

FIRST LIGHT *M*ARITIME SOCIETY

Building on the History of Our Coast

Dear Members and Friends,

I am really enjoying talking to you at our members' events each month! We've visited some terrific places, like the Villa Zoryada! Go see it! It's full of fascinations. Thank you as well to the San Sebastian Winery and the St. Augustine Distillery for their sipping and drinking masterpieces! Our members are having so much fun!

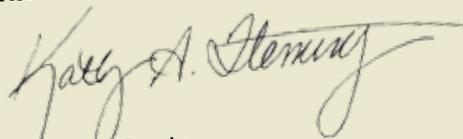
With the 450th year here, I have been thinking about how our lighthouse helped the old city survive over the centuries. Referred to as "the centenilla," watchtowers on Anastasia Island have been documented from around 1569. The northern most tower had a canoe assigned for use by sentries. Can you imagine rowing back by canoe to warn the town? Those wooden towers are long gone, but they are the ancestors of our beautiful Lighthouse, a product of the defense of our town.

Why were aids to navigation like these important? One word: shipwrecks! Early on, St. Augustine was an important refuge for shipwrecked persons according to historian Albert Mauncy. There were some 1500 shipwrecked castaways between 1565 and 1585. All of these wrecks and coastal defense point conclusively to a reason to establish a functional, permanent aid-to-navigation.

We believe that the "Old Spanish Watchtower" was probably lit for the first time sometime during the British Period. The Brits heightened it 30 feet immediately upon arrival in 1763. They greatly increased shipping too in the 20 years that they were in control of St. Augustine, but the tower may have reverted back to a watch tower when the Spanish took back over in the 1780's. Either way, the coquina tower became Florida's First Lighthouse in April of 1824. John Rodman, Collector at St. Augustine and Stephen Pleasonton, Superintendent of Lighthouse Construction in Washington wrote letters about this "new" light. They mentioned "building" it, but what actually happened was simply replastering of the entire Old Spanish Watchtower by contractor Elias Wallen. Wallen adapted the lamp to an American lighthouse system which lagged behind those in Europe.

This first Floridian lighthouse stood until 1880 destroyed by the encroaching sea. Our current Victorian tower was built six years before the old one washed away, and was lit in October of 1874. Almost every local family had a son or nephew who spent some of his teen years here. The young boys ran up the tower with buckets of oil in the night. Keepers worked this way until 1936 when electricity came to the Lighthouse. It was the last Florida lighthouse in District 6 to be electrified.

Fast forward to the 1970's when the Lighthouse was boarded up and the keepers house a burned-out shell. The site was saved by the Junior Service League after a devastating fire. They never stopped! Their passion still inspires us, and we won't stop either. We are proud to have a maritime museum that really focuses on school children and saving our maritime stories. Did you know that we've completed 2,260 dives with students since our archaeology program began? However, the most imperative task is to preserve the historic site. To that end, we just sandblasted the lighthouse with pecan and almond shells. A friend called it a facial for the tower. It's no ordinary paint job. Happy birthday St. Augustine! Happy Restoration Lighthouse! You look amazing!



Kathy A. Fleming
Executive Director, First Light Maritime Society



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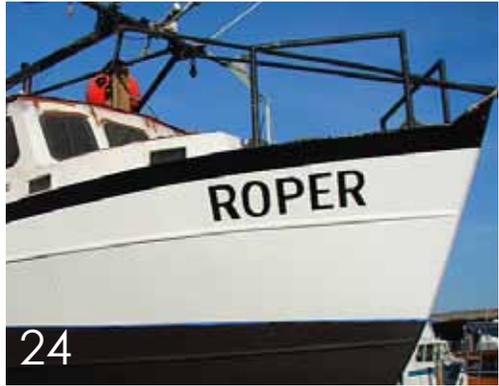
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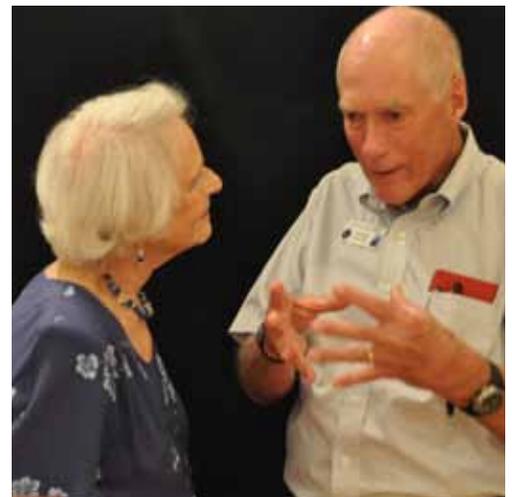
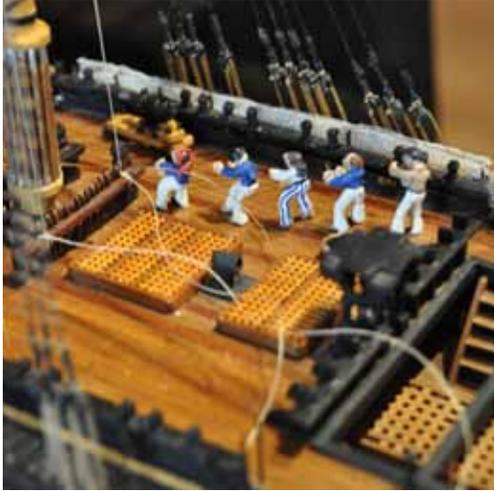
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A LEGACY LIVES ON

By Shannon O'Neil



Volunteers at the St. Augustine Lighthouse & Museum completed a ship model of the HMS Victory that was started by Jim McNally (pictured top right) and donated to the museum by his wife, Katie, after his passing.

It all began in 2012, with a generous donation and a public plea in *The St. Augustine Record*. What happened next tied together the St. Augustine Lighthouse & Museum, a group of passionate volunteers and the legacy of craftsman James G. “Jim” McNally.

On Thursday, April 16th, we celebrated the McNally legacy at a private reception in the Museum’s Anastasia Gallery.

“It is truly an honor for the Lighthouse to be part of this project,” said Executive Director Kathy A. Fleming. “As a maritime museum, we utilize these beautiful ship models to give our visitors an up-close look at the historic vessels of our ancestors. But there is so much behind each model, and in this case the story goes beyond just that of the HMS *Victory* to include Jim’s passion for ships as well as the dedication of our volunteers.”

After McNally’s passing in 2003, his wife, Katie, longed for a way to honor his legacy as a talented boatwright and artist. Through family friend Doug Anderson, a Marsh Creek resident, Katie eventually connected with the St. Augustine Lighthouse & Museum, a Smithsonian Affiliate, and donated 10 of her husband’s ship models to the Museum including a not-yet-finished model of the HMS *Victory*.

The ship was originally started from a kit McNally brought back from Rome, Italy. It was the second HMS *Victory* model he worked on, the first was lost in a 1981 fire at McNally’s business, Camelot Yachts, in Ontario, New York.

Hoping to complete McNally’s final work, the Museum sent out a public request for volunteer ship modelers, which yielded a talented crew of artists including Sue Callaham, Lester Cole, Eric Sponberg and Dave Parlin.

In January 2013, the foursome set up shop in the Keepers’ House gallery to pick up where McNally left off with the HMS *Victory*, which was about 30% complete at the time of its arrival.

Over the last two years, the volunteer team has carefully pieced together the

ship; laying individual deck planks, painting every intricate detail, rigging each of the ships’ cannons and hand-placing over 3,000 dime-sized copper plates on the ship’s hull.

Every detail matches that of the real HMS *Victory* which is the oldest commissioned warship in the world. The ship is currently in dry dock in Portsmouth, England, and the St. Augustine Lighthouse volunteers have been in touch with the ship’s caretakers about the model project.

“A lot of times I felt like Jim was right here with us, guiding us through the process,” said Callaham, who won a volunteerism award from the State of

Florida in January 2015 for her participation in the HMS *Victory* project.

Callaham also helped the museum to expand McNally’s legacy project by creating a summer ship modeling camp for local students.

With funding support from the Barbara A. Kay Foundation, the camp was launched last summer for students in grades 5 – 8 and will return this July for two week-long sessions.

“Jim’s legacy is really what led us to launch the ship modeling class,” said Callaham. “Who knows how many new generations of ship modelers will be inspired by Jim and Katie’s contribution to the Lighthouse.”



Left page, clockwise from top left: Sailors built to scale for the Victory model; Katie McNally with Director of the Lighthouse Archaeological Maritime Program Chuck Meide admiring the completed model; McNally with Board Trustee Peter Spiller; A side view of the ship model and its unique copper hull; Volunteer Sue Callaham with McNally.

Above: Board President Theresa Floyd addresses invitees before the ship’s unveiling; McNally examines the completed ship with guests.



CAMP FUN

CAMP ISN'T JUST FOR SUMMER TIME ANYMORE! This March, we held our first spring break camp for students in grades K-5 at the St. Augustine Lighthouse & Museum. Students enjoyed three days of fun activities centered around French Connections, British Boating Basics and Flagler's Florida Fun. Each day's theme included activities that helped illustrate St. Augustine's maritime history to the next generation!

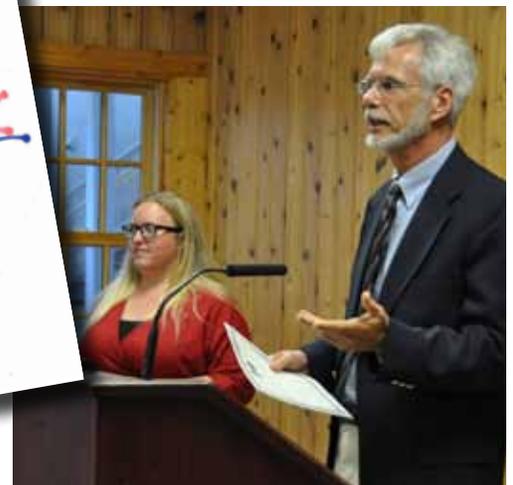


Celebrating & thanking our amazing VOLUNTEERS

We gathered at the St. Francis Barracks on Thursday, April 9th, to celebrate and thank our incredible group of dedicated volunteers who **donated 19,596 hours** of service to us in 2014.



Without you, our great
volunteers, our light
would not shine as
Bright! You are a
joy to be around!
love ya! Kathy





I CAN'T SAY ENOUGH ABOUT ALL YOU DO. YOU GIVE OF YOUR TIME, TALENT, AND ENERGY AND YOU ARE ABSOLUTELY VITAL TO US. WE ARE ALL WORKERS AT THE LIGHTHOUSE, BUT YOU HOLD ITS HEART! THANK YOU! RICK CAIN



At the lighthouse, we are so lucky to have many incredible volunteers. However, one of our volunteers truly deserves special recognition, Bill Sarto.

Bill is originally from upstate New York, but once he and his wife, Sandy, retired about five years ago they became snowbirds and fled St. Augustine.

Since Bill served 39 years and 11 months in the armed forces, he is used to being busy and productive. Because of this, soon after the Sarto's came to Florida, they both started volunteering for the Lighthouse in order to stay busy even after retirement.

Bill believes that it is important for retired folks to stay active and involved in the community. He believes that, "The brain is a muscle and you have to exercise it."

Bill really puts that into practice at the Lighthouse. He keeps well-informed of our history, shares it with our visitors and always goes the extra mile for us.

Bill's energetic, positive personality makes a huge difference in our visitors' experiences at the Lighthouse.

Once our guests finish climbing the 219 steps to the top, which can be tiring to say the least, Bill's smiling face is the first thing they see when they reach the top. He always welcomes them and is willing to answer any questions they have about the Lighthouse or St. Augustine.

He always capitalizes on the 360 degree aerial view of St. Augustine when he shares the history of the Lighthouse and St. Augustine because he is able to point out exactly where the history took place.

Bill explained how working at the top of the tower is the perfect because he enjoys being able to converse with people and sharing our history. He makes a huge difference in what makes our Lighthouse so successful.

Bill is one of the biggest Lighthouse advocates in St. Augustine. He explained, "From what I understand the Lighthouse is the second most visited sight in St. Augustine, so I think it's a great opportunity to sell St. Augustine."

He feels that the Lighthouse is integral to the city of St. Augustine and finds it refreshing that St. Augustine really sticks to its historical roots. The Lighthouse feels so lucky to be able to have volunteers like Bill that are so passionate about our city and our history.

Bill not only volunteers at the Lighthouse, but gets involved in Lighthouse activities. He explained how he sometimes joins in with the exercise group that climbs the Lighthouse on Tuesdays and Fridays.

Through activities like this and through his volunteer work, Sarto has made a number of friends at the Lighthouse: both members and staff. He explained how the Lighthouse truly feels like a family atmosphere and that he enjoys working here to keep him involved and in touch with the community.

We feel incredibly honored to have Bill as a Lighthouse volunteer! He is truly a shining light and his enjoyment of history and St. Augustine illuminates from him. His passion for the Lighthouse and welcoming personality makes the Lighthouse that much better.

Every Lighthouse needs a Bill Sarto!

WOULD YOU LIKE TO BE A
LIGHTHOUSE VOLUNTEER?

If you'd like to join our lighthouse
volunteer family, please contact:

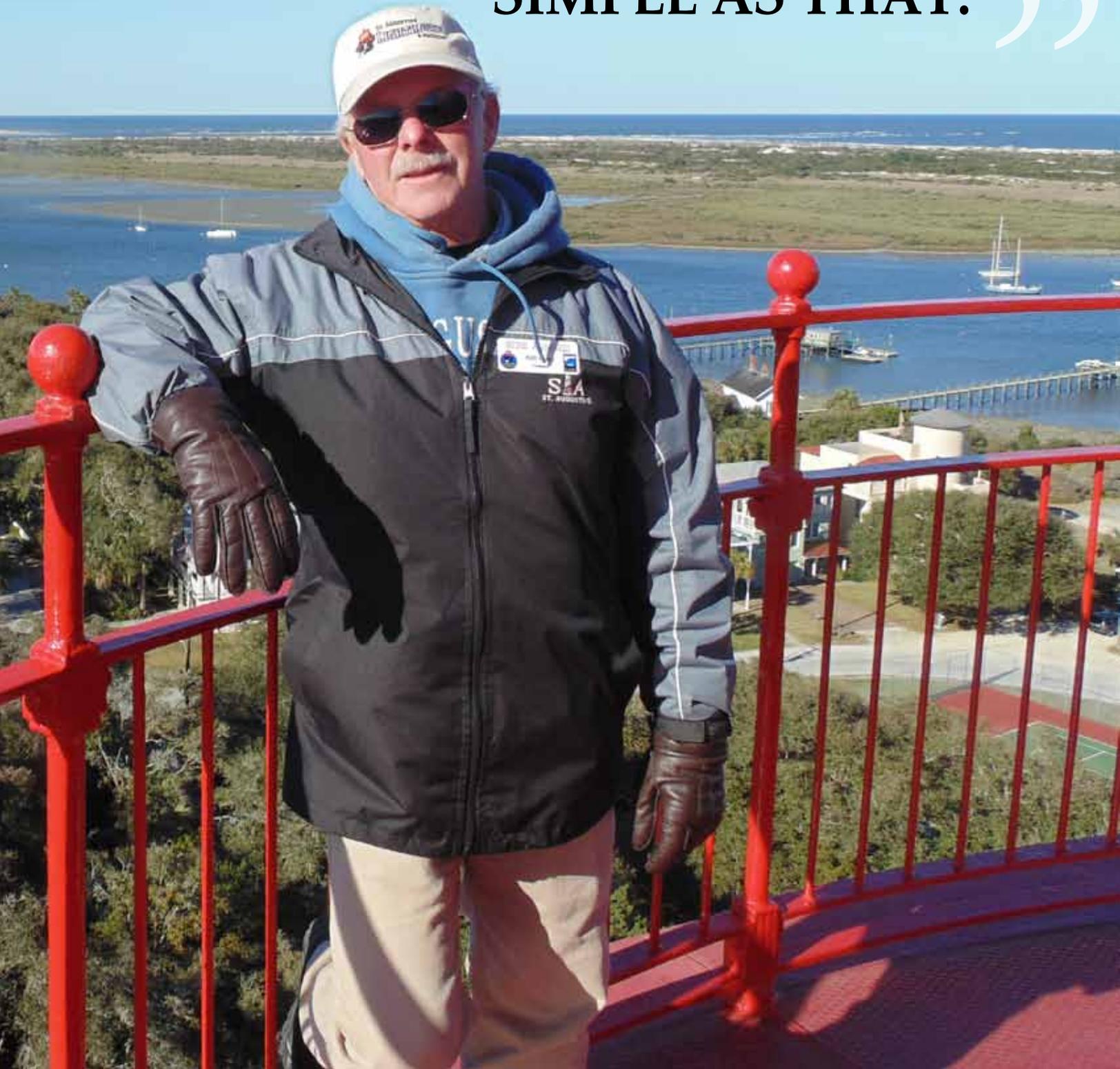
VOLUNTEER COORDINATOR

LONI WELLMAN

(904) 829-0745 ext. 213

lwellman@staugustinelighthouse.org

“ I JUST LOVE
THE LIGHTHOUSE
SIMPLE AS THAT. ”



wine & spirits night



THANK YOU TO OUR PARTNERS AT THE **SAN SEBASTIAN WINERY** AND THE **ST. AUGUSTINE DISTILLERY** FOR SHARING A WONDERFUL NIGHT WITH OUR MEMBERS!



UPCOMING MEMBERS-ONLY EVENTS

» **FACT OR FICTION**
JULY 16TH | 7:00 - 9:00 PM
Artifacts will be displayed with two back stories, one real and one fake. Members have to guess the right answer with prizes for the winners!

» **DARK OF THE MOON**
AUG. 21ST | 8:30 - 10:30 PM
Experience the paranormal side of the light station on a members-only ghost tour.

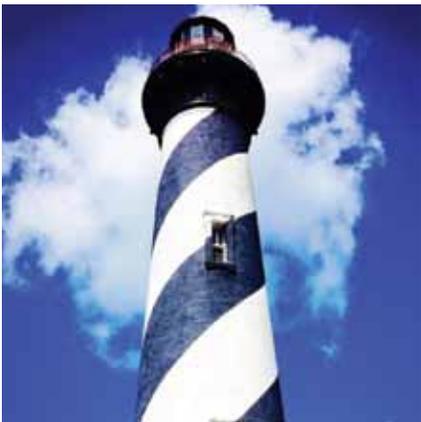
» **MEMBER MEETING**
SEPT. 24TH | 6:00 - 7:00 PM
Join us for exciting announcements about the museum's future!

» **FILM FESTIVAL**
OCT. (DATE & TIME TBD)
Enjoy a night of cinema under the stars! Join us for a special movie night as part of a city-wide film festival.

» **PHOTOGRAPHY CLASS**
NOV. 15TH | 4:00 - 6:00 PM
Capture gorgeous scenery around the lighthouse with the guidance of a professional photographer.

» **LUMINARY NIGHT**
DEC. 2ND | 6:00 - 9:00 PM
Celebrate the holiday season with us at our annual Luminary Night festival. Stop by the Member VIP tent for free refreshments!

All of our monthly member events are **FREE**, just R.S.V.P. to Matthew McKay at (904) 829-0745 ext. 218



In addition to being a museum member, Robyn Polanco is also a lighthouse volunteer. She regularly shares some amazing moments on Facebook captured in photos and videos during her Sunday morning tower shift.

MEMBER SPOTLIGHT | ROBYN POLANCO

By Kelly Stewart

“I truly feel THAT St. Augustine WOULD NOT BE THE SAME WITHOUT OUR Lighthouse.”

Robyn Polanco is a loved member of our Lighthouse family. Not only is she a Lighthouse member, but she is also a huge advocate for the Lighthouse and one of our outstanding volunteers.

She has logged over 100 hours of volunteer service at the Lighthouse since August of 2014.

The St. Augustine Lighthouse & Museum is a very whimsical, special place for her. She stated, “I truly feel that St. Augustine wouldn’t be the same without our lighthouse.”

She originally became a member of the lighthouse to network and because of the wonderful people who work there.

As she continued to live in St. Augustine, she realized that she wanted to start giving back to the community and figured there would be no better way than to start volunteering at the Lighthouse.

Robyn just recently moved to St. Augustine last year along with her business, The Florida Insurance Lady. Although she has spent the last 17 years in south Florida, she is no stranger to St. Augustine.

She has had family in St. Augustine for over 30 years and both of her daughters attended Flagler College. Because of her ties to St. Augustine, she has been visiting the lighthouse for many years.

Over these years, Robyn was able to witness the incredible transformation from the old 1970’s Lighthouse into the restored tower that currently stands. She has been amazed at how well kept and even more breathtaking the Lighthouse is today.

Some of Robyn’s favorite memories have been created at the Lighthouse. One of her favorite memories includes years ago when she hosted a birthday party for her mother on the Lighthouse grounds. It was held in the Keeper’s House, where she said the night was incredibly beautiful and magical.

Being a member of the Lighthouse, Robyn enjoys all the member benefits of the lighthouse. Her favorite benefits include the Dark of the Moon tour, the *Spyglass* magazine, and having unlimited access to the Lighthouse.

She has expressed how being able to

climb the tower so often has given her a great way to exercise.

“People are more happy when they exercise and 99% of the people you meet at the Lighthouse are extremely happy. All of the employees, volunteers and guests are happy and friendly to be around,” she explained.

Along with being a member, Robyn’s volunteer work at the lighthouse has allowed her to really get to know the staff and other volunteers at the lighthouse.

She truly feels there is something special about the Lighthouse family. She stated, “They truly make you feel like you are at home.”

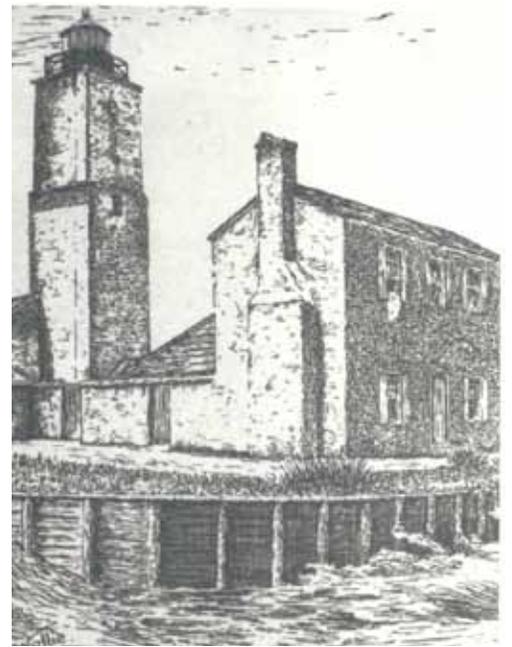
Robyn not only feels that the Lighthouse family is special, but that the lighthouse has an integral role in the heart of St. Augustine.

She explained how she “highly recommends to everyone who lives in St. Augustine to consider purchasing a membership.”

[PART ONE]

LIGHTHOUSE TIMELINE

By Paul Zielinski



● PRE-1874

How well do you know the lighthouse's history?

In a new blog series, we are taking a closer look at the light station's past, two decades at a time. Check out the excerpts at right and then visit our blog to read the full articles and see more photos!

The current Lighthouse is not the original St. Augustine Lighthouse. The story of the current St. Augustine Lighthouse begins before its construction with the history of its predecessor.

The Spanish constructed the tower that became the first Lighthouse in **1737**. They used a local stone called coquina to construct the original tower, which replaced preexisting wooden watchtowers.

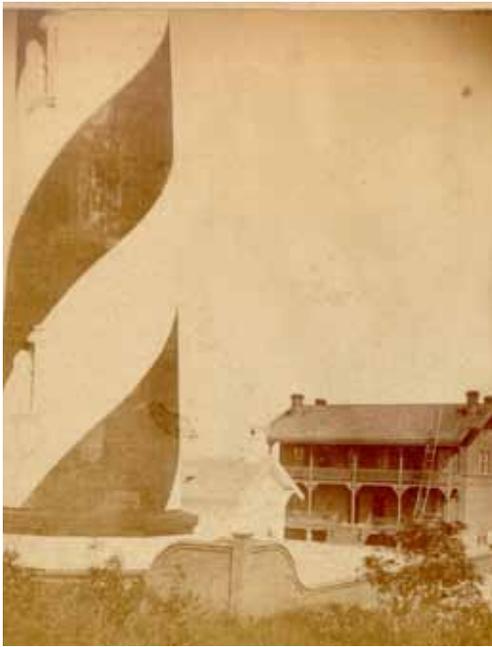
The coquina tower replaced a series of wooden watchtowers and functioned as a watchtower until the United States acquired Florida in the Adams-Onís Treaty (**1821**). The U.S. Government then set to work illuminating the newly added coastline and St. Augustine, with its preexisting tower, was a logical place to start.

Congress appropriated \$5,000 to retrofit and complete the Lighthouse and awarded the contract to Elias Wallen who reported on **March 25, 1824** that the Lighthouse was operational and that Winslow Lewis fit the new beacon with *"ten patent lamps and ten fourteen inch reflectors."*

In addition to the new lamps, Wallen also increased the height of the tower to increase its range of visibility.



➡ Visit blogstauginelighthouse.org for more!



• 1874-1894

By 1874, the newer Lighthouses popping up along the Atlantic Coast dwarfed the Old Spanish Watchtower. Because the effective range of a beacon increases with height, replacing the old tower with a taller one solved the problem of eroding shorelines and improved visibility along the coast.

The current Lighthouse rises to a full height of 165 feet, 95 feet taller than the old tower. The signal from the current tower stretches out almost 17 miles to the horizon, extending more than six miles past the outer reaches of the old tower's beacon.

The elevation of 5-15 feet sailors would enjoy on the decks of their vessels would increase the Lighthouse's range by another 3 - 5 miles.

The eroding shoreline eventually claimed the Old Spanish Watchtower.

On **September 10, 1878** Head Keeper William Harn reported that a "storm washed away the foundation from under the dwelling of the old Lighthouse and the building tumbled over," and gone was the house the Harns first inhabited.

The old Lighthouse held out until **June 20, 1880** when the "old tower fell at 5 p.m." due to a "very high tide."

• 1894-1914

On **June 20, 1907**, Head Keeper Peter Rasmusson recorded that they had "commenced installing bathtubs, closets, and lavatories" in the keepers' house and that by August 3 "Mr. J.C. Libby finished plumbing on [the] dwelling."

No longer having to rely on cisterns and privies, these advances no doubt greatly improved the keepers' quality of life.

Improvements to the station continued in 1909 with the installation of a new incandescent oil vapor lamp, which increased the intensity of the light while reducing the need for constant cleaning of the lenses and lamps.

According to a 1915 report filed once the adoption of oil vapor lamps became more widespread, the "vaporized kerosene under an incandescent mantle [gave] a much more powerful light with little or no increase in oil consumption."

This was the last major improvement in lighting before the introduction of electricity. The cleaner burning lamp decreased the amount of effort the keepers put into maintaining the lamp during the night and did not replace that work with an increase in oil consumption.

• 1914-1934

The early 20th century saw the creation of bridges, railroads, and roads linking the Ancient City with its barrier island while the crowds visiting St. Augustine Beach and the Lighthouse only grew.

St. Johns Electric Company began streetcar service over a wooden bridge to the Lighthouse, the Alligator Farm, and the beach. A 1904 renovation introduced automobile traffic to the bridge as well.

During this time of increased traffic and development, the Lighthouse Service dispatched a surveyor to review the light station boundaries. Following his 1914 survey, he placed markers along the light station indicating the edges of the property. A few of the markers remain visible today.

The increased traffic facilitated by the Bridge of Lions, and the development of the Davis Shores community on the island continued the push of people and progress at the Lighthouse. On **July 23, 1925**, electric lights were installed and lit in the Keepers' House. Despite the advantages and increasing availability of electric lighting, it would be over 10 years before electricity replaced the oil lantern at the top of the tower.



STAYING ON TOP

How a massive restoration project helped refresh and revive the St. Augustine Lighthouse just in time for the city's 450th birthday celebration.

BY SHANNON O'NEIL

Imagine what our Lighthouse has seen in the last 144 years...

Since the first bricks were laid in 1871, St. Augustine's most iconic structure has not only watched over the Nation's Oldest Port, but also its residents tucked safely inside the city walls.

Through unyielding weather conditions, evolving landscapes and human struggles, the Lighthouse and its surrounding historic structures have endured.

For the last three decades, it has been our privilege, both as a community and as a museum, to care for the Lighthouse and all the stories held within her walls.

Since the initial restoration of the tower and keepers' house in 1980's, our museum has worked hard to carry forward the legacies of both the Lighthouse and the wonderful women of the Junior Service League who fought to save the sacred history of the light station.

From day-to-day maintenance to periodic restoration work, keeping the historic structures on our site protected from Florida's harsh climate comes with a high cost, in terms of both time and funds. But every bit of preservation work is critical to sustaining our ability to protect and preserve the maritime stories of the Nation's Oldest Port.

Over the last few years, the blazing Florida sun has taken its toll on the black and white stripes and red lantern that make up our iconic daymark. Not only was the tower starting to look faded, mold and rust were invading the masonry and iron work on the structure.

Though regular inspections from a structural engineer ensured us that the tower was still safe, the deteriorating mold and rust conditions threatened to eventually destroy our Lighthouse if left untreated.

With this in mind, we began planning the tower's first major paint job since 2005. Thanks to the support of our state representatives, including Senator John Thrasher, Representative Doc Renuart and Representative Travis Hut-

son, we were able to secure \$200,000 in grants and appropriations from the State of Florida in 2014. This included Historic Preservation Grant assistance provided by the Bureau of Historic Preservation, Division of Historical Resources, Florida Department of State, with assistance from the Florida Historical Commission.

This was a tremendous boost to bring our nonprofit museum closer to the \$280,000 needed to perform necessary metal repairs and mold abatement, as well as to paint the tower from top to bottom.

But we still needed some additional support, which is where you all – our incredible members and donors – stepped up to show your love for the Lighthouse.

Through an online crowd funding campaign on indiegogo, we raised an additional \$12,230 in donations. Many of those donations were made at the \$100 contribution level, for which donors received a limited edition Guy Harvey-designed Lighthouse T-shirt as a thank you for their support.

We also raised \$13,566 through Lighthouse paint cans distributed at local businesses, additional donations made through our ticket sales program and our fall appeal campaign.

Our friends at the Florida Lighthouse Association also stepped forward to help. They provided us with a generous grant for \$25,000 to help with the campaign.

Thanks to the overwhelming support received, we were able to launch our preservation project in April of 2015.

A talented crew from Razorback, a contracting company based out of Tarpon Springs, Fla., began the preservation process by sandblasting the iron lantern atop the tower. Instead of sand, however, the crew used an environmentally friendly alternative made of pecan and almond shells, to remove rust and old paint from the metal.

Once the original gray surface of the



iron was exposed, historic architectural metal expert Alex Klahm began repairs on the critical areas like the gallery deck and the vent ball on the very top of the tower. From his spot 165 ft. off the ground, Klahm carefully cleaned the tiny circular vents at the tower's apex and replaced screens that help keep out wasps and other insects.

After the metal repairs were completed, the Razorback crew began the laborious process of painting the structure from head to toe. The lantern required five coats of paint for both the red top and black trim ring, which took just over 122 gallons of paint. The masonry needed two coats of black and white paint, for a total of 80 gallons, to refinish our classic black and white stripes.

In all, it took just over 200 gallons of paint to complete this important preservation project.

Now the Lighthouse is not only looking good, she's got a new layer of protection from the elements.

OUR CREW USED AN ENVIRONMENTALLY FRIENDLY ALTERNATIVE TO SAND, MADE OF PECAN AND ALMOND SHELLS, TO REMOVE RUST AND PAINT FROM THE LANTERN.

From the supporters who helped us raise funds to the crew who worked day and night to get our tower looking great, a piece of the Lighthouse now belongs to each of you.

We are so thankful to everyone who helped us accomplish this major piece of historic preservation.

Thanks to everyone coming together as a community once again, we have ensured that the Lighthouse will be watching over St. Augustine this fall as we celebrate the 450th anniversary of the city's founding.

The tower will also endure as a lasting legacy for the Junior Service League and a promise for the future that we will keep the light shining for generations to come.





Love FOR THE Lens

By Kathleen McCormick

Everyone who climbs the Lighthouse expects to see a spectacular view outside the tower, but few realize the treasure they can view *inside* our tower.

Our original, first-order Fresnel lens and its rotation mechanism can be seen through a clear acrylic window at the top of the stairs. Climbers familiar with the glass and bronze assembly may have noticed some recent changes.

During the early 1990s, a U.S. Coast Guard ATON (Aids to Navigation) crew led by Joseph Cocking and Niculus Johnston mounted the first-ever repair of a lens of this size after a vandal shattered some of the prisms with shots from a hunting rifle.

Through the years, adhesives used to stabilize and repair the broken prisms have deteriorated and the mechanism itself has aged. Although our volunteer lens keepers, Michael Horner and Dennis Tisher, keep the lens operating smoothly through meticulous weekly maintenance, the 140-year-old lens is showing its age.

Through a preservation grant from the State of Florida, we have been able

to upgrade the old repairs using new materials and techniques.

The most visible change is the removal of clear acrylic strips that had been adhered to stabilize the three central bullseye panels that rotate around the light, creating our characteristic flash every thirty seconds.

Now that new adhesives have been applied to stabilize these panels, the strips are no longer needed and have been removed, along with the aging adhesives that held them. A protractor placed dead-center on one bullseye is being used to locate and map any chips, scratches or other damage to the glass. This will be compared to past surveys to help determine whether any new damage has occurred during the past ten years.

With strict rules in place for staff and the limited number of visitors allowed in the lens room, we don't expect to see anything new, but an updated report is important to guide us as we continue careful operation of the lens.

New paint inside the lens room will help reflect the light and make it shine

Top Left: Volunteers document lens imperfections with a protractor. Top: Museum conservator Kathleen McCormick prepares to shroud the lens. Middle: Maintenance technician Dennis Miller removes the maker's plate from the lens gear box. Bottom: Nick Johnston and Joe Cocking lower the gear old gear box through the inside of the tower.

even brighter than before and the green and white support pedestal can be seen in all its freshly-painted glory.

With the help of our dedicated volunteers and staff, locals and visitors will enjoy the sight of our light standing guard over the Ancient City for generations to come.

Our thanks go out to all the donors, volunteers and supporters who made it happen!

Brendan cleaning out
Roper's fuel tank.



ROPER REFIT

By Brendan Burke

Crawling into the dark chasm, I contorted myself to fit through the narrow gap. Feet dangling, my toe found the bottom. It was slippery and dank and I steadied against angled walls. Turning on a headlamp, I could see the surfaces exposed for the first time since this cavern had been formed many years prior. The environment was hostile and I breathed forced air.

Light poured in from above and a voice asked 'What do you see?'

This might seem like the beginning of a caving adventure, but it took place aboard the R/V *Roper* during the spring of 2010. The previous year, I was part of the return crew and, while beating our way up the Chesapeake Bay against a foul wind and tide, the engine quit.

A plugged fuel filter was found to be the cause of the power loss and, after a filter change, we were underway once more. This happened numerous times and the Bay steadily grew rougher.

Finally, we were dead ship, at anchor

about halfway between the mouth of the Rappahannock River and Tangier Island. During the night we worked on the issue and, by dawn, had the entire fuel system apart to discover a piece of duct tape plugging a supply line. Underway once more, we resolved to fix the root of the problem.

The following spring, we emptied her fuel tank of diesel, voided it with water, and I cut out deck plates to provide access holes astride the tank baffles.

Being the youngest, most lithe, and most stupid, a unanimous vote by the owner found me as the lucky mole. Inside *Roper's* fuel tank, I scraped, vacuumed, and removed several gallons worth of carboniferous ooze.

As with most very dirty boat jobs, there is a corresponding payoff when tools are put away. Cleaning the tank and redesigning the fuel system meant that we have not suffered a loss of fuel to the engine since, a spot of warm comfort when cabin windows are dark and





Roper moored at George Washington's Mt. Vernon in 2010

green and the ship goes wop with a wiggle between. (Thank you Rudyard!)

Every spring I have been LAMP's envoy to Tall Timbers, Maryland, "*The Land of Pleasant Living*", to work on the *Roper* during her spring haul. When the pines are full of pollen, the ducks are all paired up, and when rockfish are biting, it is time for *Roper* to get hauled from the water for repair.

An ancient behemoth of a truck, the muscle of the travel lift, is coerced into starting once more. It drags behind it a trailer meant for many tons and the entire mechanism is steered via a 2' steering wheel, many years of practice, and strategically placed blocks to stop the brakeless contraption.

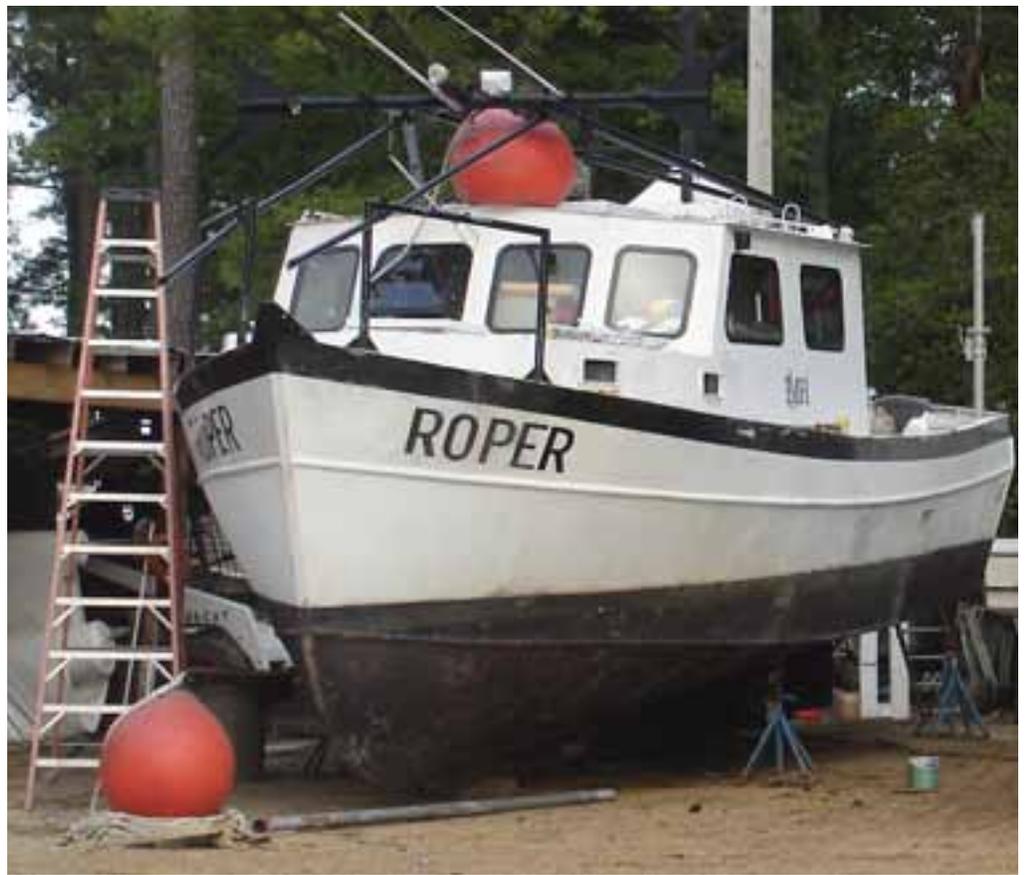
With a galloping roar the travel lift backs slowly onto the lift dock, straddling *Roper* with wide slings, and winches her from the water. When the keel is high enough to clear ground, the rust and white International is again flogged to life and the boat and truck groan forward.

We block the boat up on stands and cribs of wood and the truck drags the travel lift away to sulk under a pine tree. It is here that *Roper* looks the most imposing, a year's worth of wear and tear is to be righted, and so we prepare to 'repaint and thin no more'.

Over the years we have painted, repainted, painted some more, sand-blasted, welded, cut, fit, beat, adjusted, and generally attacked the boat to fix what was broken, to perform scheduled maintenance, and to keep up with yearly maintenance on the hull, equipment, and engine.

Roper was built in 1990, out of steel, and has lived in salt or brackish water ever since. Rust is a constant foe to her steel, as is the sun to her paint. From above, and below, the elements conspire to whittle our old gal into mere flakes of rust and paint chips.

Yearly, sometimes bi-annual, painting of her surfaces is a must. In more extreme cases, steel is cut out and new welded in its place.



Top: *Roper* emerges from the water annually, ready for painting and repairs.

Left: Every two years, *Roper's* engine comes out for cleaning and repairs. **Above:** *Roper's* namesake was the first U.S. Warship to sink a U-boat during World War II.

Over the past five years, I have learned every nook and cranny of *Roper*. Her owner, David Howe, has been a masterful tutor to me for her systems, for seamanship, and become a close friend.

We have spent many hours sanding, grinding, painting, and navigating her throughout the Southeastern Atlantic Coast. We both have plenty of experience in her 'sauna', otherwise known as her engine room during a Florida summer.

We both have corrupted our brains with copious esoterica about what

wrenches are needed for what job, just how to jostle something to get it apart and back together, and how to select just the right French word for application to the face of the sledgehammer when beating out a stubborn cutless bearing.

Over the years, our goal has been to work with Dave and the Institute of Maritime History to keep *Roper* strong for her research cruises and to make here more mission-oriented.

Thus, we have added two davits, an 8kw generator, a broader range of



onboard tools, and raised her hatch coaming to 16" above deck to prevent downflooding into the hold.

Since 2009, *Roper* has sailed the equivalent of one global circumnavigation, had her engine removed and replaced for repair or access to the engine room steel four times, had a conservative estimate of 35 gallons of primer and paint applied, and consumed somewhere around 7,000 gallons of diesel and 80 gallons of motor oil.

On deck, she has supported 1,812 LAMP scientific dives over five years, well over 2000 including IMH's diving up north. The boat has completed over 1,000 lane miles of survey from George Washington's Mt. Vernon to Cape Canaveral. The maintenance, we believe, is well spent on a solid investment in science and the education of young people.

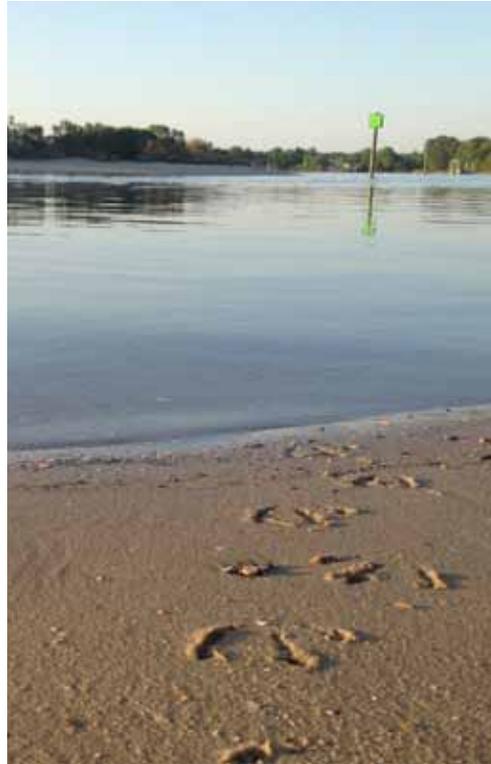
And so I am told that in Chesapeake the pine trees are again pollenous, the ducks amorous, and the rockfish hungry.

It's time to travel north.

There is sandblasting, welding and painting, among the many things on our growing three-page maintenance list.

Over two weeks, we will remove *Roper's* winter coat of rust streaks, blow the dust from her dashboard, and prepare her for another season of sailing.

Good 'ole boat.



Top: Prepping the engine room for repainting. **Left:** Sandblasting the hull to prepare for fresh paint. **Above:** Sunset over Herring Creek, Maryland. **Below:** *Roper* and the Lighthouse have enjoyed a lasting relationship for years.



archaeologists



ABROAD

By Olivia McDaniel

Lighthouse archaeologist Starr Cox instructs ASEAN conference attendees on the plaster support recovery method for removing fragile artifacts from a site.



As many of you may know, St. Augustine Lighthouse & Museum's research arm, the Lighthouse Archaeological Maritime Program (LAMP), usually only does archaeology in the field during the summer months.

So, you may ask, what do the lighthouse archaeologists do the rest of the year?

For the most part, we stay busy writing our reports for past field seasons, researching the various histories associated with our projects, and preparing for future field seasons. We also do a large amount of public outreach and public archaeology associated with our projects.

Over the last few months, LAMP's archaeologists have been on the move, taking that public outreach far and wide by lending our research and expertise to various projects and presentations, from as near as Fernandina to as far as Thailand.

To start out, this past February the Naval History and Heritage Command (NHHC) sent out a call for archaeologists in Florida to assist in recording the scattered remains of a WWII SBD-5 dive-bomber, which crashed in a training accident near Deland, Florida towards the end of WWII.

LAMP archaeologist Olivia McDaniel and volunteer archaeologist Brian McNamara joined archaeologists from the Florida Public Archaeology Network (FPAN) and the University of West Florida in assisting the NHHC with the project, which turned out to be a great experience, bringing together various professional and community organizations in order to preserve a part of Florida's WWII history.

LAMP archaeologist and logistical coordinator Brendan Burke has been

taking his research along the East coast of the United States, giving lectures as far north as East Carolina University, all the way to the Florida Keys.

Most recently, Brendan gave two lectures in Key West, speaking first to the Florida Historical Marker, Inc. about his research on Florida's Fleet, which focuses largely on the "Florida Style Trawler" and its impact throughout Florida and beyond. His second presentation was titled "Sentinels of the Coast" and featured our own St. Augustine Light, as well as those of the Keys, which he presented to the Key West Historical Society.

"As a guest of the Key West Maritime Historical Society, I was treated to a special visit to Ft. Jefferson. This coral and brick island 70 miles west of Key West was begun in 1825 and became the largest masonry structure in the Americas. It never fired a shot in anger but kept American shipping interests safe when approaching the Gulf of Mexico from the Atlantic Ocean. The fort is only accessible today by seaplane and high speed ferry, which I took and had a rollicking ride across Rebecca channel through 5-8' seas! Visitation is intentionally kept low to the fort to help preserve this marvelously isolated blend of architecture and nature."

This past March, the history of the Storm Wreck, the 1782 British Loyalist wreck currently being excavated by Lighthouse archaeologists, made its way to St. Louis, Missouri, when LAMP Director Chuck Meide presented a lecture on the wreck to Lindenwood University students.

Aside from their various lectures, Chuck Meide and LAMP Director of Archaeology, Dr. Sam Turner will be

spreading the Lighthouse's archaeological and historical research to wider audiences in two upcoming documentaries.

In mid-March Chuck Meide traveled to Texas to take part in a documentary concerning the 17th century wreck of the French ship, *La Belle*, which wrecked in Matagorda Bay in 1686. The excavation of *La Belle* was one of Chuck's first major archaeological projects, and interestingly enough, this wreck may be the closest parallel for Jean Ribault's Lost French Fleet of 1565, which LAMP began searching for this past summer.

In addition to this, Dr. Sam Turner will be featured in the upcoming Florida Department of State documentary project titled *Great Floridians*. Sam will be involved with the segment concerning

Spanish explorer Juan Ponce de Leon.

While the Lighthouse's archaeological reach has already been extended through various lectures and projects, our Head Conservator, Starr Cox, took that reach farther than it has ever been before, when she was invited by the Association of Southeast Asian Nations (ASEAN) to consult on a centuries old wreck found near Samudsakorn, Thailand.

Known as the Phanom-Surin Shipwreck, the vessel is an arab style sewn boat, believed to be from the 9th century A.D. As part of the ASEAN sponsored conference concerning this vessel,

Starr was called upon to consult on the proper preservation of the vessel itself and its associated artifacts, as well as teach four different workshops at the conference.

Starr said of her experience there, "It was a great opportunity in many ways. Not only was I able to share my knowledge to help preserve this incredible find, but I was also able to take away new knowledge of how the maritime influence has affected their culture, just as it has affected ours here in Florida." Check out our Keeper's Blog (www.blogstaugustinelighthouse.org) to read in depth about Starr's experience in Thailand!

At the moment, all of the lighthouse archaeologists are glad to be back on site, and are busy preparing for our coming Underwater Archaeology Field School and planning for field work in July and August.

Stay tuned for our next *Spyglass* issue to see what comes of our 2015 Summer Field Season!



Top left: Archaeologist Olivia McDaniel assists the Naval History and Heritage Command in recording one of the many pieces of the WWII era SBD-5 dive-bomber near Deland, Florida this past February.

Above: Brendan Burke (C) conducting research at the Monroe County Library with Mr. Tom Hambright (L), Senior Historian for Monroe County, and Mr. Bruce Neff (R) of Key West Historic Marker Inc. **Left:** LAMP Director Chuck Meide stands next to one of the bronze cannons from the 1686 wreck of *La Belle*, now on display at the Bullock Texas State History Museum, in Austin, Texas.

keeping busy at the BOATWORKS

By Dr. Sam Turner

It's an exciting time at the Lighthouse Heritage Boatworks Exhibit. This program has reached a new pinnacle. Since we put up our larger and more robust tents at the end of last year the boat builders have had much better protection from the elements and most particularly the sun. Our new 30 by 30 foot tent has made things much more comfortable for our volunteers as we move into the summer months.

Founded in 2007, the mission of the Heritage Boatworks is:

To recover, preserve, and pass on the traditional art of boat and ship carpentry and share this with the public by building and interpreting small craft that are relevant to eastern Florida's maritime history.

The program has made great progress in meeting its mission. The construction of the 18th Century yawl boat, underway since 2010, is nearing completion. The successful completion of this challenging project will represent a major milestone as we complete our first true replica of a period craft working with the local timber used by St. Augustine boat builders in times past.

Progress on the 19th Century Florida Skipjack, supported by a grant from the Crisp-Ellert fund, is moving forward as we approach the end of the plank-ing process. This craft, the replica of a Florida Skipjack built on the St. Johns River outside of Jacksonville between 1875 and 1880 will be the second major replica project completed by the Heritage Boatworks. After the plank-ing phase is completed the craft will be flipped over and work will begin on the deck, centerboard trunk, centerboard, and interior finishing work.



A close-up look at the cypress planking on the 19th Century Florida Skipjack.

Another important Boatworks spinoff that has recently taken great strides forward involves the collaborative Chalupa Replica Project being jointly undertaken by the St. Augustine Lighthouse & Museum, the Fountain of Youth Archaeological Park (FOY), and the St. Augustine Maritime Heritage Foundation (SAMHF). The aim of this project is the building of an historically correct and authentic 16th Century Spanish water craft called a chalupa which was used in St. Augustine's earliest colonial period.

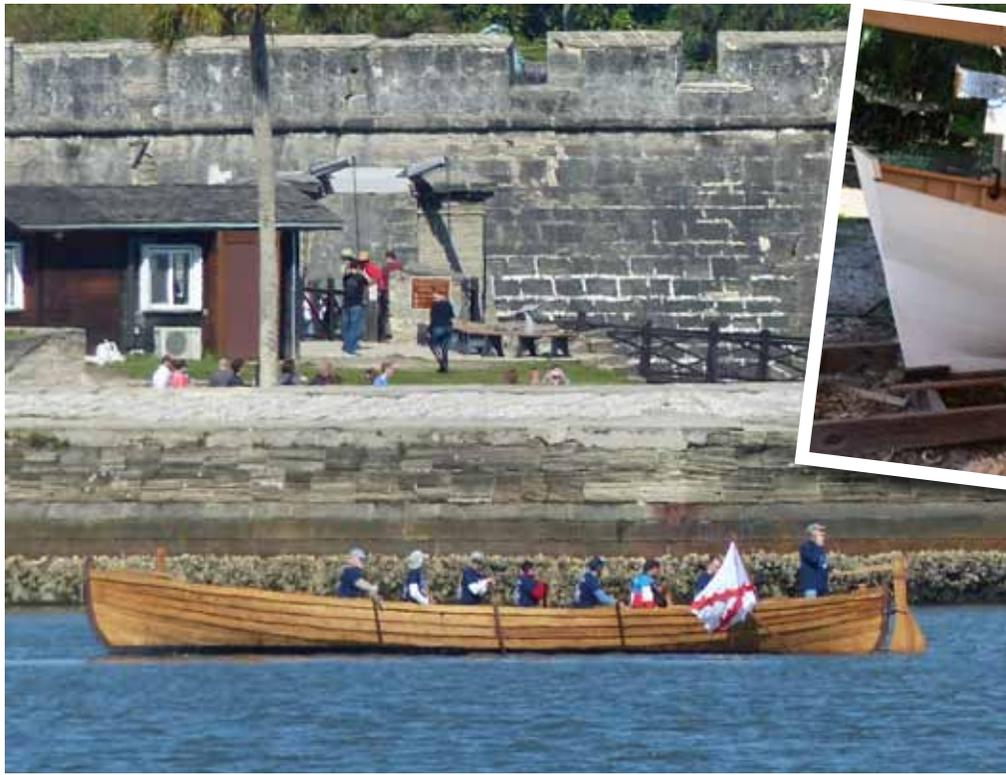
When we began the Boatworks in 2007, LTC. Maury Keiser, USA (ret.) became our head boat builder. With some twenty or more building projects under his belt, eight of them by himself, he brought invaluable skills to the Boatworks program. Volunteers under his tutelage gained valuable boatbuilding skills which they in turn passed on

and shared with other volunteers who joined the Boatworks.

Keiser went on to sit on the 450 Corps tall ship building committee and then became the President of the SAMHF when the committee morphed into the new nonprofit. Also sitting on that committee and later board members were Dr. Sam Turner, Director of Archaeology and Kathy A. Fleming, Executive Director of the Lighthouse.

Earlier in 2007, the Lighthouse Archaeological Maritime Program (LAMP) of the Lighthouse received a special category grant from the Division of Historical Resources of the Florida Department of State.

The grant-funded archaeological and historical research focused on St. Augustine's maritime past as well as the purchase of diving and remote sensing equipment that allowed the LAMP



Left: Volunteers from the St. Augustine Maritime Heritage Foundation take the chalupa San Agustin on a test voyage near the Castillo de San Marcos. **Above:** The 1760 British Yawl boat has been flipped and given her first coat of paint.

program to develop into what it has become today.

One of the line items for the grant was a research trip to the Archive of the Indies in Seville, Spain. That trip in 2008 proved critical to what would become the Chalupa Replica Project.

This research led to the discovery of a Spanish document from the year 1597 that described a chalupa that was built in St. Augustine for the use of the presidio here. The description included the fact that the craft had ten oars, two masts with sails as well as a rudder and associated hardware.

This information was combined with archaeological data from Red Bay in Labrador, Canada. There, the Spanish Basques, close neighbors to the port of Avilés on the north coast of Spain, had a booming whaling business. This business was well established by 1565 when Pedro Menéndez founded St. Augustine. That very same year, a whaling galleon called the San Juan was wrecked in Red Bay and during the wrecking event she crushed her ship's boat, a six oared, 26 foot, chalupa.

This well preserved example of a chalupa contributed all the joinery and

fastening information necessary for the construction of an authentic replica. The remains were also sufficient to generate a set of line drawings that documented the shape of the hull. We had all the ingredients for a successful replica project. Four rowing benches were added to the Red Bay chalupa and the line drawings modified and projected for the larger St. Augustine chalupa. Keiser first proposed building a replica of the St. Augustine chalupa in 2011. The intention of building a tall ship for St. Augustine was always with the idea that it would be one of the signature events and legacy projects of St. Augustine's 450th commemoration. This collaborative partnership has been on track since groundbreaking at the Fountain of Youth Archaeological Park took place in November of 2011.

In March, the chalupa was transported from FOY to Camachee Cove Marina and then towed back to FOY where final work on the pulling, or rowing, stations was finished in time for the chalupa's christening on March 22nd. Father Tom Willis of the Cathedral Basilica christened the craft with the name *San Agustín* in honor of our fair city.

Using salt and white wine as is the Spanish custom, Father Willis pronounced a 16th century blessing used on such occasions with grace and style and St. Augustine Lighthouse & Museum board member and vice chairman Peter Spiller delivered a moving speech.

Spiller closed saying: "Today's name giving ceremony for the St. Augustine Chalupa is the beginning of a host of educational programs, re-connecting with our past through storytelling, sea-going experiences for the young and young at heart. And each of these programs will be aimed at the real article, the true story, and the accurate facts. And so this ceremony is not the ending of this project, but the beginning of reawakening and re-connecting with our real maritime history. With this name giving, we at the St. Augustine Lighthouse say Happy Birthday St. Augustine, and joyous beginning, St. Augustine's chalupa!"

The *San Agustín* successfully completed her first sea trials the weekend of March 28th and 29th, 2015, concurrent with the blessing of the fleet.

unexpected FIND

By Andrew Thomson



Artifacts are not always readily recognizable when looking at the mass of sand and shell that is brought up. We take X-rays of the concretion to see if there are any artifacts of interest or something unique within.

If there are items we would like to work on, we try to identify what the artifact is and what to expect when chiseling off the concretion.

This, however, primarily limits us to whatever shows up the best in our x-rays. Ordinarily, lead and lead-containing alloys or materials, such as pewter, have the brightest signature in an X-ray.

This is followed by cupreous objects like brass and bronze. Cast and wrought iron artifacts are generally the third most present in X-rays, but it depends largely on how much iron has corroded out of the object.

Additionally, gold and silver would appear in X-rays if they were to show up on our site.

The common theme here is that the prevalence of artifacts which survive and are excavated are metal.

When the Storm Wreck ship ran aground and wrecked, there was undoubtedly a wide variety of materials on board. However, as the vessel broke apart and the remains scattered, the heavier metal objects sank and more or less remained in their original point of deposition.

The lighter artifacts, such as wood, textiles and glass, most likely were pushed further or floated away from the wreck site. There are some non-metal items that have been excavated and identified so far from the site, but they are scarcer rather than the norm.

It was with this mindset that I usually begin working on artifacts from the Storm Wreck site. I chose to conserve artifact 13S 319.1 for a few reasons.

In the X-ray, it appeared to be a small ax head and the only one of its kind identified from the wreck so far.

Also in the X-ray were small lead bird-shot and numerous nails, which had completely corroded away, near the blade. One section of the blade, the bit toe, had corroded away as well, leaving a large clear spot in the image.

Because of these missing portions, I began air-scribing toward the rear (or poll) of the axe head. I planned on removing as much concretion as possible and leaving a small section covering the corroded area. I would then use the remaining sediment as a mold and pour epoxy into the void of the blade, making a nice cast replica of the lost area.

After cleaning off almost all the ax, I began removing the nail section in preparation to mold and cast the epoxy. It was then that I came across a very unexpected and welcome surprise.

Located on the lower section, or the bit heel, of the ax blade was a ceramic fragment. This was indistinguishable in the X-ray and would have been easily overlooked for conservation had it not been for the ax head.

It turned out to be a piece of porcelain measuring approximately 2.5 x 1.75 inches with some imagery still visible. The blue and white decoration shows water and waves near some small hills or dunes below two small white buildings. I was able to determine from the scenery that this was part of a larger pattern called "Fisherman and Cormorant."

Taking this knowledge, I asked lighthouse archaeologist Brendan Burke for assistance with identifying the piece. He was able to figure out it was porcelain and most likely from what is known as a Liverpool bowl.

The design appears to be transfer printed onto the surface, rather than

hand painted. This indicates the piece was a popular design and part of a standardized production process. One possible manufacturing site is Caughley in Shropshire, England.

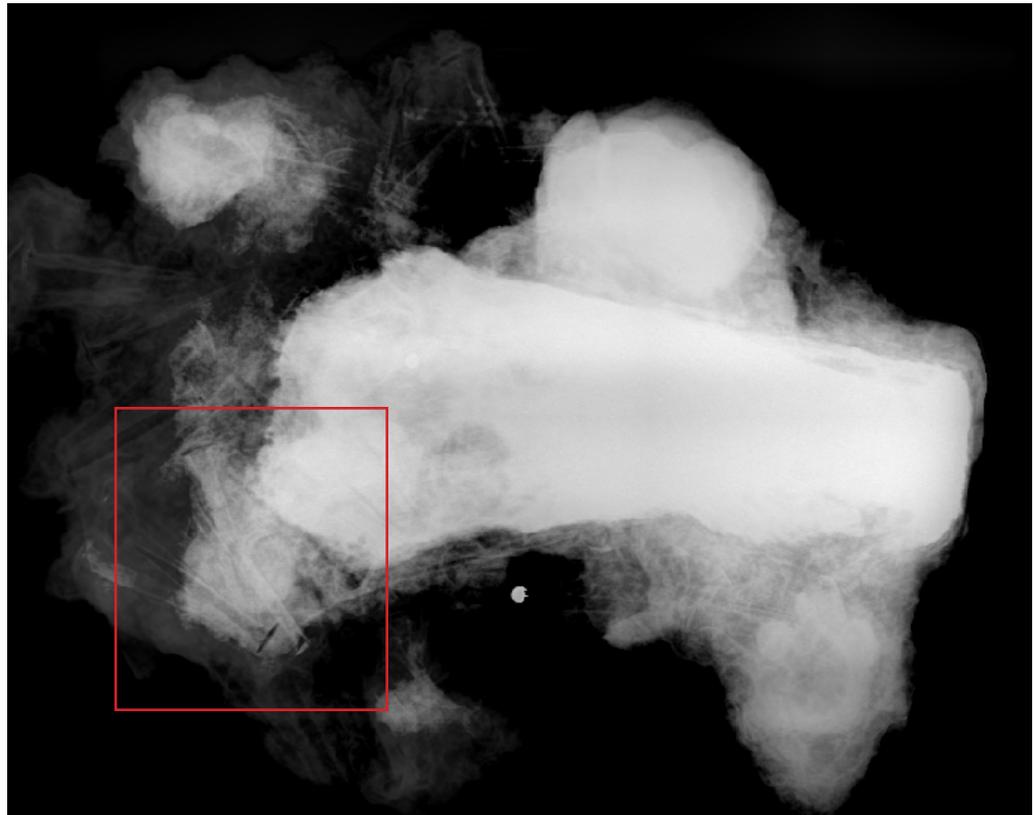
Around 1775 to 1799, Caughley became known for high quality soft-paste porcelain with a characteristic blue design.

Further research is needed to identify the porcelain and help expand our

knowledge.

Hopefully, additional sections of the bowl will be found in other concretions and possibly help us reconstruct the artifact. I am currently re-examining X-rays of concretions from the immediate area the ax was found.

Maybe luck will strike again and another shard will be stuck to a metal object of interest!



Top: X-ray of artifact 13S 319.1. The porcelain piece is located in the lower left portion of the piece, as indicated by the red box. **Above, left:** Ax head with porcelain shard still attached to the blade. **Above, right:** A closer view of the piece after it was removed from the ax head.

SUMMER MUST-HAVES

By Kelly Stewart

ST. AUGUSTINE WIND CHIME

Our wind chime is the perfect addition to your garden or patio. Not only will it brighten up your backyard, but the lovely chimes will echo sweet music across your yard.



CONQUISTADOR STRAW HAT

Cool off in style while perusing around the Lighthouse and the rest of St. Augustine with our Conquistador straw hat. Perfect protection from the sun for those hot, sunny Florida summer days!



BIRDHOUSE & FEEDER

Bring some lighthouse charm to your yard with our ceramic birdhouse feeder. It is the perfect accessory to bring birds of all kinds flocking to your yard.



USLS SERVICE RAINCOATS

Whether you're caught in a drizzle or a downpour, our raincoats will keep you protected from the St. Augustine rainfall.



NORTH STAR COMPASS

Explore St. Augustine and the world with our North Star Compass! Find true North no matter where you are or display it and impress your friends with our fine collectible.



LIGHTHOUSE FLIP-FLOPS

To all you Floridians, our Lighthouse flip-flops are comfortable for walking downtown or on the beach. As you walk, you can leave a Lighthouse footprint everywhere you go!



BINOCULARS

Use these binoculars to look out across the St. Augustine skyline from the top of the lighthouse or use them to be a nature scout at home!



GARDEN FLAG

Support the Lighthouse with this decorative flag in your garden! With a colorful stained glass design, this flag makes a great lawn decoration or you can frame it for an indoor display.



LIGHTHOUSE HAT

Need help keeping that hot, Florida sun off your head? Buy one of our St. Augustine Lighthouse hats, now available in two colors! Perfect for any adventure!



Thank you to these wonderful local businesses for helping with our spring membership events!



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