purchase of new books in maritime history and nautical archaeology. The library is interested in recommendations from the teaching fac-

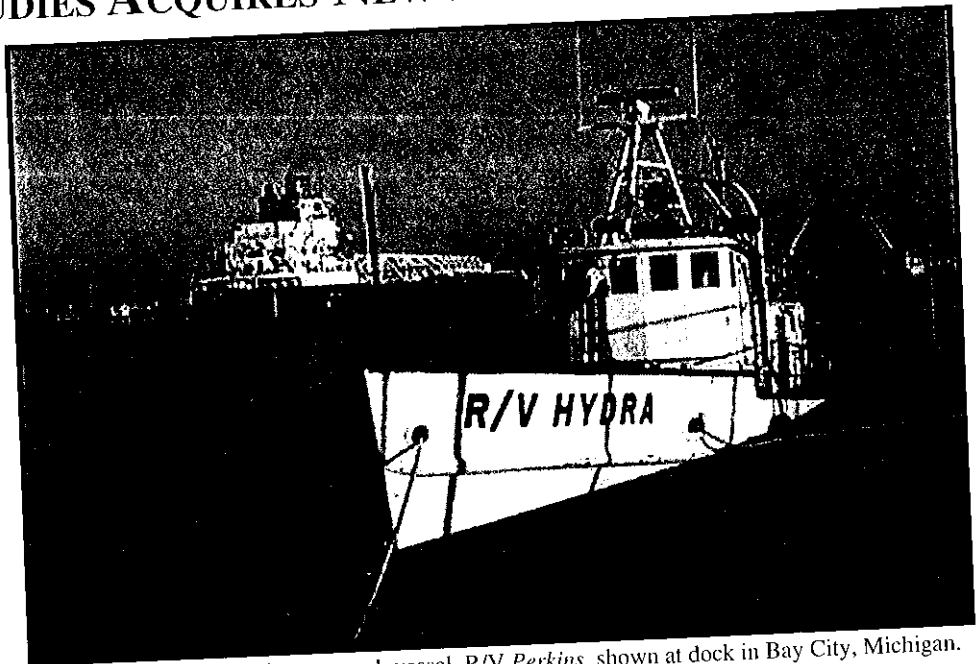
ulty and students for new books. Pat Guyette, Joyner's interlibrary loan librarian, has provided a list of titles that students have requested through interlibrary loan. This has been an invaluable resource for identifying useful titles to add to the library. Gifts are also a valuable source for adding to the library's collections, and some local residents and institutions are interested in donating some of their collections to Joyner Library.

Joyner Library has the opportunity to become a renowned center for holdings in maritime history and nautical archaeology. As important works are identified and added to the circulating collection, the overall value of the collection will grow. The holdings in Joyner's Special Collections provide first-hand documents regarding maritime history and nautical archaeology, and further enhance Joyner's reputation as a center for maritime studies. Those who identify works the library should own, or works they would like to contribute to the library, should contact Peter McCracken with their requests.

*Peter McCracken*

## MARITIME STUDIES ACQUIRES NEW RESEARCH VESSELS

This year the Maritime Studies Program acquired two boats that will broaden our research capabilities. Judge George Wainright of Beaufort, North Carolina offered a twenty-five foot Parker as a partial donation to the program. Outfitted with twin engines the Parker has extended offshore range and a large cabin that provides an excellent platform for remote sensing surveys. The donation was assisted by Mr. Eddie Smith (Grady-White Boats) and Mr. Linwood Parker (Parker Boat Company) with funds provided by Dean W. Keats Sparrow, College of Arts and Sciences. See photo page 19.



The newly acquired, 65-foot research vessel, R/V Perkins, shown at dock in Bay City, Michigan.

## R/V PERKINS TO PROVIDE NEW PROJECTS

Through the efforts of program director Timothy Runyan, ECU's Maritime Studies program is the owner of a 65-foot research vessel. The former R/V Hydra, a U.S. Army T-boat, was operated by the Environmental Protection Agency to monitor water quality on the Great

Lakes. The EPA made the vessel available as federal surplus in Spring 1997. Dr. Runyan had tracked the vessel for several years and moved to acquire it for ECU. A grant in support of the vessel's relocation to North Carolina was awarded by the Perkins Trust in Greenville, NC.

The vessel was renamed in recognition of the gift, following approval by the ECU Board of Trustees. Attorney and maritime historian James Cheatham assisted with the transfer as did Mr. Eddie Smith, CEO of Grady-White Boats. The Perkins

*continued on page 5*

## Maritime Students and Staff Dive the Civil War Ironclad *Monitor*

The ECU program in Maritime Studies has historically concentrated its field efforts on shallow water sites. With the acquisition of the new twenty-five foot Parker and the sixty-five foot R/V *Perkins*, the stage has been set for more extensive, deeper, and more technically oriented offshore projects. To this end the university Diving Safety Office in October hosted a technical nitrox and trimix workshop. The course was taught by John Conway, owner of Wreck-Tek Incorporated in Virginia Beach, Virginia.

Trimix, a mixture of oxygen, nitrogen, and helium, provides an advantage over other gases for deep diving. The helium in the mix reduces the narcotic effect on the body as compared to nitrogen. The gas therefore allows dives to be conducted in excess of 300 feet without the debilitating characteristics of air.

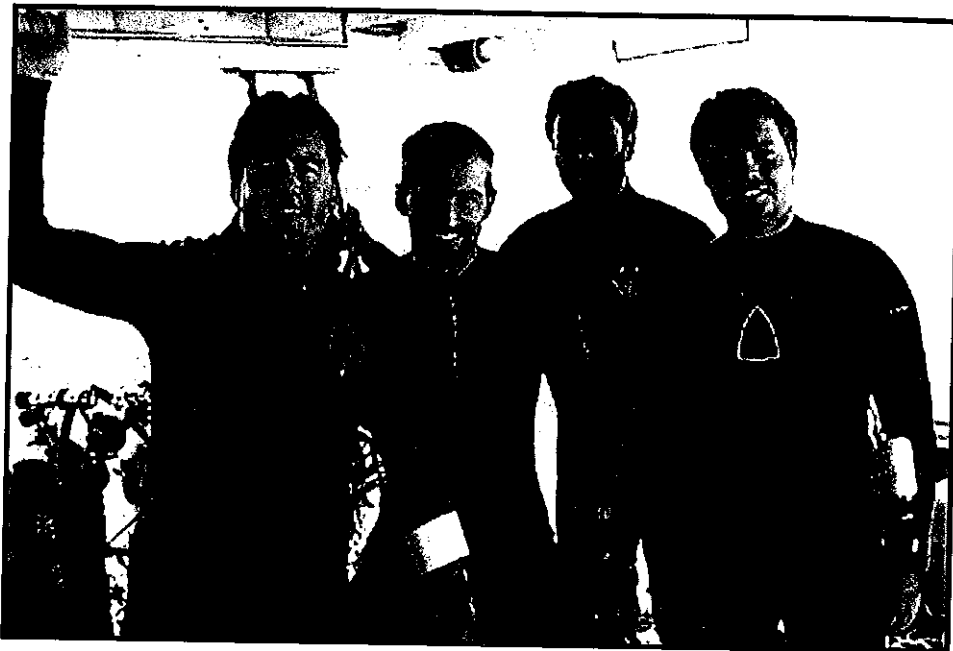
Participants in the course were Steve Sellers, Frank Cantelas, Steve Brodie, Fil Ronca, and Tane Casserley. The purpose of this training was to evaluate the logistical demands of conducting trimix and stage decompression diving operations for research purposes. The potential wealth of unexplored ship-

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*Perkins continued from page 4. . .*

in good condition due to an extended tour in the fresh water of the Great Lakes and the EPA's investment in maintenance and repair under the direction of Great Lakes project officer David Rockwell. Mr. Rockwell's assistance was critical to the smooth transition of the vessel to ECU.

The *Perkins* will be used in near-shore and offshore underwater research work. The vessel has a laboratory aboard, along with mess facilities, bunks for eight, and a stern dive-platform. The foredeck has a Dunbar crane capable of lifting more than five tons. The voyage from Bay City, Michigan to North Carolina will be done with the support of the U.S. Army 824<sup>th</sup> Transport Unit located in Morehead City, North Carolina.



*ECU staff and students prepare to dive on the Monitor*

wrecks in waters deeper than 150 feet off the coast of North Carolina made this a worthy pursuit. Unfortunately, adverse sea and bottom conditions during the open-water portion of this course did not allow for a full working feasibility assessment.

For trimix certification, two checkout dives to depths below 200 feet were required. The *Monitor*, off the coast of Cape Hatteras in 230 feet of water was perfectly suited for this purpose. The *Monitor* was originally developed in answer to the threat of the Confederate ironclad CSS *Virginia*. After her famed clash with the *Virginia*, the *Monitor* enjoyed a relatively unremarkable existence until her sinking off the shores of Cape Hatteras in December of 1862.

The ironclad *Monitor* was designated a NOAA National Marine Sanctuary in 1975 to protect what many believe to be one of the most significant shipwrecks in American history. In addition to protecting the wreck, the NOAA *Monitor* Marine Sanctuary Program is dedicated to developing and maintaining public interest and support. The sanctuary program has over the years been successful in bringing this previously inaccessible cultural resource into a public forum.

The first attempt to dive the

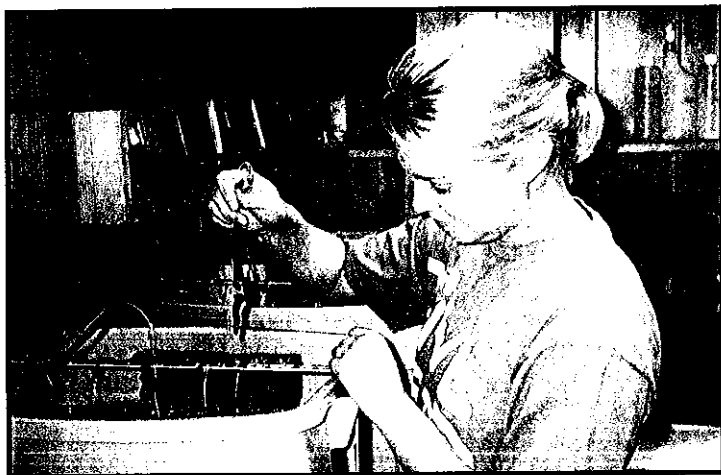
*Monitor* was repelled by Hurricane Bonnie. Finally on October 17, a weather window presented itself. Each year NOAA issues a permit to an individual boat to run charters to the *Monitor* on specified dates, and the dives are closely supervised by NOAA observers. ECU maritime student Karen Kozlowski, currently serving as a NOAA research assistant, acted as observer for the trip. The boat that ferried the group to and from the *Monitor* site was the *Margie II* captained by Art Kirchner. Weather was marginal at best on the day of the dive. Winds were out of the Northeast at fifteen knots and seas were four to six feet. Adding to the challenge was a two knot current on site. Frank Cantelas was sent in to attach a down line to the mooring buoy and check the current. Cantelas was hurled the fifty yards down current from boat to buoy in a matter of seconds. It was determined that extra precaution would have to be taken, but an attempt would be made to dive.

The *Monitor* dives were conducted in two teams. The ECU team was first in the water. A second team of sport divers would be deployed as soon as the first team had completed their required decompression. With respect to equipment, all divers were rigged with large capacity double tanks on their backs and

one stage bottle for decompression under each arm. Nitrox from one of the stage bottles was breathed as a travel gas for the first leg of the descent since the bottom gas did not contain enough oxygen to support consciousness at shallow depths. Divers clutched tightly to the anchor line as they descended blowing like flags in the current. The descent to 230 feet lasted almost ten minutes. Except for the strong current, sea conditions at the shallow depths appeared deceptively favorable for the dive. Visibility in the upper water column was in excess of forty feet. At 180 feet the lights began to dim and at 200 feet there was only blackness. Even the high-powered dive lights carried by the team could not penetrate the dark. As the rest of the team arrived at the bottom, divers faced the grim reality that the dive would have to be terminated. A second attempt was made on Sunday. While conditions on the surface were greatly improved, bottom conditions remained the same. The two dives performed by the ECU team were sufficient for the trimix certification, but zero visibility made archaeological evaluation impossible.

The Diving Safety Office plans to continue to pursue deeper and more technically oriented dives in an effort to expand the research parameters of the university community. This will hopefully include a second attempt on the *Monitor*.

*Steve Brodie*



*Cathy Fach checks the artifacts from the Santa Elena Conservation Project*



*Steve Sellers surfaces from a dive on the Monitor site.*

## ECU RECEIVES A GRANT TO CONSERVE SIXTEENTH-CENTURY SPANISH COLONIAL ARTIFACTS

The Maritime Conservation Laboratory is enjoying heightened activity in 1998 -1999. The lab has been inundated with nails, spikes, and fasteners of all types from the forts and town of Santa Elena in South Carolina. Fasteners are only a taste of the artifacts from the sixteenth-century Spanish colonial settlement that have descended upon the conservation lab.

During the summer of 1998, Stanley South of the South Carolina Institute for Archaeology and Anthropology (SCIAA) contacted Dr. Bradley Rodgers, director of ECU's Conservation Lab, regarding conservation of several thousand iron artifacts for the Institute. These artifacts, gathered between 1979 and 1998 during SCIAA's extensive excavation of the Santa Elena archaeological site, are being sent to the lab in 500- item shipments for stabilization and conservation.

Santa Elena was occupied between 1566 and 1587. Pedro Menendez de Aviles established the Spanish town as the northernmost of several outposts to defend Spanish Florida against English and French encroachment. Population ranged from dozens to hundreds of settlers and soldiers over the two decades of Santa Elena's occupation. Furthermore, for nearly ten years, the town served as the capital of Spanish Florida. Santa Elena's prosperity quickly ended with Sir Francis Drake's raids on Spanish settlements in the Caribbean, South America, and St. Augustine, Florida. Drake's actions forced the Spaniards to consolidate their holdings, and Santa Elena was abandoned in 1587, with the remainder of her citizens relocating to St. Augustine.

The changing landscape of coastal South

*continued on page 7*

## SCIENTIFIC DIVER TRAINING OFFERED AS COAS 5000

*continued from page 6*

Carolina buried Santa Elena for over 300 years, its exact location lost. The U.S. Marine Corps conducted excavations in the general area of the forts during the 1920s, but it was Stanley South's efforts on Parris Island over the past 20 years that brought the forts and town of Santa Elena to light.

Two of at least five of Santa Elena's defending forts have been uncovered. It was necessary for the Spanish to build a new fort every four or five years in response to high soil moisture and termites in the region. Ongoing excavations continue to turn up additional archaeological material and provide fresh insight into life in the Spanish colonial period.

The ferrous artifacts that are presently being conserved at ECU's lab by graduate student Catherine Fach, assisted by Jennifer Dorton, and supervised by Dr. Rodgers, consist mainly of hand-wrought fasteners and barrel bands. Examples of sixteenth-century arms such as iron crossbow bolts, a rapier hilt, and a sword-guard, in addition to iron keys, door latches and hinges are also undergoing conservation.

The cooperation of SCIAA and ECU's Maritime Conservation Lab benefits both institutions. Graduate students are being trained and the lab is working to capacity. The conservation of the vast archaeological collection from Santa Elena allows for further study of Spanish colonial America by archaeologists and historians. As excavations continue at Santa Elena, the conservation of recovered materials must also continue, providing an excellent opportunity for ECU's conservation lab to train conservators.

*Cathy Fach*

Every spring ECU student divers go through two to four weeks of intensive training to achieve status as scientific divers from the American Academy of Underwater Science (AAUS). Scientific diver training provides ECU divers the opportunity to hone their basic diving skills and learn new ones necessary to safely and effectively perform working dives in a wide variety of environmental conditions.

Spring 1999 marks a significant change for the Diving Safety Office at ECU. Scientific diver training is now officially an academic class designated as COAS 5000: Shipboard and Underwater Research. Training will run throughout spring semester with four hours of class-time and two hours of pool-time each week. The open water portion of training will be completed in a two-week block at the beginning of summer. This new format will allow training to proceed at a steady pace during the semester.

Diver training will still include all the basics: introduction to scientific diving, first aid, CPR, oxygen administration, dive rescue, and zero visibility training. Divers will also have the opportunity to learn the basics of underwater photography and video, drysuit diving, full-face redundant scuba, underwater communication, surface supplied

diving, and nitrox diving.

This change in scientific diver training is the first step toward expanding the realm of scientific diving at ECU.

*For more information contact Steve Sellers, Diving Safety Officer, East Carolina University, Central Receiving Warehouse, Greenville, NC 27858, (252) 328-4041. You can also visit the DSO website at <http://www.ecu.edu/diving/>.*

## AAUS IN VANCOUVER

Vancouver, British Columbia was the site of this year's annual American Academy of Underwater Sciences meeting. This year's meeting was held jointly with the Canadian Academy of Underwater Sciences, and included representatives from several foreign countries including New Zealand, the Caribbean and various European nations. ECU was represented by Steve Sellers, Steve Brodie, Dr. Bradley Rodgers, and student Larkin Post. Talks ranged from dive medicine to proper fill station setup. An equally valuable learning experience was the interaction with conference attendees from the scientific diving community.



*Discussing ECU and Blackbeard's Queen Anne's Revenge are Dr. Jeffrey Crow (center), director of the NC Division of Archives and History, Tim Runyan, and Arts and Sciences Dean Keats Sparrow.*

## FOUNDERS DAY 1998 AT ECU

East Carolina University celebrated its 91<sup>st</sup> birthday with special events. W. Keats Sparrow, College of Arts and Sciences' dean, and a major supporter of the maritime program, asked that a special presentation be made on underwater archaeology and the alleged Blackbeard shipwreck, *Queen Anne's Revenge*. Maritime faculty and students have worked with the North Carolina Division of Archives and History's Underwater Archaeology Unit on the project. A large and appreciative audience turned out for a multifaceted presentation on remote sensing, discovery, recording techniques, the history of piracy, and material conservation.



*W. Keats Sparrow (center), dean of College of Arts and Sciences with Maritime Studies faculty/staff (L-R), Larry Babits, Gordon Watts, Brad Rodgers, Frank Cantelas, and Tim Runyan.*

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## NAVAL HISTORICAL CENTER - ECU AGREEMENT

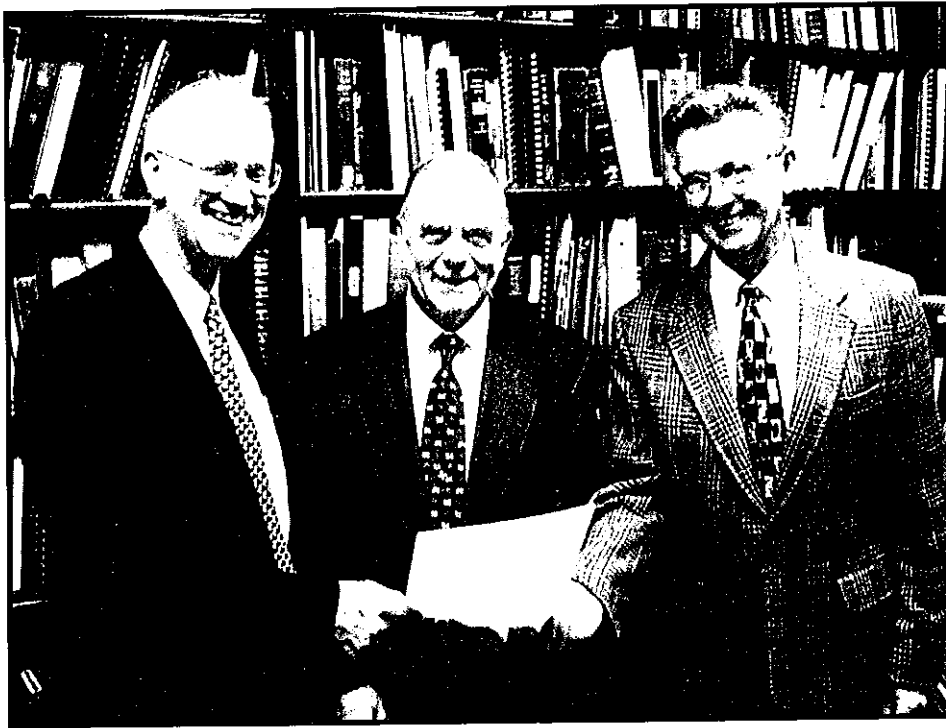
Dr. William Dudley, Director of the Naval Historical Center at the Washington Navy Yard, Wash-

ington, D.C., spoke at ECU about the center's work in naval history, underwater archaeology and cultural

resource management in October 1998. The audience included several members of the local community that have a strong interest in the maritime program.

Dr. Dudley's visit cemented a new relationship between the maritime program and the Center. A Memorandum of Agreement was approved by the Navy and East Carolina University to encourage cooperative efforts by each party. The agreement provides opportunities for students and faculty, in addition to the sharing of resources on special projects.

The visit included an extended look at the Conservation Laboratory and the naval manuscripts in Joyner Library. Director of Special Collections, Don Lennon, took Dr. Dudley on a tour of the new facilities where the collections are stored and maintained, highlighting the rare book room, conservation area, and photographic laboratory. Dudley encouraged students to use the Naval Historical Center and trips were planned following his visit.



*Director of the Naval Historical Center, William Dudley shares the newly signed agreement between the Center and the Maritime Studies Program with Vice Chancellor of Research and Graduate Studies, Thomas Feldbush, and program director Timothy Runyan.*



## EDWARD HARRIS LECTURES AT ECU, BERMUDA AGREEMENT RENEWED

After a decade of field schools, the staff of the Program in Maritime Studies and the Bermuda Maritime Museum met to take stock of their progress. The result was a reaffirmation of the relationship. Dr. Edward Harris, director of the museum, visited ECU in March and met with students, faculty, and administrators. He lectured on two occasions and did so with great enthusiasm and response from his audiences. In addition to maritime-related business, that resulted in one of ECU's 24-foot Privateers being sent to Bermuda with a new engine and equipment, it was a special occasion for Dr. Harris. This year marks the 25<sup>th</sup> anniversary of his "Harris Matrix," an archaeological technique for stratigraphic analysis. Dr. Harris' methodology was first published in 1979 as *Principles of Archaeo-*



*Director of the Bermuda Maritime Museum, Dr. Edward Harris, speaks to students at Eller House.*

*logical Stratigraphy*, and has since been published internationally in many translations. A companion volume, *Practices of Archaeological Stratigraphy*, was published in

1993 illustrating the successful use of the "Harris Matrix." Students and faculty enjoyed the interactions, both formally and socially with Dr. Harris.

## CHIEF CURATOR OF MARINER'S MUSEUM VISITS ECU

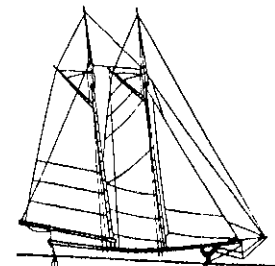


*Dr. Brad Rodgers, director of the Conservation Lab, discusses an artifact treatment process with Dr. William Cogar, chief curator of the Mariner's Museum.*

Dr. William Cogar, chief curator of the Mariner's Museum in Newport News, Virginia, visited the ECU campus in November. He was a guest in Dr. Runyan's

course on Legal and Professional Issues in Maritime Studies and gave a talk on "Shipwrecks and Museums." Cogar holds a Ph.D. from Oxford University and taught for

fifteen years at the U.S. Naval Academy where he was also director of the Navy Museum for five years. While at ECU, he spent time at the Conservation Laboratory where he was impressed with the work of students on conservation projects. The Mariner's Museum and the Maritime Studies program are committed to establishing a closer working relationship.



## ARCHAEOLOGY IN BELIZE

This past year ECU received a visit from vice-president Dorian Barrow of University College Belize. During his visit proposals were drafted for underwater research in Belize. These efforts remain in process. In the interim, Dr. Peter Dunham, noted Mayan archaeologist from Cleveland State University, came to speak at ECU and strongly encouraged the maritime program's involvement in Belize.

Dr. Dunham's work has received international recognition and extensive funding from organizations such as National Geographic. He has made some extraordinary discoveries in his research, including finding the oldest known chocolate, and continues his work in the mountains of Belize. These areas are so remote that supplies are delivered by helicopter.

While at ECU, Dr. Dunham gave two presentations, one to a large cross-section of faculty and students from various disciplines. He also met with local anthropolo-

gists and archaeologists. ECU currently offers an exchange program to Belize through the Program in International Affairs. Opportunities exist to work with Dr. Dunham

at his newly constructed Maya Mountains Research Center that houses scholars from a wide variety of disciplines.



*Mayan Archaeologist, Peter Dunham, of Cleveland State University (center) at Eller House, with ECU graduate students (L-R) Richard Fontanez, Deirdre O'Regan, Suzanna Pavelle, Jeff Enright, and Wendy Coble*

## CDR. A.F. TILLEY (RN), LECTURES ON CLASSICAL GREEK TRIREME



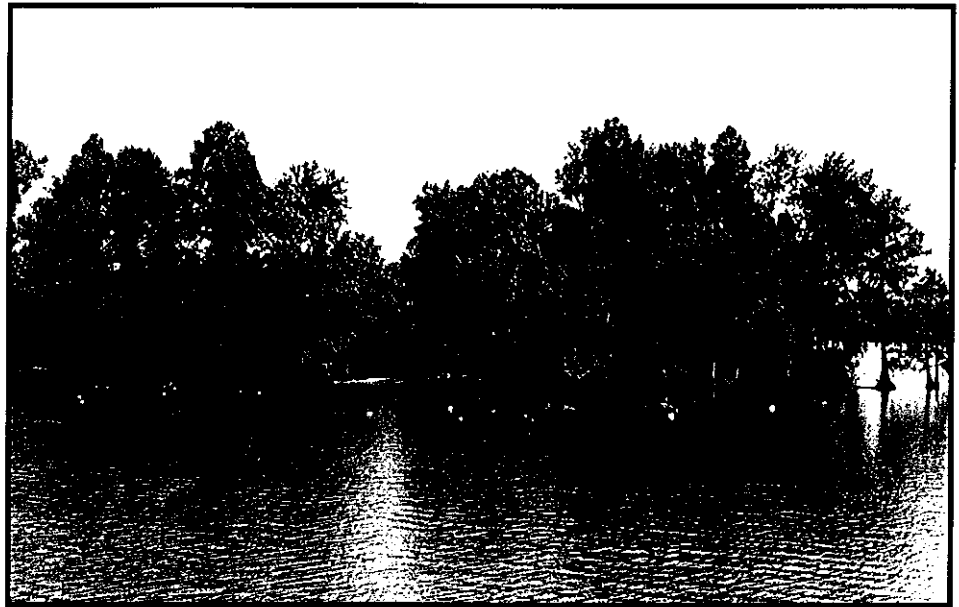
*ECU's Dr. Tony Papalás debates Commander Alec Tilley's theory of rower placement in the classical Greek trireme, during Tilley's visit to ECU from England.*

Lt. Commander Alec Tilley, retired Royal Navy officer, naval consultant to Gulf States, and champion of a solution to the problem of manning the classical Greek trireme, visited ECU in October. Dr. Anthony Papalás, author of a recent article in the British journal *Mariner's Mirror* on the Greek trireme, was Tilley's host. A spirited presentation at the International Affairs building was followed by extensive discussion revolving around the issue of the placement of oarsmen and other problems of the Greek trireme. During the social gathering after the lecture, students allegedly tried to simulate the seating arrangement of oarsmen in the classical Greek trireme using benches and chairs at Boli's Fifth Street Pizzeria.

# 1998 SUMMER FIELD SCHOOL: HISTORY IN OUR BACKYARD

ECU's annual summer field school took place this year in our own backyard. Dr. Bradley A. Rodgers conducted a field project in the Pamlico River area in eastern North Carolina. The project's goal was to conduct a Phase II survey of the waters immediately surrounding Castle Island, 200 yards off the Washington, North Carolina waterfront. The new North Carolina Estuarium, directed by Blount Rumley, provided dock space for ECU vessels. Students participating in the field school were to locate any exposed wreck sites, set up a continuous baseline running through all of the sites, map each individual site, and then transfer all of the individual site maps onto one large site plan.

The Castle Island field school was a great success, yielding far more wreck sites than were expected. During the four-week field school, the field crew was able to locate and map nine separate wreck sites on the northeast shore of the island. The sites included a sharpie, two barges, a schooner, a vessel that



*The shore line of Castle Island, Washington, North Carolina*

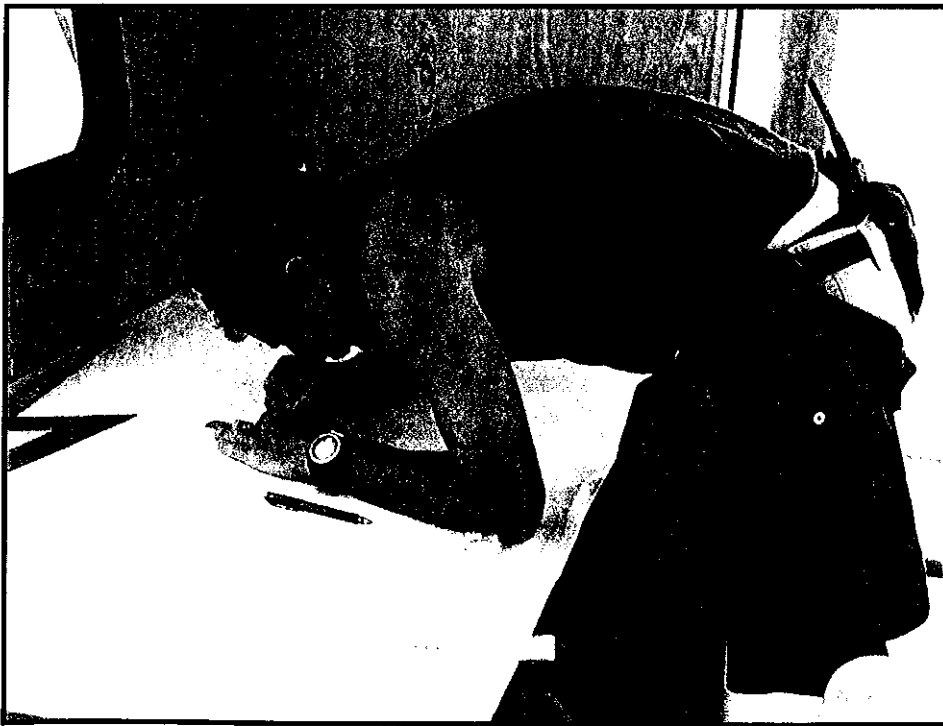
is believed to be a steam-powered ferry, and several other as yet unidentified vessels.

The diving conditions were moderate with an average visibility of two to four feet and a maximum of ten. The low visibility conditions in the murky waters of the Pamlico River slowed the mapping process

somewhat but gave students an opportunity to learn how to overcome difficulties due to adverse diving conditions.

The maps drawn during the field school are currently being inked and photomechanically transferred for publication. The report from the field school will ultimately become part of a thesis on the maritime history of Castle Island by Doug Jones. Castle Island has a colorful history and was once the site of a large shipbuilding industry during the 19<sup>th</sup> century. Dr. Rodgers and Doug Jones plan to return to Castle Island in the future to continue the archaeological survey of the remainder of the island.

Students taking part in the field school were: Will Aycock, Doug Jones, Jason Lowris, Sarah Milstead, Greg Purdy, John Rossi, Kathy Southerly, and Kim Williams. The crew chiefs were Suzanna Pavelle and Chris Southerly. Cathy Fach, Rod Linder, and Larkin Post acted as special assistants, and faculty member Frank Cantelas supervised and assisted during the field school.



*Larkin Post adds to the site map of Castle Island*

*Doug Jones*

## 1998 BERMUDA FALL FIELD SCHOOL EXAMINES THE *HUNTER GALLEY*

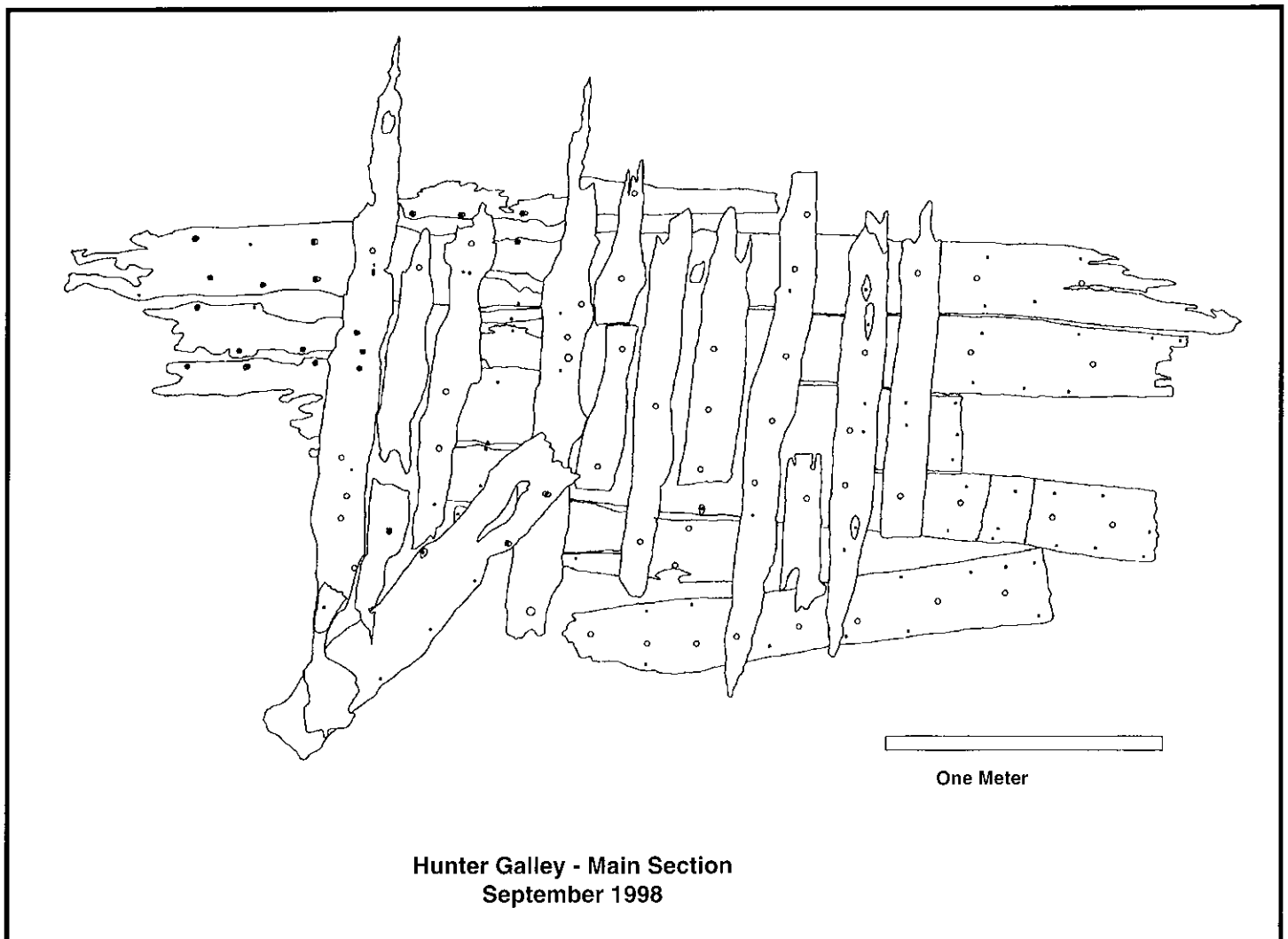
For over a decade, the Program in Maritime Studies at East Carolina University and the Bermuda Maritime Museum have worked together to provide an excellent venue for training graduate students in the field of underwater archaeology. Vessel remains from the last five centuries of western maritime history can be found in Bermuda's waters, thanks to its extensive and often dangerous reefs. This provides students with the unique opportunity to examine sites ranging from recent times back to the days of exploration and colonization.

The primary focus of the 1998 Field School was the wreck

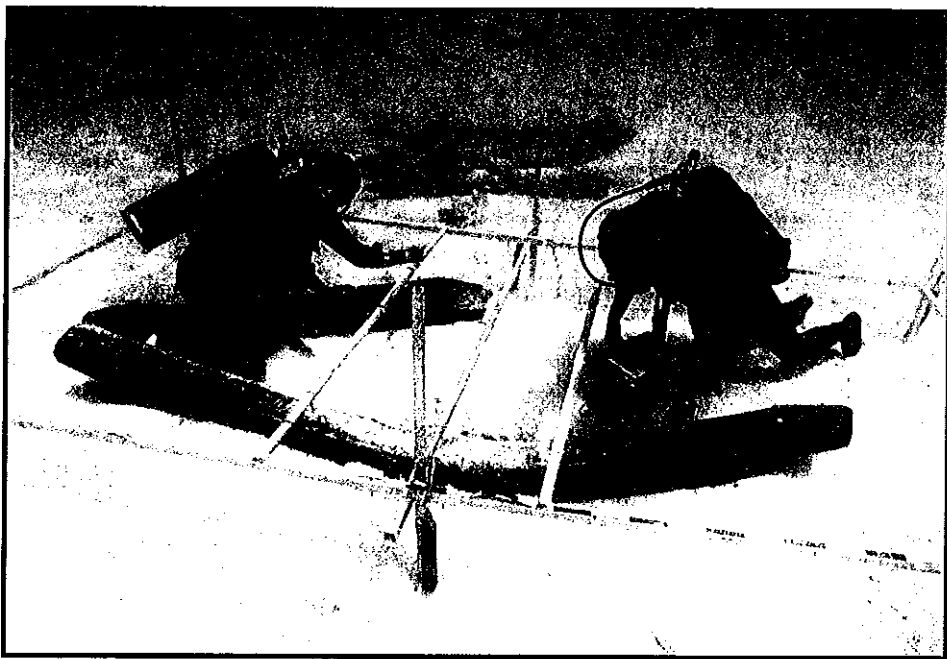
site of the *Hunter Galley*. This wreck was found and identified in the 1950s and was examined as an experiment in underwater archaeology in 1974 and 1975 by a mixed group of professionals and volunteers under the direction of Edwin S. Dethlefsen. While the vessel was identified as a colonial sloop, upon examination of the exposed remains during the 1997 field school, it was found to be constructed of Bermuda cedar. This fact, that it was likely Bermuda built, generated considerable interest, as no examples of Bermuda sloops have been found in the archaeological record. While there are ample descriptions of sloops in the documentary record, construction details that

could lend significant insight into the speed, longevity and high regard placed on the "Bermuda sloop" over other colonial sloops could be found through more detailed archaeological investigation.

The 1998 ECU Field School included graduate students Joe Greeley, Doug Jones, Rod Linder, Jason Lowris, Sarah Milstead, Larkin Post, and Kathy Southerly. Students returning to Bermuda included Steve Brodie as the Diving Safety Officer, Suzanna Pavelle as cook and crew chief and Chris Southerly as senior crew chief since the *Hunter Galley* serves as the focus of his thesis research. Dr. Gordon Watts of ECU again provided instruction



AutoCAD map of the Hunter Galley site area



Kathy Southerly and Larkin Post map the *Hunter Galley's* timbers

and direction to the students with frequent assistance from Clifford Smith of the Bermuda Maritime Museum.

The fieldwork for *Hunter Galley* began by laying a triangular baseline covering the site area and setting up detailed mapping grids over the exposed remains of the vessel. While mapping began within the grid area, additional lines were laid for trenches excavated to find more vessel remains. Disarticulated timbers and planks were trilaterated to points on the grid so they could be accurately plotted before moving them for detailed mapping. All of the details collected were transferred into AutoCAD. This allowed for easy manipulation of the data collected and assisted greatly in task planning and activities. In addition to structural remains, numerous artifacts were also recovered. Pieces of served hemp line were found along with an intact fiddle-block. Other organic artifacts included a section of leather, numerous wood fragments, bones and bone fragments. Ceramics found included two pipe stems, brick fragments, an olive jar neck and rim, olive jar pieces and some unglazed earthenware. Wine and case bottle pieces were also discovered along with numerous metal fasteners and a knife. All the artifacts were pho-

tographed and measured sketches drawn before they were reburied on the site when the project was complete.

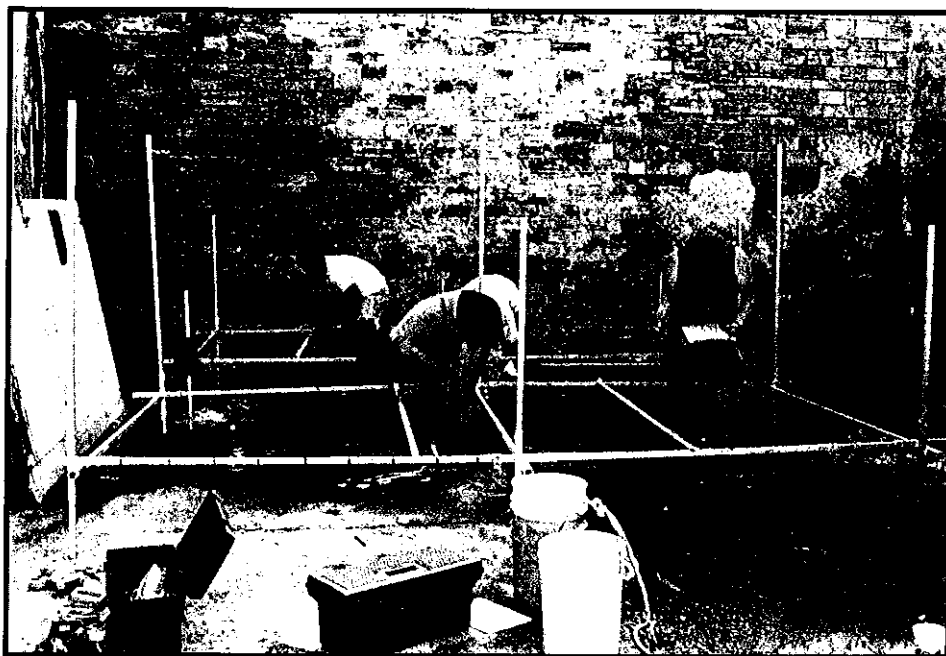
While work was taking place in the field, research was also taking place in the Bermuda archives. Students were sent on a rotating basis to conduct research on the *Hunter Galley*, its master and owners, and to review any other information that could be found pertaining to Bermuda in the mid-eighteenth century. This work helped provide the historic background to understand the

*Hunter Galley* and its wreck site.

A Bill of Protest, dated January 13, 1752, and signed by Captain Clement Conyers, Mate John Conyers, and Mariner John Leaycraft recounts the last days of the Bermuda sloop *Hunter Galley*. Additional documents tell us that *Hunter Galley* began its short-lived sailing career in Bermuda, where she was built in 1747. Registered in 1748, she began to trade between the various colonies of British North America. One voyage, documented in the Bermuda shipping registers, shows *Hunter Galley*, entering Bermuda from Charles Town, South Carolina and subsequently leaving Bermuda, bound for Barbados. This route, from North American colonies to West Indian colonies, would have been a typical trade run for sloops in the mid-eighteenth century.

The Bermuda field school, as it has in past years, allowed students to work in the field, in the lab, and in the archives. By providing them the opportunity to experience all these different facets of archaeology, the 1998 students left Bermuda with a working knowledge of what it is like to practice archaeology as a profession.

Chris Southerly



ECU Students document timbers at the Bermuda Maritime Museum

# MARITIMERS SAIL THE GREAT LAKES ON U.S. BRIG *NIAGARA*

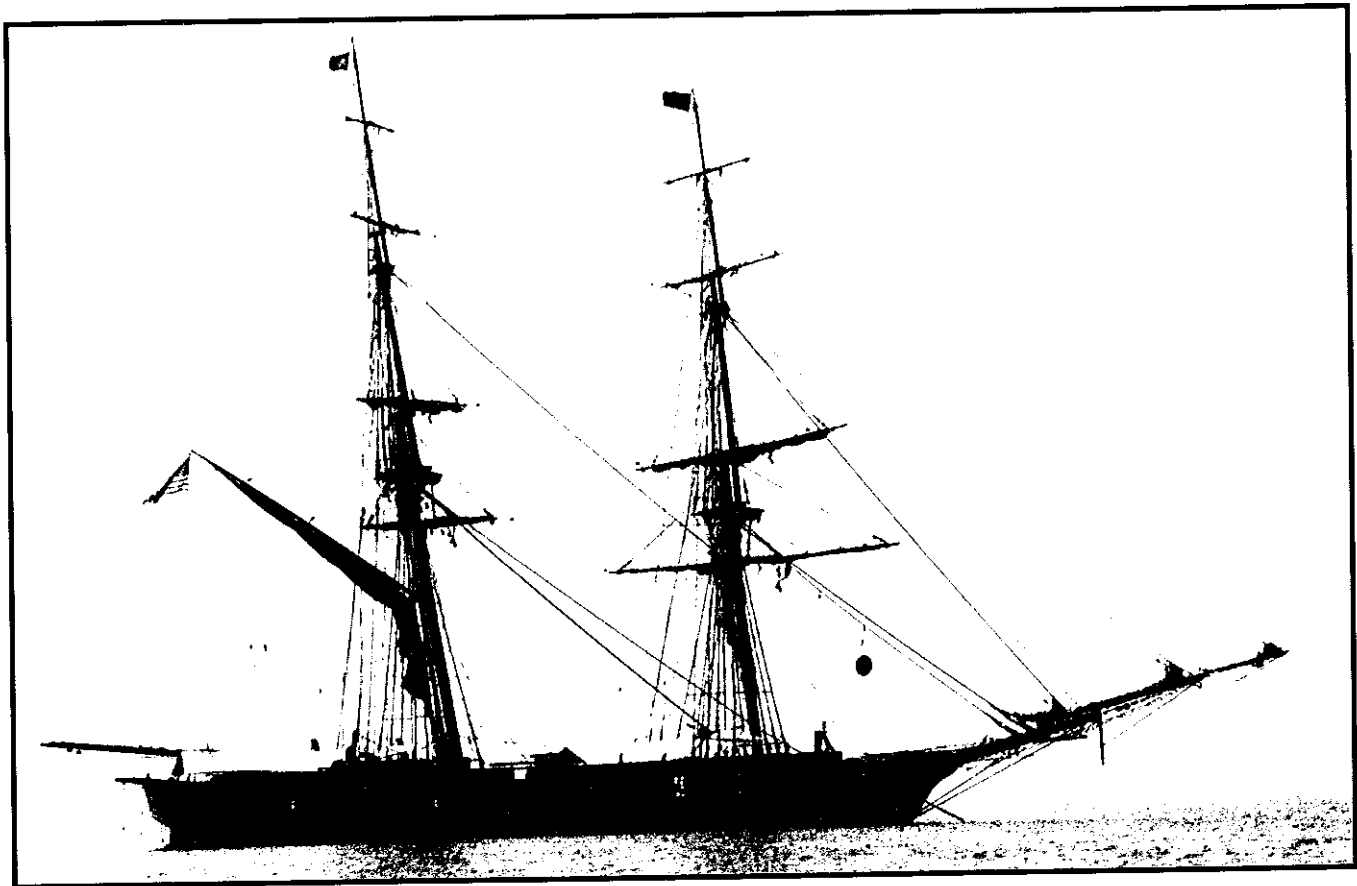
For the third year in a row, members of the Maritime Studies program participated in the summer sailing program aboard the U.S. Brig *Niagara*. This year's participants included Dr. Larry Babits, Frank Cantelas, Joe Greeley, and Robert Kelley, from the maritime program and Chris Burgess, Erin Campbell, and Melanie Meekins from other ECU departments. Dr. Babits' son John also accompanied the expedition. The group departed Greenville early in the morning of 5 July, and after a long day's drive, reached Erie PA, *Niagara's* home-port. Before boarding, the group toured the new maritime museum that included a replica section of the *Lawrence*, *Niagara's* sister ship. Built especially for the museum, to the same dimensions as the original vessel, the section was taken to an Army test range and bombarded using the *Niagara's* cannons. Seeing the damage a 24-pounder de-

livers gave everyone an appreciation for the courage it took to man a wooden warship in battle.

*Niagara* sailed the next morning, heading up Lake Erie towards the Detroit River. Traversing the Detroit River, Lake St. Clair, and the St. Clair River, to reach Lake Huron, occupied the following day. Several days were spent sailing Lake Huron with favorable winds. The *Niagara* entered Lake Michigan, the morning of the 10<sup>th</sup>, firing a three gun salute to Mackinac Island in memory of the original *Niagara's* participation in a failed assault there in 1814. On 11 July, the ship moored in Manitowoc, Wisconsin, home of the Wisconsin Maritime Museum. While there, several *Niagara* crew members toured the engine room, boiler room and coal bunkers of the car ferry *Badger*. The *Badger*, operating between Wis-

consin and Michigan, is one of the last coal-fired steam-powered vessels still in service on the Great Lakes, powered by a set of compound steeple engines. Leaving Manitowoc, the *Niagara* headed south to Chicago arriving 16 July after spending a night at anchor off Lake Forest, Illinois. A highlight of the time in Chicago was a special tour of the *U-505*, the only U-boat captured by U.S. forces during WWII. On 21 July, *Niagara* left Chicago to participate unofficially in the American Sail Training Association's Tall ships race where she out-sailed all her competition. After a brief return to Chicago for a Governor's reception, *Niagara* sailed for South Haven Michigan, arriving on 24 July. It was in South Haven that the ECU contingent of *Niagara's* crew rolled their hammocks for the last time and took leave of the ship.

Joseph M. Greeley



*The Niagara sails the Great Lakes*

# Archaeological Investigation of a Possible War of 1812 Gunboat

In June 1998 the Program in Maritime Studies at East Carolina University sent a five-member team to excavate the remains of a vessel located in St. Leonard's Creek, Maryland. Under the direction of Dr. Lawrence Babits, principal investigator, and Jeff Enright, project coordinator, a three-week investigation was undertaken. The primary goal of this investigation was the identification of the St. Leonard's Creek vessel. Two ECU graduate students, James Embrey and Jenna Watts, and one volunteer, Marc Henshaw, worked closely with additional personnel and volunteers from the state of Maryland.

The crew excavated and recorded the vessel's keelson, bow, stern, a section of framing timbers on the starboard side adjacent to the mast-steps, and a two-foot wide trench on the port side also adjacent to the mast-steps. Extant features were limited to the extreme lower hull of the vessel. In all, an estimated 20% of the vessel was uncovered and documented. Although the vessel had two mast-steps, their proximity to one another suggests a single-masted sloop whose mast had been relocated two feet at some point, most likely to improve sailing qualities. The vessel's original length would have been approximately 50 feet with an estimated beam between 16 and 18 feet. The vessel had a bluff bow, sharp stern, and a nearly flat bottom. Perhaps to aid sailing qualities in this shallow-draft vessel and/or to protect against grounding, a sizable false keel or shoe was added which measured nearly 13 inches molded. Excavation of the bow area uncovered an extensive amount of burned wood fragments and illustrates the probable cause of sinking. Very little material culture was uncovered. Artifacts consisted of ship fasteners, rigging elements, three .69 caliber musket balls, two possible impacted musket balls, and a brass cuff button of a type used between 1790 and 1820.

This archaeological investigation and subsequent historical research may identify the vessel as a Jeffersonian gunboat constructed ca. 1808 which served in Commodore Joshua Barney's Chesapeake Flo-

tilla during the War of 1812. The Chesapeake Flotilla did battle with the British Royal Navy and its barge flotilla in St. Leonard's Creek throughout June 1814. Barney's flotilla eventually escaped St. Leonard's Creek, but not before stripping and burning two gunboats (nos. 137 and 138) to prevent their capture by the British.

These two gunboats were originally constructed under Thomas Jefferson's administration. Jefferson's gunboat program, of which 177 were designed and built, was a component of the fledgling United States Navy. The gunboats were constructed as shallow-draft vessels meant for the coastal de-

excavation will be the first archaeological investigation of this vessel type. The physical documentation of a Jeffersonian gunboat will offer a unique opportunity. Such an investigation would fill gaps in our understanding of this vessel type.

Data discovered during the June excavation suggests that the vessel was contemporary with the flotilla. Military paraphernalia, virtually no material culture, and the presence of a substantial amount of burned wood indicates a stripped and burned military vessel. Vessel construction and the brass button suggest a vessel built prior to 1820. Additionally, construction features match plans that may have been



*St. Leonard's Creek Site: Location of Possible Jeffersonian Gunboat*

fense of the United States. "Jefferson's gunboats were part of a congressional policy designed to provide an adequate defense of the American coast in lieu of an expensive, offensive navy." It was an experiment that ultimately failed.

Extant records concerning the Jeffersonian gunboats consist of correspondence between the Navy Department, the shipyards and contracting individuals and firms. These documents cannot always be trusted, however, as designs and plans consistently changed, and not always with notification. If the St. Leonard's Creek vessel can be identified as a Jeffersonian gunboat, then the June

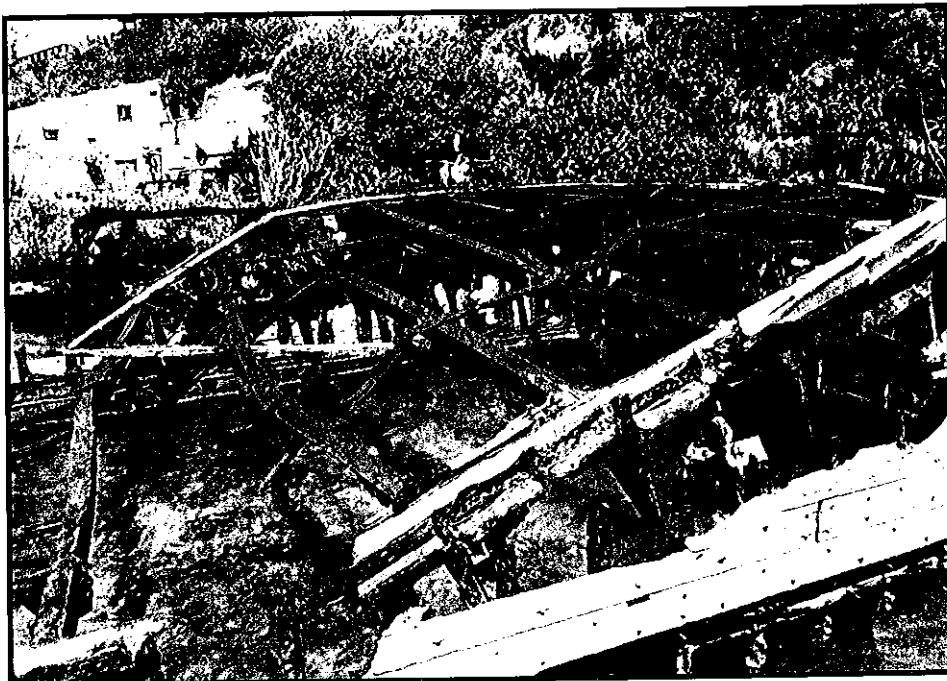
used in the construction of gunboats 137 and 138. The St. Leonard's Creek vessel's length, beam, rig, false keel, sternpost rake, shallow draft, and bluff bow all closely resemble the aforementioned design. Also, historical accounts of the Battle of St. Leonard's Creek support the gunboat theory. Continued historical research and perhaps additional archaeological investigation is necessary to provide a positive identification.

*Jeffrey M. Enright*

## A Composite Ship in St. George's Harbor, Bermuda

Before the 1998 fall field school in Bermuda, a crew of graduate students, from the Maritime Program, traveled there a week early to work on a Phase II nautical archaeology project in St. George's Harbor. The crew consisted of Joe Greeley, Rod Linder, Sarah Milstead, and Larkin Post from ECU, and Clifford Smith, staff archaeologist at the Bermuda Maritime Museum. This reconnaissance and mapping survey dealt with an important nineteenth-century type of ship construction that is largely ignored in the historical record. The vessel, reputed to be the HMS *Ready*, may be a composite-built Royal Navy gunboat. Built in 1872 at Chatham Dockyard in England, this vessel is now a derelict partially submerged in 3 to 18 ft. of salt water in a cove just outside the town of St. George's, Bermuda.

The pre-disturbance documentation was extremely successful. A datum set up on the waterfront dock allowed the crew to use a transit and EDM (Electronic Distance Meter) to accurately document the vessel. It measures 155 feet in length, 25 feet in beam, and has a depth of hold of 10 feet. The vessel is flat bottomed with sharp sides, a round fantail stern, and a plumb bow. Part of the iron stem post still



*Sarah Milstead sketches in the bulkheads of the Ready*

remains. The stern post is missing, but presumably was made of iron, as there was a rebate for it on the upper works.

The crew drew a full-length plan view of the vessel as most of the copper-sheathing, teak decking, and double teak planking above the waterline was removed by salvagers. The interior was accessible in the main hold area where very little machinery remained, yet the flues for the boiler were still in place against the

forward bulkhead. Freshwater storage or fuel oil tanks located fore and aft of the main hold measure 27 feet in length. It has not been determined if the tanks were a part of the original construction or if they were a later modification. Deck beams have extra supports where the guns would have been placed when the ship saw service as a gunboat.

This vessel's history is quite extensive. The British built the ship for use in China, but she was sold to a buyer in Bermuda around 1920 and presumably used as a coal lighter until the 1930's. At that time, it was said that the HMS *Ready* carried the bathysphere on some of William Beebe's research dives. This story has yet to be confirmed.

Whether this vessel was a gunboat, tank vessel, coal lighter, or research vessel, it holds an important place in history. The *Ready* is an important artifact to study for comparisons that could be used in the future of this vessel and others such as the composite clipper, *Cutty Sark*, and composite gunboat, *Foxhound*, that have been reconstructed in England.



*The Ready's final resting place, St. George's Harbor, Bermuda*

*Sarah Milstead*



## THE SEARCH FOR THE *FORTUNA*

On the evening of September 3, 1748 two Spanish privateers, sailing from Havana with a captured sloop from South Carolina, approached Fort Johnston on the Cape Fear River. With darkness descending, the ships anchored outside the bar rather than attempt to navigate the channel at night. The following morning two unsuspecting pilots went on board to guide the ships through the channel and on to Fort Johnston. The Spanish hoped to capture slaves working on the fort, but were met with bitter disappointment when they realized it was Sunday and work on the fort had been halted. Discovering their mistake they coerced the two pilots into guiding

them up the river to Brunswick where the majority of the slaves had been taken. The ships anchored in front of the town and opened fire without warning. "The commodore was a large sloop, named the *Fortuna*, of 130 tons with 10 six pounders and 14 swivels commanded by Vincent Lopez." During the ensuing battle on 6 September the *Fortuna* and 90 members of her crew, including Captain Lopez, met their fate when the ship blew up and sank to the bottom of the river where she lies to this day. In the past thirty years several attempts have been made to locate the remains of the *Fortuna* without success.

In the Spring of 1999 a

joint project between East Carolina University's Program in Maritime Studies, the North Carolina Division of Archives and History's Underwater Archaeology Unit, and the Institute for International Maritime Research will attempt to relocate the remains of the *Fortuna*. Rod Linder, a graduate student in the Maritime Studies Program, has coordinated the project as part of his thesis research. The tentative date for fieldwork on the project is scheduled for the last week of April and will include remote sensing and ground-truthing of the search area in the Cape Fear River off Brunswick Town, North Carolina.

*Rod Linder*



Fortuna Site: New Brunswick Town, North Carolina.

# The *Polias* Project Slated for the Summer of 1999

Next summer a group of ECU students will brave the cold waters of Maine to record the *Polias*, a ferro-concrete ship, built in the early twentieth century. The *Polias*, a product of the WWI Emergency Fleet Corporation concrete ship program, represents an unparalleled opportunity for study by the Maritime Studies Program. This ferro-concrete ship is unique in several regards. First, the *Polias* was one of two prototypes to test the government's concrete ship program. Second, it was the only easily accessible vessel of its kind to sink while in operation. Finally, historical data on these ships is spartan at best and negative in many regards. This will be the first archaeological investigation of this class of ship in the seventy-five years since their launching.

On 6 February 1920, the *Polias* was on a return trip from Searsport, Maine, during one of the worst blizzards to hit the Maine coast this century. On the night of the 6th, while battling 50-knot plus winds, she hit Old Cilley Ledge off the town of Port Clyde at full speed. As the night progressed, the flood tide and pounding waves pushed the ship further and further

up on the ledge. By the time the storm subsided and the tide dropped the next day, the ship was left nine-tenths out of the water. There she remained for the next dozen years until a hurricane succeeded, where several salvage operations had failed, in knocking her off the side of the ledge into 25 feet of water. Though somewhat broken up, the 273-foot ship has survived its many ordeals admirably well despite critics of the concrete ship program claiming that these ships would simply disintegrate after five years.

The *Polias* Project, scheduled for the last week in July and the first week of August, will include one faculty member, a dive safety officer and approximately seven students. Daily operations will be based off of Metinic Island, some six miles from the site. Weekends will be free for students to explore the rest of Maine's Down-East charms and maritime heritage.

If you have any questions, information pertinent to the project, or the concrete ship program please feel free to contact Larkin Post by e-mail at LAP0226@MAIL.ECU.EDU.

*Larkin Post*

## MSA NEWS

The officers and members of the Maritime Studies Association (MSA) have had a very successful fall semester for 1998. With elections held last spring, new officers for this academic year are: Rod Linder, President; Catherine Fach, Vice-president; Larkin Post, Treasurer; and Sarah Milstead, Secretary. Jason Lowris is serving as the organization's new Graduate Student Advisory Council representative.

MSA's goals for this year are to arrange both academic and social events for the members, as well as, provide a forum for voicing relevant questions and concerns regarding the Maritime Program. Overall, the goals of the organization have been met. Working in conjunction with Program Director Tim Runyan, MSA organized and funded a

reception for the new program students in early fall. In Dr. Runyan's words, "The event was a great success." This year, MSA also provided funds for toner cartridges for the student copier at Eller House, the annual Halloween party and co-sponsored several speakers. Upcoming events for the spring of 1999 include a guest speaker, Jack Neville a graduate of Texas A&M University, and a trip to the Battleship *North Carolina*, in Wilmington, North Carolina.

Proceeds from T-shirts sales, membership dues, and donations from alumni and faculty generated more than \$600.00 this year for the organization. MSA meetings are held at Eller House on the first Tuesday of each month at 5:30. Everyone is invited to attend.

*Rod Linder*

## QUEEN ANNE'S REVENGE UPDATE

The *Queen Anne's Revenge* History Advisory Group met this past August in Raleigh, North Carolina to discuss the latest findings concerning the shipwreck 0003BUI, thought to be Blackbeard the pirate's flag ship, *Queen Anne's Revenge*.

Dr. Lawrence Babits and Dr. Timothy J. Runyan, two ECU professors involved with the advisory group, attended the meeting. The group discussed the latest finding on the recovered artifacts. These include two cannon, a pewter platter, a blunderbuss, and a handful of pottery and glass pieces. The group discussed how these artifacts should help in understanding the *Queen Anne's Revenge* (ex. *Concorde*) and the activities of Blackbeard the pirate.

*Kathy Southerly*



*The Parker sees duty on the QAR project during October site investigations.*



*Dr. George Shannon with maritime student Samuel Belcher in Eller House.*

## DR. SHANNON VISITS ECU

Dr. George Shannon, Jr., new director of the North Carolina Maritime Museum in Beaufort, was welcomed to East Carolina University in December 1998. Dr. Shannon holds a doctorate in archaeology from Michigan State and directed a museum in Louisiana before coming to North Carolina. He proposed closer ties between ECU's Maritime Program and the museum. The North Carolina Maritime Museum houses the *Queen Anne's Revenge* artifacts.

## GRADUATE THESES IN MARITIME STUDIES

The Program in Maritime Studies marked an outstanding achievement in 1998. Thirteen graduate students completed and successfully defended their theses, receiving a Master of Arts degree.

**Paul Avery**

*"The Impact of the 18<sup>th</sup> Century Navigation Revolution Upon European Pacific Cartography."*

**Darryl Byrd**

*"Piracy in the Ancient Mediterranean."*

**Wendy Coble**

*"The S.S. Paraguay: The Historical Importance of Early Twentieth-Century Freighters."*

**Robert Dickens**

*"Portuguese Shore Whalers in Nineteenth-Century California."*

**Patrick Fleming**

*"The Case of the I'm Alone."*

**Jeff Gray**

*"Fueling the Fire: An Archaeological and Historical Investigation of Little Sturgeon, Wisconsin and the Claflin Point Wreck."*

**Michael Krivor**

*"Archaeological Investigation of an Eighteenth-Century British Merchant Vessel, Chub Head Cut, Bermuda."*

**Wayne Lusardi**

*"Shipwrecked Swords: An Examination of Edged Weaponry Recovered from Spanish Colonial Vessels and Archaeological Sites, 1492-1733."*

**Coral Magnuson**

*"The Canoe House in Traditional Hawaii."*

**Shawn Moore**

*"Norfolk and Yellow Fever in 1855: Its Impact on National Policy."*

**Phillip Reid**

*"The German Barque Peking: History, Restoration and Interpretation of a Cape Horn Sailing Ship."*

**Todd Robinson**

*"Subject to the Power of the Infernal Spirit: Puritans, Privateers, and the Genesis of Buccaneers."*

**Daniel Warren**

*"S.S. Monumental City: An Historical and Archaeological Survey of the First Transpacific Screw Steam Ship."*

## Where Are They Now?

- James Allen** – Institute for Western Maritime Archaeology, Berkley, CA
- Ray Ashley** – Director, Maritime Museum of San Diego, CA
- Adrienne Askins** – Submerged Cultural Resources Unit, National Park Service, Santa Fe, NM
- David Beard** – Espey Huston and Associates, Houston, TX
- Colin Bentley** – Sailing Instructor, College of Charleston
- Kathryn Bequette** – Director, Maritime Archaeology and Research, OELS, Evergreen, CO
- Jemison Beshears** – Butterfield & Butterfield Auction House
- Robert Browning, Ph.D.** – Historian, US Coast Guard, Washington DC
- Frank Cantelas** – Staff Archaeologist, East Carolina University, Greenville, NC
- Robert Church** – Nautical Archaeologist, C&C Technologies Survey Services, Lafayette, LA
- Wendy Coble** – Independent Specialist in Aviation History and Archaeology
- Edwin Combs** – Ph.D. candidate, University of Alabama
- Dave Cooper** – Head of Interpretation, Grand Portage National Monument, MN
- Diane Cooper** – Curator, Maritime Museum of San Diego, CA
- Annalies Corbin** – Ph.D. candidate, University of Idaho
- Lee Cox** – Contract Nautical Archaeologist, Dolan Research, Philadelphia, PA
- James P. Delgado** – Executive Director, Vancouver Maritime Museum, Canada
- Robert Dickens** – DVM candidate, University of North Carolina School of Veterinary Medicine
- Wade Dudley** – Ph.D. candidate, University of Alabama
- Stan Duncan** – Commercial Insurance Agent
- Rusty Earl** – Computer Science, North Carolina State University
- Rita Folse-Elliott** – Archaeologist, LAMAR Institute, GA
- Sabrina S. Faber** – Fulbright Coordinator, AMIDEAST
- Richard Fontanez** – Contract Archaeologist, Puerto Rico
- Glenn Forest** – International Association of Nitrox and Technical Divers
- Paul Fontenoy** – Curator of Maritime Research and Technology, North Carolina Maritime Museum, Beaufort, NC
- Kevin Foster** – National Maritime Initiative, National Park Service, Washington DC
- Joe Friday** – Sergeant, Greenville Police Department
- Jeff Gray** – Acting State Underwater Archaeologist, State Historical Society of Wisconsin
- Amy Gottschamer** – Real estate agent, Santa Fe, NM
- 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 Archaeology Intern, Parks Canada
- Tim Hastings** – Curator, Independence Scaport Museum
- Nathan Henry** – Conservator, Underwater Archaeology Unit, North Carolina Division of Archives & History
- Rick Heron** – Ph.D. candidate, Texas A&M University
- Robert Holcombe** – Woodruff Museum of Civil War Naval History
- Claude V. Jackson** – Book Editor, Wilmington, NC
- John O. Jensen** – Ph.D. candidate, Carnegie Mellon University, Pittsburgh, PA
- Rick Jones** – Project Manager, Craven Construction Company
- Mike Krivor** – Panamerican Consultants, Memphis, TN
- Karen Kozlowski** – Research Assistant, *Monitor* National Marine Sanctuary
- Wayne Lusardi** – Conservator, *Queen Anne's Revenge* Project, North Carolina Division of Archives and History
- Richard Mannesto** – Great Lakes Historical Shipwreck Museum, Ste. Sault Marie, MI
- Amy (Knowles) Marshall** – Archaeologist, US Army, Fort Bliss, TX
- Coral Magnuson** – International Archaeological Research Institute, Honolulu, HI
- I. Rodrick Mather, Ph.D.** – Assistant Professor, University of Rhode Island
- John McWatters** – Ph.D. candidate, Western Michigan University
- Salvatore Mercogliano** – Ph.D. candidate, University of Alabama
- Ann Merriman** – Ph.D. candidate, University College of London, Department of Egyptology
- Amy Mitchell** – Ph.D. candidate, Pennsylvania State University
- Dave Moore** – Registrar, North Carolina Maritime Museum, Beaufort, NC
- Scott Moore** – Ph.D. candidate, Ohio State University
- Stuart Morgan** – Ph.D. candidate, University of South Carolina
- John W. (Billy Ray) Morris** – Ph.D. candidate, University of Florida, and Director, Southern Oceans Archaeological Research
- Kaea Morris** – Archaeologist, El Paso, TX
- Sam Newell** – Public School Teacher, Greenville, NC
- Glen Overton** – Owner, Cape Fear Yacht Sales and Carolina Beach Inlet Marina
- Martin Peebles** – Archaeological Illustrator, St. Petersburg, FL
- James R. Reedy, Jr.** – Contract Archaeologist, Beaufort, NC
- Phillip Reid** – Gaston County Museum of Art and History
- Todd Robinson** – Ph.D. candidate, University of Maryland
- Matthew Russell** – Submerged Cultural Resources Unit, National Park Service, Santa Fe, NM
- John Schaefer** – Management Consultant, Sacramento, CA
- James Schmidt** – Underwater Archaeologist, Espey Houston and Associates, Houston, TX
- Robert Schneller, Ph.D.** – Historian, Naval Historical Center, Washington DC
- Joshua Smith** – Ph.D. candidate, University of Maine, Orono
- James Spirek** – Underwater Archaeologist, SC Institute of Archaeology & Anthropology
- Thomas Stoltman** – Northwest Michigan Maritime Museum, Empire MI
- Lex Turner** – G.I.S. Coordinator, City of Greenville, NC
- Hans Van Tilburg** – Ph.D. candidate, University of Hawaii
- Bruce Terrell** – Maritime Historian and Acting Maritime Archaeologist, NOAA, Washington, DC
- William H. Thiesen** – Ph.D. candidate, University of Delaware
- Ray Tubby** – Underwater Archaeologist, Tidewater Atlantic Research, Washington, NC
- Daniel Warren** – Nautical Archaeologist, C&C Technologies Survey Services, Lafayette, LA
- Wilson West** – Ph.D. candidate, University of Alabama
- Judy Wood** – Archaeologist, Savannah District, Army Corps of Engineers
- Kimberly Yeaman** – Ph.D. candidate, University of St. Andrews, Scotland

Have we missed you? Call us at Eller House (252) 328-6097 or e-mail us at [underwoodk@mail.ecu.edu](mailto:underwoodk@mail.ecu.edu) and we will happily update the next issue.

## FACULTY PAPERS AND PUBLICATIONS

Over the past year the maritime faculty have been very prolific publishers with 2 books, 4 archaeological reports, 12 journal articles, 26 papers and proceedings articles, 11 book reviews and 4 book chapters. Papers were presented at the Society for Historical Archaeology Conference, Naval History Symposium, Southern Historical Association, Naval History Workshop, Society for the History of Technology, Conference on Shipwrecks and Maritime History, and North American Society for Oceanic History Conference. Besides professional conferences, faculty presented 12 public lectures on underwater archaeology and the Program in Maritime Studies. A few highlights of this work and ongoing research is presented below.

### Lawrance Babits

*A Devil of a Whipping — Battle of Cowpens* (UNC Press, Chapel Hill)  
*Maritime Archaeology: A Reader of Substantive and Theoretical Contributions* (Plenum Press, NY) [with Hans Van Tilburg].  
*Underwater Archaeology 1998* (Society for Historical Archaeology, Tucson, AZ) editor [with Cathy Fach & Ryan Harris].  
"Rapport De Fouilles Relatif Vestiges Français De La Guerre De L'Indépendance Américaine Trouvés à Savannah, Georgie, aux États-Unis" *Sabretache* (French military history journal) [with Thomas Babits]  
"I Just Know It's a Pirate: Popular Imagery, Contemporary Details and Actual Fact" *Underwater Archaeology 1998*, SHA Conference 1998: 61-66.

### Anthony Papalas

Lecture on the Classical Greek Trireme, Oxford University.

### Michael Palmer

*Lee Moves North* (John Wiley & Sons)  
Contract with Harvard University Press for *Command at Sea: Naval Command and Control since the Sixteenth Century*.

### Bradley A. Rodgers

"The Lost PBYS of Kaneohe Bay -- Archaeology of the First Casualties of Pearl Harbor" *Historical Archaeology*, 32 (4): 9-19. [with Hans Van Tilburg and Wendy Coble].  
Review of *Graveyard of the Lakes* by Mark Thompson, manuscript for Wayne State University Press.  
Presentation at the Eric Maritime Museum on the USS *Michigan*

### Timothy J. Runyan

"Lake Transportation," in *Encyclopedia of Cleveland History*

(Indiana U.P., 1997).

"English Navy," "Ships and Shipbuilding," in *Medieval England: An Encyclopedia* (Garland, 1998).

"Merchant Marine" in *Colliers Encyclopedia* (Collier New Field, 1997).

Several book reviews. Presentations were made at the North American Society for Oceanic History and Historic Bath Commission (NC).

### Carl Swanson

Research for a book on merchants of eighteenth century Charles Town, South Carolina.

### John Tilley

Preparing a manuscript on the history of U.S. Coast Guard Auxiliary.

Completed 6 sheets of line drawings for the Historian's Office of the U.S. Coast Guard.

### Gordon Watts

"Geographic Information Systems for Submerged Cultural Resource Management and Site Specific Investigation" *Underwater Archaeology 1998* and Society for Historical Archaeology Conference 1998 [with Roderick Mather]: 3-13.  
"Underwater Archaeological Investigation of the Remains of the Ironclad CSS *North Carolina*" *Underwater Archaeology 1998* and Society for Historical Archaeology Conference 1998 [with Roderick Mather]: 45-53.

### Gordon Watts and William Still

Preparing manuscript entitled *Ships and Shipwrecks of the American Civil War*

## GET ONLINE WITH MARITIME LISTSERV

Anyone with an interest in ECU's Program in Maritime Studies who has access to the Internet has a way to keep in touch with the program and its activities. MARITIME is an unmoderated listserv for students, faculty, staff, alumni, prospective students and any other interested persons. The content of the list includes: announcements and information for students; relevant job listings; new print, personal and electronic resources students might find valuable; information on program alumni; and discussion of issues relevant to students and others interested in the maritime studies program. Within a day of the announcement of the list, it had nearly fifty subscribers in over ten countries.

MARITIME particularly seeks input from program alumni and others who can provide comments and discussion for students currently enrolled in the maritime program. Peter McCracken, Reference Librarian at ECU's Joyner Library and maritime graduate student manages the listserv. Anyone interested in joining MARITIME can do so by sending email that reads "SUB MARITIME first-name last-name" to [listserv@ecuvm.cis.ecu.edu](mailto:listserv@ecuvm.cis.ecu.edu). You will receive a confirmation message, and after replying you will be a member of the list.

You also can get information about the Maritime Studies Program online at [www.ecu.edu/maritime/](http://www.ecu.edu/maritime/).

## GRADUATE STUDENT RESEARCH PROJECTS & PUBLICATIONS

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

**Charles Baymen:** Operational Difficulties Experienced by Admirals Graves, Shulldham, and Howe on the North American Station, 1775-1778

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

**Kelly Bumpass:** Archaeological Investigation of the Stonewall Wreck, Bermuda

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

**Tane Casserley:** Investigation on the 16<sup>th</sup> Century Falcon Gun Site

**Joe Cato:** Imperial Japanese Naval Planning and Maneuver Warfare

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

**Robert A. Church:** The Shortage of Timber in England During the Seventeenth Century and the Effects on Ship Construction

"Archaeological and Hazard Study of Block 183 in the Main Pass Area of the Gulf of Mexico," Prepared for Ocean Energy, Inc. of Lafayette, Louisiana, C&C Technologies, Inc., July, 1998.

"Archaeological and Hazard Study of Block 203 in the East Cameron Area of the Gulf of Mexico," Prepared for Ocean Energy, Inc. of Lafayette, Louisiana, C&C Technologies, Inc., September, 1998.

"Archaeological and Hazard Study of Block 88 in the Grand Isle Area of the Gulf of Mexico," Prepared for Ocean Energy, Inc. of Lafayette, Louisiana, C&C Technolo-

gies, Inc., September, 1998.

"Archaeological and Hazard Study of Block 385 in the West Cameron Area of the Gulf of Mexico," Prepared for Ocean Energy, Inc. of Lafayette, Louisiana, C&C Technologies, Inc., September, 1998.

"Shallow Hazard Survey Report of Block 13, West Delta Area and Block 2, Grand Isle Area of the Gulf of Mexico," Prepared for Shell Deepwater Development, Inc. of New Orleans, Louisiana, C&C Technologies, Inc., October 1998

**Wendy Coble:** One Hundred Aviators: Biography of the First Pilots

**Molly Conlin:** World War II Aviation

**Annalies Corbin:** "Shifting Sands and Muddy Water: Historic Cartography and River Migration as Factors in Locating Steamboat Wrecks on the Far Upper Missouri River," *Historical Archaeology* 32 no. 4 (1998): 86-94

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

**Stuart Derrow:** Historical and Archaeological Study of Sixteenth-Century Spanish Shipboard Subsistence

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

**Rusty Earl:** American Naval Administration at the turn of the 19<sup>th</sup> Century

**James Embrey:** "Archaeological Investigation of St. Mary's City Submerged 17<sup>th</sup> Century Shoreline."

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

**Jeffrey Enright:** Phase II Investigation of A Possible Jeffersonian Gunboat

"1998 Preliminary Report, Flotilla Project, Site 18CV414, Maryland Historical Trust, Crownsville, Maryland

**Cathy Fach:** *Underwater Archaeology 1998* (Society for Historical Archaeology, Tucson, AZ) editor [with Dr. Larry Babits and Ryan Harris].

**Richard Fontanez:** *Early European Shipbuilding in Puerto Rico*

**Glenn Forest:** Confederate Domestic Wooden Gunboat Programs: the Porter Gunboat Program and Chicod Creek Vessel, a *Macon* Class Porter Gunboat

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

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

**Ryan Harris:** *Underwater Archaeology 1998* (Society for Historical Archaeology, Tucson, AZ) editor [with Dr. Larry Babits and Cathy Fach].

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

**Nathan Henry:** Site Report on the Civil War Gunboat USS *Underwriter*

**Robert Kelley:** The Impact of the Development of United States Naval Attack Submarines during the 1980's

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

**Karen Kozlowski:** An Archaeological Investigation of the Destroyer Escort USS *Amesbury*

**Eleftheria Mantzouka:** Classical Trans-

## MARITIMERS ATTEND NASOH CONFERENCE



(L-R): Bob Browning, Tim Runyan, Diane Cooper, Bob Schneller, Bill Still, Ray Ashley, Kevin Foster, Jim Allen, Hans Van Tilburg, Tane Casserley shown before the *Star of India* at the San Diego Maritime Museum.

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# GRADUATE STUDENT RESEARCH PROJECTS & PUBLICATIONS

## CONTINUED

port Amphorae from a Shipwreck at Alonnesos, Northern Sporades, Greece

**Tom Marcinko:** Maritime History of Hatteras Inlet, North Carolina

**Tim Marshall:** Historical and Archaeological Examination of the Steamship *Arabian*

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

**Peter McCracken:** 'Symbolic History' and Sailors: Image Development Through Song at Sea

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

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

**Sarah Milstead:** A Historical and Archaeological Investigation of the Composite-Built Royal Navy Gunboat, *Ready*, from 1872-1998.

**Jeff Morris:** Chicohominy Shipyard site  
**Kaea Morris:** Prehistoric dugout canoes from Lake Phelps

**Sam Newell:** "Captain John Young and the

*Independence,"* *Tributaries* 8 (October 1998): 19-24.

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

**Deirdre O'Regan:** Sails and Sail-making in the United States, 1700-1900

**Robert J. Owen:** History of the USS *Marblehead* in Asiatic Fleet, December 7, 1941 – May 6, 1942: The Long Voyage Home

**Suzanna Pavelle:** Archaeological Investigation of the Submerged Colonial Town of Woodstock, North Carolina

**Harry Pecorelli:** Spanish Colonial Maritime Commerce in the Eighteenth Century

**Larkin Post:** *Polias* the supposed failure of America's WWI Ferro-Concrete Ship Construction Program

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

**Greg Purdy:** Beach Survey System

**Shannon Richardson:** Underwater Remains of Fort Niagara

**John Rossi:** Habsburg Imperial Navy dur-

ing the Thirty Years War, 1625-1630

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

**Chris Southerly:** Historical and Archaeological Investigation of the *Hunter Galley*, A Mid-Eighteenth Century Bermuda Sloop

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

**Ray Tubby:** Historical and Archaeological Investigation of the 1750 Spanish Fleet Ship *El Salvador*

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

**Rob Westrick:** Investigation of the USS *Peterhoff*: A Civil War Blockade Runner/Blockader off Fort Fisher, North Carolina

**Judy Wood:** Savannah River Pilot Boats

**Avi Witz:** History of the Shad boats in North Carolina

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### *Stem to Stern*

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