

Searching for

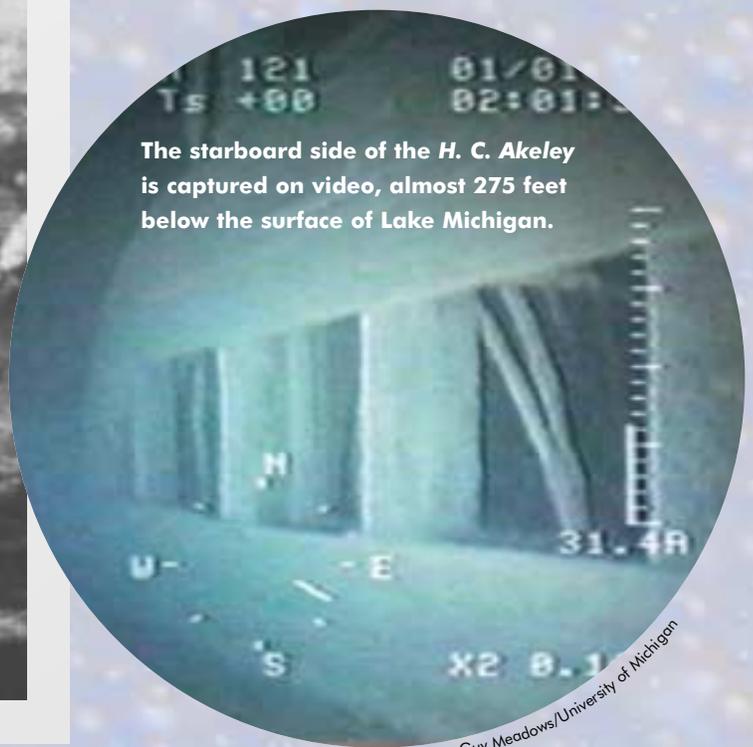
by VALERIE OLSON VAN HEEST

In 1998 maritime historians began searching for the steamer *Chicora*, one of the most elusive shipwrecks in Lake Michigan. Instead, what they found four years later, was the steamer *H. C. Akeley*, one of many ships that fell prey to the Gales of November. The sinking of the *Akeley* is depicted in this 1883 painting by William Torgerson of Chicago.

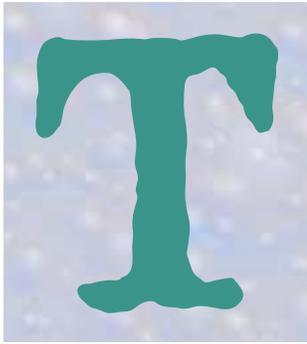


a Steamer

January 21, 1895 was a cloudy and calm day when the 219-foot-long steam-powered *Chicora* left Milwaukee with a late-season load of flour. Just as Captain Stein was pulling away, a messenger boy ran down the dock to hail the captain with a warning about an impending storm. He was too late. The captain, his crew of twenty-one men and one passenger were never seen again. It is believed that Lake Michigan just swallowed the ship, leaving a curiosity about the *Chicora's* end that still lingers, more than a century later.



The starboard side of the *H. C. Akeley* is captured on video, almost 275 feet below the surface of Lake Michigan.

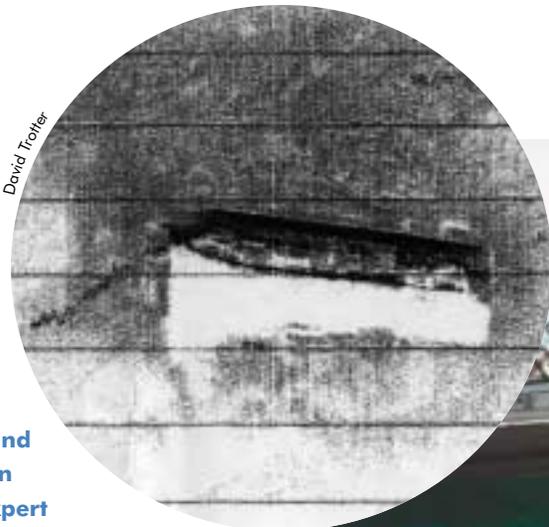


That curiosity drove divers and maritime historians Jack van Heest, Craig Rich, Bernie Harris and myself to set out in May 1998 on a quest to find one of Michigan’s most enigmatic and sought-after shipwrecks. At the time, we were officers of the committee to establish the Southwest

Michigan Underwater Preserve, which became the state’s tenth such preserve in 1999. History hunters, not treasure hunters, we used newspaper accounts of eyewitnesses to the storm to narrow the search to the waters between South Haven and Saugatuck. Despite the expert side-scan services of David Trotter from Canton, the most prolific shipwreck-hunter and discoverer in the Great Lakes, three seasons of searching over seventy-five square miles of lake area only turned up an unusual clay formation off Pier Cove near Saugatuck. In 2001, in preparation for our fourth search season, Jan Miller, a new member, suggested using search-and-rescue techniques and drift theory to craft a more scientific survey.

Miller eventually connected with scientist Arthur Allen at the U.S. Coast Guard Research and Development Center in Groton, Connecticut. Allen works out problems in drift theory to aid the Coast Guard in its search-and-rescue operations. Using computer simulation technology, Allen makes predictions where objects drift in the water given certain wind and current conditions. Applying this technology to the missing *Chicora* was an intriguing idea. However, to do this, he needed a computer model of the winds and currents on the lake at the time of the *Chicora*’s disappearance.

For this model, Allen directed the team to Scientist David Schwab at the Great Lakes Environmental Research Laboratory in Ann Arbor, a division of the National Oceanic and Atmospheric Association (NOAA). Schwab saw only one problem: to stimulate the winds and currents would depend on knowing what the meteorological conditions were in 1895. The National Climatic Data Center (NCDC), a division of NOAA that was originally formed in 1870 as the National Weather Service, keeps computerized logs of all recent weather conditions around the country. Century-old information is harder to obtain, but after significant efforts on the part of our team and NCDC, original hand-recorded weather reports from January 1895 were found for the ports of Chicago, Milwaukee and Sault Ste. Marie.



David Trotter

Wreck hunter and side-scan sonar expert

David Trotter (right) prepares to launch the sonar to begin search operations in 2001. Trotter’s sonar image (above) shows an intact vessel, approximately two hundred feet long, sitting upright on the bottom. The white “shadow” indicates the height of the ship and the wavy dark line angled down toward the left is the anchor chain.



Valerie Olson van Heest

MSRA search team members (left to right) David Trotter, Craig Rich, Valerie Olson van Heest and Jan Miller look at the side-scan image of the wreck on the evening of the discovery, May 25, 2001. Side-scan sonar produces images by sending sound waves at an angle to the bottom of a body of water and recording the pattern in which the sound waves bounce off objects.

In what amounted to more than a year of research, weather modeling and drift analysis, Miller, Schwab and Allen determined an area of scientific probability in which to search for the *Chicora*, this time in significantly deeper water than had been covered previously. We believed our commitment and diligence had paid off when on May 25, 2001, we discovered a 230-foot-long wooden-hull steamer resting on the bottom of Lake Michigan fifteen miles off Saugatuck in 275 feet of water. How could we be sure it was the *Chicora*?

At 275 feet, the wreck ranks among the ten deepest discovered to date in the Great Lakes. Several of these wrecks, including the *Edmund Fitzgerald*, were the subjects of major professional remote survey operations. As volunteers with minimal budgets, our discovery team knew the process of identifying the deep wreck would be difficult. While the size and shape recorded on the side-scan image matched the dimensions and shape of the *Chicora*, they also matched four other vessels presumed lost off West Michigan: the *Michigan*, a passenger steamer; the *Hennepin*, a cargo steamer; the *Andaste*, a whaleback freighter; and the *H. C. Akeley*, a cargo steamer. We had to “see” the vessel firsthand to make any further assessment. The depth was beyond a safe diving range for our team members to risk even though we are all skilled divers. While highly trained technical divers could reach the site, dangerous conditions and limited time on the lake bottom are not conducive to a time-effective, analytical survey and video documentation.

The State of Michigan’s Department of History, Arts and Libraries (HAL) and Department of Environmental Quality (DEQ) manage the state’s shipwrecks, so our team turned to HAL staff member and State Archaeologist John Halsey,



Lou Spencer

who had been advising us during the search. The Office of the State Archaeologist itself has no personnel or budget allocated for shipwreck documentation, but Halsey encouraged us to pursue documentation and identification of the wreck ourselves. He strongly supported the use of remote cameras, as a matter of safety and to minimize diver impact on the site.

Our team looked for someone to use a remotely operated vehicle (ROV), but the search came up empty. Then, with the assistance of David Schwab from NOAA, we made contact with Sergeant Bill Estlack from the Michigan State Police and Professor Guy Meadows, who operates the University of Michigan’s ROV, dubbed M-ROVER. Estlack and Meadows were interested in assisting with a site survey but were unavailable until October.

With summer ahead and a strong desire to identify the ship, we bought an inexpensive drop camera, which would hang from the survey boat by a cable and record video. Since a drop camera has no means for propulsion, it would need to be positioned by the movement of the survey boat. Rather than piloting the boat randomly over the site, we set heavy anchors at four points far off the wreck, (forming the corner points of a rectangle) then connected the survey boat to the anchor lines at the surface. With the motor turned off, we moved the boat to specific points over the wreck by hauling on one or two of the anchor lines while loosening the others. This system allows us to film the wreck in a controlled manner.

The first video footage of the ship revealed a wooden-hull vessel with a side cargo opening and a feature that looked like a wooden fender. These first few minutes of video ruled out both the *Andaste* and the *Michigan*, which were clad in steel. Additional drop camera work during the waning summer months of 2001 captured video of hatches, engine mounts, a boiler, a capstan and something presumed to be a toppled-over smokestack. These bits of video evidence all were consistent with the construction of the *Chicora*, but not inconsistent with the *Hennepin* or the *Akeley*. The *Hennepin*, however, was reported to have sunk twenty-two miles to the south, off South Haven, and the *Akeley*, ten miles north, off Holland. It seemed unlikely that seasoned sailors—the survivors who reported those locations in accounts of these two wrecks—would be wrong about their positions.

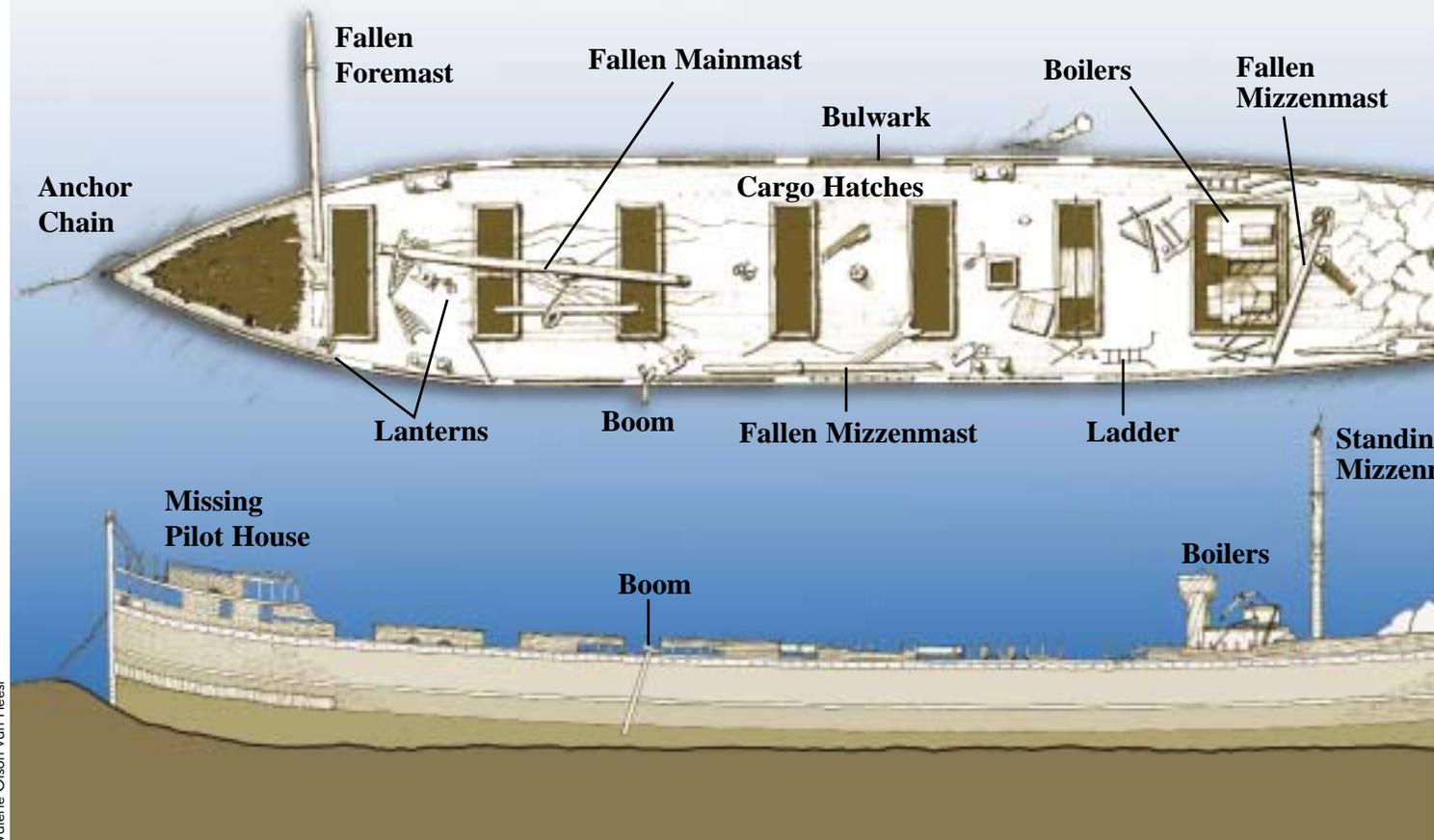
Bad weather hit early in October 2001 and with it came the postponement of the

M-ROVER operation for nearly a year. Facing a winter season with no possibility of site work, our team, now established as the nonprofit Michigan Shipwreck Research Associates (MSRA), continued research and made presentations across the Midwest about the discovery of this shipwreck. During this time, MSRA applied for and received a grant from the Wisconsin-based Great Lakes Shipwreck Research Foundation to study, document and preserve this wreck.

In spring 2002, MSRA turned to local technical divers Charles Larsen and Doug Welsch. On June 1, 2002, they began the first of a series of dives on the vessel. Larsen descended on a drop line just behind the forecastle. As he traveled toward the stern, he encountered a series of three large deck hatches, quite close to the rail. The positioning and regular spacing of the hatches was consistent with the design of a deck-loading cargo freighter. During a later dive at the stern, Larsen filmed

After studying the video footage taken by M-ROVER and the drop camera, the author created this drawing showing the deck and port side of the vessel.

The Wreck of the A. C. Akeley



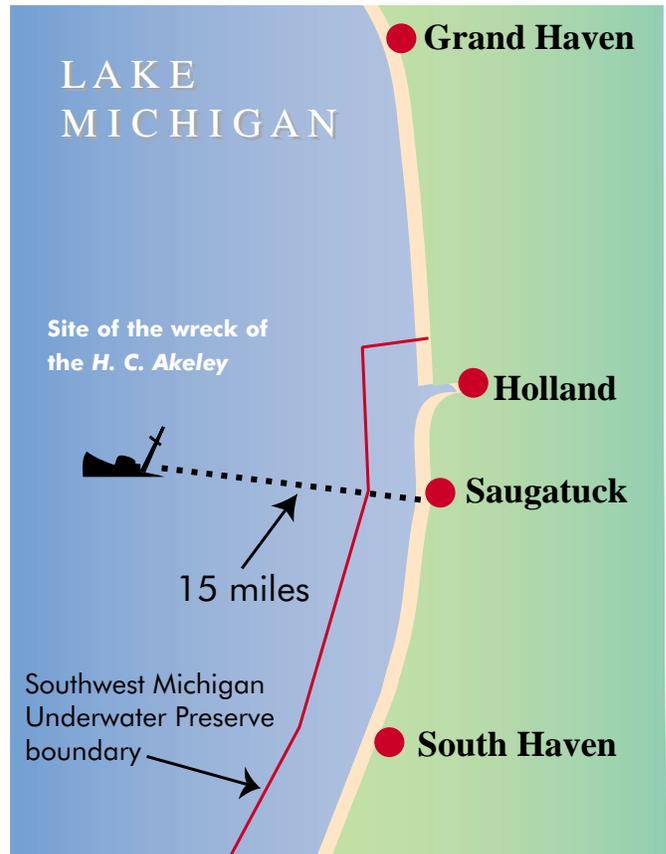
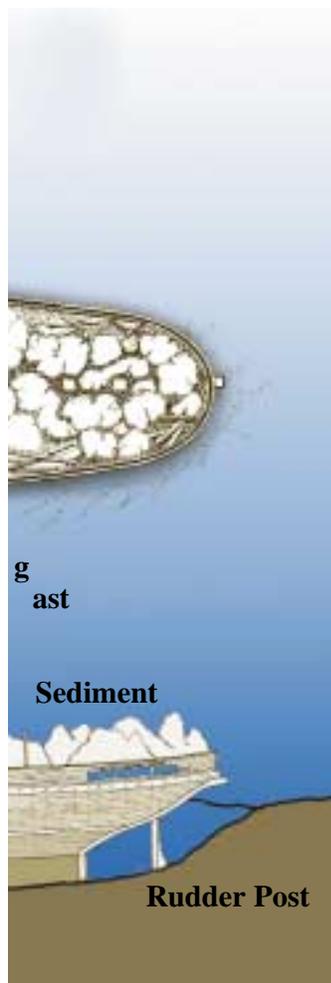
Valerie Olson van Heest

the boilers. Comparing his video evidence with the deck plans of the *Chicora* dashed all hope that the long-sought ship was found. The *Chicora*, a passenger steamer, had four small hatches—irregularly spaced—on the deck, and its boiler was located much lower in the hull than the one Larsen had filmed. Coincident to this discovery, new MSRA member Ross Richardson turned up a Saugatuck *Commercial Observer* article indicating that the *Hennepin* had been stripped of her engine and boiler and was used as a tow barge when she sank in 1927. Both the drop camera and diver video had captured images of a boiler. The wreck could not possibly be the *Hennepin*.

Had MSRA found the *H. C. Akeley*? The only picture we had seen of the *Akeley* was an artist's image of her in the storm that sank her. No *Akeley* blueprints have been found. Stepped-up research efforts discovered a photo of the ship in the collection of the Tri-Cities Historical Museum in Grand Haven. That photo, taken in 1881 during the *Akeley*'s construction in Grand Haven, clearly shows a

series of hatches and bulwark openings identical to what was captured by underwater video.

The *H. C. Akeley* was built at Mechanics Dry Dock by Thomas W. Kirby and Healy C. Akeley in the once-busy commercial port of Grand Haven. The 230-foot steamer cost more than \$110,000 and was launched in the spring of 1881. She was put under the command of Captain Edward Stretch. The vessel was named for Akeley who arrived at Grand Haven in 1858 and was instrumental in developing the lumber and shipping industries. A Civil War veteran, he returned to serve as one of the major stockholders of the Grand Haven Lumber Company, justice of the peace, Circuit Court commissioner, newspaperman, U.S. Customs collector, bank director, mayor of Grand Haven and owner of the world's largest shingle mill. Captain Thomas W. Kirby was a prominent citizen in his own



Carolyn Damstra

right, responsible for the construction of more than a dozen important vessels plying the Great Lakes. Kirby's Mechanics Dry Dock & Shipyard was built in 1867 on the north bank of Harbor Island in the Grand River.

The *Akeley* proved a stout and seaworthy vessel and for three seasons turned a profit for her owners. In November 1883 the *Akeley* was in Chicago to take on 54,000 bushels of corn destined for Buffalo, New York. She departed on Sunday, November 11, as the gales of November began to blow on the lake. Heading north, just abeam of Milwaukee, the *Akeley* came to the assistance of the tug *Protection*, which had become disabled while towing the schooner *Arab*. The *Arab* sank while under tow and the *Protection*'s machinery was damaged during the operation.

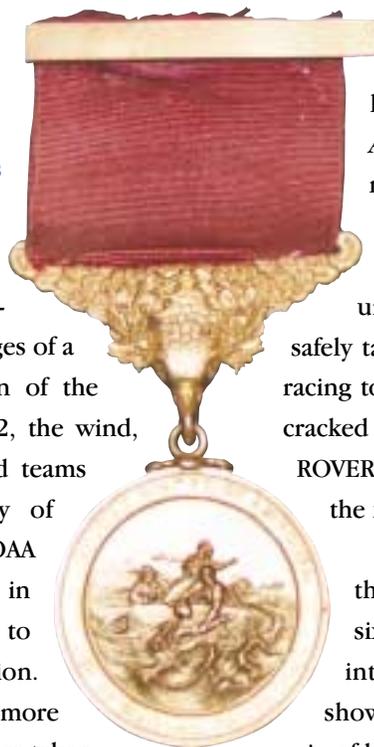
The *Akeley* took the *Protection* under tow and headed north into the gathering storm. Soon afterward, the wheelsman lost control of the vessel, whether because of a mechanical failure or because of the strain on the rudder, no one yet knows. The *Protection* was immediately cut loose to fend for herself. The helpless *H. C. Akeley* was left to ride out the storm—but the storm got the better of her. Had she sunk off Saugatuck, not Holland? More survey work would help answer that question.

This Lifesaving Medal, awarded to Captain Daniel Miller of the *Driver* for his rescue of the *Akeley's* crew, is on display at the Tri-Cities Historical Museum in Grand Haven.

Subsequent dives throughout summer 2002 brought up additional images of a wreck that matched the description of the *Akeley*. Finally, on October 12, 2002, the wind, waves and schedule cooperated and teams from NOAA, DNR, the University of Michigan and MSRA, using the NOAA Research Vessel *Laurentian* based in Muskegon, traveled to the wreck site to acquire remote video documentation. The operation was a success, and more than two-and-a-half hours of video were taken. The evidence uncovered at the shipwreck site helped MSRA write the final chapter of the *Akeley's* tragedy.

At 10:30 P.M. on November 11, 1883, the pipe supplying water to the *Akeley's* pony boiler was ripped off due to high seas, and steam began leaking out. To gain access to the problem area, Chief Engineer Connell climbed onto the scalding piping to reach the valve. He heard two sounds like rifle shots: the guy chains supporting the smokestack had snapped off. The *Akeley's* funnel toppled over the side at 11:30 P.M. Video evidence shows the remaining lower portion of the smokestack and the location of the break.

The *Akeley* continued to drift as the seas built and soon the waves plucked one of the two lifeboats from the vessel. To try to ride out the storm, Captain Stretch ordered the anchor set. M-ROVER video images confirmed that the anchor chain was deployed from the starboard hawse pipe. The crew battled the storm at anchor overnight. The next day, Monday, November 12, brought signs that the end was near. Another vessel, the *Driver*, bound from Chicago to Grand Haven, encountered the *Akeley* at anchor and taking on water. On board the *Akeley*, the crew saw the *Driver* as their salvation but disagreed on



how to effect a rescue. Twelve men feared the *Akeley* was ready to sink, so they launched the remaining lifeboat and attempted to row to the *Driver*. The captain and five more men thought their chances were better to wait on the *Akeley* until the *Driver* could approach to the lee side and safely take them off. As Captain Miller of the *Driver* was racing to the ship, a big wave hit the *Akeley*, the aft mast cracked off and the ship foundered. In video taken by M-ROVER, the broken mast is clearly visible, a testament to the final disastrous moments of the ship.

Survivors reported that the *Akeley* plunged to the bottom stern-first. Within a few minutes, the six remaining men and the ship had disappeared into the lake. M-ROVER video of the rear deck shows a buildup of a clay-like substance, possibly a mix of bottom sediment and corn, caused when the ship hit bottom.

Captain Miller of the *Driver* reached the *Akeley's* lifeboat and brought her cargo of twelve exhausted men safely aboard his ship. He did not risk approaching the wave-tossed eastern shore. Instead, he turned into the wind and headed back for Chicago with the twelve survivors. This may explain why sailors reported the *Akeley*

sinking off Holland. At fifteen miles offshore, they never actually saw the land nearest to where their ship went down. For his heroics, Captain Miller was awarded a solid gold Lifesaving Medal—the highest honor given to merchant seamen.

The career of the *H. C. Akeley* had ended, but the story of her life is still being unraveled. MSRA learned about the origins of the *Akeley* from Patrick Labadie, historian for the Thunder Bay National Marine Sanctuary in Alpena. Labadie had come across documentation that the engine and



Downtown Grand Haven, shown at right in the 1880s, was a busy commercial port when the *H. C. Akeley* was constructed here in 1881 (lower photo).

boilers on the *Akeley* were salvaged from a much earlier ship, the *USS Trefoil*, a U.S. Navy transport vessel built in East Boston, Massachusetts, in 1862. After the Civil War, the *Trefoil* was transferred to the Great Lakes, converted to a tug, renamed the *General Paine* and used for passenger traffic between Muskegon and Chicago. In 1879 it wrecked at the piers of Grand Haven. Although the ship was a total loss, its machinery was removed, rebuilt and used in the newly constructed *Akeley*. A diver's sighting of a waterlogged gauge reading "Johnston . . . Ferrysburg, Michigan" now made sense. The Johnston Boiler Works in nearby Ferrysburg was the only local outfit capable of retrofitting the salvaged machinery. John Watt Johnston, a descendant of steam engine pioneer James Watt, had located his Scotch boiler factory at the mouth of the Grand River, where numerous lumber mills and ship builders required his product and services.

This background information prompted us to dig deeper and explore the life of General Halbert Eleazer Paine, after whom the *Trefoil* was renamed. Paine, who was born in 1826, joined the Union Army in 1861 as a colonel in the Fourth Wisconsin Volunteers. He was promoted to brigadier general in March 1863. He resigned in 1865 when he was elected to Congress, where he represented Wisconsin from 1865 until 1871.

As a congressman, Paine is most noted for introducing in February, 1870, a Joint Congressional Resolution to establish the National Weather Service. Congress passed the resolution and President Ulysses S. Grant signed it into law. Without the services provided by the National Weather Service (now the NCDC), we would not have been searching at the precise spot where they discovered the *H. C. Akeley*. The wreck was not the ship we had wanted to



Historical photos Tri-Cities Museum unless otherwise noted

find, but it was a ship with an interesting life, a tragic death and unique ties to Paine himself. Paine's accomplishments put in place the tools to help researchers and agencies like NOAA, the U.S. Coast Guard and MSRA discover lost ships like the *H. C. Akeley*.

Although the hunt for the *Chicora* turned up an entirely different ship, the method used in the search is still valid—the *H. C. Akeley* simply came to rest within the high probability area for the *Chicora*. Perhaps in the near future, with the technology that traces its beginnings to Halbert E. Paine, the researchers of Michigan Shipwreck Research Associates will complete our original quest and find the long-lost *Chicora*. **m**

VALERIE OLSON VAN HEEST, an architectural design and marketing professional in Holland, has served in leadership roles in the Underwater Archaeological Society of Chicago, Southwest Michigan Underwater Preserve and Michigan Shipwreck Research Associates over the past fifteen years. Together with her husband, Jack Van Heest, she uses her management, analytical, drawing and writing skills to document Great Lakes shipwrecks and share their stories.