

INLAND SEAS[®]



QUARTERLY JOURNAL
OF THE GREAT LAKES
HISTORICAL SOCIETY

VOLUME 71 • WINTER 2015 • NUMBER 4

INLAND SEAS®

Volume --71
Winter 2015
Number 4



In This Issue:

Remembering the <i>Fitz</i> by <i>Carrie E. Sowden</i>	290
Summers on the Boat With My Dad (Captain Clayton A. Martin) by <i>Moray Loring Kiehl</i>	296
The Sinking of the <i>S. R. Kirby</i> by <i>David Balfour</i>	304
A Captain for All Seasons: Remembering Captain Harold Hogan by <i>Brian Johnson</i>	320
The Current State of the Wreck of the Brig <i>Sultan</i> by <i>David M. VanZandt MMA, RPA,</i> <i>Jim Paskert, Kevin Magee, Chris Kraska,</i> <i>Ken Marshall, and Linda Pansing</i>	327
Saga of the Steamboat <i>Oswego</i> by <i>Richard F. Palmer</i>	333
Sinking the <i>Argo</i> by <i>Jim Paskert and Tom Kowalczk</i>	343
Books	353
Great Lakes News by <i>Greg Rudnick</i>	354
Great Lakes Historical Society	372



INLAND SEAS®

Quarterly Journal of the
Great Lakes Historical Society
Vermilion, Ohio 44089-1099

Periodicals Postage
Paid at Vermilion, Ohio
INLAND SEAS - ISSN 0020-1537

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THE CURRENT STATE OF THE WRECK OF THE BRIG *SULTAN*

by David M. VanZandt MMA, RPA, Jim Paskert, Kevin Magee,
Chris Kraska, Ken Marshall, and Linda Pansing

PREVIOUSLY:

In the Spring 2015 issue of *Inland Seas*® the history of the wreck of the *Sultan* was discussed. What follows here is a complete description of her current condition as well as the results from the archaeological study conducted by the Maritime Archaeological Survey Team, Cleveland Underwater Explorers, and the Great Lakes Historical Society.

THE DIVE SITE

The *Sultan*, Ohio Archaeology Inventory (OAI) number 33 CU 534, is located at 41° 35.685' N, 81° 36.936' W and sits upright on a sand/mud bottom in 42 feet of water. The wreck measures approximately 125 feet x 23 feet and is mostly intact although partially buried with the hull settled into the sand/mud on to a firmer sub-bottom. Silt has filled the interior spaces of the vessel but a slight west-to-east current helps keep the upper structure of the wreck free of major silt. Due to its depth the wreck is not subject to shallow water ice damage, wind-driven surface currents, or wave action. Zebra or quagga mussels cover the vertical surfaces of the wreck to a moderate degree, necessitating the use of gloves by divers to prevent cuts from the sharp mollusk shells.

The deck and associated deck equipment are covered with a fine layer of silt which is easily stirred up by survey activities. When this condition occurs, it can drop the visibility in local areas of the wreck to zero. The visibility at the dive site varied from day to day and ranged from zero to sometimes 20 feet of visibility with the average being about 3 feet. The lack of visibility made photography and video recording tenuous activities at best. Normal archaeological methods include having a scale and north arrow in frame when taking photographs of a site and site artifacts. Due to the silting conditions, these were not commonly employed.

Most survey dives were completed during the summer months. The water temperature at these times varies from about 60 to 70°F with little to no thermocline due to the shallow depth of 45 feet.

The ship's bow, missing the bowsprit, is pointed east and stands five feet high off the sand/mud bottom. The hull sides are intact and the majority of the decking is present. Two anchors are present and visible lying on the bottom off either side of the bow. A wood-stocked bower anchor is partially buried on the port side still attached to its anchor chain. A metal stream or small bower anchor, with a 90 degree-shaped wooden cathead still attached to it, is mostly buried on the starboard side with a grindstone on top of it.

The bow of the ship features a prominent cutwater with a notch for the missing bowsprit. The disarticulated bowsprit rests on the bottom 42 feet to the east of the bow. A windlass is located on the forward deck just aft of the bowsprit notch. Aft of the windlass is a small square access opening in the deck to the chain locker, which is filled with anchor chain. Two separate anchor chains run from the chain locker. The port anchor chain runs from the chain locker through its spurling pipe and loops back into the chain locker. It then comes back out of the chain locker where it wraps around the port whelp of the windlass. From the whelp it



Wood-stocked bower anchor, port side.
Photo by Chris Kraska, MAST



Bow and cutwater.
Photo by Jack Papes

continues its run along the deck to the port hawse pipe and presumably out to the partially buried port anchor. The starboard anchor chain runs out of its spurling pipe and is separated at this point. After the separation, the remaining starboard anchor chain wraps around the starboard whelp of the windlass. From the starboard whelp it continues its runs along the deck to the apparently ripped

out hawse pipe continuing off the deck and down the side of the ship, presumably out to the partially buried starboard anchor.

Aft of the chain locker is a single-barrel hand pump along with the remains of the foremast located just behind this pump and broken off at deck level. Along the railings adjacent to the foremast are the remains of six large deadeyes on each side. The deadeyes are no longer attached to the railings and their chainplates are bent down parallel to the hull, suggesting the mast was violently wrested from the standing rigging. The large number of deadeyes is a good indicator that the foremast was square-rigged.



Intact port railing.
Photo by David VanZandt, CLUE

The wreck has an obvious list of about 30 degrees to starboard. The railings on both the starboard and port sides are mostly intact. Round grindstones are piled up on the deck along the inboard starboard railing in stacks of one, two, or three stones high and in several rows. The grindstones start near the foremast and continue all the way to the stern. The larger stones, about 5.5 feet in diameter, are located forward, and the smaller stones, about 3.5 feet in diameter, are located toward the stern.

Aft of the foremast stub is a cargo hatch. Two long boards protrude from the after side of the hatch toward the starboard side and are likely remnants of the secondary cargo of lumber. Along the centerline of the vessel is a small slot in the deck, followed by a small hatch aft of the slot. This is the location of the centerboard, although no centerboard box is apparent inside the silt-filled hold as viewed through the center hatch. No centerboard winch is present at the aft slot, but the two forward mounting holes for the winch appear to be on the deck.



Grindstones along starboard site.
Photo by David VanZandt, CLUE

A single large 5-foot-diameter grindstone rests on the centerline wedged against a two-barreled wooden pump immediately behind the aft slot. The mainmast is missing, but it stood behind this area as evidenced by the chainplates on the sides of the ship adjacent to this area. There are three deadeyes intended for each side. The deadeyes are missing on the starboard side railing while two of the three deadeyes remain on the port side railing. A strip of missing centerline decking runs aft from the pump to another cargo hatch.

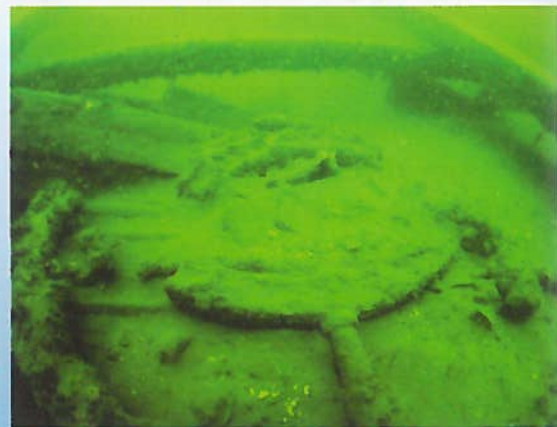
Astern of the aft cargo hatch is a raised wooden combing that spans the entire beam and once formed the front of the now-missing cabin. Grindstones are wedged against this combing and the starboard railing but do not spill into the cabin space. Four floor joists are present where the cabin floor was once located.

The transom is missing and the rudderpost, turned slightly to port, stands high off the bottom. The rudder cap, which would have been mounted on top of the rudderpost, can be seen lying inside the cabin on the port side. A line of grindstones that spilled from the boat as it drifted and sank is visible in the distance behind the stern running out across the bottom of the lake. The wreck's length and breadth were measured at 125 feet and 23 feet, respectively, which compares closely to the 127 feet by 24 feet indicated on the *Sultan's* various enrollments.

PORTABLE ARTIFACTS

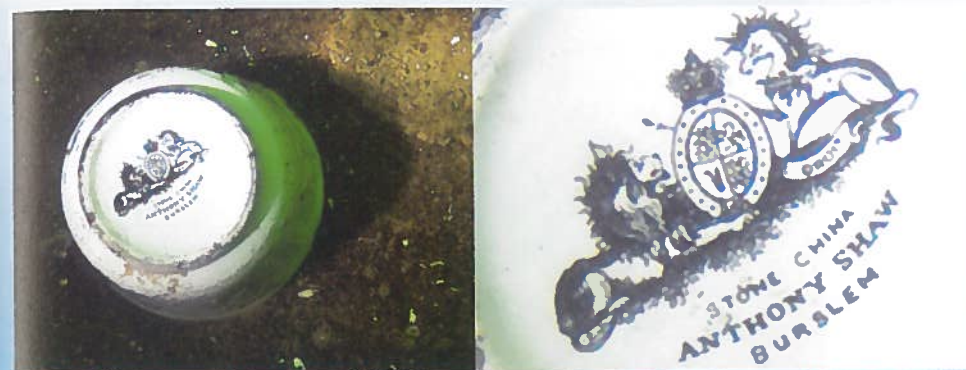
Deck Hardware

The deck of the *Sultan* is strewn with a variety of disarticulated deck hardware. Some of the hardware has been identified and some has yet to be. One of the most identifiable pieces of deck hardware is the broken ship's wheel located near the stern where the cabin once stood.



Broken ship's wheel.

Photo by David VanZandt, CLUE



Anthony Shaw Cup.

Photos by Chris Kraska, MAST

Ceramics and Pottery

A quantity of ceramic items including a cup and several plates manufactured by Anthony Shaw of Great Britain — as evidenced by the maker's mark — were found on the wreck. These marks date to the period of ca 1860–1882, consistent with the wrecking event (Thepotteries.org, 2014a). This tableware appears to be one of the designs manufactured by Shaw and distributed exclusively in the United States. It was likely stocked on the brig as part of its standard galley dishware during the *Sultan's* time in New York City from 1859–1861.

A ceramic shard was also discovered with a mark that resembles the British diamond mark. During the period 1842–1883, the British Patent Office issued a diamond mark along with the registration number when a design was registered (Thepotteries.org, 2014b). This maker's mark is also consistent with the wrecking date and history of the *Sultan*.

Additional ceramic, pottery, and glass items have been located on or around the wreck and a formal analysis of this assemblage will be performed at a later date.

The master site plan represents the accumulation of all the survey data collected to date and provides a detailed graphical representation of the *Sultan* wreck site as it appears today.

POST-SURVEY

Brian Abbott of Nautilus Marine Group International, LLC volunteered his expertise and 360-degree sonar equipment (post-survey) to produce detailed images of the wreck site. Brian and his colleague David Thompson



Sultan 360 Sonar 90 ft composite image.
Brian Abbot, Nautilus Marine Group International, LLC

travelled from Michigan with the equipment and joined MAST member Chris Kraska, who provided and captained the boat, to create these high resolution scanning sonar images.

CONCLUSIONS

The authors have little doubt that the remains of the ship described herein are those of the sailing vessel *Sultan*, first registered in the District of Chicago in 1848. The vessel's history is well researched and it has proven to be quite interesting. During her 16 year history, the *Sultan* sailed not only on the Great Lakes but also in the Atlantic and Caribbean. After several mishaps, refits, and changes of ownership, she came to rest where she sits today, a mere two and a quarter miles offshore just east of Cleveland, Ohio.

Her identification is made using information from a number of sources. First, the archaeological data obtained from the survey is consistent with the time period in which the *Sultan* sank. This includes personal items, cookware, and tools found on site as well as the construction methods and materials used on the vessel. Second, the scantling data obtained from the survey is consistent with the as-built data obtained from the historical record. Finally, the historical accounts and records are also consistent with the disposition of the wreck and the remains of her cargo. All of these taken together provide a very strong case that the wreck is that of the brig *Sultan*. 