



Maritime Heritage/Maritime Archaeology

Archaeology is the study of past human cultures through the physical materials they've left behind. **Maritime archaeology** is the study of past human cultures with an emphasis on how humans interacted with the world's ocean, lakes and river systems. Exploration of archaeological sites, on land or under water, can expand our understanding of history and the human experience, providing a glimpse into the lives of those who came before us.

What is maritime heritage?

Maritime heritage is the history of human involvement with the ocean and coasts. It includes not only physical resources, such as historic shipwrecks and ancient archaeological sites, but also archival documents and oral histories. This can include knowledge passed down through generations and the stories of indigenous cultures that have lived on or near coastlines for thousands of years. This heritage is a legacy of exploration, migration, settlement, and trade. Humans have long been engaged with our waterways, yet there is still much to learn about the world's maritime history – including how that history has impacted society's economic, geographic, and cultural evolution.

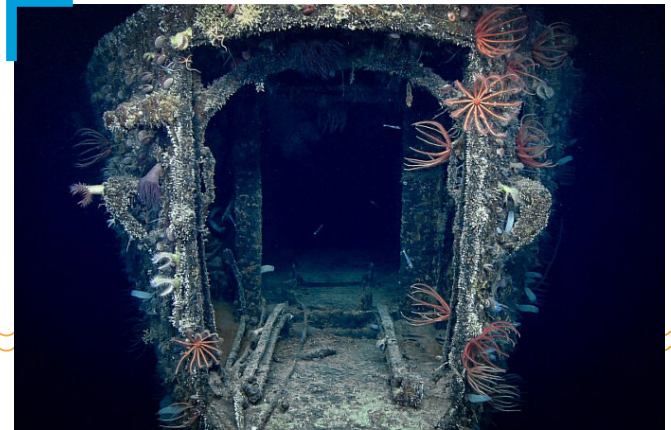
What are examples of maritime heritage sites?

The most common type of maritime heritage sites are historic shipwrecks. However, maritime archaeologists also study sunken airplanes, battlefields, flooded paleo-landscapes, and even remains from the space and transportation industries. These structures and spaces are preserved as a single moment, but maritime heritage sites often become part of their new environment, creating artificial reefs and "[hotspots](#)" of biodiversity.

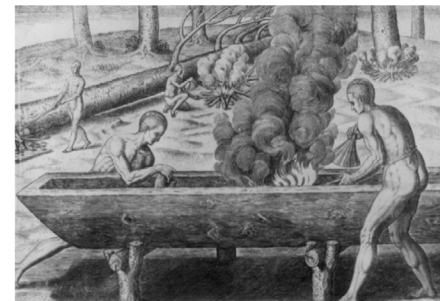
Shipwrecks

Though advancements in technologies and vessel design have made exploration safer over time, travel by sea has a long history marked with accidents. It is estimated that hundreds of thousands, if not millions, of shipwrecks exist across the globe.

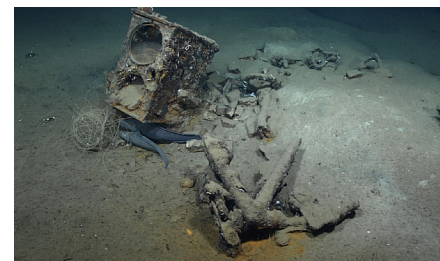
Whether used to explore, to develop trading systems, or to engage other cultures, ships and water-going craft are symbols of cultural traditions, ingenuity, and purpose. When studying a shipwreck, scientists and archaeologists try to determine its identity (including what type of ship it is, what it was used for, and its possible historical significance), what cargo it may have been carrying, what caused the ship to sink, and what artifacts may exist at the wreck site.



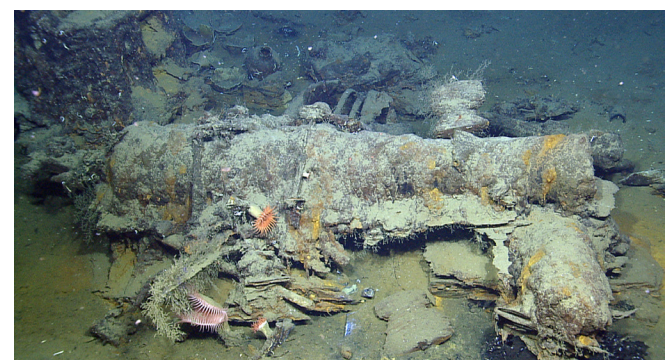
The stern of the USS *Baltimore*, a late 19th-century protected cruiser that served in both the Spanish-American War and World War I. The ship was present in Pearl Harbor during the Japanese attack on December 7, 1941, and was eventually towed out to sea and scuttled in 1944. Image courtesy of NOAA Ocean Exploration.



Native American dugout construction as depicted by John White, c. 1590. Image courtesy of the Library of Congress.



Old whaling ships had stoves on board to render whale fat into oil. Explorers believe this wreckage belongs to the 19th century whaler *Industry*. Image courtesy of NOAA Ocean Exploration. [Learn more.](#)



This large cannon was found on an early 19th century wreck in the Gulf of America. The muzzle, on the right, rests on top of another cannon. Image courtesy of Ocean Exploration Trust/Meadows Center for Water and the Environment, Texas State University. [Learn more.](#)



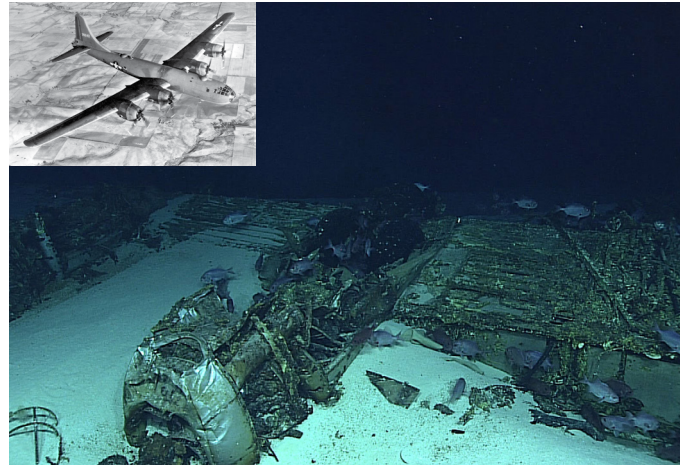
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Shipwrecks *cont.*

Artifacts — like glass bottles, personal items, or artillery cannons — shed light on the lives of past mariners, trade networks, and life at sea. Many shipwrecks are also considered gravesites as members onboard sometimes perished with the ship.

Airplanes

As with shipwrecks, archaeologists may explore why and how an aircraft crashed, its historical significance, and who was on board. Given that aviation is relatively new technology, aviation archaeology is a fairly new field of study. Unlike some older sites, when studying sunken aircraft we often have background information on the loss event, and in some cases the pilots or members of their family are still alive to share stories about crewmembers and the circumstances of the wreck. The ability to combine first or second-hand accounts of what was going on at the time with exploration of a downed aircraft provides special historic, cultural, and personal connections to these sites.



The B-29 Superfortress represented very advanced technology for the time and was used from June 1944 through the end of World War II (insert). This American B-29 Superfortress wreck was discovered on the seafloor in the Northern Mariana Islands in 2016, 72 years after it was lost during World War II. Recent advances in seafloor mapping and imagery allow us to respectfully study these sites, often the final resting places of their pilots and passengers. Images courtesy of NOAA Ocean Exploration. [Learn more.](#)

Battlefields

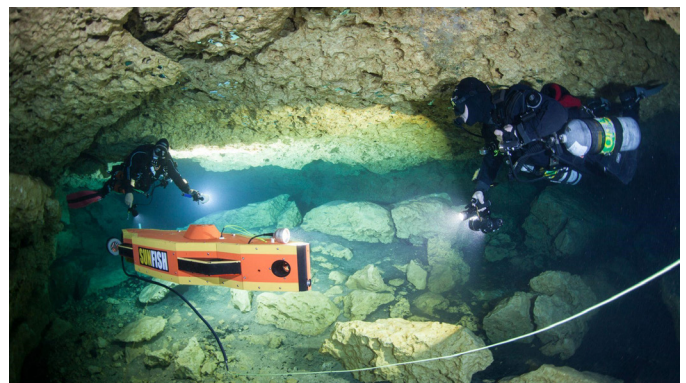
By studying sunken ships, planes, and other vehicles, as well as the overall submerged landscape, archaeologists can learn more about what actually happened during battles, invasions, and other conflicts of war. Maritime archaeologists study these sites, searching for clues to piece together the battlescapes, better understand the history of what took place, and honor the memory of those who died. As examples, read this short story of the [Battle of the Atlantic: Archaeology of an Underwater World](#) or dive deeper into a science team's close look at three World War II aircraft carriers lost within what is now the Papahānaumokuākea Marine National Monument during the [Battle of Midway](#) in 1942.



One of the large guns on the lower deck of Imperial Japanese Navy (IJN) *Kaga* 加賀, an aircraft carrier sunk during the Battle of Midway in 1942. Image courtesy of Ocean Exploration Trust.

Submerged ancient landscapes ("Paleo-landscapes")

Human communities have always settled near sources of water. Over time though, natural and human-influenced events (e.g., river floods, glacial melt, and dams) can damage and cover past human settlements. When scientists search for and find ancient coastlines, rivers, estuaries, and floodplains, they then look for signs of people — like bone or stone tools, clay pottery, firepits, or heaps of shells and bones (called middens). Studying these sites can tell us how areas were settled and how or why communities migrated from one place to another.



Divers use an autonomous underwater vehicle to explore submerged caves and rock shelters that would have been accessible to early inhabitants of what is now the continental shelf west of Prince of Wales Island in southeast Alaska. Image courtesy of Jill Heinerth, Stone Aerospace.

Studying maritime heritage connects us to our past, helps us to understand diverse cultures, and teaches us lessons about how the environment and humans can, and do, impact each other.

For more information check out this explainer: [Ocean Exploration Technology: Maritime Archaeology](#)