
Chapter Five

The Ethics of Shipwreck Archaeology

Why should there be a separate chapter on the ethics of underwater archaeology? Since I learned to dive for archaeology in 1960, I have objected to the label “underwater archaeologist.” We don’t refer to mountain archaeologists, jungle archaeologists, or desert archaeologists. That an archaeologist who excavates a shipwreck thirty-five meters deep wears scuba gear seems no more important than the excavator of a habitation mound who may reach his or her site by a four-wheel-drive vehicle. The terminology of ships is specialized, but so is that of Greek architecture.

It might seem, then, that the ethics of underwater archaeology should be exactly the same as the ethics of terrestrial archaeology. There are, however, areas in which underwater archaeology does differ from dry-land archaeology, which presents special ethical concerns.

Ownership of Shipwrecks

In Mediterranean countries, ancient shipwrecks have long been treated like any other archaeological site. Regardless of its origin, an ancient shipwreck belongs to the nation in whose territorial waters it lies. To disturb it in any way, a foreign or national archaeologist must have the proper credentials to obtain official permission from the archaeological service of the government of that nation. Because in the last century so many antiquities were taken from these countries to foreign museums and collections, this approach developed as a safeguard. Thus, there has been less treasure hunting in the Mediterranean than in many places, although illegal looting of antiquities does occur under the Mediterranean as on surrounding lands. (Turkey, where I dive, is *still* rich in ancient wrecks because most diving is allowed only in specified areas and only with local guides.)

Archaeology versus Treasure Hunting

Elsewhere, legal treasure hunting has long been allowed because international admiralty law holds that salvors have certain rights to wrecks, rights that distinguish wrecks from traditional archaeological sites on land. Although looting of sites on land has long been both unethical and illegal, the law of salvage and the law of finds gave legal permission to those who believed it ethical to plunder historic shipwrecks for monetary gain. These laws, derived from laws dating back to at least the time of Hammurabi, were established to provide incentives to salvors by offering compensation for their services. By sharing the spoils of salvage, both ship owners and salvors profited. Although the laws were not designed to encourage treasure hunting, the concept of “finders-keepers” has been used successfully by treasure hunters, especially since the advent of scuba made diving commonplace. Countries from the Caribbean to the Far East, especially developing countries, still issue salvage permits to treasure hunters for wrecks in their waters, often in the misguided belief that their shares of promised treasures will provide vast sums to local coffers. In reality, treasure hunters have probably made more money by enticing investors than by finding treasure. And it has been shown that states that work with archaeologists gain greater financial rewards.

The raising, conservation, and display of the warship *Vasa* from Stockholm Harbor in 1961 cost many millions of dollars, but that seventeenth-century vessel has since become the main tourist attraction for Sweden, and the *Vasa* Museum the most visited museum in the nation. The Museum of Underwater Archaeology in Bodrum is the most popular archaeological museum in Turkey, drawing over 250,000 paying visitors a year. For better or worse, it was this museum that drew the first tourists to Bodrum, turning a little town of 5,000 people into a city whose population swells to over 200,000 every summer. Visitors to such museums bring more to the economy than the price of entrance tickets, for each visitor may well spend another night in a local hotel, eat additional meals in local restaurants, buy souvenirs, take local taxis, and in other ways enrich the local economy. Humanity gains, too, for the wrecks in these museums are published thoroughly in popular and scholarly books and articles.

Treasure hunters have also established museums, which is commendable. Archaeologists could find no fault with these if it could be established that their contents had been excavated and conserved properly, and that the excavators were not engaged in selling artifacts from the sites. Sales of artifacts are the crux of this matter, for we have not even considered here the illegal treasure hunters who damaged almost every known early ship of exploration in the New World before they were studied by archaeologists.

Are there any circumstances under which artifacts might ethically be sold? I am asked why duplicate amphoras from excavated wrecks should not be sold, but they are not true duplicates; archaeologists return to them in museum storerooms

decades later with new questions and new techniques and gain from them new knowledge of past economies. But what about objects made after the Industrial Revolution allowed true duplication of artifacts? Society must decide if it is worth the cost of curating thousands upon thousands of lead bullets or glass bottles made in the same molds. Should we keep every plastic ashtray manufactured today since each will in time be an antique?

I might find little fault with a treasure hunting group that published its finds more thoroughly than some archaeologists and kept the finds together by selling them to one owner who will curate and display them as a collection, which he or she has willed to the government. What I cannot know, however, is how much attention was paid on the seabed to items of little sales value. Because treasure hunters must make a relatively quick profit in order to repay investors, they are not likely to care for the concretions and wooden scraps from which archaeologists learn so much and are not likely to spend decades on conservation, about which I will discuss in more detail.

Mythology

In campaigning for legislation to protect underwater archaeological and historic sites, archaeologists have had to counter myths spread by those who wish to profit monetarily from those sites. Treasure hunters, for example, say they save shipwrecks from destruction by storms, whereas it has been established that even shallow wrecks are stabilized to the extent that any damage they suffer is usually at the hands of humans. Treasure hunters claim that only through sales of artifacts can the sums needed for underwater salvage be raised, whereas the most exemplary shipwreck excavations have not depended on the sale of a single artifact; on the contrary, treasure hunters never have spent the funds needed for full conservation. Treasure hunters say that hulls in the New World need not be carefully excavated because they are shallow and are already broken to bits by waves, whereas their own photographs often show these hulls as well preserved as those in deeper Mediterranean waters. They further insist that hulls of New World wrecks need not be studied because detailed plans of even the earliest exist in the Archives of the Indies in Spain. They do not. They say that they deserve whatever profit they can make because they risk their lives, as if archaeologists did not take the same risks. They wrongly claim that they invented 90 percent of the equipment used in underwater excavations. They say that they are the only ones who go out and find wrecks, ignoring the more than 100 ancient wrecks located off the Turkish coast by the Institute of Nautical Archaeology (INA) alone. When treasure hunters wave the flag of "free enterprise," implying that there would be nothing wrong with selling for profit the bits and pieces of an American Revolutionary War ship, one can ask why it is not then ethical for an entrepreneur to dismantle Mount Vernon or the Alamo to sell their bricks as souvenirs in the

name of “free enterprise.” Is a ship less important as a monument simply because it lies under water?

While testifying in 1987 before a Senate subcommittee considering an act to protect historic shipwrecks, I asked: “If those opposed to the Abandoned Shipwreck Act have a reasonable case, why must they resort continually to falsehoods?” (U.S. Government Printing Office 1987:159). The full Senate accepted the premise that archaeology is simply archaeology, whether on land or under water, and voted in favor of the act.

The Media

The Senate may have been convinced, having heard all the arguments, but the general public probably is not. The story of the little guy who strikes it big against great odds has human appeal. The undeniable romantic attraction of shipwrecks continues to separate underwater from terrestrial archaeology in most minds. Both print and television media, even those that campaign against the looting of archaeological sites on land, tend to sympathize with treasure hunting as long as it is under water.

Some prominent journalists say that archaeologists should work with treasure hunters because treasure hunters have accumulated valuable historical artifacts that can reveal much about the past. But archaeologists are not asked to cooperate with tomb robbers, who also have valuable historical artifacts. The quest for profit and the search for knowledge cannot coexist in archaeology because of the time factor. Rather incredibly, one archaeologist employed by a treasure hunting firm said that as long as archaeologists are given six months to study shipwrecked artifacts before they are sold, no historical knowledge is lost! On the contrary, archaeologists and assistants from the INA needed more than a decade of year-round conservation before they could even catalog all the finds from an eleventh-century AD wreck they had excavated. Then, to interpret those finds, my colleague Frederick van Doorninck had to learn Russian, Bulgarian, and Rumanian, without which we would never have learned the true nature of the site. Could a “commercial archaeologist” have waited more than a decade or so before selling the finds?

Are we not thankful that King Tut's tomb was excavated by archaeologists instead of treasure hunters, its contents kept together for the enjoyment of the hundreds of thousands of people who have seen it in exhibits around the world instead of being split up and sold off to the highest bidders? Why is a shipwreck different? Why should society, which does not allow people to excavate ancient habitation mounds for artifacts to sell, allow them to sell similar shipwrecked artifacts? To convince the public of the answer, more archaeologists should, by the example of their own work, set standards for comparison instead of simply criticizing treasure hunting.

Legislation

Many nations in recent decades have passed legislation to afford underwater sites the same protection as terrestrial sites. Portuguese law now prohibits the sale of any artifact taken from its waters. The Australian Commonwealth Historic Shipwrecks Act came into effect in 1976. In the United States, the aforementioned Abandoned Shipwreck Act removes *abandoned* shipwrecks from the laws of salvage and finds and passes ownership of these wrecks to the individual states, each of which can decide what kind of law it wants as long as the law provides some kind of private-sector access to the wrecks.

Sovereign Immunity

A separate issue concerning ownership, perhaps unique to shipwrecks, is that of sovereign immunity. Government-owned noncommercial vessels are immune from normal laws of the sea. Like embassies, which cannot be entered by the police of the state in which they are situated, warships cannot be boarded by local police when in foreign waters. Furthermore, if they sink no one can salvage them without permission of the navy that owns them. Thus, an American warship remains U.S. real estate even if it has sunk in Chinese or French or Argentine territorial waters. This forced an agreement between France and the United States before excavation off Cherbourg of the CSS *Alabama*, a Confederate warship that became U.S. property when the Confederacy was defeated. Similarly, before Canadian authorities could draw up plans for the eventual disposition of the *Hamilton* and *Scourge*, armed schooners lost in Lake Ontario during the War of 1812, they had to receive permission from the U.S. Navy, which simply transferred title to the vessels to the city of Hamilton, Ontario.

Sovereign immunity remains in perpetuity. It allowed France to claim René La Salle's ship *La Belle*, sunk in 1686 in Matagorda Bay, Texas, while the great explorer was looking for the mouth of the Mississippi River. As in the case of the *Alabama*, an accommodation had to be reached to allow the State of Texas, whose archaeologists located and excavated the ship, to continue *La Belle*'s conservation and restoration for ultimate display in a new museum of Texas history in Austin. Efforts of a commercial firm to salvage the remains of the frigate *Juno*, sunk off the coast of Virginia in 1802, were stopped by the decision of a federal court that the vessel still belonged to Spain, and Spain did not want the vessel disturbed.

Does sovereign immunity protect only warships or does it cover royal vessels such as Spanish galleons that were owned by the Spanish Crown and carried royal property as well as having military functions? The U.S. government's concern with

sovereign immunity for its own ships usually involves warships and other military vessels, because the United States never had a monarch. The recent history of *Belle* and the court decisions involving Spanish ships illustrate that for ships that were in the service of a monarchy at the time they sank, the principle that they remain the property of that nation can also apply (personal communication, James Goold, Esq., 2002).

Wrecks in International Waters

Nongovernmental ships lost in international waters present still another problem of ownership that is unique to underwater sites. Who, for example, should be allowed to excavate the remains of an ancient merchantman in the middle of the Mediterranean?

UNESCO Convention on the Protection of the Underwater Cultural Heritage

To preserve and protect shipwrecks and other archaeological sites in international waters, the UN Educational, Scientific, and Cultural Organization (UNESCO) adopted the Convention on the Protection of the Underwater Cultural Heritage. This in effect removes underwater cultural heritage from the purview of the salvage laws that allow salvors to keep whatever they find on ships abandoned in international waters. (A ship is not abandoned if its owner or insurer can still be located and has not given up its interest in the ship, in which case the salvor must reach a settlement with that owner or insurer.) Basic to the convention is: "The commercial exploitation of underwater cultural heritage for trade or speculation or its irretrievable dispersal is fundamentally incompatible with the protection and proper management of underwater cultural heritage. Underwater cultural heritage shall not be traded, sold, bought or bartered as commercial goods."

This UNESCO convention could not run counter to the UN Convention on the Law of the Sea (UNCLOS). To understand the UNESCO Convention, therefore, let us familiarize ourselves with some of the concepts established by UNCLOS. In non-legal terms, UNCLOS says that a nation's territorial sea includes waters up to 12 nautical miles from shore, the contiguous zone may extend out to 24 miles, and a nation's exclusive economic zone (EEZ) may extend out 200 miles. The continental shelf of a country may extend beyond its territorial waters, but that country has sovereign rights to natural, but not cultural, resources on that shelf. The seabed outside these limits, that is, the high seas beyond national jurisdiction, is called the Area. UNESCO considered extending the cultural heritage zone into the EEZ, but this would have upset the balance of economic and other interests in UNCLOS.

The UNESCO Convention sets high standards for archaeological investigations in international waters in order to “preserve underwater cultural heritage for the benefit of humanity.” Ships of signatory nations are obliged to report any discoveries or illicit activities, whether in their waters or in the Area, and those nations “shall take measures to prevent the entry into their territory, the dealing in, or the possession of, underwater cultural heritage illicitly exported and/or recovered” partly by prohibiting use of their ports “in support of any activity . . . which is not in conformity with this Convention.” This should be applauded by archaeologists, but unless all nations sign the convention it will remain a limited instrument, for ships engaged in unethical practices can simply use the ports of nonsignatory nations. Currently, the United States is not even a voting member of UNESCO.¹

Common Sense

Conventions and laws are drafted by people and can be changed by people, so people must strive to determine the right thing to do. Robert Neyland, the director of the *Hunley* Project that will be briefly discussed later on, told me of his favorable impression of a meeting of U.S. Navy officials who organized the discussion of the recovery of archaeological artifacts around three main topics: “laws either domestic or international that were violated; Navy regulations that might have been ignored; and lastly standards of human decency, or ethics” (personal communication, Robert Neyland 2002).

Human decency, common sense, and the attempt to do the right thing all bear on the ownership of shipwrecks, for even the UNESCO Convention does not address the central question of who should own, say, a Bronze Age shipwreck found in international waters.

For a while, there were efforts by some nations to have any shipwrecked artifacts salvaged from international waters returned to the “land of cultural origin.” That this plan is unfeasible can be demonstrated by three wrecks I have worked on in Turkey. More than forty years after my excavation of a Bronze Age shipwreck at Cape Gelidonya, scholarly publications still debate the origin of the ship, some saying it was Cypriot, others that it was Canaanite, others that it was Mycenaean Greek. What would a jury decide? And if a judge or jury decided the ship was Canaanite, would its contents be returned today to modern Syria, Lebanon, or Israel? Similarly, how would one divide objects from the Uluburun shipwreck of around 1300 BC? The lands of “cultural origin” of the wreck’s 18,000 cataloged items include Iraq, Egypt, Rumania, Italy, Greece, Cyprus, somewhere in tropical Africa, somewhere on the Levantine coast, and perhaps Afghanistan! The eleventh-century AD wreck at Serçe Limani, we know after years of research, was sailed by Hellenized Bulgar merchants living by the Sea of Marmara not far from Constantinople, who picked up a cargo of

Islamic ceramics and glass at an unknown Near Eastern port, perhaps Caesarea in modern Israel. Should the glass, the largest collection of medieval Islamic glass in existence, be given to Israel or to an Islamic nation on the Levantine coast? If the latter, which one? Presumably the Bulgar merchants had paid for the glass. Should Turkey give it to Bulgaria? And the ship's hull? We don't even know the nationality of its owner.

Perhaps those who believe artifacts should be returned to the land of cultural origin think a Greek statue would simply be sent to modern Greece, whereas that statue could have been cast in southern Italy or on the west coast of Turkey in classical times.

There was an outcry in the Italian press when ocean explorer Robert Ballard with a team of professional archaeologists raised artifacts from a deep Roman wreck in international waters and brought them to the United States. What was the basis for complaint? Has anyone shown that those artifacts came from Italy rather than from some modern North African state, or even from as far away as the United Kingdom?

Common sense must play a role in determining ownership. Some archaeologists complain about the court decision that awarded to a salvage group 90 percent of the estimated 21 tons of gold on the steamer *Central America* that sank more than a mile deep 200 miles off South Carolina in 1857. But could archaeology alone possibly justify, now or in the future, gambling millions of dollars just to locate a 150-year-old wreck? That was the cost to the salvors—treasure hunters—who then carefully raised to the surface some of its gold and artifacts. Furthermore, I learned more about the *Central America* from publications inspired by its salvage than I know of wrecks excavated by some of the archaeologists who object most vehemently to the court decision.

Some nations would like to extend their claims over ancient and historic shipwrecks onto their continental shelves and even across the entire 200 miles of their EEZ. On what ethical basis? The average width of the Mediterranean is less than 500 miles, which means that, especially when one takes islands into consideration, virtually the entire sea would be claimed by one state or another. Is a Minoan wreck in the Libyan EEZ any more a part of the culture heritage of Libya than of Venezuela? Why should states that have shown little interest in shipwrecks and no expertise in underwater excavation have greater claim to them than states with proven records? Why, on any ethical grounds, should such states be able to stop work of high professional standards, perhaps to excavate the sites badly and never publish them? The UNESCO Convention attempts to preserve wrecks for the benefit of humanity and not for any particular state, especially one unrelated to the history or culture of the wrecked ship.

Controversially, I suggest that anyone able to meet the high standards for excavation, conservation, curation, and publication demanded by the UNESCO Convention should have the right to own an ancient wreck found in international waters. Would it be unethical for the Metropolitan Museum of Art, the Louvre, or the British Museum to own and display such a wreck?

Age

Regardless of depth, how many wrecks should be protected? Under the UNESCO Convention, it includes all those “having a cultural, historical or archaeological character which have been partially or totally under water, periodically or continuously, for at least 100 years.” There are millions of shipwrecks. How many have a “cultural, historical or archaeological character”? I was told how the sinking of an old vessel near Annapolis, Maryland, caused an immediate hue and cry over raising money to save and preserve this historic monument. At that very moment, however, the vessel’s sister ship was being cut up for scrap on land, the normal fate of old ships that are not lost at sea. Had the undeniable mystique that surrounds shipwrecks simply led to an emotional reaction?

Is age a sufficient criterion for saving a wreck? The UNESCO Convention’s “at least 100 years” reminds me of the question of how many whiskers does it take to make a beard. Of course, arbitrary lines must be drawn, but why should a wreck of no significance on December 31, 2001, possibly become a historic monument one day later on January 1, 2002?

Conservation

Conservation presents another ethical concern specific to shipwreck archaeology. Unknown to the public, which sees dramatic photographs of diving archaeologists in wet suits, those archaeologists must spend far more time and money on unglamorous conservation than on seabed excavation. This is in addition to such expensive equipment as compressors, generators, underwater cameras, recompression chambers, sets of scuba gear, and sometimes even ships and coffer dams. Without denying the vast sums spent on the ongoing restoration of ancient cities, or the infinite patience required to conserve frescoes and mosaics, I suggest that no branch of archaeology demands more of conservation than shipwreck archaeology. Virtually everything taken from water, with the exception of gold and precious gems, demands instant treatment to prevent disintegration. Ceramics, metals, glass, ivory, bone, and other organic remains including wood must first be desalinated to prevent later decay. Most require the mechanical removal of hard and often thick layers of calcium carbonate, called concretion, that build up on objects in the sea. Many demand subsequent chemical treatment.

It clearly is unethical to disturb a shipwreck site without the commitment and means to conserve it, no matter the cost. When civic-minded but misguided individuals in the early 1960s arranged for what proved to be the rather brutal salvage of the Civil War ironclad *Cairo*, until then perfectly preserved in the Yazoo River of

Mississippi, they were surely unaware of how quickly the timbers would rot and the iron would corrode. They had neither the plans nor the funds for conservation. By the time the National Park Service assumed responsibility of *Cairo* from the State of Mississippi, for restoration in the Vicksburg National Military Park, only 15 percent of its hull remained.

Compare the contemporary treatment of the *Vasa* to that of the *Cairo*. Housed first in a temporary museum, its hull was sprayed with polyethylene glycol for seventeen years while 5,000 iron bolts were manufactured to replace those that originally held its timbers together. Items from clothing to foodstuffs to iron armaments stretched the conservators' skills. Finally, thirty years after being raised, *Vasa* became an awe-inspiring display in the new museum designed for the only extant seventeenth-century ship.

Similarly, ongoing conservation of King Henry VIII's sixteenth-century warship *Mary Rose* at Portsmouth, England, is expected to require more than twenty years, as did conservation of the *Bremen Cog* in Germany. Year-round conservation and restoration of the hull and contents of the eleventh-century Serçe Limani shipwreck, including three tons of broken glass, occupied a conservation staff for two decades. Exemplary excavation of a ship that sank around 300 BC off Kyrenia, Cyprus, required only two summers of diving, but five years of conservation and restoration. Conservation of the twenty tons of Bronze Age artifacts raised from the Uluburun shipwreck, including objects of pottery, tin, copper, bronze, silver, glass, ivory, bone, shell, bitumen, stone, and wood will take decades.

Conservation is expensive. The excavation of the 1554 fleet off Padre Island, Texas, cost the state \$250,000, but subsequent conservation cost \$500,000 (personal communication, J. Barto Arnold 2002). Conservation of La Salle's ship *Belle* at the Texas A&M University Conservation Research Laboratory will cost between \$4 and \$5 million before the ship becomes the centerpiece of a new museum (personal communication, D. L. Hamilton 2002). This is stretching state funds to the limit. Conservation costs for the Confederate submarine *Hunley* in Charleston, South Carolina, are running even higher; conservation of an iron artifact of its size and complexity, never attempted before, will run seven times the cost of recovery and may total \$17 million (personal communication, R. Neyland 2002).

Safety

The ethics of underwater archaeology demand safety above all on a field project. Fatal accidents have occurred on land excavations, but having colleagues and students working twice a day under more than 35 meters of water for months at a time presents unusual hazards. The INA tries to always have an expedition physician as well as a dive master at remote sites. Each dive is controlled by a timekeeper on the surface who alerts the divers with an electronically generated signal two minutes before

the end of their dive, and with a separate signal when it is time for them to come up. Oxygen decompression tables designed specifically for the INA's use by Duke University have a built-in safety factor, but we still have a multiperson double-lock recompression chamber on site; we do not make deep dives without one. In addition to one or more air-filled plastic hemispheres in which a diver can breathe in case of equipment failure, we place extra sets of scuba gear around each deep wreck. In camp, we turn off the electric generator at 10 PM each night to encourage a good night's sleep and allow no more than one alcoholic drink an evening, before or with dinner. Even so, there were several cases of bends, all treated in the chamber, in 22,500 dives to between 45 and 60 meters at Uluburun.

Site Locations

Perhaps more than on land, locations of underwater sites should be kept secret. We are recording with the Global Positioning System the location of each of more than 100 wrecks we have found off the Turkish coast. Published, this information could lead wreck looters directly onto isolated wrecks only intermittently watched by the Coast Guard.

Deep-Sea Archaeology

Work in the high seas has given birth to "deep-sea archaeology," claimed by some engineers who say that they should be the ones to direct deep-sea operations since they design and operate the equipment. This claim will last about as long as the old claim that underwater archaeology could only be conducted by professional divers. Archaeology is archaeology. Technicians must assist the archaeologists, not the other way around.

The ethics of underwater archaeology are basically the same as those of good archaeology in any environment. As the previous discussion has shown, however, a few important aspects of shipwreck archaeology do call for special ethical considerations.

Discussion Questions

1. How do concepts of ownership support or undermine the archaeological ethic of stewardship in relation to underwater archaeological sites?

2. Should artifacts from underwater excavations be sold to support the high costs of research and conservation? Why or why not? If so, under what conditions?
3. How do we reconcile the concept that archaeological sites are “owned” by a person or a nation with the idea that the archaeological record belongs to all of humanity?
4. Do you see any way to strike a compromise between commercial salvage and archaeology?
5. Is it worth the cost of curating multiple examples of objects dating from the post-Industrial Revolution that have been made in molds? How does one decide? (See also Alex W. Barker, chapter 6.)
6. If treasure salvors create a museum for exhibiting their finds, do archaeologists have a legitimate complaint with the rest of their work?
7. What are the ethical differences between terrestrial and shipwreck archaeology? Do the same differences exist between terrestrial and other kinds of underwater sites? Do we need a separate code of ethics for underwater archaeology?
8. Should anyone able to meet UNESCO standards be allowed to own an excavated shipwreck? Is ownership of shipwrecks different from ownership of terrestrial sites?
9. What alternatives to age can you suggest as criteria for determining whether a shipwreck should be saved or not?
10. Look at some of the websites for underwater archaeology. Who sponsors each, and what attention does each give to ethical concerns?

Note

1. I enjoyed discussing the UNESCO Convention with J. Hall, a member of the U.S. delegation that attended the UNESCO deliberations as an observer.

Recommended Readings

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