

# Sciences New Startes S





# It's an exciting year!

Thanks to support from members like you, 2016 will be filled with milestones in maritime research and education.

# SPRING

Experience science and history like never before in our new Wrecked! exhibition.

6

# SUMMER

Explore the depths of our history as Lighthouse archaeologists begin excavating a new shipwreck.

# FALL

Discover research and educational opportunities in a new facility built for everyone to enjoy.

THIS SPECIAL EDITION ISSUE IS SPONSORED IN PART BY THE DEPARTMENT OF STATE, DIVISION OF HISTORICAL RESOURCES AND THE STATE OF FLORIDA

# ST. AUGUSTINE IGHTHOUSE & MARITIME MUSEUM

These next 24 months may be the most exciting time to be a member in the history of our Museum! Our new Maritime Archaeology & Education Center (read more on page 30) will rise from the ground. We will restore our World War II-era U.S. Coast Guard Barracks and Jeep Garage, which will in turn allow us to share poignant, veterans' accounts from that important historical period. By January 2018, there will be more to see than ever before!

The excitement begins now with our new exhibition, Wrecked! It's completely unlike any exhibition we've curated before (read more on page 12). It's a beautiful mix of art and science, featuring reclaimed wood shaped into an undersea environment, and so far it's been a hit across all generations. Children love our new cartoon heroine and archaeology guide, Star Waters. Millennials are fascinated by the stories inside it. Gen X-ers really get it; they are used to independent exploration. Folks like me, born at the tail end of the Boomer generation, may not know what to think! But we are still ready for new

Climb onto the exhibit's sandbar to encounter shipwrecked objects. What stories do they tell? Dive right in to see a coat button from the British 63rd Regiment of Foot. This light infantry company fought at Bunker Hill at the war's beginning and were garrisoning "Charles Town" (present day Charleston) South Carolina, at its end. Some of the Mounted 63rd went to Cowpens, S.C. to fight alongside Lt. Col. Banastre "Bloody Ban" Tarleton's dragoons, where the dashing, young, redheaded commander was defeated by a rag tag bunch of Americans. Did

There is a fancy shoe buckle too, definitely not worn by these British fighting men. In its day it was covered in paste, a type of fake glass designed to catch the light. These were in style largely because the French Ambassador to London wore them. Later, he would become Charles X, and shortly thereafter find that his ideas about social class were as out of fashion as his shoe buckles. That buckle, along with a faux pocket watch, tell us that someone on the ship was a social climber. On the otherhand, personal spoons with their owner's mark

Perhaps one of the most poignant stories is the one of the man who carefully wrapped the key to his front door speak to us of illiterate sailors. in a piece of linen. He put it inside the lock to that door after carefully removing it from the entrance to his

house. And yet, for all of his efforts, it was wrecked on New Year's Eve, 1782. As we move forward through these next few exciting months, you may be wondering how to get the most out of your membership. Well, to start, you should definitely come visit Wrecked! to see our shipwreck artifacts and meet Star Waters. As we conserve new objects, they will go on display as well, so keep up your membership to stay in the loop on new additions to the exhibition as well as keep tabs on the progress of our other projects.

If you'd like to get more involved with the Maritime Archaeology & Education Center, give us a call to learn about adding your name, or that of your family or a loved one, to the legacy wall in the new building. Your gift will help our archaeologists research more of our shared past so that we can preserve these maritime legacies for the

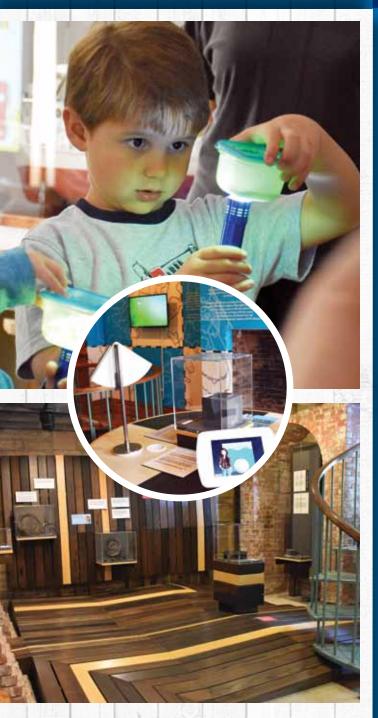
We appreciate your interest and support very much!

atty A. Stemun

Executive Director, St. Augustine Lighthouse & Maritime Museum



# what's inside?



### MEMBERSHIP FUN

### lighthouse Technology

# TRIUMPHANT LAUNCH

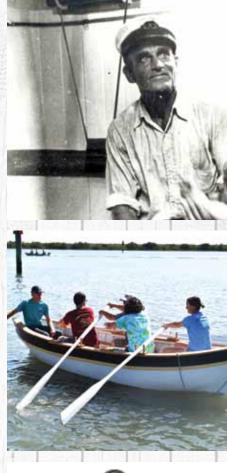
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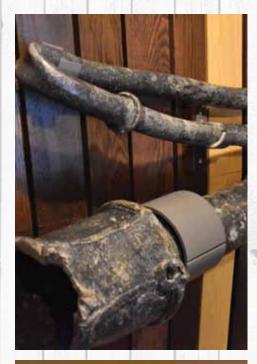
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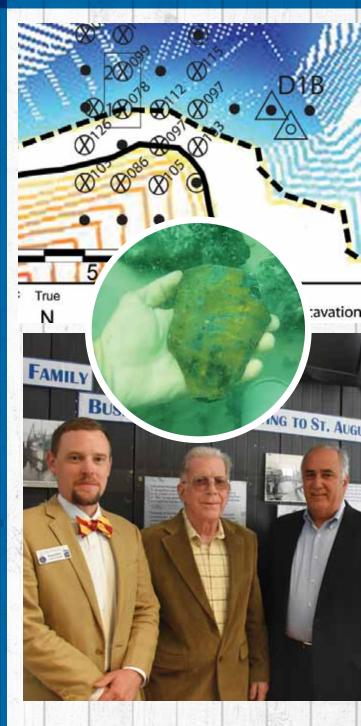
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### VERSAGGI FAMILY LEGACY



# MARITIME ARCHAEOLOGY & EDUCATION CENTER



Thank you for supporting our museum's research and education programs!

157 KING STREET ST. AUGUSTINE, FLORIDA 32084

# Spyglass

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> St. Augustine Lighthouse & Maritime Museum 81 Lighthouse Avenue St. Augustine, FL 32080

# · VOLUNTEER SPOTLIGHT· Richard Sexhour: Building Memories

by Jordan Sanders



Richard Sexhour began volunteering for the St. Augustine Lighthouse & Maritime Museum's Heritage Boatworks program in September of 2009 after attending a Lighthouse event where he met original team members, Maury Keiser and Jim Gaskins. Keiser and Gaskins were displaying their most recent build when Richard noticed what they were capable of and was inspired to join the team himself.

For the next six and half years, Richard would work with the boatworks team on the building and completion of eight boats for the Lighthouse and a 16 -oot skiff for fishing with his son and grandchildren.

Before joining Boatworks, Richard's woodworking skills, while impressive, were confined to building his own house and furniture, but he did not have the proper experience to build a boat. He credits learning this trait to the same two people who were responsible for his initial join: Keiser and Gaskins. They gave him the opportunity to lead a build and mentored him through it.

Even though he's been with the Lighthouse for so long, it's difficult for Richard to choose his favorite part of being a part of Boatworks.

"Obviously, the successful completion of a boat is on the list," he said. "However, there are other equally or more important aspects to the experience."

Of these aspects, camarade-

rie remains strong amongst the Boatworks team members and Richard cherishes the friends he's made here over the years. After all, it's this same camaraderie that helped him earn the skills he now has as an experienced boat builder.

Not only has working for Boatworks led to friendships within the program but it gives the team members the chance to chat with people about boatbuilding from all over the country and even around the world.

Guests will share their stories of experience with boatbuilding which range from watching their father complete a vessel in their backyard to escaping from Cuba on a makeshift Styrofoam dinghy. Richard (left) speaks with a young guest while working on the Florida Skipjack.

Currently, the Heritage Boatworks volunteers can be found on site every Tuesday through Thursday working on the completion of three vessels: the Florida Skipjack, the Yawl Boat, and the Acorn Skiff which will be given away in a drawing this December.

Richard looks at boatbuilding as a thousand little victories, he comes into work everyday to work on a boat and has plans for what he wishes to accomplish.

"Each day I leave with the joy of having accomplished one or more of those small victories. Eventually they add up to a finished boat."



# Membership is all Fun & Games!

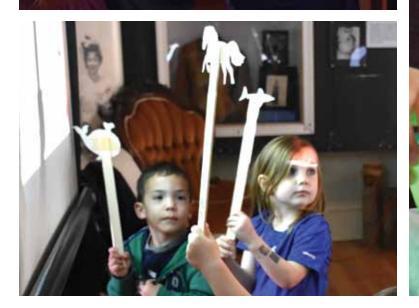


# reating a Family Enterp

I Be tales methods and woman Solvatore Solvectos was it target was Ferranding on the northeast Florida coast i Sogie its the accided to stay in the area and experiment state way to atch, prearve, and market drying that Fills

Settedly incur as "Mile Solvador," he laid the found of what would become one of the most successful standioral industies to come from Florida.

> Little Keepers' Programs SPRING 2016



*Head Keeper Cardell Daniels inside the lens room in the late 1930s.* 

# LIGHTHOUSE TECHNOLOGY

"The old coquina beacon, with its wave-washed walls, Where the spray of the breakers 'gainst the low door falls, The new mighty watch-tower all striped in black and white, That looks out to the sea every minute of the night."

- Excerpt from Matanzas River by Constance Fenimore Woolson (1874)

When Constance Fenimore Woolson published her poem *Matanzas River* in the December 1874 issue of *Harper's New Monthly Magazine*, the new Lighthouse in St. Augustine exemplified the cutting edge of lighthouse technology. Its antiquated predecessor stood by. This moment, with the waves breaking against the remains of the Old Spanish Watchtower as the new tower stood watch, is a microcosm of the constant effort to improve the U.S. Lighthouse system.

Early U.S. lighthouses burned wood, coal, or candles to provide illumination. By the early 1800s, most U.S. lighthouses used whale oil as fuel in their oil lanterns.

Whale oil was a common fuel for lanterns of all sizes in the early 19th century, lighthouses included. The availability and excellent qualities of whale oil made it an ideal fuel for lighthouses. The "old coquina beacon" as Woolson called it, would have used whale oil in its lantern. Despite the benefits of whale oil over previous fuels, lighthouses still required some sort of magnification to project their beacon out to the horizon.

A light source sends its light in all directions, unless altered in some way. As the light extends from the source, the rays get farther apart. The farther away from the light source you are, the farther apart the rays of light become. This is why a light appears dimmer as you move away from it, which limited the usefulness of early lighthouses.

### **By Paul Zielinski**

Some early attempts to magnify a lighthouse light source included a mirror or mirrors, first flat then curved, to redirect more of the light's rays out to sea. This kind of reflector would magnify the oil lantern, but light diffusion would still limit the intensity of the lighthouse beacon.

Despite the mirrored reflection, the light from this lantern would still spread apart as it moved away from the light source causing it to dim at a distance.

French inventor Augustín Fresnel developed a lens system in the early 19th century to redirect more light from a light source than ever before. His invention, called the Fresnel lens, redirects up to 80% of a light source straight out to sea. The Fresnel lens includes prisms above and below the light, which refracts the rays leaving the Lighthouse into parallel lines, magnifying the light source out to the horizon.

The first U.S. Light Station to receive a Fresnel lens was the Navesink Lighthouse in 1841, although it was only after the creation of the Lighthouse Board in 1852 that they began placing these lenses in all U.S. lighthouses. The Old Spanish Watchtower received its fourth-order Fresnel lens in 1855.

By the middle of the 1800s, the whale industry had severely decreased the whale population. The corresponding decrease in supply drove costs high enough that the Lighthouse Board began looking for alternative fuels.

The Board considered several options for their new fuel, including kerosene, colza oil, and lard oil. In their 1874 report to the U.S. Senate, the Lighthouse Board reported that they had "...made extensive researches with regard to lighting materials...and have given the preference to lard as an illuminating material on account of its excellent qualities, particularly in lights of the first order."

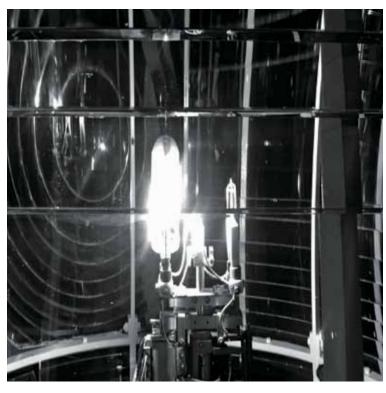
Lard oil was the fuel of choice on October 15, 1874, when the new tower began its watch "every minute of the night," as Woolson put it.

A new first-order Fresnel lens, larger than the fourth-order lens in the old tower and manufactured by Sautter, Lemonnier & Cie. of Paris, magnified the lard oil lantern. The height of the tower and the strength of the first-order lens outshone the shorter, weaker Old Spanish Watchtower, extending the visible range to about 20 miles.

To rotate the lens and create our unique flashing pattern, the nightmark, the Lighthouse had a clockwork mechanism that created the lens rotation. The mechanism consisted of a large weight attached by a cable through the center of the Lighthouse to the top where the cable wrapped around a barrel or drum. The keepers would crank the clockwork mechanism every two hours and 45 minutes, which would lift the weight by wrapping the cable further around the barrel.

On March 1, 1936, the St. Au*gustine Record* reported that principle radio electrician T.A. McKee, along with machinist R.A. Adams and Head Keeper C.D. Daniels, had completed "the electrification of the tower light" with an "electric bulb of 1000 watts," the same intensity we use today. Keepers were able to increase the rotation speed of the lens to one rotation every three minutes with the new electric motor. which would create a flash every minute.

Either the writer was misinformed or the keepers were later instructed to increase the rotation speed because further research shows that this nightmark did not last long. The 1937 Light List shows the St. Augustine Lighthouse nightmark as having a flash every 30 seconds, the same as it is today.





Top: A 1,000 watt light bulb still burns inside our first-order Fresnel lens today, just as it did when the Lighthouse was first electrified. Bottom: One of the original drums that held hot oil for the lantern.



# Heart of Oak An authentic St. Augustine Yawl by Dr. Sam Turner

This past May 5th, the St. Augustine Lighthouse & Maritime Museum launched an authentic replica of a 1760s era yawl boat christened the Heart of Oak.

This type of ship's boat was common to St. Augustine during the British Period which spanned the years 1763 to 1784.

Based on plans dated 1760 and found in the British archives. this small craft. representative of the 18th century in St. Augustine's maritime history, is propelled by both oars, and upon completion of her rig, sails as well.

It is typical of the small craft that would have operated in and around St. Augustine harbor and from the larger

ships that called here or anchored outside the bar.

Indeed, it was craft like the St. Augustine yawl that set out in large numbers from St. Augustine to help safely land troops and passengers from numerous British evacuation vessels wrecked on the St. Augustine bar at the end of the Revolutionary War. Many of these vessels, carrying Loyalist refugees from the city of Charleston, S.C., were lost on December 31, 1782.

The Storm Wreck, known to be one of these lost vessels, was investigated by the Lighthouse Archaeological Maritime Program (LAMP), the research arm of the St. Augustine Lighthouse & Maritime Museum.

This craft represents the most technically difficult build undertaken to date at the Heritage Boatworks and its launch represents the achievement of a long awaited mile stone.

The Heritage Boatworks is a living boatbuilding exhibit whose purpose is to recover and pass on the art of traditional boat carpentry as practiced in St. Augustine to future generations and share it with the general public.

The volunteer boatbuilders who are the heart and soul of this program learned and developed many skills over the course of this difficult build including that of spiling, the technique of obtaining the precise shape of the plank throughout the length of the

craft, as well as that of carvel building where planking is edge joined rather than the easier overlapped, or clinker, style of planking. Carvel planking has subsequently been used on many builds since, but no build to date has been more difficult or time consuming than this one.

The yawl boat project began in October 2008, with the milling of the live oak keel timber, stern post, and compass timbers to be used in the stern knee and stem post. The timber was cured for a year and then her keel was laid in early November 2009 and was followed by the addition of her stem post, stern post, and stern knee.

This complex joinery work

done by long-time volunteer Jim Gaskins. The difficulty of this build was due to the very pronounced bending and twisting that the planks have to undergo as they run into the bow and stern of the craft. In England, yawls were made almost entirely of white oak. An English boatbuilder however, living in St. Augustine between 1763 and 1784 would have had to work with locally available timber as does the Heritage Boatworks.

In this case, the keel, stem, and stern posts are made of live oak. The planking of the St. Augustine yawl boat however, is fashioned from cypress wood which grows tall and straight and is abundant and locally available as is live oak, and equally rot resistant.

Both the frames. or ribs. made of a mixture of live and white oak and the cypress planking of the yawl are steamed. This is done in a long wooden box hooked to a sealed can with water heated by fire. The water vaporizes as it boils and travels into the steam box heating the wood and making it very pliable. After a specific time depending on the size of the timber, the wood is removed and positioned on the boat in its proper location and clamped in place to set.

This operation has to be carefully planned out since the boatbuilders have only about 20 seconds to get the correct bend in the timber before it quickly cools and is no longer pliable.

One of the discoveries made during the course of this build is that cypress, when steamed, does not bend as much as the traditional English white oak. Many planks cracked as we attempted to get them to make the necessary bends and twists in the bow. It was frustrating for all concerned.

Ultimately, we had to move the forward most building mould, a timber construction that holds the shape of the hull in a particular location, further aft toward the back of the boat to reduce the amount of bend the planks would have to make in the bow.

This is a beautiful example of "environment effecting design" and why we call this a "St. Augustine Yawl." It is a regional variation of the traditional English Yawl and one that no doubt was found here in some numbers during the British Period of St. Augustine's 450 years of history.

The St. Augustine yawl boat has been christened and launched. She is exceedingly watertight for a wooden boat and handles very well when rowed by four single banked (one rower, one oar) as well as with two double banked (one rower, two oars). It has taken six and a half years of hard work, trial and error, and patience to get to this point. The St. Augustine yawl *Heart of Oak* will begin to make regular appearances on Salt Run helping to showcase St. Augustine's maritime past and show that traditional boat carpentry is still alive and well in the Nation's Oldest Port<sup>SM</sup>.

It is with warm thanks and heartfelt gratitude that we salute and recognize the efforts and great achievement of our volunteers.

Without their generous efforts, dedication, and support we could not keep the traditional art of boat carpentry alive at the St. Augustine Lighthouse & Maritime Museum. Thank you boatbuilders – one and all!



*Top: The oak keel and ribs of the yawl boat during its early stages before planking began. Bottom: The cypress planking boards were steamed and bent to the hull of the vessel at the Heritage Boatworks.* 

# 

The new Wrecked! exhibit chronicles a 1782 British Loyalist shipwreck in St. Augustine as well as the archaeological research behind solving this mystery from the sea.





St. Augustine might not be the first city people think of in connection with the American Revolution, but the St. Augustine Lighthouse & Maritime Museum's new exhibition *Wrecked!* will soon change that.

Our new exhibit is all about immersing you in our nation's history and its discovery by underwater archaeologists.

The walls are lined with archaeological grids, interactives, and artifacts, all to tell you the story of a 1782 British Loyalist shipwreck.

"This exhibit tells a story that no one has ever heard before," said Executive Director Kathy A. Fleming. "We all know the American side of the Revolutionary War, but this shipwreck gives us a glimpse into what life was like for the British soldiers and loyalists in the American colonies and what happened to them after the war was over."

In December of 1782, sixteen Loyalist ships ran aground in the St. Augustine inlet. This exhibit unveils the wreckage of one of these ships that was discovered by our archaeologists more than 200 years later.

*Wrecked!* will tell its viewers both the story of the Loyalist ship, colloquially referred to as Storm Wreck, and the journey that archaeologists have undergone to preserve and present this fascinating piece of history.

The first section of *Wrecked!* is located on the first floor of the historic 1876 Keepers' House where guests will experience the various stages of maritime archaeological research and conservation. Visitors will learn about some of the steps in maritime archaeological research, like using a magnetometer, which detects metal underwater to discover what's laying hidden beneath the ocean floor.

In *Wrecked!* you will get the chance to use one too! In order to bring you the most authentic experience, we are letting visitors find the same hidden artifacts by using the exact grid that our maritime archaeologists utilized to make their

# )ur Museum is WRECKED!

initial discovery.

After you've proved to have a keen eye for the unknown realm of the sea, you'll get to try out our interactive concretion X-ray station.

When artifacts are recovered from the ocean floor they are covered in a naturallyformed outter crust. Our archaeologists then use X-rays to get a look at what they have really uncovered.

In *Wrecked!* you'll get to see an original scan from the archaeologists' X-rays, which uncovered an old-fashioned pistol!

We've also created a series of iPad games which allow guests to virtually experience every aspect of maritime archaeology.

From surveying to excavating, and uncovering to conserving, guests can play using the iPads in the exhibit.

Some of the tools we have available today were not always present for maritime navigation and archaeology. In *Wrecked!* you can pocket your GPS and try your hand at finding Polaris by using a traditional sextant.

Once you have finished experiencing life as maritime archaeologist, it's time to head down to the basement for an exciting history lesson.

Before jumping into all the artifacts from the shipwreck that we have on display, it's important to watch where you step because the floor is now a recreated version of the St. Augustine sandbar.

St. Augustine's port once held the reputation of the most dangerous of all Britain's Atlantic colonies due to a sandbar which often impeded safe entrance into port. This is the same sandbar that led to Storm Wreck's demise over 200 years ago!

If you're not feeling immersed in the experience yet, try peeking your head into one of our cisterns that have been transformed into beautiful works of art. Sixteen ships hang from the ceiling and twirl in a blue light so you can safely experience what it would have been like to be lost at sea.

Once you've snapped back into reality and hop back onboard *Wrecked!*, take a look at the artifacts that archaeologists recovered and conserved from the wreck.

On that December night, the ships that ran aground were fleeing from Charleston, S.C. Thousands of Loyalists packed up their homes and raced to the closest British port, St. Augustine, which was the capital of East Florida.

For this reason, many of the artifacts recovered from the wreck tell the stories of civilians and what life was like for them in the 18th century.

The two largest artifacts that you will find in the *Wrecked!* exhibit are our cannon and pump, which are located in the westernmost room in the basement.

The cannon may catch your eye because it was found on a civilian ship, but this was not unusual for the time period.

From a cannon to a keg tap, the everyday lives of British Loyalists begin to seem much more relatable than ever before.





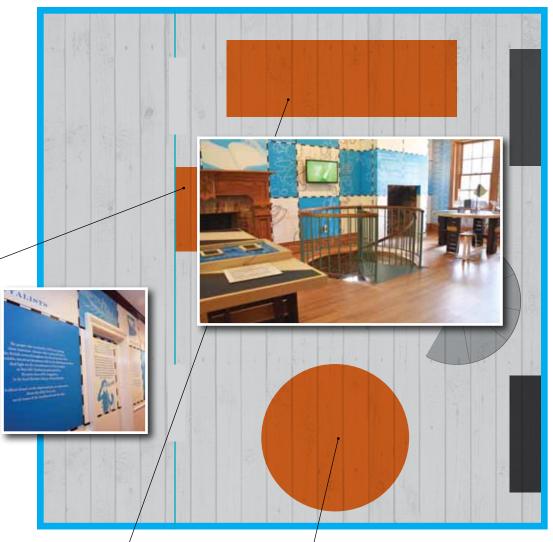
Top left (clockwise): Scenes from the new exhibit include the interactive lab, British Yawl boat model, sandbar with cannon and deck pump, shipwreck artifacts, and the cistern art pieces. Above, top: The ship's bell on display in Wrecked!. Above, bottom: Terry LaVier from Morley Exhibits, Displays & Experiences, Sharon and Peter Exley of Architecture is Fun, and Brenda Swann from the St. Augustine Lighthouse & Maritime Museum.

# **1ST** Floor



# X-RAY INSIGHTS

See how archaeologists use X-rays to see inside shipwreck concretions. Knowing what type of artifact is beneath the crust helps determine the best means of conservation.





# MAGNETOMETER SEARCH

Use our special magnetometer screens to see the metallic signatures of shipwreck artifacts on the ocean floor.

Used much like a metal detector on land, magnetometers help archaeologists pinpoint anomalies in the ocean's electromagnetic field that usually indicate the presence of a shipwreck.

From this activity, you can also learn why archaeologists use grids to ensure that every inch of a possible shipwreck site is surveyed.

You can see real magnetometer data from a new shipwreck on page 26!



# NAVIGATION & DISCOVERY

# Can you help Star Waters find shipwrecks?

Through this fun iPad game, you can experience the archaeological process.

Begin on the surface and drag your finger side-to-side to navigate our research vessel and equipment. Once a potential shipwreck site is revealed, dive to the ocean floor with Star in search of concretions.

Back on the surface, you can use an airscribe to remove the crust and reveal the artifacts you've found.

Now you're a real archaeologist!





# SAND BAR

Entering the Keepers' House basement, you'll find yourself on the undulating surface of the sandbar where our shipwreck was found.

Here, you'll see many of the artifacts recovered and carefully conserved at the Museum.

You'll never believe that these beautiful pieces are over 200 years old!



# GOLD COIN

This replica of a gold guinea found within the 1782 British Loyalist shipwreck carries the head of King George III of Great Britain.

Dated 1776, the year of the American Declaration of Independence, this coin is one of just a handful of pocket change found on the wreck.

Read more about this special coin on page 22!





# TEA WITH STAR WATERS

Children (and adults) will love sharing a spot of tea with Star Waters in this special corner of *Wrecked!*.

Located right next to a tea kettle found on the shipwreck, tea time is a perfect opportunity to reflect on your favorite artifacts and stories from Wrecked!.

What did you learn? What would you take if you had to evacuate your home? What would life have been like back then?

Read more about the kettle on page 19!

# ARTIFACTS OF



# **CANNON** The Last Line of Defense

**Cannons were a common part of ship's equipment during the 1700s.** Used as signal guns to convey messages, as protection from ravaging privateers, and for outright assaults, cannons were the true muscle of a ship.

This gun was one of at least seven carried by the ship. Recovered from a pile of cannons buried within the sea floor, this gun is an excellent reminder of the bellicose nature of the early 1780s and a Revolution struggling to find peace. Cannons were the last line of defense for merchant ships during the 1700s, a period of perpetual world war. There was a constant threat of attack from French warships and American rebel privateers, and this cannon along with the others still buried on the shipwreck would have been manned and ready to fire during the dangerous journey from Charleston to St. Augustine. - CHUCK MEIDE

Archaeologists from the Lighthouse Archaeology Maritime Program (LAMP) recovered a long gun and smaller cannon known as a carronade in 2011. The carronade will be added to the Wrecked! exhibit after it completes conservation in summer 2016.





# **KETTLE** Taste of an Empire

### Nothing says British quite like

**tea.** During the 18th century, British colonists emulated their brethren in the home country, including a fierce devotion to tea.

As a drink, tea cannot be served without its accoutrements, including this cast iron kettle. Tea kettles represent a slice of domestic life that has ties to social structure as well as international trade networks.

Quite simply, one cannot enjoy tea without the vast trade network that transported tea from British India, and the ceramics used to prepare and serve it from English potteries.

# CANDLESTICK

# A FLAME EXTINGUISHED

The 18th century world was a slow moving world where darkness was only conquered by flame. Inside a rolling ship at night, candles sparingly lit passageways and ladders for the ship's company and passengers to go about their business.

Originally, this candlestick would have been part of a pair, and has lost its wide brass base that kept it from tipping over.

Like many of the personal items aboard, it may have represented the sole belongings of a displaced people at the end of the American Revolution.

# **BELL** Silent Witness

For over two and a quarter centuries, this bell lay in the silent gloom of a shipwreck. We can imagine the bell pealing loudly in the chaos of 1782, when the ship it was part of came to grief.

Simple but elegant, the bell still carries its tune with it and today we can hear the same sounds used to set the ship's watch bill, to warn of enemy sails, and call passengers aboard to worship.

The bell is made from a bronze alloy called "bell metal" which gives it a sonorous ring when struck.

Below, the tea kettle, candlestick, and ship's bell as they were first recovered from the ocean floor, prior to undergoing conservation.







# pumped UP

During the 2011 field season, a large artifact was uncovered just north of the cannons found on the 1782 British Loyalist ship.

While originally unsure of what the object was, the Lighthouse Archaeological Maritime Program (LAMP) dive team was certain of a few things; it was big, heavy and made of lead.

It was also unique from the other artifacts on the site and the decision was made to excavate and bring it to the Lighthouse.

The lead artifact featured a large, cylindrical, funnellike body roughly one foot in diameter at its widest, tapering to a pipe nearly two inches in diameter. It was found bent and twisted in on itself, but if stretched out to its original form, the remaining length would have measured almost 10 feet long. Overall, the lead weighs nearly 300 pounds.

The form of the artifact first led the LAMP archaeologists to believe it was the ship's pissdale, or head; essentially a urinal or early form of toilet for the crew. After additional research and comparison, the team concluded it was a deck pump. Rather than removing waste from the ship, it was used to pump water from the ocean up to the deck in order to clean the vessel or fill casks and barrels.

After beginning conservation on the deck pump, several marks could be seen on the lead. There is a small number "2" near the top of the pump head, along with several other barely visible graffiti or scratches from wear and tear. The other marks, though, are of great interest. There are several spots where it is clearly evi-

Below: In a close-up of a piece of the deck pump, clear marks can be seen where the pump was hit with an axe.



dent the lead was cut into by an axe, cutlass or other large cutting tool. This is significant because it supports the current hypothesis of what happened when our ship wrecked.

The vessel was part of the evacuation fleet of Charleston, S.C., which was responsible for transporting the Loyalist population and their goods necessary to begin life again in East Florida.

They arrived December 31, 1782, only to run aground on a hidden sandbar near the inlet. The passengers abandoned and were taken safely ashore, while efforts were taken to save the ship.

In order to lighten the load and pull the keel off the sandbar, heavy objects were jettisoned overboard. This included the pile of cannons and the large lead deck pump. The cut marks appear to show the last-ditch attempt to hack and pry the pump from out of the wood of the ship.

Because the artifact shows such a pivotal moment of the wreck's voyage, it was carefully worked on by the head conservator Starr Cox. While lead is a relatively easy material to conserve, the sheer size and weight of the pump proved to be a challenge. Starr was able to remove the various sections of concretion from both the outside and interior surfaces before coating and sealing the lead



to stabilize the pump for long-term exposure.

After finishing the conservation of the pump, one final hurdle remained. Because the artifact vividly shows evidence of the wrecking process, it was always wanted to be part of the new *Wrecked!* exhibit.

However, because it is a near 300-pound, fragile piece of history, the mounting and exhibition of the pump would be trouble. A special display section was designed and built for the deck pump by the *Wrecked!* fabricators. Getting the pump into place, though, was achieved by three Lighthouse staff

Above: The lead deck pump positioned in the Wrecked! exhibit. Right: The deck pump was previously featured in tours like this one led by field school student Matt Hanks.

(including myself) very carefully lifting and lowering the artifact onto mounting brackets.

The most difficult aspect was making sure the smaller section of the lead tubing did not move any further out of place and risk snapping off.

Fortunately, the pump did not budge and will now be safely and securely out for the visiting public to enjoy and learn about this Loyalist shipwreck.





# a guinea's worth by Brendan Burke

*"Have you found any gold?"* is a question frequently asked of archaeologists, especially shipwreck archaeologists.

After we muster a smile, the answer invariably revolves around the value of the artifact, not the artifact's material. It is our job to work with artifacts, using them as building blocks to assemble a lost story. We don't sell them or place a monetary value on them.

For me, gold is just plain distracting. As archaeologists, we are no more enriched by its presence than by the meaning of the artifact. In 2012, the Lighthouse Archaeological Maritime Program (LAMP) found gold.

To be exact, we found two gold coins. They are part of a small assemblage of coins found within the wreck site and are, quite remarkably, in near perfect condition.

The bright, attractive, and priceless part of the gold coins is their story, so join me for a guinea's worth of history.

Since 1663, the golden guinea reigned as Britain's most common high-value coin. Each king graced the front of the guinea, a coin stamped out of almost pure gold.

Many guineas began life deep in the mines of Africa's

Gold Coast, Dutch Guinea. The colony arguably spewed forth the 18th century's two most valuable commodities, gold and enslaved people. Britain's industrial successes had the unintentional consequence of creating more demand for coinage, especially gold and silver, than the empire could produce internally.

British capitalists were happy to exchange finished goods for gold, silver, and the human labor so intrinsic to colonialism.

Thus, the coin we know of as the British Guinea has its roots in African hands, Dutch colonists, British financiers, and finally into British colonists in the New World. In the pocket of a departing Loyalist, the gold guinea may have represented a significant portion of his, or her, wealth. The loss of such may have been staggering. Today a guinea's worth, adjusted for inflation, is about \$200; quite a bit of purchasing power for a coin.

As 1782 drew to a close, the American Revolution entered its ninth and final year of grueling struggle. Some of King George III's most prized colonies had won their gamble to combat the most powerful armed force on earth.

Vanquished Loyalists in an emerging United States begrudgingly packed up their lives and set forth into a gloomy future. Royal allegiance prevented a life of commerce and peace within the United States.

In leaving, Loyalists took what they could to begin anew elsewhere. From cookware to door locks, everything that could be carted off was stowed in the precious space of a waiting convoy. A gold guinea might purchase a little more space aboard a refugee vessel.

When the convoy weighed anchor and sailed from Charleston, S.C., a complete cross section of society sailed aboard. Merchants, planters, yeoman of the low country, tradesmen, and the enslaved all watched the coastline slip over the horizon.

King George was aboard the convoy too -- well, at least his face. Beneath a crown of laurels, the king's bleak countenance stared at the words dei gratia, "by the grace of God." Those aboard may have felt it was indeed that grace which allowed them to slip from the rebel country intact.

A few gold coins might insure against further disaster; a second chance endorsed by the king's face.

To know a gold guinea in full is to understand the world it represented.

On its reverse side, surrounding the Royal coat of arms is a Latin style proclaiming George III "King of Great Britain, France and Ireland, Defender of the Faith, Duke of Brunswick and Lüneberg, Arch-Treasurer and Elector of the Holy Roman Empire." Turning the coin back over, and upon closer inspection, the face of King George III reveals a little smirk. During the decade after the American Revolution a young republic writhed with adolescent fervor and it was not until 1793 that the United States would mint its own coinage.

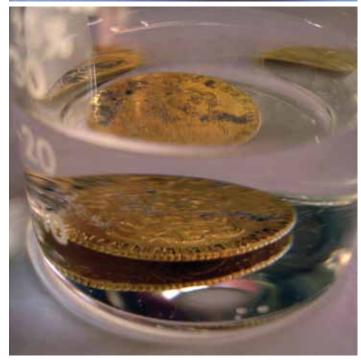
In the meantime, British and Spanish specie remained in circulation, providing the backbone of an emergent post-colonial economy.

Quite simply, reliance on British currency was still too important to disavow. And so, across a land won through revolution the British monarch still partly ruled in pocket and wallet.

Needless to say, it is the human story about these coins, whose pockets they were in, the lives they purchased, and the governments they represented, that give context to this chapter in history.

The true gold is the story, the shared past of our ancestors. Words spoken through an artifact's story far outweigh any common market value for the material.





The coin (at top) before conservation and (above) in the midst of conservation at the Museum.



A detailed sketch of both sides of the guinea by former field school student Loren Clark.



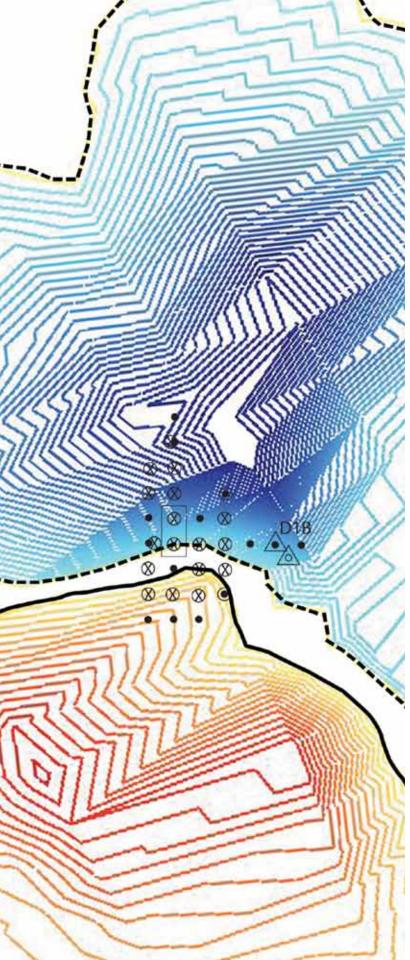
# DISCOVERY MADE

By Chuck Meide

Near the close of the 2015 field season, target testing led Lighthouse archaeologists to their next big discovery.

What secrets are buried with this 18th century shipwreck? What stories will it tell?

The 2016 field season may hold some of these answers as our research team from the Lighthouse Archaeological Maritime Program (LAMP) returns to the water.



Above, the probe testing sites are laid over the magnetic contour of the Anniversary Wreck, showing how the data pinpointed the wreck. The X's mark where the probe hit buried objects.

### "Let's go find a birthday present for St. Augustine!"

These words, spoken by Lighthouse Archaeological Maritime Program (LAMP) archaeologist Brendan Burke, were in my ears as I leapt into the water in my diving gear to join our former student, Eden Andes, who is now an archaeologist in her own right.

The surface support team on board the research vessel *Roper* made sure I was ok before awkwardly passing down the ten foot long pipe and 50 feet of attached water hose which was to be our instrument of discovery.

With the hydraulic probe in hand, dangling down into the emptiness below me, we left the surface with a rush of bubbles and descended into the murky green haze below.

Brendan had spoken those words two months earlier, before the start of the field season. It was St. Augustine's birthday that year, in 2015, the 450th year since Pedro Menendez founded what would become the Nation's Oldest Port<sup>SM</sup>. We were hoping to make a discovery worthy of that monumental anniversary.

Finding shipwrecks is not easy. It involves a technical understanding of science, a lot of hard work and perseverance, institutional funding, and, to be true, a bit of good luck. But we have gotten better at it over the ten years that Sam, Brendan, and I have been at LAMP.

One area where we have made improvement is in the sophisticated understanding of the physics of magnetics. We used a magnetometer, a device which measures the Earth's magnetic field, in 2009 to survey specific areas offshore St. Augustine. One of the magnetic targets we detected that year proved to be the 1782 British loyalist, which after six years of excavation is now on display as the major new exhibit at the Lighthouse, *Wrecked*!

But now it was time to find a new wreck, and we had secured a grant from the State of Florida for the "450th Anniversary Shipwreck Survey," so we had funding.

We started by re-analyzing the magnetic data and with the experience we have gained over those six years we were able to narrow down the magnetic signatures that were most likely to represent historic shipwrecks. We had three magnetic contours in particular that we felt must be shipwrecks.

As it turns out, we were right on all three counts. The first of these, code named Hulk, turned out to be a buried shipwreck. We found it in mid-July using the probe to penetrate beneath the seafloor. The only problem was that it was buried under nine feet of sand, which is too deep for us to make any practical attempt to reach with our handheld dredges.

Although it was a sizable and promising shipwreck, it would have to wait for better technology in order for us to reach it.

The next promising target was code named Magneto. This target was very close to a known shipwreck, the Iron Box Site, which had been discovered by archaeologists in 1999 but has been buried ever since. We located the target, and digging down to it, confirmed that it was the same shipwreck which had not been seen in fifteen years.

So on July 22, I leapt in the water at our most promising target, code named Silver Surfer, wondering if we would find that present for St. Augustine's anniversary. Eden and I descended to the bottom, and were pleasantly surprised to realize that we could see several feet, which is very good visibility for diving off St. Augustine.

We hurriedly got to work, stretching out a tape measure on the bottom and readying the probe. Starting at the west end of our tape, we took the long pipe, now jetting water out one end, and thrust it down into the seafloor.

To our surprise we hit something on the very first try. Then, spacing our probe attempts a meter apart, we got three more hits immediately. The more we probed, the more we hit. And the hits, while deep, were not too deep, mostly around three to four feet under the sand. There were smiles on our faces as we returned to the surface to share the news.

The next day we returned and set up our dredges. The dredges are underwater vacuum cleaners in the form of long sections of hose, four inches in diameter. We laid out a two meter by one meter grid on the bottom, over two of the shallower probe hits. It still took us most of



*Chuck Meide, Director of the Lighthouse Archaeological Maritime Program (LAMP) holds a potsherd used to initially date this shipwreck to between 1750 and the early 1800s.* 

the day to suck up two feet of sand in an ever-widening hole, with our grid in its center.

But by the end of the day, we had our reward.

A few concretions or encrusted artifacts were just partially exposed in our grid. The uppermost appeared to be an iron cauldron, which ironically was also the first object identified when the Storm wreck was discovered six years before.

It was the following day when things got really interesting. I did a dive in the morning, to inspect the work of the two divers dredging. By this time the cauldron was revealed to be three cauldrons nested together, and other objects were being exposed elsewhere in the unit. We kept at it all day long, switching out divers who kept digging and digging.

In the late afternoon I dived again, taking our GoPro underwater video camera with me. I didn't realize it yet, but two more feet of sand had been removed.

As the excavation unit slowly came into focus in the green gloom, I could see things had changed from the morning.

What a change it was!

I was so surprised that my jaw dropped, and I almost lost my regulator. Our grid was filled with artifacts!

At the south end were the three nested cauldrons, but there appeared to be two more tumbled over to one side. Next to those was an upright barrel, protruding from the sand.

In the center of the grid was another barrel lying on its side. North of that was yet another cauldron, lying on top of a concreted object and a pewter plate. They, in turn, were resting on an unknown iron structure, shaped like a flat box.

# PEWTER PLATES

CLAY COVERED LARGE CONCRETION

> IRON BOX

CONCRETIONS

CONCRETION

UNIT 2

CLAY DEPOSIT

PEWTER

PLATE

CAULDRON

CONCRETION

TOP

VIEW

CASK ON ITS SIDE

UNIT 1

MORE CONCRETIONS

CAULDRON

UPRIGHT CASK

THREE NESTED CAULDRONS



In the northwest corner of our grid was another large concretion, perhaps another barrel, and under that were three more pewter plates.

I felt like the archaeologist Howard Carter, when he first peeked into King Tut's tomb. Struck dumb with amazement, when asked if he could see anything, he barely managed to answer, "Yes, wonderful things."

Fortunately, I was underwater and I didn't have to talk. But I was amazed at these wonderful things.

The amount of material exposed in this small area, smaller than the surface of a dining room table, was unbelievable. There were more concretions everywhere I looked, and it appeared that the objects I first saw were all sitting on top of other concretions, barely exposed.

It was like we had come down into the loaded cargo hold of a ship that had been broken open centuries before. That appears to be exactly what happened. I knew we had a major find. There was no time to take measurements or draw things. There were simply too many things, and we had less than an hour before we had to depart.

Instead, I relied on a new technology that my colleague Nick Budsberg, a Ph.D. candidate at Texas A&M's Nautical Archaeology Program, had first shown me. I used the GoPro to get as much video of the excavation as I could in the short time remaining.

I then shared the footage with Nick, who was as amazed at the site as I was. He used pioneering new software called Agisoft Photoscan to perform photogrammetric processing of the digital video frames, and was able to create a threedimensional digital model of our excavation unit.

We can rotate, zoom into, and study this image and the artifacts it depicts. We can even get accurate measurements of individual artifacts from the computer screen. It is the next best thing to being there in person! Before departing the site, I tried to explore every nook and cranny for an artifact that might help us date the site. The pewter plates might bear maker's marks which could do so, but they were cemented to the concretions and couldn't safely be removed in the time allowed.

I was finally rewarded when my searching fingers encountered a single piece of broken pottery, hidden deep under one of the plates.

My heart soared as I carefully wiggled it free from its resting place. Potsherds are like signposts to archaeologists, and I knew this piece could help us narrow down the date range of our new archaeological bonanza.

Indeed, after the close of our field season we invited Carl Halbirt, St. Augustine's City Archaeologist, to take a look at the video of the shipwreck, and at the ceramic sherd.

He was very excited at our find, and believes that the shipwreck could date to late in the First Spanish Period (1565-1763), or anytime in the British or Second Spanish periods (1763-1783, 1784-1821).

The pottery is a piece of brown stoneware, and likely dates to sometime between 1750 and the early 1800s.

As it turns out, we did find a birthday present for St. Augustine, and it is a fabulous one. We have named it the Anniversary Wreck, in honor of St. Augustine's celebration of 450 years of history.

After our two days of digging on the new shipwreck, we moved on to finish testing other targets. We knew that we didn't have time to start a full-scale archaeological dig at the end of our regular field season, and that we'd have to be patient.

This shipwreck had waited over 200 years for us to find it, and we knew that it could wait one more for us to explore it.

But we will be back this summer, and we will be expecting wonderful things!





Maritime Archaeology



A new home for discovery, history, and heritage. Opening 2016!

# MARITIME ARCHAEOLOGY

# A permanent home for research

Discovering, preserving, presenting and keeping alive the stories of our Nation's Oldest Port<sup>SM</sup> starts with archaeology research.

In the new Maritime Research & Archaeology Center, our Museum scientists will have dedicated office and lab space for studying and conserving St. Augustine's maritime history.

# Accesible learning space for all

Visitors, students and community members will all benefit from this new multi-purpose space in the new building.

- » Visitors will explore handicap accessible exhibits, including model shipbuilding.
- » Camp students and field trip groups will enjoy a learning area sheltered from the tough Florida climate.
- » Community members will love having a space for meetings and other civic uses.

Archaeology

71st Regiment uniform button recovered from a 1782 shipwreck.

Archaeology OFFICE

OFFICE

Archaeology OFFICE Archaeology ANALYSIS

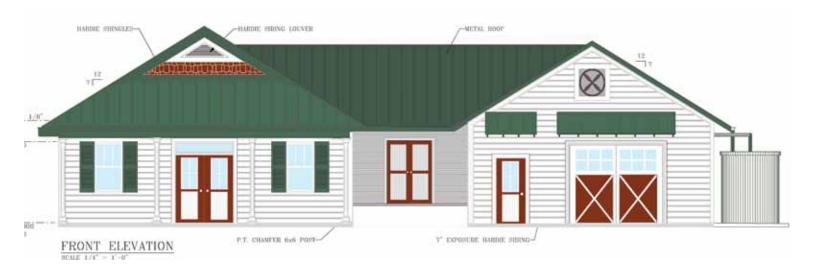
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Interactive Multi-Purpose EXHIBIT, MEETING & CLASSROOM SPACE

# & EDUCATION CENTER



community members each year.



With 450 years of maritime history sitting off St. Augustine's shores awaiting discovery, the St. Augustine Lighthouse & Maritime Museum is looking to the future for space to save the past. Through funds raised in the nonprofit museum's most recent capital campaign, as well as a grant from the State of Florida, the Lighthouse hopes to break ground on a new Maritime Archaeology & Education Center this summer.

"This new building is going to be an excellent asset not just for our Museum, but for the community as a whole," said Executive Director Kathy A. Fleming. "The handicap accessible education space and room for archaeological research will help us continue to discover St. Augustine's maritime past and share it with future generations through new exhibits and educational programs."

The 2,500 square foot structure is still in the planning stages, but will most likely include lab and office facilities for the Museum's archaeology program as well as handicap accessible public exhibit and education space. This will allow for the Museum's Lighthouse Archaeological Maritime Program (LAMP) to move out of the World War II-era U.S. Coast Guard Barracks at the Light Station so that the 1940s structure can be restored and turned into exhibit space.

To date, the Museum's capital campaign has raised \$2.4 million for restoration, programs, and exhibits, of which \$863,260 is earmarked specifically for the new building. This includes provisions for an X-ray room where archaeologists can see inside concreted shipwreck artifacts to determine the best course of conservation and lab space for restoring these artifacts.

Additionally, the facility will provide much-needed indoor space for the Museum's educational programs that is compliant with the Americans with Disabilities Act (ADA). Included in the total funds raised to date is \$150,000 from a matching Cultural Facilities grant provided by the Department of State, Division of Cultural Affairs, the Florida Department of Arts and Culture, and the State of Florida.

The Museum still needs \$190,000 to complete the campaign and break ground. Donors can become part of the Lighthouse Legacy through one of several naming opportunities still available. More information is available online at staugustinelighthouse.org.

In addition to the new building and restoration of the World War II-era structures, the Museum is also hosting a grand opening for its latest exhibition, Wrecked!, in May. Featured inside the 1876 Keepers' House, the new exhibit tells the story of how Lighthouse archaeologists discovered and conserved a 1782 British Loyalist shipwreck in St. Augustine with ties to the American Revolutionary War.

Many other shipwrecks like the one highlighted in *Wrecked!* are still trapped in the sands off St. Augustine's shores. Each shipwreck holds a piece of St. Augustine's story, and with the new Maritime Archaeology & Education Center, the St. Augustine Lighthouse & Maritime Museum will be able to continue its work recovering and sharing these stories with the public.



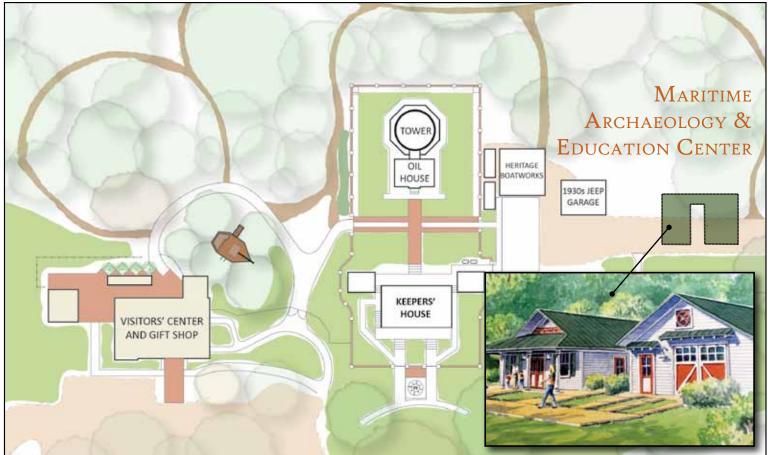
# Will you make a contribution to the

# MARITIME ARCHAEOLOGY & EDUCATION CENTER?

We need to raise **\$190,000** by **June 30, 2016** to complete this capital campaign for the St. Augustine Lighthouse & Maritime Museum.



Support this campaign through naming opportunities, five-year pledge options (*add your name to the donor legacy wall above!*) and more. Contact Director of Development Michelle Adams via phone at (904) 829-0745 ext. 212 or madams@staugustinelighthouse.org for more information or to schedule a tour today.



# Versaggi Family Legacy

Through a generous donation from the 26 Versaggi family cousins, descendants of St. Augustine's original shrimping families, the St. Augustine Lighthouse & Maritime Museum was able to donate 40 copies of Shrimp Boat City to local libraries.

The Versaggi family once held almost royal status in the U.S. commercial shrimp fishery. This was no small fishery of a few boats and a couple fishermen, it was an international enterprise of thousands of people and billions of dollars.

For almost a century, northeast Florida was home to this industry, and built more boats than any other coastal city to supply the global commercial shrimping fleet.

Together, the Versaggis owned several dozen trawlers and their name was synonymous with commercial shrimping from day one. Their boats fished the Atlantic, Gulf of Mexico, and Caribbean. During the 1970s, St. Augustine exported shrimp boats to 23 countries around the world. However, by the 1990s, the industry collapsed into a shadow of its former self. Imported shrimp and a host of other forces conspired to devastate the domestic fleet. In St. Augustine, Ed Long watched this happen and knew that a way of life was passing, a story of the American Dream was fading.

What Mr. Long did next was commendable, he began the process of saving the story and writing down history. After more than three decades of gathering stories, memories, and artifacts, he sat down and began assembling a book now in print called *Shrimp Boat City*.

The 306-page photo essay documents the earliest days of fishing where immigrant families, together with native Floridians, assembled one of the nation's most valuable fisheries.

In 2011, Brendan Burke,

archaeologist and maritime historian with the St. Augustine Lighthouse & Maritime Museum joined the project to create *Shrimp Boat City*, contributing to the book as co-author. Long and Burke, through the Museum, published *Shrimp Boat City* in 2013. This definitive history honors contributions of the pioneers who developed one of St. Augustine's greatest accomplishments.

This spring, the Versaggi family continued their commitment to commercial shrimping heritage by making a gift to the Lighthouse to enable a donation of *Shrimp Boat City* to each school and public library in the county.

Over 40 books will be donated through this generous gift, enabling students and citizens to discover, or reminisce, through a century of catching shrimp and building boats in the Nation's Oldest  $\mathsf{Port}^{\mathsf{SM}}.$ 

On April 6, St. Johns County School Superintendent, Dr. Joseph Joyner, joined media specialists from around the county, representatives from the county public library system, and St. Josephs Academy to commemorate the Versaggi's contribution.

Additionally, the donation was honored at a presentation to the School Board at their April 12 meeting.

Dr. Joyner commented "The book will be an excellent addition to our school libraries. I am very grateful to the Versaggi family and the St. Augustine Lighthouse & Maritime Museum for providing this book so that our students will have the ability to read stories on such a historically important industry in this community."





Above (left to right): Brendan Burke, Asst. Superintendent Martha Mickler, Ed Long, Superintendent Dr. Joseph Joyner, John Versaggi, School Board Chairman Patrick Canan, Assoc. Superintendent for Curriculum & Instruction Dawn Sapp, and School Board Member Bill Mignon.



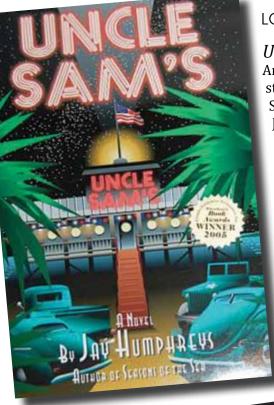


Above: Dr. Joyner shakes hands with Long at April 12 school board meeting. Left: Co-Authors Burke and Long with John and Mike Versaggi. Below: Burke and Long, center, with the St. Johns County media specialists at the April 6 Lighthouse event.



# localfare

You can find these special items made locally by St. Augustine's talented artisans in our Museum Gift Shop!



## LOCAL AUTHOR

Uncle Sam's An unforgettable story set in 1942 St. Augustine by Jay Humphries







*Lighthouse Ornament* Handpainted on an oyster shell.

*Lighthouse Earrings* Sterling silver, painted by local artist.



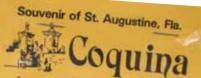


### HISTORIC ST. AUGUSTINE

Historic Prints Enjoy high quality prints from St. Augustine's past, including the Old Spanish Lighthouse.

### Coquina

Take home a piece of authentic St. Augustine coquina rock.



Use particular labels and in an antional interactions economical of local on sharple high solubility of local are mass where mixed with social and protocol and practicle from the sharp of some starts. It is related and another depart relatively and compares masses from a departicle mode occurs. Generalized and Cales. It parts the masses from a departicle work from means "sharping" and the masses from a departicle work optimized and Cales. If parts in masses from a departicle work from means "sharping" and the masses from a departicle work optimized and the solution of a some form a departicle work optimized parts in the analysis of a some form a departicle work work for billions in the analysis of a some form a depart of the labor some age. There, it is a depart of the source of the solution is a labor have been departed parts and the source of the solution is a data best-beil-motific time which for an anotas is the labor source of the solution of the source of the solution of the bases for a solution of the solution of the source of the solution of the base for each work of a comparison department of the solution of the solution operation the solution of the solution of the solution in the solution of the solution of the solution of the solution of the solution operation the solution of the solution of the solution is the solution of the solution of the solution operation of the departs overses the departs of the building of carsolic heads the form of the solution operation of the building of carsolic heads and departs overses the departs of the building of carsolic heads and departs overses the departs of the building of carsolic heads and departs overses the departs of the building of carsolic heads and departs overses the departs of the building of carsolic heads and departs overses the departs of the building of carsolic heads and departs overses the departs of the building of carsolic heads and departs overses the departs of the building of carsolic heads and departs overses the departs of the building of



### PAINTINGS & PRINTS

Sunrise at the Lighthouse This 5" x 7" print, painted by St. Augustine artist Marilyn Terry, measures 8" x 10" with mat.

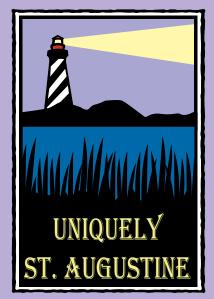
### Guardian of the Night

Painted by local artist Patricia Pollock, this 8" x 10" print with mat shows the Lighthouse as a welcoming guide to calmer harbors.

### PHOTOGRAPHY

From coastal views of the Lighthouse to powerful shots of the 1874 first order Fresnel lens, these matted prints from local photographers are a fantastic way to bring a little piece of St. Augustine to your home or office.





# Local-to-Local Handmade Treasures

In earlier times, personal gifts, decorations, jewelry and food stuffs were gathered from the natural world around the Lighthouse. Today, local artists draw inspiration from the same unique natural beauty.

Salt Run Sales has developed the Uniquely St. Augustine product line composed of handmade products that allow visitors to take home a piece of the city made with the same love and care used long ago.

Uniquely St. Augustine combines the remarkable, unforgetable and historic aspects with the practical, all in a package you can take home and use every day. Books, jewelry, artwork and more are part of the Uniquely St. Augustine line.

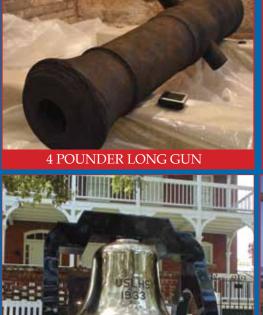
For more information or to purchase your Uniquely St. Augustine products visit www.staugustinelighthouse.org or call (904) 829.0745.

# ADOPT ANDAN ARTIFACT

Give a unique gift to someone special that also helps support research and education at the St. Augustine Lighthouse & Maritime Museum. We have a list of artifacts including shipwreck items, Lighthouse keepers' tools, and even our historic lens can be adopted!

Your adoption contribution will help us provide critical preservation, conservation and care for each piece in our collection so that future generations will be able to to experience it and the story it represents for years to come.

To adopt an artifact, please contact Michelle Adams via phone at (904) 829-0745 ext. 212 or madams@staugustinelighthouse.org



MEMORIAL BELL



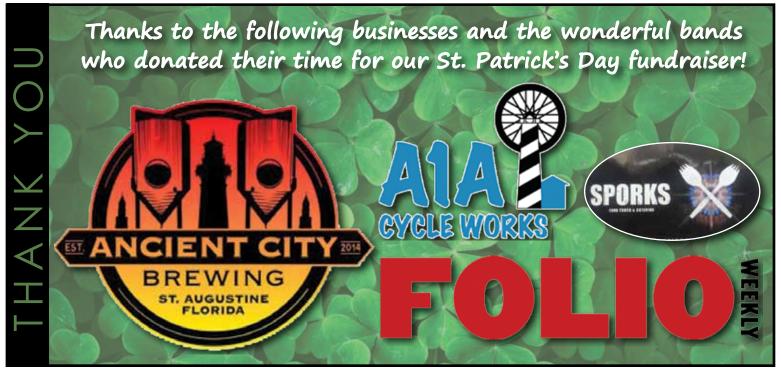




FIRST ORDER FRESNEL LENS



U.S.L.H.S. FERN SHIP MODEL







SEPTEMBER 15TH 6:30 - 9:00 P.M.



OCTOBER 20TH 7:30 - 9:00 P.M. Smithsonian Institution Affiliations Program GUEST LECTURE

NOVEMBER 10TH 7:00 - 9:00 P.M.



6:00 - 9:00 P.M.

To R.S.V.P. for any of our monthly membership events, please contact Michelle Adams via phone or email (904) 829-0745 ext. 212 - OR madams@staugustinelighthouse.org



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# ST. AUGUSTINE LIGHTHOUSE & MARITIME MUSEUM