The Search for the *Lion of Baltimore*: An American Privateer from the War of 1812

By David Shaw

This is the story of the search for an American privateer sunk by the British in the Chesapeake Bay in 1814. The time was the War of 1812. United States naval ships were blockaded in port by the British. Most of the naval battles of the war were fought on inland lakes such as Lake George and Lake Champlain in New York State. In large part because of the blockade, the new United States government looked to private enterprise to help out – private enterprise in the form of privateering.

Privateers were nautical mercenaries, non-military, ship-borne raiders sanctioned to attack enemy vessels, whether naval or merchant, in the name of the Federal government. Privateering was, of course, not unique to America or to the War of 1812. As early as the 13th century, ship commanders were issued formal authorization from their governments, known as Letters of Marque and Reprisal, which allowed and in some cases encouraged them to prey on enemy ships. Privateers were an effective way for a government to mobilize a naval force without expending much money. Or, as in the case of the United States in the War of 1812, these nautical irregulars supported a navy that was blockaded and ineffective.

Most American privateers during the War of 1812 were from Massachusetts or Baltimore, although a few sailed out of New York. They were very successful and inflicted significant damage on the British, having far more of an effect than American naval vessels. Between 1812 and 1815, the United States Navy seized or destroyed 15 Royal Navy ships and no commercial vessels. During the same period, American privateers seized three naval vessels and an estimated 2,500 British merchant vessels. The success of the privateers forced the British to convoy merchant ships, which further engaged Royal Navy vessels already busy blockading American ports.

Among the more renowned privateers sailing out of Baltimore was Joshua Barney, who was captain of the privateer *Rossie* before he joined the Federal Navy to command the Chesapeake Flotilla. Equally famous was Thomas Boyle, who first captained the schooner *Comet*

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Notes from the Prez –
Steven Anthony

You know spring has arrived in Washington DC when the cherry blossoms begin to bloom and MAHS wraps up our Introductory Course in Underwater Archaeology with the annual pool session. This year will be the twentieth anniversary of our course so please take a moment to congratulate Tom Berkey and his team of devoted instructors. For twenty years they have dedicated their personal time to provide sport divers with a unique opportunity to become involved in underwater archaeology and shipwreck exploration.

The course wasn’t the only activity keeping MAHS members busy this season. The search for the Lion of Baltimore continued throughout the winter months. Under the direction of Dave Shaw, MAHS teamed with Brian Jordan, the newly appointed Assistant Underwater Archaeologist for the State of Maryland, to map a wreck found at Bodkin Point. At the conclusion of this work, there was sufficient evidence to determine that this site is not the wreck of the Lion (see following article). So MAHS decided to expand the search and has submitted a grant application to the Maryland Historical Trust for funding.

Dennis Knepper also led a MAHS team into the field several times during the “off season” to map and survey the remains of three shipwrecks located in the Wicomico River within the city of Salisbury, MD. In coordination with Susan Langley, the Maryland State Underwater Archaeologist, a World War II-style landing craft was examined (see the article in this issue) and a site survey was commenced on a structure identified only as the centerboard wreck.

In January, the MAHS Board of Directors voted to update and improve the MAHS website. That work has been ongoing and the new website is expected to be ready for “prime time viewing” in mid-July 2008.

Also, in January, Jim Smailes, Ray Hayes and Bill Utley attended the 2008 Annual Conference for the Society of Historical Archaeology in Albuquerque NM. While attending the conference, Jim also represented MAHS at the annual meeting of the Advisory Council in Underwater Archaeology.

In February, Earl Glock conducted his annual course, Emergency First Response (CPR and First Aid), along with DAN’s Oxygen First Aid for Scuba Diving Injuries. Earl provided these courses at cost to MAHS members at the Splash Dive Center in Alexandria, Virginia.

Dave Shaw, Dennis Knepper, and Tom Berkey represented MAHS at the 38th Annual Middle Atlantic

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and later the *Chasseur* (from the French for hunter). Boyle’s success in *Chasseur* led the citizens of Baltimore to call the vessel "The Pride of Baltimore," a name that lives on today in the famous replica vessels *Pride of Baltimore* and *Pride of Baltimore II*.

The vessel of choice for many privateers during this period was the so-called Baltimore clipper schooner. *Rosie, Comet*, and *Chasseur* were all Baltimore clippers, each built in Baltimore’s Fells Point yards by the shipwright Thomas Kemp. The Baltimore clipper was a sleek schooner design, built for speed. Howard Chapelle, curator of maritime history at the Smithsonian Institution, Washington, D.C., who has written widely on American ships and boats ranging from vernacular watercraft to military vessels, noted that:

there is no type of vessel that has so much romantic and historical interest to Americans as that commonly called the Baltimore Clipper. First appearing in naval history during the war of the Revolution... by 1800 the Baltimore Clipper was extremely popular with privateers, slavers and other mariners requiring fast vessels.

Developed from earlier sloop and schooner designs, the clipper schooners were long and light, with little rigging, low freeboard, and a distinct rake to the stern and stem posts. Their wide, clear decks were suitable for both working the ship and for ease in handling guns.

The clippers were used as blockade runners and privateers, for which they were rightly seen as heroic. But they also had their dark side. The vessels were also commonly sought as slavers, especially following the abolition of the slave trade by Britain in 1807, when American slavers felt the need for fast ships to evade British warships patrolling the African coast.

It has been said that some of the most storied vessels in American sailing history were built in the shipyards of Fells Point. Founded in 1730 by William Fell, who was attracted by the beautiful deep water and proximity to agricultural areas and thick forests, Fells Point quickly became a shipbuilding and commercial center. The Fell's Point yards produced the first frigate of the Continental Navy, the *Virginia*, in 1775. In 1797 David Stodder built the *Constellation*, a three-masted ship that carried elements of the sleek, schooner design for which the yards became famous. Ironically, the great black abolitionist Frederick Douglass in his earlier years worked as a ship's caulker in the yards of Fells Point, shipyards which would eventually produce some of the most notorious of the nation’s slaving vessels.

In partial retaliation for the actions of the Baltimore privateers, the British launched the Chesapeake Campaign of 1814. The campaign was designed in part to close down the Fells Point shipyards, to "clean out that nest of pirates in Baltimore." Baltimore thus became a principal target of the British, leading eventually to the bombardment of Fort McHenry, the inspiration for Francis Scott Key’s poem *Star Spangled Banner*.

While the most well-known Baltimore privateer was *Chasseur*, another highly successful raider was a clipper known as the *Lion*, or the *Lion of Baltimore*. More than one vessel at that time carried the name *Lion*, including several that sailed out of New England ports. The *Lion of Baltimore* was listed in George Emmons’ *History of the US Navy*, written in 1850, as a Baltimore schooner with a crew of 22 men and 2 guns. Lloyd’s Register of American Vessels listed her as a brig or schooner of 161 tons, sheathed in copper and copper fastened, with a single deck, and drawing 12 feet of water. The *Lion of Baltimore* is reported to have seized or destroyed 15 English prize ships along the coast of Brittany in 1814, amassing a huge cargo which she brought into the French port of L’Orient. There, with the sanction of the United States consulate, she sold the cargo for the equivalent of $400,000 in silver. At this point her trail goes cold, and we have no formal record of her return to Baltimore.

The story picks up again in the form of historical documentation from a British frigate that was on patrol as part of the Chesapeake Campaign. HMS *Menelaus* was a 38-gun fifth-rate, captained by Sir Peter Parker. In a report to Vice Admiral Sir Alexander Cochrane on August 30, 1814, Parker recounted the burning of a schooner off Bodkin Point, south of the Patapsco River:

"...on the 24th inst. Lieut. Warre with two Boats burnt a Schooner in Narrows creek close to Bodkin point."

Additional description of this event was discovered in the log of the *HMS Menelaus*.
of *Menelaus*’ Master which was recently located in a library in Ohio by Kim Nielsen, Director of the U.S. Navy Museum in Washington, D.C. The Master, identified as R. Collins, noted the following:

Wednesday 24th August 1814. Winds South by West. AM, Weather squally. At 7 sent a Barge [a large ship’s boat] in chase of a schooner in shore. At 9 Barge returned, the chase having escaped.

The schooner had spotted *Menelaus* and, unsure that she could escape up the Patapsco to Baltimore, headed for the shelter of Bodkin Creek. But although hidden behind Bodkin Point, the schooner’s masts were eventually seen by the warship. The Master’s log continues:

PM – At 1:00 Observed a schooner at an anchor under the land. Sent 2 barges with the *Jane* Tender after her. At 2:00 Observed the schooner in flames – a 4 the Tender and Boats returned. Bodkin Pt. NW.

Lieutenant Benjamin G. Beynon, head of the Royal Marine detachment assigned to *Menelaus*, also kept a journal during the Bay campaign. He too recorded the burning of the schooner near Bodkin Creek, reporting “the destruction of a fine schooner called the *Lion of Baltimore.*”

Unable to escape, the schooner’s crew appears to have abandoned the vessel and presumably made for the nearby turnpike to Baltimore. Along with the valuable cargo, they took the vessel’s sails, to make her useless to the English. The crew of the tender *Jane* from *Menelaus* burned the abandoned vessel and returned to their ship.

And so, we have two lines of information. We know from records that there was a Baltimore clipper referred to as the *Lion* that operated very successfully as a privateer off the coast of France. She is known to have set out for a return voyage to Baltimore with $400,000 in silver. There is no additional record of the vessel. We also have the log from the warship *Menelaus* and the journal of Lt. Beynon, both of which describe in detail the discovery, capture, and burning of a schooner called the *Lion of Baltimore* near the mouth of Bodkin Creek. We are missing an unequivocal connection between the two lines of evidence. Was the schooner *Lion of Baltimore* that was burned by the crew of *Menelaus* the same as the privateer that had so successfully raided British shipping off the coast of France?

This is where archaeology comes in. The discovery of physical evidence of a copper-bottomed vessel in or around Bodkin Creek would establish the necessary link. Steve Bilicki, formerly with the Maryland Maritime Archaeology Program, conducted side-scan sonar surveys of portions of Bodkin Creek in 2005 and 2007, but found no solid evidence. There are several known wrecks in the area, and thus far MAHS volunteers have had a chance to look at only one, a wreck reported on the Bay shore of Bodkin Point. The photo above shows the wreck as it appeared in a blow-out at low tide several years ago, prior to our archaeological investigation. Unfortunately, we have not experienced the same low water conditions, and this has made detailed recording of the wreck more challenging. Conditions are difficult at best, with shallow, choppy water and poor visibility. Historical records in fact suggest that this wreck is the *Harriet P. Ely*, a cargo hauler built in 1876 that grounded and was abandoned in a nor’easter or hurricane in 1933.

And so, the search continues. The War of 1812 essentially marked the end of privateering – the practice was finally outlawed by the European states as part of the Treaty of Paris in 1856. The *Lion of Baltimore* represents an important part of the history of Maryland, the War of 1812, and the long history of privateers. If found, the remains of the *Lion* – however incomplete or deteriorated – would be the remains of one of the last of the great privateers, and the only surviving example of the famed Baltimore clippers.

Thanks to Kim Nielsen of the U.S. Navy Museum for historical information used in this article, and to Andy Aiken, who provided pictures of the wreck site and allowed MAHS the use of his property for access to the site.

Wreck on the bay shore of Bodkin Point, probably a cargo hauler from the early 20th century. Photo by A. Aiken.
Tugging on the Past: Site Recording and Interpretation of USS Narcissus

By Nicole Tumbleson

In 2006, the Florida Aquarium received a matching grant from the Florida Division of Historical Resources to conduct the Tampa Bay Historical Wreck Survey. The Aquarium then collaborated with South Eastern Archaeological Services and Tidewater Atlantic Research to conduct a Phase I survey of high probability areas based on archival and cartographic research. This project was conducted to create a database of the submerged cultural resources in the area and promote in situ conservation. In addition, any submerged sites listed on the Florida Master Site File that were located within the permit area were reevaluated to access their condition. The wreck of USS Narcissus, a 19th century tugboat, was one of the first sites visited for reevaluation.

During previous investigations, the remains of USS Narcissus were covered by sediments, with only a small portion of the engine showing. Upon arrival at the site in 2006, all of the steam machinery, propeller, propeller shaft, pillow block (shaft bearings), boiler pieces and a portion of the wooden hull were exposed. As a result, it was decided to conduct a non-intrusive archaeological investigation to record the extant features and utilize the Florida Aquarium’s volunteer divers in the process. The conclusion of this project will ultimately lead to an exhibit in the Florida Aquarium’s shark tank that will allow this submerged site to be available to both the diving and non-diving communities. The site has enabled archaeologists, biologists, and volunteers to take an interdisciplinary approach to developing an archaeological database of the Tampa area in the hopes of promoting cultural resource management and relaying this information to the public.

USS Narcissus was launched in July 1863 in East Albany, New York, and was purchased by the United States Navy under the name Mary Cook in September of that year. The tugboat was commissioned as USS Narcissus in New York City in February of 1864. Narcissus was a fourth rate, wooden-hulled screw tug with an inverted, direct acting, single overhead cylinder steam engine. Her hull measured 81 feet 6 inches in length with a beam of 18 feet 9 inches and a depth of 8 feet. When loaded, her draft was 6 feet, and she reportedly reached speeds of 12 knots, although her average speed was about 5 knots. Her single boiler had one furnace. She was originally armed with one 20-pounder Parrot rifle and one heavy 12-pounder.

At the outbreak of the Civil War, most of the vessels available for use in the Union blockade of Southern ports were either out of commission or in foreign ports protecting commerce. The Navy scrambled for ships to block the approximately 189 harbor and river entrances of the Southern states. This was the period of transition from wind-propelled to steam-powered vessels, but the changeover was not immediate. Many of the available ships were sailing vessels. These sail-propelled ships were large, with deep drafts, and had difficulty navigating in the shoal laden waters near Southern ports. Port and river inlets are notorious for changing, shoaling sands, and captains running the Union blockade preferred fast, steam-propelled vessels. The Navy needed their own shallow draft, steam-powered vessels to counter this threat.

As a result, the Navy began to build and employ tugboats for use in the blockade. Although most ships are traditionally designed for a specific use, these vessels served well for a variety of tasks important in maintaining the blockade. Tugboats could be used in the traditional sense, to tow vessels off the shoals lining the entrances to harbors. They also towed captured vessels and prisoners to locations of adjudication. Since this was the age before instant communication, any
information had to literally be transmitted from ship to ship. Therefore, tugs also served as dispatch vessels to transmit information, prisoners or supplies to ships along the blockade line, as well as examining strange ships for possible illegal movements. They were used as scouts that could be sent up river to find landing locations for troops. Sometimes these tugs even captured Confederate vessels attempting to outrun the blockade. *Narcissus* actually did capture the schooner *Oregon* in Biloxi Bay and towed the prize to New Orleans for adjudication. Gideon Welles, the Secretary of the Navy, referred to the tugs as “bar tenders” because their shallow drafts and powerful engines enabled them to move in close to the inlets or “bars” and report to the large blockading ships if they saw any illegal movement in or out of the port.

In January 1864, *Narcissus* steamed from New York to New Orleans, reporting to Rear Admiral David Farragut for duty in the West Gulf Blockading Squadron. *Narcissus* participated in operations in Mississippi Sound, New Orleans, Mobile Bay and Pensacola. In August 1864, she served near Fort Morgan during the Union victory at the battle of Mobile Bay. On December 7th of that same year, while on picket duty at Dog River Bar, Mobile Bay, *Narcissus* struck a torpedo, or what would today be called a mine, while paying out her anchor line during a fierce storm. The mine caused an explosion that left a large hole in the starboard side of the hull amidships. Although the vessel sank in fifteen minutes, no lives were lost and all ammunition and arms were removed. On December 28, 1864, *Narcissus* was refloated and brought to the Pensacola Naval Yard for repairs where she remained until the end of the War.

In October 1865, with the war concluded, Acting Rear Admiral Henry Knox Thatcher no longer needed the many vessels previously required for an active blockade of southern ports. Thatcher stated in a communication that USS *Narcissus* and other screw tugs were ready to be sent north for sale. On January 1, 1866, USS *Narcissus* and USS *Althea*, both screw tugs, began their journey along the eastern shores of the Gulf of Mexico on their way to New York to be decommissioned and sold.

According to the deck logs of USS *Althea*, both *Althea* and *Narcissus* encountered a storm off the coast of Tampa. The commanders made the decision to anchor outside the port and wait out the storm. *Althea* briefly grounded on a sandbar while trying to anchor, and after coming free of the shoal the commander of the vessel realized it was too dangerous to anchor. At 6:15 pm on January 4, 1866, *Narcissus* burnt a Coston Signal flare. *Althea* returned the signal at 6:30 pm, yet received no response. Thirty minutes later, *Althea* noted more signals from *Narcissus*, but could not understand them. *Althea* returned with a final signal, but again received no response from *Narcissus*.

The next morning *Althea* anchored off Egmont Key and noticed the beaches strewn with wreckage from *Narcissus* along with the body of one of the firemen, who was unidentifiable, and the papers of Acting Ensign Bradbury and Mate J. L. Hall. *Althea* stayed in Tampa for two more days to look for survivors, and finding none continued on its journey to New York. Thirty-two men died in this wrecking event. The site of USS *Narcissus* lies in about 13 feet of water just north of the entrance to Tampa Bay.
site and expose artifacts. Some of the artifacts discovered include iron shackles and handcuffs, brass keys, a silver fork engraved “Landis”, a solid shot about 3 ½ inches in diameter, a percussion rifle breach with brass trigger guard, brass spikes, brass sheathing, a battered copper oil can, an assortment of brass valves and a Confederate brass belt buckle. In the attempt to begin a large scale salvage operation, a local avocational diver was asked to conduct an assessment of this site to verify the vessel’s identity. This diver was an amateur historian and avid writer for Treasure magazine who had previous experience working with nineteenth-century steam machinery. He dove on the site and wrote a report of his assessment in which he informed the salvors that the steam machinery seemed too small to have been from the type of blockade runner they were hoping to find.

Soon after, the partnership dissolved and the diver who conducted the site assessment applied for a salvage contract from the state. During the process he catalogued all of the artifacts maintained by the recreational divers and wrote a report of the features he had seen located at the site of USS Narcissus. Although this information was not completed to professional standards, it provides insight as to the condition of the site in the 1980s, the artifacts recovered, and allows us to speculate about any further salvage that has occurred since his evaluation.

State officials denied the salvage contract because of environmental conditions, as the site lay within the Pinellas County Aquatic Preserve. Although the salvage diver could not recover artifacts from the site, he continued to conduct historical research to identify the shipwreck. After reviewing the Official Records of the Union and Confederate Navies he identified the site as that of USS Narcissus. He has proven very helpful in providing information related to the salvage activities for the current study of the vessel. Unfortunately, the recreational divers who removed artifacts from the site failed to properly conserve and store the artifacts, and today the artifacts are lost. This serves as an all too common example of why it is important for archaeologists to involve the local community in projects and to teach the public the value of our cultural resources and the need for appropriate techniques of archaeological research and conservation. Without public outreach efforts, our maritime heritage resources will continue to be at risk.

The Florida Aquarium’s interdisciplinary approach to this project encourages members of the community to become involved with maritime archaeological projects through their volunteer program. The Aquarium is a member of the American Academy of Underwater Sciences (AAUS) and all of their divers are trained under the AAUS standards for scientific divers. The Aquarium allows volunteers to go through a series of check out dives in order to be certified to dive on projects. The Aquarium uses volunteers to help clean tanks as well as to conduct fish counts and coral plantings. When the Tampa Bay Historical Wreck Survey received funding from the Florida Division of Historical Resources, the Aquarium offered volunteers the opportunity to learn how to conduct maritime archaeology. Many of the volunteers previously worked with the Aquarium on the Little Salt Spring Project conducted by Dr. John Gifford and were anxious to learn about shipwrecks.

 Volunteers participated in classroom sessions covering archaeological terms and definitions, basic historic vessel architecture, survey, recording and mapping methods, as well as information related to law and ethics. The Aquarium’s 500,000-gallon saltwater exhibit was utilized to practice the skills and methods taught in the classroom. As with most underwater archaeological sites, the visibility on USS Narcissus is often unclear, so allowing divers to practice archaeological techniques in a safe environment enabled them to familiarize themselves with some of the processes before working in open water.

To record the site, we created a datum web in which
lines were tied to each of the extant feature remains.

Divers measured the distance between each feature and used triangulation to form the basic site plan. The datum web lines also acted as guides to keep divers from becoming disoriented while working in low visibility. We later revisited the site and laid a baseline along the centerline of the vessel, which we used to trilaterate to each of the extant features on the site. The measurements from the two mapping methods were found to be similar: the site plan combined the measurements to generate an accurate site representation.

The wrecking of Narcissus seems to have been caused by the explosion of the boiler. She may have grounded on a shoal during the storm allowing wave action to further weaken the hull, which was already compromised from the previous explosion suffered in Mobile Bay. The boiler would have been located forward of the engine, yet the remnant boiler pieces now lie on the northwest side of the site, providing evidence for some type of explosion. The vessel likely listed to port after the explosion causing the engine and stern component to be positioned on their port sides.

Volunteer divers completed measured drawings of each discrete feature, and these drawings were then incorporated into the overall site plan. Wood samples were taken that will help to identify the type of wood used in construction. Divers took hundreds of digital images, and the Aquarium’s high definition video camera provided additional site recording. Although this was a non-intrusive investigation, mechanical probing was used to find the extent of the hull remains underneath the sand. Much of the hull seems to be intact on both the port and starboard sides of the vessel, buried under about three feet of sediment. Portions forward of the engine, where the boiler was located, are either more deeply buried or missing altogether. The boiler explosion is the likely reason we could not locate any hull remains forward of the engine.

The Florida Aquarium is researching the possibility of creating a fiberglass replica of USS Narcissus to be displayed in the 55,000-gallon shark tank. The Aquarium currently has a program that allows people to dive with the sharks in the shark tank. Once the exhibit is finished, people would be able to both dive with the sharks and experience a simulated environment comparable to the site of Narcissus. Interpretative exhibits that discuss the history of Narcissus, the Tampa Bay Historical Wreck Survey, and information about maritime archaeology will accompany the exhibit in the shark tank. The exhibit will also enable the non-diving community to see what a shipwreck looks like, and it will serve as another way to introduce the public to the importance of conserving our maritime cultural resources.

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In 1281, the Mongol Emperor Kublai Khan massed his armies for the second of two attempts to invade and conquer the Empire of Japan. As many as 140,000 men were transported in several thousand ships from southern China and the Korean Peninsula. The expedition resulted in one of the largest maritime disasters in history, one in which more than 4,000 ships were lost during a single storm. As the vessels approached the island of Takashima, in western Japan, a great typhoon known as a Kamikaze, or divine wind, destroyed the fleet. Historical documents suggest that only one out of ten soldiers survived the catastrophe.

Seven hundred years after the invasion people in Japan still remember the story, but many of the details have been lost. The place where the Mongolian fleet met its end, the island of Takashima, in Imari Bay, is documented in several historical records. The Takashima Underwater Site, thought to be the remains of the fleet, was discovered by a Japanese archaeological team following research that began in the early 1980s. In the 1990s, the discovery and excavation of large wooden anchors by the Kyusyu Okinawa Society for Underwater Archaeology (KOSUWA), under the leadership of Director Kenzo Hayashida, were the first major archaeological finds from the site to provide substantial information regarding the type and size of the ships comprising the fleet.

KOSUWA, now the Asian Research Institute for Underwater Archaeology (ARIUA), has conducted excavations at the site for several seasons. The list of artifacts discovered includes swords, helmets, storage jars, and numerous timber fragments. Archaeologists can now study the physical evidence from the invasion attempt, an event that could have changed the course of the Japanese identity.

More than 500 fragmented ship timbers have been excavated. The timbers were recorded and analyzed by the author in 2004 and 2005 in a project supported by the Institute of Nautical Archaeology, at Texas A&M University; the RPM Nautical Foundation; and the Takashima Board of Education.

Historical documents such as Yuan Shi, the official history of Yuan (Mongol) dynasty, reveal that Koreans provided 900 of the boats used in the invasion, while the Chinese supplied the remaining vessels. Along with the Koreans, Kublai ordered ship-builders in areas of the Yangtze River, in central China, and in the town of Quanzhou, in Fujian Province to the south, to build the fleet. Japanese historian, Kouki Ota, and several others suggest that the fleet from Korea carried the main fighting unit while the ships sent from China were to serve as supply units.

The author has studied the archaeological remains of vessels built in both China and Korea. Korean vessels have characteristic flat-bottom hulls with heavy transverse beams, as well as thick and large bottom planks held together by mortise and tenon joints. The vessels were typically built without using nails; all joints were fastened by complex wooden carvings and locking mechanisms. These strongly built vessels were suited for maneuvering in shallow waters. Several vessels from the lower Yangtze River that were used on the estuary and large canals have also been excavated. These craft had rounded hulls and derived strength from sturdy bulkheads, for which Chinese Junks are famous. Liberal use of iron fastenings appears to have been the norm for vessels built along the Yangtze; however, some vessels also used mortise and tenon joints and other wooden fastenings. The vessels were medium to small in size, suited for reconnaissance and other
miscellaneous purposes. In contrast, ships built in Fujian Province often had V-shaped hulls with deep drafts for carrying large amounts of cargo overseas. A well-known archaeological example, the Shinan ship, discovered in Korea, was close to 30 meters in length, and was on its way to Japan when it sank. The Quanzhou ship was slightly smaller and more lightly built, but it was a typical cargo vessel built in the region. Iron nails were used as the primary means of joinery in these vessels.

Almost all of the archaeological research conducted in Takashima thus far has been in the form of rescue operations associated with harbor renovations and expansions. For this reason, only the areas close to the shore have been excavated, areas where high energy storm waves would have crushed the hull timbers during the original storm and where later wave action over the years would have continued the process of destruction. Almost all of the timbers recovered at the site were highly degraded and disarticulated fragments -- the maximum dimension of the majority of the timbers is less than 50 cm -- indicating that the site has indeed been heavily disturbed.

As the context of the site provides no clear answer as to which timber belonged to which vessel, each timber has been examined and organized using methods specifically devised for the project. Three methods were developed for this purpose: a Timber Database; a study of joinery; and an analysis comparing selected timbers with similar timbers from known shipwrecks. The Timber Database recorded the dimensions of each timber, ranked each on the basis of completeness, and assigned each to a component category, the categories based largely on shape and nail patterns. The most nearly complete hull timbers were relatively small in comparison with known archaeological samples, suggesting either preservation bias (i.e., larger timbers being more likely than small timbers to be damaged or to break up in rough conditions over the centuries), or alternatively that the vessels were small.

Many of the timbers found thus far have been from flat or round hulled vessels that probably came from the Yangtze River, based on the sizes of the bulkhead timbers. Although not a significant portion of the remains, at least one large V-shaped vessel similar to those built in Fujian Province was also present. No
The third analytical approach focused on selected timbers, paying particular attention to information about the sequence of vessel construction. Individual timbers suitable for this type of analysis were not common. A 5.7-meter fragment of bulkhead timber appeared to have been fashioned on similar lines as the Quanzhou ship, although the Takashima example may have been from a larger vessel. Another bulkhead timber had an angle of dead rise measuring approximately 30 degrees, suggesting a steep V-shaped hull, possibly from a vessel built in South China (but smaller than the Quanzhou ship). A 170-centimeter floor timber had a shape suggesting a narrow, rounded or almost flat-bottom vessel with a keel-plank or internal keel. This timber seems to represent a good example of a flat-bottom boat made along the Yangtze River.

Randall Sasaki is Research Associate at The Institute of Nautical Archaeology, and Photographic Specialist at the Conservation Research Lab, Texas A&M University. Thanks go to the Takashima Board of Education for their effort in managing this important archaeological site. Thanks also to Kenzo Hayashida and his team of researchers, and to Jun Kimura and Michelle Damian, organizers of the East Asian Shipbuilding Technology and Seafaring Symposium, and to Donald Keith, session discussant. Artifacts from the site are stored at Takashima Board of Education for conservation.

For more information about the project, see: http://www.h3.dion.ne.jp/~uwarchae/english-index.htm
http://nautarch.tamu.edu/shiplab/randall
Final Landing: The Remains of a Vintage Landing Craft in Salisbury, Maryland

By Dennis Knepper

In recent months, MAHS volunteers have been documenting the remains of a Navy landing craft, an LCVP (landing craft vehicle, personnel), more commonly known as a Higgins boat, that lies in the tidal flats along the Wicomico River in Salisbury, Maryland. Several wrecks have been recorded along this stretch of the river, lying just south of Salisbury’s downtown business district. Steve Bilicki, maritime archaeological consultant with BRS, conducted a side-scan sonar survey of parts of the river late in 2006 with the help of Salisbury University student, Jennifer Gardner. Along with at least one sonar target, site 18WC185 (Upper Wicomico #1), other wrecks were noted along the shoreline at low tide. One of those wrecks was the LCVP. The wreck was designated site 18WC188.

Designed and built by New Orleans boat builder Andrew Jackson Higgins, LCVPs were the workhorses of amphibious assault forces in World War II and the Korean War. They allowed the Allies to land men and equipment through the surf onto unoccupied beaches, avoiding fortified, established harbors and the cost in time and lives that would have been required to make such heavily contested landings. The boats were critical to the success of the Allied Invasion of Normandy on D-Day, as well as the many island invasions of the Pacific theatre, and the Korean Inchon Invasion.

A biographer has described Andrew Jackson Higgins as perhaps the most forgotten hero of the Allied victory. Higgins Industries produced more than twenty thousand boats during the war, including PT (patrol torpedo) boats, a 27-foot airborne lifeboat, and 12,000 LCVPs, the boats that eventually came to bear his name – Higgins boats. By September of 1943, it is estimated that more than 90 percent of the vessels comprising the U.S. Navy and engaged in both Europe and the Pacific were designed by Higgins Industry Incorporated, and more than 60 percent were built in Higgins’ New Orleans plant. At its peak, Higgins Industries consisted of eight New Orleans plants employing 20,000 workers and producing 700 boats a month.

Higgins was a larger-than-life figure. Born in small-town Nebraska in 1886, he developed an interest in the timber industry and boats following duty in the Nebraska militia. He built the precursors to the LCVPs in a series of flat-bottomed boats intended for use by trappers and oil men in the Louisiana swamps and marshes. The boats were needed to run in shallow water clogged with sandbars, vegetation and downed trees. They were designed to purposefully run aground without damage to the hull or propellers, and then back off or retract themselves to move onto another location. The first design, referred to fancifully as the Wonderboat, boasted a rounded and reinforced bow specially designed from a large piece of handcrafted pine referred to as a head-log. The propeller and shaft were located in a tunnel, which sheltered them but allowed bubbles to accumulate resulting in problems with cavitation that reduced power significantly. The successor to the Wonderboat, known just as fancifully as Eureka, solved the cavitation problem by using a semi-tunnel and adding a reverse curve to the v-shaped hull aft of midships. This innovative hull form tended to force objects and aerated water away from the after part of the hull, allowing the propeller to run in clean water with no bubbles. Heavy frames and keel, and a reinforced skeg to protect the propeller and shaft completed the rugged
construction. The vessel was highly maneuverable and drew only 10 inches of water when underway.

Some reports suggest that Higgins sold these speedy boats to both rum smugglers racing whiskey past the Coast Guard during Prohibition and to the Coast Guard who chased the smugglers. Along with the Coast Guard, Higgins sold Eureka boats to the Army Corps of Engineers and the Biological Survey Agency, and in 1940, to the British, now at war with Germany, as assault craft. But the U.S. Navy did not express an interest in the craft, in part because they viewed Higgins as an outsider, in direct competition with established shipyards on the East Coast. Higgins eventually was able to deal directly with the Marines, for whom the craft were designed and who saw the practical benefits of the vessel over existing designs.

In 1941, Higgins began modifying the Eureka boats with bow ramps, creating the craft we now know as the Higgins boat. At first the ramped boat was not a fully realized design – Higgins merely constructed the Eureka, then cut off the bow and attached the ramp. At the time he had a contract to produce 335 Eurekas, and the last 87, now referred to as LCVPs were ramped. The Marines, understanding that assault troops were useless without mechanized support – i.e., howitzers and tanks – also asked for a design of a 45-foot tank lighter. Higgins modified an existing tow boat as a prototype in just over two days and secured a contract for 50 of the new vessels.

At the main Higgins assembly plant at City Park in central New Orleans, the 36-foot LCVPs were constructed on a 600-foot-long assembly line. Four production lines operated side-by-side. The vessels were started upside-down, with frames laid and plywood and planking added. The boats were then righted and finished while in constant motion along the line.

To be effective, the LVCP required a different handling technique than conventional craft. The boat was designed to run over obstacles and onto the beach at full speed, with the throttle kept wide open as the troops disembarked. The engines were then swiftly reversed to retract the vessel, turn it and head out into the surf.
Recognizing that most boat operators were trained to slow down for obstacles, Higgins developed a special training program, the Higgins Boat Operators and Marine Engine Maintenance School, to teach military personnel how to properly operate the LCVP. From July 1941 through the end of the war, 30,000 men were trained in the handling and maintenance of the landing craft.

MAHS first visited the Salisbury LCVP (18WC188) in February 2007, while documenting the Upper Wicomico #1 wreck, 18WC185. At that time, overview photographs of the LCVP were taken. MAHS returned to the site in late November of 2007 at the invitation of Dr. Susan Langley, Underwater Archaeologist for the State of Maryland, and again in April of 2008.

The remains lie at the base of the river bank, which rises 10-12 feet above the bottom sediments in this location. The bow of the vessel points downstream, and the wreck lists at an angle of almost 45 degrees, the port side resting on brush, small trees, and trash that has collected in the exposed tree roots. The starboard side is buried in the sediments.

The major features of the wreck were mapped using 90-degree offsets from a baseline extended along the approximate centerline of the site. Details of metal frames and wooden planking were recorded. General site photos were taken along with detailed photos of specific framing features.

The vessel is of composite construction, with wooden frames and stringers along with several steel frames and a large steel bow ramp. The wreckage measured approximately 12.3 meters (40.3 feet) in length from the open bow ramp to the truncated remains of the stern, and 2.5 meters (8.2 feet) in width, as measured between the ends of the complete metal frames (the bow ramp was slightly wider at its widest point, approximately 2.8 meters [9.2 feet]).

Cutaway and plan view of LCVP: dotted line highlights the surviving portion of the Salisbury vessel.

In the after part of the vessel was a motor mount comprised of an additional set of supporting timbers rabbeted with a slant down and aft. A beveled hole in the longitudinal keelson-like stringer allowed the propeller shaft to pass through the bottom of the hull. The frames were attached to the stringers with galvanized metal bolts with threads and nuts. The heavy, steel bow ramp lay in the sandy sediment at the bow end of the wreck. The ramp was hexagonal in shape and slightly asymmetrical along the axis perpendicular to the midline of the vessel. Features visible on the interior of the ramp included raised treads for foot and vehicle traffic, a rectangular view port, lifting rings that would have attached to winches in the bow of the boat, and a hinge mechanism located along a 10-cm-(4-in)-square timber that attached the ramp to the bow.

The portion of the craft remaining at the site consisted of parts of the outer hull, the frames, the keelson-like midline stringer, the wooden cradle for the motor, metal frames for the steering position, and the bow ramp. Most of the frames were complete to the
hard chine on the port side, where they were somewhat protected by the bottom sediments. Only the steel frames were complete on the fully exposed starboard side. Other than the base of the steering position, none of the upper structure remained.

Measurements and drawings that have been obtained of the original LCVPs indicate that the vessel would have measured slightly under 35 feet at the base of the hull. The ramp, when in closed position, leaned outward somewhat, giving the boat a full length of 36 feet 3 inches. The ramp measured 7 feet in length, which would have given the vessel a total length of just over 42 feet with the ramp down. The entire Salisbury wreck measured approximately 40 feet in length. The bow end of the hull was complete: the longitudinal timbers or stringers could be seen fairing upward forming the line of the bow and cut to receive the hinged ramp. Based on its alignment with the remaining portion of the hull, the ramp appeared to be in place and attached when the vessel was abandoned in this location. Thus, the main features of the bow end of the vessel were intact, so that the missing length was at the stern end, where in fact the midline stringer and hull planking were truncated. The full width of the vessel would have been 10 feet 10 inches at the gunwales, 7 feet 5 inches at the base of the troop/cargo compartment. The 8-foot-2-inch width measured on the wreck reflects the width to the outboard ends of the frames, which were wider than the interior compartment.

Although it is in poor condition now, the LCVP was nearly complete when abandoned, according to Chuck Fithian, of the Delaware State Museum. Fithian was raised in Salisbury and reports that as a young boy in the early 1960s, he and his friends used to play on the LCVP. “We made lots of noise and stormed many beaches – typical Vic Morrow scenarios.” By Fithian’s recollection, the bow ramp was down at that time, but the boat was missing only the engine and guns: “we were particularly disappointed that it didn’t still have its guns.”

The jury is out as to whether the Salisbury LCVP dates from World War II or the Korean War. Kim Nielsen, of the Navy Museum, in Washington, D.C., notes that there are several diagnostic features that can be used to date the boat, including the mounting brackets for the pulley that operated the bow ramp, or the pulley itself. Both features were located on the starboard side of the boat, which may have fallen outward and become buried in the tidal sediments. Further investigation at the site may thus reveal information about these features.

Writing in the early 1990s, A.J. Higgins’ biographer observed that despite his accomplishments, Higgins is less well-known than he might be because “to credit Higgins’ accomplishments, [U.S. Naval historians] would have to recognize the Bureaus of Ships’ failures…Higgins single-handedly fought the navy bureaucracy to assure that the amphibious forces were equipped with the safest, best-designed landing craft possible. The U.S. Marine Corps never lost sight of Higgins’ valiant efforts.”

And yet history is catching up with the Marines in its appreciation. Numerous websites are dedicated to Higgins’ story and his accomplishments. The National D-Day Museum, which opened in 2000, is located in New Orleans largely because of Higgins and his connection with the city. The museum displays a reproduction of a Higgins LCVP in its Louisiana

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Several archaeological conferences were held over the winter and spring months. The 41st Annual Conference of the Society for Historical Archaeology (SHA) was held in Albuquerque, New Mexico, from January 8 through 13, 2008. This was the first SHA conference to be held in the southwest. The theme this year was “Public Benefits of Historical Archaeology.” By our count, maritime and underwater archaeological research was the focus of 82 papers this year, presented in 12 symposia and general sessions spread across the five days of the conference. The subjects of the presentations ranged from lateen-rigged Portuguese ships of the Mediterranean to East Asian shipbuilding technology, documenting 19th-century wrecks in deep water, details of work by archaeologists from the U. S. Navy, and recent maritime heritage initiatives undertaken by the National Oceanic and Atmospheric Administration (NOAA).

The Advisory Council on Underwater Archaeology (ACUA) holds its annual meeting in association with the SHA meeting. MAHS members Ray Hayes and James Smailes attended this year’s meeting. Hayes and Larry Murphy (National Park Service) were accepted as full members of SHA’s UNESCO Committee, chaired by Peggy Leshikar-Denton, of the Cayman Islands National Museum. Leshikar-Denton reported that ratification of the UNESCO Convention is very near (see MAHSNEWS Spring 2007, Vol. 18 No. 1 for a summary of the Convention). Sixteen of the 20 nation states required to ratify the Convention have done so, and it is anticipated that the remaining four needed will follow suit sometime in 2008. Fifteen professional and avocational groups (including MAHS) have endorsed the Convention, along with 2 U.S. State agencies. Hopes were high that once ratification occurs we will be able to move to another level of advocacy.

The 38th annual meeting of the Middle Atlantic Archaeological Conference (MAAC) was held in Ocean City on February 28 through March 2. MAAC is one of two major regional conferences held in the area each year. Program Chair, Liz Crowell, noted a record total of 327 registered attendees at this year’s meeting, highlighting the growth of interest and participation by both professional and avocational archaeologists. Overall, 130 papers were presented by 159 authors and coauthors, in addition to seven posters that were displayed in the bookroom.

As in the past few years, a maritime session was chaired by Steve Bilicki, this year assisted by Jennifer Gardner of the University of Salisbury. The papers in the session included Dave Shaw’s presentation on the search for the American privateer, Lion of Baltimore (the lead story in this issue of MAHSNEWS), and updates on two continuing surveys: the Institute of Maritime History’s Submerged Historical Inventory Project and a survey of the waters surrounding Jamestown Island (see MAHSNEWS Spring 2007, Vol. 18 No. 1 for a summary of the Jamestown project). Also on the program were presentations on Joy Parks, a skipjack built in 1936 and now on display at the Calvert Marine Museum; high-tech curation facilities at NOAA’s Monitor Lab at the Maritime Museum in Norfolk; student participation in a reconnaissance survey in Northampton County, Virginia, in 2007; the use of 3-dimensional computer graphics modeling at the 18th-century Severn site in Lewes, Delaware; and a survey of the mid-19th-century side-wheel paddle steamer Admiral DuPont, which lies in deep water off the New Jersey coast. The presentation on the paddle steamer, by Joyce Steinmetz, won this year’s award for the best paper by an avocational.

A week later the Maryland Historical Trust held its archaeological workshop, the Maryland Archeology Conference. MAHS volunteers manned a table in the bookroom where portions of the video series, Diving into History, were shown and informational literature was on display. In addition, State Underwater Archaeologist, Dr. Susan Langlely, presented this year’s “Volunteer Appreciation Award” to MAHS Vice-President Dennis Knepper. 💾

Maryland State Underwater Archaeologist, Dr. Susan Langley, presents the MMAP “Volunteer Appreciation Award” to Dennis Knepper. Photo by T.Berkey.
Basic Underwater Class Pool Session 2008 -- PhotoEssay

Photos by Ray Hayes, Tom Berkey, and Dennis Knepper

It’s not too late to renew your MAHS Membership. If you aren’t a member, become one and join us in supporting maritime historic preservation.
Archaeology Conference in Ocean City, MD. On Saturday March 1, 2008, they presented a report on the progress of the Lion of Baltimore Project.

Later in March, MAHS hosted a table at the 17th Annual Workshop in Archaeology where MAHS Vice President, Dennis Knepper, was honored by the Maryland Historical Trust for his contributions to the field of archaeology.

I am also pleased to inform you that the MAHS Board of Directors contracted with Michael Moore again this year to continue his research on the Pamunkey River Project and the origins of the Civil War-era barges and canal boats deployed there during the Peninsula Campaign.

This has been a busy winter for the Anthony family as well. I am pleased to announce that my wife Michele and I once again contributed to the growth of MAHS membership by giving birth to a baby girl on January 27, 2008. Not to be outdone by her older brother, Danielle Renee Anthony will be sure to make her debut in the water on a MAHS project before her first birthday where everyone will have the opportunity to welcome her aboard.

There has been plenty of MAHS activity over the winter months and new projects are in the works for the summer season. So, be sure to mark your calendar and join us at the next monthly membership meeting.

See you on the water,
Steven Anthony
President

The funding received for the Tampa Bay Historical Wreck Survey from the Florida Division of Historical Resources has enabled the Aquarium, archaeologists, and volunteers to document this historic site and utilize people’s passion for maritime archaeology in a constructive way. The creation of an exhibit in the Aquarium’s shark tank will provide access to this submerged site to both the diving and non-diving communities helping to educate people about maritime archaeology and promote the conservation of Florida’s cultural resources.

Nicole Tumbleson is a Maritime Archaeology graduate student at the University of West Florida. The USS Narcissus is the subject of her Master’s thesis, and she intends to pursue a career that will utilize her terrestrial and underwater training and experience while also involving the public in archaeological endeavors.

Memorial Pavilion. The boat was constructed by volunteers—several of whom worked for Higgins Industries during World War II—using original plans. Historian Stephen Ambrose, in his history of the invasion, D-Day June 6, 1944: The Climactic Battle of World War II, quotes Dwight Eisenhower as saying:

“A. J. Higgins was the man who won the war for us……..if Higgins had not designed and built those LCVPs, we never could have landed over an open beach. The whole strategy of the war would have been different.”

MAHS volunteers working at the site have included Steven Anthony, Dave Shaw, James Smailes, Tom Berkey and Dennis Knepper. They have been assisted by Dr. Susan Langley and Jennifer Gardner. Thanks to Kim Nielsen of the Navy Museum in Washington, D.C., for comments and additional information.
Statement of Ethics

The Maritime Archaeological and Historical Society is organized for the purpose of enhancing public awareness and appreciation of the significance of submerged cultural resources and the science of maritime archaeology. In pursuit of this mandate, members may come in contact with unique information and cultural material associated with terrestrial and underwater sites containing evidence of the history of humankind. To protect these sites from destruction by commercial salvors and amateur souvenir hunters, the Society seeks to encourage its members to abide by the highest ethical standards. Therefore, as a condition of membership and pursuant to Article 2, Section 1 (A) of the bylaws, the undersigned executes this statement of ethics acknowledging adherence to the standards and policies of the Society, and further agrees as follows:

1. To regard all archaeological sites, artifacts and related information as potentially significant cultural resources in accordance with federal, state, and international law and the principles and standards of contemporary archaeological science.

2. To maintain the confidentiality of the location of archaeological sites.

3. To excavate, or otherwise disturb an archaeological site solely for the purpose of scientific research conducted under the supervision of a qualified archaeologist operating in accordance with the rules and regulations of federal, state, or foreign governments. Artifacts shall not be removed until their context and provenience have been recorded, and only when the artifact and related data have been designated for research, public display or otherwise for the common good.

4. To conduct oneself in a manner that protects the ethical integrity of the member, the archaeological site and the Society, and prevent involvement in criminal violations of applicable vandalism statutes.

5. To observe these ethical standards and aid in securing observance of these standards by fellow members and non-members.

6. To recognize that any member who violates the standards and policies of the Society shall be subject to sanctions and possible expulsion in accordance with Article 2, Section 4 of the bylaws.

Signature __________________________ Date __________________________

(Revised 1993)

MARITIME ARCHAEOLOGICAL AND HISTORICAL SOCIETY
P O Box 44382, L’Enfant Plaza, Washington, DC 20026

Application for Membership

Membership in the Maritime Archaeological and Historical Society is open to all persons interested in maritime history or archaeology whether or not they are divers. Members of MAHS have first preference for enrollment in all courses and other activities and projects of the Society. To join MAHS, please sign the Statement of Ethics above and send it to MAHS along with your check and this application form.

Name (print) __________________________
Address ________________________________
City __________________ State ______ Zip ______
Phone (H) _______ (0)______________ (FAX) __________
Email ________________________________

Skills (circle): research/dive/photo/video/communications/drawing/writing/first aid/other:

DUES ENCLOSED
___ $30 Individual
___ $35 Family
___ $50 Sponsor
___ $100 Patron

Please mail this form along with your check to: MAHS at P.O. Box 44382, L’Enfant Plaza, Washington DC 20026.
General membership meetings of the Maritime Archaeological and Historical Society (MAHS) are held at 7:30 p.m. on the second Tuesday of each month. MAHS meets at McLean High School, in McLean, Virginia, except in July, August and December. The school is located on Davidson Road, just inside the Capital Beltway (I-495) - use Exit 45, coming from Maryland, or Exit 46, coming from Virginia. Meetings in July, August and December are held at other locations for special events and holiday parties. Please join us and bring a friend.

{Check the website www.MAHSNet.org for e-mail advisories about any schedule changes.}

**Renew Now!**

It’s time to renew your membership in MAHS. It’s easy. Just complete the application form on the inside back cover and sign the Ethics Statement, enclose a check for your dues, and mail! Thank you!