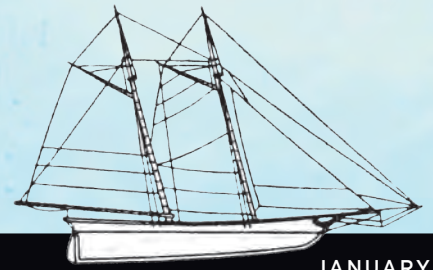


East Carolina University

# Stem to Stern

*A Newsletter for our Maritime Studies Alumni and Friends*



JANUARY  
2012  
VOLUME 28

PROGRAM IN MARITIME STUDIES | EAST CAROLINA UNIVERSITY | GREENVILLE NC

*Continued research on the Battle of the Atlantic....* story on page 18

- 2 From the Editorial Staff / Director
- 4 Maritimers on the Road: Conferences 2011
- 7 MSA Activities
- 8 Underwater Archaeology in National Parks
- 9 Thunder Bay
- 10 The Maine Course
- 11 Back at the *Queen Anne's Revenge* Lab
- 12 Port Columbus National Civil War Naval Museum
- 13 Maritime Archaeology at Shirley Plantation
- 14 Mediterranean Cargo Vessel *Kyrenia*
- 15 Saving Lives on the NC Coast
- 16 Museum Ship *Success*
- 17 *Vasa*
- 18 Battle of the Atlantic: Lost U-boat
- 20 RPM Nautical Foundation in Albania
- 21 Scanning the Scuppernong River
- 22 Summer Field School on the *Cashie*
- 23 Fall Field School in the Dominican Republic
- 24 Ahoy Mates! Welcome to ECU
- 25 Where are our Maritimers now?



# Stem to Stern

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

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### Stem to Stern

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Please visit the ECU Maritime Studies Web site at [www.ecu.edu/maritime](http://www.ecu.edu/maritime) for additional news and information about the program. A digital copy of this newsletter can be viewed on line at <http://www.ecu.edu/maritime/publications>

### ON OUR COVER:

ECU student John Bright records features of torpedoed tanker *Dixie Arrow* during the 2011 Battle of the Atlantic Expedition. Photo: Joe Hoyt (NOAA)

1,500 copies of this public document were printed at a cost of \$3,093.77 or \$2.06 per copy. ASC-000924 (11/11)



Read about the Battle of the Atlantic hunt for a fourth lost U-boat on page 18.

Divers from Woods Hole Oceanographic Institute take 3-D video of torpedoed tanker *E.M. Clark*.

PHOTO: TANE CASSELEY (NOAA)

## From the Editorial Staff:

The life of a graduate student is a peculiar thing ruled by juxtaposition. During my first semester as an ECU Maritimer, I glided from Brewster, to Eller, to Joyner Library barely cognizant of the 27,000 other students and dozens of buildings. We are lulled to a false sense of security by the cooling temperatures and easy rhythms of September and October only to awaken to the madness and flurry of activity that dominates November and December. We find ourselves steeped in knowledge of past events, places, and people from myriad books and articles, yet stare at the blank whiteness of a word processing document while the blinking cursor seems to mock our inaction. Our desire to learn, explore, and create is chastised by fear of failure. Every paper, presentation, and interaction with a professor or professional is hounded by thoughts of insecurity and wishes of time machines that allow the study of one more primary source. Even the Brewster building confounds with engineering feats that would not be amiss in an Escher drawing.

And yet we gladly do this to ourselves. The students of the Program in Maritime Studies learn, explore, and create, not for fame or fortune. We do it for the sake of doing it. We have such an opportunity that so few others in this world do. The life of a graduate student is one of difficulty, stress, and acid reflux. Many take an easier path, but we cannot and must not. The work you will read in the following pages is a monument to our resolve and lack of self-preservation. I am astounded daily at what we have accomplished. 🐟

– Leland Geletka

Whether they helped survey the *Vasa* in Sweden, presented at the SHAs, worked on a summer internship, or scanned the Scuppernong for forgotten vessels, ECU's Program in Maritime Studies students had an exciting and productive year. In this year's *Stem to Stern*, you will find a chronicle of all our conference, research, and internship-related adventures. Each edition of *Stem to Stern* not only reports our accomplishments, it serves as a link between the Program's extensive network of alumni, prospective students, current students, friends, and faculty. It has been my pleasure to help report and celebrate Maritimer accomplishments this year, and actively contribute to PMS cohesion and growth. Please read on to discover more! 🐟

– Stephanie Croatt

**If you would like to continue receiving *Stem to Stern*, please send in the enclosed pre-addressed, pre-paid envelope and let us know. All you have to do is insert a card with your name, address, and current professional position. If you want to send a donation to support the program, a specific project, or *Stem to Stern*, please feel free to do so.**

**-Thank you**

## From our Director:

A lot has transpired since the last issue. When 2010 ended, Steve Sellers, Director of Diving and Boat Safety and the trainer of ECU's Maritime divers, took a job with the National Park Service. His acceptance means that ECU had to go through a job search but, in return, a friend to ECU Maritimers is now in a more national position and able to assist us. Steve joins a growing number of ECU folk who have moved to the Federal government, where they have been instrumental in finding positions for our interns and alumni. Long-term understudy, Mark Keusenkothen has risen from the ranks to take Steve's job. He has promised to keep his dreads.

Everyone managed to make it back from the Austin SHAs without spending a week in Atlanta, Dallas-Fort Worth, or other exotic airports. Of 179 maritime papers, thirty were by some of the sixty ECU students, alumni, and faculty who attended or served as discussants and session chairs. I was particularly impressed by several students who gave outstanding papers, including Nat Howe, Stephanie Gandulla, and John Ratcliffe. The South African session Lynn Harris (1988) put together was very well received.

Everyone came back to classes and a flu-like epidemic that never seemed to run its course. Everyone ended up being sick. Along with medical miseries, the financial crisis continued with dire threats of losing positions. We moved rapidly to spend whatever money we could and encumber everything else, but didn't move fast enough. Over \$20,000.00 was swept up from our operating budget – a real blow to travel, field school, and class field projects. Threats to sweep even more encouraged us to spend the remainder as rapidly as possible. As we entered the Fall semester, the situation had not stabilized and more cuts were projected. The monetary loss will clearly affect our ability to conduct field operations and attend meetings.

Dave Stewart, Calvin Mires (2005), Franklin Price (2006), and three students went to Cyprus over spring break to record the Kyrenia vessel. Chelsea Hauck will do her thesis on this project. This effort is a continuation of techniques first used on the *Vasa*, then the *Neuse*, and the *Wawona*. Every

new site allows veterans to pass on their knowledge to newer students who will comprise the recording team of the future.

The Summer Field School went back to the Cashie River and the Bowling Farm Site. After the field school, Calvin Mires and nine students went to the *Vasa* and finished recording the hold. Susanne Grieve went off to Israel with Anthropology professors. The fall field school in the Dominican Republic was led by Lynn Harris and Calvin, largely supported by an Indiana University grant that provided for housing and subsistence.

The smart classroom was "visited" by a great many scholars via Skype, an interesting way for students to meet outstanding archeologists and ECU alumni from around the world. Lynn worked hard to connect our students to the outside world. The spring was marked by graduations as Adam Edmonds, Jackie Marcotte, Morgan MacKenzie, and Jeanette Hayman defended. The lack of extended financial aid encouraged several laggards to finally finish up. Calvin is getting close to finishing his dissertation.

The doctoral proposal continues to move along. There were a lot of meetings in the spring as Brad Rodgers (1985), Theresa Hicks, Gerry Prokopowicz and I were all involved in face to face meetings with the administrative hierarchy on various occasions. By May, the Request for Inclusion had progressed through three stages. At present, the PhD is on the list, one of three doctoral programs proposed for implementation. The first of many meetings occurred in September as another round of the selection process began.

The Maritime Heritage Campus is still alive, and ECU is finally looking at the nuts and bolts of whether it can be acquired. There are a variety of options, but at last the Facilities folks are moving. Many meetings have been held and progress is being made. Again, it is a very slow, politically-oriented process. A 401C3 foundation will be set up to handle non-ECU, non-state funds for the Maritime Campus.

In April, I met with European colleagues about fieldwork opportunities in Scotland and linking with the University of Liverpool. Discussions included student-faculty research and exchanges. Liverpool is

wide open for a variety of potential topics including slavery, Atlantic world, shipbuilding, and the Civil War. In the summer, a Liverpool professor invited me to help record Napoleonic War siege works, fortifications, and battlefields in Spain, a good start to what should be a long term relationship.

Nathan has shifted half his time to the Coastal Studies Institute, a University System outreach campus in Manteo, North Carolina. This puts him in close proximity to a number of his research topics, creates opportunities for collaboration with local eastern North Carolina organizations and NOAA, as well as providing bases for students doing research. Compensation was granted to the Program in Maritime Studies in the form of "buyout", but before we could hire someone to teach two courses, the money was sucked up in the budget crisis. We are hopeful these funds will be returned and that the 2011-2012 year funds will be made available.

Budgetary matters aside, the Program is in fairly good shape. Over the last nine or ten years, we have added two positions, increased the budget (now cut back), expanded course offerings, and started working in previously untapped research areas. The future looks equally good. The students, the heart and soul of the Program in Maritime Studies, are still doing interesting work that is exciting to be around. Faculty hold them to their thesis work and provide guidance, but the real learning lies in the continual dialogue between students outside the classroom. Faculty teach and open professional doors; and students do the cutting edge research involved with their topics.

This is my last letter as Director. It's been a great ride but, after twenty years, retirement has never looked so good, especially since Nathan and his students are researching vessels younger than I am. At my age, retirement is due. I have taught for over 31 years, spent 3 years as a state archaeologist, and 3 years in the infantry. I'm looking forward to a life where there are no meetings, no administrators asking me for information they already have, and no students wanting an extension on a paper. It might even be possible to get into shape and play another rugby game. 🏉

– Larry Babits

# Maritimers on the Road: 2011 Conferences

## SHA CONFERENCE -

### Archaeology in Austin

This January past, in Austin, Texas, hundreds of archaeologists, historians, and enthusiasts turned out for the largest conference of the year in our field, the Society for Historical Archaeology's (SHA) 44th Annual Conference on Historical and Underwater Archaeology. The weather in Austin was a welcome reprieve from the bitter winter in Greenville. The Austin Hilton offered a lavish setting with plenty of large ball rooms and smaller conference rooms to accommodate the conference. Almost twenty students took advantage of Maritime Studies Association (MSA) funding to cover airfare or accommodation. The city of Austin itself offered a plethora of culinary adventures and a vibrant night life.

Attendees had plenty of great restaurants from which to choose for lunch, dinner, and happy hour.

The theme of this year's conference was *Boundaries and Crossroads in Action: Global Perspectives in Historical Archaeology*. SHA offered its usual variety of informative workshops, local tours, round table luncheons, and hundreds of presentations. The convention also provided fun after-hour activities, including a silent auction, the SHA dance, and a scavenger hunt and pub crawl. The Archaeology Marketplace was packed with 32 tables representing universities, companies, publishers, foundations, and professional organizations, as well as a fascinating technology showcase. The historical auction pieces, donated from personal collections, were almost harder to resist than the usual discounted book prices.

Just over 1,200 registered delegates were in attendance over the four day conference, including 300 students. Once again, East Carolina University was well represented. Many past and present faculty from the Program in Maritime Studies presented

papers and attended the four day conference. Dozens of alumni, several second and third year students, and one first year student presented papers. Among them were 3 ECU professors, 10 alumni and 10 students. The following Maritimers presented the following papers:

*Paul Avery* (1988) – Outside the Wall: The Discovery of Battery XXVII, Port Hudson, Louisiana



(L to R) Danny Bera, Saxon Bisbee, Barry Bleichner, Nathaniel Howe and Dan Brown share laughs over drinks at the SHA conference.

*Lawrence Babits* – Applying the Army's Terrestrial Analytical Formats to Maritime Battle Sites

*Danny Bera* – River Shipwrecks and the Triangular Trade

*Dan Brown* – The Corolla Wreck: 21st-Century Solutions to a 17th-Century Mystery

*Peter Campbell* (2009) – Archaeology and Cultural Identity: The Role of Maritime Cultural Heritage in Shaping Modern Local, Regional, and National Identities

*Frank Cantelas* (1995) – Sharing a New Paradigm for Ocean Exploration through Outreach and Education

*James Delgado* (1986) – The Bow of *HMS Volage*: The Archaeology of a Controversial Cold War Naval Incident

*Stephanie Gandulla* – *Vasa's* Treenware: The Wooden Tableware of a Seventeenth-Century Swedish Warship

*Susanne Grieve; Laura Kate Schnitzer;*

*Tom Horn* – Conservation and Public Participation: Evaluating and Monitoring the In Situ Preservation of Archaeological Sites in the Namib Desert

*Lynn Harris* (1988) – The Challenges of Maritime Archaeology on the Skeleton Coast of Namibia, Africa

*Theresa Hicks* – Prosperous Plantations: Relationship between the Wharf and Prosperity

*Nat Howe; David Stewart; Lindsay Smith* (2010) – Development of a Hull Documentation Method for Large, Intact Wooden Ships

*Joe Hoyt* (2008) – Graveyard of the Atlantic Interactive Maritime Heritage Tour

*Jennifer Jones; Brown Mims III; Lynn Harris* – To Hell n' Gone: Investigating Meob Bay, a Desolate South West African Whaling and Diamond Depot

*Kurt Knoerl* (1994) - Underwater Archaeologists and the Web: The MUA and the Future of Maritime Past

*Eric Ray* (2009) – Spatial Distribution aboard French Colonial Ship *La Belle*

*John Ratcliffe* – The Casks from *Vasa Sami Seeb* (2007) – Underwater Wonders of the National Park Service: Diving Into the National Parks in 3D

*Joyce Steinmetz* (2010) – Shipwreck Site Formation Processes of Commercial Bottom Fishing

*David Stewart* – Virtually Saving *Wawona*  
*Bruce Terrell* (1988) – Beyond the Range of Cannon Shot: How Creative Thinking Saved USS Monitor

The above *Vasa* papers were part of the 50th Anniversary commemorating the raising of that ill-fated warship. Friends of the program, Fred and Emma Hocker, and Kroum Batchvarov, presented on *Vasa's* conservation, the sailing and sinking of a 17th-century merchant ship, and the recording of *Vasa's* frames, respectively. Alumni James Delgado (1986) won the James Deetz Book Award for his book *Kublilai Khan's Lost Fleet*.

January 4 – 8, 2012, the 45th annual conference will return to Baltimore, Maryland, after 13 years and marks the bicentennial of the War of 1812. "Charm City" should have a lot to offer. Attendees can expect Maritimers to make yet another excellent showing. Nathan Richards will chair the symposium, UNC-Coastal Studies Institute: Maritime Heritage Projects 2010-2012, comprising a majority of Maritime students.

As the destination is within driving distance, even more ECU students will be able to attend with continued support from MSA and continue to represent the academic and field achievements of the Program in Maritime Studies. 🍷

– Dan Brown

## NCMHC CONFERENCE - Wilmington at War

Maritime Studies students, faculty, and alumni braved the widespread rains and flooding across Eastern North Carolina to attend this year's North Carolina Maritime History Council conference in Wilmington. Held from 29 September to 1 October, several venues hosted the meeting throughout the weekend. Additionally, tours of the Cape Fear Museum, Battleship *North Carolina* Memorial, Eagles Island, the historic Wilmington waterfront, Oakdale Cemetery, and the Wrightsville Beach Museum offered those in attendance access to points of interest throughout the Wilmington area.

This year's topic focused on "Wilmington at War," with Wilbur Jones from the World War Two Wilmington Home Front Heritage Coalition delivering the conference's first program titled "Wilmington: America's World War II City." This followed a wine and cheese reception and guided tour of the Cape Fear Museum's boat collection.

The following day, in the Battleship *North Carolina* Memorial Visitor's Auditorium, ECU faculty, students and alumni monopolized the morning presentations. Ralph Scott (1979) discussed wartime shipbuilding in Wilmington. ECU's Dr. Nathan Richards gave an overview of research conducted during the Battle of the Atlantic Project, an ongoing cultural resource and archaeological assessment of North Carolina's World War Two shipwrecks. Next, students John Bright and Rob Minford presented research relating to their respective thesis projects. Bright explained the use of terrain analysis to interpret specific naval actions off the North Carolina coast, while Minford discussed archaeological assessment of cultural material on Eagles Island within the greater context of historical industry in the Wilmington area.

The afternoon featured tours of both

Eagles Island and Battleship *North Carolina*, and a delicious dinner at the Hannah Block Historic USO. The following morning, presentations continued with ECU students, faculty, and alumni giving the lion's share. Students Jennifer Jones, Daniel Bera, and Josh Marano presented their thesis research. Jones discussed weather's influence upon communities in coastal North Carolina; Bera discussed using corrosion analysis in USS *Huron's* interpretation in Nags Head, and Marano examined the impact of risk-taking behavior within maritime commerce on US Life Saving Service's development and operation along the North Carolina coast.

Conservation Director Susanne Grieve talked about conservation and preservation of artifacts recovered from *Modern Greece*, including recent work on the collection by ECU PMS students. Alumni Chris Fonvielle (1989) led a walking tour of historic Wilmington's waterfront that afternoon. This year's conference affirmed ECU PMS's integral role in maritime research throughout North Carolina. As partnerships between ECU and the State of North Carolina, the UNC Coastal Studies Institute, NOAA's *Monitor* National Marine Sanctuary, the National Park Service, and others continue to flourish, this role is sure to be maintained in the years to come. 🍷

– John C. Bright

## AIC CONFERENCE - ECU Conservators Make an Impact

The 2010-2011 school year was another busy one for conservation students with classes, conferences, contract projects, and fieldwork. The spring semester Introduction to Archaeological and Museum Artifacts Conservation class brought in a new crop of students. It was an exciting year with a variety of projects, some of which are described below.

Lab director Susanne Grieve and graduate assistants Emily Powell and Nicole Wittig undertook a number of interesting contract projects. The most exciting project completed by the trio was cleaning and stabilizing a World War II rubber terrain



Nicole Wittig after presenting her poster "Side Effects of Sucrose Retreating a Civil War Era Keg Torpedo" at the American Institute of Conservation's Annual Meeting.

PHOTO: EMILY POWELL

model of Iwo Jima for the battleship USS *North Carolina*. They completed the work in time for an ECU public presentation commemorating the anniversary of the landing on Iwo Jima. History faculty members gave talks on the battle and its aftermath, on Iwo Jima and Pacific theater artifacts in ECU's Joyner Library manuscript collections, and concluded with a discussion about the map's treatment process.

Other projects completed included copper folk art from Rhodesia, a rim lock mechanism recovered by ECU Anthropology students at Foscue Plantation, Pollocksville, North Carolina, and fire damaged antique office equipment from the Chatham County Courthouse collection. Treatment of a waterlogged Native American dugout canoe recovered by Georgia State Archaeologists began in fall 2010 and is still underway.

For three days in March, a group of past and present conservation students spent part of their spring break participating in the first conservation mini-field school. Students worked alongside staff from the Underwater Archaeology Branch (UAB) at Fort Fisher, Kure Beach, North Carolina, to assess a massive collection of artifacts from the Civil War blockade runner *Modern Greece*. The artifacts included farming implements, household items, rifle stocks, horn and antler knife handles, and tableware that has remained largely untouched in outdoor wet storage since its initial excavation in the 1960s. Unsure of what might lie beneath the muddy surface of the in-ground tanks, three student teams recovered, cataloged, photographed, and tagged artifacts, which were then moved to indoor wet storage to await treatment. Friends of Fort Fisher visited for a public education day where students demonstrated

continued on page 6...

## Maritimers on the Road: 2011 Conferences continued

the recording process and discussed continued conservation goals. The analysis of the number, kind, and condition of artifacts will help the UAB in planning and securing funding for treating the *Modern Greece* collection.

The American Institute of Conservation's 39th Annual Meeting took place in historic Philadelphia during May; for the second consecutive year Program in Maritime Studies students were in attendance. This year, several papers included relevant discussions about furthering partnerships between conservators and archaeologists. Dana Hewson of Mystic Seaport gave a presentation in the wooden artifacts group. Providing an overview of Mystic's operations and watercraft collection, Hewson spoke specifically about challenges associated with storage and preservation projects at the seaport. For the first time, students

participated in the meeting's poster session, presenting work completed on a Civil War keg torpedo. Kate Schnitzer and Nicole Wittig collaborated with Dr. Anthony Kennedy of the Chemistry Department to share their findings on the long-term effects of treating waterlogged wood with sucrose.

Between sessions, Emily Powell and Nicole Wittig took time to visit Philadelphia's Independence Seaport Museum, where they got a behind-the-scenes look at the Seaport's boat shop, and had a chance to talk with shipwrights about their upcoming work building a new whaleboat for Mystic Seaport's *Charles W. Morgan*. The last stops on their visit included a brief tour of the submarine *Bacuna* and a visit to the endangered cruiser *Olympia*. The ship served as Admiral Dewey's flagship during the Spanish American War's Battle of Manila and is now the world's oldest steel

warship. The vessel needs roughly \$10 million in repairs that Independence Seaport Museum cannot afford. Within the past year, the press reported on plans to close the ship to visitors, and possibly even scuttle her off Cape May, New Jersey. Fortunately, those plans seem to be abandoned for now. Although the seaport is actively seeking funding and transfer opportunities for stewardship of the vessel, the *Olympia* remains open to visitors for the time being, and is well worth a visit.

To keep up with projects and conservation students both in the lab and in the field, please visit our facebook page: <http://www.facebook.com/#!/pages/ECU-Maritime-Conservation-Lab/252305361117>, Flickr account: <http://www.flickr.com/photos/ecumaritimeconservationlab/> or student blogs: <http://blog.ecu.edu/sites/maritime-conservationlab/>. 📷

## Phi Alpha Theta Update

ECU's Lambda-Eta chapter of the Phi Alpha Theta History Honors Society is having a great year so far. We were recently notified that our chapter received the Outstanding Chapter Award for the second year in a row. We hope to continue the Chapter of the Year tradition next year, and are currently planning, hosting, and participating in events to bolster our cause.

In September, the chapter sponsored the annual lecture by Dr. Carl Swanson, Graduate Director of History, entitled, "Thinking About Graduate School?" Undergraduate and graduate students attended the event to learn about applying to and attending graduate school. The lecture was followed by a helpful question and answer session. Students from all disciplines have attended in the past, and we hope that future students take this opportunity to plan for their careers.

Funding is particularly important to our chapter because members regularly attend conferences and conventions. We hosted a fundraiser at Chico's, a popular restaurant in downtown Greenville. We are also brainstorming other methods of fundraising for the organization. We hosted a Bake Sale in late October (just as everyone was craving a Halloween sweet) and another Bake Sale is planned for Spring to raise funds for Relay for Life.

In January, Phi Alpha Theta's Biennial Convention will be held at Walt Disney World in Orlando, Florida. The chapter also plans to send multiple delegates to the Phi Alpha Theta Carolinas Regional in March 2012 at Queens University in Charlotte. The Lambda-Eta chapter typically sends multiple delegates to the Carolinas Regional and other conferences and conventions. We

hope to continue this trend, and it is always a good opportunity for members to present their research.

Several of our members volunteer as tutors at ECU's Pirate Tutoring Center. The Pirate Tutoring Center is a free tutoring service for ECU students, primarily undergraduates. A variety of subject areas are offered, including all the survey-level courses required by the university. Many Phi Alpha Theta members serve on the staff as History tutors.

Our members are tireless in supporting the activities we host; a trait we believe contributed to our successful campaigns to win Chapter of the Year Award. Our advisor, Dr. Wade Dudley (1998), hosts a Chili and a Movie Night, in addition to a holiday party in December. These events are always a treat for the members who attend.

The Lambda-Eta chapter of Phi Alpha Theta is planning activities for Spring 2012 as well, such as our annual Book Sale and participation in ECU's Relay for Life. If you are interested in becoming a Phi Alpha Theta member, we would love for you to join our ranks and continue our traditions. Students from all subject areas are welcome to join. Undergraduates must complete a minimum of 12 semester hours of History courses and have a minimum GPA of 3.1 in their History classes, and a minimum GPA of 3.0 overall. Graduate Students should have completed at least 12 semester hours toward their Master's Degree in History, and have a GPA of at least 3.5. Please contact Dr. Dudley for more information. 📷

– Melissa Jones

# Maritime Studies Association: 2011 and Onward

The Maritime Studies Association (MSA) enjoyed another successful year hosting social events, funding student travel, public outreach, and providing student workshops. MSA's success was made possible by support from the Graduate & Professional Student Senate, MSA members, and the local and professional community.

MSA kicked off the Fall 2010 semester by hosting the Welcome Aboard party for the incoming first year students. This is the program's "meet and greet" event, and was a definitive success as Eller House overflowed with students, faculty, alumni, and friends. Later in the semester, MSA members put the books down for an evening and suited up for the association's Halloween party held at O'Cool's (costumes were mandatory!). After wrapping up finals, MSA members attended the much-needed Holiday party, hosted by Katie and Matt Cooper. This concluded a productive and successful Fall semester for MSA and its members.

The 2011 Society for Historical Archaeology (SHA) conference was held in Austin, Texas. MSA provided travel funding to this important professional

event and was proud to have its members present their research to the wider archaeological community. We returned to Greenville, trading in barbeque brisket for B's Barbeque.

MSA began the Spring 2011 semester by bringing in Kurt Knoerl (1994) of the Museum of Underwater Archaeology, to lead a workshop for MSA members on the basics of Photoshop and its applications to archaeology. This workshop allowed members to refine their skills on Adobe's powerful software, and MSA is grateful to Kurt for his time.

One of MSA's most popular events (and its prime fundraiser) is Sea Biscuits and Bitters, a nautical-themed party hosted by the ever-hospitable Dr. Nathan Richards. This year's event featured appropriately themed food and a

*"...a success despite an earthquake three days earlier and then hurricane Irene..."*

raffle sponsored by local businesses.

MSA hosted a booth at ECU's Pirate Fest, an important event that celebrates East Carolina's pirate heritage. This was a great opportunity for public outreach and an apt event for MSA to be represented.



ECU students Jeff O'Neill, Valerie Rissel, and Emily Powell sorting *Modern Greece* artifacts in preparation for photo.

Scientific divers celebrated completing the zero-visibility obstacle course in true MSA fashion by throwing a Blackout Party. This year's course was challenging, and the party was a success thanks to the hosting efforts of Laurel Seaborn.

MSA members shook off the (relatively) cold and wet winter with the annual Tar River Float, in which members constructed vessels ranging in complexity, from a wooden replica of Jabba's Sailbarge to humble inner tube rafts, and piloted them down the river. MSA wrapped up the semester with a trip to Washington, D.C. to visit the National Archives and the Library of Congress. The end of the semester also meant officer elections. The MSA officers for 2011-2012 are as follows:

President: Leland Geletka  
Vice President: Tom Horn  
Treasurer: Nicole Silverblatt  
Secretary: Erin Burnette

The 2011 Welcome Aboard party was a success despite an earthquake three days earlier and then hurricane Irene greeting new students with high winds and torrential rain. MSA looks forward to another year of holding traditional social events, funding student travel, organizing public outreach, and providing student workshops. 🍷

– Tom Horn



Maritimers greet the 2011 academic year as Hurricane Irene approaches the North Carolina coast.

## On the Job - National Parks: The Submerged Resources Center

When most people think about the National Park Service, underwater archaeology is probably not the first thing to come to mind. Certainly Americans are familiar with iconic cultural sites such as Chaco Canyon and Mount Rushmore, yet many cultural resources in National Parks remain somewhat obscure from the public, hiding in the most unlikely of places: underwater. Take for example southern Florida. The warm Gulf Stream waters of Biscayne, Everglades, and Dry Tortugas National Parks are peppered with shipwrecks, yet most Americans identify these parks by stands of palm trees, vast swamps and marshes, and the imposing brick behemoth that is Fort Jefferson. Isle Royale National Park, tucked away in north-

economic, industrial, and conflict activities thereof.

Each park is responsible for its own resource management, yet few park archaeologists have access to the specialized equipment, personnel, and training needed to independently identify, document, and interpret underwater cultural heritage. Instead, they partner with a specialized team of archaeologists, photographers, and videographers: the National Park Service's Submerged Resources Center (SRC). The SRC promotes the preservation, stewardship, and interpretation of underwater cultural resources by working with parks to locate, assess, and document submerged cultural materials within their boundaries,

ultimately assisting park administrators in determining the best management strategies to preserve these resources for the American people.

The diversity of expertise within the SRC staff allows the team to conduct a wide array of underwater activities. These include, but are not limited to, magnetic and acoustic underwater survey, 3-D and high-definition photography and video, corrosion potential analysis, geospatial

analyses, and traditional in-water diver survey. Furthermore, the team maintains the ability to operate with closed-circuit, open-circuit, and surface supplied diving systems, including mixed-gas for extended range diving.

Formed in 1980 as the Submerged Cultural Resources Unit (SCRU), the team consisted of three full-time and two part-time archaeologists, along with a number of associated specialists from various offices in the National Park Service. After the SCRU team's research and field activities expanded in the early 1990s, opportunities arose to

incorporate graduate students into the research process. A relationship formed as data collected in parks funneled into graduate theses, and students gained hands-on field experience. Simultaneously, SCRU could hand-pick new team members after first observing them in the field. Not surprisingly, many ECU maritime students worked with SCRU (changed to SRC in 1999) since the 1990s; some have gone onto to become permanent team members.

First among these was Matthew Russell (1995). SCRU leaders invited Russell to participate in an ongoing archaeological project at Dry Tortugas National Park during the summer of 1993 with fellow ECU graduate student Adriane Askins (2000). SCRU invited Russell and Askins to return the following year, and after graduation each was offered a position on the team.

During the spring and summer of 2002, the Submerged Resources Center travelled to Ellis Island National Monument. Investigation focused on an old ferry boat which sank at its moorings, as well as documenting the island itself. During the spring field work, ECU student Mike Plakos (2003) assisted the team; in the summer they were joined by ECU student Jackie Piero (2004).

Calvin Mires (2005) was also involved with the SRC. The team's photographer/videographer, Brett Seymour, invited Mires to participate in the production shoot of a documentary about Yellowstone National Park entitled "Fire and Ice." For two weeks in 2003, Mires provided Seymour with technical support in both terrestrial and underwater filming operations.

Sami Seeb (2007) started working for the team in 2006 and has now completed her fifth year as an employee of the Submerged Resources Center. Following the 2006 ECU summer field school, where she served as crew chief, SRC invited Seeb to work with the team by participating in the NPS's Student Career Experience Program (SCEP). During the remainder of 2006, Seeb travelled to Hawaii, working at the USS *Arizona* Memorial and Kaloko-Honokohau National Historical Park, then to Santa Fe,

*continued on page 11...*



John Bright sits watch during survey operations at Saint Croix International Historic Site.

PHOTO: NATIONAL PARK SERVICE SUBMERGED RESOURCES CENTER

ern Lake Superior, preserves dozens of ships that once plied the Great Lakes. The USS *Arizona* Memorial is a somber grave of sailors lost in the Second World War. Inundated by reservoirs across the southwest, once dry land, now preserves former terrestrial archaeological sites under their cold, fresh waters. In fact, more than a third of all national parks manage some type of submerged cultural resources. Collectively, these resources are integral to the understanding and interpretation of American heritage; a heritage encompassing both Native American and Old World settlement and all the associated



Diver investigates near the bow of *Allen*, one of the many wrecked ships in the Thunder Bay National Marine Sanctuary.



PHOTO: NOAA, THUNDER BAY NATIONAL MARINE SANCTUARY

## Thunder Bay National Marine Sanctuary

Thunder Bay National Marine Sanctuary (TBNMS) shines as a beacon of maritime history, archaeology, and education on the shores of Lake Huron in Lower Michigan. As one of fourteen National Marine Sanctuaries, and the only fresh water sanctuary to date, TBNMS covers 448 square miles of protected waters. Founded in 2000, Thunder Bay contains an estimated 200 shipwrecks ranging from an 1844 side-wheel steamer to a modern 500-foot long German freighter. The Sanctuary works to protect over 150 years of maritime heritage on the Great Lakes through education and community involvement.

The Sanctuary's heart lies in the Great Lakes Maritime Heritage Center (GLMHC) located in Alpena, Michigan. The GLMHC contains a wide range of interactive exhibits, artifact galleries, and first-rate research facilities such as the State of Michigan's Artifact Conservation Lab. The Center welcomes approximately 60,000 visitors every year, all of whom are rewarded with engaging and interesting exhibits, knowledgeable staff, and an opportunity to

learn about the Great Lakes' maritime cultural resources.

I was fortunate to have been the recipient of a Cooperative Institute for Limnology and Ecosystems Research (CILER) Fellowship, in which I spent three months of my summer working at Thunder Bay National Marine Sanctuary. My time there was an amazing experience with a wonderful group of archaeologists, historians, and educators. While there, I learned a great deal about cultural resource management as I helped the sanctuary better manage, understand, and utilize our shared maritime cultural resources.

While at Thunder Bay, I participated in a variety of different projects involving various facets of maritime heritage conservation including resource management, education, public outreach, and research. Whether I was involved in helping out with Thunder Bay's popular Fourth of July celebration Maritime Fest, participating in field research operations, giving informational tours at the Heritage Center, or creating maps for maritime resource management, I can say that

Thunder Bay National Marine Sanctuary was never a boring place.

Because getting the public informed and involved in the Sanctuary's efforts to protect underwater cultural resources, I attended several events around northern Michigan to conduct education and outreach activities. From attending regional community festivals to visiting local school groups in their classrooms, I was able to assist the Sanctuary in spreading reliable information about TBNMS and the submerged cultural resources within its boundaries.

My internship at Thunder Bay National Marine Sanctuary was also an excellent opportunity to utilize my experience with Geographic Information Systems (GIS). While in Alpena, I worked with the Sanctuary's GIS data and created a variety of maps and databases that will help the Sanctuary better manage its submerged cultural resources.

Field research was an important aspect of my time spent at Thunder Bay National

*continued on page 15...*

## On the Job - The Maine Course

Long before its induction into the Union in 1820, the state of Maine had a long and illustrious maritime heritage. In the summer of 2011, I had the opportunity to sample some of what Maine had to offer in the form of an internship. Under the expert and ever-watchful eye of the project lead and Program in Maritime Studies graduate, Franklin Price (2006), I experienced firsthand what to expect in the field of maritime cultural resource management. The project itself consisted of surveying and mapping a wooden shipwreck of unknown date and origin located within Seal Cove on Mount Desert Island, a scenic location partially within the boundaries of Acadia National Park. The wreck site was situated for easy access and assessment during times of low tide, and succumbed to depths of just over five feet during periods of high tide. This environment could best be described as the ideal conditions to learn how to properly record a shipwreck, allowing for the inevitable asking and answering of questions.

The conditions also allowed for something that few maritime projects get to include: the participation of the general public. Sponsored by the Acadia National Park Services, the Institute of Maritime History, and a former resident



Charles Bowdoin gets his hands dirty while surveying and mapping a wreck in Acadia National Park, Maine.



Charles Bowdoin (right) works with crew to take measurements of the wreck.

of Mount Desert Island, Price decided to include any of the public that wished to participate as volunteers. This resulted in a variety of workers who came from all walks of life; everyone from park volunteers to local retirees, and even a couple of Program in Maritime Studies alumni took part in the surveying.

By turning this project into a form of public outreach, Price was not only able to gather more historic sources of information on what the site might be, but also enticed a few “cove combers” to return artifacts they collected from the site. On the whole, the project was a great success, resulting in a very detailed site plan, the opportunity for future endeavors by Franklin Price in conjuncture with the Acadia National Park Service, the educating of an occasionally bewildered intern, and several delicious lobster dinners. 🦞

—Charles Bowdoin

## ECU Maritimers Receive Awards and Internships

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

- Cooperative Institute for Limnology and Ecosystem Research Fellowship recipient ..... Daniel Bera
- SCEP Internship with the NPS Submerged Resources Center; Lakewood, Colorado ..... John Bright
- Research internship with the Lost Colony Research Group; Greenville, NC ..... Baylus Brooks
- Museum Internship at the North Carolina Museum of History; Raleigh, North Carolina ..... Melissa Jones
- Richard C. Todd Scholarship ..... Melissa Jones
- Research Internship at Naval History and Heritage Command ..... Nicole Silverblatt  
(Operational Archives and Naval Aviation Branch); Washington Navy Yard, Washington, DC

# Meanwhile, Back at the Lab...

Fieldwork is undoubtedly an icon of archaeological investigation and one that is prominent in the social consciousness. This makes sense since most media coverage of archaeological projects focuses on excavation. If you follow archaeology related stories in the news, you will probably see people digging in the ground, or scuba divers dredging in blue water, or maybe even a close up of a grubby hand holding some freshly unearthed potsherds. The process of uncovering the past's remnants evokes a sense of awe and adventure, and therefore makes for good news. But what happens when the fieldwork is over? What happens to all those artifacts after they have been removed from the ground or sea floor? During the past year, I was able to answer these questions as an intern at the *Queen Anne's Revenge* (QAR) Conservation Laboratory.

The QAR Lab, located on ECU's West Research Campus, is the treatment facility for all artifacts recovered from an 18th century shipwreck site off Beaufort, North Carolina. As a Program in Maritime Studies student with an interest in conservation, I jumped at the chance to work there. When I first started at the lab I was impressed with the staff members' wide range of responsibilities. The job title "conservator" is deceptively concise; the job description includes duty as photographer, carpenter, prospector, x-ray

technician, and historian, just to name a few. I was encouraged to participate in all of these tasks, and found the staff very receptive to working with students.

As one might expect, many of my lab duties pertained directly to artifact treatment. Object stabilization involves a complex series of steps that usually includes, but is not limited to, wet storage, desalination, mechanical cleaning, chemical cleaning, drying, coating, and dry storage. Each step in this process takes time. Desalination, for example, can take years to complete depending on an artifact's material type. Each step is recorded with written and photographic documentation. To assist with treatment processes, I monitored desalination rates, changed chelation baths, used a scalpel to remove encrusted marine life, and maintained photo logs and paperwork.

In addition to artifact stabilization, there was a lot of archaeological work to be done as well. The fieldwork had ended for objects at the lab, but excavation, in a very real sense, was just beginning. The majority of artifacts recovered from the QAR site come up in the form of rock-like amorphous blobs. These blobs, called concretions, are the product of a chemical reaction that forms around iron objects in seawater. There are thousands of concretions in wet storage at the lab, all of which need to be x-rayed and micro-excavated.

X-rays are crucial in dealing with concreted materials because they can help conservators prioritize which items to treat first. They also serve as a kind of road map during the cleaning process so the concretion can be removed without damaging what is beneath. The cleaning, or micro-excavation, is done using pneumatic tools to chip away concretion a little at a time. Fear of damaging artifacts can make the process nerve-wracking at first, but a tremendous sense of accomplishment takes over when an 18th century object begins to emerge. Other archaeological tasks I assisted with included helping create standardized cultural analysis forms for different artifact types, and researching the history of certain objects.

Toward the end of my internship, I had the opportunity to attend a short field season conducted by North Carolina State Underwater Archaeologists at the QAR site. I was surprised to see more reporters and cameras in two weeks of fieldwork than I did during an entire year of lab work. George Bass, a pioneer underwater archaeologist, said that for every month spent diving on a project, two years are on conservation and research. Based on my experiences, I can attest that this is no exaggeration. I found out first hand that archaeology does *not* end in the field, even if the media coverage does! 🐙

—Kate Schmitzer

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## Submerged Resources Center continued from page 8

New Mexico, followed by field work at Ellis Island National Monument. Upon completion of her thesis the following spring, the National Parks Service hired Seeb full time, and she continues to work on the SRC team.

Most recently John Bright was invited to join the team through the SCEP program. During the summer of 2010, Bright assisted the team in Biscayne National Park, Dry Tortugas National Park, and Channel Islands National Park. Bright returned to work with the team in 2011 as well. During the 2011 field season, he assisted with an ongoing project in Biscayne National Park, while also accompanying the team to Saint Croix Island International Historic Site in northern Maine. In addition to field work,

Bright spent several weeks assisting the team at SRC headquarters in Lakewood, Colorado.

The Submerged Resources Center offers a number of internship and enrichment opportunities for students interested in archaeology in the National Parks. Annually, the SRC supports a summer-long internship through the Our World Underwater Scholarship Society (OWUSS). This internship provides the recipient access to diving throughout the National Park System, encouraging participation in a broad range of management-related diving activities. These include park maintenance, law enforcement, search and rescue, in addition to underwater sciences.

More relevant to current graduate students, the SRC facilitates internships with individual parks, such as an archaeological technician position in Biscayne National Park, and occasionally offers internships with the SRC team itself. The SRC also offers support for maritime archaeology students who wish to conduct thesis work within National Park waters and will often reach out directly to ECU PMS faculty for recommendations of high-achieving students when there are specific projects that require student assistance. Students considering thesis work relating to National Park's submerged resources should ask their advisor to contact the SRC Staff. 🐙

—John C. Bright

## On the Job - Port Columbus National Civil War Naval Museum

This past summer I had the pleasure of completing a six-week internship at the Port Columbus National Civil War Naval Museum in Columbus, Georgia. Originally known as the Confederate Naval Museum, this facility is one of the least known but truly amazing nautical museums in the United States. It is the only institution purely dedicated to telling the naval story of the Civil War from both Union and Confederate



Port Columbus National Civil War Naval Museum's USS *Water Witch* from the bow.

viewpoints. Also of great interest and importance are the preserved remains of four original Civil War vessels. Port Columbus is truly the most important single location to visit for anyone interested in the great changes in naval technology and tactics during the 1860s.

The National Civil War Naval Museum is located in historic Columbus, about an hour and a half drive southwest of Atlanta. The town's legacy as the largest industrial center in the Confederacy by the end of the Civil War can still be seen today, as it is a thriving community. Recovery of two Civil War vessels built in the Columbus area led to establishing the original museum in 1962. In 2001, the museum moved to a new multimillion-dollar building. The new facility houses many 1860s artifacts, including uniforms, weapons, and the vessels CSS *Jackson* (an ironclad), CSS *Chattahoochee* (a wooden gunboat), schooner *Virginia* (a small blockade runner), and a cutter from the USS *Hartford* (Admiral David G. Farragut's flagship).

During the course of my internship, I worked under the always-helpful and humorous Director of Programs Ken Johnston and Museum Curator Jeff Seymour with four other interns from Columbus State University. We were all unpaid, but I was furnished accommodations in the museum workshop, an old EMT station. Actually living in a museum facility was an interesting experience itself! The most enjoyable tasks

I worked on were museum programming and cleaning artifacts.

In early June, the museum held a two-day program detailing the history and capture of the blockader USS *Water Witch*, a Union paddlewheel steamer operating near Savannah. The capture of *Water Witch* on 3 June 1864 by a Confederate boarding party was an important naval incident in Georgia during the war. Each session included a theater piece, in which four actors from the raid gave monologues based on primary sources about *Water Witch's* history. This was followed by a live reenactment of the ship's capture aboard the museum's full-scale replica. I participated in the reenactment, playing the ship's pilot, a role that included firing black powder weapons.

In early July, the museum held another program concerning Civil War hospital ships. It was similar in organization to the *Water Witch* program, with a theater piece involving Civil War nurses, a tour of medical exhibits, and a reenactment of the autopsy of Lincoln's assassin, John Wilkes Booth. We recreated this intense scene aboard the museum's partial Monitor replica, and I had the opportunity to experience three layers of clothing in the July heat as a gentleman acquaintance of Booth. Other interesting jobs I was involved in were setting up for private parties, archive and library organization, exhibit setup, and artifact cleaning. This latter activity involved cleaning one of USS *Monitor's* original deck plates.

In addition to my internship duties, I was able to complete some of my own research. I took

measurements of the CSS *Jackson's* remaining machinery, and raided the museum's extensive collection of ships' plans, many of which have never been published. I was also able to examine CSS *Chattahoochee's* engines, which remain nearly intact, and represent a very valuable and rare primary source for Civil War steam machinery. It was quite a rewarding experience to work on the remains of 19th-century vessels, especially since the *Jackson* is one of only three Civil War ironclads preserved, and *Chattahoochee* is the only preserved wooden gunboat.

Unfortunately, despite its excellent staff and amazing collection, the National Civil War Naval Museum only draws about 25,000 people a year. A significant reason for this is the location, but there really is no better alternative. Columbus was a major industrial Confederate city, and two preserved vessels were built or stationed there. Although the museum only has 10 staff members (4 are part-time), all work tirelessly to promote this singular public resource. Hopefully, attendance and awareness will continue to increase.

The six weeks I spent in Columbus were very informative and helpful to me. I was able to accomplish everything I intended, except firing the museum's original 7-inch Brooke rifled cannon. All the exhibits were well-done, the staff members were very kind and helpful, and it was a pleasure to work with four original vessels under one roof. I recommend that anyone with the opportunity to visit, do so. 🍷

— Saxon Bisbee



Saxon Bisbee with the museum's original 7" Brooke rifle.

## On the Job - Maritime Archaeology at Shirley Plantation

In 2011, Charles Hill Carter III, 11th generation owner of Shirley Plantation, continued his search for answers on the maritime history of the longest-running family business in America. Shirley Plantation's land grant dates to 1613, making it the colonial Virginia's first plantation, a site dedicated to crop and commodity production and shipping. Carter funded an ongoing maritime cultural resource survey to find the 17th- and 18th-century wharves, and to explore what they might reveal about Shirley Plantation's history. The presence or absence of artifacts along the shoreline can indicate historic activities that took place there.

Previous archaeological investigations focused on the wharf complex north of the Great House, and with the help of volunteers, extended along the plantation's entire shoreline. Archaeologist Taft Kiser, geologist Charles "Chee" Saunders of Marshall Miller & Associates, and East Carolina University student Theresa Hicks documented surviving pilings and loose frames associated with four remaining wharf structures.

Wharves, jetties, docks, piers, and landing sites transferred cargo, people, and information from land to sea and back again. Waterfront landings and wharves were interface sites between rural plantations and the British Atlantic world trade network. Maritime commerce was central to Shirley Plantation's history. Wharves at Shirley Plantation were used for exporting tobacco, corn, and wheat while importing furniture, dishware, clothing, and farm equipment, among many other goods and crops.

The site's current maritime archaeological investigation involved a variety of methods. The investigators used a sub-meter GPS to plot locations of each piling and frame visible above water, as well as those hidden below, onto an overall site map. The resulting map showed four individual wharf structures running as much as 60 feet into the James River. Based on wood degradation, the team believes that each structure represents a different time span dating from the late 1700s to the early 1900s.

The shoreline survey of artifacts involves a "catch and release" collection of objects to analyze the riverfront's occupation and use dates. The goal is to sample enough of the shoreline's historic artifacts to determine whether there are concentrations of 17th, 18th, or 19th century artifacts in proximity to known cultural landscape markers such as wharf sites and outbuildings. Thus far, investigators and volunteers have surveyed 2000 feet of Shirley Plantation's shoreline. The work revealed a previously unknown fifth wharf near the manor house as well as livestock fence lines running into the river, and a sixth dock that was possibly part of a 1742 boat house.

Carter also teamed up with William and Mary's Virginia Institute of Marine Science (VIMS) to conduct sediment core and side scan sonar studies of the river bottom just off shore. Initial sediment cores yielded a number of artifacts, indicating silt has been deposited in distinct layers over time. In one instance, an early 1800s style nail was discovered nine feet below the surface of the river bottom, hinting at an incredible siltation rate and deeper water when the docks were in use. A preliminary side scan sonar survey near shore indicated several submerged features for future investigation. Sticking up from the bottom are two sunken vessels, remnant pilings, possible dock construction materials, and a number of objects that will need to be explored.

Just six years after creating the first official English colony, Shirley Plantation became a thriving new world economic engine that would not have been possible without access to the James River. Continued archaeological investigation of wharves and other shoreline structures connected to Shirley Plantation is uncovering vital information. This information will provide a better understanding of the history of commerce, economics, social communications, politics, war, and transportation along the maritime highways of America. 🦋

— Theresa Hicks



Steam Packet at the Shirley Plantation Wharf in mid 1800s.



Shirley Plantation Wharf in late 1800s as seen from weather deck of departing steamer.



PHOTOS: CHARLES H. CARTER III

Sonar image of VIMS survey of the James River adjacent to Shirley Plantation.

# Program in Maritime Studies Research - Hull Shape and the Mediterranean Cargo Vessel Kyrenia

In March of 2011, Dr. David Stewart and Calvin Mires (2005) led a team of Program in Maritime Studies students on a different kind of spring break. Saxon Bisbee, Nat Howe, and myself joined program alumnus Franklin Price (2006) in Northern Cyprus to examine the Kyrenia Merchant vessel. We spent two weeks recording the vessel using total stations taking thousands of points, focusing on hull shape and support structures.

The Kyrenia Vessel is what remains of a 2,300 year-old cargo vessel used by Greek merchants. The ship sank around 300 BCE, from either rough seas, piracy, or one of the many other dangers that await sailors. It was constructed shell-first from pine and had lead sheathing (of which very little remains). Repairs to the ship can help archaeologists understand possible shipbuilding techniques. The ship contained a large cargo of wine, figs, olives, grapes, and mill stones; and the crew consisted of four sailors who plied the single-masted vessel through the Mediterranean Sea.

The ECU crew arrived on a Monday morning and immediately began work on this historic vessel. We were greeted at the Ancient Shipwreck Museum in Kyrenia Castle by the team of core archaeologists who have been working on the wreck for over forty years. The first view of the ship left us awestruck. The small vessel, only 12 m in length, was in a large room with very high ceilings. A catwalk high above the wreck gave visitors a bird's-eye view of the remains. We spent the rest of the first day planning the best ways to capture the boat's lines, and finding possible locations for datum points. Previous work conducted by the ECU team at the *Vasa* Museum in Stockholm, Sweden, provided insight and refined the team's recording process.

One of the more difficult problems was finding a way to raise the total station high enough to record interior structure. After much debate, museum staff erected a scaffolding around the wreck from which we could access the entire vessel. We then divided into



PHOTOS: CHELSEA HAUCK

ECU group poses in front of St. Hilarion Castle, a ruined fortress in the hills behind the harbour.

two groups, one focused on outer hull planking, the other on the internal structure. During the second week, we moved the scaffolding to the vessel's bow and recording continued. Work went quickly and each evening the data was uploaded to a computer so preliminary results were instantaneous.

On the weekend, we toured Kyrenia Castle and enjoyed beautiful views of the harbor and Mediterranean Sea. We were also able to visit St. Hilarion Castle in the mountains above Kyrenia. The

Castle wound up the mountain, with views of the sea and small town on either side. One of the small traditions we kept on the project was going to the same café every morning for breakfast. As the days progressed, the owner gave us more and more complementary food and even came up with nicknames for some of us. Throughout the project we also had the opportunity to explore the artifact room. One memorable event came as Nat attempted to look at the ship's blocks as the Castle's adopted stray cat (named Artifact Cat, or Art for short) climbed over artifacts vying for his attention.

We will construct a 3-D model of the Kyrenia merchant vessel from the collected total station data. For my thesis, I will reconstruct the ship's aft-cabin and determine the original cargo placement in this portion of the vessel. Additionally, this reconstruction will attempt to reveal how the crew of the Kyrenia vessel used the space. ✨

– Chelsea Hauck



At work on Kyrenia vessel in Cyprus.

# Thesis Activity - Saving Lives on the Graveyard of the Atlantic

Prior to the 1870s, bloated corpses, abandoned cargo, and splintered vessels often littered the white sand beaches of the North Carolina Outer Banks. This reputation resulted in the area quickly earning the nickname “the Graveyard of the Atlantic.” While many lost vessels foundered offshore, the majority occurred within sight of land, often only yards from the beach’s relative safety. Due to a lack of any organized life saving efforts in the United States’ early history, many sailors and passengers perished attempting to swim to the shore, only to arrive lifeless. These lost souls would ultimately be buried anonymously amongst the dunes. Unfortunately, this scenario occurred continuously along the North Carolina coast well into the nineteenth century until the development and deployment of the United States Life Saving Service (U.S.L.S.S.). The U.S.L.S.S. operated on the North Carolina coast between 1874 and 1915 as the predecessor to the modern Coast Guard, and became the first federally funded lifesaving organization in the United States. Operating under the unofficial motto, “you have to go out, but you don’t have to come back,” members of the U.S.L.S.S. provided a small beam of hope piercing the dark waters of an often angry sea.

After the U.S.L.S.S. established the first

life saving stations along the North Carolina coast in 1874, the organization quickly evolved into a tight-knit network, and became an integral component of the coast’s maritime cultural landscape. Despite the Service’s importance, relatively little academic work has been completed on the topic. Previous works generally focused on narrow topics, such as the design of life saving apparatus, major wrecks involving the U.S.L.S.S., station construction and architecture, or the heroic acts of individual U.S.L.S.S. men or crews. While these studies contributed to the overall knowledge base regarding the U.S.L.S.S.’s history, they often lack a holistic approach that could shed light not only on the U.S.L.S.S.’s individual stations, keepers, and men, but on how society perceived maritime risk and how the United States government responded to it.

This is the primary objective of my thesis research entitled, *Ship Ashore!: The Role of Risk in the Development of the United States Life Saving Service and Wrecking Patterns Along the North Carolina Coast*. This work applies a number of socio-cultural theories to historic wreck data to determine the effects of the perceived risk of maritime disasters on local wrecking patterns along a forty-mile stretch of the North Carolina Outer Banks. This methodology, pioneered in

Brad Duncan’s thesis, *Signposts in the Sea: An Investigation of the Shipwreck Patterning and Cultural Seascapes of the Gippisland Region, Victoria* (2000) effectively established the potential value of social theory’s application in archaeology. While Duncan’s work primarily focused on socio-economic factors in determining wrecking patterns, my work is the first of its kind to analyze risk by focusing on development of the U.S.L.S.S. The analysis will be entered into an interactive Geographic Information System (GIS) to graphically represent any local wrecking patterns that could be utilized in the future management of North Carolina’s coastal cultural resources.

I presented preliminary findings at the North Carolina Maritime History Conference in Wilmington, North Carolina, in late September, and plan to do so at the Society for Historical Archaeology in January. Dr. Nathan Richards and I were awarded the 2011 North Carolina Sea Grant for continuing this research, and we presented a final report to Sea Grant in November. My work on the Life-Saving Service is also supported by the University of North Carolina Coastal Studies Institute (UNC-CSI), which assisted in the dissemination of my findings to the public along the North Carolina Outer Banks. 🐚

– Josh Marano

## Thunder Bay continued from page 9

Marine Sanctuary. Lake Huron is an amazing environment for submerged cultural resource preservation as the cold waters and the lake’s depth protect wrecks from rapid decay. The Sanctuary Mooring Buoy Program was designed to increase public exposure to and protect twenty-seven wrecks within the Sanctuary’s boundaries. These buoys not only easily identify and locate wrecks for recreational divers, they also provide anchorage for their vessels, so there is no need to drop anchor, possibly damaging the wrecks themselves.

During my time on Lake Huron, I was fortunate enough to assist with a project on Lake Michigan. Along with Michigan State Underwater Archaeologist Wayne Lusardi

(1998), we traveled to South Fox Island in northern Lake Michigan. While camping on the island, Mr. Lusardi and I conducted a harbor survey at historic South Fox Island Lighthouse.

The CILER Fellowship in Maritime Archaeology at Thunder Bay National Marine Sanctuary was an amazing opportunity to work in all aspects of maritime cultural resource management. My experience in Thunder Bay was a chance to use the knowledge and skills learned from ECU’s Program in Maritime Studies to assist Sanctuary staff in managing, researching, and educating the public about our maritime cultural resources. 🐚

– Danny Bera

## STUDENT PUBLICATIONS

Brooks, Baylus  
2011 Brunswick Town and Wilmington: Shifting Political Shoals on the Cape Fear River. *Greensboro Historical Review* 4(1). Forthcoming.

Brown, Dan, Kathryn Cooper, and Lynn Harris  
2011 The Plantation Boat Accomodation: The Historical and Archaeological Investigation of the Maritime Icon of the South, Part 1. *Nautical Research Journal* 56(2):93-112.

# The Museum Ship "Success" A Dialogue Between Myth and Reality

Maritime history often stretches into folklore, and though it can be frustrating to sift fact from fiction, throwing away the fiction is missing the point. The barkentine *Success* exemplifies the importance of dichotomous histories and myths in cultural identity, the subject of my thesis. *Success* enjoys an extremely rich mythic history. She was built in Burma in 1790, entirely of teak, and began her life as a merchantman moving exotic goods that would satisfy even the most despotic nabob. *Success* then became flagship of Britain's infamous Felon Fleet, hauling scores of dangerous convicts from Britain to Australia. During these voyages, the ship survived mutiny and attacks by pirates.

The ship's real history is slightly less romantic. *Success* was indeed built of teak in Burma, but instead of transporting convicts, it transported law-abiding British immigrants to Australia. After the crew abandoned *Success* to join the 1851 gold rush, the Australian government purchased it for use as a prison hulk. Her most pivotal historical moment occurred in the latter part of the 19th century, when an enterprising Australian firm purchased the vessel for conversion into a museum ship. The company refitted *Success* to match their idea of a convict transportation ship, complete with dungeons and solitary confinement cells, and wax figures resembling famous convicts and bushrangers. Thus, its mythic history began to take shape.

As a floating museum, *Success* toured Australia, Britain, and eventually crossed the Atlantic to tour America in 1912. Along the way, she gathered an increasingly gruesome fabled account and matching material collection. American visitors were bombarded with tales of barbaric torture inflicted on British convicts. They enjoyed tactile and visual experiences about anachronistic torture devices, many of which were unlikely to exist during any era. Nevertheless, audiences flocked to tour the 'Floating Hell' wherever it berthed until World War II. Newspapers,

advertisements, and reviews portrayed audiences swallowing these fables whole while marveling at the varied torture devices as if *Success* was a circus.

On the one hand, *Success's* material culture is unique in comparison to other side shows, museums, ships, and prisons. No single archaeological example directly resembles *Success*. On the other hand, its existence as a sort of conglomeration of circus, museum, sailing vessel, and prison – the conscious projection of a history that never took place – speaks volumes about western society in the late 19th and early 20th centuries. This material is now partially scattered across northern Ohio because *Success* saw her demise in Lake Erie in 1946. Today, its provenience has the potential to yield infor-



Postcard portraying cells aboard *Success*.

mation about how Americans conceived of contemporary society and its past. Most of the artifacts were removed from the ship before it sank, so there are some archaeological challenges. Nonetheless, *Success's* previous popularity lends to the rich and convoluted historical record that reveals key information for an archaeological analysis.

In August 2011, I conducted a survey of artifacts related to *Success*. No single catalog



Postcard showing instruments of torture supposedly used aboard *Success*.

of *Success*-related artifacts exists, but several repositories, mostly located in Ohio near Sandusky, have various items from the ship. I spent a week in Ohio tracking down these collections and recording each individual artifact to create a single, archaeologically congruent catalog, which I will use in my analysis of *Success's* history. To do this, I took controlled, detailed scaled photographs of each artifact in various perspectives, placed within a portable photographic studio, using a high-quality DSLR camera and lenses to replace reliance on hand drawing. I also described and weighed the artifacts. I then added this data to a Microsoft Access relational database to allow for various levels of analysis that will help to piece together the artifacts' earlier provenience and spatial patterning aboard *Success*.

Certain socioeconomic perceptions and understandings, ranging from gendered notions to capitalism, are embedded in the assemblage and its contemporary arrangement on *Success*. Its longevity as an attraction indicates that *Success* and all its fantastic facades struck a tune across American, British, and Australian societies. In this respect, my thesis considers that historical and material myth juxtaposed to, and in tandem with, reality is more revealing than one examined without the other. 🐾

– Kathryn L. Cooper



# Students Continue Research Aboard VASA

In the early morning before museum crowds arrive, *Vasa* fills the hall and the senses. The wooden warship is massive. The dark hull, impregnated with preservative, looks waxy. The cool of the climate-controlled room raises goose bumps, as does the moment. It then passes and ECU students troop across the gangway, down the companionways into the bowels of the ship. The incentive for spending four weeks crawling in cramped spaces is being able to step aboard *Vasa*, the iconic royal warship that foundered moments into its inaugural sail in Stockholm Harbor.

The summer 2011 project, organized by Dr. David Stewart at ECU along with Dr. Fred Hocker, head of research at the *Vasa* Museum, brought nine Maritime students and a staff archaeologist to Stockholm, Sweden. Volunteer and Mystic shipwright Lorraine Tamsky added her wooden boat building experience to the project. This fourth season completes ECU's involvement in mapping the hull. Only the bolt locations



PHOTO: VASA MUSEUM STAFF

Maritime students, Calvin Mires (2005), Lorraine Tamsky and Dr. Fred Hocker in the stern of *Vasa's* hold.

and frame spacing points are required to finish the *Vasa's* digitized map.

After looking through the storage room which houses conserved rope, sails, blocks and other artifacts, the students took a walk through the entire ship, then they began working. Dan Brown, Jeanette Hayman, and Josh Marano headed up three teams to record the orlop and hold using total station technology augmented by hand drawings.

The hold, or lowest section of the ship, presented challenges for the recorders, as no

planking currently exists over ballast areas. Students had to take care not to accidentally step into an air strake while climbing over the 2.5 foot high bilge knees. Aft in the hold, the terrain became steeper and steeper, demanding creative teamwork to brace the total station and reach the required points without sliding down into the bilge. The orlop deck immediately above the hold reduced the students to crouching. Despite a flat deck, they worked doubled over, often wedging themselves into crannies from which teammates had to pry them. Fortunately, the Swedish sauna at the end of each day melted away muscle aches, bumps, and bruises.

After creating forms to organize total station data recording, the students began measuring and mapping. At the end of each day, Dr. Hocker entered the data into Rhino, a modeling program. This allowed teams to create a strategy for obtaining data from difficult to record spaces behind light fixtures or hull structure. By the end of the project, the data cloud formed a dot-to-dot model of the lower ship; when added to the other data, it created the entire form of *Vasa*.

At the end of four weeks, the ECU team contributed another 17,300 data points to the collection. Of the 60,000 total recorded points, ECU teams have contributed over 75% to date. The opportunity to work on a maritime archaeology icon was not to be missed. Although this project is complete, Dr. Hocker extended an invitation to any students interested in doing thesis or project work on *Vasa* artifacts. 📍

– Laurel Seaborn

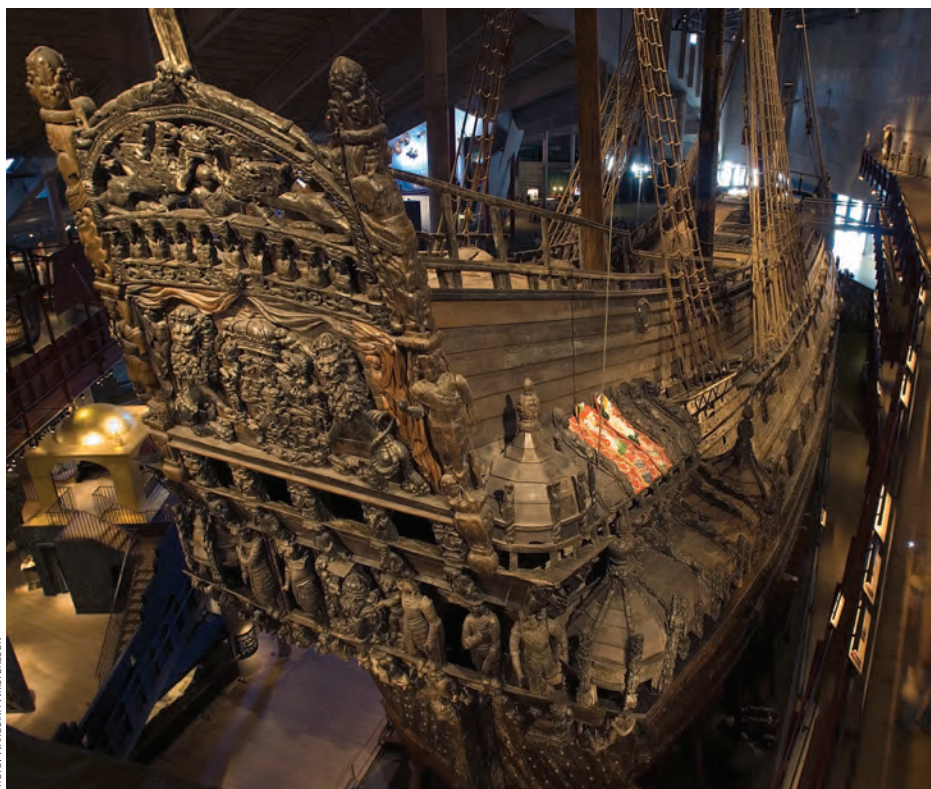


PHOTO: KAROLINA KERSTENSSON

The elaborate stern of the royal warship *Vasa*.

# Battle of the Atlantic - On the Hunt for a Lost U-boat

The annual *Stem to Stern* subscriber has followed the Program in Maritime Studies' involvement in the National Oceanic and Atmospheric Administration's (NOAA) Battle of the Atlantic expedition for the past three years. Readers should recall how, for the last four years, over a dozen archaeologists, historians, divers, photographers, and various specialists from federal, state, local, and academic agencies have come together every summer on North Carolina's Outer Banks to study shipwrecks from the Second World War. Though previous years met with astounding success, this year's expedition is guaranteed to knock your socks off.

By the end of August, after three months of field work with eleven organizational partners, 135 square miles of ocean bottom were surveyed using multiple sonar packages aboard two different autonomous underwater vehicles (AUV), revealing 47 acoustic anomalies. The team discovered a new shipwreck, though not yet identified, which could be the lost freighter *Bluefields* sunk by *U-576* during a heated naval engagement south of Cape Hatteras. The team imaged over a dozen shipwrecks using a multi-beam sonar payload to generate digital 3-D images; and hours of high definition 3-D video were taken from numerous sites by divers utilizing mixed gas closed circuit SCUBA gear. Captain Anders Johanson, who perished aboard torpedoed tanker *Dixie Arrow* as he ordered his men to safety, was honored by

his family during a moving wreath-laying ceremony. Along the way, National Geographic film crew captured the entire expedition.

Plans for the 2011 field season stemmed from one of the expedition's original tasks. Following an outcry from the local dive community to protect remains of WWII German U-boats off North Carolina's coast in 2007, NOAA's Monitor National Marine Sanctuary kicked off research documenting remains of three U-boats near Cape Hatteras and Cape Lookout during the summer of 2008. These U-boats were destroyed by Allied forces during the bitter eight-month struggle begun by Germany's attack on American shipping in

January of 1942. Yet they were not

the *only* U-boats sunk off the North Carolina coast; there was a fourth, *U-576*, whose location to this day remains a mystery.

In the opening months of 1942, German U-boats attacked shipping along the American coast with astonishing success. Unescorted and unprotected merchant craft were easy prey, and the waters off Cape Hatteras proved bountiful hunting grounds. By summer's end, however, the tables had turned. The US Navy rapidly constructed a fleet of anti-submarine vessels and rushed them into service. Airfields along the entire eastern seaboard launched patrol craft to search out and destroy surfaced U-boats.

Now when U-boats hunted in American waters, their passage was contested. Quickly, the German navy realized the diminishing amount of merchant vessels sunk were not worth the increasing loss of U-boats and men. The final straw fell in July, 1942.

Within four days, Allied aircraft spotted and attacked all four U-boats operating between Cape Cod and Cape Lookout,

inflicting heavy damage. When *U-576* spotted a 19 ship convoy south-bound off Cape Hatteras, the Captain took a gamble. Though his U-boat was damaged by an aerial attack the day before, he began an attack run on the convoy; the intent was to unleash a full bow salvo – four torpedoes – into the heart of the convoy. In 5 minutes, *U-576* scored four hits on three ships, quickly sinking one vessel, Nicaraguan Freighter *Bluefields*. Two others, tanker *J.A. Mowinckel* and freighter *Chilore*, were also badly damaged but survived the ordeal.

Just as quickly, Allied patrol planes in the vicinity spotted the U-boat as it briefly

*“They were not the only U-boats sunk off the NC coast; there was a fourth...”*

surfaced inside the convoy. In concert with an armed merchant

vessel, American merchantman *Unicoi*, the two Navy kingfisher aircraft unleashed a fury of fire upon *U-576*, sinking it in a matter of minutes. Neither *Bluefields* nor *U-576* were ever seen again. These vessels, emblematic of the final days of bloody combat off the North Carolina coast, offer a rare glimpse into a naval battlefield where both attacked and attacker rest side-by-side on the seafloor.

In the lead-up to the 2008 expedition, historical research on the four U-boats off North Carolina yielded only vague clues as to the whereabouts of *U-576*. While the other three U-boats were well known among sport divers and fishermen, the position information in archival records reported *U-576* anywhere in an enormous swath of ocean, most of which was off the continental shelf in thousands of feet of water. The technology, personnel, and planning needed to mount such a survey would take years to gather, so it was placed on the back-burner until the time was right.

Two years later, the focus of research shifted to merchant vessel casualties, and in the ensuing field season divers documented a half-dozen freighters and tankers off Cape Hatteras, including a tug boat which perished while assisting *J.A. Mowinckel* to safety following the U-boat attack. All the while, however, plans were coalescing to mount a search for *U-576* and *Bluefields*. Later that summer, the search for *U-576* and *Bluefields*



PHOTO: JOE HOYT (NOAA)

Divers from Woods Hole Oceanographic Institute record video of German *U-701* off the North Carolina coast.

became a reality as funding and inter-organization cooperation aligned to provide the resources to take on the expedition.

Months of in-depth archival research and spatial data processing in the winter of 2011 generated a search area of daunting proportions, the result of imprecise position fixing techniques used in 1942. In the hopes of locating the wrecks on the sea floor, the team acquired a high-resolution multi-beam sonar payload aboard a deep diving AUV from the Cooperative Institute for Ocean Exploration, Research, and Technology. This Bluefin AUV would provide high-resolution, 3-D imaging of sites within minutes. The data recovered from the AUV revealed a 3-D image of a shipwreck nearly the exact dimensions of *Bluefields*. Though definitive confirmation is needed, if it is indeed the lost Nicaraguan freighter, then the search for *U-576* can be narrowed from hundreds to less than 10 square miles. When definitively discovered, these two wrecks will comprise a one-of-a-kind battlefield off the North Carolina coast, the only instance off Cape Hatteras where both the attacked and attacker lie together on the seabed following combat against one another. Continued investigation of these potential shipwreck sites will likely occupy the Battle of the Atlantic expedition for years to come.

At the conclusion of acoustic survey, the expedition shifted gears.

As in previous years, bringing research results to the public were equal in priority to the research itself. Hidden under hundreds of feet of water, many of these shipwreck sites are accessible only to highly trained mixed gas divers. The solution, then,



PHOTO: TANE CASSELEY (NOAA)

Divers from Woods Hole Oceanographic Institute take 3-D video of torpedoed tanker *E.M. Clark*.

is to bring the wrecks to the public. Over the next two months, the team accomplished this in three different ways. First, the UK-based Advanced Underwater Surveys Ltd (ADUS) team used targeted multi-beam sonar imaging to produce detailed 3-D point cloud images of the wreck that can be used for archaeological investigation, public interpretation, and visualization. Next,

Woods Hole Oceanographic Institute arrived to capture 3-D video of selected sites. In addition to hours of 3-D video, high-resolution photography was used to capture images of the shipwrecks and film crew in action.

To conclude the 2011 field season, the Battle of the Atlantic expedition experienced yet another first. During the early months of 1942, as merchant vessels were daily

torpedoed off the eastern seaboard, the US Navy tightly controlled information regarding U-boat attacks. The result was that thousands of families were left with no closure. It took decades for these men's families to learn

what became of their lost sons, fathers, and brothers.

Once such family, the Revels of Port Orange, Florida, lost their father aboard a tanker in the spring of 1942. Years passed before they were informed Captain Anders Johanson perished while taking a tanker from Texas to New Jersey; his ship was hit with three torpedoes and went down in an inferno of burning oil. Johanson saved 22 of his 33 man crew before he perished in the flames which engulfed the tanker. Yet, he never received official recognition for his service. On the final days of the Battle of the Atlantic expedition, the research team brought Johanson's daughter Jeanne Johanson Revels, son Gordon Johanson, and grandson Dale Revels to their father's lost tanker, *Dixie Arrow*, to participate in an emotional wreath-laying ceremony.

Meanwhile, for the duration of this year's project, a team of filmmakers from Wildlife Productions captured nearly every aspect of the expedition as part of an hour-long documentary to be featured on National Geographic's expedition week. In future years, Battle of the Atlantic will continue documentation of WWII shipwrecks off the North Carolina coast, including investigation of acoustic anomalies in search of *Bluefields* and *U-576*. Publication and dissemination of data collected during this and previous years' expeditions will span years. Archaeological battlefield reports, photo and video production, and cultural resources assessments can all be expected from NOAA and their partners in research in the coming years. 🐙



PHOTO: JOHN MCCOY (UNC-CSI)

UNC-CSI's Dave Sybert swims past the propeller of torpedoed freighter *Kassandra Louloudis*, an allied merchant casualty lost off North Carolina during the Battle of the Atlantic.

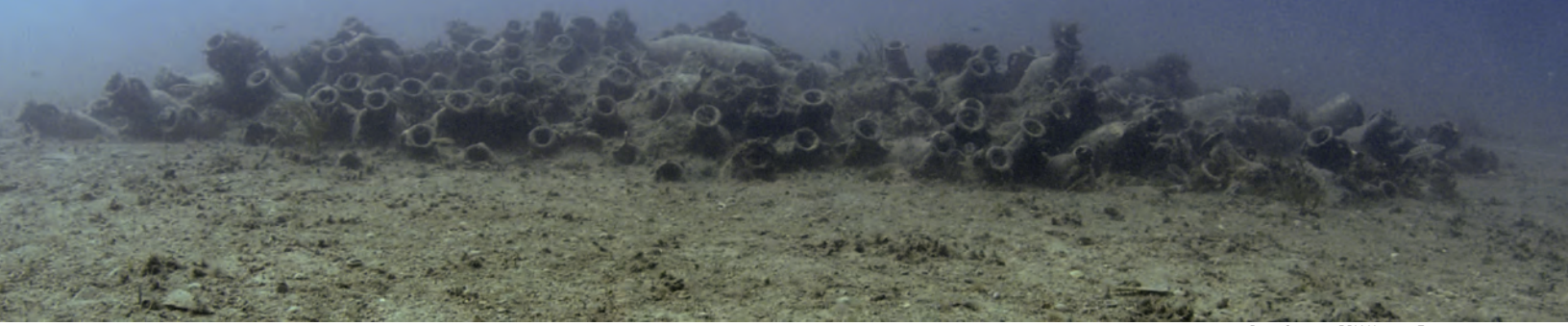


PHOTO: DEREK SMITH AND RPM NAUTICAL FOUNDATION

## RPM Nautical Foundation in Albania

The sky was clear, the sea glassy, water visibility to at least 60 feet, and no wind to kick up waves. We completed two dives that day. The first was on an undisturbed ancient wreck with amphorae stacked in place just as the laborers left them. The second was in a cove with geological formations, the likes of which I had never seen before. There was only one problem: I was going home the next day and leaving the beautiful Albanian coastline.

My time diving in Albania was not set up in the days or months before I was there, but in 1994 when two young MA students met at Texas A&M University. David Stewart (now a professor in the Program for Maritime Studies at East Carolina University) and Jeff Royal (now Archaeological Director for the RPM Nautical Foundation) were in the underwater archaeology program and shared a field school at Bozburun, Turkey, in 1995.

Over the years they went their separate ways; but, in 2010 they ran into each other at a conference and spoke about setting up collaborations between the RPM foundation and ECU students. Over the next year, Dr. Stewart and Dr. Royal put together a plan that would allow ECU students to work side by side with the RPM foundation to gain field experience. This experience included observing multi-beam sonar and remotely operated vehicles (ROV) aboard the RPM research vessel *Hercules*, or diving to explore features found by the multi-beam and ROV. The RPM Nautical Foundation has been surveying the eastern side of the Adriatic Sea, along the coastlines of Albania and Montenegro, with multi-beam sonar while recording wrecks and anomalies for further investigation. The data RPM collects will allow students access to numerous research options. I was lucky enough to be the first ECU student

to work with the RPM Foundation, and it could not have been a better experience.

The first day in Albania we went to a local river for a fresh-water dive. RPM was doing a favor for the local government by sending divers into a cold water mountain spring called the Blue Eye that locals believed to be an ancient sacrificial site. Two divers, Peter Campbell (2009) and Derek Smith, went into the rushing waters of the aquifer to a shelf at 72 feet, but did not find anything to prove or disprove the sacrifice notion. Later, we dove on an ancient wreck scattered down a slope from 60-120 feet, then dove on a WWII Italian ship sunk in Saranda Harbor hundreds of yards from the beach. Our next dives took us from sunken cold war era gunboats that were sunk as artificial reefs to the ancient wreck and geological formations. The entire time we were out, we gathered environmental and biological information, pictures and

data for RPM and the government along with potential research ideas. The Dive Safety Officer for RPM, Howard Phoenix, was very professional and a huge help in showing an underwater archaeology neophyte such as myself how to conduct field operations.

The entire trip was a success, and I cannot express how much I appreciated the opportunity. I hope I am the first of many students who will be able to work with the RPM Nautical Foundation in the future. Everyone who does will no doubt come away with the same opportunities to learn and develop ideas for future research. 🐠

– Greg Stratton

### Theses Defended IN 2011

**Adam Edmond**, “Confederate Wooden Gunboat Construction: Logistical Nightmare.”

**Jeanette Hayman**, “Heritage at Risk? An Assessment of Environmental Factors in Archaeological Site Damage in Albemarle Sound, North Carolina.”

**Amy Leuchtman**, “The Central Places of Albemarle Sound: Examining Transitional Maritime Economies through Archaeological Site Distribution.”

**Morgan MacKenzie**, “American Lightships, 1820-1983: History, Construction and Archaeology within the Maritime Cultural Landscape.”

**Jacqueline Marcotte**, “End of the Line: The Wright’s Creek Commercial Fishing Graveyard, Belhaven, North Carolina.”

# Scanning the Scuppernong River

Each Tuesday during the month of September 2011, Dr. Nathan Richards' Advanced Methods class embarked on three-day excursions, traveling eastward to Columbia, NC, to survey the Scuppernong River. After a warm welcome from town dignitaries on the first day, the Program in Maritime Studies students began their project which used both magnetometer and side-scan sonar to map the river bottom and adjacent Bull Bay.

Sitting upon the Scuppernong's banks, the Town of Columbia (population 800) has a long maritime history. In an effort to illustrate the strong connection between the Scuppernong and Columbia's past, students researched Columbia and Tyrell County's maritime records in depth, with the expectation that historical events would be intrinsically linked to the river. Some research topics included warfare, logging, shipbuilding, fishing, and transportation. After extensive research at the library and the office of deeds, and supplemented by local interviews, each student used a form of technology, ranging from photogrammetry and digital modeling to geographic information system (GIS), to portray those respective aspects of Columbia's history.

Working in conjunction with the University of North Carolina's Coastal Studies Institute (UNC-CSI), the Pocosin Arts Folk School, and the Town of Columbia, the four week project aimed to record previously established wrecks as well as locate unknown wrecks in the Scuppernong and Bull Bay. Many wrecks in the area have not been evaluated since the early 1990s, and this survey provided up to date information on the submerged cultural resources for Columbia and the surrounding waterways.

Columbia has a wealth of submerged cultural resources, from shipwrecks to old piers and wharves, and even the ruins of the old Laurel Point Lighthouse. One such wreck, the passenger steamer and mail carrier *Estelle Randall* (1898) that burned off the Columbia waterfront in January 1910, was imaged on the first day of the project. Previously recorded from 1988 to 1992, many artifacts from the vessel are now located in the Columbia Theater.

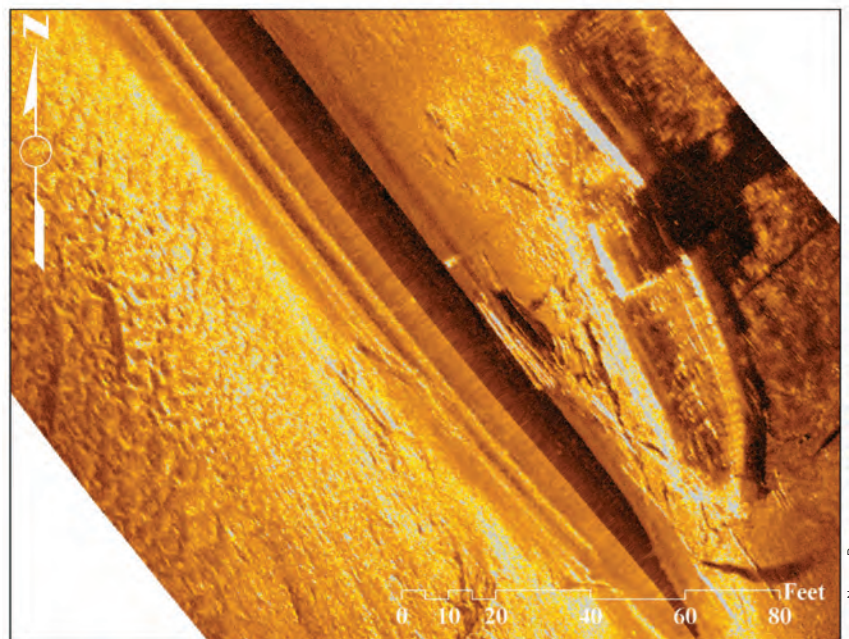
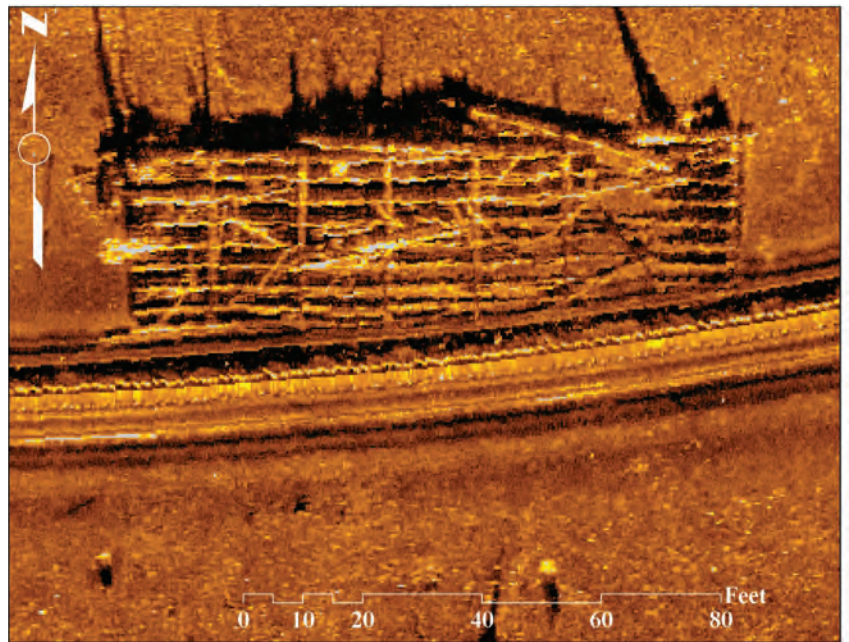
Two other known wrecks were noted on nautical charts in Bull Bay, and proved to be great training sites for the students. Remote sensing results yielded the remains of two barges, likely connected with the local lumber industry some distance away from their reported locations.

Another goal of the project was to locate the schooner *Lawrence* (1849-c.1885) and the oil steamer *Marguerite* (1903-1933). Historical records report both vessels lost near Spruill's Bridge near Creswell but their specific locations are still unknown. Conditions after Hurricane Irene (one of the most destructive in recent years), and high sedimentation

in the upper reaches of the Scuppernong meant that any potential wreckage would likely be buried, and best detected via magnetometer. A number of acoustic and magnetic anomalies were detected. The next step in research may see a return to the Scuppernong where ECU divers can investigate the final whereabouts of these two ships.

The Scuppernong River and surrounding waterways provided students with a solid lesson in remote sensing, but there is still a significant amount of exciting heritage buried beneath the silty and inky waters that flow slowly past the town of Columbia. In many ways these were first steps towards understanding the history of the area. 🌊

– William Schilling



Top photo: Side scan imagery of "Bulls Bay A" site  
Bottom photo: Side scan imagery of *Estelle Randall*

PHOTOS: NATHAN RICHARDS

# Summer Field School 2011

## Riparian North Carolina

This summer ECU's Program in Maritime Studies students found adventure in their own backyard. Early each morning we arrived at Eller House and packed into two Maritime vans. We drove to the Bowling Farm Landing site, on the Cashie River, at the western end of Albemarle Sound.

Two years before, a blowout revealed a ship's wreck in shallow water just a few meters from their dock, so the Bowling family invited a team of students and faculty from East Carolina to investigate the wreck. Despite Cashie River's nearly black

Stewart divided the class into three teams to explore Bowling Farm and the Cashie River in more detail. Each team worked on an assigned task and rotated after a week. The first team donned scuba gear and plunged into the Cashie to examine the wreck. Dr. Rodgers hypothesized that the vessel was cut off and boarded up to serve as an office or storage building at the wharf.

It would be the first team's job to search for clues. We found the wreck had silted up, so we assembled a small dredge and went to work. After several days work,

the vessel was clear enough to examine the end for telltale nail holes that might indicate the end had once been boarded up.

Meanwhile, the second team broke ground ashore. Historical records revealed no nearby settlements as early as the wreck seemed to be. By digging a seven meter by one meter trench, the second team aimed to find out how early the site had been in use. The

terrestrial team dug down one layer at a time, recording and collecting everything they found for later analysis. They found far more than even the most optimistic among us had been expecting, including a large number of Native American and European pottery sherds intermingled with each other. Rusted iron nails, fragments of



PHOTO: DAN BROWN

Jana Otte and Erin Burnette swaddled in vegetation along the banks of the Cashie River during the Summer Field School 2011.

glass, chert flakes, hundreds of shells, and even a few chipped-stone projectile points. Based on our findings, the site had clearly seen active and extensive use as early as the contact period.

Split up into two and three person groups, the third team manually surveyed the edges of the Cashie. As each team rotated to river detail, they picked up where the previous team left off. In this way, we covered the river all the way to its mouth at Albemarle Sound. We had to search by feel since the water was so murky. In our search, we found several small boats, one larger vessel, and a number of shore-side industrial sites. Inhabitants of the river sunk small boats once their useful life was over, and we found they were mostly intact. At the mouth of the river, we discovered an extensive submerged site with numerous pilings and a bottom made of compressed saw dust that indicated a mill.

North Carolina's colorful history is not found only on the distant Outer Banks or its historic battlefields. We found more than we could have imagined this summer on a quiet river only an hour away. The dark waters of the Cashie have not yet revealed all their secrets, and future fieldwork is a must to better understand this corner of North Carolina. 🐾

– Dave Buttaro



Charles Bowdoin, Jana Otte, and Barry Bleichner getting ready to explore the murky waters of the Cashie River during Summer Field School 2011.

water and poor visibility, the team successfully mapped the wreck and a surrounding crib wharf. They found that the wreck was the remnants of the stern of what is likely to be an 18th century vessel. This year, ECU students and faculty returned to test new theories about the vessel and the site.

Brad Rodgers (1985) and Dave

*The MSA apparel order form is no longer available through Stem to Stern. We do know, however, that everyone needs Program in Maritime Studies apparel! Please visit the Program's website <http://www.ecu.edu/maritime/> or call 252-328-6097 for ordering information.*

# Cannon Piles and Clear Water

## Fall Field School in Dominican Republic

In 2007, Charles Beeker of Indiana University was asked to come and investigate a curious find off the coast of the Dominican Republic. Located off the windward shore of Catalina Island, a large pile of concreted cannon peaked his interest. By hand-fanning the area, Beeker and doctoral student Fritz Hanselmann exposed a small section of wood that extended under the large cannon pile. What seemed to be odd ship construction – seemingly rabbeted joints – set events in motion. Wood samples sent to several labs in the United States confirmed that the wood was teak. Research into possible shipwrecks from that area left the duo with several options, but only one that included teak wood. Beeker became convinced it was the remains of a vessel belonging to one-time pirate, William Kidd.

Captain Kidd's *Adventure Prize* (originally *Quedagh Merchant*) was built in Indonesia and financed by the Armenians and the English. Kidd captured the ship while it flew the French flag and carried a French pass. He sailed it from the east coast of Africa to the Caribbean, where he became aware that the Royal Navy was looking for him. Kidd left the prized vessel with a colleague and headed north to the colonies where he turned himself in. During his later trial for piracy, Kidd stated that the ship was carrying a large quantity of cannon, anchors, and iron junk in the hold along with sugar and other perishable items. Later records showed that the ship was burned and left to float in the Rio Dulce in the Dominican Republic.

The wreck is located in shallow water amongst corals and marine life on the windward side of Catalina Island. Most days the surge and wind bring debris from the Rio Dulce along the coastline of Catalina Island, where it is caught in the many little coves along the way. The area is well known to local tourist outfits, and dives are chartered to the Wall, a drop-off with large corals and colorful fish, only a few hundred yards away from the wreck site. Charters – complete with sword

fighting and walking the plank – bring snorkeling tourists directly to the wreck site.

The 2011 Fall Field School participants were invited by Beeker as a joint venture between IU and ECU to continue work on this important site. Beeker, along with ECU Program in Maritime Studies (PMS) faculty Dr. Lynn Harris (1988) and Calvin Mires (2005) headed the team of eager second-year PMS students. The USAID grant obtained by Beeker not only included work on the wreck site, but also on preserving the delicate marine life surrounding the wreck. Peace Corps volunteers who also worked on the site were primarily in charge of replenish-



Stephen Sanchagrin, Dr. Lynn Harris (1988), and Jana Otte record a section of the remaining hull.

ing the broken Elkhorn and Staghorn corals covering hundreds of square feet from the site to the Wall.

Primary objectives of the field school were to further the ship identification process; record size and type of cannon; ship construction; and if the Marine Protected Areas system currently in place is suitable for the Dominican Republic and this area. Eleven students worked on the site each day, rotating through different teams, to accomplish these and other immediate goals which included creating a more accurate site plan, site topography, recording total station data, and learning different methodological practices.

To facilitate documentation, two baselines were laid opposite each other running North-South on both the West and East side

of the debris field. Initially, students employed triangulation and offset techniques to map the wreck as well as record information regarding the cannon.

By the second week, students were air-lifting and hand fanning an area around the larger cannon pile, where the wood remnants were initially found in 2007. Two parts of a large timber running North-South were fully exposed. A possible drift pin was located adjacent to this timber. Students also exposed planking that was apparently associated with the northern portion of the timber. Unfortunately, these remains disappeared under a large pile of coral and concreted cannon, making further excavation impossible.

The third week included surveying the shoreline directly west of the wreck site so that the area could be tied into large scale maps, such as Google Earth. Mires headed up several teams of students who worked diligently on this task, using the total station to plot the position of each cannon as well as other important features of the wreck and shoreline.

The most interesting parts of the site were exposed on the last two days of fieldwork.

Underneath a cannon, near the already exposed wood, another section of planking was uncovered. The wood appeared to be an extension of the previously exposed planking, but cannot be determined because the area is interrupted by cannon and heavy concretion. Excavations underneath the large timber revealed some material culture, including partially concreted green glass, ferrous objects, ballast stone, and charcoal. Both areas on the site should be explored further to gain a better understanding of the wreck.

This field school was an excellent opportunity for second-year Maritimers to practice basic underwater archaeological methods, investigate what promises to be an interesting wrecksite, and dive in the beautiful waters of the Dominican Republic. 🌊

– Robin Croskery

# Ahoy Mates! Welcome to ECU.

## Ahoy Mates!

### New MA Students in the Maritime Studies Program

**Stephanie Croatt** hails from Richmond, Texas, southwest of Houston. She majored in Anthropology at Trinity University in San Antonio. For much of her time at Trinity, Stephanie was involved in the archaeological investigation of the sugar cane, dyewood, and chewing gum latex extraction industries along the northern coast of the Yucatán Peninsula. Stephanie first discovered maritime public history during a summer curatorial internship aboard the Battleship Texas. Since then, she's been looking for ways to make a career out of her passion for WWI and WWII battleships and maritime history. In her free time, Stephanie enjoys playing racquetball and watching hockey.

**David Fictum** is originally from Burlington, Wisconsin. David completed his Bachelor's Degree in History at Gettysburg College, minoring in Civil War Era Studies. His main interests are in 17th and 18th century Atlantic world maritime history and pirate history. David pursued maritime interests throughout his studies at Gettysburg by participating in an independent study course on pirate and maritime history, and writing an article entitled, "Pirate Bible or Pirate Iliad?: Evaluating Charles Johnson's General History of the Robberies and Murders of the Most Notorious Pirates" for the Mellon Summer Scholars Program. In addition to studying history, he participates in reenactments of the American Civil War and 18th century maritime events as a common sailor or pirate. David was drawn to ECU's maritime studies program after seeing previous work students had done, and that the program would allow him to pursue his particular interests in maritime history.

**Patrick Herman** was born and raised in Bellevue, Washington. He received his BA in History from Whitman College in Walla Walla, where he constantly annoyed his terrestrial adviser by studying naval topics whenever possible. He spent three years after his undergraduate years working as a Resident Director in his alma mater's residence life program before discovering Maritime Studies at ECU, where he's excited to combine his love of maritime history with a newfound interest in nautical archaeology. Most of his previous research has centered on the British Royal Navy in the eighteenth and nineteenth centuries, but future interests also include the American navy of the same period and Pacific Northwest seafaring.



First year students pose inside Eller House: (Back, L to R) Patrick Herman, Stephanie Croatt, Justin Perry, Kurt Wagner, Greg Stratton, B.J. Howard, Zack Mason, (Front, L to R) Andrew Shaughnessy, Samantha Canada (History), Jessica Caudill (History), David Fictum, Lucas Simonds, John Jarrell (History), Lauren Rotsted, and Aja Rose.

**B.J. Howard** is from Rocky Mount, North Carolina. He acquired his BA in Anthropology at East Carolina University. As his undergraduate focus was in archaeology, B.J. participated in two field schools; one in Bath and one at Squire's Ridge in Edgecombe County. After finishing his undergraduate education at ECU, he decided that he wanted to focus on maritime archaeology. His current research interests concentrate on the Outer Banks during the early colonial period.

**Zack Mason** spent most of his life in Baltimore, Maryland. He managed to attend a seemingly record-setting number of undergraduate institutions. Now at ECU for graduate work, he hopes to study leisure time aboard 17th century warships. He has also recently developed an interest in conservation science, and is hoping to get some hands-on experience. Zack has recently become interested in SCUBA diving, enjoys playing music, listens to more Elvis than most people and may or may not play a little too much Nintendo 64.

**Justin Perry** is from Rutherfordton, North Carolina. He recently graduated cum laude from East Carolina University with a bachelor's degree in Biology. Though he had no formal training in maritime studies as an undergraduate, he spent his life on the water. He grew up sailing on lakes near his hometown, and then moved to the coastal rivers of eastern North Carolina. His love for the water and for things maritime led him to develop interests in the conservation of maritime and nautical material culture and pirates. In his time away from schoolwork, he enjoys sailing and diving in eastern North Carolina waters.

**Aja Beauregard Rose** is from East Northport, New York. Her passion for ancient cultures was a gift from her grandpa, who traveled the world and brought back incredible stories. Growing up on Long Island, she was never far from the water, but preferred the beach in the winter due to her Irish heritage. She followed her Red Sox heart to Boston University where she fell in love with the Roman world and received BAs in Archaeology and Classical Civilizations. Though she cannot pinpoint exactly when her archaeological interests turned to water, she is thrilled by the challenge of working in one of the final frontiers. Aja loves to play drums and hold serious debates concerning the theoretical limit of Wolverine's healing factor.

**Lauren Rotsted** is originally from Chesterfield, Virginia, and earned her BS in Anthropology from James Madison University. She played water polo and spent time in the Caribbean on geology research. Her experience in archaeology focused on Shenandoah's Civil War battlefields and James Madison's Montpelier. She is interested in early Spanish colonization of the Caribbean and Latin America.

**Andrew Shaughnessy** is originally from Lynchburg, Virginia, and recently earned a BA in History and English from Covenant College. Up to this point maritime studies were on the peripheries of his academic work, Andrew decided that it is a fascinating enough periphery to merit further investigation. He is particularly interested in studying the nature of sea power as an instrument of imperial exploration, scientific advancement,



# Where are our Maritimers now?

## Where are our Maritimers now? - 2012

global trade and security, particularly regarding the British Empire in the 19th century. He also enjoys reading and writing fiction, drinking strong coffee, and rock climbing.

**Luke Simonds** was born in Wyandotte, Michigan, but currently lives in High Point, North Carolina. He received his Bachelor's degree in Classical Archaeology and International Studies with an emphasis in German from Southern Adventist University near Chattanooga, Tennessee. He spent the last year studying at Seminar Schloss Bogenhofen in Austria as a part of his program, and also participated on the Khirbet Qeiyafa excavation project in Israel the past two summers. Luke's interest in maritime studies comes from a high school summer excavation camp led by Wendy Coble (1998), but as his undergraduate degree suggests, his main interest in the field lies in the Mediterranean. Luke's hobbies include guitar, longboarding, reading and cooking, and he particularly enjoys trying to combine the four.

**Greg Stratton** is originally from Texas and is considered a non-traditional student, another term for someone who has more miles on them than normal college students. Greg was in the Navy and worked electronics on F-14 fighter jets, then was accepted into a college scholarship program with the Navy. After the military, Greg built homes and helped his wife raise two sons. As the boys matured and were able to support themselves, Greg decided to go back to school again for the constant loves of his life (besides his wife): history, exploring for objects, and diving the oceans. Greg left Texas to attend ECU and obtained his BA in Anthropology, with an emphasis in Archaeology. Greg participated in two terrestrial field schools and two maritime projects while an undergraduate student. You will usually see Greg riding around town on his bike or enjoying a sunset near water with a frosty libation. In both places he will be thinking of ancient shipwrecks in the Mediterranean.

**Kurt Wagner** is originally from Philadelphia, Pennsylvania, but moved to North Carolina in 1999 to escape the cold. He attended ECU for marine biology, then history, and finally graduated with a B.S. in Geology, which satisfied his love of working and playing outdoors. He never passes up an opportunity to go kayaking, sailing, backpacking, or diving, so don't hesitate to ask. His interest in maritime studies began in 2001 while diving North Carolina's "Torpedo Alley." His maritime interests are focused on North Carolina and its maritime heritage, and 18th century ship construction.

### A

- James Allan, (1987) PhD** – Lecturer, St Mary's College of California, Moraga, CA; Vice President, William Self Associates, Orinda, 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)** – Auckland War Memorial Museum, Auckland, New Zealand
- Monica Ayhens (2009)** – PhD student, University of Alabama, Tuscaloosa, AL

### B

- David Baumer (1991)** – Virginia Beach, VA
- Dina Bazzill (2007)** – Principal Investigator, Environmental Corporation of America, Alpharetta, GA
- David Beard (1989)** – Executive Director, Boyertown Museum of Historic Vehicles, Boyertown, PA
- 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 candidate, 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

- Peter Campbell (2009)** – PhD candidate, University of Southampton, United Kingdom
- Frank Cantelas (1995)** – Maritime Archaeology Program Officer, NOAA Office of Ocean Exploration and Research, Silver Spring, MD
- Jodi Carpenter (2007)** – Environmental/Historical Preservation Specialist, FEMA, Region VI
- Chris Cartellone (2003)** – PhD student, Texas A&M University, College Station, TX
- Tane Casserley (2005)** – Maritime Archaeologist, NOAA's Thunder Bay National Marine Sanctuary, Alpena, MI
- Joe Cato (2003)** – Raleigh, NC
- Robert Church (2001)** – Senior Marine Archaeologist, C & C Technologies Survey Services, Inc., Lafayette, LA
- Brian T. Clayton (2005)** – MA student, Department of Geography, East Carolina University, Greenville, NC
- Wendy Coble (1998)** – Historian, J2 Intelligence Directorate, Joint Personnel Accounting Command, Hickam AFB, HI

- Patrick Cole (1993)** – Writer, Barcelona, Spain
- Edwin Combs (1996) PhD** – Assistant Professor, Miles College, Birmingham, AL
- Michael Coogan (1996)** – Manager, Strategic Planning, Northrop Grumman IT, Herndon, VA
- David Cooper (1998)** – Branch Chief, Cultural Resources, Apostle Island National Lakeshore, Bayfield, WI
- Diane Cooper (1995)** – Museum Technician, San Francisco Maritime National Historic Park and Curator, USS Pampanito, San Francisco, CA
- Annalies Corbin (1995) PhD** – President & CEO, PAST Foundation, Columbus, OH
- Lee Cox (1985)** – Director, Dolan Research, Inc., Newtown Square, PA

### D

- Michelle Damian (2010)** – PhD student, University of Southern California, Los Angeles, CA
- Claire Dappert (2005) PhD** – Archaeologist, Illinois State Archaeological Survey, University of Illinois, Champaign, IL
- James P. Delgado (1986) PhD** – Director, Maritime Heritage Program, Office of National Marine Sanctuaries, NOAA, Silver Spring, MD
- Alena Derby (2002)** – Pilates Instructor and Personal Trainer, Nantucket, MA
- Robert Dickens (1998)** – DVM, Cary, NC
- Jeff DiPrizito (2001)** – High School teacher, Hudson, NH
- Brian Diveley (2008)** – Senior Archaeologist, CH2M HILL, Seattle, WA
- Tricia Dodds (2009)** – Consultant, Southern California
- 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)** – Maritime Principal Investigator/GIS Specialist, Southeastern Archaeological Research, Inc., Pensacola, FL
- Jenna (Watts) Enright (2000)** – Austin, TX

### F

- Kim (Eslinger) Faulk (2005)** – Marine Archaeologist, Geoscience Earth and Marine Services, Houston, TX
- Sabrina S. Faber (1996)** – Chief of Party, Promoting Youth Civic Engagement, Sana, Yemen
- Rita Folsie 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

*continued on page 26...*

## Where are our Maritimers now? continued from page 25

**Chris E. Fonvielle, Jr. (1987) PhD** – Associate Professor, UNC-Wilmington, Wilmington, NC

**Kevin Foster (1991)** – Chief, National Maritime Heritage Program, Washington, DC

**Joe Friday (1988)** – Sergeant, Greenville Police Department, Greenville, NC

**Adam Friedman (2008)** – PhD student, University of North Carolina, Chapel Hill, NC

**Don Froning (2007)** – Marine Corps Forces Pacific, Camp H. M. Smith, HI

### G

**Veronica Garrett (2008)** – Streetlight Records, Santa Cruz, CA

**Kate Goodall (2003)** – Director for Institutional Advancement, Association of Science-Technology Centers, 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, Maryland Dove, St Mary's City, MD

**Cathy (Fach) Green (2003)** – Special Projects Coordinator, Thunder Bay National Marine Sanctuary, Alpena, MI

**Russ Green (2002)** – Assistant Superintendent, NOAA Thunder Bay National Marine Sanctuary, Alpena, MI

**Jeffrey Groszkowski (2007)** – Firefighter/Apparatus Operator, New Hanover County Fire Services, Wilmington, NC

### 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, 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)** – Maritime Archaeologist, 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 (Pecoraro) James (2007)** – Environmental Services Director, Magnum Energy, 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)** – Communications Officer, Campus Services, 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., Pensacola, FL

**David Krop (2008)** – Conservation Project Manager, USS *Monitor*, Mariners' Museum, Newport News, VA

### L

**Danielle LaFleur (2003)** – Collections and Technology Manager, Lakeshore Museum Center, Muskegon, MI

**Matthew Lawrence (2003)** – Maritime Archaeologist, Stellwagen Bank National Marine Sanctuary, Scituate, MA

**Adam Lehman (2006)** – Whitsett, NC

**Amy Leuchtmann (2011)** – Maritime Archaeologist, HDR, Inc., New Orleans, LA

**Wayne Lusardi (1998)** – Michigan State Maritime Archaeologist, Thunder Bay National Marine Sanctuary, Alpena, MI

### M

**Morgan MacKenzie (2011)** – Field Archaeologist, Dovetail Cultural Resource Group, Fredericksburg, VA

**Coral Magnusson (1993)** – Cultural Resources Manager, Environmental Compliance and Protection Dept. Marine Corps Base Hawaii, Honolulu, HI

**Richard Mannesto (1993)** – Great Lakes Shipwreck Historical Society, Sault Ste. Marie, MI

**Eleftheria Mantzouka (2004)** – Underwater Archaeologist, Athens, Greece

**Tom Marcinko (2000)** – South Carolina Department of Natural Resources, Charleston, SC

**Jacqueline Marcotte (2011)** – Independent Contractor, National Park Service and the Columbia River Crossing Committee, Vancouver, WA

**Amy Jo (Knowles) Marshall (1996)** – Curator, Wrangell-St. Elias National Park & Preserve, Copper Center, AK

**Timothy Marshall (1999)** – Zone Archaeologist, Tongass National Forest, Craig, 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)** – Co-Founder and Director, ShipIndex.org, Trumansburg, NY

**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** – Assistant Professor of History, Campbell University, Buies Creek, NC

**Ann Merriman (1996) PhD** – Nautical Archaeologist, Maritime Historian, Administrative Director, and Co-Founder, Maritime Heritage Minnesota, St. Paul, MN

**Keith Meverden (2005)** – Underwater Archaeologist, State Historical Society of Wisconsin, Madison, WI

**David Miller (2005)** – Instructor, Craven Community College, Havelock, NC

**Calvin Mires (2005)** – Staff Archaeologist and PhD student, East Carolina University, Greenville, NC

**Amy Mitchell (1994) PhD** – Associate 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** – Abingdon, VA

**R. Scott Moore (1992) PhD** – Professor and Chair, Department of History, Indiana University of Pennsylvania, Indiana, PA

**Shawn Holland Moore (1998)** – 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, Port Republic, MD

**John W. (Billy Ray) Morris (1991)** – Owner and Director, South Eastern Archaeological Services, Inc., St. Augustine, FL

### N

**Sam Newell (1987)** – History Teacher, C.M. Eppes Middle School, Greenville, NC

**Kevin Nichols (2002)** – Intelligence Research Specialist, Department of the Army; PhD student, Wayne State University, Detroit, MI

### O

**Chris Olson (1997)** – Nautical Archaeologist, Maritime Historian, Operations Director, and Co-Founder, Maritime Heritage Minnesota, St. Paul, MN

**Deirdre O'Regan (2001)** – Editor, *SEA HISTORY*; Vice President National Maritime Historical Society, Pocasset, MA

### 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)** – ER Nurse, St. Petersburg, FL  
**Jacqueline Piero (2004)** – “enjoying life,” Newark, DE  
**Andrew Pietruszka (2005) PhD** – Forensic Archaeologist, Joint POW/MIA Accounting Command, Joint Base Pearl Harbor – Hickman, HI  
**Mike Plakos (2003)** – Senior Technical Analyst, U.S. Navy, Washington, DC  
**Larkin Post (2007)** – Gartley & Dorsky Engineering & Surveying, Camden, ME  
**Sarah Milstead Post (2007)** – Program Manager, Maine Coast Heritage Trust, Rockport, ME  
**Darren Poupore (2004)** – Chief Curator, Biltmore Estate, Asheville, NC  
**Edward Prados (1993)** – Country Director AMIDEAST, Sana, Yemen  
**Franklin Price (2006)** – Senior Archaeologist, Florida Bureau of Archaeological Research, Tallahassee, FL

## R

**Eric Ray (2009)** – *La Belle* researcher, Corpus Christi Museum of Science and History, Corpus Christi, TX  
**James R. Reedy, Jr. (1987)** – Contract Archaeologist, Beaufort, NC  
**Phillip Reid (1998)** – PhD student, Memorial University of Newfoundland, St. John's, NL/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) PhD** – Archaeologist, Northern Land Use Research, Inc., and Alaska Maritima, Anchorage, AK  
**Filippo Ronca (2006)** – Nautical Archaeologist, Parks Canada, Ottawa, Ontario, Canada  
**Matthew Russell (1995)** – Archaeologist, William Self Associates, Inc., Orinda, CA and PhD student of University of California, Berkeley

## 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, Denver, CO  
**Joshua Smith (1997) PhD** – Department Head, Department of Humanities, U.S. Merchant Marine Academy and Interim Director, American Merchant Marine Museum, Kings Point, NY  
**Lindsay Smith (2010)** – Underwater Archaeologist, Division of Historical Resources, Tallahassee, FL  
**Jon Travis Snyder (2006)** – MFA student in ECU Program in Wood Design and Lutier, Greenville, NC



PHOTO: ECU PROGRAM IN MARITIME STUDIES

The main pile of cannon and concretions on the wreck site during the 2011 Fall Field School.

**Chris Southerly (2003)** – Chief Archaeologist & Diving Supervisor, NC Underwater Archaeology Branch, Kure Beach, NC  
**Kathy A.W. Southerly (2006)** – Assistant Dive Safety Officer, NC Aquarium at Fort Fisher, Kure Beach, NC  
**James Spirek (1993)** – Underwater Archaeologist, SC Institute of Archaeology & Anthropology, Columbia, SC  
**Joyce Steinmetz (2010)** – PhD student, Coastal Resources Management, East Carolina University, Greenville, NC

## 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  
**Matthew Thompson (2010)** – Nautical Archaeologist, Thompson Maritime Consulting, LLC, Greenville, NC  
**Hans Van Tilburg (1995) PhD** – Maritime Heritage Coordinator, NOAA National Marine Sanctuary Program Pacific Islands Region, HI  
**Ray Tubby (2000)** – Nautical Archaeologist, PBS&J, Austin, TX  
**Lex Turner (1999)** – Psychiatric Nurse Practitioner - PCMH, Greenville, NC  
**Kenneth Tyndall (1988)** – New Bern, NC

## U

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


## W

**John Wagner (2010)** – Maritime Archaeologist, NOAA Office of National Marine Sanctuaries, Newport News, VA

**Daniel Warren (1998)** – Senior Marine Archaeologist and Houston Asst. Geosciences Manager, C & C Technologies Survey Services, Inc. Houston Office, Houston, TX  
**Sarah Waters (1999)** – Education Coordinator, Thunder Bay National Marine Sanctuary, Alpena, MI  
**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** – Ministry of Citizenship and Immigration, Province of Ontario, Toronto, Canada  
**Robert Westrick (2001)** – Senior Marine Archaeologist, C & C Technologies Survey Services, 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/Curator, Golden Spike National Historic Site, Brigham City, UT  
**Elizabeth Whitfield (2005)** – “living life to the fullest and loving it,” Lakewood, CO  
**Kimberly Williams (2000)** – History Professor, Hillsborough Community College, Tampa, FL  
**Stephen Williams (2004)** – Program Manager, Acentia, Middletown, MD  
**Sarah Wolfe (2001)** – Exhibit Registrar, George Washington's Mount Vernon, Mount Vernon, VA  
**Steve Workman (2002) PhD** – Director of Admissions and Assistant Professor, Virginia Tech Carilion School of Medicine, Roanoke, VA  
**Wilson York (2007)** – Middle School History Teacher, Mt. Pisgah Christian School, Atlanta, GA

## MARITIME STUDIES GRADUATES!

Please let us know if your name is not on the list or if we need to update your current status. *We would love to hear from you!*



Large deadeye from shipwreck off the southeastern coast of the Dominican Republic.