

Coming Events

- September 12-14, 2002 **Association for Great Lakes Maritime History Annual Meeting**, Michigan Maritime Museum, South Haven, MI. For information check their web site at www.aglms.org.
- October 5 & 6, 2002 **Meteor Cleanup Project**. Superior, WI. For information contact Russ Green at 608-271-8172 or rtgreen@whs.wisc.edu.
- October 12, 2002 **Wisconsin Underwater Archeology Association Fall Meeting**. Madison, WI. For information contact Russ Green at 608-271-8172 or rtgreen@whs.wisc.edu.
- November 9, 2002 **Gales of November**. Duluth, MN. For details call 218-727-2497 or check the web site at www.lsmma.com.

Wisconsin Underwater Archeological Association

P.O. Box 6081
Madison, WI 53716



*For those interested in the study and preservation of
Wisconsin's underwater history and cultural resources.*

Wisconsin's UNDERWATER HERITAGE

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Some Thoughts On The Steamer *Meteor*

by C. Patrick Labadie

The steamer *Meteor* is a museum ship berthed at Superior, Wisconsin, where it was built 106 years ago. The low-slung black ship is as unconventional today as it was the day she it launched so long ago...maybe more so. In 1896 there were nearly 40 of her type afloat on the waters of the Great Lakes, while today she alone represents her whole class of unique vessels.

The *Meteor* is a "whaleback", the invention of Scottish immigrant Alexander McDougall, and a bold experiment in radically new ship designs. Iron shipbuilding was introduced in Scotland and England shortly after 1800, but it was slow to catch on among conservative shipbuilders and owners. Employed at first for very small vessels, it was finally adopted in a more general way in the UK during 1850s and in America around the time of the Civil War. I. K. Brunel's 290-foot *Great Britain* demonstrated the practicality of iron shipbuilding in 1846. A number of iron vessels were built on the Great Lakes after 1870, and it quickly became clear that a wide variety of vessel designs could be employed using that material which could not have been built using the more traditional wood. Steel

replaced iron as a shipbuilding material in the early 1880s, and it proved even more versatile and practical than iron.

Alexander McDougall migrated to Collingwood, Ontario from Scotland in 1854 at the age of nine. At sixteen he became a Great Lakes sailor, serving in several capacities before earning his Master's license in 1870 at the age of 25. A year after he became a Captain, McDougall was asked to supervise construction of the new iron steamer *Japan* at Buffalo, New York, and in that capacity he learned a great deal about iron shipbuilding. When he returned to sailing (as Captain of the *Japan*, incidentally) he began thinking of ways to improve ships and cargo-handling techniques, and to develop ideas for inventions. Eventually McDougall had dozens of patents to his name in several different countries.

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Volunteers Needed for *Meteor* Project

The Wisconsin Underwater Archeology Association is looking for volunteers to help with the cleanup of the museum ship *Meteor* in Superior, WI. The work will be done on the weekend of October 5 and 6.

Pat Labadie will lead the work party. As Pat mentions in his article on the *Meteor* in this issue, the ship is in generally good condition. A little work will go a long way toward improving its appearance. We will begin with general cleaning and some painting.

Russ Green will be coordinating the volunteers for WUAA. Please let him know if you can make it, as the work plans depend on how many volunteers we get. Also, please contact Russ for more information or with any questions you may have. Russ can be reached at 608-271-8172, or rtgreen@whs.wisc.edu.

The Frank Rockefeller sailed for the giant Pittsburgh Steamship Company fleet from 1901 until 1927. E.J. Dowling collection, University of Detroit-Mercy

Wisconsin Underwater Archeology Association News

Fall Meeting

The fall meeting of the association will held on Saturday, October 12, 2002, at the Wisconsin Historical Society, 816 State Street, in Madison.

The business meeting will be held in the Sellery Room of the Historical Society building from 10 am to noon.

Plans are being made to have a tour of the Historical Society archives and library.

Following the tours, there will be a BBQ picnic at Russ and Cathy Green's house in Madison. Contact Russ Green for more information about the meeting and activities at 608-271-8172, or rtgreen@whs.wisc.edu.

There will be book fair at the Historical Society the day of the meeting, which may be of interest to our members.

Bailey's Harbor Project

WUAA will continue it's surveys of the Christina Nilson and adjacent shipwrecks at Bailey's Harbor, in Door County, next summer.

The project will be conducted from June 7 - 15, 2003. The project is being led by Russel Leitz and Hank Whipple. Details will be in the next newsletter, but if you are interested in participating contact Russel Leitz at 715-258-2935.

Yahara River Project

Research is continuing on the Yahara River fish weir and bridge project. Volunteers are needed to search newspaper files for information. If you are willing to assist by reading microfilm records please contact Tom Villand at 608-221-1996.

Wisconsin's Underwater Heritage

is published quarterly by the Wisconsin Underwater Archeology Association, a nonprofit association of individuals and organizations interested in studying and preserving the underwater cultural resources and historical sites of Wisconsin.

In addition to publishing this newsletter, the Association also holds semiannual meetings and

provides support to members' research and publication projects. Annual membership dues are \$15. For membership information, contact the secretary or write to the address below.

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New WUAA Shirts WHS Update

New WUAA shirts are now available. Tastefully designed, with the multi-colored WUAA logo on the front breast pocket area, the shirts come in a variety of styles and sizes. There are white short-sleeved t-shirts and navy long-sleeved t-shirts from medium to XXLarge. The short-sleeved shirts are only \$8.00, while the long-sleeved shirts are a mere \$12.00. Support WUAA, while enhancing your wardrobe. Look for them at the WUAA Fall meeting in Madison or call Cathy Green at 608-271-8172, email her at cmgreen@whs.wisc.edu or send a check with your order to:

Cathy Green
WUAA T-Shirts
P.O. Box 6081
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Be sure to include your current address, so we can send them to you.

In June, the Wisconsin Historical Society (WHS) installed permanent mooring buoys on the historic shipwrecks *Appomattox* and *Kate Kelley*. Located north of Milwaukee off Atwater Beach, the 319-foot wooden steamer *Appomattox* rests in 20 feet of water and is an ideal site for beginning divers and snorkelers. The *Kate Kelley* is about 4 miles off Racine's Wind Point in 60 feet of water. The 126-foot schooner was lost in a gale in 1895.

With the help of Robert and Charles Tom, a reconnaissance dive was also made on the schooner *Dan Lyons* to assess its potential for receiving a WHS mooring. The *Dan Lyons* is located several miles north-east of Algoma in 100 feet of water. Additionally, Hank Whipple installed a mooring on the *Christina Nilson* in Door County's Bailey's Harbor. The 140-foot three-masted schooner stranded in Bailey's Harbor in 1884. With the help of local volunteers, the WHS now maintains moorings on fifteen historic shipwrecks. Locations for these shipwrecks can be found at: <http://seagrant.wisc.edu/shipwrecks/MooringLocations.html>

In August, WHS archeologists and divers from the Great Lakes Shipwreck Research Foundation continued a survey of the *Lumberman*, located 4 miles off Oak Creek (just south of Milwaukee). Roughly 70 feet of the 126-foot schooner have now been documented.

WHS archeologists will return to the Apostles Islands in late August to secure the *Pretoria* boiler, which was returned to the wreck last summer.

The boiler has reportedly moved 30 feet from its original location. Work will be conducted off Tony Rippel's boat *Swoose*, with Bruce Bowers, Al Brown and Joe Chambers lending a hand.

On September 8, East Carolina University's Program in Maritime Studies will return to Sturgeon Bay and complete a multi-year survey of the area's stone industry related shipwrecks. The annual field school is hosted by the WHS. WUAA members interested in getting involved should call Russ Green at 608-271-8172. Updates on all of the above can be found at the WHS's "Notes From the Field" Web site at <http://www.shsw.wisc.edu/shipwrecks/notes/>.

Several Web site developments are also in the works. Over the coming months, the WHS/Sea Grant sponsored "Wisconsin's Great Lakes Shipwrecks" Web site (<http://seagrant.wisc.edu/shipwrecks/>) will be completely redesigned and several new shipwrecks added. Additionally, a new WHS Web site dedicated exclusively to the Wisconsin's Maritime Trails initiative will soon debut. The site will contain a searchable database for all Wisconsin maritime related attractions and resources, as well as a shipwreck database.

The status of the state underwater archeologist position has not been decided due to the state budget situation. Any questions regarding underwater resources should be directed to Russ Green at the Wisconsin Historical Society, 608-271-8172.

Some Thoughts On The Steamer *Meteor*

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McDougall settled down and married a Toronto girl in 1881 and relocated to Duluth. He started a stevedoring business there, but continued developing his ideas for new inventions and patents. One of his ideas was for a radically-different style of ships, built more efficient hydrodynamically than traditional ones, using steel. The ships he envisioned would have rounded hull forms and pointed ends to pass through the water with the least effort, and rounded decks to shed water easily. They would also have long "parallel mid-bodies" so that their form was unchanged for most of its length, simplifying the framing and rendering their construction relatively inexpensive; this would also save on labor costs and result in a very rigid hull. The cabins would be elevated above the deck on sturdy steel turrets and the ships could be loaded down nearly to their decks. The design was quickly dubbed "whalebacks".

The Captain envisioned whole fleets of these whaleback vessels in the grain, coal and iron ore trades. Whaleback barges could be towed easily, and with their thin steel hulls and light frames, they would carry very large cargoes compared to the wooden barges of that time. Typical wooden hulls in large ships were as thick as 20 to 24 inches, and they were very heavy; that meant that in a given depth of water, their cargo

capacity was limited. Steel hulls, whalebacks among them, were extremely light and so could carry a great deal of cargo before they were loaded down to their "marks". Steel vessels proved to be so light that they had to be fitted with ballast tanks that could be filled with water when the ships were not carrying cargo, just to keep their propellers in the water and their bows from wandering off course in cross-winds. McDougall also dreamed of whaleback steamers with engines powerful enough to tow two or three whaleback barges behind. They would revolutionize the shipping industry! He dreamed of revolutionizing naval warfare, too, with ocean-going whaleback warships that had great retractable guns capable of being drawn below deck when not in use.

Capt. McDougall had difficulty selling investors on his whaleback scheme although he had successfully marketed several of his less-ambitious inventions. In the Fall of 1887 he invested his own savings in a prototype whaleback barge, which he constructed on leased property on the Duluth waterfront. He had the two ends of its 191-foot steel hull built at a Wilmington, Delaware shipyard and sent to Duluth by rail. He employed crews of his stevedores to erect the center portion of the ship and connect the ends, and he launched the 101 in the summer of 1888 to the derision

of the maritime community. No one believed that the queer-looking craft could work. The barge was towed to the

local docks and filled with iron ore and then taken by the big steamer *Yakima* and towed all the way down the Lakes to Cleveland. It created a sensation!

Within a year McDougall had two much larger whaleback barges on the launchways and another two on order. More important, he had won the financial support of John D. Rockefeller and incorporated as the American Steel Barge Company, with commitments for more ships and a lucrative contract to carry iron ore from Duluth for the next fifteen years!

In 1890 the American Steel Barge Company launched the whaleback steamer *Colgate Hoyt* and McDougall watched it tow whaleback barges laden with iron ore, earning a handsome profit for its owners. It was the realization of his dreams! Later that year he secured property across the Bay in Superior and began building a modern shipyard with what would be the largest drydock on the entire Great Lakes. During 1892 the yard employed 1,200 men and produced 10 new whalebacks, including 3 barges, 7 steamers, and the 50-foot tug *Islay*. The last hull launched that year was the 365-foot *Christopher Columbus*, a spectacularly-successful whaleback passenger steamer built for the Columbian Whaleback Steamship Company, which McDougall served as General Manager. 1892 would be the American Steel Barge Company's best year!

1893 brought a world-wide Depression and after completion of 6 new barges, the yard was shut down. When the economy picked up again two years later the Company built one whaleback during 1895, four in 1896, and one more in 1898, and



Renamed South Park, the ship operated for several owners between 1927 and 1942.

Ken Thro collection, UW-Superior

that was the end of them. The shipping industry turned back to more conventional ships. Besides the great Depression, the middle 1890s were marked with advances in the technology for loading and unloading ships. Newly-developed unloading equipment required very large deck hatches, and whaleback ships could not be built with large openings in their decks. It would have caused them to break in half. As a result, Capt. McDougall's suddenly-successful whalebacks were just as suddenly obsolete! The American Steel Barge Company had constructed 39 of them in Duluth and Superior and one on the Pacific Coast; and two more were built on the East Coast and one in England, using McDougall's patents. The whaleback ships served the Lakes, and some served ocean fleets, mostly as petroleum tankers, well into the 1940s and '50s.

Hull #136 was a 366-foot steamer built in 1896 for the American Steel Barge Company's own account. Like most of the other whaleback steamers, it was designed for the iron ore trade, and it boasted a cargo capacity of some 5,200 tons. It was powered by a three-cylinder triple-expansion steam engine of 1,195 horsepower, with steam from three scotch boilers. Hull #136 was to be the longest-lived of all the whalebacks. She had four different names, four distinct careers, and ten different owners. She is today the venerable *Meteor*!

The *Meteor* was laid down on November 19, 1895 as "Hull #136". She was christened *Frank Rockefeller*

on April 25, 1896 and served the American Steel Barge Company, Bessemer Steamship Company and later Pittsburgh Steamship Company under that name for the next 31 years. In 1927 she was sold, fitted to carry bulk sand, and renamed *South Park*. In November 1942 she was wrecked at Manistique, Michigan and subsequently rebuilt as the petroleum tanker *Meteor*. As a tank vessel she carried 40,000 barrels of petroleum products. The ship suffered hull damage from an unfortunate grounding at Marquette, Michigan in November 1969 and was subsequently laid up at Manitowoc by her owners, Cleveland Tankers Inc. Two years later the owners contributed the ship to the non-profit Head of the Lakes Maritime Society in Superior, and it was towed to Barker's Island for permanent display just a mile from its birthplace, where the original shipyard is still in business under different ownership.

The Head of the Lakes Maritime Society bankrupted in 1998 and forfeited the ship to the City of Superior. For the last three years it has been operated as a tourist attraction by Superior Public Museums, along with "Fairlawn", the Martin Pattison mansion and an 1893 Firehall. The ship is in generally good condition, in spite of widespread rumors to the contrary, but it needs a great deal of cleaning, painting and routine maintenance, and displays are badly outdated. Superior does



*As a petroleum tanker, Meteor earned a reputation for ice-breaking on Lake Michigan.
Harold Andersen collection, UW-Superior*

not have the resources to properly care for the ship, although there is enormous community pride in the vessel, and volunteers are organized to undertake some of the necessary tasks. Chipping and painting of deck equipment and engine room spaces are planned for this Fall and a major overhaul of exhibits is scheduled for Spring. Superior Public Museums is seeking grant money to drydock the ship sometime in the next two to three years to undertake more ambitious painting and hull maintenance work. The goal is to complete that work before the ship reaches its 110th birthday in 2006.

The *Meteor* is a major Wisconsin historic site. She is one of the unique ships that focused world attention on Wisconsin during the 1890s. She is also a tribute to shipbuilding at the Head of the Lakes, where outlandish inventor Alexander McDougall dared to think "outside the box", where seven shipyards and 16,000 workers turned out 191 vessels for the war effort during World War II, and one of the two or three Wisconsin ports where commercial shipping is still alive and well. ■



*Meteor has rested at Barker's Island on the Superior waterfront since 1972.
Author's photo*



Regional News

Ghosts of the Ozaukee Coast

Announcing the latest book from the Great Lakes Shipwreck Research Foundation. *Ghosts of the Ozaukee Coast: A Survey of Historical Port Washington Area Marine Accidents* is a 64 page guide book to over 50 of the Port Washington, Wisconsin area's marine disasters. Complete with photos of many vessels, this book provides an excellent overview of the Port Washington area's shipwrecks for divers and Great Lakes history enthusiasts. Location information is given for wrecks that have been located and many little-known accidents are covered.

The book is available directly from the Great Lakes Shipwreck Research Foundation and from participating vendors. Retail price is \$10, and a 40% discount is available to retailers for quantity purchases of 10 or more. Vendor inquiries should be directed to: bbailod@ghost-ships.org.

Online orders may be placed at: <http://www.ghost-ships.org/store.asp#ozaukee>.

Credit cards payments are accepted through Paypal.

Pier Wisconsin

The Wisconsin Lake Schooner Education Association has changed it's name to Pier Wisconsin. They also announced plans for a 65,000 square-foot, \$30 million facility at their Milwaukee lakefront location.

The new facility will include aquariums, exhibits, labs, classrooms

and a theater. The facility will be a four-story building with curved sides, reminiscent of the sails of Pier Wisconsin's schooner *Denis Sullivan*. The east side of the building will be cantilevered 328 feet over Lake Michigan.

Door County Museum

The Door County Maritime Museum will change its name to the Door County Maritime Museum and Lighthouse Preservation Society.

Gales of November

The Lake Superior Maritime Museum Association has announced some of the details for the upcoming Gales of November program, which will be held in Duluth on November 9, 2002.

The keynote speaker will be Denis Hale, curator of the Great Lakes Marine and Coast Guard Memorial Museum in Ashtabula, OH. Hale was the sole survivor of the wreck of the *Daniel J. Morrell* in 1965 and his talk is entitled "Sole Survivor".

Other speakers include:

Ryan LeBlanc, who will give a presentation "The Search for the Graveyard of Ships: Part II".

Kimm Stabelfeldt and Brad Friend of the Great Lakes Shipwreck Research Foundation.

Ken Merryman of the Great Lakes Shipwreck Preservation Society.

Elmer Engam, with a presentation "Wreck of the Whaleback *Thomas Wilson*, 1902".

Eugene and Betty Renko, who will present "*Frontenac Aground*".

Straits of Mackinac

Members of the Underwater Archeological Society of Chicago are assisting the Tim Early Foundation in preparing the former carferry *Straits of Mackinac* for sinking as a dive attraction off Chicago.

The Foundation acquired the 196-foot ship from the Neptune Nimrods dive club earlier this year, after that group's plans for sinking the ship off Algoma failed to materialize. The vessel was towed to Chicago in June.

Rosinco Case

In June the U.S. Seventh Court of Appeals overturned a ruling that granted Paul Ehorn ownership of the wreck of the luxury yacht *Rosinco*.

In October 1998 the State of Wisconsin filed criminal charges against Ehorn for removing artifacts from the vessel. Ehorn had contested the ownership of the wreck. The case is remanded back to district court.

The *Rosinco* was one of the largest yachts on the Great Lakes when it sank in 1928 while enroute from Chicago to Milwaukee. (See the June 2001 and September 2001 issues of *Underwater Heritage*.) The vessel now lies about 12 miles off Kenosha in 185 feet of water.

Stories From the Archives

The following story was uncovered by Russel Leitz during his archival research.

Schooner Jumps Bar

Door County Advocate, Jan. 4, 1923

Lake Michigan was in a white rage. Anger was abroad upon the second largest of the American lakes and a sou'easter lashed the waters. The little ship reeled under the quick succeeding blasts. Sleet fell and cut the faces of the crew. Twin River light had been passed, its white tower barely discerned across a wild race of whitecaps. Kewaunee, scrambling upon hillside, could be located only by a single church tower, where the storm tossed mariners could imagine the Christmas chimes were ringing. Far away to the north a long line of forest stretched away to the "Door" – Death's Door, the Port du Mort of the Pottawottamic and of the French voyageur.

It was Christmas, 1873.

Of all the hundreds of staunch sail craft on the Great Lakes only one belated straggler was abroad that day, and the lonesomeness of the voyage had begun to depress the spirits of the men.

The one solitary voyager, running before the gale with close reefed fore-tops and jib was a little barkentine, Ella Doak. The seas swept her decks, the wind shrieked thru her top ham-pers, as only they can on a square rigged ship.

A group of five men and a frightened boy huddled in the cock-pit. Five men in yellow oil skins, rubber boots and dripping sou-westerns – master seamen all. First, and dominating all with an iron will, was the skipper, Johnny Doak; his brother Alee, a dour Scotchman; and "Christmas Tree Schuennemann", who

went down with his trees off Waukegan in the Thal; and "Sea Star" Sibilsky. (Some textis missing here.)

It was a wild day and a wild scene. Christ was surely not walking on the troubled Michigan waters this natal day. There was not a harbor north of Manitowoc along the coast and anchorage grounds only at Baileys Harbor or Rowleys Bay. The little Ella and her crew seemed reeling on to certain destruction with a single mud-hook canned over her fo'castle-head.

"Where you goin', Cap?" ventured Orange, the mate.

"Goin' to jump the bar of the Wolf and we'll all take dinner with Jennie."

Jump the bar of the Wolf. Even these seasoned Robin Hoods of the sea looked with some dismay into Captain Johnny's face to see if he really meant it, for of all mad pranks this seemed the most desperate.

"You can't do it, Cap," said Christmas Tree, "I was brought up within a rifle shot of the bar and ther's only a foot of water over it and the Ella's drawing four."

"Yep; I'm going in over the bar and turkey for me and the little wife today."

A group of fishermen, sailors and a few villagers stood in the lea of a hayshed at Ahnapee (now Algoma) watching the oncoming vessel. The

news had spread rapidly thru the village, "Johnny Doak is coming in."

"He's going to come to anchor in the bay," said one.

"Nope; he's going to beach her," said Capt. Hank, "we'd better get some tackle ready to save the men."

But on came the Ella, straight for the river bar, reeling, pitching, tossing, wallowing low in the seas and riding high at times on its crests.

"By God, he's going to try to jump the bar," shouted Capt. Hank, and he started off as fast as his big sea boots would let him for the river's mouth.

Johnny was at the wheel, a grim smile on his face, with the boy crouching at his feet. Christmas Tree turned in a lingering look toward the little house on the hills beyond where he was born. Orange stood grave and saturnine. Sea Star looked a bit worried and Alee was slushing forward to haul in the jib sheet.

It was a miracle of Christ, worked on his natal day in the good year 1873, and He alone knew how it all happened. The Ella was buried for a minute under seas and then rose upon the top of a mighty wave, rode like a race horse upon its crest and was thrown bodily, like a chip of bark, over the bar into the quiet river, and there she lay, nose against the bank. ■

1892 scene shows several whalebacks under construction at busy West Superior shipyard. Ken Thro collection, UW-Superior

