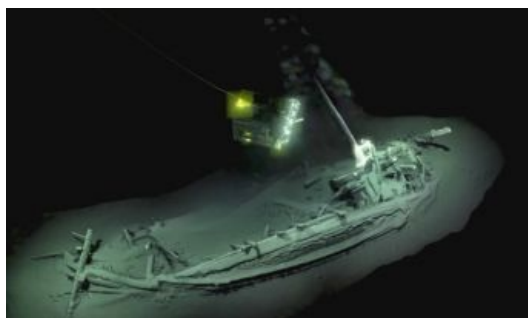


# MAP Team Discovers Oldest Intact Shipwreck in the Black Sea



The Maritime Archaeology Project (MAP) has discovered a Greek merchant vessel in the Black Sea (50 miles off the coast of Bulgaria) dating back to 400 BC - the oldest known intact shipwreck ever discovered. Because the water in the lower reaches is anoxic (lacks oxygen), the wooden cargo vessel has not deteriorated much since it sunk to the bottom all those centuries ago. Its mast, rudders, cargo, and even the benches where rowers sat are still well-preserved.

## Lidar and photogrammetry to create 3D images of the ships

The ship was discovered during a three-year-long project. Over that time, the team located 60 vessels, using advanced laser scanning and photogrammetry to create 3D images of the ships. The 75-foot Greek ship was discovered during the final phase of the mission. A small piece of wood was recovered from the wreck and radiocarbon dated confirming the time period.

“A ship, surviving intact, from [400 BC], lying in over 1.2 miles of water, is something I would never have believed possible,” said Jon Adams, principal investigator for the Black Sea MAP project. “This will change our understanding of shipbuilding and seafaring in the ancient world.”

There are no plans to salvage the Greek ship since it is extremely fragile, and the team has not released its exact location to preserve it from looters. The team will present a paper and more technical details in the near future.

## Radar

The radar also pinpointed the sites of ships from 2,500 years of maritime history, including Roman ships, Greek ships, Cossack raiding vessels and others. The team also found a Bronze Age settlement at Ropotamo in Bulgaria in a sheltered harbour that was often used by Greek, Ottoman and Byzantine sailors. The primary purpose of Black Sea MAP is to use the latest high-tech mapping technology to investigate the seabed and understand how sea level has changed in the body of water since the last ice age.

Original Source: [www.smithsonianmag.com/smart-news/oldest-intact-shipwreck-discovered-black-sea-180970622/](http://www.smithsonianmag.com/smart-news/oldest-intact-shipwreck-discovered-black-sea-180970622/)