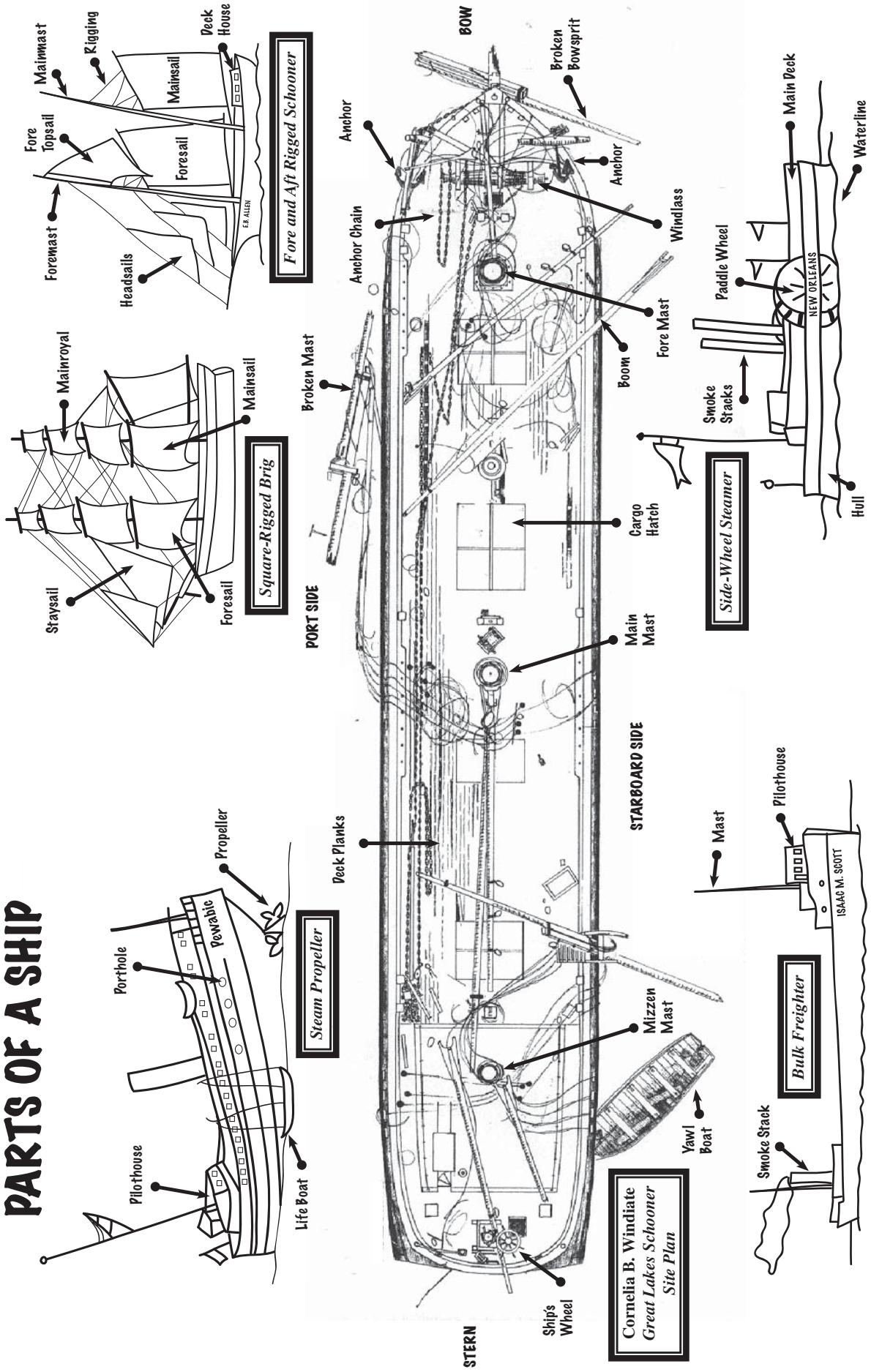
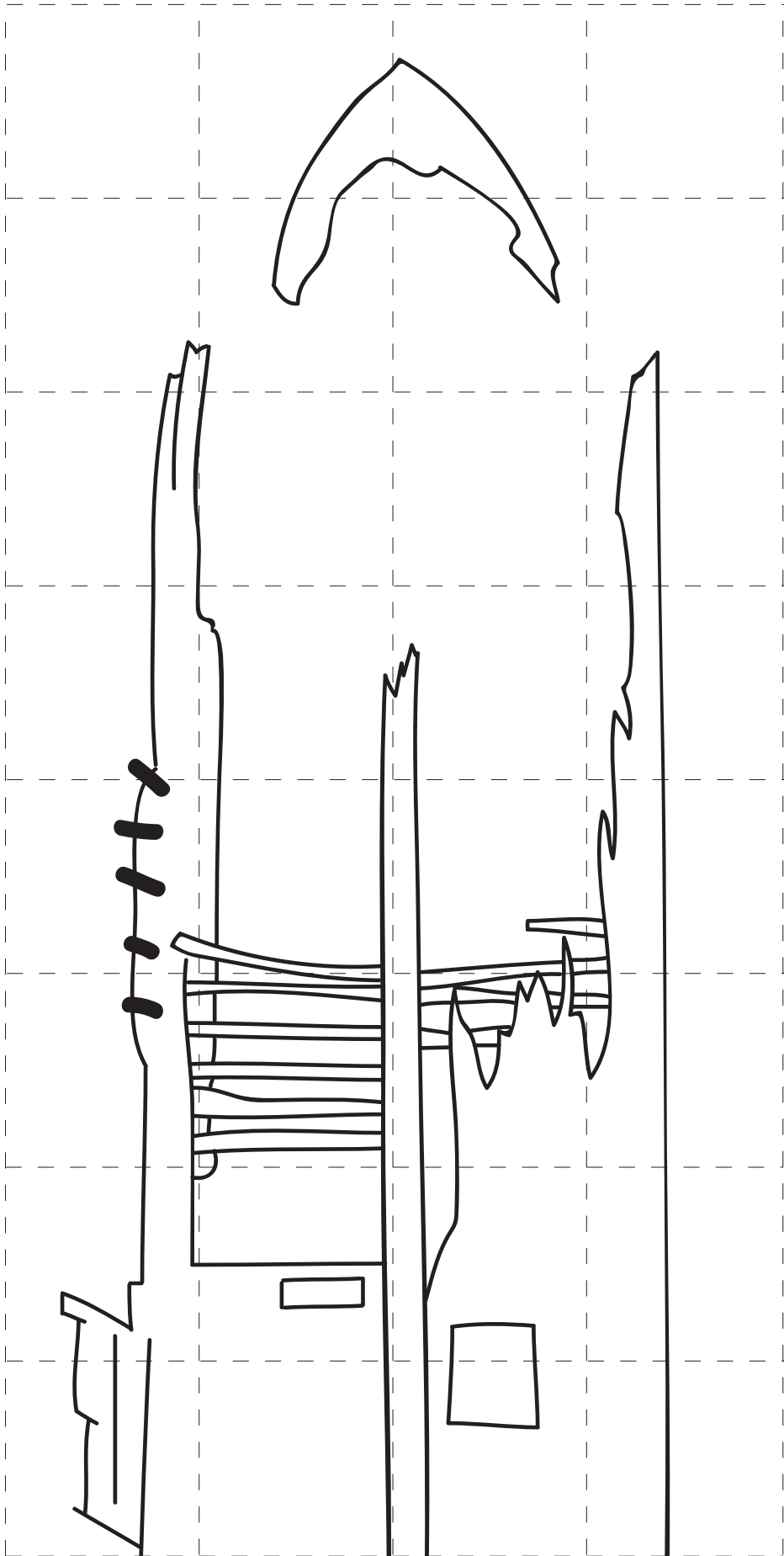
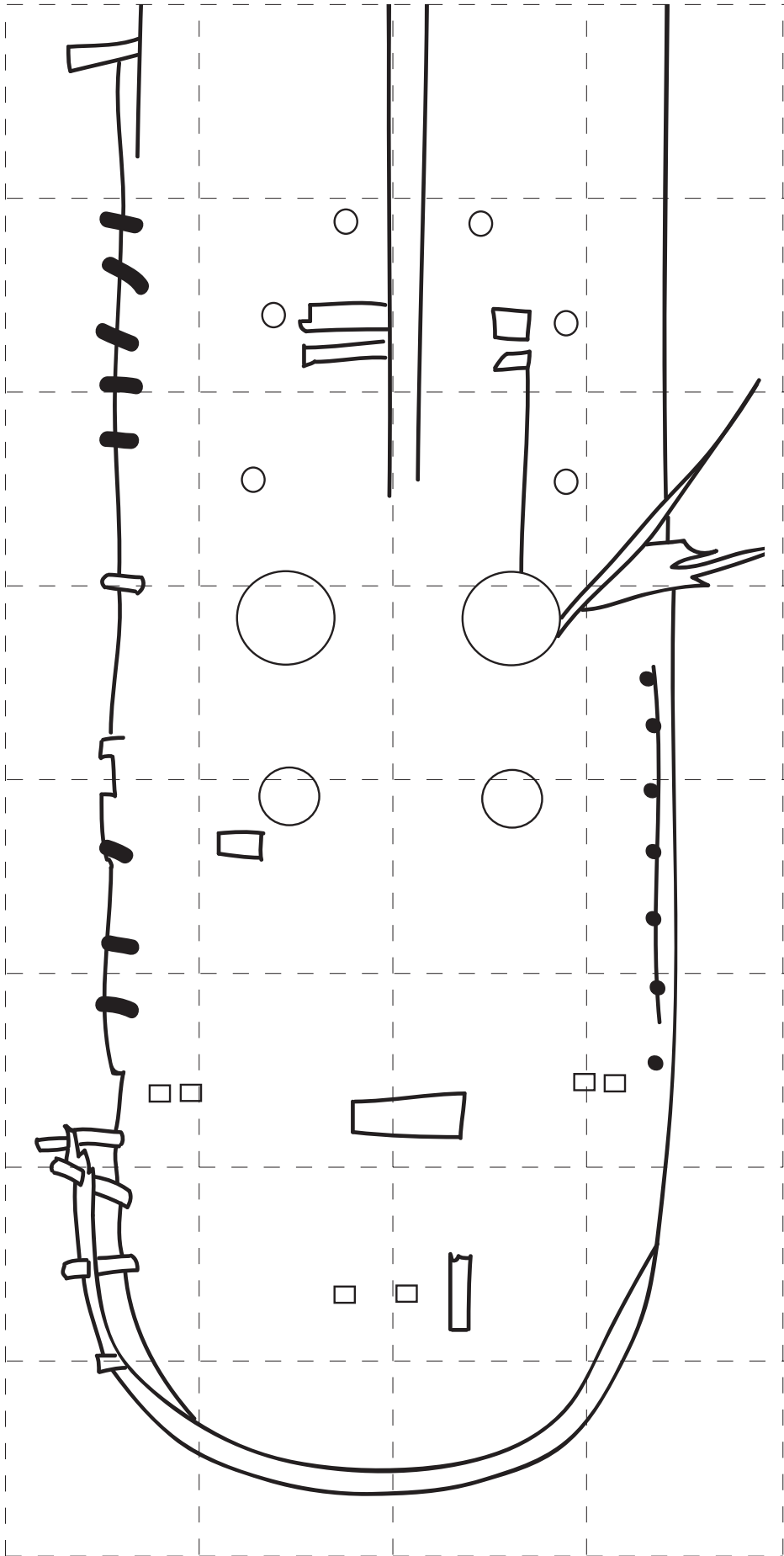


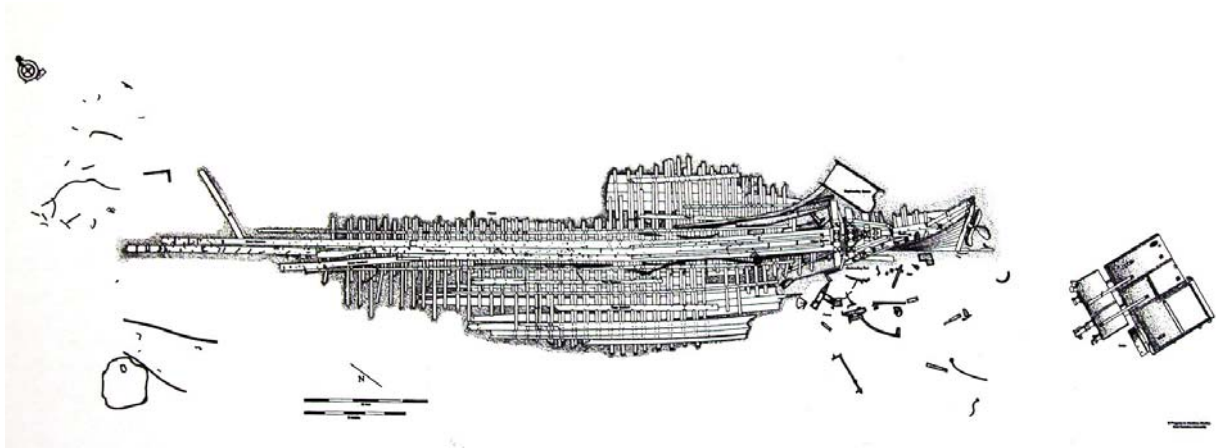
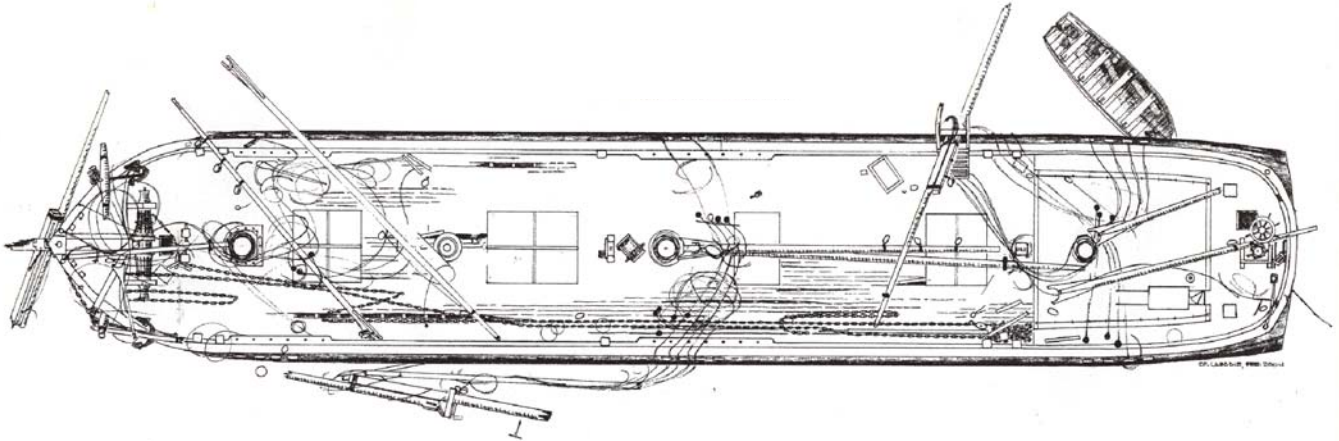
PARTS OF A SHIP







Site Plans vs. Photo Mosaics



A site plan is a carefully measured drawing that archaeologists make of a shipwreck and the artifacts on or around the shipwreck. Divers measure the wreck underwater and then transfer their measurements onto graph paper to create a site plan. Site plans help archaeologists see how the whole site looks. They can tell exactly where parts of the ship are in relation to other things onboard and around the site. Archaeologists can also see from site plans how the ship was built. This is sometimes hard while underwater because ships can be very large, in scattered pieces, or covered with marine life like zebra mussels.

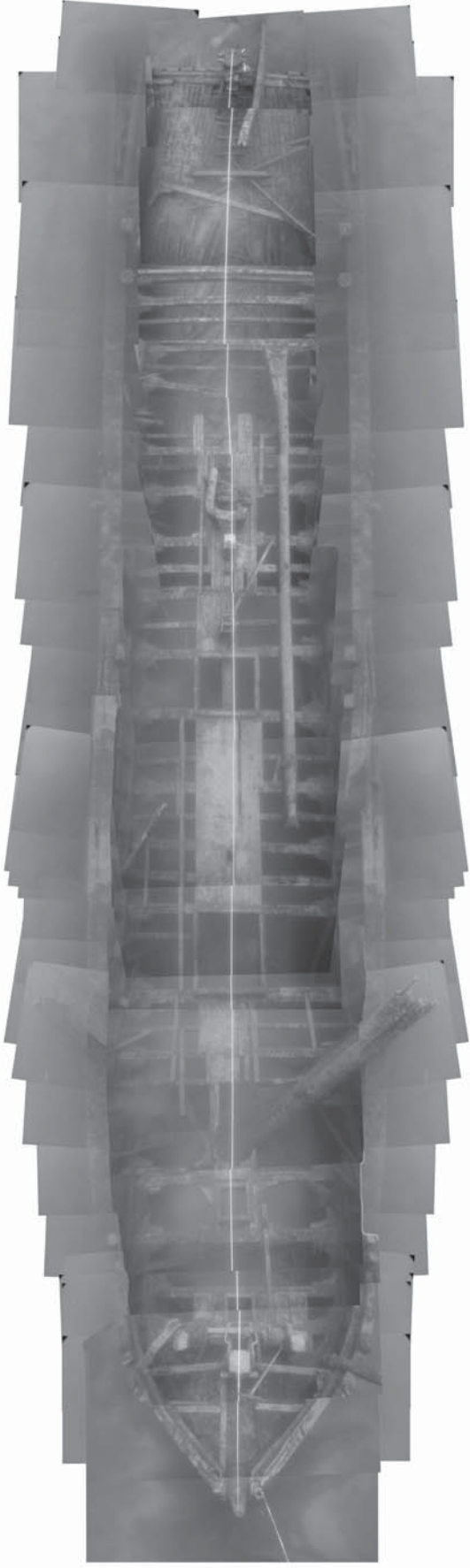


Photo mosaics are another great way to look at shipwrecks. A photo mosaic is a picture that is made up of many smaller pictures of a wreck site. These smaller pictures are all pieced together to create a larger image of the whole shipwreck. This image is not measured, but gives archaeologists a look at the shipwreck just as it is underwater. Because visibility (how far you can see in water) can be very poor and wrecks are big, taking many small images of a shipwreck and piecing them together is a great way to see all the detail of the whole wreck all at once.

THE VESSEL HISTORY TRIBUNE



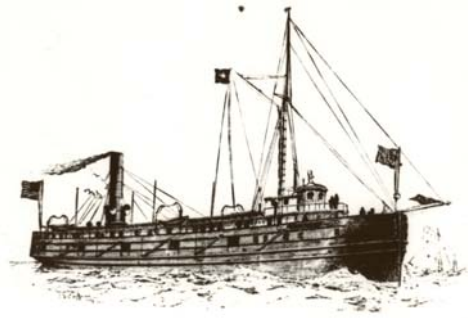
THUNDER BAY NATIONAL MARINE SANCTUARY - ALPENA, MICHIGAN

PEWABIC

The wooden steam propeller Pewabic was built in 1863 and was only two years old when it went down in 1865. The 200 foot long steamer was carrying two of the most valuable cargoes of the time, people and copper. On the evening of August 9th, 1865, the Pewabic sailed to meet its sister ship Meteor to exchange news or mail. Right

before the two ships met, the Pewabic turned in front of the Meteor. The two ships collided, creating a large hole in the port bow of the Pewabic sinking it in about five minutes. Air pressure blew off the upper deck and the ship went down bow first, smashing into the bottom 165 feet below the surface. The large support arch that runs down the center of the ship can still be seen as well as a hole in the bow

section where salvagers removed the precious copper cargo.

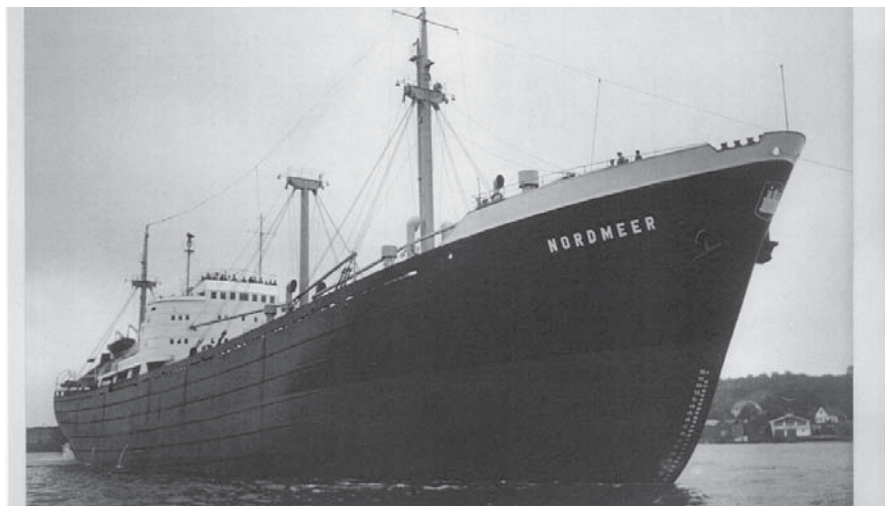


NORDMEER

The most recent shipwreck in Thunder Bay National Marine Sanctuary is the German freighter Nordmeer. Coming all the way from Hamburg, Germany, the Nordmeer ended its run on the Great Lakes when it wrecked on November 19, 1966. Because of an error in navigation, the Nordmeer ran aground seven miles northeast of Thunder Bay Island. About 25 feet of the metal superstructure was sticking out of the water when it ran aground showing no damage at all. The large square hatches show archaeologists that this vessel carried bulk cargoes. In fact,

the Nordmeer was carrying almost 1000 giant steel coils as it passed through Lake Huron. These coils as well as many other artifacts, including paper, were later salvaged

off of the Nordmeer. The artifacts were donated to Thunder Bay National Marine Sanctuary and are now on display at the Great Lakes Maritime Heritage Center.

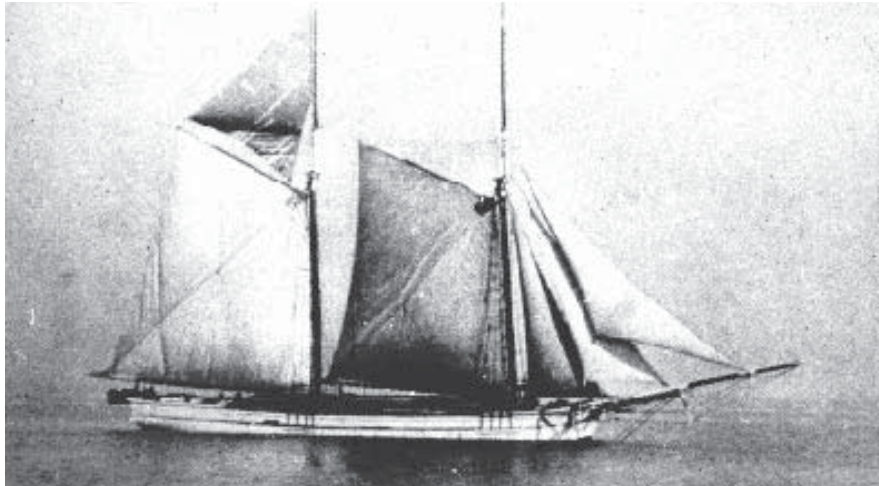




CORNELIA B. WINDIATE

The Cornelia B. Windiate left port from Milwaukee, Wisconsin carrying a cargo of wheat. Not long into the journey, the Windiate got caught in a storm and vanished. No one knew what happened to the ship or its crew. It was not until the 1990s that local SCUBA divers found the wooden schooner in 185

feet of water just north of the Thunder Bay National Marine Sanctuary boundary. The Windiate is sitting upright on the bottom virtually intact. All three masts are still standing and the yawl boat lies beside it. The rigging is still in place, the hatch covers are still there, and the anchor chain rests on the deck. The ship's wheel lies close to the fully intact deck house. Scientists believe that the Windiate was caught in an ice storm and that ice covered everything on deck. With all the ice onboard, the Windiate was too heavy to float, but because ice is buoyant (it floats in water), the ship sank very slowly to the bottom.



E.B. ALLEN

The E.B. Allen was built in 1864 and was only seven years old when it left Chicago with a cargo of wheat. As the two-masted, 134 foot long wooden schooner approached Thunder Bay, a thick fog rolled in. Out of nowhere appeared another vessel, the Newsboy. There was no time for the E.B. Allen to move out of the way and the Newsboy rammed into the port side making

a very large hole. The E.B. Allen sank quickly as water filled the cargo hold. The pressure of the air trapped beneath the deck as the Allen sank caused the deck to blow off.

Today, the E.B. Allen is sitting upright on the bottom of Thunder Bay with a missing upper deck and a visible hole in the port side. The windlass can be seen at the bow and one of the masts has fallen over, but is still in place.



