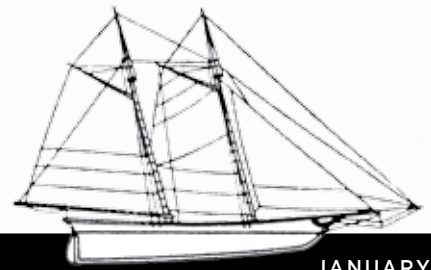


East Carolina University

Stem to Stern



JANUARY
2009
VOLUME 24

A Newsletter for our Maritime Studies Alumni and Friends

PROGRAM IN MARITIME STUDIES | EAST CAROLINA UNIVERSITY | GREENVILLE NC

Field Schools in Bermuda

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Never a dull moment, whether in the water or out!



Stem to Stern

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

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

If you would like to receive a free subscription to *Stem to Stern*, please telephone 252-328-6097, fax 252-328-6754, or write:

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Please visit the ECU Maritime Studies Web site at www.ecu.edu/maritime for additional news and information about the program. A digital copy of this newsletter can be viewed on line.

ON OUR COVER:

John Wagner (L) and Tyler Morra (R) working on the *Emily A. Davies* during the 2008 summer field school in Bermuda. (PHOTO BY CALVIN MIRES).

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From the Editor:

From the colorful pages of this year's *Stem to Stern*, you will observe the exciting and enlightening year ECU's Maritime Studies Program has enjoyed. This issue follows students and faculty all over the world; from Sweden to Bermuda to Washington State, and ultimately back to North Carolina's own rivers, lakes, and coast.

This past year, the Program investigated a diverse assortment of watercraft and maritime themes. Alongside the students, you will encounter vessels as disparate as the 17th century Swedish warship *Vasa* and the abandoned fishing boats of the Pungo River. You will get a peek at such interesting local sites as the Old Sparta Vessel and the *Bohemian Girl* of Lake Waccamaw. Finally, you will gain insight into the innovative techniques of photogrammetry and total station survey that were employed to assess the Confederate ironclad CSS *Neuse* and the west coast schooner, *Wawona*.

The excitement of 2008 continued with the addition of faculty member, Dr. Lynn B. Harris. Originally from South Africa, Dr. Harris is an ECU Maritime Studies alumna from 1988. She has worked as an adjunct professor in Charleston, SC, and as an underwater archaeologist for the state of South Carolina and brings an impressive breadth of international and field experience to the Program.

The Maritime Studies Program continues to garner worldwide interest and support as both students and faculty represent the field at notable scholarly and technical conferences, and as a record number of new students enter the Program from diverse, international backgrounds.

Join us in 2009 as we look forward to even more educational opportunities and enthusiastically continue on our trajectory towards becoming one of the world's major institutions in the maritime field. ☪

– Stephanie Gandulla

From our Director:

2008 was busy to say the least. We never seemed to catch our breath as we continually moved from classes to meetings, projects, field schools and grant applications in a never-ending cycle of busy-ness. You will see the results of our work here. Those of you with hardcore material culture tendencies will note the change in *Stem to Stern*. We have moved to full-color on quality paper to better represent the Program to the outside world. As one of my mentors said years ago, "If you're going to go, go first class."

In that light, it would seem that ECU Maritime Studies has crossed over a threshold of sorts. Thanks to Dean of the Thomas Harriot College of Arts and Science Alan White and Associate Dean for Data and Resource Management Todd Berry, our budget was increased three years ago. We have spent a lot of that increase on upgrading equipment, restocking the conservation lab with new supplies and updated equipment, and field gear to support our projects. The new *Stem to Stern* image is another example of moving into ECU's Second Century, and highlights our outreach, just as we are putting forth the paperwork to plan for a Doctoral Program.

January saw many of us out west for the Society for Historical Archaeology meetings in Albuquerque. The weather was great and there was a very good range of papers. Few students presented but those who did were very good. I particularly remember Michelle Damian's paper on Japanese iconography during an Asian session. The SHA's were the high point of January, as every other day seemed to have another meeting. It was the busiest month of meetings I've "enjoyed" since becoming director. It was impossible to get caught up.

We continued working in Currituck with the small boat recording class taught by Paul Fontenoy (1995) and supported to the ultimate degree of southern hospitality by Barbara and Wilson Snowden. To date, we have recorded 69 vessels and are close to finishing the survivors. The project has been a model for the National Park Service regional boat recording effort.

The NPS has proposed that seven regional, small boat recording centers be established. If this goes through and is funded, the southeastern center would be co-hosted by ECU's Maritime Program and the North Carolina Maritime Museum. This recognizes our work and will certainly help us upgrade future efforts, leading to internships and feet in the door.

Welcome to our new professor. We completed a job search and hired Lynn Harris, not only an ECU Maritime graduate (1988) but also a History PhD from the University of South Carolina, with a great deal of archaeological outreach experience. The search was long and world wide. We conducted telephone interviews as well as voluminous email correspondence. In the process, we identified several future candidates for positions that might materialize if we are allowed to expand.

While Dave Stewart and I were the only current faculty to attend the North American Society for Oceanic History conference in Pensacola, Bill Still was there to be recognized for his World War I book that was awarded the prestigious Theodore and Franklin D. Roosevelt Prize in Naval History. Over three dozen alumni were present and gave presentations on a wide variety of outstanding papers. When group photos were taken, Dave was in both the ECU and the Texas A&M pictures. Hans Van Tilburg (1995) gave the keynote address: a fascinating presentation on Chinese vessels in American waters, including one junk that sank in Pamlico Sound.

In late April, we were approached about submitting a grant proposal to a local foundation for recovering a long, narrow boat found near Old Sparta on the Tar River. The Old Sparta Vessel came to the attention of the general public during last year's drought; however, it had been under intermittent study by Dave Moore (1989) and Sam Newell (1987) since at least 2004. In less than three weeks, Brad Rodgers, Theresa Hicks, Melody Bentz of the Office of Sponsored Programs and Scott Wells (Major Gifts Officer, HCAS Advancement) completed a proposal to study the vessel *in situ*, then recover it, conserve it and permanently curate it. This involved a great many partners and whilst Brad, Theresa and Nathan went off to the summer field school in Bermuda, everything fell into place and the project was successfully completed over July and August.

The summer turned out to be the busiest in recent memory. Brad Rodgers was hugging snakes and wading around the Tar River near Old Sparta with two students. Dave Stewart was recording a ship in Washington State with a half dozen more. Nathan Richards was offshore with NOAA and some alumni checking out U-Boats. The summer's work is going to prove very fruitful in the coming year. All the field work was in addition to book and report manuscripts being prepared, sent off and re-edited. Brad Rodgers and Annalies Corbin (1995) had their work on the Steamboat *Montana* published. Nathan's theoretical and practical text on *Ships' Graveyards* also came out. Both were published by the University Press of Florida.

Peter Campbell was awarded the Sea Grant Fellowship for 2008. Jacqueline Marcotte's proposal was so strong she earned support for her study of boat abandonment in the Wright Creek embayment. You can read about their projects here. Matt Thompson obtained strong in-kind support from the Underwater Archaeology Branch to conduct his field work on the *Bohemian Girl* in Lake Waccamaw.

We continued to upgrade our equipment and student support with a new color printer capable of handling poster-sized copy and another printer for reports and papers. The conservation lab received more new equipment and was upgraded. To free up Brad for developing other conservation courses, we brought in Sarah Watkins-Kenney, director of the QAR Lab on the West Campus, to teach the Fall 2008 conservation course.

Dave Stewart, Nathan Richards, and I successfully completed the Department of the Interior small boat operator course in May. A second course was offered in August. When faculty backed out, Tyler Morra, Lindsey Smith, Jaqueline Marcotte and others filled their slots and were certified. The course was taught, in part, by our Staff Archaeologist, Calvin Mires (2005). Despite threats, braggadocio, and promises to buy drinks if he didn't score 100, Nathan came in third place for the best grade. Modestly explaining that he didn't have time to read the book, he claimed his passing grade was entirely due to his background experience with Australian on-shore whaling operations.

We had fewer graduates during the spring, but their theses quality was very good and

continued on page 5...

Former PMS Student Finishes CRM PhD; Plans to Start Nonprofit to Assist Maritime Students

In August 2008, Steve Workman completed all PhD degree requirements in the Coastal Resources Management (CRM) Program, becoming the first former ECU Maritimer (2002) to also complete the ECU CRM PhD program with a concentration in Maritime Studies. Workman began the Maritime Studies Program in the fall of 2000, after retiring from active duty in the Navy as Ship's Intelligence Officer aboard USS *Abraham Lincoln*. His masters' thesis involved a study of joint Union Army and Navy operations in Eastern North Carolina during the Civil War.

Workman began his studies in the CRM program in 2002, and did an internship with the Consortium for Oceanographic Research and Education (CORE) in DC during the summer of 2003. In 2005, he worked on Capitol Hill as a NOAA Knauss Sea Grant Fellow assigned to the personal staff of Congressman Wayne Gilchrest (R MD-1). Gilchrest served on the House Resources Committee and was an ardent advocate for the Chesapeake Bay, affording Workman the chance to become actively involved in a number of coastal and ocean environmental policy issues.

For his PhD dissertation research, Workman examined the Abandoned Shipwreck Act (ASA), now twenty years old, and other current federal legislation dealing with underwater cultural heritage (UCH) regarding questions of preservation, access, and ownership. Workman surveyed a number of user groups interested in maintaining access to sunken shipwrecks for their recreational, historic, and potential commercial values, including sport divers, nautical archaeologists, and commercial treasure salvors. His dissertation also looked at various ideas for expanding federal governmental control over UCH beyond state waters. It summarized and commented on present and proposed international agreements affecting UCH, including the United Nations Convention on the Law of the Sea and the UNESCO Convention on

continued on page 5...

Spotlight on Faculty and Staff:

Latest faculty addition is well-travelled to say the least

Twenty-five years ago, Dr. Lynn Harris helped sail a 38-foot sailboat from South Africa to the east coast of the United States. Today, she is the latest addition to the faculty of ECU's Maritime Studies Program. As a professor of maritime studies, Dr. Harris brings to the curriculum a breadth of experience in both underwater and terrestrial archaeology, as well as an infectious enthusiasm for new and exciting developments in the field.

Dr. Harris' love of archaeology began early. As a young teenager, she would hike with friends in the desert wilds of South Africa. Often, they would encounter and interact with lone archaeologists working in the field. Inspired by these adventures, she went on to earn a bachelor's degree in Archaeology and Anthropology from Stellenbosch University. Then, in 1983, she earned a graduate degree from the same university in Archaeology and African Studies. After her oceanic voyage to the U.S., Dr. Harris continued her education

with a masters from ECU's Maritime Studies Program in 1988. As the Program's first international graduate, she produced a thesis that investigated shipwrecks around Cape Town, South Africa. Her doctorate was granted in 2002 by the University of South Carolina with a dissertation that focused on boat building and small vernacular craft in Charleston, South Carolina.

Throughout her education and career, Dr. Harris has participated in a repertoire of diverse positions and fieldwork. She has excavated Ming dynasty porcelain from a wreck in Thailand and discovered an astrolabe on the Dutch wreck *The Gilt Dragon* (1656).



Dr. Lynn Harris: infectious enthusiasm

After her time at Stellenbosch University, Dr. Harris was appointed to the position of field archaeologist at the South Africa Museum and Archaeological Shipwreck Inspector for the National Monuments Council of South Africa. She then spent time working in Namibia on shipwrecks scattered along the beach and inland sand dunes of the Namib Desert. She continued her relationship with her home country when, in the mid-nineties, she took a sabbatical to establish a historic shipwreck database and public education program for South Africa. To develop an effective system, Dr. Harris toured the country initiating and instructing various members of the preservation community.

Dr. Harris' dynamic career is rounded out by her fourteen years as Underwater Archaeologist and Manager of the Field Office for the South Carolina Institute of Archaeology and Anthropology. In this position, she was involved in essentially every facet of underwater archaeology. In addition to developing cultural resource inventories, she directed fieldwork projects, wrote educational texts, and developed a network of public outreach programs.

With her extensive background, Dr. Harris complements the Program well. She has worked on vessels as divergent as prehistoric dugout canoes to steamboats and in environments as varied as deserts and swamps. She is likely to have hands-on experience in almost anything in which a Maritime Studies student might become involved.

Dr. Harris teaches classes in the history and theory of nautical archaeology, research and field methods, maritime material culture, cultural resource management, and maritime history. She will also act as a co-principal investigator for the Program's underwater archaeology field schools. When not teaching, writing articles, or working on her book (an expansion of her dissertation),



Dr. Harris can very likely be found playing underwater hockey or fencing. She lives in Greenville with her husband Patrick (an ECU biology graduate) and their children Ben and Leigh. 🐾

– Stephanie Gandulla

PMS Staff Archaeologist is 'jack of all trades'

Whether he's in the office or underwater, Calvin Mires has been a positive presence in ECU's Maritime Studies Program for over six years. He graduated from the Program in 2005 and since 2006 has filled the role of full-time staff archaeologist. At any given moment, Mires can be found facilitating field schools, repairing dive gear or boat engines, assisting with budget and grant writing, or supporting faculty research. He truly is a 'jack of all trades' and brings a breadth of hands-on experience to the position.

Mires was born in Alaska and raised in a small town outside Helena, Montana. Broadening his horizons early, he studied abroad in Rome while earning his undergraduate degree at the University of Montana. Overseas study and travels spurred a keen interest in Classical Studies and he ultimately graduated with honors and a dual major in Latin and Classical Civilizations.

While teaching high school Latin on the east coast, Mires spent the summers participating in underwater archaeological fieldwork. With this career interest encouraged, he joined the Maritime



Calvin Mires: blooming excitement

Studies Program in 2002. His masters' thesis, harkening back to a subject from his home state, was titled "Plying the Water in America's Little Switzerland: the Role of Turn of the Century Lake Tourism in Glacier National Park, Montana."

Continuing his study of tourism and public perception in the maritime world, Mires entered ECU's Coastal Resources Management Phd program in 2004. He is currently exploring cutting-edge concepts in coastal management and maritime resources. According to Mires, "my research is focusing on how the public views cultural heritage resources, like shipwrecks and historic ships, through economic non-market models." Mires is also hoping to bring an "avocational diving model, such as can be found in Europe and Australia, to recreational divers in the area to explain the importance of responsible diving on cultural resources."

These exciting projects in the study of coastal cultural resources complement well Mires' skills as staff archaeologist for Maritime Studies. He confidently contends that underwater archaeology is "blooming" with exciting research and "new technologies."

Whether he's setting up remote sensing equipment or instructing dive and boat-operator training (he's certified in both), it is clear that Mires enjoys working with students, and with the Program. He enthusiastically states, "It's an exciting time to be in the field, and to be here [at ECU]. We're very project-oriented... there's a lot going on!"

Calvin Mires lives in Greenville with his wife Carolyn and their two-year-old daughter, Sarah. 🌱

– Stephanie Gandulla

From the Director, continued . . .

more are being finished this fall. We have almost eradicated the backlog of those who went off to the real world without finishing. At present, there are very few testing the administrative five year limit that will require one of those ever more difficult extensions for a sixth year. Those away from Eller House for some time have either all finished or have not presented any work to be defended.

A major new development came about due to the proposed conservation of the Old Sparta Vessel. This project will require a large conservation tank that will create student assistantships and training opportunities. A home has to be found for this tank. It can't go at the old lab because that area is slated for the new ECU softball complex. Thus, a new home for Maritime Studies is actively being sought. A series of meetings with ECU administrators may lead to a new venue, the ECU Maritime Campus.

The fall field school fled eastern North Carolina and hurricane Hanna and went back to Bermuda on a National Geographic Grant awarded to Nathan Richards.

So, this year has been busy and next spring and summer promise even more and more varied field schools and projects. As our outside reviewers pointed out two years ago, we are overextended, but it sure is exciting and keeping us on our toes.

The fall had many happy moments, but for me, one of the best was when the History Department voted to award Nathan permanent tenure concurrent with a promotion to Associate Professor. Nathan came onto the Maritime Program faculty as an almost brand new PhD. His arrival was most auspicious as he brought in new ideas and a sense of enthusiasm about maritime activity. He rejuvenated the faculty and students alike. His standards in class were demanding but students were enthusiastic about new topics and coped with a rigorous grading system that was clearly spelled out. As Director, I have leaned on Nathan far more than, perhaps, I should have because he was always willing to help solve problems (He was never able to get me to like using a mouse though). Speaking as someone who benefitted from his knowledge and administrative skills on a daily basis, his promotion and the awarding of tenure were richly deserved. 🌱

– Larry Babits

Steve Workman, continued . . .

the Protection of the Underwater Cultural Heritage. It outlined concepts that could be used to develop new regulatory policies.

The research component of Workman's study included opinion surveys of two groups of UCH professionals: (1) Current experts, including government UCH managers, archaeologists, maritime law attorneys, sport diving agency representatives, and private commercial interests involved with salvage of shipwrecks, and (2) the "next generation" of UCH managers, the graduates of Texas A&M University's and East Carolina University's graduate programs in nautical archaeology. These two groups were surveyed on their opinions regarding the ASA, sport diver access to shipwrecks, treasure salvage, pending international conventions, and ideas for expanding U.S. control over UCH in the Exclusive Economic Zone (EEZ). Thirty-five experts participated in the survey, and one hundred twenty-five former TAMU and ECU students responded to the survey, a response rate of forty-seven percent.

A nine-page summary of Workman's dissertation opinion survey research on UCH Legislation can be viewed as a linked PDF file at the bottom of his ECU CRM student web page: http://www.ecu.edu/cs-acad/crm/Student_Workman_Steve.cfm

The Workman family has moved to Roanoke, Virginia. Workman's wife, Terri, was formerly with the ECU Medical and Dental Schools, and is now the Senior Associate Dean for the new Virginia Tech-Carilion Medical School. Workman is in the process of forming a new nonprofit organization to help fund field research efforts by maritime archaeology students. He hopes to have more information available by the SHA conference in January 2009, and funding soon enough to assist some students with their summer 2009 field research. 🌱

Maritimers on the Road: 2008 Conferences

SHA CONFERENCE -

Albuquerque Fast Paced and Full of Fun

Some three dozen Maritime students, faculty and staff survived a most amazing series of travel arrangements to reach Albuquerque last January. In some cases, folks who were bumped from flights got in long before those who went straight through. Going "straight through" meant flying beyond New Mexico and then retracing their path back to Albuquerque.

In a nutshell, one student presented a paper, along with four faculty and staff members. In a continuing display of ECU's impact on the field, at least fifteen alumni gave presentations and, in some cases were the majority of a session's papers. One international session on maritime landscapes included Sami Seeb (2007), Heather Hatch (2006), and Franklin Price (2006). The session continued with an informal dinner as Norway's Chris Westerdahl interacted with Dave Stewart and others about "maritimicity." Another session saw Nathan Richards and several others—Sami Seeb (2007), Larry Babits, Calvin Mires (2005), and Mike Dermody—give papers on boat and ship abandonments and their interpretation.

Wendy Coble (1998) and Bruce Terrell (1988) gave papers on aeronautical archaeology, presenting on the airship USS *Macon* and aircraft curation. Another federal session included NOAA's Hans Van Tilburg (1995), Frank Cantelas (1995), Jeff Gray (1998) and Tim Runyan's discussion of Maritime Heritage in the Marine Sanctuaries. Michelle Damian participated in a unique session on Asian vessels. The tip of an iceberg, this session was an eye-opening exhibition of what we never knew about Asiatic shipping. Another educational endeavor saw Annalies Corbin (1995) and Mark Staniforth hosting a forum on how to transit between graduate study and full time employment with a degree. Demonstrating that successful transition, a presentation by Rob Church (2001), Dan Warren (1998)

and Kim Eslinger (2005), showed the inter-related nature of archaeology, history, contract research and educational outreach.

The meeting was fast-paced and full of interesting papers. The distance did not deter many students who came, especially first year ECU Maritime students. There were fewer student papers because we had small classes leading up to the meeting and those students who came did not yet have the field and research data to generate a paper. Even so, a sizeable student contingent enjoyed some good weather, a different sort of Mexican-American food, and met their predecessors, a first step in professionalization. ☺

MAAC CONFERENCE -

Archaeological Conference boasts Maritime Highlights

Historically a terrestrial organization, the 38th annual Middle Atlantic Archaeological Conference (MAAC) had many maritime highlights. Nautical events included a maritime conservation lab tour, an afternoon dedicated to a variety of underwater presentations, and the graduate student award. The conference was held in Ocean City, Maryland, from Thursday, February 28 to Sunday, March 2, 2008.

The conference kicked off with a conservation lab visit to view the artifacts from the recently discovered British supply ship *Severn*. In 1774, the merchant ship *Severn* left Bristol, England, headed for Philadelphia, and foundered in Lewes Harbor, Delaware. Two hundred and thirty years later, a beach replenishment dredge cast thousands of artifacts onto the shore. Contracted by the Delaware Division of Historical and Cultural Affairs, Lee Cox (1985) utilized side scan sonar and magnetometer surveys to locate the wreck site in 14 feet of water and recovered select diagnostic artifacts. In 2007, ECU alumni Michael Krivor (1998) excavated portions of the state-

protected site and recovered stoneware water bottles, mill stones, glassware, and various metallic objects ranging from stirrups and candlesticks to cast toy soldiers and ships.

The underwater session occupied a prime slot on Saturday afternoon. The session consisted of nine presentations from various organizations including East Carolina University, Flinders University, Institute of Maritime History (IMH), Mariners Museum, Maryland Archaeological and Historical Society (MAHS), Salisbury State University, and Texas A&M. Bridget McVae of Texas A&M, presented a three-dimensional Rhinoceros™ model of the *Severn* site. Through graphic manipulation of select drawn artifacts, McVae proposed a packing order for long-stemmed pipes, packed in a wooden box. David Howe of IMH presented survey methodology, cost, and results of the 2007 Ship Reconnaissance project. David Shaw, of MAHS, discussed archival research on the American privateer, Baltimore clipper *Lion of Baltimore*, burned in 1814 on Maryland's Western Shore. Salisbury State undergraduate Jennifer Gardner researched the port of Salisbury, Maryland. Mark Opdyke, Flinders University, presented his completed Chesapeake thesis work "The Archaeology of a Skipjack: *Joy Parks*."

ECU was represented by alumni Jodi Carpenter (2007), David Krop (2008), and first year student, Joyce Steinmetz. Jodi Carpenter's paper reported on her thesis research "Underwater Archaeology of Jamestown Island, Virginia: Diving into Context." In 10 survey days, Jodi and her team discovered 25 vessel remains along the island's 8-mile historic shoreline. David Krop and Susan Grieve, Mariners' Museum,



ECU student Joyce Steinmetz receiving award at MAAC.

presented “Working Together to Save the USS *Monitor*: Contributions from Other Fields.” David credits the *Monitor*’s artifact conservation success to the analytical and technical support of numerous and various institutions.

Joyce Steinmetz won the graduate student award for “Mid-Atlantic Deepwater Shipwreck Study: Side-Wheel Paddle Steamer *Admiral DuPont*, 1847-1865.” In the competition’s five-year history, this was the first award for a maritime topic. The award is based on content, presentation, and contribution to the field of archaeology. The prize includes a monetary award, one year’s membership, and publication in the annual *Journal of Middle Atlantic Archaeology*.

Through historical research and site surveying in 150 feet of seawater, Steinmetz matched the identity of the vessel and engine remains to the English-built ferry, Confederate blockade-runner, and, later, coastal passenger steamer *Admiral DuPont*. A modern scallop dredge on the port paddle wheel sponson post threatens the midships structural integrity. In support of the research, please email observations and photographs of commercial fishing trawl, dredge, and net impacts to shipwrecks to jhs0606@ecu.edu. 📧

– Joyce Steinmetz

NASOH CONFERENCE - “Defining the Maritime Edge” Proves Enjoyable

The 2008 North American Society of Oceanic History Meeting, “Defining the Maritime Edge,” was held in Pensacola, Florida. Chaired by Amy Mitchell-Cook (1994), this year’s meeting was held with the Council on American Maritime Museums. The meeting was smoothly run with not much overlap between presentations. ECU faculty and alumni presented at least 23 papers, highlighted by Hans Van Tilburg’s (1994) keynote address at the banquet.

The range of papers was very broad, as might be expected in an international meeting that concentrated on both history and archaeology. Hans Van Tilburg’s address epitomized the variety as he gave an intriguing presentation on Chinese junks



ECU Maritimers at NASOH

that ranged from the Song Dynasty up to post-1960 vessel losses in California and Pamlico Sound. Dave Stewart gave an update on the Washington Park vessel and garnered a lot of interest in how he created its lines using the goniometer and Rhino. Then he went out and recorded maritime grave stones in the cemetery across the street as part of his research into maritime memorialization.

Mike Krivor (1998) spent much of his free time showing people imagery of his work on the Saipan invasion beaches and trying to drum up prospective field school projects. A sizeable U.S. Coast Guard contingent included Jeff Bowdoin, Bob Browning (1980) and Bill Thiesen (1993). Aside from Hans, NOAA was well represented by Cathy (Fach) Green (2003) who gave an excellent presentation on all Marine Sanctuaries but stayed true to her Thunder Bay roots.

There was much to do outside the

conference hotel because Pensacola was hosting a festival involving Krewes of the type usually associated with New Orleans. For those who think some maritimers “dress up,” our close association with day-glo, Dacron pirates was something of a rude awakening, especially when jammed into an elevator with them. The Museum of Naval Aviation was well worth seeing, especially as it has aircraft salvaged from Lake Michigan, including two in an “underwater” archaeology site diorama.

This meeting was a friendly affair with many long time classmates and co-workers meeting for a good time and exchange of information. For students, it is an especially easy venue for giving papers and more ECU students should attend and give papers. Of some 150 participants, ECU still had a sizeable group with over 25. Dave Stewart was unique in showing up for both the ECU and the Texas A&M group portraits. 📧

UPCOMING CONFERENCES:

Society for Historical Archaeology (SHA)
The Ties That Divide: Trade, Conflict & Borders
Toronto, Ontario • January 6-11, 2009

Symposium on Maritime Archaeology and History of Hawai'i and the Pacific (MAHHI)
Honolulu, Hawai'i • February 20-22, 2009

Middle Atlantic Archaeological Conference (MAAC)
Ocean City, Maryland • March 19-22, 2009

Computer Applications to Archaeology (CAA)
Colonial Williamsburg Foundation in Williamsburg, Virginia • March 22 to 26, 2009

Society for American Archaeology (SAA)
Atlanta, Georgia • April 22 - 26, 2009

North American Society for Oceanic History (NASOH)
Ports, Forts, and Sports: Maritime Economy, Defense and Recreation through Time and Across Space
Vallejo, CA • May 14-17, 2009

International Congress of Maritime Museums (ICMM)
Annapolis, Maryland • Sept. 28 - Oct. 2, 2009

Summertime on the Tar...

Old Sparta Vessel Becomes an Obsession as Site Plan is Developed

While rushing to class one morning, Theresa Hicks told me to grab my snorkeling gear because we were going somewhere with Dr. Larry Babits and Dr. Brad Rodgers. I scrambled to get everything together and jumped in the van. We headed north following the Tar River to the small town of Old Sparta. We walked across the Tar River to a wooden wreck lying in around three feet of water. Little did I know that this eighty-foot vessel would become my summer job and obsession. Thanks to the work of Theresa Hicks, Dr. Rodgers, Scott Wells, and Dr. Babits, we received a \$25,000 grant for a Phase II archaeological survey, and worked eight weeks during the summer on documenting and researching this wreck. The end result of these eight weeks is a report on the vessel and a site plan.

The Old Sparta Vessel is submerged in a few feet of water along the west bank of the Tar River adjacent to a modern cement bridge piling. The depth of the site changes according to rainfall in the river basin above Old Sparta. During the months of June, July and August, conditions in the river, including temperature, depth, current, visibility, and algae concentration, fluctuated dramatically. On-site depth averaged around three feet at the bow (up river) and about two feet at the stern (down river). Large storms caused the river to rise and the visibility to fall. Fish nibbled on our legs and, on occasion, a large snake slithered through the site.

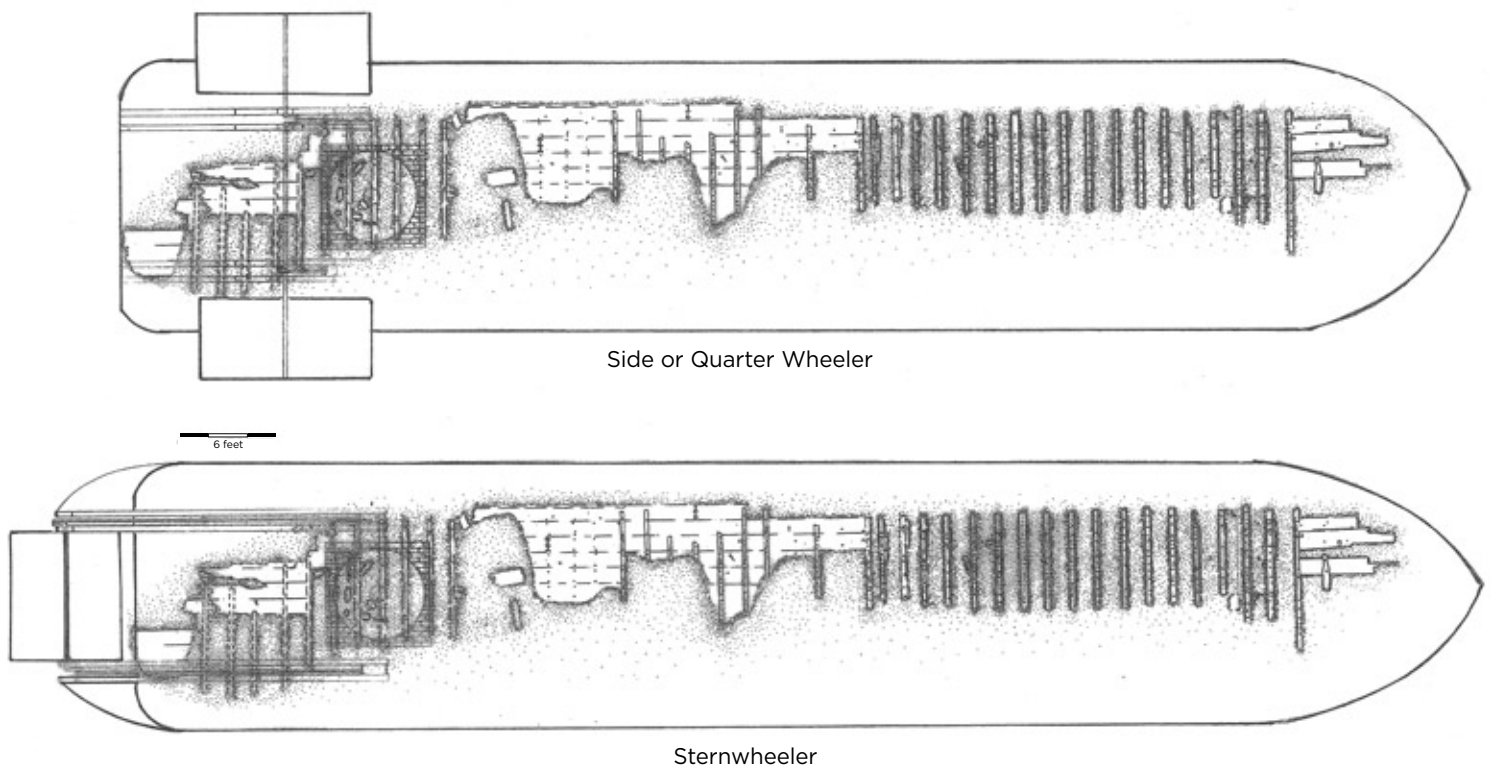
The weather rarely cooperated with our goals. The aftermath of rainstorms included very cold, high water with low visibility and a much stronger current. Early

on, we had a large rainstorm that kept us dry, archiving in ECU's Joyner Library's North Carolina Collection. High water also brought us to the Edgecombe County Library in Tarboro where we studied more primary documents.

When we were not rained out, we snorkeled on the site, drawing measured sketches of the vessel. We used foam packing material to float our slates and notebooks. We examined the frames and wedged ourselves in to outwit the current. I measured the current at circa 10-12 feet per second by seeing how far I was pushed in ten seconds. The current made work a little harder and a lot more entertaining, as did the algae outbreak and our subsequent algae fight.

The vessel remains are 85-feet long by 14-feet in beam. The stem and part of the stern are missing but the length to beam ratio could not have been less than five or six to one. The boat has shallow flaring sides and a flat bottom for navigating up shallow, inland rivers. The vessel has a simple and very light design, with scantlings that would be more appropriate on a smaller boat. The cylinder

Old Sparta Vessel Plan View Conjectural Steamboat Configurations



© Program in Maritime Studies 2008

timbers are large and notched to fit over and between the floors, and shaped to fit the sloping stern. Normally, cylinder timbers came in pairs on each side of a steamboat and would support the engines and paddle wheels. We have fragments of two of these timbers on-site measuring six by ten inches. The perplexing issue is the lack of iron fastenings. There are some small nails but treenails are the main fastening element. Construction relying on treenails is more typical of early 19th and 18th century building. There are also rose head nails that suggest an earlier date than seems possible for a steamboat of this design.

Maritime Studies alumni Dave Moore (1989) and Sam Newell (1987) worked at recording the wreck over the past four years. We realized that the vessel had very interesting characteristics and artifacts. Coal, burned bricks, and cinders made us scratch our heads and add new hypotheses to a blackboard full of multiple working hypotheses. We quickly had many more possibilities than could be refuted. The documentary information and artifacts, combined with examination of certain timbers, revealed that this wreck is most likely a Tar River steamboat. Steamboats began running on the Tar in 1836 when the *E.D. McNair* made its first trip to Tarboro and took a load of citizens to Old Sparta. Tracing the history of Tar River steamboats was very interesting but finding the final locations of many of the ships was difficult and often impossible. At least twenty-five boats ran on the Tar River between Greenville and Tarboro between 1836 and 1914.

Further research may confirm that this vessel is a steamboat, and indicate which one. If it is indeed a steamboat, we have two leading hypotheses for the identity of the wreck: *Tarboro I* and *Cotton Plant III*. A group of Greenville citizens bought the *Cotton Plant III* in 1860 and put it into commission on the Tar River between Washington and Tarboro. The *Cotton Plant III* was captured by the Union forces and placed on the Roanoke River until John Myers and Son bought it, and brought it back to the Tar River in 1866. In 1880, The *Cotton Plant III* burned at its dock in Tarboro and John Myers and Son later towed it to its final resting place above Old Sparta. The other candidate, the *Tarboro I*, was an extremely shallow-draft, side-wheel



Aerial view of Old Sparta vessel site, Tar River.

steamer built by A.W. Styron. This vessel ran on the Tar River from 1881 until 1885 when it hit a stump and sank. The water was so low it did not even cover the deck. Efforts to recover the ship failed, and in 1886, a freshet caused it to float free and into the bridge at Old Sparta. The vessel broke amidships and was a total loss.

The Old Sparta Vessel project is the best summer job I have ever had. Examining the vessel was an incredible chance to learn how steamboats were designed. Studying

this type of vessel helps convey the way boat builders dealt with shallow inland river navigation. Hopefully, future research will confirm just how significant this wreck is. An archaeological report, the product of this summer's work, will be published later this year. In addition, I will be writing my thesis on some of the research we have done. As long as storms have not clouded visibility, this interesting site can be seen from the Route 42 Bridge in Old Sparta. 📍

– Lyz Wyllie

Last Rites for the Wawona...

ECU Teams with Northwest Seaport to Document Historic Vessel

For half a century, the Pacific schooner *Wawona* fully participated in the major economic activities that shaped the Pacific Northwest. Built in 1897, *Wawona* hauled timber from Washington to California for seventeen years, then spent three decades in the Bering Sea cod fishery. During World War II, she again hauled lumber, this time to the Boeing airplane factory in support of the war effort. She became a museum ship in 1964 and the first vessel to be named to the National Register of Historic Places in 1970.

“Unfortunately... years of rot have taken their toll.”

Presently, *Wawona* is owned by Northwest Seaport, who had hoped to raise enough money to fully restore her. Unfortunately, however, years of rot have taken their toll (figure 1). It is no longer possible for the vessel to be saved, and she is scheduled for dismantling sometime in Fall 2008. Some sections will be preserved for a museum at Seattle’s Lake Union Park, but when *Wawona* is gone the city will lose one of the most tangible links to its maritime past.

The East Carolina University – Northwest Seaport *Wawona* Pacific Schooner Documentation Project was a collaborative effort between the two organizations to record structural details of the *Wawona* prior to her dismantling. Previous documentation projects had taken off the ship’s lines and recorded numerous other details through photography and laser scanning, and one history of the vessel has also been written.

While these provide valuable information, knowledge of *Wawona*’s structural details was lacking. Without these, it was not possible to truly understand the shipbuilding philosophy practiced by her builder, H. D. Bendixsen. Recording was conducted by ECU graduate students Peter Campbell, Morgan MacKenzie, Jacqueline Marcotte, Lindsay Smith, Joyce Steinmetz, and John Wagner, under the direction of ECU professor David Stewart and Nat Howe of Northwest Seaport.

Our goal was to produce an electronic plan of the vessel that can be used to make digital reconstructions or a full-size replica of the vessel in

the future. The bulk of recording was done with a total station. Recording began by establishing datum points and marking points to be shot with the total station’s laser. For this, the technique was to choose points that would give information about the position and sizes of timbers, as well as allow us to capture the shape of the hull. Marked points included, for example, the locations of hanging knees, ceiling planking seams, scarfs, pointers, deck beams, stanchions,



FIGURE 1: General view of *Wawona*’s bow, showing gaping hole.

and the deck clamp. Each point chosen for shooting was marked with red 3M conspicuity tape, which provided a reflective surface for the total station’s laser (figure 2). Data from the total station was imported into the Rhinoceros computer aided design program, where it can be used to create digital models of *Wawona* (figure 3).

Wawona’s chain locker, forward of the forward foc’sle bulkhead, presented an area that could not be reached by total station. Because of the extreme curvature of the hull in this area, there was no place to mount the equipment, and, even if it had been possible to set it up, the confined space and arrangement of timbers would have severely limited sight lines, making total station recording impractical, if not impossible. Instead, we turned to 3H Consulting’s Site Recorder 4 program. While it has been used most often on submerged sites, the program works equally well above water. The first step was to set up a ring of datum points around the



FIGURE 2: Looking aft down *Wawona*’s hold. Each red dot is a point recorded with the total station.

area to be recorded. Normally, one places the datum ring outside the known boundaries of the site, and measures inward from these to unknown points. In this case, however, there was no way to place the ring completely outside, because we were recording an enclosed structure. Instead, we decided to place datum points on the sides of the hull, at both high and low levels, in sufficient numbers to form a closed network of points completely surrounding the roughly triangular-shaped bow structure. Once the datum point ring had been measured accurately, students spent two days marking and measuring all other points that we needed in the bow. As with total station recording, points that provided shapes, sizes, and locations of timbers were chosen. The data generated by Site Recorder can also be imported into Rhinoceros, making it fully compatible with data recorded by the total station.

Although the total station and Site Recorder allowed students to gain valuable high-tech recording experience, the team also practiced traditional archaeological skills by drawing measured plans of construction features, fastening patterns, and other details. *Wawona* will soon be dismantled, but the data gained from this project will allow research to continue for years to come. The data collected from *Wawona*, combined with archaeological studies of others of her type, will help to provide a more thorough understanding of the construction and structural philosophy behind Pacific schooners. Perhaps best of all, ECU has gained a partner in the Pacific Northwest. As we packed up to leave Seattle, we were already discussing future collaborative projects with Northwest Seaport.

Acknowledgements

This project would not have been possible without the drive and organization exhibited by Northwest Seaport. In particular, I would like to thank Shannon Fitzgerald, Nat Howe, Joe Shickich, and Wayne Palsson for their help and suggestions. The City of Seattle provided much of the funding that made this project possible. Additional thanks go to Buca di Beppo, Outback Steakhouse, Duke's Restaurant, Lake Union Drydock Company, and the Center for Wooden Boats.

– Dr. David Stewart

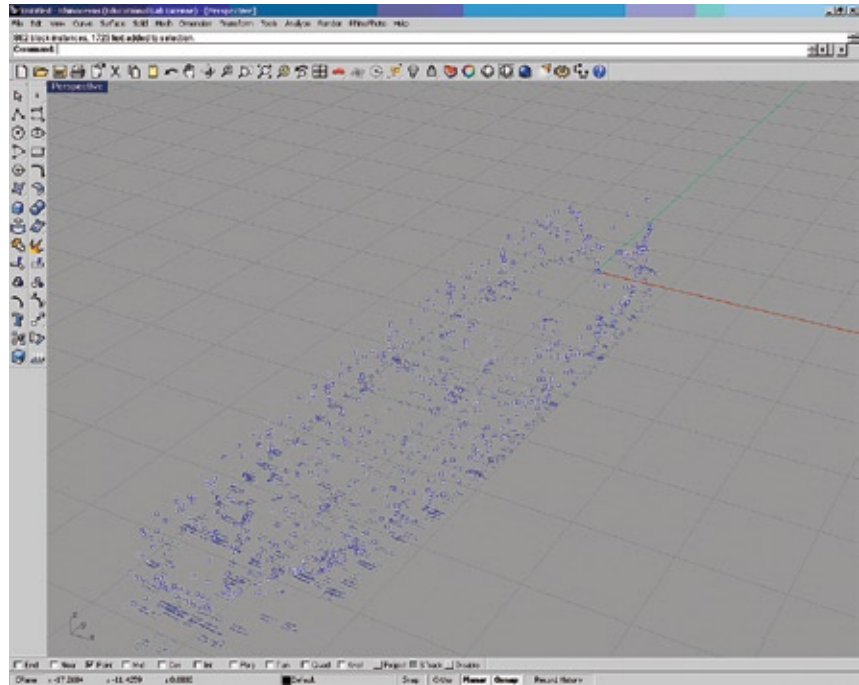


FIGURE 3: Rhinoceros isometric view of 862 points recorded below decks. The bow is to the right.

ECU Mariners Receive Awards, Recognition

Stem to Stern is proud to share the news of the following awards:

William N. Still Jr., Professor Emeritus of ECU's Maritime Studies Program, was awarded the Theodore and Franklin D. Roosevelt Prize in Naval History for his book, *"Crisis at Sea: The United States Navy in European Waters in World War I."* The annual award recognizes an outstanding work on American naval history, and is awarded by the New York Council of the Navy League in cooperation with the Franklin and Eleanor Roosevelt Institute and the Theodore Roosevelt Association.

Still joined ECU in 1968 as an associate professor of history and later became full professor. He was the founding director of ECU's Program in Maritime History and Underwater Archaeology in 1982 and retired in 1994. A renowned historian, Still has won numerous awards and has published a number of articles and books on Civil War and naval history. He served in the US Navy from 1954 to 1956 and earned his PhD and MA from the University of Alabama.

Dr. Michael A. Palmer, Professor of History with the Program in Maritime Studies and interim chair of the Department of English at ECU, was the winner of the Cold War Essay Contest for his article entitled, "The Genesis of the Sixth Fleet: The US Navy and Early Cold War Foreign Policy in the Mediterranean, 1946-1948." Dr. Palmer, Chair of ECU's Department of History, has worked at the Naval Historical Center in Washington, DC, in the Persian Gulf as a field historian, and in the Office of the Chief of Naval Operations' Strategic Concepts Group in the Pentagon.

The award, sponsored by the John A. Adams Center for Military History and Strategic Analysis at the Virginia Military Institute, bestows \$2,000, an honorary plaque, and publication in the *Journal of Military History*.

STUDENT AWARDS:

- Middle Atlantic Archaeology Conference Award
- Renci Visualization Challenge
- North Carolina Sea Grant
- North Carolina Sea Grant

Joyce Steinmetz
Eric Ray
Peter Campbell
Jacqueline Marcotte

Field Schools in Bermuda...

2008 Summer Field School: Busy in Black Bay, Bermuda

Between May 24 and June 14, 2008 fourteen East Carolina University students traveled to Bermuda for the Maritime Program's 2008 Summer Field School. The project was headed by Dr. Brad Rodgers and Dr. Nathan Richards, and accompanied by Calvin Mires, staff archaeologist, and Mark Keusenkothen, ECU's Dive Safety Officer. The project was sponsored by the Bermuda Maritime Museum with assistance from Dr. Edward Harris, director, and Elena Strong, acting curator. The goal of the project was to complete a Phase II pre-disturbance survey of the ferrous sailing vessels, *Emily A. Davies* and

Norrköping. Documentation and analysis of the sites, located in Bermuda's Great Sound's Black Bay, are part of an ongoing project headed by Dr. Brad Rodgers and Dr. Nathan Richards called "The Ferrous Shipbuilding Tradition Project." The Program in Maritime Studies and the Coastal Resource Management Program created this multi-year program to identify and define the traditions of Anglo-American iron and steel ship construction, of which the *Emily A. Davies* and the *Norrköping* are prime examples.

The faculty, staff, and students arrived in Bermuda on Saturday, May 24, the



View of Taifun, Convict Bay

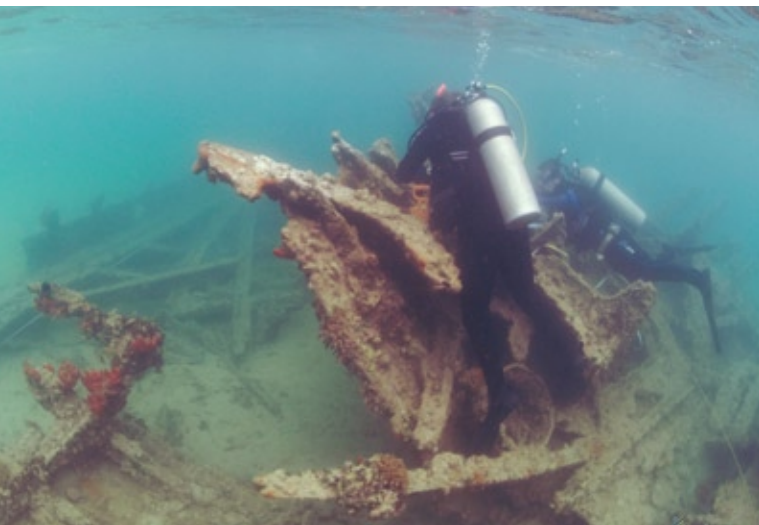
national Bermuda Holiday, "Bermuda Day," and set up base at the Royal Navy Dockyard. The group was fortunate to stay in the barracks inside the historic naval fortress where they witnessed gorgeous sunsets, watched Portuguese man-of-war hunt in Snorkel Park, and danced on the fort's ramparts to reggae music playing at Hammerhead's bar.

The day after arrival, the work started. Students were divided into three teams headed by Dr. Rodgers, Dr. Richards, and Calvin Mires. Each team was then broken up into groups of two or three to work on individual sections within the vessel site.

"The group... witnessed gorgeous sunsets... and danced on the fort's ramparts to reggae music playing at Hammerhead's bar."



Students listen as Dr. Rodgers gives the morning briefing in Bermuda Maritime Museum's Library.



Above: Tyler Morra (L) and Joyn Wagner (R) map a section of *Norrköping*.

At right: Jeanette Hayman (R) and Joyce Steinmetz (L) map stern assembly of *Norrköping*.



PHOTO: ALL SUMMER PHOTOS BY CALVIN MIRES.

The first vessel was the *Emily A. Davies*. The *Emily A. Davies* is a Welsh vessel built in 1876 with a net gross registered tonnage of 396 tons. The ship is approximately 198 feet in length with a narrow beam, similar in shape to a clipper. The ship is constructed of steel and possesses an



intercostal (internal keel and keelson). Historical accounts describe the *Emily A. Davies* as being dismasted at sea sometime in the early 1900s and making her way to Bermuda. She was then sold as a lighter to bring coal to vessels whose drafts were too deep to make it into St. George Harbour.

The second vessel was the *Norrköping*, a Norwegian-owned iron ship built in 1869. While both vessels were fairly intact, the *Norrköping* still possessed its winch. Historical records note that the *Norrköping* was laden with asphalt and bound for the United States when it took on water. The crew attempted to lighten her by throwing the iron masts overboard. The masts would not budge and the crew abandoned her. Soon after, the ship righted itself and a steamer towed the *Norrköping* into St. George Harbor. This reportedly occurred around the same time that the *Emily A. Davies* lost her masts.

The *Royal Hamilton Gazette* published a story on the Black Bay Vessels in 1969 and reported that they had been moored at Black Bay since at least the 1920s when Mrs. C. W. Hughes' husband built a house there. The company that owned the vessels towed them to their resting place, but soon went bankrupt and the ships were abandoned. The 1969 article further stated that high hurricane winds tore the vessels off their moorings and wrenched the stern off the *Emily A. Davies*, bending the intercostals at a sixty-degree angle.

Documentation of these two ships resulted in plans and cross-sections for each.

– Theresa Hicks

2008 Fall Field School: Stationed on the eastern end of the island

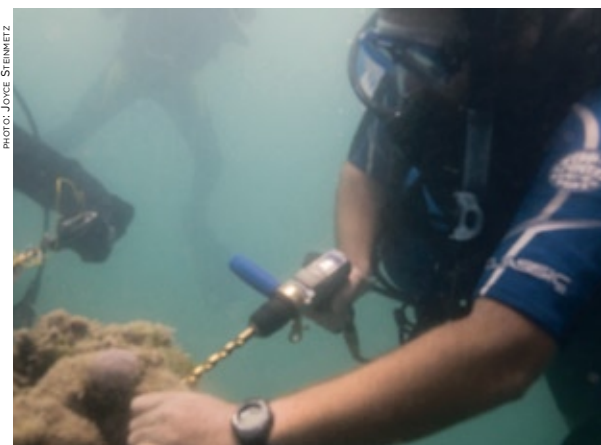
Kicking off the 2008 fall field school, Dr. Nathan Richards, Dr. David Stewart, Calvin Mires and Steve Sellers led eleven intrepid second year graduate students through hurricanes and tropical storms on the way to and from Bermuda. A grant obtained from National Geographic and the Waitt Institute for Discovery provided the funding for “Wrecks and Wrecking in St. Georges’ Parish,” an examination into the circumstances of ship salvage in Bermuda and the resourcefulness of the Bermudian community in the early



Jeanette Hayman (L) and Lindsay Smith (R) trilaterating cardinal points on Site One.

twentieth century. This fieldwork follows a number of visits to Bermuda commencing in summer of 2007 with a reconnaissance trip, a December 2007 investigation of an unidentified steam lighter at the Royal Navy Dockyard, a March 2008 investigation of a Royal Navy gunboat at Myer’s Slip, and a summer 2008 field school focused on two ferrous-hull sailing ships in Black Bay, *Norrköping* and *Emily A. Davies*.

This was the Program’s first project permanently stationed on the eastern end of Bermuda. The T. S. Admiral Somers Sea Cadets Association in St. George was gracious enough to house us over the three-week period. This location allowed easy access to most of our sites, which were visible from the house’s bayside windows. Initial activities began with general reconnaissance of a number of inter-connected bays throughout St. Georges’ Parish. The team snorkeled on nearly twenty different shipwrecks, and students were introduced to tow boarding as a tool to locate submerged sites. Areas of interest included Grotto Bay, Mullet Bay, Convict Bay, and areas adjacent to Myer’s Slip.



Dr. Richards drilling a cast iron davit collar on the *Medina*-class gunboat at Myer’s Slip.

Site survey commenced at Grotto Bay where students recorded two intact barges sunk off a nearby resort. These two vessels resemble sunken ships adjacent to the Royal Navy Dockyard. The majority of our activity, however, focused on salvaged watercraft adjacent to Meyer’s Wharf in Convict Bay. This is the location where prominent Bermudian William E. Meyer (onetime mayor of St. George’s) had once

continued on page 14...

Field School/Bermuda, continued . . .

operated his ship-breaking and salvage businesses. Today this is represented by the disarticulated remains of at least nine sailing ships and steamers. The largest site, likely a mixture of debris from numerous salvaged ships, but dominated by a large wooden hull was designated Site One, and became the primary focus of the season. At over 240 feet long and 60 feet wide, the jumble of wood and iron was initially daunting. When separated into ten by twenty foot sections, however, it became much more manageable. 3H Consulting's least-squares-adjustment software *Site Recorder* was used to check our baseline and assist in rectifying any error discovered.

High productivity among the crew created an opportunity for students to form alternating leadership teams for three additional projects following the completion of Site One. Other submerged vessels were discovered on the high-resolution aerial photographs made available to us by the Bermudian government. Snorkel searches of the area confirmed the location of these unidentified sites, and three were recorded under the exclusive direction of graduate students. A variety of different methodologies produced three additional site plans, and two ship cross-sections. This exercise

in time management, crew organization, and site operation was a unique opportunity for students to step into leadership roles in an educational setting and familiar atmosphere.

ECU alum Jimmy Moore (MA, 2003), now a PhD candidate at the University of Rhode Island, joined the crew for a short time and introduced students to the science of corrosion measurement. Divers were able to sample the port and starboard metal plating of the British-built steel-hulled bark *Taifun* (1897) and measure temperature, salinity, dissolved oxygen, and pH levels. Researchers completed additional sampling on the *Medina*-class gunboat (believed to be either HMS *Medway*



PHOTO: STEVE SELLERS



PHOTO: CALVIN MILES

Above: John Wagner measuring Site One.

At left: John Wagner carrying out corrosion analysis of the *Medina*-class gunboat at Myer's Slip.

or HMS *Medina*, both built in 1878). Potentially this data will contribute to an international corrosion database, Moore's dissertation, and might provide some idea as to the long-term effect of marine corrosion on these ships.

By project's conclusion, researchers had produced seven site plans, two cross-sections and also extensively documented the sites around Meyer's wharf with photo and video. With this data, students are now producing a virtual museum exhibit for the Museum of Underwater Archaeology online (see www.uni.edu/mua).

“High productivity among the crew created an opportunity for students to form alternating leadership teams for three additional projects. . . .”

The exhibit will include background information on the sites; methodologies utilized during the project, and will detail the results and suggestions on the site's future. Underwater video and pictures taken in the field will supplement the historic research and site plans creating an exhibit for the public.



PHOTO: NATHAN RICHARDS

Dr. Stewart checking baseline undertaking Site Recorder survey on Site One.

The project would not have been possible without the input of a number of agencies and individuals in Bermuda. Dr. Philippe Rouja, Custodian of Wreck with the Bermuda government (Department of Conservation Services) provided crucial support in permitting, local knowledge and diving assistance. Other government assistance came from Mandy Shailer, whose help with high-resolution aerial photography significantly helped us understand our sites.

Space does not permit a full account of the assistance we received from the Bermuda Maritime Museum, in particular Dr. Edward Harris, Elena Strong, Andrew Harris and Gene DeSilva. Dwayne and Calvin Trott, of T. S. Admiral Somers Sea Cadets Association provided hospitality and convenient accommodations contributing to the project's success. Thanks also to Alex Checker of the Bermuda Institute for Ocean Sciences (BIOS). After a second productive field school in Bermuda, ECU's Program in Maritime Studies hopes to continue to work with all of these valuable partners, and look forward to future opportunities to uncover Bermuda's maritime history. 🐠

– Lindsay Smith

Tauchen! Tauchen! Tauchen!

ECU joins venture to find German U-boats off coast of North Carolina

Aboard NOAA's new 41-foot vessel, our dive group drifted backwards in the current towards our drop point and the anticipation began to mount. We wondered what we could hope to find intact on a vessel sunk in 1942 and lying on the sandy ocean floor off Cape Hatteras. This reflection ended, however, when the boat shifted into neutral, the engines stopped, and three words were shouted over the crashing of the waves on the stern of the vessel: "Dive! Dive! Dive!" As we plummeted to the bottom of the ocean, negatively buoyant, I could not help but think that those three words were probably one of the last commands shouted in German over sixty years ago in this very location: "Tauchen! Tauchen! Tauchen!" were the words were followed soon after by the order to abandon ship.

These thoughts were some of the many that flashed through my mind while taking part in a project intended to survey three German U-boats sunk in the waters off North Carolina during the Battle of the Atlantic. The project was a joint venture undertaken by the National Oceanic and Atmospheric Administration (NOAA), East Carolina University (ECU), National Park Service (NPS), Minerals Management Service (MMS), State of North Carolina Department of Cultural Resources, and the University of North Carolina's Coastal Studies Institute. The project lasted from July 6 to July 26, 2008, with the intention of surveying and recording the present state of the *U-352*, *U-85*, and *U-701* and nominating the vessels for inclusion on the National Register of Historic Places.

By the time Dr. Nathan Richards and I arrived on July 16, the *U-352*, sunk off the coast of Morehead City, had already been recorded and the team had moved to Nags

Head to work on two other U-boats. The *U-85* lies 14 miles off the coast at a depth between approximately 85 and 100 feet. The *U-701*, approximately 40 miles offshore, lies at a depth between approximately 100 and 115 feet. Because of the deep depths and the limited amount of

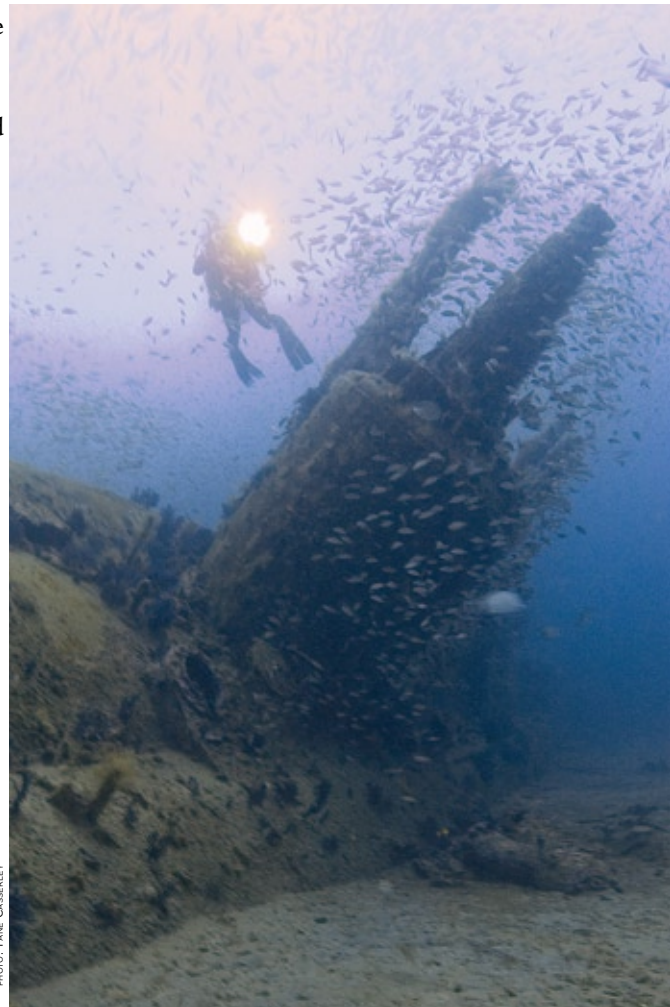


PHOTO: TANE CASERLEY

U-352 off coast of North Carolina.

bottom time, all dives were done using Enriched Air Nitrox and included a slow ascent rate with a three to five minute safety stop between 15 and 20 feet.

Dives consisted of finding the U-boat on the research vessel's depth finder, moving up current to a distance determined by the strength of the current, and entering

continued on page 28...

Theses Defended IN 2008

Brian Diveley, "Naval Development and the Diffusion of Nineteenth-Century Maritime Innovation: An Archaeological and Historical Investigation of the *Sassacus*-Class Double-Ender, *USS Otsego*."

Adam Friedman, "The Legal Choice in a Cultural Landscape: An Explanatory Model Created from the Maritime and Terrestrial Archaeological Record of the Roanoke River, North Carolina."

Veronica Garrett, "Of Maps and Monsters: Meaning in Cartographic Ornamentation."

David Krop, "The Governorship of Alexander Spotswood in Colonial Virginia."

A Little Closer to Home...

CSS *Neuse* State Historic Site Kinston, NC

From July 15 through July 30, 2008, research and documentation was carried out on the CSS *Neuse*. Made possible by a 2008 North Carolina Sea Grant, the centerpiece of field work was mapping the Confederate ironclad's remains using a total station. Using the same methods as previous ECU projects in Sweden on the *Vasa* and in Seattle on the *Wawona*, total station recording provides quick and accurate measurements. On the CSS *Neuse*, the team generated a point cloud of over 1,100 points.

The Confederate ironclad *Neuse* was built on the Neuse River in Whitehall, North Carolina, in 1862. One of twenty-two ironclads commissioned by the Confederacy, the *Neuse* was the sister ship of the CSS *Albemarle*. It was nearly destroyed before it was launched when, during a raid on Whitehall, Union troops shelled it while still on the stocks. The North Carolina ironclads were designed to operate in the rivers



Lindsay Smith recording CSS *Neuse* using total station.

and sounds, and thus featured flat bottoms and a draft of about eight feet. Floated down its namesake river, the wooden shell of the *Neuse* was sent to Kinston to be fitted with



Pointcloud 2

engines and iron armor in 1863. Delays in iron plating kept the vessel waiting in Kinston as the Civil War raged on the North Carolina coast. The *Neuse* was finally ordered to aid the assault on New Bern, at the mouth of the Neuse River, but ran aground and returned to Kinston.

The river level stayed low, trapping the ironclad at Kinston. Finally, war came to the *Neuse*, as Union troops pushed inland in 1865. Orders were sent to Confederate Captain Price to delay the Union troops as long as possible and then make sure the ironclad did not fall into enemy hands. The *Neuse* headed downstream, fired on Union cavalry, and was then scuttled. The Confederate troops intended the fire they set in the vessel to blow the powder stores, but a smaller explosion blew out a small section of the port side, causing water to rush in and extinguish the flames. The *Neuse* settled on the river bottom, visited by salvors from time to time, until it became nearly forgotten.

As the centennial approached in the 1960s, there was renewed interest in the Civil War. Amateurs were salvaging many Civil War sites, including the CSS

Jackson, the *Modern Greece*, the USS *Cairo*, and the CSS *Neuse* in Kinston. The *Neuse* was nearly complete when three local men decided to dig up the vessel. Inside they found evidence of shipboard life and weaponry. The salvors removed decking, some casemate, and internal bulwarks, culminating in the removal of the vessel to what is today the CSS *Neuse* State Historic Site.

The ECU recording team consisted of Maritime Studies students Marshall Lamm,

Morgan MacKenzie, Tyler Morra, and Lindsay Smith, along with recent anthropology graduate Jesse Harris. With veterans of both the *Vasa* beakhead recording project and the *Wawona* project, the crew recorded the entire extant structure in two and half weeks. Importantly, the entire bottom of the vessel was mapped. This mapping will provide construction details. Historical sources indicate that these vessels were built from the middle outwards, and the master couple was located at frames number sixty-four and sixty-five, directly in the middle of the *Neuse*. This information, and the plethora of other data collected, will be used to build a testable computer-aided design (CAD) model of the vessel.

The research into the CSS *Neuse* continues. Field work carried out at the State Historic Site was the first phase, and recorded vessel sections that were salvaged. The second phase includes a survey of the Neuse River downstream from Kinston for pieces of the CSS *Neuse* that were discarded during the 1960s salvage. This includes a six-foot section of casemate found several years ago by the Underwater Archaeology Branch. A terrestrial survey will revisit the site where the vessel was removed from the river in order to reconstruct the salvage of the vessel and determine if any further information can be learned from the area. The final phase of research will examine written



Marshall Lamm, Bill Rowland, Morgan MacKenzie, Lindsay Smith, Jesse Harris, Peter Campbell.



Confederate ironclad *Neuse*, with Lindsay Smith and Jesse Harris 'aboard'.

notes, photographs, and video from the 1960s salvage to determine what parts of the vessel were lost in the recovery.

This research is part of a master's thesis examining salvaged archeological sites and what further information can be learned from sites stripped of context. 🐼

– Peter Campbell

The *Bohemian Girl* Project Site Lake Waccamaw, NC

The *Bohemian Girl* Project is a Phase II archaeological survey with the objectives of locating, identifying, and conserving the possible remains of a fantail steam launch that operated on Lake Waccamaw, Columbus County, North Carolina. The *Bohemian Girl* played a significant role in the maritime history of Lake Waccamaw, but there is little documentation of the vessel's fate.

Project fieldwork was conducted from July 3rd to August 15th 2008, at the location of a boathouse used by the *Bohemian Girl's* owner. A site map was constructed labeling all ferrous, non-ferrous, and wood debris. In accordance with the Phase II permit, dredging was performed in the vicinity of the boathouse slip which produced small artifacts pertaining to vessel use. The dredging operation was assisted by the staff of the North Carolina Underwater Archaeology Branch (UAB) located at Kure Beach. The UAB provided dredging equipment, artifact screen, and the work vessel which proved invaluable for investigating the boathouse site. Additional ferrous remains were identified and will undergo conservation. All conserved vessel remains will be given to the Lake Waccamaw Depot Museum for display.

Fieldwork will resume late in 2008 and in early 2009. I would like to thank the following for their assistance with the *Bohemian Girl* Project: John McNeill, Ginger Littrell, Chris Helms, Richard Lawrence, Nathan Henry, Chris Southerly, Grayson

Greco, Harry Warren, and my parents Marvin and Maureen Thompson. The successes of the project would not have been possible without their contributions. 🐼

– Matthew H. Thompson



Dredging at boathouse site.

PHOTO: MATTHEW H. THOMPSON

Postcards from Sweden...



Swedish warship *Vasa*.

VASA - December visit

East Carolina Maritimers Collaborate on Beakhead Recording Project

In December 2007, a team from East Carolina University completed the first research trip of what will hopefully be a long collaboration between Sweden's Statens Maritima Museer (State Maritime Museums) and the ECU Program in Maritime Studies. This initial project consisted of five graduate students: Peter Campbell, Theresa Hicks, Amy Leuchtmann, Eric Ray, and Lyz Wyllie, and was under the direction of Dr. Frederick Hocker (head of *Vasa* research) and Dr. David Stewart of ECU.

The Swedish royal warship *Vasa* is a World Heritage Site. Built by King Gustavus Adolphus during the Thirty Years War, *Vasa* sank in 1628, less than a mile into its maiden voyage. After 333 years on the bottom of Stockholm harbor, it became the oldest ship ever refloated when it was raised and towed

to a museum in 1961. Forty-seven years and one new museum building later, *Vasa* attracts over a million visitors each year and is Scandinavia's most visited museum.

Although the ship has been studied since its raising, the work is by no means finished. Statens Maritima Museer is producing a series of books that will represent the "first word" regarding *Vasa*. Volume I (concerning the building, sinking, recovery, and excavation) was published in 2006, and Volume II (concerning the sailing and rigging) is soon to go to print. The December trip contributed research for this second volume.

We spent three weeks documenting *Vasa's* beakhead, a projection of the bow. During the ship's brief operational life, this served as a platform for sail operation.

Our team's task was to record the beakhead's structure, construction, and fastenings, as well as to document the connection between the beakhead and the rest of the bow.

The techniques used at Vasamuseet were new for all of us. We first attached temporary reflective targets to major features of the beakhead. These targets were surveyed with the museum's total station, an electronic optical surveying instrument. The advantages of this sort of surveying are manifold. First, the positions of the targets are ascertained with sub-millimeter accuracy. Second, the surveyed points are rectified into a coordinate system that allows them to be combined with surveyed points from all over the ship. Because of this, no project becomes an "island," separated from research on surrounding structures. A third advantage is speed: a target can be surveyed almost as quickly as it can be placed on the wood. Finally, any set of surveyed points can be used as baselines for further traditional (pencil, paper, and tape measure) drawing.

By the end of the project, we had

placed and surveyed over 700 points, and created more than 80 traditional measured drawings. These traditional drawings were detailed views of smaller parts of the structure, sections that are too small or detailed to be captured with the total station.

Participation in the beakhead project was both a valuable learning experience

and an honor. The opportunity to work on a project like *Vasa* is not common, especially for students. Despite the cold of Stockholm's December, we were happy to go to work in the morning, and the excitement of working inside a 17th century warship never quite faded. Our hosts at Vasamuseet were kind and gracious, and

we are very thankful for their hospitality. In particular, Klas Helmersson, Magnus Olofson, and Björn Varenius were instrumental in making the project possible, as well as, of course, Dr. Fred Hocker. We thank them for allowing us to work on such a storied and exciting project. 🙏

– Eric Ray

VASA - Summer visit

Studying *Vasa's* Galley is Subject of Thesis Research

After the success and excitement of the December project in Sweden, I decided to return to Stockholm for my thesis research. Dr. Fred Hocker suggested the ship's galley as a topic, and the subject fit in perfectly with my interest in maritime material culture. Remarkably, *Vasa* contains the only example of a 17th century naval galley available for study anywhere in the world. After discussions with Dr. Stewart, who agreed to serve as my advisor on the project, I started the process of organizing the logistics of overseas field research. Sweden is not a cheap place, and airfare, unfortunately, isn't free. To help defray some of the costs, both SWEA-NC (Swedish Women's Educational Association of North Carolina) and the *Vasa* Order of America, Local Lodge Carl Larsson No. 739, provided valuable financial support. Without their help, this project would have been much more difficult, if not impossible.

After the Bermuda field school in May, I unpacked my dive gear, packed some more clothes, and got on a flight to Stockholm. Just as in the winter, I was housed aboard the museum's 1915 icebreaker *Sankt Erik*, though the temperature was a little more hospitable this time around. The project itself was to document the structure of the galley, as well as to reconstruct its original construction and to ascertain how it was used—at least so far as it is possible to do that when so much evidence has succumbed to time and water.

The galley itself is located low in the center of the ship, just over the keelson. Originally, it

was a brick hearth supported by a surrounding wooden structure, today the bricks have been removed due to their weight's effect on the wood. A large cauldron was found during excavation, so presumably there must have been some way to hang it above the fire. Unfortunately, none of the wrought iron hardware survived its 333-year immersion.

Just as in December, I used a combination of traditional and electronic recording methods. The galley turns out to be constructed much like a set of "Lincoln logs," with the beams notched to accept each other. Fasteners were used primarily to hold the beams in place, rather than for structural strength. This construction

technique is most likely why the galley remained upright during the ship's capsizing and sinking. Wooden planks to the forward and aft sides of the galley provided many clues as to the use and configuration of *Vasa's* cooking hardware. Fastener holes for

*“Remarkably, *Vasa* contains the only example of a 17th century naval galley available for study anywhere in the world.”*

cauldron cranes and other cooking hardware are evident, and there may have been a grating in the large hatch above the galley.

One particularly curious discovery was a line of copper tacks installed around the level of the brick cooktop on both the

continued on page 20...



Vasa galley.

PHOTO: ERIC RAY

Postcards from Sweden, continued . . .

forward and aft walls of the galley. After ruling out the possibility that they were modern nails installed in the 1960s, Dr. Hocker and I puzzled over their function for several days. While it is not a certainty, we think that they were probably installed by the bricklayers to ensure that the brick cooking

surface would be level. Insights into construction techniques like this are valuable, and information about bricklaying aboard ships is limited to say the least.

It is hard to find words of thanks for the honor and opportunity to work aboard *Vasa* for a second time. Thanks goes to

everyone at Vasamuseet and SMM for making the project possible, with a special thanks to Dr. Fred Hocker, Klas Helmersson, Magnus Olofson, and Björn Varenius, as well as Dr. David Stewart here at ECU for all his help and continued support. 🌟

– Eric Ray

Sweden extends invitation

Collaboration on *Vasa* Project Leads to Swedish Embassy Visit

East Carolina University's Program in Maritime Studies' continuing relationship with the *Vasa* Museum led to an invitation to the Swedish Embassy in Washington DC. On May 20, the five students who participated in the *Vasa* beakhead recording project in December, in addition to four other maritime students, joined Dr. David Stewart in accepting the invitation. With Dr. Stewart providing the entertainment and students volunteering to drive, the maritime van was packed full and ready for the road trip.

Dr. Frederick Hocker, the Projektleddare *Vasa* Forskning, or Director of *Vasa* Research, opened the seminar discussing links between Vasamuseet and United States institutions. The limitations and successes of techniques *Vasa* research utilized were discussed in terms of applicability to U.S. institutions and museums, and the seminar concluded with an open-floor discussion about the future direction of *Vasa* research and its continuing preservation.

Dr. Stewart presented a brief overview of the work ECU students undertook during the three-week project in December of 2007, featuring the experimental use of total stations to record the beakhead structure. A total station has often been essential on archaeological sites but had never before been utilized as a vessel documentation technique. Initial success on *Vasa* precipitated the techniques' implementation on two subsequent projects: the *Wawona* documentation project in Seattle, Washington, and the *CSS Neuse* project in Kinston, North Carolina.

The seminar was well attended by professionals in the museum and maritime fields, drawing from many east coast institutions in addition to East Carolina

University. A short reception and refreshments followed the seminar, a particularly welcome respite for those ECU students and a professor experiencing withdrawal from *fica* breaks since returning from Sweden. The opportunity to speak with professionals in the maritime and museum fields was irresistible and resulted in the reception flowing right into the second *Vasa* seminar. Dr. Hocker had prepared a second talk for the public outreach session later that afternoon; the ECU students were spontaneously invited to attend as well.

be cut short after about forty-five minutes.

To be invited to and asked to participate in such a prestigious seminar was a remarkable opportunity and an honor for both the Maritime Program and those who participated. Our greatest thanks go out to the Swedish Embassy for hosting the event, Dr. Hocker for the open invitation to the ECU Maritime Department, Dr. Stewart for leading the impromptu road trip, and to the two student drivers who chauffeured the group to and from Washington. The ECU Program in Maritime Studies looks



Maritime students at the Swedish Embassy in Washington, DC.

This second talk was designed to present much of the same information discussed earlier but geared toward a broader, more general audience. This session had an overwhelmingly successful turnout of about one hundred people interested in the *Vasa* or of Swedish heritage. There was a question and answer session at the end and the audience was so enthusiastic that it had to

forward to continuing their relationship with Dr. Hocker and the *Vasa* Museet when additional ECU master's students will have the opportunity to return to Sweden with Dr. Stewart and participate in ongoing *Vasa* research. 🌟

– Lindsay Smith

Deep Mud and Wooden Boats...

A Survey of the Wright's Creek Abandoned Vessel Complex

The Phase II archaeological survey of the Wright's Creek Abandoned Vessel Complex began in spring 2008 during Dr. Nathan Richards' Research Methods in Nautical Archaeology course. The Complex was originally reported by Babits and Corbin in 1995 while surveying the Pungo River's shoreline. The graveyard is composed primarily of wooden work boats with abandonments appearing as the primary site type (Babits and Corbin 1995). The concentration of abandoned vessels in this embayment presents a unique opportunity to study behavioral patterns associated with a rural boat graveyard, as the adjacent community that is still interacting with the discarded material remains. As part of the research for my thesis, graduate students conducted GPS documentation, above water site mapping, and research into the individual histories of thirteen vessels.

Work on the site began Easter weekend, with graduate students foregoing holiday in order to increase our knowledge of maritime archaeology in the muddy waters of the Pungo River. The first day saw the majority of students working on vessels located at Schoolhouse Landing, a tributary slough of Wright's Creek with a working dock located just meters from four abandoned vessels. Two

of the abandonments *"... the first tentative steps away from the shoreline proved humorous and treacherous, as researchers quickly sank to their waist or higher."* requiring students to wade through

muddy water to reach their vessel. Although the mud looked innocuous enough, the first tentative steps away from the shoreline proved humorous and treacherous, as researchers quickly sank to their waist or higher. Debris lodged in the mud made the walk to the vessels more interesting, followed by perching on degraded wooden planks that threatened to send students crashing through the upper decks.



Graduate students recording vessels in Bradley Creek.

Our slippery, muddy endeavors brought curious locals to the site, some providing insight into the reasons behind the abandonment of several vessels. Other students working near Foster's Seafood Landing, a working fish house, had the privilege of meeting the owner of some abandoned vessels. The community's continued interaction demonstrates social significance as the abandoned vessels are intimately tied to the surrounding community. This area of Belhaven, once a vital waterway for commercial fishermen, is experiencing serious decline as evidenced by the high number of abandonments.

Day two took on a new level of challenge, as researchers conducted the remaining survey in Bradley Creek, a small, isolated tributary of Wright's Creek. The isolation is convenient for clandestine abandonment of vessels, but perplexing for researchers attempting to access the site. Although deep, sucking mud was a consideration during on Schoolhouse Landing, Bradley Creek proved to be the mother of

all quagmires. With smiles on their faces and jokes abounding, students invented creative ways to maneuver in and around the decomposing vessels. Buoys hijacked from the dive boat quickly became personal floatation devices, while others developed a method of moving through the mud on their knees while attempting to maintain buoyancy.

Despite challenges presented by the site's environment, students learned the value of creativity and perseverance. Construction characteristics of individual vessels were recorded, as well as information relating to possible method of discard. Presence or absence of salvaging the vessels' equipment was noted, as was any evidence of possible previous vessel ownership.

After completing this field work phase, students researched individual vessel histories and acquired information concerning ownership and abandonment, as well as local maritime history. Remote sensing of the Wright's Creek embayment in August 2008 discovered several submerged, vessel-like anomalies. Further remote sensing with a magnetometer will occur in October 2008, along with a submerged site survey to be carried out by graduate students. 🐚

– Jacqueline Marcotte

Ahoy Mates! Welcome to ECU:

New MA Students in the Maritime Studies Program

Stephen Dilk is from Fulton, New York. He received his BA from the University of Rochester in Rochester, New York, in Anthropology and History. He has worked on terrestrial sites in Hemlock, New York, as well as Arezzo, Italy. He participated in ECU's summer 2007 field school in North Carolina. His interests include colonial sites. In his free time he likes to rock climb, play hockey, or hike in the mountains.

Stephanie Gandulla grew up in Bozeman, Montana, and received her BA in English Literature from Montana State University. She has traveled extensively and learned to dive while living in Alaska and to sail while living in Ireland. Stephanie has worked as a freelance writer and photographer, a newspaper columnist, a traveling tee shirt sales person, an asphalt construction foreman, and, most recently in the Exhibits Department at the Museum of the Rockies. Her research interests include Arctic exploration history and Irish and Spanish maritime cultures. In her spare time, she enjoys sailing her boat *Nereida*, learning about wine, and hiking in the mountains.

Jennifer Jones received her BA in Anthropology with a minor in Religious Studies from the University of Tennessee at Chattanooga in 2005. From 2006 to 2007, she resided in York, England, completing a MA in Historical Archaeology at the University of York. Her thesis focused on the mortuary culture of Post-Reformation Scotland, specifically the grave markers of St. Andrews Cathedral. Her current interests are in the mortuary culture of seafaring people, the conservation of maritime and nautical material culture, and piracy. In her time outside the academic realm, Jennifer enjoys swimming, reading, British sitcoms, and photography.

Tyler Knickelbein was born in Connecticut and graduated from the University of Connecticut in 2007 with a BA in History and French. During his junior year he studied in France where he met his fiancée, Crystal. He spent a year teaching French at a private high school before enrolling at East Carolina. Tyler is interested in French maritime history during the colonial era, particularly in North America. He enjoys playing hockey and tennis, as well as reading.

Joseph Thaddeus Lengieza has spent much of the last decade working on wooden sailing ships, most recently as Second Mate on the US brig *Niagara*, a reconstructed 1813 vessel, and as a Shipwright on the USS *Constellation*, an 1854 ship-rigged sloop of war. He holds a BA degree from Ohio State University.



New MA Students (l to r): Nicole Wittig, Kate Schnitzer, Tyler Knickelbein, Brown Mims III, Benjamin Siegel, Stephen Dilk, Robert Minford, Whitney Petrey, Joseph Lengieza, John Ratcliffe, Stephanie Gandulla, Jessica Smeeks, Valerie Rissel, Jennifer Jones. Kneeling in front is Thad Sheeley.

Brown Mims III earned his BA at George Mason University and participated in his field school's attempt to recover the zombie head of George Mason so the school would have a real mascot. He later worked for the College of William and Mary Center for Archaeological Research honing skills he would later need as an Action Archaeologist. Brown Mims III is from Virginia and prefers to be called Bran.

Robert Minford is from Columbia, Maryland, and received his BA in History from the University of Maryland—College Park in 2005. Since graduating, Rob has been active in the Archaeological Society of Maryland where he has volunteered at colonial and Native American sites. His primary research interest is the transition from wooden to iron and steel-hulled vessels. Rob enjoys playing pick-up basketball and watching his beloved Ravens & Terps.

Whitney Rose Petrey graduated from the University of Hawaii with a BA in Anthropology and a Certificate in Maritime Archaeology. She is from the west coast via California and Washington. She worked for two years as an archaeologist for a CRM company in Kailua, Hawaii, assisting with several projects and reports concerning Hawaiian archaeology (which is both ubiquitous and controversial throughout the islands). She is interested in North African maritime trade routes and ports. Whitney speaks French and has an extreme love of chocolate, books and the outdoors.

John Ratcliffe was born and raised in Ottawa, Ontario, Canada, and graduated with a degree in Archaeology from Wilfrid Laurier University

in Waterloo in 2007. Over the past four years, he worked as a field archaeologist for the Canadian government, as well as excavating and recording sites across Ontario while working for different CRM companies. In his spare time he enjoys diving and exploring shipwrecks in Lakes Huron and Ontario, the St. Lawrence River, and the eastern Caribbean. Other interests include reading history and non-fiction, sampling exotic beers, and ice hockey.

Valerie Rissel is from Vine Grove, Kentucky, and graduated from Centre College in May 2008 with a BA in Anthropology and Sociology and a minor in Studio Art. While studying at Centre she visited Turkey and fell in love with its history and interesting present-day culture. Her main focus coming into this program is the impact and influence of seafaring piracy and privateering throughout history. She would also like to learn more about preservation. She has been diving for two years and has dove in St. Kitts, Mermet Springs, and Grand Cayman. Valerie's other interests include painting, ceramics and traveling.

Laura Kate Schnitzer grew up on Maryland's Eastern Shore. Thus, it was natural for her to develop an interest in maritime activities like boating, fishing, and artifact hunting on local beaches. Her interest grew into a passion during high school while she worked at the Chesapeake Bay Maritime Museum in St. Michaels, Maryland. Kate went on to study Anthropology at the University of Maryland where she became interested in nautical archaeology and submerged cultural heritage. She graduated in 2003 and has since tried her hand at banking, retail, and real estate law, but found nothing that compared to

her original passion. Kate is excited to finally be pursuing her dream at ECU and furthering her education in Maritime Studies. Her non-water-related interests include art, reading, and playing with her dog.

Thad Sheeley graduated with a BS in Political Science, and a minor in History from Francis Marion University in South Carolina. Originally from South Carolina, his work has taken him to several states. He recently moved to Beaufort, North Carolina, after spending about ten years in Chicago, Illinois, working in high-tech companies like IBM and MCI. After teaching at the community college where he lives he decided to explore further the subject he has always loved: History. Thad loves kayaking with his dog, camping by kayak in the Banks, bike riding, skiing, mountain hiking in the fall, and sailing his Sunfish.

Benjamin Siegel received his master's degree in American History from Emory University in May 2007, and spent the following summer as an assistant science instructor at SeaCamp in Big Pine Key, Florida. There, he learned to dive and was exposed to the realm of Underwater Archaeology. The most recent year of Ben's life can be broken into two parts. First, he taught American and world history at Coral Reef Senior High School in his hometown of Miami, Florida. Then, he promptly spent his entire salary traveling to Hawaii and touring the eastern seaboard of the United States. Ben plays volleyball and soccer, but his favorite thing is watching Hurricanes football!

Jessica Smeeks received her BA in Anthropology from the University of North Carolina - Chapel Hill, in May 2008. She has been participating in archaeology digs since the age of 13. From 2000 to 2004, she worked on a native site in North Carolina, where the Spanish explorer, Juan Pardo, is believed to have set up a Spanish fortification in 1567. In the summer of 2005, she participated in a field school, through Bradford and Oxford Universities, in the ancient Roman town of Pompeii, Italy. Later, in the summer of 2007, she participated in a field school, through UNC - Chapel Hill, in the Moche Valley of Peru. Her current research interests include European expansion in the Age of Discovery, specifically the Spanish expeditions to the New World in the 1500s. Outside archaeology, her interests include scuba diving, jet skiing, watching basketball (especially UNC), playing soccer, traveling, and watching movies.

Nicole Wittig was born and raised in Towanda, Pennsylvania. She graduated from Bryn Mawr College in 2007 with a BA in Classical and Near Eastern Archaeology, minoring in Anthropology. For the past year Nicole has explored the exciting world of Cultural Resource Management, working on both prehistoric and historic sites in Vermont, Maryland, Indiana, and Ohio. In her free time, she enjoys hiking, concerts, and trying to play the guitar. 🎸

2007 • Maritime Studies Association Activities • 2008

The Maritime Studies Association (MSA) has been quite active over the last 12 months. Members attended and presented at the Society for Historical Archaeology (SHA) Conference in Albuquerque, New Mexico, in January 2008. Upon returning from the conference, members took part in the MSA post-holiday party at the Topsy Teapot in downtown Greenville. Participants were encouraged to dress classy and enjoy cocktails and finger sandwiches in a cozy environment.

During the spring semester, MSA held the 3rd Annual Seabiscuits and Bitters fund-raiser and party. Members selected and prepared various British naval recipes, many from the fictional works of Patrick O'Brian. Dishes included Lobsouse, Grog, and traditional hard tack. In addition to enjoying the tasty fare, partygoers played shipboard games (mostly those of chance), and sometimes, even won a few shillings.



MSA members enjoying a social evening at the Topsy Teapot.



Dr. Brad Rodgers catching some rays floating down the Tar.

To celebrate completion of the stressful "blackout" dive, MSA held the annual blackout party and cookout. Following the blackout party, MSA took part in the yearly river float, where students and faculty alike spent an afternoon floating down the Tar River on various forms of inflatable craft.

In May, many MSA students traveled to the Swedish Embassy in Washington, DC, to participate in a conference regarding the preservation and display of the 17th century Swedish warship *Vasa*. A handful of students traveled to Sweden in December 2007 to assist in recording the *Vasa's* beakhead, and performed so well that students have been invited back to do more work in July 2009!

Finally, the MSA is continuing to conduct educational outreach at many schools in eastern North Carolina. In this program, MSA representatives travel to regional schools and teach short classes about maritime archaeology promoting awareness and sparking interest in a very exciting field.

MSA looks forward to another exciting fall semester and, of course, a fresh crop of first year students. Activities for the 2008-2009 academic year are sure to be exciting, including the ever-popular Halloween party and a trip to Toronto for the SHA in January 2009.

MSA is excited about getting students and faculty involved in all aspects of our activities. For the most updated information, please visit us on the web: www.ecu.edu/msa. 🐼

– Tyler Morra

www.ecu.edu/msa

Maritime Studies Association

About the Association and MSA Apparel:

The purpose of the Maritime Studies Association is to assist students working toward completion of a degree in Maritime Studies here at ECU. Membership in MSA is open to students, staff and faculty of ECU. **Neither enrollment in the Program nor registration in Maritime Studies classes is a prerequisite for joining MSA.** Anyone with an interest in maritime history and/or underwater research is encouraged to participate.

We are pleased to again offer the opportunity to SHOW YOUR PRIDE in the Program in Maritime Studies by wearing maritime apparel. Orders from our local distributor, Monograms Plus, will be made in spring and fall. T-shirts, polos, hooded sweatshirts, jackets and fleece throws are available for purchase. Each item is embroidered with the program's compass logo (depicted above order form). If you would like to support MSA by purchasing maritime apparel, please fill out this form and return it to the address provided before **April 1st, 2009.**

Thank you for your support!

MSA Apparel Order - Due to Eller House by April 12, 2008

Examples of all apparel can be found at: <http://www.customink.com/>

T-shirts	Price per unit	Size (S-XXL)	Color*	Quantity
Short Sleeve	\$18			
Long Sleeve	\$20			
Polo	\$25			



Ladies	Price per unit	Size (S-XXL)	Color*	Quantity
Short Sleeve	\$20			
Long Sleeve	\$20			
Polo	\$25			



Sweats	Price per unit	Size (S-XXL)	Color*	Quantity
Hoodie	\$40			
Sweatshirt	\$30			
Track Jacket- Fleece	\$45			



*COLORS: White, Black, Grey, Navy, Royal, Red, Pink, Orange, Yellow, Green, Dark Green

Where are our Maritimers now?

Where are our Maritimers now?

A

- James Allan, (1987) PhD** – Lecturer, St Mary's College of California, Moraga, CA
- Evguenia Anichtchenko (2004)** – Curator of History Education, Anchorage Museum of History and Art, Anchorage, AK
- Ray Ashley, (1996) PhD** – Executive Director, San Diego Maritime Museum and Professor of Public History, University of California at San Diego, CA
- Paul Avery (1998)** – Commonwealth of Virginia Prosecutor, Hampton, VA

B

- David Baumer (1991)** – Newport News, VA
- Dina Bazzill (2007)** – Project Archaeologist, Environmental Corporation of America, Alpharetta, GA
- David Beard (1989)** – Assistant Director/Curator, Wisconsin Maritime Museum, Manitowoc, WI
- Sam Belcher (2002)** – Medical Technologist (ASCP), Laboratory Supervisor, Central Baptist Hospital, PhD student, University of Kentucky, Lexington, KY
- Kathryn Bequette (1992)** – Director, Maritime Archaeology and Research, OELS, Westminster, CO; consultant with Denver Ocean Journey Aquarium
- Jemison Beshears (2001)** – Antique firearms specialist, Greg Martin Auctions, San Francisco, CA
- Jacob Betz (2004)** – PhD student, Department of History, University of Chicago, IL
- Samuel Blake (2006)** – Archaeologist, Southeastern Archaeological Research, Inc., Jackson, NC
- Matthew Brenckle (2004)** – Research Coordinator, USS *Constitution* Museum, Charlestown, MA
- Robert Browning, (1980) PhD** – Historian, United States Coast Guard, Washington, DC
- Darryl Byrd (1998)** – Linthicum Heights, MD

C

- Frank Cantelas (1995)** – Maritime Archaeology Program Officer, NOAA Office of Ocean Exploration, Silver Spring, MD
- Jodi Carpenter (2007)** – Archaeologist, Parsons Brinckerhoff, Baltimore, MD
- Christopher Cartellone (2003)** – Applying to PhD programs
- Tane Casserley (2005)** – Maritime Archaeologist, NOAA's Maritime Heritage Program, Alpena, MI
- Joe Cato (2003)** – Raleigh, NC
- Robert Church (2001)** – Senior Marine Archaeologist, C&C Technologies, Inc., Lafayette, LA
- Brian T. Clayton (2005)** – Maritime Historian, Heritage Documentation Programs, National Park Service, Washington, DC
- Wendy Coble (1998)** – Self-employed researcher, Washington, DC
- Patrick Cole (1993)** – Writer, Barcelona, Spain

- Edwin Combs, (1996) PhD** – Visiting Assistant Professor, Mississippi State University, Starkville, MS
- Michael Coogan (1996)** – Manager, Strategic Planning, Northrop Grumman IT, Herndon, VA
- David Cooper (1998)** – Resource Manager, Grand Portage National Monument, Grand Portage, MN
- Diane Cooper (1995)** – Consultant, San Francisco Maritime National Historic Park, San Francisco, CA
- Annalies Corbin, (1995) PhD** – Executive Director, PAST Foundation, Columbus, OH
- Lee Cox (1985)** – Director, Dolan Research, Inc., Newtown Square, PA

D

- Claire Dappert (2005)** – PhD student, Flinders University, Australia
- James P. Delgado (1986)** – Director, Institute of Nautical Archaeology, Texas A&M, College Station, TX
- Alena Derby (2002)** – Lake Worth, FL
- Robert Dickens (1998)** – DVM, Cary, NC
- Jeff DiPrizio (2001)** – High School teacher, Hudson, NH
- Brian Diveley (2008)** – Seattle, WA
- Wade Dudley, (1998) PhD** – Teaching Associate Professor, Department of History, East Carolina University, Greenville, NC
- Stan Duncan (1994)** – Regional Sales Consultant, NUS Consulting Group, Inc., Oak Ridge, TN

E

- Scott Emory (2000)** – Cockeysville, MD
- Jeff Enright (1999)** – Program Manager, Archaeology Division, BIO-WEST, Inc., Austin, TX
- Jenna (Watts) Enright (2000)** – Nautical Archaeologist, PBS&J, Austin, TX
- Kim Eslinger (2005)** – Marine Archaeologist, C&C Technologies, Inc. Houston, TX

F

- Sabrina S. Faber (1996)** – Regional Programs Consultant, AMIDEAST, Sana, Yemen
- Rita Folse Elliott (1988)** – Curator of Exhibits and Archaeologist, Coastal Heritage Society, Savannah, GA
- Patrick Fleming (1998)** – Raleigh, NC
- Richard Fontanez, MD (2001)** – Contract Archaeologist, Director of Instituto de Investigaciones Costaneras, and Hyperbaric Medicine Facilities, Medical Center, Puerto Rico
- Paul Fontenoy, (1995) PhD** – Curator of Maritime Research and Technology, NC Maritime Museum, Beaufort, NC
- Chris E. Fonvielle, Jr., (1989) PhD** – Assistant Professor, UNC-Wilmington, Wilmington, NC
- Kevin Foster (1991)** – Chief, National Maritime Heritage Program, Washington, DC
- Joe Friday (1988)** – Sergeant, Greenville Police Department, Greenville, NC

G

- Adam Friedman (2008)** – National Institutes of Health, Rockville, MD
- Don Froning (2007)** – Marine Corps Forces Pacific, Camp H. M. Smith, HI
- Kate Goodall (2003)** – Development Manager, American Association of Museums, Washington, DC
- Amy (Rubenstein) Gottschamer (1995)** – Real estate broker, Santa Fe, NM, and Lawrence, KS
- Jeff Gray (1998)** – Superintendent, NOAA Thunder Bay National Marine Sanctuary, Alpena, MI
- Joe Greeley (2000)** – Site supervisor for the *Maryland Dove*, St Mary's City, MD
- Cathy (Fach) Green (2003)** – Education and Outreach Coordinator, Thunder Bay National Marine Sanctuary, Alpena, MI
- Russ Green (2002)** – Assistant Superintendent, NOAA Thunder Bay National Marine Sanctuary, Alpena, MI
- Jeffrey Groszkowski (2007)** – Fallston, MD

H

- Richard Haiduven (2003)** – Contract Archaeologist, Miami, FL
- Wesley K. Hall (1993)** – Director, Mid-Atlantic Technology, Wilmington, NC
- Stephen Hammack (2007)** – Archaeologist, Robins AFB, Warner Robins, GA
- Lynn B. Harris, (1988) PhD** – Assistant Professor, East Carolina University, Greenville, NC
- Margaret Harris (2004)** – Education Program Director, San Francisco Maritime National Historical Park, San Francisco, CA
- Ryan Harris (2006)** – Nautical Archaeologist, Parks Canada, Ottawa, Ontario, Canada
- Heather Hatch (2006)** – PhD student, Texas A&M University, College Station, TX
- Robert Holcombe (1993)** – Retired, Senior Naval Historian and Curator, Port Columbus Civil War Naval Center, Columbus, GA
- Joshua Howard (2004)** – Research Historian, Office of Archives and History, Raleigh, NC
- Joseph Hoyt (2008)** – Contractor, NOAA National Marine Sanctuaries, Newport News, VA
- Michael D. Hughes (2003)** – Project Manager, SAIC, Washington, DC

J

- Claude V. Jackson (1991)** – Museum Curator, St. Louis, MO
- Tiffany (Peccarero) James (2007)** – Senior Archaeologist and Principal Investigator, ENTRIX, Inc., Salt Lake City, UT
- Brian Jaeschke (2003)** – Registrar, Mackinac Island State Historic Parks, Mackinac Island, MI
- John O. Jensen, (1992) PhD** – Lecturer in Maritime History, Sea Education Association, Woods Hole, MA
- Doug Jones (2007)** – Nautical Archaeologist, PBS&J, Austin, TX
- Rick Jones (1996)** – Building Contractor, Palmyra, VA

K

- John Kennington (1995)** – Assistant Director of Operations, BuzzCard Center, Georgia Institute of Technology, Atlanta, GA
- Kurt Knoerl (1994)** – Managing Director, The Museum of Underwater Archaeology; PhD student, George Mason University, Fairfax, VA
- Mike Krivor (1998)** – Maritime Project Manager/Principal Investigator, Southeastern Archaeological Research, Inc., Jonesville, FL
- David Krop (2008)** – Conservation Project Manager, USS *Monitor*, Mariners' Museum, Newport News, VA

L

- Danielle LaFleur (2003)** – Collections and Technology Manager, Muskegon County Museum, Muskegon, MI
- Matthew Lawrence (2003)** – Maritime Archaeologist, Stellwagen Bank National Marine Sanctuary, Scituate, MA
- Adam Lehman (2006)** – Whitsett, NC
- Wayne Lusardi (1998)** – Michigan's State Maritime Archaeologist, Thunder Bay National Marine Sanctuary, Alpena, MI
- Jason Lowris (2000)** –

M

- Coral Magnusson (1993)** – Archaeological Research Institute, Honolulu, HI
- Richard Mannesto (1993)** – Great Lakes Shipwreck Historical Society, Sault Ste. Marie, MI
- Eleftheria Mantzouka (2004)** – Underwater Archaeologist, Athens, Greece; PhD student, University of Southampton, UK
- Tom Marcinko (2000)** – South Carolina Department of Natural Resources, Charleston, SC
- Amy Jo (Knowles) Marshall (1996)** – Curator, Wrangell-St. Elias National Park & Preserve, Copper Center, AK
- Timothy Marshall (1999)** – Cultural Resources Specialist/Post Historian, Ft. Wainwright, Fairbanks, AK
- Deborah Marx (2002)** – Maritime Archaeologist, Stellwagen Bank National Marine Sanctuary, Scituate, MA
- Roderick Mather, (1990) PhD** – Associate Professor, Department of Archaeological Oceanography, University of Rhode Island, Kingston, RI
- Christopher McCabe (2007)** – Deputy State Archaeologist, Georgia DNR, Coastal Underwater Archaeology Field Station, Savannah, GA
- Peter McCracken (1999)** – Reference Librarian, University of Washington, Seattle, WA
- Phillip H. McGuinn (2000)** – Deputy Public Affairs Officer, U.S. Submarine Forces, Norfolk, VA; Naval Reserve Captain, U.S. Northern Command, Colorado Springs, CO
- Salvatore Mercogliano, (1998) PhD** – Instructor, Central Carolina Community College Adjunct Professor, U.S. Merchant Marine Academy, Visiting Lecturer, University of North Carolina, Chapel Hill, NC
- Ann Merriman (1996)** – Site Administrator, Minnesota Transportation Museum, Excelsior, MN; PhD student, University College, London, England

- Keith Meverden (2005)** – Underwater Archaeologist, State Historical Society of Wisconsin, Madison, WI
- David Miller (2005)** – Teacher, Okinawa, Japan
- Calvin Mires (2005)** – Staff Archaeologist and PhD student, East Carolina University, Greenville, NC
- Amy Mitchell, (1994) PhD** – Assistant Professor, University of West Florida, Pensacola, FL
- Kimberly E. Monk (2003)** – PhD student, Bristol University, England
- David Moore (1989)** – Curator of Nautical Archaeology, North Carolina Maritime Museum, Beaufort, NC
- James Moore (2003)** – PhD student, University of Rhode Island, Kingston, RI
- Scott Moore, (1992) PhD** – Associate Professor, Indiana University of Pennsylvania, Indiana, PA
- Shawn Holland Moore (1998)** – Volunteer and Community Partner Coordinator, ECU Volunteer and Service-Learning Center, Greenville, NC
- Stuart Morgan (1985)** – Public Information Director, South Carolina Association of Counties, Columbia, SC
- Jeff Morris (2000)** – Owner/Senior Scientist, Azulmar Research, LLC and Geomar Research, LLC, Columbia, MD
- John W. (Billy Ray) Morris (1991)** – Owner and Director, South Eastern Archaeological Services, Inc., St. Augustine, FL

N

- Adrienne (Askins) Neidinger (2000)** – Archaeologist, Submerged Resources Center, National Park Service, Santa Fe, NM
- Sam Newell (1987)** – Public school teacher, Greenville, NC
- Kevin Nichols (2002)** – Intelligence Research Specialist, Department of the Army; PhD student, Wayne State University, Detroit, MI

O

- Chris Olson (1997)** – Curator, Minnesota Transportation Museum, Railroad and Minnetonka Divisions, Excelsior, MN
- Deirdre O'Regan (2001)** – Editor, *SEA HISTORY*; Vice President National Maritime Historical Society, Pocasset, MA
- Mike Overfield (2002)** – Maritime Archaeologist, Resources and Under Sea Threats (RUST) Program, NOAA, Silver Springs, MD

P

- Jason Paling (2003)** – PhD student, Department of Anthropology, State University at Albany, Albany, NY
- Harry Pecorelli III (2003)** – Sub-Oceanic Technologies, Inc., Charleston, SC
- Martin Peebles (1996)** – Archaeological Illustrator and emergency room nurse, St. Petersburg, FL
- Jacqueline Piero (2004)** – “enjoying life,” Newark, DE
- Andrew Pietruszka (2005)** – PhD student, Syracuse University, Syracuse, NY
- Mike Plakos (2003)** – U.S. Navy, Lusby, MD
- Larkin Post (2007)** – Gartley & Dorsky Engineering & Surveying, Camden, ME

- Sarah Milstead Post (2007)** – Program Coordinator, Maine Coast Heritage Trust, Rockport, ME
- Darren Poupore (2004)** – Curator, Biltmore Estates, Asheville, NC
- Edward Prados (1993)** – Country Director AMIDEAST, Sana, Yemen
- Franklin Price (2006)** – Maritime Archaeologist, QAR Project, NC

R

- James R. Reedy, Jr. (1987)** – Contract Archaeologist, Beaufort, NC
- Phillip Reid (1998)** – Consultant, Wilmington, NC
- William A. Robie, Jr. (1993)** – Atlantic Beach, NC
- Todd Robinson (1998)** – History Department Instructor and Head Soccer Coach, James Island Charter High School, Charleston, SC
- Bradley Rodgers, (1985) PhD** – Professor, Program in Maritime Studies, East Carolina University, Greenville, NC
- Jason Rogers (2004)** – Archaeologist, Alaska Maritima, Dutch Harbor, Alaska; PhD student, University of Exeter, England
- Filippo Ronca (2006)** – Nautical Archaeologist, Parks Canada, Ottawa, Ontario, Canada
- Matthew Russell (1995)** – Submerged Resources Center, National Park Service, Santa Fe, NM; PhD student, UC Berkeley, CA

S

- John Schaefer (1994)** – Schoolteacher, Washington, NC; PhD student, UNC-Chapel Hill
- James Schmidt (1991)** – Nautical Archaeologist, Naval Historical Center, Washington, DC
- Robert Schneller, (1986) PhD** – Historian, Naval Historical Center, Washington DC
- Ralph Lee Scott (1979)** – Professor, Curator of Printed Books and Maps, Joyner Library, East Carolina University, Greenville, NC
- Sami Seeb (2007)** – Submerged Resources Center, National Park Service, Santa Fe, NM
- Joshua Smith, (1997) PhD** – U.S. Merchant Marine Academy, Kings Point, NY
- Travis Snyder (2006)** – MFA student, ECU Program in Wood Design, Greenville, NC
- Chris Southerly (2003)** – Archaeologist/Field Director/Diving Safety Officer, NC Underwater Archaeology Branch - *Queen Anne's Revenge* Shipwreck Project, Kure Beach, NC
- Kathy A.W. Southerly (2006)** – Civil Engineers and Scientists, Wilmington, NC
- James Spirek (1993)** – Underwater Archaeologist, SC Institute of Archaeology & Anthropology, Columbia, SC

T

- Bruce Terrell (1988)** – Chief Historian and Maritime Archaeologist, NOAA National Marine Sanctuary Program, Silver Spring, MD
- William H. Thiesen, (1993) PhD** – Atlantic Area Historian, United States Coast Guard, Portsmouth, VA
- Bradley D. Thorson (1982)** –
- Ray Tubby (2000)** – Nautical Archaeologist, Guam

continued on page 28 ...

Where are they now, continued . . .

Lex Turner (1999) – Psych Nurse - PCMH,
Greenville, NC

Kenneth Tyndall (1988) – New Bern, NC

V

Christopher Valvano (2007) – PhD student,
Michigan State University, Lansing, MI

Hans Van Tilburg, (1995) PhD – Maritime
Heritage Coordinator, NOAA National Marine
Sanctuary Program Pacific Islands Region, HI

W

Daniel Warren (1998) – Senior Marine Archaeol-
ogist and Houston Asst. Geosciences Manager,
C & C Technologies, Inc. Houston Office,
Houston, TX

Sarah Waters (1999) – Instructor, Seamester
Program, Long Island University, NY

Gordon P. Watts, (1975) PhD – Retired from
ECU 2001, Director, Tidewater Atlantic
Research and International Institute of
Maritime Archaeology, Washington, NC

Andrew Weir (2007) – Cultural Resources
Group, Jackson, MI

Wilson West, (1985) PhD – Policy Advisor,
Office of the Fairness Commissioner, Toronto,
Canada

Robert Westrick (2001) – Marine Archaeologist,
C & C Technologies, Inc., Lafayette, LA

David Whipple (1993) – Alexandria, VA

Heather White (2004) – Director of Education
& Outreach, Emerge Gallery & Art Center,
Greenville, NC

Scott Whitesides, (2003) – Archaeologist,
SWCA Environmental Consultants, Salt Lake
City, UT

Elizabeth Whitfield (2005) – Co-Executive
Director, AfricAid, Evergreen, CO

Kimberly Williams (2000) – History Professor,
Hillsborough Community College, Tampa, FL

Stephen Williams (2004) – PhD student, Anti-
och New England Graduate School, Keene, NH

Sarah Wolfe (2001) – Exhibit Registrar, George
Washington's Mount Vernon, Mount Vernon, VA

Steve Workman, (2002) PhD – Organizing a mari-
time history research nonprofit, Roanoke, VA

Y

Wilson York (2007) – PhD student, Emory
University, Atlanta, GA

MARITIME STUDIES GRADUATES!

Please let us know
if your name is not on the list
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We would love to hear from you!

U-boats, continued . . .

the water negatively buoyant in an attempt to let the current carry the divers onto the wreck. This generally worked with the exception of several dives where multiple subsurface currents were moving in different directions. We were also challenged on the last attempted dive on the *U-701* when visibility decreased from an average of 40 to 50 feet down to one to two feet, making the wreck impossible to locate.

To record the *U-85*, divers utilized a baseline consisting of two tape measures. One stretched from the conning tower forward and the other from the conning tower aft. Because of the difficulty of the dive on the *U-701* and the extreme currents, a permanent baseline was not placed on the wreck. Instead, running measurements were taken from structure to structure to obtain the overall site plan.

Diving consisted of two teams to record the vessels. The first team was usually equipped with slates, tape measures, cameras, and Mylar sketches of wreck components, which allowed recorders to simply circle elements that were missing. After picking up the first team, the second team entered the water equipped with cameras and video cameras to take scaled photos and video of the entire site. The measurements, photos, and video allowed site plans to be drawn for each U-boat and created a record of the current condition of the vessels so that further comparisons can be made in the future.

The opportunity to work on these vessels turned out to be an experience I will never forget. I was able to learn different methods for recording wrecks at depth, the importance of strong buddy skills while diving in severe currents, the ability to complete a detailed sketch with limited diving time, and above all, I was able to witness firsthand how close the Battle of the Atlantic came to American soil. While some of the U-boats' structures have collapsed over time and souvenir seekers have pillaged many defining elements, these ghostly "grey wolves" still pay homage to the lives of sailors lost at sea while fighting for their country. 🇺🇸

– John Wagner



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