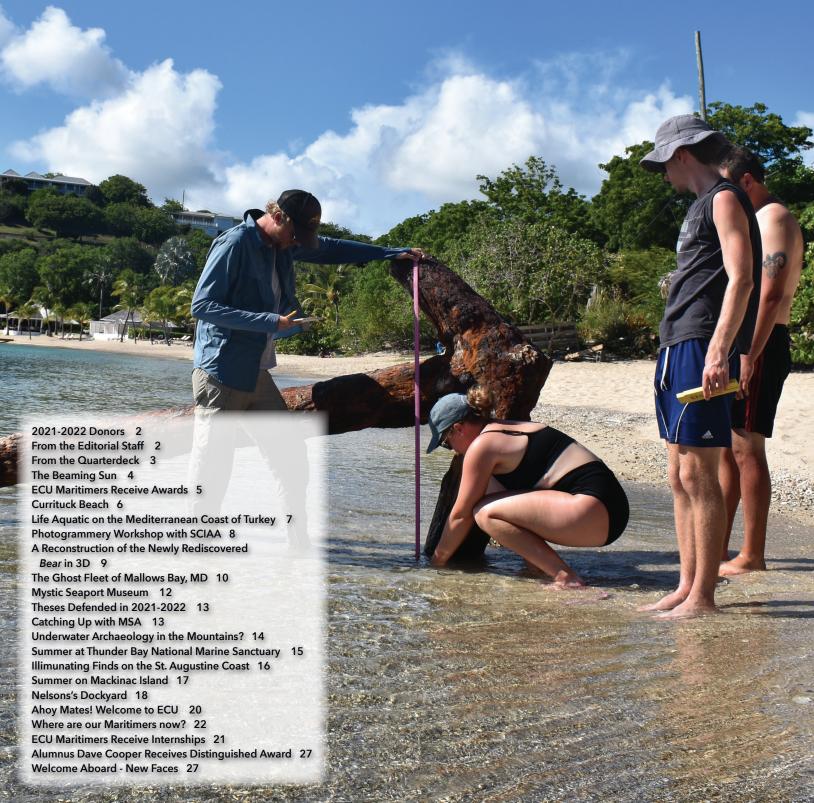


PROGRAM IN MARITIME STUDIES | THOMAS HARRIOT COLLEGE OF ARTS AND SCIENCES | EAST CAROLINA UNIVERSITY® | GREENVILLE, NC





... 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 website at www.ecu.edu/maritime for additional news and information about the program. A digital copy of this newsletter can be viewed online at http://www.ecu.edu/maritime/publications.

FRONT COVER: Students document a historic anchor located on Galleon Beach, Antigua during fall field school. From left to right: Dayan Weller, Madison Elsner, Nicholas Baker, and Daniel "D.J." Schaefer.

BACK COVER: Collage of Program photos by students, faculty, and staff from summer and fall field schools.

Thank you for your support!

The Program in Maritime Studies is extremely thankful for contributions made by our readers and friends. These contributions fund a scholarship that helps to alleviate the cost of education and research for students in the program.

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From the Editorial Staff

To any regular reader of *Stem to Stern*, this issue may seem a little different from what has become the usual as of late. The shroud of a global pandemic which loomed over our fieldwork, personal research, and even our social events seemed to put everything to a standstill. Yet the students, faculty, and MSA officers alike diligently carried the torch through it against all odds. Now, dare it even be said, at the seeming end of what was a very limiting time, the flurry caused by the final loosing of our collective ambitions has produced an almost blinding effervescence. Students and faculty sprang out to conduct long-awaited research in some of the furthest reaches of the globe like Saipan, Hawai'i, Antigua, and the Mediterranean, to name only a few. I hope in reading this issue you are able to share in our excitement as we enjoy a Program in Maritime Studies which, while always being one of the best in the world, is looking once again like that of years past.

– Ian Dunshee

As we begin the 2022-23 year, I wanted to highlight the level of skill and experiences of those accepted to the ECU Program in Maritime Studies. The incoming first-year cohort has a great measure of character, dedication, and comradery. It will be exciting to see what we accomplish in the coming years and, as Assistant Editor, document our successes. I am confident that we will excel in our fieldwork and have amazing adventures!

- Alex Owens

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-Thank you

From the Quarterdeck:

As I write this *From the Quarterdeck* in November 2022, it feels like the first bona fide "after-pandemic" edition. In our "new normal," some things are reverting to pre-covid scenarios, while other crisis-induced changes will likely become permanent. For example, our instruction modes for graduate courses have essentially returned to face-to-face teaching, while an expanded number of undergraduate-level courses will likely be regularly taught online in the future. In another change, as faculty have now successfully "run the gauntlet" of learning online videoconferencing software, it seems as if the days of enforced face-toface thesis defenses are gone; students and faculty will now have a choice to defend in-person or online. Other clues to a return to normalcy appear on the pages of this year's edition – they are seen in the details of our field schools, internships, projects, and hiring trends.

First the fields schools. As noted in the 2020 volume of this publication, Dr. Jason Raupp and I were poised to have our first field school within the boundaries of the Mallows Bay Potomac River National Marine Sanctuary, but coronaviruses had other ideas. With logistics set, funding in place, and three students looking to collect thesis data, we had to pull the plug. Thankfully, summer of 2022 looked radically different from a "contagion perspective," and we were able to setup a similar field school with the same teaching staff (Dr. Nathan Richards, Dr. Raupp, Staff Archaeologist Jeremy Borrelli, and Dive Safety Officer [DSO] Mark Keusenkothen). This time the research would support the PhD dissertation research of Integrated Coastal Sciences doctoral program student Allyson Ropp (MA 2016) and MS biology student Maggie Shostak (a student of our biology collaborator, Dr. Erin Field). During the project we focused on three shipwrecks (see Weller, this volume), in addition to getting a very intensive "lay of the land" for future potential projects. We have a lot of people to thank for the field school coming together, Dr. Susan Langley and the Maryland Historical Trust, Joe Hoyt (MA 2008) and Maddie Roth (MA 2018) of the National Oceanic and Atmospheric Administration's (NOAA) Maritime Heritage Program, Sammy Orlando, Will

Sassorossi (MA 2015), and Tane Casserley (MA 2005) of the Mallows Bay and Monitor National Marine Sanctuaries, Frances Parks and Charles Sharp with Charles County, and the staff of Melwood who housed us for over three weeks. We hope to return soon.

On the heels of summer, the fall field school was soon here in its usual hurricane-dodging position. In another sign of our "back to normal," Dr. Lynn Harris, Dr. Jennifer McKinnon, Staff Archaeologist Borrelli, and DSO Ryan Bradley were able to carry out our first overseas field school since 2019's Kwajalein Atoll adventure. This was also the program's first official field school collaboration under the UNESCO University Twinning and Networking (UNITWIN) Programme Network for Underwater Archaeology framework, including partners from the Antigua Naval Dockyard (a UNESCO World Heritage site), the National Parks Authority of Antigua and Barbuda, and the University of the French West Indies, Guadeloupe. Students were able to participate in the excavation of the suspected site of Lyon (1762-c.1780) carrying out extensive recording of underwater as well as terrestrial structures and material culture in the vicinity of the dockyard (see Dunshee, this volume).

The reinvigoration of fieldwork saw other overseas projects scheduled, with Dr. McKinnon running a Defense POW/ MIA Accounting Agency (DPAA) project in Saipan (see Schaefer, this volume), Dr. Raupp and PhD candidate Dominic Bush working with Dr. Justin Dunnavant (Department of Anthropology, University of California Los Angeles) and the National Geographic Society in Maui, and students travelling to Turkey to work on projects (see Wentzel and Bush, this volume). Closer to home, students were also busy carrying out field projects near Greenville. This included hunting for shipwrecks under the sands of Currituck Beach (see Pawelski, this volume) and seeking archaeological clues to rice plantations on the Brunswick River (student Stephanie Sterling's MA thesis research). Faculty have also been involved with training and outreach in the area. Dr. McKinnon worked with Florida Public Archaeology Network and the Florida Keys National Marine Sanctuary to run

a remote sensing class for Task Force Dagger Special Operations Foundation veterans, and Dr. McKinnon and Dr. Raupp served as discussants for the oncampus premiere of the documentary To What Remains, which covered the work they do to support the mission of the DPAA with groups like Project Recover and Task Force Dagger. On the teaching front, we also made the most of our postcovid liberation. Dr. Raupp took his ship construction class to the Outer Banks to inspect shipwrecks in parking lots (like the "Nags Head Wreck") and toured the remains of CSS Neuse, while I took my advanced methods class to collect sidescan sonar and magnetometer data in the Albemarle Sound (in support of student Levi Holton's MA thesis research, to be reported on next year).

The past twelve months of internship and summer employment opportunities seemed to grow to pre-2020 levels. In the past year students have worked with Mystic Seaport Museum in Mystic, CT (see Downs, this volume), Mackinac State Historic Parks in Mackinac Island, MI (see Ellis, this volume), Thunder Bay National Marine Sanctuary in Alpena, MI (see O'Brien, this volume), embedded with Virginia's Underwater Archaeology Program (see Schuler, this volume), and acted as Crew Chiefs on field schools held in St. Augustine, FL by St. Augustine Lighthouse Archaeological Maritime Program (see Saldivar and Sandahl, this volume). MA student Raymond Phipps was financially supported to construct 3D models of the coast guard cutter Bear following the submission of a collaborative proposal by Raymond, myself, Dr. Brad Barr (NOAA Maritime Heritage Program), and Dr. Bill Thiesen (Coast Guard Historian's Office; MA 1993) to the Foundation for Coast Guard History, essentially creating a "program internship" of sorts. We'd like to especially thank Commander Gary Thomas for his support regarding this proposal (see Phipps, this volume).

In relation to personnel changes, we were sad but excited to see our DPAA Fellow Aleck Tan (MA 2019) move on to a new position at Humboldt State University and overjoyed to be able to recruit Joel Cook (MA 2021) for the position. It's also worth noting here that

From the Field - The Beaming Sun: Japanese Radar Over Saipan

The island of Saipan acted as a defensive bulwark for mainland Japan against the rapid advance of American military might during the Second World War. Much of the Japanese technology and tactics at Saipan were state-of-the-art for the empire and its defenses were substantial. Against these defenses, the US forces endured considerable combat losses upon invasion. Eighty-six US aircraft were downed from June 1st-July 3rd, 1944 during the fiercest fighting of the Battle of Saipan. Of those eighty-six, only a handful have been located. Second-year master's student Daniel "D.J." Schaefer's thesis work began with his confusion about why so many were suddenly lost over this tiny sliver of land in the Pacific. Upon examining the after-action reports, it seemed that nearly every returning US aircraft during the battle was riddled with flak from Saipan's anti-aircraft guns. This proved puzzling because it was previously thought the air-defense weaponry of the Japanese was infamously inaccurate. It turned out that this was the case, that is, until its inflection point at the Battle of Saipan. Extensive archival research uncovered that the reason for this newfound accuracy was the employment of the new technology of fire control radar from the mountains of Saipan.

This was even more advanced than most land-based sets used by the United States in the Pacific at this time. It accurately determined the number, distance, elevation, and azimuth of approaching US planes. The data was then transmitted through cables directly to adjacent flak emplacements and also relayed the information to others throughout the island. The US aircraft over Saipan had no idea the enemy had such advanced detection capabilities and flew right into it, which is why so many lay at the bottom of the sea. Upon finding the island's Mark 4 Model 3 fire control unit post-battle, US Naval Intelligence was greatly alarmed. The apparatus was then disassembled and rushed back to Washington, DC to the Naval Research Laboratory where jamming countermeasures were developed. So deadly accurate was the fire control technology first encountered on Saipan that even General Douglas MacArthur encouraged the rapid development of "Section 22," an Allied clandestine Japanese radar hunting unit. Only by June 1945 were these countermeasures effectively implemented,



Entrance and interior of 'Radar Hill' command headquarters one-story building; (Photographs by D.J. Schaefer).



Local historian and guide Fred Camacho in a Mark 4 Model 3 fire control radar emplacement field overlooking Tanapag Harbor filled with submerged downed US aircraft; (Photograph by D.J. Schaefer).

reducing the flak rate damage from sixty to ten percent. Through the obscured lens of archival and archeological sources, this thesis seeks to further examine the effectiveness of Japanese radar. It attempts to locate associated emplacements and structures throughout the island and determine how the sites correlate to the dozens of submerged downed US aircraft nearby.

Last spring break provided the opportunity to travel with Dr. Jennifer McKinnon to Saipan for her partnered Defense POW/MIA Accounting Agency (DPAA) recovery efforts of a Grumman F6F Hellcat pilot, apparently downed by flak directed by the fire control radar on the island. The crew executed excavation and recovery efforts over the aircraft in the waters of Saipan's Tanapag Harbor. The mooring location of the boat provided a view up to the mountains of Saipan and the aptly named "Radar Hill" of the fire control station which has a direct line of sight to the location of the Hellcat. This suggested that such sites must have played a significant role in the downing of many US aircraft around Saipan. Dr. McKinnon later connected D.J. with a local historian and guide, Fred Camacho. D.J. told him he was interested in locating the Japanese radar emplacements on the island, mainly those directly overlooking Tanapag Harbor of which Fred was not aware previously. They trekked to various locations throughout the island suspected of being former radar stations; by far, the most phenomenal discoveries were made on Radar Hill.

While on the eponymous prominence, known locally as Okso Talofofo or "bubbling spring hill," the pair hacked through the jungle with machete in-hand to scout out the site and attempted to locate the individual emplacements. Initially, they went to the crest of Radar Hill as it was the most optimal position for the antennae's employment and where D.J. believed a Japanese Mark 1 Model 2 search radar would have been located. He believes they might even have found the archeological remains of it, with concrete supports and twisted corroded metal which would have been a similar height to the original unit if upright. They then found the employment field of the Mark 4 Model 3 fire control radar with a perfect view overlooking Tanapag Harbor and of approaching US aircraft seventy-eight years prior. Fred had also heard rumors of there being complete structures of buildings exposed by wildfires in 2015, but the jungle had since enveloped and obscured them. Through Fred's navigational expertise, they then stumbled across the buildings, one-story and two-story constructions, both

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From the Quarterdeck, continued from page 3

the multi-talented Joel has added the moniker of "film star" to his resume in 2022, as he took up the mantle of Host on PBS's new pirate history-focused show, Rogue History (as far as we know he isn't charging for autographs yet). In other great hiring news, this year we were also lucky to have Dr. Sarah Patterson join the Department of History as a Teaching Assistant Professor. Coming to us from a position as Historian-Subject Matter Expert at the DPAA, Dr. Patterson is an expert US military historian and will be teaching courses in naval and military history. This year, we were also lucky enough to be able to advertise for a new American maritime historian position. The job advertisement has been distributed, with the search to occur in

the spring of 2023, and an anticipated start date of August 2023. These were much-needed positions – the retirements of Dr. Carl Swanson, Dr. John Tilley, Dr. Wade Dudley, and Dr. Michael Palmer had created a deficiency in knowledge for many years. The hiring of Dr. Patterson, and a new future colleague does much to fill these gaps in expertise.

2023 is already shaping up to be a busy year. Dr.McKinnon and Dr. Toni Carrell (Vice President of Ships of Discovery) were awarded a NOAA Ocean Exploration grant. The project will collaborate with partners from the Northern Mariana Islands and other ECU faculty (Dr. Erin Field, Dept. of Biology) and a host of other private, university, and non-profit organizations

to carry out maritime archaeological research in Saipan. Additionally, Dr. Raupp and Dominic Bush were awarded funding from NOAA Ocean Exploration to investigate the battlefield and environment off Alaska's Attu Island, seeking to discover and document cultural heritage associated with the only battle fought on North American soil during the Second World War. On top of this, other work is in the early stages of planning such as another project at Mallows Bay led by me, as well as the 2023 summer and fall field schools. We look forward to reporting on these projects (and more) in the 2023 edition of Stem to Stern. 🦀

> - Nathan Richards, PhD Program Director

The Beaming Sun

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located nearby the radar emplacement sites. Both structures were heavily riddled with bullet and explosion marks.

Through extensive archival research, it was determined that these were likely Imperial Japanese Navy headquarters located there for nearby command and maintenance of the premier fire control units. The two structures are currently believed to be the last standing Japanese buildings from the battle located in the center of the island. Saipan's Historic Preservation Office had previously been unaware of the existence of the sites as well as the vital role that the technology played during the battle. The buildings and radar antennae locations will be used in correlation with mapped antiaircraft emplacements on Saipan to make a predictive model in ArcGIS showing where the highest concentrations of overlapping fields of flak fire would have been. This data will be used in predicting the likely downing locations of US aircraft to further assist the recovery efforts of DPAA. These lost airmen need to be remembered, as does the forgotten technological history of their loss by Japanese radar. The role of its effectiveness has been ignored in nearly all modern historical narratives of the Second World War, and it is a story that needs to finally be told. 🤩

– Daniel "D.J." Schaefer

ECU Maritimers Receive Awards

Stem to Stern is pleased to announce news of the following awards:

Lydia Downs

• Evelyn and Joseph Boyette Graduate Fellowship in History

Ian Dunshee

- Admiral Ernest M. Eller Graduate Fellowship in Modern Naval History
- Thomas W. Rivers Foreign Exchange Scholarship

Madie Elsner

• Lawrence F. Brewster Graduate Fellowship in History

Dominic Fargnoli

• Barbara and Matthew Landers Graduate Fellowship in History

Olivia Livingston

• Lawrence F. Brewster Graduate Fellowship in History

Raymond Phipps

• Admiral Ernest M. Eller Graduate Fellowship in Modern Naval History

Katelyn Rollins

• Lawrence F. Brewster Graduate Fellowship in History

Alyssa Saldivar

• Roy N. Lokken Memorial Scholarship

Daniel "D.J." Schaefer

• Admiral Ernest M. Eller Graduate Fellowship in Modern Naval History

Iillian Schuler

 William Hamlin and Mary Quaife Tuttle Graduate Scholarship in

Stephanie Sterling

- Advisory Council on Underwater Archaeology (ACUA) Diversity, Equity, and Inclusion - Student Travel Award
- ECU Water Resource Center (WRC) - Water Scholars Grant, (Fall 2021)
- Roy N. Lokken Memorial Scholarship
- Women Divers Hall of Fame (WDHOF) - Cecelia Connelly Memorial Graduate Scholarship in Underwater Archaeology

Davan Weller

 Barbara and Matthew Landers Graduate Fellowship in History

Lindsay Wentzel

- Henry C. Ferrell, Jr. Graduate Scholarship in History
- Mary Ferebee Howard Scholarship in Marine Studies
- Society for Underwater Technology -U.S. Branch Scholarship

From the Field - Maritime Archaeology on Currituck Beach

From January 31st to February 2nd, 2022, a team from the ECU Program in Maritime Studies conducted fieldwork on the beaches of Currituck County, NC. Comprised of faculty member Dr. Nathan Richards, Staff Archaeologist Jeremy Borrelli, and students Matt Pawelski and Caleb O'Brien, the group undertook field operations in support of Pawelski's thesis research under permit from the NC Office of State Archaeology for a terrestrial survey at the site of the *Metropolis* disaster. The primary goal of the project was to detect magnetic anomalies under the sand that might represent some archaeological or historic remains. The data collected will be used to support Pawelski's behavioral archaeological study of the disaster concerning the history of the vessel, the wrecking event, and the subsequent formation of the site.

Metropolis came ashore in a storm on Currituck Beach, NC on January 31st, 1878. With no assistance from shore making an impact on rescuing those aboard the stricken steamer, eighty-five people lost their lives as it came apart in the surf. The event spread debris as well as some larger sections of the vessel for miles over the beach, with some reports indicating that the port side bow and entire upper portion of the starboard side had washed ashore. The wreck and subsequent loss of life led to widespread criticism of the United States Life-Saving Service and those tasked with inspecting the vessel in the Steamboat Inspection Service. By the end of the year, an act to reform the Life-Saving Service had been signed by the Hayes administration in one of the few bipartisan pieces of legislation of the 45th Congress' term.

The winter fieldwork took place during a favorable tide cycle alongside heavy beach scour after a nor'easter had passed through the area in the days prior. On top of that, this happened to coincide with the anniversary of the disaster itself. Adding to the fortuitous timing was the fact that the survey team was well supported by stakeholders in the community. Housing for the project was provided by Outer Banks Conservationists, a nonprofit which allowed the team to stay in the keeper's home at the Currituck Beach Lighthouse, the same home that had sheltered survivors on that very day 144 years prior.

The survey initially called for a 750 meter by 50-meter gradiometer survey area, with around twenty transects to be run north to south. Conditions on the beach, however, meant instead that 230 were run in a mostly east to west direction. Several volunteers also came to donate their own time and effort to the project by helping to run transects on the gradiometer. With



Matt Pawelski (left) and Dr. Nathan Richards (right) collect gradiometer data along the beach; (Photograph by Jeremy Borrelli).

around thirty miles walked over three days by some of the survey team, the added personnel were a welcome complement to a tired crew; the fieldwork could not have been completed without their assistance. Additional accommodations were secured with the aid of the Corolla Village Inn, allowing the team to stay an extra night and wrap-up the entire third day of survey which had been conducted in wet and difficult conditions.

Because of the previously mentioned meteorological events, three sites were visible on the beach. These included a section of newly exposed wreckage that had yet to be recorded or even reported. The uncovered debris caused a project that had initially been designed as heavily dependent on gradiometry to take on a different form. While the gradiometric survey was still the core goal, the team now also had the ability



Jeremy Borrelli (left) and Caleb O'Brien (right) take measurements on an exposed wreck within the survey area; (Photograph by Matt Pawelski).

to record some of the vessels' remains via measuring and mudmapping as well as photogrammetric modeling and photography. The photogrammetric modeling and measurements were especially welcome, with two of the three exposed sites on the beach having never been recorded beyond simple photography in the aftermath of severe storms.

One of the uncovered sites, designated by state UAB as CKB0015, is clearly the keelson structure and lower framing of a ship. There is little known about what specific type it represents aside from its measuring roughly 200 feet in length and 30-35 feet in beam. Another site on the beach, UAB designation CKB0023, consists of a large section containing rigging elements embedded underneath some of its timbers. However, determining what portion of a vessel it came from has proven to be the subject of continuing analysis. The newly exposed wreckage is likely a section of hull planking, but further review is necessary to clarify this as well. The potential relationship of each of these to *Metropolis* is complicated by the number of occasionally visible debris on the beach. While three sites were visible during the fieldwork there are a total of five that are known within the survey area, altogether corresponding to at least three different vessels.

Matching up the beach debris with known shipwrecks will be dependent on utilizing a Rhinoceros (Rhino) Computer-Aided Design (CAD) software model depicting *Metropolis* both in its initial construction as the 1861 USS Stars and Stripes as well as its rebuilt, post-1871 form as the larger *Metropolis*. The models form a baseline for material reuse and potential technical change within the vessel from its construction and rebuild to its sinking. In addition, the models can function as a point of comparison for the photogrammetrically recorded sites in the field, where the photogrammetric meshes could be overlaid onto portions of the digital reconstruction in order to determine the existence of any potentially similar structures or manners of construction between the two.

Overall, the trip to Currituck was a resounding success, with a mountain of data to parse through and an incredible showing of community support. Pawelski looks forward to completing his thesis and being able to present a finished analysis of the disaster to both the stakeholders involved as well as the broader community. 🦀

– Matt Pawelski

From the Field - Life Aquatic on the Mediterranean Coast of Turkey



Wentzel examining the remains of an anchor at depth; (Photograph provided by Lindsay Wentzel).

In August of 2022, MA student Lindsay Wentzel and PhD student (Coastal Resources Management) Dominic Bush joined the Underwater Archaeological Survey of the Antalya and Mersin Coastlines in Turkey led by Dr. Hakan Oniz of the Akdeniz University Underwater Archaeology Research Centre. For seventeen days Wentzel and Bush lived and worked aboard the Akdeniz University research vessel Arkeo as the team documented underwater cultural heritage remains along the Mediterranean coastline from Adrasan to Kaş. As participants, Wentzel and Bush worked with the rest of the team to advance the archaeological understanding of the Mediterranean, especially Turkish, maritime past. The material culture encountered throughout the survey was chronologically diverse, representing the Bronze Age and Iron Age as well as the eras of the Hellenistic, Roman, Byzantine, and Ottoman hegemony. This presented an incredible and expansive hands-on learning opportunity as participants surveyed locations during the day, tagging, photographing, and documenting archaeological remains. In addition, Wentzel and Bush had the opportunity to visit the original locations of three shipwrecks fundamental in the development of underwater archaeology in the Mediterranean: Uluburun, Cape Gelidonya, and the newly rediscovered Kumluca Bronze Age shipwreck¹.

Under the framework of the UNESCO University Twinning and Networking (UNITWIN) Programme's Network for Underwater Archaeology, this project brought together more than twenty students, faculty, staff,

and trained doctors in underwater and hyperbaric medicine representing eleven countries: Turkey, the United States, Belgium, Ecuador, England, France, Mozambique, Poland, South Africa, Spain, and Sweden. On board Arkeo, the team truly became a family. Every morning participants would share daily tasks such as cooking, cleaning, and dive preparations. During the second week, participants each had the opportunity to share traditionally cooked meals with the rest of the crew bringing along stories of their home countries, customs, and families. For USA day, Wentzel and Bush prepared a North Carolina barbeque for lunch and burgers for dinner, complete with fried tomatoes, mac and cheese, and garlic fries in Arkeo's galley. Other highlights included English fish and chips, Polish kopytka potato dumplings, and Spanish paella. Over the course of the survey the crew bonded over good food, fond memories, exciting finds, and hard work, with plans to reunite at the Society for Historical Archaeology 2023 conference in Lisbon, Portugal.

For Wentzel and Bush, these kinds of experiences working within an international crew helped to further their skills and connections in the field of maritime and underwater archaeology. While aboard Arkeo, participants shared knowledge and strategies learned from their respective institutions to advance the mission and efforts of the survey. Language barriers were removed while underwater as dive teams relied on hand signals and a common understanding of the task at hand. The latter most often entailed a visual dive survey. Prior to every descent, project participants

were divided into teams, with a designated dive leader. Each team was assigned a heading and given both a maximum depth and time for the survey. Individual responsibilities for each diver were also doled out. While everyone was expected to keep an eye out for underwater cultural materials, often, only one diver was entrusted with photographing artifacts of interest. For those not selected to be the photographer, other duties consisted of attaching identification tags to artifacts, placing meter scales and north arrows adjacent to artifacts for photos, and recording artifact location relative to the research vessel. In areas of heightened boat traffic, a diver was tasked with managing the safety buoy. For some, these dive surveys marked the first underwater archaeological work they had ever undertaken.

As the project progressed, and experience accumulated, the dive teams increased their efficiency. Roles



Wentzel, Bush, and R. Atabey of Southampton University at the site of the Cape Gelidonya Bronze Age shipwreck; (Photograph provided by Lindsay Wentzel)

were clearly understood and executed with effectiveness. Working in slightly staggered, parallel search lines, divers learned what archaeologically significant materials to look for, including the diagnostic parts of amphorae and the concreted outlines of lost iron anchors. Usually lasting between thirty and sixty minutes, these surveys resulted in the documentation of a truly diverse array of amphorae, anchors, and other vestiges of ancient seafaring. Following dinner most evenings, the project team gathered around the table and reviewed the photographs taken during the day's

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From the Field - Photogrammetry Workshop with SCIAA

This past April, two students from the ECU Program in Maritime Studies, Alyssa Saldivar and Dante Bertell Petersen Stanley, were invited to attend a weeklong photogrammetry workshop in Columbia, SC put on by Jim Spirek (MA 1993), State Underwater Archaeologist of the South Carolina Institute for Archaeology and Anthropology (SCIAA). Kotaro "Kota" Yamafune led the attendees through eight days of theoretical and practical exercises to establish a base-level of knowledge regarding underwater photogrammetry in maritime archaeology. Dana Carris of Texas A&M University, Athena Van Overschelde, and



Alyssa Saldivar and Texas A&M University graduate Dana Carris collecting photogrammetric data; (Photograph by Kota Yamfune).

William Nassif (MA 2020) of SCIAA also participated.

Kota began with an overview of the principles and basic skills of the technique. The lecture soon gave way to the practical, with workshop attendees photographing, or

as Kota called it "scanning," certain features on the campus of the University of South Carolina. Once participants understood the basics of Kota's improved methodologies, more complicated tasks could be attempted. Participants focused on the methods for generating a full 360-degree photogrammetric model of an artifact, including how to photograph properly underwater, creating scales, and using Computer-Aided Design (CAD) software to improve accuracy. Each day, Kota reinforced his core lesson: photogrammetry is not photography, but scanning.

The workshop's first activity in the field was on the Cooper River where two teams dove on the Biggins Creek Wreck which had been reported to SCIAA by South Carolina's hobby diver program. The two teams used SCIAA's GoPro camera systems to take photos of the small site utilizing their previously learned knowledge. The day focused mainly on troubleshooting and understanding the basic practical application of these new skills. After much trial and error, the teams were able to successfully capture enough of the wreck to attempt a photo model.

The second day in the field focused on the Strawberry Ferry Wreck, a 19th-century shipwreck also in the Cooper River. Using scale bars and GoPros provided by SCIAA, the dive teams took scans of the wreck in a designated pattern, recognizing mistakes that had been made the first time and improving their techniques. Two teams of three people each completed a one-hour dive in twenty feet of dark, brackish water with the current differing depending upon the diver's location on the vessel. After each group determined that the wreck was well recorded and that they had enough information to run a model, they set off for Columbia once again.

Back in the office, the teams held their breath as the data for the Strawberry Wreck processed. While the team was sure they followed the proper procedures they were taught, slight unnoticed errors in camera angles, lighting, and swim patterns could still harm the result. After hours of processing, the teams could see the finished products, each showing what needed to be changed

in everyone's respective collection methodologies: what the team forgot and what they could improve upon, each illustrating how difficult this task truly was. While chuckling at their imperfect models, each participant took prideful ownership of what they had accomplished in only a few short days. The final portion of

the workshop centered on completing all these tasks so that the data met archaeological standards. Creating time-saving site maps, producing artifact illustrations based on the models, and considering how photogrammetry could be pushed further for the preservation and interpretation of underwater cultural heritage were the key points that Kota wanted each of his students to grasp.



Dante Bertell Petersen Stanley; (Photograph by Kota Yamafune).

For our maritime students, the workshop was a complete success. Since April, Alyssa and Dante have been able to use their new knowledge in their own research as well as share these upgraded methodologies with others, trying to impart the importance they can have to archaeological study. Both students would like to thank Kota and Jim for providing such a wonderful learning opportunity.

Alyssa Saldivar and Dante Bertell Petersen Stanley

Life Aquatic

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dives. This allowed for everyone to get a better understanding of what materials were encountered, both for one's personal dive team as well as for the other teams. These viewings were accompanied by insights from the Field Director and a Visiting Professor regarding the artifacts' ages and countries of origin. After the first couple of debriefings, project participants were sporadically challenged to estimate the chronology of certain objects based on the field photos and a reference book. Though most participants came to the project with little to no knowledge about topics such as typologies of amphorae from the ancient eastern Mediterranean, these pseudo-pop-quizzes created an atmosphere of learning and a healthy sense of competition as teams would race to the correct reference example. Every night, all of the day's photographs, sketches, and other forms of documentation were logged and stored. Each of these recorded artifacts now represents an opportunity for a followup site investigation to determine if the material culture is representative of a shipwreck, submerged settlement, accidental loss, or other depositional event (e.g. sacrificial). Data collected from this survey will be processed over the coming months and included in future publications for public access.

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Portside - A Reconstruction of the Newly Rediscovered Bear in 3D

During the summer of 2022, graduate student Raymond Phipps of ECU's Program in Maritime Studies worked diligently on a 3D model of the United States revenue cutter Bear using Rhinoceros 7, a computeraided design (CAD) software package. Funding for the creation of this model was provided by the Foundation for Coast Guard History who will make the model available for display at either the Coast Guard Academy or the Coast Guard Museum in New London, CT. This model will also serve as a basis for Raymond's research on Bear and will help analyze the technological, economic, cultural, political, and institutional influences that led to the construction and modification of Bear throughout its ninety-year career.

The United States revenue cutter Bear was a barkentine-rigged screw steamer that was originally constructed in 1874 by the Alexander Stephens

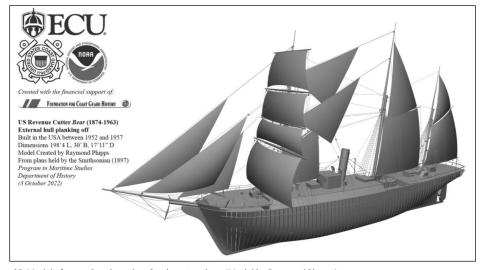
United States Revenue Cutter Service (USRCS), and finally the United States Coast Guard (USCG). Bear was tasked with patrolling the Arctic waters around the newly acquired Alaska Territory where it was responsible for enforcing federal laws, transporting supplies and people to remote areas, and the relocation of herds of Siberian reindeer to Alaska to serve as a food source for the indigenous people there. From 1926 to 1932, Bear, renamed Bear of Oakland called Oakland, CA its home while serving as a museum ship.

In 1932, Bear of Oakland was purchased by Admiral Richard Byrd and recommissioned once again as USS Bear to take part in his Antarctic expeditions. During WWII Bear underwent major overhauls, mainly through its transition from steam to diesel propulsion and the removal of its rigging to be fully motorized. For the duration of the war, Bear patrolled the Atlantic waters

south of Cape Sable, Novia Scotia, and approximately 225 nautical miles east of Boston, MA. The exact location of the wreck was unknown until recently in August 2021, when a joint team from the National Oceanic and Atmospheric Administration (NOAA) and the USCG rediscovered the famous vessel, reviving interest in the ship and its storied history.

With the combined help from the Foundation for Coast Guard History, the Coast Guard Historian's Office, and NOAA, an assemblage of data, including a builder's plans of Bear, have been gathered that have helped Raymond create his first of three models. With guidance from ECU Professor Nathan Richards, Raymond has become proficient in the use of Rhinoceros CAD software, allowing him to scale and align plans of Bear in three fields of view: plan, sheer, and amidships. By aligning the plans in this way, the ship lines can be traced and extruded into a 3D rendering, making for a detailed reconstruction. While the exterior of Bear was able to be modeled with precise detail, the interior of the vessel requires further research. As of now, plans or photographs of the original interior configuration of Bear are limited. This will require future examinations of shipbuilding treatises, interior layouts of similar vessels of the period, and insurance survey literature to help supplement the current dataset. From this, the most detailed model of Bear's original configuration to-date can be constructed and set up for the creation of additional models that will highlight the modifications and adaptations made to Bear throughout its lengthy time in service. With the help of these detailed models, future research may be able to make a comparison between the extant plans of the ship detailing the changes it underwent throughout its career and the actual wreck site. &

- Raymond Phipps



3D Model of cutter Bear based on Smithsonian plans; (Model by Raymond Phipps).

shipyard in Dundee, Scotland for use as a seal-hunting vessel. In 1884, the US government conscripted Bear and recommissioned it as USS Bear to take part in the rescue of the members of the Lady Franklin Bay Expeditions in the Arctic. From 1885 to 1926, Bear served as a revenue cutter for the United States Revenue-Marine (USRM), then for the

around Greenland, after which it fell into disrepair in Halifax, Novia Scotia until 1962 when it was purchased to serve as a floating restaurant in Philadelphia, PA. Hastily repaired, Bear was put under tow in 1963 for what would be its last journey. On March 19, 1963, Bear foundered after a storm and sank approximately 100 nautical miles

Summer Field School - The Ghost Fleet of Mallows Bay, MD

On May 18, 2022- mere days after finishing their American Academy of Underwater Sciences dive certificationsthe 2021 class of ECU Maritime Studies students traveled to the Mallows Bay



Students Dayan Weller and Levi Holton draft the master site plan of Bayou Teche; (Photograph by Will Sassorossi).

Potomac River National Marine Sanctuary near La Plata, MD to begin their first underwater field school under the direction of Dr. Nathan Richards and Dr. Jason Raupp, along with help from Staff Archaeologist Jeremy Borrelli, Dive Safety Officer Mark Keusenkothen, and Student Teaching Staff Lindsay Wentzel and Jillian Schuler. Located on the Potomac River, Mallows Bay has become the final resting place for hundreds of abandoned vessels. Due to the historical significance of the ships' graveyard, Mallows Bay was granted placement on the National Register of Historic Places in 2015 and gained further protection four years later with its designation as a National Marine Sanctuary.

Among the residents of the bay are the remains of many vessels built for the former Emergency Fleet Corporation (EFC), expediently designed by Theodore Ferris to provide a cheaply constructed merchant fleet in the final years of the First World War. In service of the doctoral research of Allyson G. Ropp, the firstyear students of the Program in Maritime Studies had an opportunity to record two wooden EFC ships - Aowa and Bayou Teche - along with chances to collect biological and sediment samples from the

two vessels, the all-metal steamer Accomac, and the areas around the vessels. Towering over the otherwise mostly submerged wrecks in Mallows Bay, Accomac was built in 1928 as Virginia Lee. Requisitioned

> for use as a convoy vessel during World War II, the ship would return to peacetime service as the car ferry Accomac, put into use in the Chesapeake until its abandonment in 1973.

After arriving at the Melwood Recreation Center that would serve as the home-base for the duration of the project, the crew was introduced to the practice of properly setting up a baseline

along with various other tasks that would be utilized during the ship recording. This began one of the most valuable aspects of the field school: hands-on exposure to countless practical skills, many of which were essential to working on boats and which were mostly foreign to students, few having much experience at sea. The first ship to be recorded was Aowa using a process that extended through the whole of the summer session. Partner groups progressively worked down the

vessel according to preassigned interior and exterior three by six meter units, each group tasked with measuring and mapping the structural features of the ship on either the port or starboard side of the baseline. Baseline offset mapping constituted the initial phase of recording, but once the important elements had been documented, many of the ship's features were then rerecorded via trilateral measurement to ensure accuracy of

the data and control any discrepancies that emerged from different groups' overlapping areas.

Tides played a major role in the visibility of the wreck- at times the vessel was almost completely submerged, and at others the majority of the ship's remains were visible above the water line, creating a great disparity in the ease of recording depending on time of day. Most of the work on Aowa was conducted either standing or via snorkel, but towards the end of the project, the recording of side profiles necessitated the use of scuba. In addition to the sediment, biofilm, and wood samples collected as the mapping was conducted, Aowa was also subject to what may be the first use of a resistograph in a maritime archaeological context. This device essentially uses a long and sensitive drill apparatus to measure the density and areas of decay in wood. It is hoped the resistograph data recovered from Aowa will inform future application of the technology within archaeology, with additional uses like basic dendrochronology being potentially feasible should further research prove fruitful.

Once the initial work had been completed on Aowa, a portion of the students shifted to simultaneous work on the Louisiana-built Bayou Teche. Largely similar, Bayou Teche had fewer structural



A low tide exposes the structure of Aowa; (Photograph by Jeremy Borrelli).

Summer Field School - The Ghost Fleet of Mallows Bay, MD



Students Ian Dunshee (top) and Dominic Fargnoli (bottom) prepare to dive in a strong current to collect soil samples for PhD candidate Allyson Ropp (left); (Photograph by Dr. Nathan Richards).

features remaining in situ and made for quicker mapping, especially as the mapping scale was reduced from that used on Aowa to ten by eight meter units. The second EFC vessel recorded did however suffer from extremely poor visibility in shallower, siltier water. Much of the work was conducted in thick mud that would leave students sunken to knee level should their weight be placed off a timber for more than a moment, making the process an altogether more difficult recording experience.

Of the vessels worked on during the field school, the fewest days were devoted to Accomac. Midway through the project, two undergraduate biologists paid a brief visit to Mallows Bay, aiming to collect samples scraped from the hull of Accomac at various depths for comparative analysis. Along with those desired by Ropp, Maritime Studies students aided in the collection of these samples as well as nearby sediment samples while on scuba. Despite some initial difficulty due to camera malfunction, photogrammetric

models were also made for all of the vessels studied; Accomac having the best final

One of the greatest hazards faced during summer field school came from the blue catfish (Ictalurus furcatus), a non-native species that has infested the waters of Mallows Bay. After about a week in the field, it became increasingly common to have the serenity of careful tape-stretching intermittently broken by the shrieks of unsuspecting archaeologists attacked by one of the toothless fish hiding throughout the opaque riverway. The panic of the stricken was always short-lived, followed by a near instant relief that the exploratory bite had come from the invasive bottomfeeders and not one of the bull sharks rumored to frequent the murky shallows of the Potomac. Even after death, the catfish proved a constant blight on field activities. Whether strewn across a nearby shore or drifting by amongst the domestic waste and petrochemicals brought in with the tide, the unrelenting stench of their bloated and sun-bleached carcasses wafted over the project areas throughout the day. Blue catfish were not the only faunal

threat to crew safety--multiple ospreys chose to nest on or in the immediate vicinity of the vessels being worked on, ready to defend their young should any stray too close to their territory. The routine appearance of aggressively curious snakes proved similarly hazardous, though the crew were fortunately able to complete the fieldwork without any serious injury.

During the latter half of the project,

post-fieldwork nights and field days cancelled by inclement weather became occasions to work on the drafting of both the main vessels. The meticulous drafting process resulted in massive scale drawings, and though they will certainly lose much of their grandeur when reduced to the size necessary to fit the pages of Ropp's dissertation, the finished results will no doubt be memorable for all who participated in their creation. While the nature of ship recording made for many repetitive days spent honing skills, spontaneous instances of high adventure always broke the monotony; whether via perilous attempts at recording in nearstorm conditions, collisions with reckless boaters, surprise rope-courses and zip-lines, midnight frog finding expeditions, or any number of other romantic scenes the crew found themselves in. Overall, the summer 2022 field school was an invaluable learning experience and an excellent beginning to the maritime archaeological careers of the 2021 cohort. 🦑

– Dayan Weller



Summer field school faculty, students, and DSO; (Photograph by Jeremy Borrelli).

Portside - Mystic Seaport Museum: Reimagining New England History



Lydia Downs presenting the Three Sisters Garden to the public and museum staff; (Photograph by Christopher Bresky).

Over the summer of 2022, Lydia Downs was granted the opportunity to intern at the Mystic Seaport Museum in Mystic, CT with the goal of incorporating more diverse stories into the seaport's narratives. The seaport has historically focused on a Eurocentric and white American past, so the objective of this internship was to bring indigenous and black mariner stories into the seaport. Lydia worked on three projects during her ten weeks at Mystic: a living history garden, an interactive whaler's experience, and cataloging the collections at a partner institution.

Lydia worked on creating "living history gardens," planted to represent a specific group of people or a specific period, in the seaport along with an undergraduate student that she was mentoring and partnered with, Liz Ferrara. Liz designed an African garden and Lydia designed a Native American garden. To accomplish this, Lydia talked with members of the Mashantucket Pequot Tribal Nation. The Mystic Seaport Museum is built on Pequot ancestral homelands so she inquired what kind of garden would best represent them and in what space they would like to see it be implemented in. They chose a Three Sisters Garden consisting of corn (*Ewachem-neash*), beans (*Muskerzeets*), and squash (*Asku'tasquash*). The garden is planned to be planted in spring 2023 using seeds from the Mashantucket Pequot Three Sisters Garden 2022 harvest.

All six Mystic interns also worked on a larger project together which consisted of creating an interactive whaler's experience called "To Brava and Back: Navigate the Story of a Cape Verdean Whaleman." This experience told the story of the Cape Verdean whaling captain, John "Theofilo" Gonsalves, who started whaling as a cabin boy at age eleven and continued for fifty years before health issues forced him to retire. His story is told using respectful gamified elements that make visitors use team building skills to complete. There are nine chests located around the seaport each containing archival photos, poems, riddles, puzzles, and additional information about Captain Gonsalves, the whaling industry, and Cape Verdean culture.

The third project that Lydia worked on was at a partner museum called the Tomaquag Museum in Exeter, RI. The Tomaquag Museum is the only Native American museum in the state of Rhode Island and is in the process of building a new facility. The Mystic interns were tasked with cataloging the museum's entire collection so that it was all in a uniform system and would make the moving process easier. Many of the materials were previously cataloged inconsistently or not at all so everything had to be rephotographed, given a new inventory number, and updated in the system. The interns went in groups of two, three days a week and were able to catalog over three thousand belongings (labeled as such rather than "object" or "artifact" to remind visitors that the people who do or did own each piece are still a part of the story it helps to tell). They were unable to catalog the entirety of the collection but were able to get very close, greatly reducing the amount of work that the museum staff would have to do before the move.

At the end of the internship, Lydia and the other interns presented their work to the public and to the heads of the various departments at the museum including the director and vice president. Lydia presented the design and collaboration groundwork for the Three Sisters Garden. Staffers were also invited to participate in the interactive whaler's experience. Lydia is excited to see the Three Sisters Garden planted in the spring and to see collaboration between the Mystic Seaport Museum and the Mashantucket Pequot Tribal Nation continue to grow as it is implemented. She is happy that she will be able to continue to partake in the project as Mystic's new Collections Assistant and Deaccession Specialist.





Charles W. Morgan at dock in Mystic Seaport Museum; (Photograph by Lydia Downs).

Theses Defended 2021-2022

Patrick Boyle, Aw Shucks: An Archaeological Investigation of a Possible Oyster Fishing Vessel in Washington, North Carolina

Amber Cabading, After Wrecking: Examining Spanish Salvage of the 1622, 1715, and 1733 Plate Fleets.

Joel Cook, The Subchaser Debate: Influences on U.S. Submarine Chaser Design and Development in the First and Second World

Lydia Downs, A Study of the Cultural Significance of a Dugout Canoe to People of the Past and Present.

Jacquelyn Hewett, Bronze Age Aegean Ritual Ship and Boat Imagery: An Iconographic Analysis.

Luke Lebras, Truth Behind Thames: Archaeological and Historical Investigations of the "Missionary Whaleship".

Matthew Lowe, Visualizing Port History: An Historical and

Archaeological Reconstruction of Washington, North Carolina's Historic Waterfront.

Caleb O'Brien, Norman and Grecian: A Comparative Archaeological Site Formation Analysis of Two Steel-Hulled Great Lakes Bulk Carriers in Lake Huron.

Taylor Picard, Archaeological Site Formation of the "Sea Scout Wreck," Mallows Bay, Nanjemoy, Maryland.

Darby Robbins, The Philadelphia Wheel: A Historical Analysis of Richard F. Loper's Screw Propeller Design in the 19th Century Great Lakes.

Andrea Yoxsimer, Amakasu Maru No. 1: An Analysis of a Remotely Operated Vehicle Survey on a WWII Japanese Śhipwreck in the Pacific.

Trenton Zylstra, Senegambian Watercraft.

Satching up with the Maritime Studies Association

During spring of 2022, the full lifting of restrictions from COVID-19 allowed more leeway for students and faculty to come together and the Maritime Studies Association (MSA) followed suit. The spring and fall of 2022 saw a multitude of collaborations, conferences, guest speakers, field trips, and parties put on for its members. On top of this, officers put together a number of special events including several firsts for the organization.

In the spring semester, MSA hosted a field trip to the CSS Neuse Interpretive Center in Kinston, NC. Members went on a guided behind-the-scenes tour of the exhibits and artifact collections, learning about the Civil War ironclad vessel while viewing its wreckage in the main hall of the museum. Along with their tours, students were able to see what life was like onboard, climbing into the life-size replica built just outside. All in all, the field trip was a great opportunity to see a famous regional wreck and learn about its history.

April saw a gathering of master's and doctoral students to present their research at the first-ever Maritime Studies Association Student Symposium (MSASS). Utilizing social media and members' professional networks, students from all over the world came to participate either in-person or virtually to present their current or past studies in maritime history and archaeology. The

initial purpose of the symposium was to allow those participating to get a feel for what presenting at a conference is like in a comfortable setting. However, it also turned out to be a great way for people of similar research interests to meet and engage, building stronger

connections

between the ECU Program in Maritime Studies and other universities.

The new officers inducted in fall of 2022 continue to do their best to continue the great work of their predecessors, keeping the organization vibrant in several ways. Just a week after classes started, the annual Welcome Aboard Party was held to greet the new graduate students into the program. The party was hosted with the help of Jarvis Street Bottle Shop, which offered a relaxing environment for new and current students to intermingle and get to better know some of the history department faculty.

In mid-September and in collaboration with the ECU Dive Safety Office, a meet and greet was held with a few



Members of MSA celebrate outside the Outer Banks Distilling fundraiser; (Photograph by MSA).

visiting leaders and volunteers from Project Recover and Task Force Dagger; two organizations that work with the Defense POW/MIA Accounting Agency (DPAA) to find and recover the remains of lost US service members. This opportunity allowed those present to hear the stories and purpose of these organizations, as well as get to know the individual volunteers personally who talked at length about how much their work means to them and how students can get involved. The day concluded with a free screening of the long-awaited documentary To What Remains that highlights the great work of these two groups, and which was enjoyed by many.

As a fall fundraiser, MSA teamed up with Outer Banks Distilling in Manteo, NC in early October for a day of

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From the Field - Underwater Archaeology in the Mountains? Recording an Unfinished 19th-Century Canal in the Blue Ridge Mountains

Located in Botetourt County, VA, between Buchanan and Eagle Rock, the Marshall Tunnel complex is a group of archaeological resources that represent the ambitions of Virginians to connect the James River to the Mississippi River. After an initial reconnaissance mission this past March, Virginia State Underwater Archaeologist Brendan Burke and Assistant Underwater Archaeologist (and recent MA graduate) Patrick Boyle invited MA student Jillian Schuler to further investigate the Marshall Tunnel complex.

The Marshall Tunnel was designed to be part of the third division of the James River & Kanawha Canal and was the most technically challenging part of the project. Construction on the "Third Grand Division" began in 1853 and funding for the project ran out in only three years with many sections of the division not completed. The Marshall Tunnel complex today includes a dam, two locks, a partiallyfinished canal, construction features, an aqueduct, and a total of 954 feet of tunnel. Further information on the history of the Marshall Tunnel can be found in The Upper James Atlas by Bill Trout, who spent a great deal of time surveying regional upland waterways for the Virginia Canals and Navigations Society.

In mid-July, the team of three conducted field work on several portions of the Marshall Tunnel complex. One of the primary goals of the project was to complete a photogrammetric model of the submerged cultural material in the western tunnel portal. Unfortunately, the dense summer canopy and low water levels made it difficult to accurately document the flooded tunnel. Burke explored the frigid waters of the 180 foot long west entrance and noted a variety of cultural materials, including timbers that may have been parts of ladders and muck carts. Drill marks on the stone remain visible around the opening of the tunnel, providing some insight into the hand drilling and black



View of the James River and Cabell Dam site from above; (Photograph by



Jill Schuler and Patrick Boyle (MA 2022) wading in the James River near Cabell Dam; (Photograph by Brendan Burke).

powder blasting methods used. The survey also helped determine that it would be better to return in the winter or spring when the conditions for capturing imagery would hopefully be better.

Undeterred, the team turned their attention to the remains of the Cabell Dam and associated locks that would divert water from the river to the canal. The dam site consists of heavy cribbing timbers set into the river bottom across the river and two large masonry abutments on either bank. Both abutments contain locks, one for the canal and one for smaller river traffic during the dam's construction, called a bateau lock. A nearby quarry provided limestone for the abutments and various masonry styles were documented.

The team also conducted a drone survey of the dam foundation to create a photomosaic of the large structure. The team employed many different flight methods in order to overcome challenges of documenting a submerged resource. Additional drone surveys indicated a fish weir downstream from the dam, a target to be investigated during future research trips. Finally, a historic cemetery was documented that contains the remains of the 19th-century property owners and a number of enslaved individuals.

This research by Virginia's Underwater Archaeology Program coincides with the Cultural Resources Riparian Inventory Study funding through the Emergency Supplement to the History Preservation Fund that the Virginia Department of History Resources received after hurricanes Michael and Florence back in 2018. Having replaced Boyle as Assistant Underwater Archaeologist, Schuler looks forward to returning to the site in December to conduct laser scanning surveys of the two tunnel entrances. The research team wishes to thank the property owners and community members for supporting the project.

- Jillian Schuler

Portside- Summer at Thunder Bay National Marine Sanctuary

Over this summer, Caleb O'Brien worked at Thunder Bay National Marine Sanctuary (TBNMS) in Alpena, MI. The location of his thesis, TBNMS was founded in 2000 by the National Oceanic and Atmospheric Administration (NOAA) and the state of Michigan in northwestern Lake Huron. Today the sanctuary houses approximately one hundred known shipwrecks with approximately one hundred left to discover. When Caleb arrived at the sanctuary in May it had just reopened for the first time since the COVID-19 pandemic in 2020. As a result, he took part in some of the first in-person projects the sanctuary has conducted since then.



Caleb O'Brien outside NOAA's Great Lakes Maritime Heritage Center; (Photograph by Caleb O'Brien).

Every year, TBNMS deploys mooring buoys on about fifty wrecks to allow public access to these sites without the risk of anchors damaging them. The first task that Caleb assisted with was deploying these buoys before the summer research season began in late May. That month he also led school field trips giving tours on the glass-bottom boat *Lady Michigan* and helping students build remotely operated vehicles (ROVs).

Once the research season began, Caleb helped with several research projects spanning from remote sensing to biological research. The largest project that he worked on was the Great Lakes Acidification study. This involved collecting samples of water for scientists with NOAA's Ocean Acidification Program to see if the Great Lakes, like the oceans, are becoming more acidic. His role in this project included leading sample collection, public and social media outreach, and management of the data collected.

Along with this long-term project, Caleb had the opportunity to work with hydrographers from NOAA's Office of Coast Survey as they collected and processed multibeam sonar data to update their current bathymetric charts of Lake Huron. The great variety of tasks to which he was assigned never ceased as he later participated in two biological studies on a submerged sinkhole there, collecting bacteria reminiscent of early life. These studies involved deploying

sensors to collect bacteria and water samples as well as conducting dive operations.

Since the research season in Lake Huron ends in August, the time came for the annual removal of the mooring buoys on the wrecks and collecting the scientific instruments left in the sinkhole. This visit to the buoys, however, came with the extra task of helping with an archaeological survey for crashed airplanes in the woods around Alpena with state of Michigan Archaeologist Wayne Lusardi. Lastly, since school has reconvened for the year, Caleb has continued leading student trips using ROVs and the glass bottom boat.

Outside of these research projects, Caleb has worked around the office doing a myriad of tasks. The largest of these projects was updating the TBNMS website through historical research. This project led him to explore many of the wrecks within the sanctuary and explore the points of interest around it including the lighthouses and quarries. In addition, his social media posts for the "Get Into Your Sanctuary" and "This Day In History" campaigns helped revitalize the online presence of TBNMS. Since the sanctuary also acts as a museum, he was often at work on odd tasks to keep up with day-to-day operations.

Overall, this summer has been a great experience for Caleb and has let him learn many new skills such as buoy deployment in addition to hardware and sample collection. He also has become more capable in skills important to maritime cultural resource management such as boating and remote sensing. With his thesis research being the study of two shipwrecks in TBNMS, coming to work at the sanctuary for the summer was an amazing experience that he will not soon forget.

- Caleb O'Brien

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A goal of the UNITWIN Network for Underwater Archaeology is to support international cooperation in the protection of and research into underwater cultural heritage. Through this project participants gained not only a unique field experience only offered in the Mediterranean, but also exposure to a diversity of cultures, professional networking on an international scale, and the benefits and experiences that come with travel. Wentzel and Bush hope this to be the beginning of a lasting relationship between ECU's Program in Maritime Studies students and Akdeniz University so that future students may also have this opportunity and visit one of the most important places in the history of maritime archaeology.

– Lindsay Wentzel and Dominic Bush

Portside - Illuminating Finds on the St. Augustine Coast

Over the summer, Alyssa Saldivar and Winston Sandahl had the opportunity to work with the Lighthouse Maritime Archaeological Program (LAMP) in St. Augustine, FL. Founded in 1999, LAMP is a well-known institution in the world of maritime archaeology that conducts regular field surveys, historical research, and artifact conservation. This year marks their first field school since the beginning of the COVID-19 pandemic, which greatly impacted how the organization operated.

Alyssa was able to spend over three months with the organization, tagging along for a good part of the archaeologists' field season. The primary goal for this summer was to complete research and field work for the Hurricane Irma Damage Assessment and Mitigation Strategy (HIrmaDAMS) grant, which focused on tracking damage to archaeological sites on the northeast coast of Florida. The first task that Alyssa helped with was for the Fort Mose Project which Patrick Boyle (MA 2022), an alumnus of the ECU Program in Maritime Studies, was able to join last year. Located within the Fort Mose Historic State Park, the archaeological site is on an island which is only accessible by either wading through marshlands or by navigating a small boat down a shallow creek. This project lasted six weeks during which LAMP supplied transportation to Flagler College's terrestrial field school. While the field school students and Principal Investigators (PI) dug units on land, the LAMP team focused on the creeks that surrounded the island. Alyssa was able to apply the skills she learned at the ECU Program in Maritime Studies to all parts of the Fort Mose Project: piloting two small vessels, *Indy* and *Sea Mouse*, excavating underwater units, organizing and processing data, and helping the terrestrial PIs with anything they needed.

Once this was finished, Alyssa, Winston, and Andi Yoxsimer (MA 2022), another Program in Maritime Studies



Student Alyssa Saldivar on site at the LAMP summer field school; (Photograph by Lori Lee).

alum, were given the opportunity to supervise the LAMP 2022 summer field school. During the initial week, seven students trained in scientific diving techniques to prepare them

for the remainder of the field school diving offshore and surveying the old St. Augustine Lighthouse site. Training included a lecture series about dive physiology and local archaeology, swim tests, a zero-visibility obstacle course, check-out dives at a local spring, and offshore dives on the Centerboard Schooner Wreck. The following week, students were separated between this site and the portion of the old lighthouse site within the tidal zone. Working with the LAMP archaeologists,



Heather Jeans, Leah Tavasi, Josie Ketten, and ECU student Winston Sandahl (right) preparing to dive from Empire Defender; (Photograph by Chuck Meide).

Alyssa, Winston, and Andi supervised the development of the students' skills pertinent to maritime archaeological fieldwork. Most notably, students were instructed in establishing and excavating units underwater using a hydraulic-powered dredge. By the end of the field school, students at the Centerboard Schooner Wreck had used these techniques to uncover the centerboard case that would have held the retractable keel when it was not in use beneath the hull of the ship. The students noted the importance of what they had learned, especially the zero-visibility training, given that the visibility at the seafloor thirty feet deep was about six feet on the clearest day and zero on the worst.

While half of the students went to dive offshore, the other half went to the Old Saint Augustine Lighthouse/ Watchtower site on the beach not far from the current St. Augustine Lighthouse. The old lighthouse was constructed of coquina blocks (limestone formed from broken shell) in 1731 that replaced a wooden tower constructed in 1589 which was used as a watchtower by the Spanish colony that was once there. Eventually, the sea level crept-up collapsing the tower into the surf and the site was abandoned by the 1850's. At the time of the field school, only some coquina blocks from the original foundation remained and are currently covered by an oyster bed. The students worked to remove the oyster shells and map the blocks in situ. Six baselines were used to hydroprobe offsets in a grid across the site, each hit indicating the location of a buried coquina block that was once the foundation of the lighthouse. This information was then taken and interpreted on a mylar sitemap to articulate the extent of the site.

Alyssa and Winston had a wonderful time working with LAMP and would encourage any student who wants to get hands-on experience to work with them in the future. They would like to thank all the LAMP team members, particularly Chuck Meide, Airielle Cathers, and Christopher McCarron for making the summer a wonderful learning experience. 🤡

– Alyssa Saldivar and Winston Sandahl

Portside- Summer on Mackinac Island: A Desirable Station Indeed

Mackinac Island, MI (pronounced "Mak-in-aw") is an 18 square mile island located between the Upper and Lower Peninsula of Michigan and sits near the edge of Lake Huron. This island was originally an Ottawa settlement and was important during the fur trade until it was given from the French to the British and later from the British to the Americans. A fort was established, Fort Mackinac, and was under siege during the war of 1812 when the British travelled over the lake to what is now called British Landing and surprised the Americans. Today the island is a popular getaway for tourists and locals alike as a state historic park with beautiful geological features, such as Arch Rock, and plenty of museums depicting the island's history, such as Biddle House and the art museum.

Over the summer, Maritime Studies student Kendra Ellis had the opportunity to intern for the Mackinac State Historic Parks' Registrar under ECU alumnus Brian Jaeschke (MA 2003). From mid-May until early August, most of her time was spent creating an inventory of collections items featured in Fort Mackinac exhibits and in its special collections storage. The items featured at the fort consist mostly of period-representative pieces that were donated over time by local residents as well as a few pieces from the three archaeological excavations that have been completed there. The objects



View from Fort Mackinac looking out over the town; (Photography by Kendra Ellis).

in special collections consist of dinnerware from The Grand Hotel and the governor's mansion, books featuring the island, artwork from Artist-in-Residence Program workshops, maps, blueprints, advertising materials from the two films made there *This Time for Keeps* (1947) and *Somewhere in Time* (1980), buttons from British and American military uniforms, textiles, and a large collection of glass plate negatives from photographer William H. Gardiner, in addition to various other items depicting important features in the landscape.

In June, the state park opened a newly renovated exhibit in the American Fur Trade Company Store and Beaumont Museum. Kendra assisted in placing new artifacts that were chosen to be displayed in celebration of the 200th anniversary of an incident when Dr. William Beaumont was able to save Alexis St. Martin from a gunshot wound. This wound would lead to Dr. Beaumont performing experiments which would greatly contribute to the medical field's understanding of the human body's digestive system, leaving a lasting legacy in connection to Mackinac Island.

Near the end of her internship, Kendra began to assist accessioning new objects acquired by the state park. Some of these items included stereoviews of Fort Mackinac and Arch Rock, old postcards, a new tea set for the Biddle House, and archival



Kendra Ellis (right) taking inventory and cleaning with other interns inside a display at the post exchange of the fort; (Photograph by Brian Jaeschke).

records. She also assisted in creating a list of objects to be deaccessioned that were to go before a committee after her internship ended. These deaccessioned objects came from an old schoolhouse exhibit that was recently redone in the fort and included books, chalkboards, school desks, and other items that would normally be found in a school during the 1890s.

While not working, exploring the island was one of Kendra's favorite past times as there was much to see. No cars are allowed on the island, so walking, biking, or taking a horse-drawn buggy were the only means of transportation. From famous rock formations like Arch Rock and Sugarloaf Rock, to amazing architectural feats such as Fort Mackinac and the Grand Hotel, there was an abundance of events and places to see. Some of her favorite moments include sitting on the porch of Mission House, her home for the summer, with friends made along the way and watching as freighters passed by.

The time spent on Mackinac Island was an incredible experience in learning how some living history museums entertain audiences and how collections are cataloged, archived, and stored. Kendra is extremely grateful to have been given this opportunity to work with the Mackinac State Historic Park and with ECU alum Brian Jaeschke. She will never forget the people she met or the experiences she had and hopes to be able to return either to visit or work with everyone again.

– Kendra Ellis

Fall Field School -

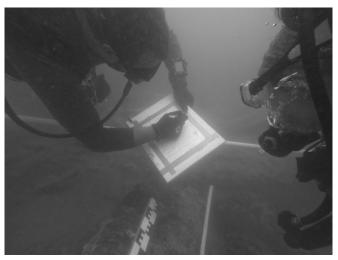
This past October saw the ECU Program in Maritime Studies descend upon the island nation of Antigua and Barbuda for its first international field school since 2019. Led by Principal Investigator (PI) Dr. Lynn Harris, Co-PI Dr. Jennifer McKinnon, Staff Archaeologist Jeremy Borrelli, and Dive Safety Officer Ryan Bradley, the second-year students partnered with Dr. Chris Waters, Director of Heritage Resources for the National Parks Authority and a team of French researchers led by Dr. Jean-Sébastien Guibert of the University of the French West Indies (Université des Antilles), Guadeloupe for the long-anticipated project. From the 15th to the 31st, the international cadre worked in the Antigua Naval Dockyard, a UNESCO World Heritage site also known as Nelson's Dockyard, in English Harbour to excavate two units and one trench on the suspected wreckage of *Lyon*. A French 900-ton Ship of the Line, the vessel was first a French East Indiaman trader under the name Beaumont. Once decommissioned, it was purchased to act as a private blockade runner during the American Revolution before being taken as a prize by the British and towed into the harbor for salvage and spare parts. Eventually having served its purpose, it was then burned to the waterline and forgotten over-time, that is at least until its rediscovery in 2013. A subsequent remote sensing survey was then done by the French team in 2021 which precipitated this project aiming to determine the vessel's orientation, document its construction, and search for any material culture which might confirm its identity.

From the outset the entire affair seemed to carry a most sanguine momentum in the land where "the rum is cheaper than mixers," friends come easily, and the homemade hot sauce is second to none. Some lucky team members who arrived early even managed to secure invitations to a party aboard *Mary Rose*, a vintage wooden schooner (then called *Gallant*) once owned by Hugh Hefner of Playboy fame with an archival-quality copy of the July 1957 issue on board to prove it. As the American cohort awaited the arrival of the remainder of the French team, they spent the first several days of the project mapping a large underwater section of the historic harbor seawall near the careening block and recording various anchors, cannon,



Fall field school students, faculty, and staff; (Photograph by ECU Program in Maritime Studies).

Nelson's Dockyard, English Harbour, Antigua and Barbuda



Students D.J. Schaefer (left) and Olivia Livingston (right) map the structure of *Lyon* in unit 1; (Photograph by Jeremy Borrelli).

and other features on land, noting any damage needing to be addressed by restoration.

For the remainder of the project, the ECU team split in half, taking two-day turns documenting the structures and features around English Harbour (both by snorkel and on land) while the dive team assisted the French in excavating the wreck site. Ultimately, records for over forty cannon and anchors as well as six historic fortified areas (Forts Charlotte, Berkeley, and James, the West India Regiment Ruins, the Block House Ruins, and Keane's Battery) were updated using photogrammetry, smartphone-operated lidar scans, and traditional measurements recorded on proforma. This was not only the first ever hightech documentation of these features, but the data will also serve as a vital tool for the National Parks Authority in their future restoration efforts. Numerous successful connections were also made including with the archives at the Museum of Antigua and Barbuda, several media outlets, and even Governor General, His Excellency Sir Rodney Williams. A successful UNESCO University Twinning and Networking (UNITWIN) Programme workshop was also taught to some of the local dive partners and community stakeholders. As for the *Lyon*, its orientation was correctly determined (its bow facing inland), the excavated structure was successfully mapped and modeled using photogrammetry, and the material culture recovered included a host of diagnostic artifacts such as wine bottle finishes, decorative pipe bowls, ceramics, and other items definitively linking the wreckage to French and English use in the late 18th century.

Though highly successful, like many projects this one was not without its moments of danger and adventure. Some of the obstacles encountered and overcome throughout the two-week excursion include (in no particular order): heat exhaustion, a broken toe, exploded medical equipment, a puncture wound to the eye, sinus barotrauma, the dive boat taking on water (twice), vast clouds of moon jellyfish, undetectable fire coral particles, and a leg plunged through the dive barge. All this

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Maritime Studies Association

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barbeque, rum, and shipwreck history. The partnership began earlier in the year as a casual conversation between some of the new officers and the owners of the distillery, themselves history enthusiasts. This soon blossomed into an active partnership and MSA was selected to choose the next vessel for the Kill Devil Rum "Shipwreck Series", a unique blend named each year after a different shipwreck on the Outer Banks. The wreck chosen was *Black Squall*, a vessel lost in 1861 off Ocracoke Island in a storm while carrying sugar and Nixon's Royal Circus from Cuba; a captivating story too rich to relate here! It was an honor to be part of the event, where members hosted a table, sold merchandise, solicited donations, and discussed students' research with the public, including some future applicants to the program. Everyone involved greatly enjoyed themselves and look forward to carrying this collaboration into the future.

With much more to come even as the year draws to a close, MSA hopes to keep being active within the maritime community by continuing various forms of public outreach, providing students funding for conferences, welcoming guest speakers for the monthly brown bag lecture series, and hosting parties each semester. Keep in touch on the social media platforms below for ongoing updates like those you can see in the new "Spotlight Sunday" posts highlighting members and their incredible research. All officers and members extend their deepest appreciation and thanks for the amazing support that the program and all the donors to MSA have provided. It is because of this generosity that students can continue to have amazing opportunities like these each year.

– Olivia Livingston and Ian Dunshee

MSA Officers 2022-2023

President - Ian Dunshee
Vice President - Raymond Phipps
Treasurer - Madison Elsner
Speaker Series Coordinator - Dayan Weller
Historian - Olivia Livingston
Secretary - Dominic Fargnoli

MSA Social Media Platforms:

Instagram - ecumaritimestudies_msa
Facebook - Maritime Studies Association
WordPress - maritimestudiesassociation.wordpress.com

If you would like to support MSA and help students attend conferences, fund educational field trips, and more, please send donations in one of the following ways:

On PayPal, searchable by:
ecumaritimestudiesassociation@gmail.com

Or

Make a check payable to:
Maritime Studies Association, mailed to:
Program in Maritime Studies, East Carolina University,
302 East 9th Street, Greenville, NC 27858

Nelson's Dockyard

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and more on top of the usual loss and malfunction of tools and equipment common to any field excursion. Without any clear instances of negligence to blame and perhaps driven on by a yearning for the Halloween spirit on the otherwise tropical project, some team members jokingly pointed out the possibility of a careless utterance of the word "rabbit" on board or the clear eschewing of the "no bananas" rule; two historic maritime taboos, the first French and the second English, which had been broken during the project's duration. Nevertheless, everyone readily persevered and managed to have plenty of enjoyable moments along the way.



Students (left to right) Raymond Phipps, Dayan Weller, Madie Elsner, Olivia Livingston, and Nicholas Baker prepare to position the vertical offset along the English Harbour historic seawall; (Photograph by ECU Program in Maritime Studies).

Even with time-off being generally limited, both the French and American teams found a few moments to relax at Pigeon Point Beach or see live music at the historic Shirley Heights lookout. One lucky terrestrial team even got to enjoy a "death march" one workday, hiking to visit such hadean locales as Mermaid Gardens, The Pillars of Hercules, the Officers' Quarters at the Blockhouse, and more. The project wrapped-up with a short survey for additional sites in the



Student Dayan Weller washes dredge spoil aboard the dive barge; (Photograph by ECU Program in Maritime Studies).

harbor before the team flew home to continue processing data and write their report. With a lot more to do in the park alone, the ECU Program in Maritime Studies looks forward to a continuing partnership with its new friends and colleagues in Antigua for many more field schools to come.

– Ian Dunshee

Thoy Mates! Welcome to ECU Program in Maritime Studies

Geoffrey Anthony is the son of a career Air Force officer born abroad in the Philippines and growing up across the United States before settling in Texas for college. He was a 1991 graduate of Texas A&M University with a BS in Political Science. He immediately joined the Marine Corps serving for 28 years, commanding an air support squadron, and retiring as a colonel in 2020. During this time, he also earned three master's degrees in International Relations and other national security-related fields, was a Center for Strategic and International Studies Fellow, and served four combat tours in the Middle East during the Global War on Terror. Post-retirement he has shifted focus to pursuing his lifelong interest in maritime archaeology and military history. An avid diver, first certified in 1984, he looks forward to combining his love of the ocean and diving with his love of military history as he gets his second wind.

Thomas Fosdick received his BA in American Studies and Political Science from Christopher Newport University (Newport News, VA) in 2021. He spent the following year as an Archival Intern at The Mariners' Museum and Park where he primarily worked with Dr. Jay Moore on cataloging expedition reports and material related to the discovery and recovery of USS Monitor as well as items pertaining to the development of steam passenger lines in the early 20th century. Additionally, he worked at St. Luke's Historic Church and Museum as an Educator and Digital Assistant where he taught and wrote about the early American religious experience in the context of the British colonies. His interest in 19th century maritime technology and how the cultural and environmental context affected its development led Thomas to pursue a Maritime Studies degree at ECU to take advantage of its comprehensive approach to archaeology.



First-year maritime students gather outside of Admiral Ernest McNeil Eller House. From left to right, back row: Geoffrey Anthony, Konstantinos Raptis, Alex Morrow, and Chris Triplett; Front row: Brett Hood, Alex Owens, Thomas Fosdick, and Aero O'Hanlon; (Photograph by Jeremy Borrelli).

Brett Hood is from Kinston, NC. He is a first-year Graduate Assistant in the Program in Maritime Studies. He graduated summa cum laude from ECU with a degree in Anthropology, a minor in History and a certificate in Cultural Resource Management. He participated in a field school that focused on the discovery and preservation of an African American cemetery in Ayden, NC with a focus on community involvement. Brett's interest in maritime archaeology was sparked by a guest appearance in his Archaeology Around the World class by Dr. David Stewart of the Program in Maritime Studies. Brett is also a National Association of Underwater Instructors (NAUI) certified Dive Master and Scuba Diving International (SDI) Ice Diver. Brett is combining his love of the ocean and passion for archaeology to focus his thesis on underwater monuments and memorials.

Alex Morrow is a first-year graduate student in the Program in Maritime Studies from Doylestown, PA. He graduated from Villanova University in December 2019 with a BA in History and minors in Political Science and Statistics. Alex then worked as a Logistician for the US Navy where he wrote technical manuals. As rewarding as that was, he

wanted to find a career that was more history-oriented. He had always had a passion for history, especially WWII, and he wanted to find a way to help repatriate American military personnel Missing In Action (MIA). He used connections to the Travis Manion Foundation, a nonprofit supporting veterans founded in Doylestown, to meet with Project Recover, a non-profit which works to find the remains of MIA personnel. From this, he learned about maritime archaeologists and the ECU Program in Maritime Studies. He hopes to take the skills he learns at ECU and use them to support the missions of the Defense POW/MIA Accounting Agency (DPAA) and Project Recover.

Aero O'Hanlon graduated from
Virginia Polytechnic Institute and State
University (Virginia Tech) in 2022, earning
a BS double-majoring in Sociology and
Criminology with a minor in Peace Studies
and Social Justice. At Tech, Aero pursued
eclectic interests including undergraduate
research in volcanology with the Virginia
Tech Geodesy and Tectonophysics
Laboratory and traveling the US playing
saxophone in the Hokies Pep Band and
the Marching Virginians. Aero first took
an interest in maritime studies in their
youth when their scout troop toured and
spent a night in hammocks aboard USS

Constellation in Baltimore, MD. Now, as a first-year Maritime Studies student and Graduate Research Assistant, Aero is interested in Western colonialism. memorial and heritage projects, and ancient Mesopotamia. They hope to incorporate Intersectionality and other sociological perspectives into their research. Aero enjoys dancing, music, rock climbing, and diving.

Alex Owens is Assistant Editor of Stem to Stern. He graduated from the University of Georgia with a BA in Anthropology and certificates in Historic Preservation and Geographic Information Science (GIS). Alex's interest in maritime archaeology began in high school where he volunteered at the National Civil War Naval Museum. In 2020, Alex had a dual internship with the Naval History and Heritage Command (NHHC) and the American Anthropological Association (AAA) researching WWII aircraft carrier qualifications as well as previous archaeological studies and historic salvage efforts pertaining to the Battle of Valcour Bay. In 2021, he interned with the Athens-Clarke County's Inclusion Office creating public engagement tools like the Photovoice Project which combined community input stories and pictures within a GIS platform. He hopes

to become a maritime archaeologist who combines public archaeology with technical skills like 3D modeling and GIS. When he is not in class, Alex enjoys bowyery, modeling miniature ships, and amateur wood carving.

Konstantinos Raptis is a first-year international graduate student, Research Assistant, and Fulbright grantee. Originally from Greece, he graduated with a BA in Archaeology from the National University of Athens. Throughout his undergraduate career, he completed two internships both in Greece and in the UK related to maritime archaeology and worked as a cultural resource management (CRM) field archaeologist in Piraeus. He also studied a year abroad at Durham University in the UK as an exchange student. Moreover, he has been a member of various projects on land and underwater such as underwater excavations in Fournoi archipelagos and Aegina harbor as well as surveys in Fournoi, Delos, Levitha, and Crete. He is not only interested in the Mediterranean but also in remote sensing techniques. Finally, he is an Advanced Nitrox Diver certified by Confédération Mondiale des Activités Subaquatiques (CMAS) and speaker of Greek, English, and Italian, also having a classical background and knowledge of ancient Greek and Latin.

Chris Triplett is a seasoned interdisciplinary archaeologist attending ECU's Program in Maritime Studies to further his education, get his sea legs, and become a skilled maritime archaeologist. Chris earned his AS in Social Sciences from Tidewater Community College in 2018 and his BS in Anthropological Sciences and Geospatial Science from Radford University in 2020. After graduating from Radford University, Chris immediately began work as a Field Archaeologist and Geophysical Archaeologist for various cultural resource management firms. He has worked on a variety of high-profile archaeological projects throughout the US including but not limited to: rediscovering Harriet Tubman's childhood home in Dorchester County, MD; locating the unmarked graves of enslaved African Americans at the historic McLeod Plantation in Charleston, SC; and excavating a Late-Archaic, Early-Woodland Native American occupation site in Raleigh, NC. Upon completing the Program in Maritime Studies at ECU, Chris currently plans to re-enter the field of cultural resource management and potentially pursue a PhD after gaining even more maritime archaeological experience. 🕹

ECU Maritimers Receive Internships

Stem to Stern is pleased to announce news of the following internships:

Lydia Downs

Reimagining New England History Intern, Mystic Seaport Museum

Kendra Ellis

Collections Assistant Intern, Mackinac Historic Parks' Heritage Center on Mackinac Island

Caleb O'Brien

Intern, National Oceanic and Atmospheric Administration (NOAA) Thunder Bay National Marine Sanctuary

Matthew Pawelski

Intern, Wisconsin Maritime Museum

Jillian Schuler

Intern, Smithsonian National Museum of American History

Alyssa Saldivar

Intern, Lighthouse Maritime Archaeological Program (LAMP)

Winston Sandahl

Intern, Lighthouse Maritime Archaeological Program (LAMP)

Lindsay Wentzel

Intern, Office of Curatorial Affairs (Division of Work and Industry) at Smithsonian National Museum of American History

Where are our Maritimers now? 2022



Jack Augustus Adamson (2020) - Maritime Archaeologist, US Army Corps of Engineers, Fort Worth District, TX

Hoyt L. Alexander (2018) - Tech Support Technician, Department of Geography, East Carolina University, Greenville, NC

James Allan (1987) PhD – Executive Director, Institute for Western Maritime Archaeology, Orinda, CA, Senior Archaeologist at SNA International, Hawaii

Evguenia Anichtchenko (2004) – Historian, Alaska Office of History and Archaeology, Anchorage, AK. Executive Director Sitka Maritime Heritage Society Inc., Sitka, Alaska

Ray Ashley (1996) PhD - President and CEO, San Diego Maritime Museum and Professor of Public History, University of California at San Diego, CA

Melissa Ashmore (2012) – Inventory Specialist, Cabela's; Volunteer Specialist, Antelope Island State Park, Syracuse, UT

Paul Avery (1998) - Residing in San Antonio,

Monica Ayhens-Madon (2009) - Ubuntu Community Representative at Canonical, Marietta, GA



Tyler Woodson Ball

(2019) - Staff Archaeologist, Fairfax County, Virginia

Miguel Barbery (2020) – Foreign Service Officer, U.S. Department of State, Managua, Nicaragua/Public Outreach & Education Documentary Filmmaker

David Baumer (1991) - Residing in Virginia Beach, VA

Dina Bazzill (2007) – Vice President of Cultural Resources and Tribal Coordinator, Environmental Corporation of America, Alpharetta, GA

David Beard (1989) - Semi-Retired Antique and Vintage Arms Dealer, Clinton, AR

Nadine (Kopp) Beaudoin (2012) – Matrix Heritage, Partner and Senior Archaeologist, Ottawa,

Sam Belcher (2002) - Medical Technologist, Saint Claire Regional Hospital, Morehead, KY

Daniel J. Bera (2015) - Museum Specialist, Naval History and Heritage Command, Richmond,

Emily Powell Bera (2017) – Senior Curator and Project Manager, Naval History and Heritage Command, Richmond, VA

Samantha Bernard (2020) – Historic Preservation Specialist, FEMA Headquarters,

Chesapeake, VA

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 - Preceptor, Harvard Writing Program, Cambridge, MA

Saxon Bisbee (2012) - Collections Care Project Manager, Northwest Railway Museum, Snoqualmire,

Samuel Blake (2006) – Archaeologist, Southeastern Archaeological Research, Inc., Jacksonville, NC

Jeremy R. Borrelli (2015) - Staff Archaeologist, Program in Maritime Studies, East Carolina University, Greenville, NC

Charles S. Bowdoin (2016) – Manager, Department of Sanitation, Derry, ME

Jeffrey Bowdoin (2012) – Curator Branch Head, Naval History and Heritage Command, Washington, DC

Patrick Boyle (2022) - PhD student, Nautical Archaeology Program, Texas A&M University, College Station, TX

Ryan J. Bradley (2015) – Diving Safety Officer, Diving and Water Safety, East Carolina University, Greenville, NC

Matthew Brenckle (2004) - Matt Brenckle Hats, Hand-crafted hats from the 17th-19th

John Bright (2012) – Research Coordinator and Unit Diving Supervisor, NOAA Thunder Bay National Marine Sanctuary, Alpena, MI

Baylus C. Brooks (2016) - Poseidon Historical Publications, O'Brien, FL

Dan Brown (2013) – Analyst, Oceaneering International, Inc., Hanover, MD

Dorothy (Sprague) Brown (2018) - Program Presenter at Carnegie Science Center, USS Requin (SS-481), Pittsburgh, PA

Robert Browning (1980) PhD – Retired Historian, United States Coast Guard, Washington,

Katrina Bunyard (2019) - Historical Archaeologist, SNA International, Honolulu, HI

Darryl Byrd (1998) - Residing in Linthicum Heights, MD



Amber Cabading (2022) - Project Underwater

Archaeologist, Maritime Research Division, South Carolina Institute for Archaeology and Anthropology, University of South Carolina, Columbia, SC

Tyler Martin Caldwell (2019) - Hydrographic Technician, Cardinal Point Captains, Inc., Greenville, NC

Peter Campbell (2009) PhD -

Lecturer, Cranfield University, United Kingdom

Frank Cantelas (1995) – Maritime

Archaeologist and Chief, Science and Technology Division, NOAA Office of Ocean Exploration and Research, Silver Spring, MD

Jodi Carpenter (2007) – FEMA, Annapolis,

Elise Carroll (2018) – Conservator, Queen Anne's Revenge Conservation Lab, Greenville, NC

Chris Cartellone (2003) PhD - Maritime Data Analyst, SEARCH, Inc., Monrovia, MD

Tane Casserley (2005) – Resource Protection and Permit Coordinator, NOAA's Monitor National Marine Sanctuary, Newport News, VA

Joe Cato (2003) – Residing in Raleigh, NC

Lauren Christian (2017) – Archaeologist, WSP USA, Columbia, SC

Robert Church (2001) – Senior Marine Archaeologist, Oceaneering International Inc., Lafayette, LA

Brian T. Clayton (2005) -

Katherine L. Clevenger (2017)

- Archaeologist, Sequoia and Kings Canyon National Parks, Three Rivers, CA

Kaitlin Clothier (2016) - Online English Teacher at VIPKid, North Bethesda, MD

Wendy Coble (1998) – Agency Disinterment Manager, Plans and Policy Division, Defense POW MIA Accounting Agency, Arlington, VA

Patrick Cole (1993) – Writer, Barcelona, Spain

Edwin Combs (1996) PhD - Assistant Professor, Miles College, Birmingham, AL

Michael Coogan (1996) – Manager, Strategic Communications, Leidos, Fairfax, VA

Amy (Mitchell) Cook (1994) PhD -

Interim Dean, College of Arts, Social Sciences and Humanities, University of West Florida, Pensacola,

Joel Cook (2021) – DPAA Research Partner Fellow, East Carolina University, Greenville, NC

David Cooper (1998) - Branch Chief, Cultural Resources, Apostle Island National Lakeshore, Bayfield, WI

Diane Cooper (1995) – Museum Technician, San Francisco Maritime National Historical Park and Curator, USS Pampanito, San Francisco, CA

Kathryn L. Cooper (2014) – Residing in Lincoln, CA

Annalies Corbin (1995) PhD – President & CEO, PAST Foundation, Columbus, OH

Lee Cox (1985) – Director, Dolan Research, Inc., Newtown Square, PA

Sean Cox (2019) - Farmer

Stephanie Croatt (2013) – Superintendent, Seminole Canyon State Park and Historic Site, Comstock, TX



Michelle Damian (2010) PhD – Assistant Professor, Department of History, University of Wisconsin-Whitewater, Whitewater, WI

Claire Dappert (2005) PhD – Historic Research Archaeologist, Illinois State Archaeological Survey, Prairie Research Institute, University of Illinois, Urbana-Champaign, IL

Kara Davis (2015) – Marine Program Specialist, SeaPerch Program., University of Southern Mississippi's Gulf Coast Research Lab Marine Education Center, Ocean Springs, MS

James P. Delgado (1986) PhD – Senior Vice President, SEARCH, Inc., Jacksonville, FL

Alena Derby (2002) – Pilates Instructor and Personal Trainer, Body Mind Movement, Nyack NY

Robert Dickens (1998) – Doctor of Veterinary Medicine, USDA, Cary, NC

Stephen Dilk (2012) – Contract Archaeologist, Colorado and Wyoming

Anna D'Jernes (2020) – Project Archaeologist, Commonwealth Heritage Group, Tarboro, NC

Jeff DiPrizito (2001) – High School teacher, Hudson, NH

Brian Diveley (2008) – Senior Archaeologist, CH2M HILL, Seattle, WA

Tricia Dodds (2009) – Senior Environmental Specialist, Cultural Resources, Southern California Gas Company, Los Angeles, CA

Andrianna Dowell (2019) - Communications Manager, National Ocean Protection Coalition

Lydia Downs (2022) – Collections Assistant and Deaccession Specialist, Mystic Seaport Museum, Mystic, CT

Stan Duncan (1994) – Regional Sales Consultant, NUS Consulting Group, Inc., Oak Ridge, TN

Kelsey Dwyer (2020) – Admin Support Specialist, Interdisciplinary Program in Biology, Biomedicine and Chemistry and the National Science Foundation Research Traineeship Program administered through the Water Resources Center, East Carolina University, Greenville, NC



Jeremy Eamick (2015) – Retired, Raleigh, NC **Bethany Earley (2020)** -

Justin R. Edwards (2015) – History Teacher, Riverside High School; Adjunct Instructor, Martin Community College, Williamston, NC

Rita Folse Elliott (1988) – Education Coordinator & Research Associate, The LAMAR Institute, Sayannah, GA

Scott Emory (2000) – Senior Project Archaeologist Trileaf Corporation, Whitehall, MD

Jeff Enright (1999) – Senior Project Manager, Offshore Wind Sector Leader, SEARCH, Pensacola, FL

Edward Erhart (2019) – Content Strategist, Wikimedia Foundation, Milwaukee, WI



Sabrina S. Faber (1996) – Director of AMIDEast, Principal Consultant of planetécole, Washington, DC

Kim (Eslinger) Faulk (2005) – Business Development Manager/Project Manager, Geoscience, Earth, and Marine Services, Houston, TX

David Fictum (2015) -

Hannah (Piner) Fleming (2017) -

Innovation Specialist, Partnerships and Innovations Directorate, Defense POW/MIA Accounting Agency (Contractor), Williamsburg, VA

Patrick Fleming (1998) – Raleigh, NC Richard Fontanez, MD (2001) – Medical Director, Healogics, Inc., Ocala, FL

Paul Fontenoy (1995) PhD – Editor, Nautical Research Journal; Administrator, Council of American Maritime Museums; Retired Curator, North Carolina Maritime Museums System, residing in Albuquerque, NM

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

Kevin Foster (1991) – Retired, Washington, DC

Chelsea R. Freeland (2014) – Foreign Affairs Officer, Cultural Heritage Center, U.S. Department of State, Asheville, NC

Mitchell Freitas (2017) – Petty Officer Second Class, United States Navy

Kristina J. Fricker (2019) – Historic Preservation Specialist, FEMA, U.S. Virgin Islands

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

Adam Friedman (2008) PhD – Director of Research and Development, Atom Bioworks, Inc., Cary, NC

Don Froning (2007) – Archaeologist, Scientific Consultant Services, Inc., Honolulu, HI; Lecturer, Windward Community College, Kaneohe, HI

Olivia (Thomas) Fuller (2017) – PhD student, Texas A&M University, College Station, TX



Stephanie Gandulla (2014) – Research Protection Coordinator, Maritime Archaeologist, Thunder Bay National Marine Sanctuary, Alpena, MI

Veronica Garrett (2008) – Veronica Garrett Bookkeeping, Bath, ME

Paul Willard Gates (2019) – Project Manager (contract), Lake Champlain Maritime Museum, Vergennes, VT

Kate Goodall (2003) – Co-Founder and CEO of Halcyon; Co-Managing Director, Halcyon Fund, 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) -

Cathy (Fach) Green (2003) – Executive Director, Wisconsin Maritime Museum, Manitowoc, WI

Russ Green (2002) – Superintendent, NOAA's Wisconsin Shipwreck Coast National Marine Sanctuary, Sheboygan WI

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



Stephen Hammack (2007) – DPhil candidate, Institute of Archaeology/ St. Cross College, University of Oxford, UK

Phil Hartmeyer (2014) – Marine Archaeologist at NOAA Ocean Exploration, Silver Spring, MD

Lynn B. Harris (1988) PhD – Professor, East Carolina University, Greenville, NC

Margaret Harris (2004) – Southern California

Ryan Harris (2006) – Underwater Archaeologist III, Parks Canada, Ottawa, Ontario, Canada

Ian P. Harrison (2019) – PhD student, Public History, North Carolina State University, Raleigh, NC

Heather Hatch (2006) PhD – Collections Manager, Museum of Ontario Archaeology, London, Ontario, Canada

Chelsea Hauck (2016) – Yoga instructor, Bluebird Yoga, Mystic, CT

Jeanette (Moore) Hayman (2011) – Property and Evidence Custodian, Washington State Patrol, Seattle, WA

lan Hazel (2016) - Pittsburg, PA

Patrick F. Herman (2017) – Investigation Specialist, Amazon, Seattle, WA

Jacquelyn Hewett (2022) - Assistant Project

Manager, S. D. Jessup Construction, Inc, Mount Airy, NC

Theresa Hicks (2012) – Operations Manager, Inland Seas Institute, Juneau, AK

Robert Holcombe (1993) – Retired, Naval Historian and Curator, Port Columbus Civil War Naval Center, Columbus, GA

Thomas W. Horn (2014) – Dive Specialist, Florida International University's Aquarius Reef Base, Miami, FL

Trevor Harrison Hough (2018)

- Archaeologist, SWCA Environmental Consultants

Bernard James Howard (2016) – Assistant Director, Heritage and Environmental Resources Office for the Seminole Tribe of Florida, Clewiston, FL

Joshua Howard (2004) – Independent Researcher, Portland, OR

Robin (Croskery) Howard (2016) – Senior Objects Conservator, Ah-Tah-Thi-Ki Museum, Clewiston, FL

Nathaniel Howe (2011) – Chief Archaeologist, Cutwater Archaeology, Seattle, WA

Joseph Hoyt (2008) – Chief Historian and National Coordinator, Office of National Marine Sanctuaries, National Maritime Heritage Program, Washington, DC

Michael D. Hughes (2003) – Senior Cybersecurity Manager, SAIC, Washington, DC

George Martin Huss II (2019) –Associate Archaeologist, Paleo West, Richmond, VA



Claude V. Jackson (1991) – Museum Curator, St. Louis, MO

Trip Jakeman (2020) – Officer Candidate for Naval Aviation, U.S. Navy, Seneca, SC

Tiffany (Pecoraro) James (2007) – Vice President of Project Development and Government Relations, Magnum Energy, Salt Lake City, UT

Brian Jaeschke (2003) – Curator of Collections, Mackinac Island State Park Commission, Mackinac Island, MI

John O. Jensen (1992) PhD – Associate Professor, Department of History, University of West Florida, Pensacola, FL

Doug Jones (2007) – Marine Archaeologist, Bureau of Ocean Energy Management (BOEM), New Orleans, LA

Jennifer Jones (2012) PhD – Fulbright US Scholar, Geological Survey of Ireland, Dublin and National University of Ireland, Galway

Rick Jones (1996) – Building Contractor, Morehead City, NC



John Kennington (1995) – Communications

Officer, Campus Services, Georgia Institute of Technology, Atlanta, GA

Sara C. Kerfoot (2015) – Zone Archaeologist, Ottawa National Forest, Watersmeet MI; Wildland Fire Resource Advisor

Nathaniel Robert King (2018)

 Archaeologist, Department of Agriculture-Natural Resources Conservation Service (NRCS), Bangor, ME

James Michael Kinsella IV (2018) - Project Manager; VILT Development & Delivery Manager, Belgrade, MO

Kurt Knoerl (1994) PhD – Assistant Professor, Department of History, Georgia Southern University, Armstrong Campus, Savannah, GA

Janie Rose Knutson (2018) – District Archaeologist, Black Hills National Forest, Mystic Ranger District, Rapid City, SD

Michael Krivor (1998) – Principal, RECON Offshore, Pensacola, FL

David Krop (2008) – Conservation Branch Head, Naval History and Heritage Command, Richmond, VA



Stephen Lacey (2019) – National Park Service Archeologist, Storm Recovery Team, Southeast Regional Office

Thomas Lacey (2020) -

Danielle LaFleur (2003) – Technical Careers Operations Coordinator, Lansing Community College, Lansing, MI

Marshall Lamm (2012) – Curator, North Carolina Baseball Museum, Wilson, NC

Kam Lawrence (2020) – Special Projects Coordinator, Wisconsin Maritime Museum, Manitowoc, WI

Matthew Lawrence (2003) – Maritime Archaeologist, Florida Keys National Marine Sanctuary, Key Largo, FL

Luke Lebras (2021) -

Adam Lehman (2006) – Associate Professor, Guilford Technical Community College, Climax, NC

Joseph Thaddeus Lengieza (2016) –

Director of Marine Operations, U.S. Brig NIAGARAFlagship Niagara League, Erie, PA

Amy Leuchtmann (2011) – PhD student, Oregon State University, Corvallis, OR and Maritime Archaeologist, HDR, Inc., Ann Arbor, MI

Matthew Lowe (2022) - Maritime Archaeologist, Commonwealth Heritage Group

Jason Lowris (2000) -

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



Morgan MacKenzie (2011) MSN, RN -

Outpatient Surgery Center, University of Virginia Health System, Charlottesville, VA

Jana (Otte) Madden (2014) – History Teacher, North Carolina Virtual Academy, Greenville, NC

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

Joshua Marano (2012) – Maritime Archaeologist, South Florida National Parks (Biscayne, Everglades, and Dry Tortugas National Parks); Adjunct Professor, University of Miami Rosenstiel School of Marine and Atmospheric Science, Homestead, FL

Eleftheria Mantzouka (2004) – Teacher, Montessori Community School, Durham, NC

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

Jacqueline Marcotte (2011) – Chiropractic Assistant, First Choice Medical Center, Longview, WA

Elizabeth (Pratt) Marlowe (2017)

– Management Consultant, NWS, NOAA, Silver Spring, MD

Amy K. Marshall (1996) – Lead Grants Management Officer/ISDEAA Program Lead, Bureau of Land Management Alaska State Office, Anchorage, AK

Timothy Marshall (1999) – Supervisory Archaeologist, North Zone, Tongass National Forest, Juneau, AK

Ryan Marr (2019) - Law student, Dickinson Law School, Penn State University, State College, PA

Deborah Marx (2002) – Maritime Archaeologist, Key Largo, FL

Zachary T. Mason (2014) – Support Scientist/ Lead Archivist, NOAA's Coral Reef Information System, University of Maryland, Earth Systems Science Interdisciplinary Center

Rod Mather, (1990) D.Phil – Professor of Maritime History and Underwater Archaeology, University of Rhode Island, Kingston, RI

Christopher McCabe (2007) – Coastal Archaeologist and Supervising GIS Specialist, Applied History Lab, University of Rhode Island, and Principal Investigator, Gray & Pape Inc, Kingston, RI

Dylan McCusker (2018) – Lead Archaeology Technician, Yosemite National Park, Yosemite, CA

Peter McCracken (1999) – Electronic Resources Librarian, Cornell University; Co-Founder and Publisher, ShipIndex.org, Ithaca, 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

Tyler McLellan (2020) – Nautical Archaeologist, DoC Mapping, New Orleans, LA

Salvatore Mercogliano (1997) PhD – Chair, Department of History, Criminal Justice and Political Science, Campbell University, Buies Creek, NC; Adjunct Professor, U.S. Merchant Marine Academy; Member of Editorial Board and Trustee of the National Maritime Society; Advisory Member, USS Monitor, NOAA National Marine Sanctuary; Vice President, North American Society for Oceanic

Patrick J. Merrigan (2018) - Historian at Naval History and Heritage Command, Washington, DC

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

Keith Meverden (2005) – Conservatio n Warden, Wisconsin Department of Natural Resources, North Freedom, WI

Martha Mihich (2018) – Residing in St. Louis, MO.

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

Valerie (Rissel) Mims (2012) – Marketing Coordinator, Craven Arts Council and Gallery, New Bern, NC

Robert Minford (2012) – Principal Associate of Risk Management at Capital One, Richmond, VA

Ryan W. Miranda (2020) – Maritime Archaeologist, Army Corps of Engineers, Galveston, TX

Calvin Mires (2005) PhD – Research Associate III, Woods Hole Oceanographic Institution; Faculty, Bridgewater State University, Bridgewater, MA

Ivor Mollema (2015) – Archaeologist, Underwater Archaeology Branch, Naval History and Heritage Command, Washington, DC

Kimberly E. Monk (2003) PhD – Adjunct Professor in Historical and Maritime Archaeology, Trent University, Peterborough, Ontario, Canada

David Moore (1989) -

James Moore (2003) PhD – Marine Archaeologist, Bureau of Ocean Energy Management (BOEM), Sterling, VA

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

Shawn Holland Moore (1998) – Director of Scholarships and Signature Programs, East Carolina Alumni Association, East Carolina University, Greenville, NC

Stuart Morgan (1985) – Public Information Director, South Carolina Association of Counties, Columbia, SC

Tyler Morra (2012) – Senior Operations Analyst at HomeStreet Bank, Seattle, WA

Jeff Morris (2000) – Director, Azulmar Research, LLC and Geomar Research, LLC, Port Republic, MD

John W. (Billy Ray) Morris (1991) – Former NC Deputy State Archaeologist Underwater and Director U/W Archaeology Branch, Kure Beach, NC



William Nassif (2020) – Underwater Archaeologist, South Carolina Institute of Archaeology and Anthropology, Columbia, SC

Nicholas J. Nelson-DeLong (2015) – Maritime Archaeologist, Clemson University Restoration Institute, Warren Lasch Conservation Center, North Charleston, SC

Sam Newell (1987) – Retired Pitt County Schools, Contract History Consultant, Greenville, NC

Kevin Nichols (2002) PhD – Foreign Intelligence Office, Department of Defense and Adjunct Professor, Department of History, Rochester University, Rochester Hills, MI



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

Jeffrey B. O'Neill (2016) – Lead Quality Assurance Analyst, 280first, Greenville, NC

Deirdre O'Regan (2001) – Editor, Sea History; Vice President National Maritime Historical Society, Pocasset, MA



Jason Paling (2003) PhD – Teaching Lecturer, Plymouth State University, Adjunct Professor, Rivier University and Nashua Community College, Director of the Hamontun Archaeological Project in Guatemala and Co-direct of the Ranch Ojo de Agua Underwater Project in Chiapas, Mexico and Chiquilistagua Archaeological Project in Nicaragua

Michele Panico (2018) – Residing in Greensboro, NC

Adam K. Parker (2015) – Senior Marine Project Archaeologist, AECOM, Glen Allen, VA

Sara Mackenzie Parkin (2019) – Principal Investigator, Edwards-Pitman Environmental, Inc., Atlanta, GA

Harry Pecorelli III (2003) – Principal, Aqua Contractors and Oceanographics, Inc., Charleston, SC

Martin Peebles (1996) – ER Nurse, St. Petersburg, FL

Whitney Petrey (2014) – Environmental Planner Archaeologist, Caltrans District 1, CA

Taylor Picard (2022) – Archaeologist, Cultural Resource Facility, Cal Poly Humboldt, Arcata, CA

Morgan Pierce (2016) – Ph.D. student (History), University of Pittsburg, PA.

Jacqueline Piero (2004) – Newark, DE

Andrew Pietruszka (2005) PhD – Underwater Archaeologist, Coastal Observing R&D Center, Scripps Institution of Oceanography, University of California San Diego, La Jolla, CA

Mike Plakos (2003) – Senior Technical Analyst, U.S. Navy, Washington, DC

Mateusz Polakowski (2016) – Senior Project Officer, MSDS Marine Ltd. and PhD student, University of Southampton, United Kingdom

Larkin Post

(2007) – Gartley & Dorsky Engineering & Surveying, Camden, ME

Sarah Milstead Post (2007) – Permitting Specialist Gartley & Dorsky Engineering & Surveying, Inc, Owls Head, ME

Darren Poupore (2004) – Director of Curatorial and Archives, Biltmore Estate, Asheville, NC

Sami (Seeb) Powers (2007) – Anthropologist Planner, Intermountain Region Planning, National Park Service, Lakewood, CO

Edward Prados (1993) – Executive Director, Fulbright Binational Commission in Jordan, Amman, Jordan

Franklin Price (2006) – Archaeologist III, Florida Bureau of Archaeological Research, Tallahassee, FL

Melissa R. Price (2015) – Archaeologist III, Diving Safety Officer, Florida Bureau of Archaeological Research, Tallahassee, FL; Affiliated Fellow, PhD Researcher, Leiden University, Netherlands

James R. Pruitt (2015) – Archaeologist, Naval Facilities Engineering Command, Marianas



Coral Rasmussen (1993) – Archaeologist, NAVFAC Pacific, Pearl Harbor, HI

John Ratcliffe (2012) – Underwater Archaeologist, Parks Canada, Ottawa, Canada

Eric Ray (2009) – Lead Interpretive Planner, Texas Parks and Wildlife, Austin, TX

Elise Twohy-Reagan (2020) – Chief of Education, The Charleston Museum, Charleston, SC

James R. Reedy, Jr. (1987) – Contract Archaeologist, Morehead City, NC

Phillip Reid (1998) PhD – Maritime Historian and Author, Wilmington, NC

Alyssa D. Reisner (2017) -

Darby Robbins (2022) -

William A. Robie, Jr. (1993) – Residing in Atlantic Beach, NC

Todd Robinson (1998) – International Baccalaureate Program History Instructor, James Island Charter High School, Charleston, SC Bradley Rodgers (1985) PhD - Retired, Emeritus Professor, Program in Maritime Studies, Department of History East Carolina University, Greenville, NC; Senior Scientist and President, Inlands Seas Institute

Jason Rogers (2004) PhD - Archaeologist, National Park Service, Anchorage, AK

Filippo Ronca (2006) – Senior Underwater Archaeologist, Parks Canada, Ottawa, Ontario,

Allyson Genevieve Ropp (2016) – PhD student, Integrated Coastal Studies Program, Department of Coastal Studies, East Carolina University, and Historic Preservation Archaeological Specialist, Office of State Archaeology, North Carolina Department of Natural and Cultural Resources, Greenville, NC

Aja Rose (2017) -

B. Scott Rose (2017) - Laboratories Mechanic II, Department of Geology, East Carolina University, Greenville, NC

Madeline J. Roth (2018) - Maritime Archaeologist, Maritime Heritage Program, NOAA Office of National Marine Sanctuaries, Silver Spring, MD

Lindsay (Smith) Rothrock (2010) - State Cultural Resource Coordinator, Florida Department of Transportation, Tallahasse, FL

Lauren A. Rotsted (2015) – Dive Immersion Program Coordinator and Researcher, Georgia Aquarium, Atlanta, GA

Matthew Russell (1995) PhD - Archaeology Program Manager at Environmental Science Associates, San Francisco, CA



Stephen Sanchagrin (2014) - Edge Engineer, Apple Corporation, Austin TX

William Sassorossi (2015) - Marine Archaeologist at Gray & Pape, Richmond, Virginia, United States

John Schaefer (1994) - Schoolteacher, Washington, NC; PhD student, UNC Chapel Hill

William J. Schilling IV (2017) – Disability Examiner, Social Security Administration, Madison,

James Schmidt (1991) - Nautical Archaeologist, Naval History and Heritage Command, Washington, DC

Robert Schneller (1986) PhD - Historian, Naval History and Heritage Command, Washington

Laura Kate Schnitzer (2012) – Archaeologist, New South Associates, Georgia Office

Emily Anne Schwalbe (2016) – PhD student, Anthropology Department, Northwestern University, Evanston, IL

Ralph Lee Scott (1979) - Professor, Curator of Printed Books and Maps, Joyner Library, East Carolina University, Greenville, NC

R. Laurel Seaborn (2014) - Founder, nonprofit organization SEAMAHP.org (Seafaring Education and Maritime Archaeological Heritage Program; Sailing Captain and Instructor, Florida Keys, FL

Benjamin Siegel (2011) - Diebold Fellow and R. Kirk Underhill Fellow, Department of Anthropology, University of California, Berkeley, Berkeley, CA

Allison Nicole Miller Simonds (2017)

- Historic Preservation Specialist, Federal Emergency Management Agency, Oakland, CA

Lucas S. Simonds (2014) – Project Director, International Archaeological Research Institute, Inc., Pittsburg, CA

Jessica Smeeks (2014) – Visiting Assistant Professor, SUNY New Paltz, NY

Joshua Smith (1997) PhD - Professor, Department of Humanities, U.S. Merchant Marine Academy, & Interim Director, American Merchant Marine Museum, Kings Point, NY

Timothy Smith (2020) - Staff Archaeologist and Lake Phelps Canoe Conservator, North Carolina Office of State Archaeology, Greenville, NC

Jon Travis Snyder (2006) - Middle School Level Lead and Math Instructor, Montessori School of Denver, Denver, CO; Instructor, Guitar Construction, Red Rocks Community College, Lakewood, CO

Stephanie Soder (2019) – Historic Preservation Planner, Hartford County Government,

Chris Southerly (2003) - Deputy State Archaeologist, Diving Safety Officer, NC Underwater Archaeology Branch, Kure Beach, NC

Kathy A.W. Southerly (2006) - Assistant Dive Safety Officer at North Carolina Aquarium at Fort Fisher, Wilmington, NC

Sara Spatafore (2017) – Adjunct Instructor of History, East Carolina University Department of History, Study Abroad Program, Certaldo, Italy

James Spirek (1993) – State Underwater Archaeologist, SC Institute of Archaeology & Anthropology, Columbia, SC

Joyce Steinmetz (2010) - Self-employed captain

Gregory O. Stratton (2015) - Underwater Archaeologist, Defense POW/MIA Accounting Agency (DPAA), JBPHH, Hawaii

Sophie Stuart (2018) – Youth Programs Coordinator, Chesapeake Bay Maritime Museum, St. Michaels, MD

Sydney Swierenga (2020) - Archaeology Technician, Wood, Inc. and SWCA, Okemos, MI



Aleck Tan (2020) - GIS Manager and Supervisory Archaeologist, Pacific Legacy, Arcata, CA

Bruce Terrell (1988) - Retired, Chief Historian and Maritime Archaeologist, NOAA National

Marine Sanctuaries Maritime Heritage Program;, Silver Spring, MD; Current President, of the Maritime Heritage Chapter of the Archaeological Society of Virginia, Richmond, VA

William H. Thiesen (1993) PhD - Atlantic Area Historian, United States Coast Guard, Portsmouth, VA

Matthew Thompson (2010) - Director and Maritime Archaeologist, Thompson Maritime Consulting, Lumberton, NC

Bradley D. Thorson (1982) -

Hans Van Tilburg (1995) PhD - Maritime Heritage Coordinator, NOAA Office of National Marine Sanctuaries, Pacific Islands Region, HI

Ray Tubby (2000) – Nautical Archaeologist, SEARCH, Inc., Pensacola, FL

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

Kenneth Tyndall (1988) – New Bern, NC



Sonia Valencia (2017) -

Joshua Vestal (2019) – Associate Personal Banker, Wells Fargo, New Bern, NC

Christopher Valvano (2007) - Archaeologist for the USDA Natural Resources Conservation Service, Lansing, MI



John Wagner (2010) - Fitness Supervisor, Montrose Recreation District, Montrose, CO

Daniel Warren (1998) - President and Principal Investigator, P&C Scientific, Landrum, SC

Sarah Waters (1999) - Program Coordinator, NOAA Great Lakes Bay Watershed Education Training Program, Alpena, MI

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

Jenna Watts (2000) – Veterinary Technician, Parkside Animal Health Center, Aurora, CO

Andrew Weir (2007) -

President, Commonwealth Heritage Group, Inc., Traverse City, MI

Wilson West (1985) PhD - Principal Consultant, WestHall Heritage Research and Consulting, Toronto, Ontario, Canada

Robert Westrick (2001) - Marine Archaeology Project Director/Cultural Resources Principal Investigator, J. M. Burguieres Company, Ltd., Lafayette, LA

David Whipple (1993) – Alexandria, VA Heather White (2004) - Assistant Director for

Assessment and Engagement, Joyner Library, East Carolina University, Greenville, NC

Scott Whitesides (2003) - Archaeologist/ Curator, Golden Spike National Historic Site, Brigham City, UT

Elizabeth Whitfield (2005) -

Owner, TriBella Multisport, Denver, CO

Kimberly Williams (2000) - Vice President of People, Walker Advertising,

Stephen Williams (2004) - Owner, PACC Consulting, LLC., Sanibel, FL

Adriane Askins Wise (2000) - Command Historian, US Army Medical Department Center and School, Health Readiness Center of Excellence (AMEDDC&S), Joint Base San Antonio - Fort Sam Houston, TX

Nicole Wittig (2013) – Cultural Resources Manager, F. E. Warren Air Force Base, Cheyenne,

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

Steve Workman (2002) PhD - Retired, Melbourne, FL

Annie E. Wright (2018) - Archaeologist, National Park Service Submerged Resources Center, Denver, CO

Jeneva Wright (2015) – Archaeologist for Climate Change, National Park Service, Fort Collins,

Elizabeth Wyllie (2012) – Sales Accountant, Ferguson Enterprises, Bellevue, WA



Wilson York (2007) - Teacher, The Paideia School, Atlanta, GA

Andrea Yoxsimer (2022) - Hydrographer (Survey Technician), NOAA, Newport, OR

Caitlin N. Zant (2015) - Maritime Archaeologist, Wisconsin Historical Society, Madison, WI

Trenton Zylstra (2021) - Archaeological Crew Chief, Commonwealth Heritage Group

Alumnus Dave Cooper Receives Distinguished Award

The editors of Stem to Stern and the entire ECU Program in Maritime Studies would like to extend their warmest commendation to alumnus Dave Cooper (MA 1998) for receiving the John L. Cotter Award for Excellence in NPS Archeology. Dave has spent a lifetime protecting and interpreting the cultural resources of Lake Superior. His numerous accomplishments also include founding the Wisconsin state underwater archaeology program and helping to establish the US Navy's first underwater archaeology program. We salute you for all you have done to safeguard countless historic and archaeological sites for future generations. Congratulations Dave! . 🦀



Dave Cooper on Lake Superior near Outer Island, Apostle Islands, WI; (Photograph by NPS).

– Ian Dunshee

Welcome Aboard- New Faces



Congratulations to Joel Cook! Joel joins us as the new 2022/2023 Defense POW/MIA Accounting Agency (DPAA) Fellow. He earned a BA in History from Fayetteville State University and an MA in Maritime Studies at ECU in 2020. After graduating, Joel worked as the Education Coordinator for Hidden Town at Old Salem Museum and Gardens, NC. There he created educational content and displays on African and African American history. Joel also has experience in historical research in topics from the American Revolution to World War II but focuses mainly on the period from Reconstruction to the Prohibition Era. We are so happy to have Joel with us again and are incredibly lucky to have him for this important task!



The ECU Program in Maritime Studies is pleased to welcome Dr. Sarah E. Patterson as our newest Teaching Assistant Professor! Dr. Patterson received her PhD and MA in US History from Florida State University and her MA in Anthropology from University of West Florida. Before arriving at ECU, Dr. Patterson worked as a government contractor supporting the DPAA. Dr. Patterson has a US history research focus, particularly concerning the topics of 20th century Marine Corps history and its intersection with gender. She is currently working on a book, titled, "Semper Fidelis: Image, Bodies, and the Marine Corps from World War I to Korean War." We are incredibly fortunate to have Dr. Patterson

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!



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