

Association preparing for summer projects

At the spring meeting of the Wisconsin Underwater Archeological Association (WUAA) in May, five projects were discussed for the coming months.

Dan Aerts of Madison (telephone: 608-276-9169) will be coordinating the projects. Individuals, both members and non-members interested in participating should contact him as soon as possible.

Specific dates will be worked out among those interested in a project. The five projects for the summer and fall of 1991 include:

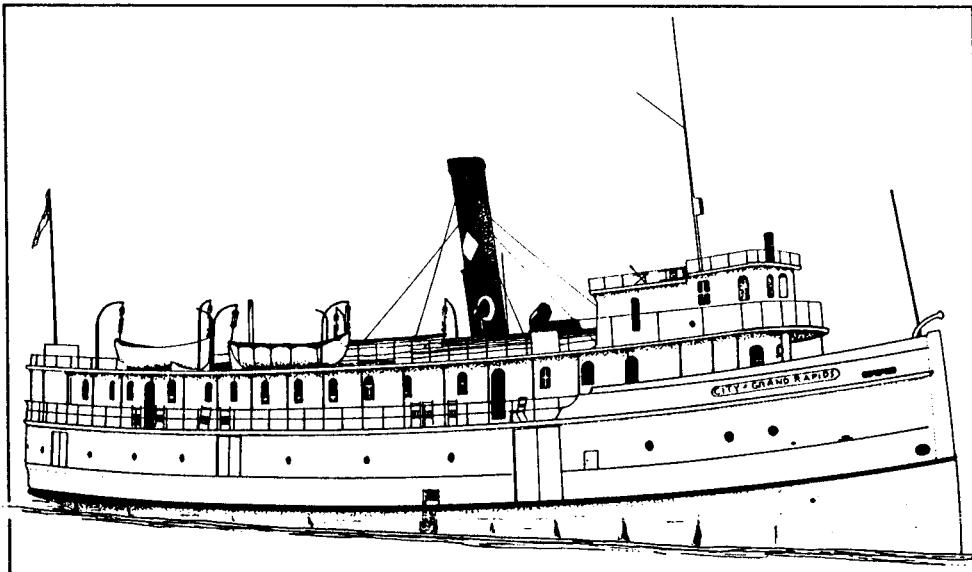
Sturgeon Bay -Leathem and Smith Quarry. Last summer a preliminary survey was undertaken of the site (see page 3 for more details). This survey focussed on the wrecks of the Joseph L. Hurd and the Mueller. There is considerable mapping work to be done along with reconnaissance work at other nearby sites.

Lake Geneva -This southeastern Wisconsin lake contains a surprising number of shipwrecks and other u/w cultural resources. Since this will be a boat dive and permits are needed, interested parties should contact Dan as soon as possible.

Prairie du Chien -Tentatively planned for the end of July, this survey will be conducted on the Mississippi River near Villas Louis. The project will involve working with a state archeologist for a weekend. The area has been inhabited since prehistoric times, and both the British and French had military and fur trading posts at the site. It was also a center for steamboat activity.

Lake Michigan -We will be diving on a site near Sheboygan. Previous dives have located timbers and debris. More preliminary dives will be made in the near future to make more definite plans for a site.

Lake Winnebago -At the spring meeting, Dr. Jeff Behm of UW-Oshkosh described some potential shallow water sites where Indian artifacts may be found. To get the best water conditions, this survey will be done in the fall or early spring. For info., call Craig Fink of Neenah at 414-722-0051.



The City of Grand Rapids was a typical double-decked passenger steamer that worked the coastal routes of the Great Lakes during the late 1890s and early 1900s. It was built in Grand Haven, Mich. in 1879. The vessel had an overall length of 122' and gross tonnage of 336 tons.

Technology has increased the importance of u/w archeology

By Rex Korderl

Up until recently there has been little concern for underwater historical site preservation.

Archaeological sites on land as well as underwater were hard to find. Most sites were in remote areas. Man's increasing advancement in technology and population has changed that.

The technological advances in side scan sonar allow larger areas of the ocean floor to be explored from smaller vessels. Magnetic field density detectors have been used to find scattered remnants that are encrusted in coral or buried deep in mud. Add to all this the capabilities of the computer and one can come up with 3 dimensional pictorial representation of objects below the surface.

Salvage for monetary gain has increased. The efforts of Treasure Salvors of Key West, Fla., to find lost riches buried in the sea bed are well known. The recent discovery of the S.S. Central America has not been as well publicized but will probably result in the single highest dollar amount of salvage recovered from a sunken vessel.

The development of the land and waterways by civilization reduces the management potential of sites. Roads pave their way across the landscape and bridges are erected to span rivers. Structures are placed in and on the rivers and lakes. Dams flood areas and change shorelines.

A shoreline that was once part of an Indian village or trapper settlement may now be

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Leathem site dates back to the 1890s

Editor's Note: The following information is from the Door County Maritime Museum in Sturgeon Bay.

The Leathem and Smith Stone Quarry was started in about 1890 by Tom Smith and John Leathem. They operated the facility for about 15 years. John Leathem then left the area and for the next 10 years it was known simply as the Smith Quarry.

During this time the quarry's main product was hand cut building stone in pieces 4-10" thick, 18" long and 8-12" deep. Since there was a labor shortage locally, over 300 workers were recruited from Europe and large houses were built on the site to house and feed the workers.

After Tom Smith died in 1915, his son Leathem D. Smith (named after Tom's original partner) inherited the stone quarry. By this time the market for building stone had dropped drastically being replaced by ce-

ment blocks. The quarry was reorganized as the Leathem D Smith Stone Co. and began producing crush stone for use in making concrete for road building.

In the early years, the company crushed the chips and residue left from the stone block operation. Later large crushers were installed to crush virgin rock that was as much as 2-3" thick.

At its peak, as many as 4 ships typically waited in the harbor to load stone for shipment throughout the Great Lakes region. This business too came to an end when roadbuilders began using gravel from small pits located close to highway projects as raw material for concrete.

When the Great Depression hit during the

1930s, the federal government began building breakwaters throughout the Great Lakes as public works projects. Leathem Smith reactivated the quarry and sold several thousand tons of stone to the government.

The final chapter for the quarry took place was when a company from Cleveland, Ohio bought the Leathem D. Smith Stone Co. and renamed it the Sturgeon Bay Co.

The new operation crushed stone for blast furnaces for several years. However the dolomite content of the stone was not as high anticipated. So the rock crushing plant was closed and its machinery moved to Drummon Island where the Sturgeon Bay Co. is still in operation today.

Leathem & Smith site wrecks

Meuller was the E.C. Tice

The following information comes from materials published by Arthur C. Fredrickson, Alan Rowe and C. Stonehouse.

Mueller (ex-Edwin C. Tice)

Wooden screw steamer. Lumber hooker, 2 masts, compound steeple engine, 500 hp. Built in 1887 by Burger & Burger in Manitowoc, Wis. Registry No. 135954

Description:

The Mueller is a two masted lumber hooker with a 500 hp. compound steeple engine. The vessel was 160 ft. long, 32 ft. beam, and 12 ft. deep. It had a gross tonnage of 567 tons, 383 net. The ship's last owner was Winand Schlosser and last home port was Milwaukee. It was abandoned in 1935 at Leathem & Smith Quarry dock, Sturgeon Bay.

History:

The Mueller was originally named the Edwin C. Tice and was built in 1887 at the Burger and Burger shipyards in Manitowoc. The ship was owned by Edward Smith and others of Buffalo, N.Y. It was intended for the Lake Michigan and Lake Superior lumber trades. Her original dimensions were 159.9 x 32.1 x 12.5 and 728 gross tons.

The Tice's machinery is thought to have come from the old propeller Susquehanna, dismantled in Milwaukee in 1880. The Susquehanna received one of the lake's first steeple compound engines in 1867.

Some records indicate the Tice was re-engined with another steeple engine from Bay City Iron Works in 1889, with cylinders 19 7/8" and 38" in diameter and a stroke of

36". It is not clear if this was the ship's original powerplant or a replacement.

In her early years on Lake Michigan, the vessel was captained by W.D. Richards of Manitowoc and her cargoes were usually lumber, but as that trade grew scarce she carried coal and mixed cargoes.

The Tice was sold to H.W. McCormack of Bay City in 1892. In 1895 she went to Samuel Neff of Milwaukee. In 1901 the Tice was sold to William Mueller & Co. (Mueller Cedar Co.) of Chicago. The vessel was lengthened to 172 feet and was rechristened the Mueller. She was now measured 172' x 30.1' x 12.5' and 699 gross tons.

The ship usually towed the barges Butcher Boy, Paraha, Richard Mott or Belle Brown. In 1912 she was bought by the Wisconsin Land and Lumber Co. of Chicago. The Mueller was paired with the barge Halsted. In 1915 she was cut back to 160 feet in length and reduced to a capacity of 567 tons.

In 1918 the Mueller was sold to the Central Transportation Co. of Gary, Ind. During this time she towed the Robert L. Fryer. In 1929 both vessels went to the Central Paper Co. of Muskegon and in 1930 to Winand Schlosser of Milwaukee.

Sometime during this period, the Mueller sank while taking aboard a load of green timber at North Manitou Island and her hull sprung (that is she had a hang on her port quarter). This gave her deck a twisted look and one spar listed to port and the other to starboard. When she carried a full load the

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Initial site survey conducted in 1990

The following is part of a preliminary survey report on the Leathem & Smith Quarry site based on dives in 1990. Divers involved were Tom Villand, Jane and Jerry Kolonko, Kathy Pitz and Dan Aerts.

Background:

The old Leathem and Smith stone quarry site is located approximately four miles northwest of Sturgeon Bay on County Hwy B, on the shore of Sturgeon Bay, at the inlet to Green Bay.

The quarry is privately owned. Permission to be on the site to dive was obtained from the owners. The remains of the quarry are quite large. On land are the foundations of the office and boarding houses, and remains of shafts for loading conveyors.

Wood pilings can be seen along the shore. There is a newer platform west of the wood pilings. It is concrete with corrugated steel sides.

Further along the beach there is a boat ramp and then a point with a navigation marker. Another marker was further back on shore, but before the road. There are timbers and spikes visible walking along the shore.

Survey:

The remains of two shipwrecks were surveyed, thought to be the Joseph L. Hurd and the Mueller. Dives were made on the site three times in 1990. Twice a good wind was blowing so the water was rough. Visibility was five feet or less.

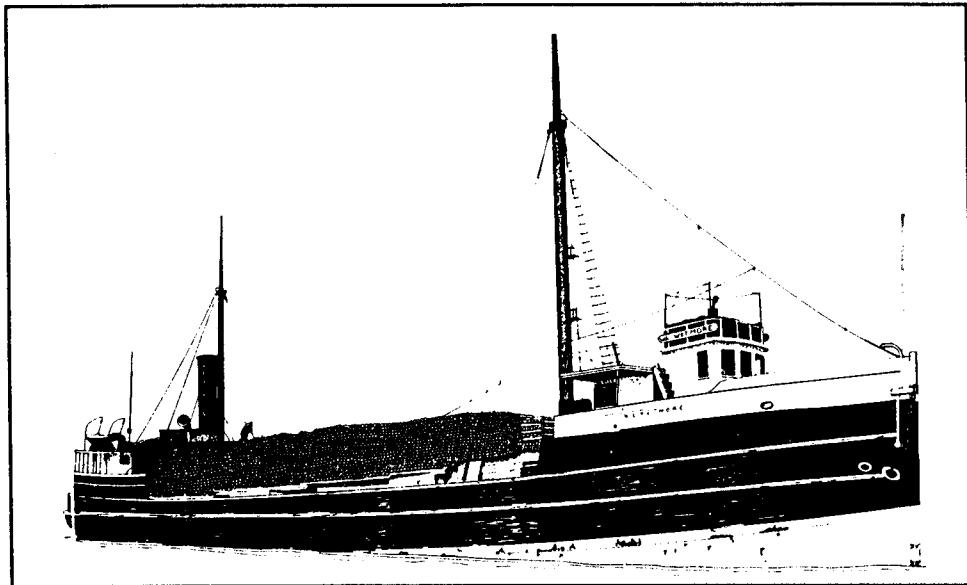
Wreckage was found almost immediately upon entering the water west of the new platform. This is the wreck identified by Alan Rowe as the Hurd. The vessel is wood. One entire side is fairly intact. Most of the deck near the stern is intact. Can't see under the deck.

The end we believe to be the bow is further from shore. The stem post was our datum point. It is about 8' 10" long and lays at about a sixty degree angle from vertical. The bottom here is sand and is about seventeen feet deep. The stern gets buried under rocks near shore.

The bottom at the stern is rocky and about eight feet deep. Floats were attached to both ends and located from shore using a compass. Sketches were made of major features.

There is a metal plate at the bow and metal plate along the top of the outside of the ship. A metal patch was found in one place. One framed rectangular hole is in the side. There are other holes, but not framed.

One round, metal pipe goes through the side. It seemed like an opening for anchor chain, but was near the stern. No sign was found of boilers, engines or propellers. One



The W.L. Whetmore was a typical lumber hooker of the late 1800s. In addition to her own deckload of lumber or pulpwood, such vessels also usually towed two or more loaded schooner barges. The vessel was built in 1871 in Cleveland, Ohio and was 214' in length.

round wood piece was found which looks like the base of a mast. It is about on the center line of the ship. Found a large metal structure near the stern. It is square on the bottom and has a round wheel on top.

Several dives were needed to identify the center line of the wreck and get the baseline laid out from the bow down the center from the mast. Measurements were taken from the baseline to the sides of the ship, perpendicular to the baseline. Measured to the outside of the timber frames. Took several photographs above water and underwater. Made a site plan of the wreck.

A large metal cable runs south of the wreck. We followed it to a depth of 30 feet and did not find any other wreckage. Moved to the east end of the site to look for wreckage of what is supposed to be the Mueller.

Went in at east end of old wood pilings. Bottom drops off quickly to about 25 feet. Swam across front of pilings. Lots of junk, but no wreckage. Came back to start and swam away from pilings. Found wreckage right away. Ship is almost parallel to shore.

Depth at outer side is about ten feet. Followed this side east to what seems to be the stern. Stern is vertical and is about two feet wide. A wood shaft about one foot in diameter extends out several inches near the bottom of the stern. Several spikes stick out from the stern above the shaft. The other side runs closer to shore in about three feet of water. The inside of the wreck is filled with rocks.

Ran a measuring line from the stern along the side away from shore. Got some compass readings from shore to both ends of the wreck. Lots of weeds were growing in the center of the wreck. Later found posts which are probably at the center. Also found that the side closer to shore actually extends up onto shore.

A site plan was sketched out. Recommend another dive running a baseline down the center to get more accurate measurements.

Conclusions:

Outside the Maritime Museum in Sturgeon Bay is the stern section of what is labeled as the Mueller. It has the propeller and shaft attached. Either this is not from the Mueller or we are not diving on the Mueller.

The Hurd was 171 feet long, the Mueller was 160 feet long. The length exposed of the west wreck is about 160 feet. The east wreck is probably longer, as the sides are not tapering together toward the bow over the distance measured, while the west wreck is starting to taper together toward the stern.

The Hurd was 29'2" wide, the Mueller was 32 feet wide. The width of the west wreck 50 feet back from the bow is about 32'9" and the width 75 feet back is 32'3". The east wreck is wider than the west wreck. The sides have probably spread apart and moved, and remains are not a consistent height up from the keel.

So the west wreck may be the Mueller and the east wreck may be the Hurd, the opposite of what we thought initially.

Leathem & Smith site wrecks

Hurd was built as passenger steamer

The following information comes from materials published by Arthur C. Fredrickson, Alan Rowe and C. Stonehouse.

Joseph L. Hurd, wooden steam barge, Built in 1861 by O. Campbell and Co. in Detroit. Registry No. 75154.

Description:

The Hurd was 171 ft. long, 29.2 ft. beam, 10.9 ft. depth. It had a gross tonnage of 459 ton. The ship's last owner was Leathem and Smith Co. and last home port was Sturgeon Bay. It was stranded in 1913 at Leathem & Smith Quarry Dock, Sturgeon Bay.

History:

The Joseph L. Hurd was originally built as a passenger steamer in Detroit in 1869. It was 592 ton and was 171 ft. long with beam of 30 ft.

In 1886, while entering Eagle Harbor, Mich., the Hurd was forced to moor at the exposed section of a dock. A northeast gale blew up, and severe wave action caused the Hurd to pound on the bottom until she flooded.

When the pumps could no longer handle the water the captain ran the steamer onto the beach behind the dock. The next day a tug and lighter assisted in releasing the Hurd. After pumping her out the crew drove wooden wedges into the seams where she had dropped oakum, allowing her to continue her trip.

In June of 1887, the Hurd went aground on Fox Island near Petoskey, Mich. and in order to get off was compelled to throw overboard 150 gallons of machine oil and a large quantity of beer. In 1893, she was converted into a freight and lumber carrier.

Sometime before 1895 the Hurd was suspected of being the cause of the sinking of the schooner Magellan, with great loss of life, off Twin Rivers Point, her captain not reporting the collision.

On May 10, 1895 the Hurd was heading toward Chicago with a light deck load of lumber. Its hold was filled with package freight. Fog was dense on Lake Michigan as she and the steel steamer Cayuga neared each other just south of Skilligalee Light off Charlevoix. Although both vessels had been blowing their whistles at regular intervals, there was some misunderstanding of signals and the two ships collided at full speed.

The Hurd struck the Cayuga abreast of her forward hatch on the starboard side, stem on, walking through her hull and into the cargo hold about 12 feet. The Cayuga twisted the embedded bow of the Hurd and broke it off. The forward bulkhead of the Hurd was still

fairly watertight, so the engine room started pumping on the forward hold and she headed for Harbor Springs.

The Cayuga was much worse. The lower part of the wound in her side was below the waterline, and with her heavier load she immediately started to fill and submerge, bow first. The captain ordered the lifeboats lowered and the ship abandoned.

The Hurd hove to and stood by until the lifeboats came alongside and took the crew aboard. The Hurd started a wide open run for port, but she gradually began to sink from the excess weight of incoming seas. So the captain headed for the beach and drove her aground at full speed.

The Hurd then filled in a matter of seconds and settled on the bottom. This left her down at the stern with about half her hull above water. Some of the sailors jumped from the opening in her missing bow into the shallow water and were able to wade ashore.

The cook, George Johnson of Chicago, grabbed his suitcase from his quarters and jumped over the stern into deep water. As he hit the water another sailor, who couldn't swim, hopped aboard his back. While they fought to make the beach, the cook drowned, becoming the only casualty. The rest of the Hurd and Cayuga crew lowered the lifeboats and came ashore with dry feet.

The Hurd stayed beached until Aug., 16, 1895, when she was sold by a U.S. marshal to John Leathem of the Leathem & Smith Wrecking Co. for \$750. The wrecking company had what was left of the bow firmly bulkheaded and pumped her out.

With her cargo jettisoned, she was towed across the lake by the tug Albert J. Wright. Near Cana Island the Hurd came close to foundering, as the two vessels encountered heavy seas, but the tug was able to get her to Sturgeon Bay.

There the wrecking cloth was reset and she was pumped out. She was then towed to Manitowoc, with a stop in Kewaunee because of high seas. At the shipyards in Manitowoc the Hurd was completely rebuilt into a lumber barge with a carrying capacity of 750,000 feet of lumber. She was then valued at \$25,000.

Some years later Captain James Reid and Sons of Bay City, Mich. contracted to raise the Cayuga. She was found to have 106 ft. of water over her, and more than one diver lost their life on the project. The divers reported that that the bow of the Hurd was still embedded in the Cayuga. Although several attempts were made to raise her, she still rests at the bottom of Lake Michigan.

On Nov., 26, 1905, while entering the

Continued on next page

Mueller

Continued from page 2

twist came out and her spars were straight and true.

During her last years the Mueller towed both the barges Fryer and the Our Son in the pulpwood trade from Georgian Bay to Chicago. The steamer was laid up at Sturgeon Bay in 1932 and dismantled a year later. The machinery was sold and the hull was burned and scuttled about 4 miles north of the city in 1935.

The Wreck :

According to a survey by Rowe, the hull of the Mueller is located about 60 feet from shore in 15 to 25 feet of water. The keel lies parallel to a dock built near the wreck.

The ship's bow is hidden from sight by the load of stone heaped over it. The starboard side is also obscured by the stone covering it since it went down in 1913. The Mueller's port side faces the open bay and the whole length of the hull is unobstructed.

According to Rowe's description, tight fit-

ting planks remained in place, held together by heavy forged spikes. Some of the planks measure twelve inches long. Near the surface one could see what was left of the ship's gunwales.

Ribs protruded at regular intervals along the hulls measuring a foot in thickness. The barge deck collapsed long ago. At the time of the survey, brass steam valves and water pipes laid among boiler parts in the sandy bottom, and spars held a collection of embedded fishing lures.

Rounded holes in the stern that once restrained pulley blocks could still be seen. Rows of iron pins stick up from the deck. Flat iron nails with holes in their centers, called "iron dogs" were visible. Loggers used the nails to maneuver lumber and logs.

Near the bow a ship's starboard running light was embedded in a pile of rocks, still mounted in a brass fitting. In the debris around the hull was an iron storm porthole cover. The name of the shipbuilding firm in Detroit was worn but still embossed on the cover. Twisted pieces of unrelated metal covered the bottom on bay side of the barge.

Steamer

Continued from previous page

harbor at Grand Haven, Mich., the Hurd barely escaped capsizing. She had come across the lake with a cargo of stone for the pier being built at Grand Haven.

The pounding of the seas during the voyage had caused the load to shift, making it careen dangerously. Just when it appeared the vessel would tip completely over, the deck load of stones slid overboard, taking with it the masts and bulwarks and damaging the deck house. The steamer rested for a moment on her beam ends, then righted quickly to an even keel. No one was injured.

After the incident, the Hurd was towed to the Chicago River for repairs. She was bought by buyers for Leathem and Smith, and spent her final years as a stone barge for the Smith quarry. The Hurd was pulled by the tug Smith, often in tow with the Pewaukee and later the Advance.

In August 1906 on her way to Chicago with a load of telephone poles, the Hurd sprang a leak off Racine Point and was soon waterlogged. The stern of the ship had already sunk to the water's edge by the time the crew was taken off by the steamer Mohawk.

The entire deck of the vessel was washed

Upcoming Events and Conferences

September 12-14, 1991

Association for Great Lakes Maritime History
Annual Meeting, Tobermory, Ontario

October 18-20, 1991

36th Annual Midwest Archeological Conference,
La Crosse, Wis.

For more information, contact: David J. Cooper, State Historical Society of Wisconsin,
816 State St., Madison, WI 53706 (Telephone: 608-262-0160).

away and most of the cargo was swept overboard. A few days later the ship was towed by tugs to the Chicago River, where she was left to rest on the bottom. She was repaired once more by her owners, Leathem and Smith of Sturgeon Bay, and placed back in service as a barge.

In July 1913 the Hurd burned almost to the water's edge. After that incident she was no longer considered sea worthy for long tows, so she was used for short hauls around Door County.

On Sept. 22, 1913 while running before a southeasterly sea, on her way to the Sturgeon Bay Canal entrance, the tow line parted and the Hurd made the beach north of the canal. After the storm she was dragged off the beach and towed back home.

This time her badly beaten hull was considered beyond repair. On Nov. 13, 1913 the Hurd was tied up at the loading dock at the quarry. Southwesterly winds had been building since early morning and became gale force by mid-day.

The mooring line parted and the Hurd was driven up against the rocks near the beach and her hull cracked open. Surging waves carried her back and succeeded in breaking her in two. She was abandoned as a total loss.

The Wreck:

According to Rowe, the above water section of the wreck, that forms pilings for a dock, is impressive. Below water the face plummets straight down to a depth of 20 or 30 feet. The wreck itself is located at about a forty five degree angle to the dock.

WUAA Membership Application



As a private, non-profit organization, the Wisconsin Underwater Archeological Association presents an opportunity for both individuals and organizations to participate in and contribute to state efforts in u/w archeological research and preservation. Dues are \$15 per year.

Name _____

Address _____

City _____ State _____ Zip _____

Telephone: Day _____ Evenings _____

Since we are a new organization, we would like your input on the types of goals the association should have:

- Documentation of state underwater archeological sites
- Training individuals in u/w archeological methods
- Exchange of information between members
- Preservation of state underwater archeological sites
- Public education on underwater heritage
- Creation of state underwater preserves
- Others: _____

I would like to be involved in the following activities:

- Archival research
- Training in archeological methods
- On-site work - shoreside
- On-site work - underwater
- Association Committees:
 - Newsletter
 - Training
 - Organization
 - Membership
 - Other: _____

Make \$15 check payable to "WUAA" and mail with this form to:
Wis. Underwater Archeological Association - P.O. Box 6081 - Madison, WI 53716

Technology

Continued from Page 1

hundreds of feet from the current shoreline and several feet beneath the surface of the water.

Landings, piers, and docking areas may be built over these areas. Some of the docks and landings that were used by the early settlers and trappers may now be gone.

What is important in all this is the potential loss of historical data. Underwater archaeological data has the unique ability to catch history at a point in time without disruption from outside influences. If a ship is found, the date and time it was lost can be traced by records.

The artifacts recovered can give a picture of what was happening on that day at that time. The site tells a story of what specific people were doing at that specific place in history.

The Abandoned Shipwreck Act of 1987 establishes:

1) The states be given the management rights for submerged lands and shipwrecks that are located in their waters.

2) States are to develop policies and to

protect the resources of the sites, allow for recovery of material from the site in a protected manner, and guarantee access to exploration of the site.

3) Underwater parks are encouraged to be created by the states and funds from grants from the Historical Preservation Fund shall be made.

4) Guidelines for development and administration of underwater resources are to be developed by the Secretary of the Interior through the National Parks Service.

5) Title to shipwrecks that are abandoned, in lands of the state is asserted by the United States.

6) The state is transferred title to the shipwreck in or on the lands that the wreck is located.

7) Indian lands are excluded and wrecks on such lands is property of the tribe owing the land.

8) This Act does not apply to salvage laws, the law of finds, or other acts preceding the effective date of the Act.

Wisconsin Statute 44 covers archaeology resources in a number of areas. Although guidance and permitting of sites has been established there are areas of concern.

In an opinion letter from the State Atto-

ney General, Donald J. Hanaway, dated July 19, 1989, the state's rights and trust as to "navigational" waters is discussed. This letter does not directly relate to Statutes 44 but will have bearing on recovery of items underwater.

The permit system covers publicly owned lands. Permits are strongly encouraged for work on private lands. Relics and material present are not recoverable from private lands and ownership.

At present no past or pending cases were found a guidance relating to underwater archaeological preservation of sites and the Abandoned Shipwreck Act of 1987. The infancy of the Act in a very narrow specialized field, with low activity is seen as the reason for the absence of current material. CONCLUSION

The law in this area is new based on the low amount of activity and the fact that it is very specialized.

Future regulations should be expected to be promulgated by the states and their respective historical commissions. States that have borders on the Atlantic and Pacific coasts and those states that border the Great Lakes and the Mississippi River will have the most activity.

Wisconsin Underwater Archeological Association

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Stamp

June 1991

For those interested in
preserving Wisconsin's underwater history