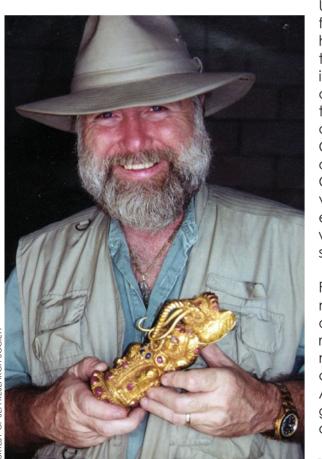


Three dimensional scan of the H.L. Hunley submarine, courtesy of the Friends of the Hunley

Text by Brian Chamberlain Scans and photos of Hunley courtesy of Friends of the Hunley

Let me just come right out and say it: Everything about the *H.L. Hunley* is cool. And it is completely awesome to see in person. Among the crown jewels of Charleston, South Carolina, the historical and archaeological treasure of the *Hunley* submarine stands out.





Until the wreck's discovery, few, apart from history buffs and academia, would have associated this popular seaside town with such an intriguingly unique and important part of naval history. Humbly described as "probably the most important find of the century" by the Director of Naval History at the Naval Historical Center in 2011, the Hunley has become one of the city's biggest tourist draws. Currently housed at the beautifully renovated Warren Lasch Conservation Center, it is expected to bring in more crowds when it is relocated to its very own museum in the future.

But why is it so special, one may ask...
Few shipwreck stories inspire such excitement and passion in their readers as that of the wreck of the Confederate submarine H.L. Hunley. In a claustrophobic nightmare scenario, the details of the Hunley's demise on 17 February 1864, during the American Civil War, remain among the greatest mysteries in maritime archaeology to date. The interpretation of the

evidence surrounding the discovery, recovery, ongoing conservation and archaeological investigation of this famous wreck makes for fascinating and gripping research material. Much has been written and debated, but a great deal more has yet to be brought to light. In fact, the biggest and most obvious questions about why the *Hunley* sank remain unanswered. This only adds to its allure and legendary status.

History

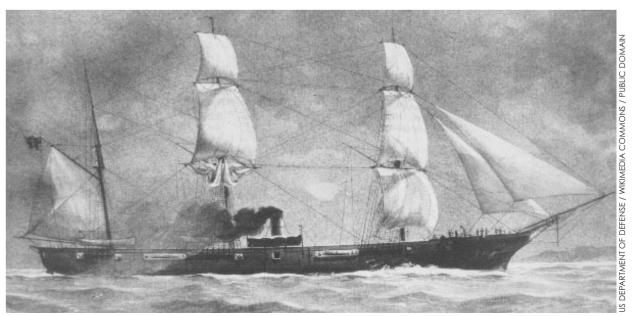
The Hunley earned its place in history the day it became the first submarine in the world to sink an enemy ship in battle. Its victim was the Union Navy warship Housatonic. When the Hunley failed to return after its successful mission, its story and resting place became the object of intense speculation. For over a hundred years, many searched for it, especially after P.T. Barnum, "the greatest showman on earth," offered a reward equivalent to (in today's standards) millions of dollars in

gold for its discovery, intending to display the wreck in his museum in New York City; no one was able to claim that prize.

Discovery

Finally, someone with both skill and luck accomplished what no other had. In 1970, pioneer underwater archaeolo-

gist, E. Lee Spence, then just 22 years old, found the *Hunley*, after snagging a fish trap on it. Spence had not planned to dive that day, so he did not have any gear with him, but the captain did. Spence could not fit into the captain's wetsuit or fins, but scuba gear and a mask were all he really needed. He quickly stripped



The Union Navy warship Housatonic was sunk by the Hunley

Dr E Lee Spence discovered Hunely in 1970

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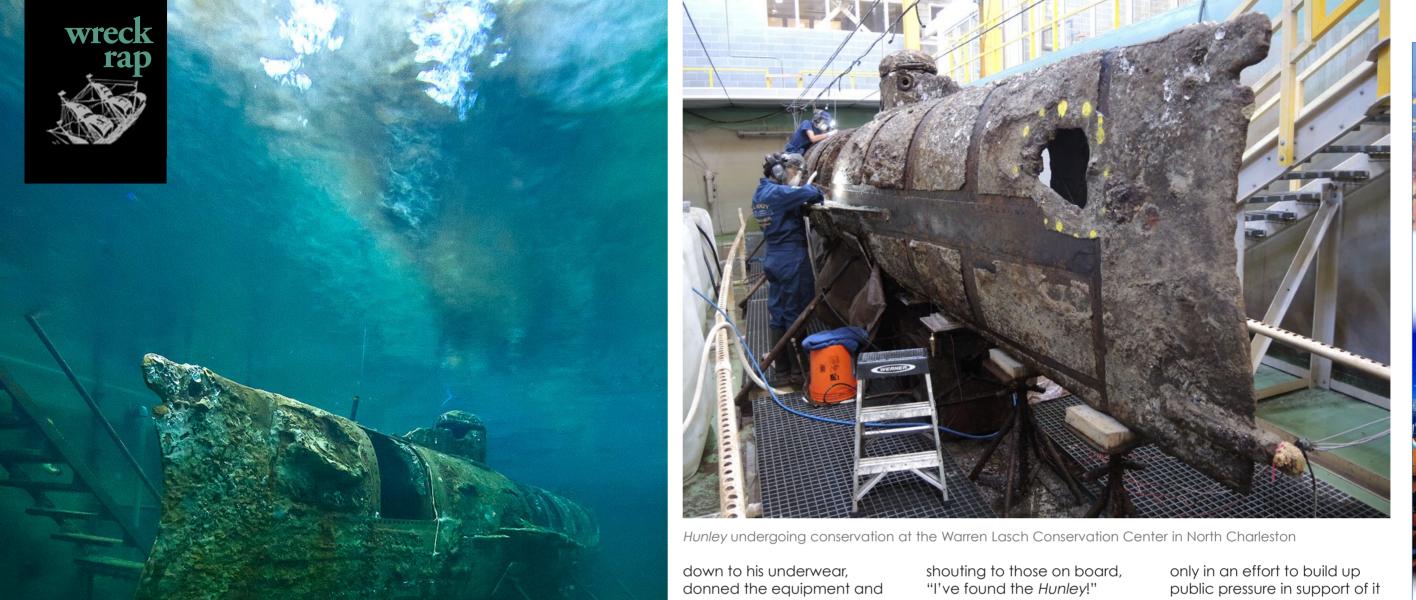
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jumped into the bone-chilling, low-visibility water, following the trap line down into the murky depths. Minutes later, he emerged,

Knowing the importance of his find, he carefully plotted the location with amazing accuracy (this was before GPS was invented). Within days, a couple

of friends dove at the site, and soon afterward, he reported the location to the (then newlyformed) South Carolina Institute of Archaeology and Anthropology (SCIAA) and the National Park Service. Not after publicity, Spence did not alert the media until five years later, and

being preserved.

In 1978, thanks to Spence's discovery, the Hunley was placed on the US National Register of Historic Places. At the official request of Senator McConnell, chairman of the South Carolina Hunley Commission, Spence donated his legal rights to the wreck to the state of South Carolina in September 1995. It was an act which, Charles M. Condon, then Attorney General of the State of South Carolina, described as Spence's "generous and historic donation."

Since then, the submarine has become even more of a star. One reason it took so long to find the *Hunley* was because it lay offshore and east of the



Hunley on display at the Warren Lasch Conservation Center, North Charleston, South Carolina, USA

Spence's mapped location of Hunley

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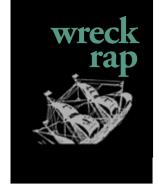
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What may be the most intriguing insight about the Hunley's story is the fact that even today, so little is actually known about what really happened to it.

Dr Spence (inset) on the day of the raising of the Hunley in 2000 (right). Photos courtesy of Sea Research Society

Housatonic wreck. This was an unlikely spot since historians and researchers had thought it, albeit erroneously, to be somewhere inshore and west of the Housatonic.

Excavation

In 1995, a SCIAA expedition, initiated and directed by Dr Mark M. Newell, and funded in part by novelist Clive Cussler, went to the site of Spence's 1970 discovery. Divers dug up enough of the wreck to photograph recognizable features and took the first photos to prove that it really was the Hunley. That was something Spence had been unable to do with the cameras available to him in 1970; and he had been prevented from doing so in the intervening years because digging it up would have required government approval, which Spence couldn't get. Newell, as a SCIAA archaeologist, didn't need such approval.

On 8 August 2000, the *Hunley* was raised with great anticipation and fanfare, to copious crowds and international media attention. I encourage you to see the *Hunley* for yourself, in all its glory, and to think about how it might have been for the crew on that fateful day in 1864.

Ongoing investigation

So much has already been published about its history, mission, discovery and recovery that I would heartily encourage the reader to study those subjects in depth, through the voluminous works by other authors. What may be the most intriguing insight about the *Hunley's* story is the fact that even today, so little is actually known about what really happened to it. It has been 151 years after the sinking of the *Housatonic*, and archaeologists and conservators have yet to arrive at a definitive answer about what had actually taken place on that day.

Technology has progressed significantly since recovery and conservation started 15 years ago. In various arenas, concurrent technological and multidisciplinary advances have allowed for subsequent advances in techniques used to interpret, record and study the Hunley data. Especially in the time of 3D computer imaging and laser-scanning technology, new ways of understanding the data opens up compelling new theoretical possibilities.

Why didn't the *Hunley* make it home? Were the *Hunley's* crew

scious after the impact of their torpedo with the Housatonic? Did the submarine take on water due to aunshots fired from its victim, or did it stay watertight for vears after sinking? The possible answers to these and hundreds of related questions are fervently discussed in classrooms, books, coffee shops, newspaper arti-

cles, laboratories

and the general blogosphere around the globe. Is our interest piqued? Yes, indeed it is.

Surprises

Speaking on the subject of the ongoing investigation, archaeologist Michael Scafuri commented that "the common thread throughout the investigation of the H.L. Hunley is that we are always sur-

prised." For instance, before the excavation, it was generally assumed that the *Hunley* was buried relatively quickly after sinking and remained covered until 1995. But Scafuri noted that "it [the *Hunley*] had been exposed periodically," possibly after storms and hurricanes, since it sank about 28ft (8.5m) to the seafloor. The work being done now

lowing interpretations of what happened that were unavailable until now.

The process of deconcretion involves the slow and arduous task of simultaneously documenting the details of progress as concreted material and is removed from the surface of the submarine and its artifacts. Scafuri noted, "this is the first time, in the last six months, that we've had a look at the real hull un-



Exterior scan of the H.L. Hunley submarine before excavation, courtesy of the Friends of the Hunley



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concretion. This is the first time we've been able to examine the concretion and see how thick it is. What is its composition? Is it all corrosion product? Are there macrofaunal organisms that colonized the submarine when it sat offshore?"

With genuine archaeological flair, Scafuri added, "the biggest mistake in all of archaeology... in any investigative science... is to take your preconceived notions and look for evidence to support them." When asked if any of his preconceived notions or ideas had

been "blown out of the water" by the ongoing research, he answered, "Almost every one."

That promises a lot of stimulating discovery and adventure for the development of the *Hunley's* story. I, for one, will keep reading. ■

Thanks to the Friends of the Hunley and Michael Scafuri. Please visit **Hunley.org** for tour information and to become a member or sponsor. You can read more about Dr E. Lee Spence and his many other discoveries at **Shipwrecks.com** and like him on Facebook at https://www.facebook.com/shipwrecktreasure.









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Steve and Cindy Moore, April 201

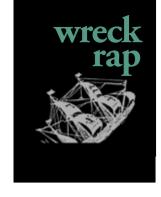


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Royal Australian Air Force (RAAF) Catalina flying boat

WWII Catalina found on Great Barrier Reef

A video released by the Royal Australian Air Force (RAAF) shows a newly found Second World War aircraft under the water in Australia. The plane is a Catalina A24-25 flying boat from RAAF Number 11 Squadron, which went missing on 28 February 1943.

The wreckage was first discovered 56km south of Cairns, in 35m of water, by Cairns diver Kevin Coombs in 2013, but weather and planning challenges delayed the final dives to complete the investiaation.

The A24-25 was part of a task force flying long-range missions against Japanese shipping and submarines during World War II. On 28 February 1943, Catalina A24-25 and its 11 aircrew were on a 17-hour mission to provide anti-submarine cover to a convoy heading for Milne Bay in Papua New Guinea. The crew of the Catalina sent out a radio statement saying they needed to make an emergency landing. The aircraft crashed during the attempted landing and the 11 personnel on board were killed.

The Court of Inquiry recorded the plane crashed at sea while attempting to land after running out of fuel. There were no witnesses and no sightings of wreckage or crew during subsequent searches.

War grave

The RAAF will leave the aircraft where it was found as a mark of respect to the crew and will be protected by a Maritime Cultural Heritage Special Management Area designation. ■



File photo of a Boeing B-17 'Flying Fortress'

WWII B-17 Flying Fortress bomber found off Sicily

The wreck of a Flying Fortress bomber shot down by German fighters during the Second World War was found at a depth of 75m (245ft).

The Flying Fortress took part in a raid on Palermo on 18 April 1943 when it was attacked by several German ME-110 fighters, which knocked out one of its engines. The aircraft, part of the 353rd Bomber Sauadron of the American air force. crashed into the sea, with the loss of all nine crew.

Months of detective work

The WWII bomber was found a few months ago by a group of Italian divers who are part of a project called "Shadows of the Deep", which aims to locate the wrecks of planes and boats off

The discovery, helped by a sonar scan carried out by a diving unit of the Italian fire brigade, was the result of months of detective work, with historians and

amateur divers matching official wartime records with the accounts of elderly Sicilians who still remember the raid.

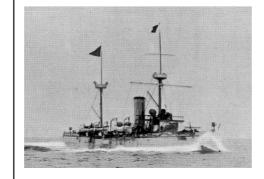
After identifying the aircraft's serial number, the diving team was able to trace US War Department records, which listed the crew members and an eyewitness account on the planes demise:

"Lt Godwin's ship was attacked 20 miles from taraet by ME-110s and was shot down.

"There were no chutes seen to open and the aunners from the other planes were having a pretty busy time taking care of themselves," it said.

According the report in the Telegraph, no human remains have been found yet inside the wreck. There are no plans to raise the wreck—it lies in deep water and is classed as a military war grave.

19th century Chinese cruiser Zhiyuan identified



The shipwreck, which was not discovered until 2013 and at first was code-named "Dandong No.1", has now been tentatively identified as the cruiser Zhiyuan. It was sunk in 1894 during the largest naval engagement of the First Sino-Japanese War. According to China Radio International's English Service, over a hundred relics have been salvaged from the depths of the Yellow Sea, including canons, shells and other artillery.



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