

Underwater Archaeology

& George F. Bass



From its beginnings at Penn in the 1960s to today's Institute of Nautical Archaeology (INA), the discipline of underwater archaeological research is associated with George F. Bass. Bass spearheaded developments in the mapping, measuring, photographing, excavating, and conservation of underwater sites, revolutionizing our understanding of ancient maritime history. INA, under Bass' direction, continued the effort to excavate and interpret antiquities found under water. Readers of *Expedition* will recall earlier feature articles dedicated to Bass' discoveries. The two articles that follow, written by a former student and by a colleague from Penn, provide unique perspectives on George Bass' career and his unequalled contributions to the field of underwater archaeology.

PHOTOGRAPHS COURTESY OF GEORGE BASS

George Bass' team had to grow accustomed to the challenges of living seaside. Here Ann, Bass' wife, looks on as the incoming sea approaches her makeshift honeymoon suite on a beach near Cape Gelidonya. OPPOSITE PAGE, Elizabeth Greene examines a ceramic bowl.



IT'S NOT ABOUT THE DIVING


The late 1960s was an exciting time at the Penn Museum, as the new field of underwater archaeology was just beginning.

BY CYNTHIA JONES EISEMAN

» “Look, Cynthia! It’s the Gebel el-Arak knife!” my classmate, Marilyn Rosenberg, called out. I hurried over to the display case in one of the Louvre’s Egyptian galleries, and together we squinted at the tiny image of two kinds of watercraft in a sea battle carved on the knife’s ivory handle. A moment later, another classmate, Marie Leonard, came by. “What are you two looking at?” she asked. Then she saw the knife, and the three of us discussed the details of this object that previously we had seen only in photographs. Our animated chattering attracted other museumgoers, who were mystified by our excitement over an object none of them had ever seen before. It was not exactly the Mona Lisa or the Victory of Samothrace.

It was early May 1967. During the just-completed academic year, the three of us and a dozen other graduate students had completed a year-long seminar on the history of seafaring that our professor at the University of Pennsylvania, George F. Bass, had taught for the first time. Now, a number of us were on our way to Turkey, where we would participate in excavating a Roman shipwreck under Dr. Bass’ direction.

Just seven years before, George Bass had begun developing a new discipline called nautical archaeology (or maritime archaeology or underwater archaeology). In 1960, at Cape Gelidonya in southern Turkey, George led a team of archaeologists on an excavation of an ancient



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ship. It was the first time that archaeologists themselves had dived on an underwater site. Previous excavations of shipwrecks involved an archaeologist who remained on dry land while directing divers who reported what they observed on the seabed and retrieved objects. But more than simply diving on the site, George had developed ways to apply techniques of land archaeology to the excavation of sites under water. Though many scholars scoffed at the idea of underwater archaeology, word began to get out that this new discipline was advancing the frontiers of

knowledge about maritime history. To counter the criticism, George asserted that ignoring the evidence provided by scientifically excavated shipwrecks was tantamount to tearing entire chapters out of history books.

In addition to training nascent archaeologists in excavation methods, George made sure that his students were well grounded in the history of seafaring, from depictions of ships and boats to written records, from Old Kingdom Egypt to the Byzantine Empire. In his year-long graduate seminar, we studied seafaring from Ireland to India, examining every source imaginable: 4th millennium BCE depictions of river boats from Egypt (the Gebel el-Arak knife), Thucydides' descriptions of naval battles, red-figure vase paintings of warships and merchantmen, and remains of harbors from Bronze Age Lothal in India to Roman Ostia in Italy.

The Roman wreck at Yassiada proved a valuable training ground for many archaeologists and students, not only from my class at Penn in 1967 and later in 1969, but from other universities and countries as well. In 1973, George left Penn, striking out on his own to found the Institute of Nautical Archaeology (INA), for which I became the Executive Director. From a spare room in my house, I did the Institute's banking, started the newsletter, helped organize the first field school, and kept communications flowing among the small but far-flung staff and our deeply involved Board members. With George in Turkey, other staff members in Cyprus, Kenya, and Italy, and our treasurer in New York, my husband Jim and I could scarcely get through dinner without the telephone ringing. But the work was worth it.

In 1974, the Roman wreck at Yassiada was the site

of a field school for archaeologists wanting to learn the techniques of excavating under water. Participants came from England, Holland, Lebanon, the United States, and Turkey. Unfortunately, hostilities between Turkey and Greece over the island of Cyprus that summer shut

Claude Duthuit, a member of Bass' team, encounters a friendly fish as he uses an alidade mounted on top of a plane table to measure the angle of an object at Yassi Ada (or Yassiada) in 1961.





down the excavation. Everyone went home disappointed, but we all learned a lesson in the realities of doing fieldwork anywhere—there is always a chance that war, natural disaster, loss of financing, or other events can spell the end of an excavation.

In the fall of 1975, INA sponsored the excavation of a Middle Bronze Age wreck at Şeytan Deresi (Devil Creek) in Turkey. That project marked the first time George had included a number of Turkish college students on the team; many of them are still associated with INA today.

George later returned to Turkey to complete the excavation of the Roman wreck at Yassıada, and would eventually direct the excavations of nine more wrecks. His students also went on to direct their own projects: Michael Katzev on the Hellenistic ship at Kyrenia, Cyprus; and David Owen on the late 5th century Porticello ship in Italy, to name two of the earliest. At each site and in every season, excavation, mapping, and recording methods were improved, efficiency of working underwater was increased, safety practices were enhanced, and knowledge of ancient maritime practices grew exponentially. George continued to look for new shipwrecks to excavate, seeking to fill in the gaps—and there were many—between the wrecks he and his students had already explored: Şeytan Deresi, Cape Gelidonya, Porticello, and Kyrenia, as well as the Roman and Byzantine wrecks at Yassıada.

The harbor at Bodrum, Turkey, in the late 1950s. Today, this harbor is a marina filled with hundreds of luxury yachts and is the site of the Bodrum Museum of Underwater Archaeology.

George set an example for his students and colleagues by publishing the results of his excavations more promptly than many other archaeologists: preliminary articles on field seasons appeared within a year of excavation. Final publications were produced in record time, thoroughly researched, well-written, and handsomely illustrated. This was possible because

George did not try to research and write it all himself. Instead, he invited students and other scholars to share the responsibility by each addressing a single chapter or a particular group of artifacts, such as anchors, lamps, or weapons found on a site.

The work drew increasing attention, and when Texas A&M University (TAMU) invited George to take INA to College Station, Texas, and to establish a graduate department of Nautical Archaeology there, he leapt at the chance. He took along two colleagues: Fred Van Doorninck, a professor of Classics at the University of California at Davis, who had been a permanent fixture on the excavations at Yassıada and, because of his extraordinary focus and diligence, had become an authority on Byzantine amphoras, anchors, and ship construction; and J. Richard Steffy, an electrician who had turned his lifelong avocation of studying wooden shipbuilding techniques into a career. These three experts were joined by other archaeologists with both New World and Old World expertise. Since then, the Nautical Archaeology program has awarded more than 100 graduate degrees.



LEFT, Dick Steffy, a member of Bass' team, left his business in order to become a shipwreck (or nautical) archaeologist. Here, he is pictured reassembling the Kyrenia wreck. He often referred to himself as an "ancient ship reconstructor." RIGHT, Don Frey photographs an amphora from the Porticello wreck for Cynthia Eiseman in May of 1982.

Those graduates in turn have taken the discipline to other sites and institutions on four continents.

Over the years, those with reservations about the value of underwater archaeology have changed their thinking. Excavations of ships and harbors have offered new information about wooden ship construction and its development, shed new light on maritime trade across the Mediterranean and identified the peoples who played a significant role in seafaring in antiquity.

In the early years of his pioneering work, George typically began his public lectures with the statement, "Long before mankind made pottery, domesticated animals, or grew crops, he knew how to make seafaring vessels and to cross open water." He noted that trade in obsidian from the Aegean island of Melos proved that Mediterranean peoples had known how to cross the sea for 10,000 years. If just one ship or boat had sunk in each of those years, he said, there would be 10,000 vessels to excavate underwater. He invited his audiences to consider what could be learned from those vessels. There



is now good evidence that our early ancestors have known how to cross open water in the Mediterranean for at least 130,000 years. In the last half century, with George Bass blazing the trail, scores of shipwrecks and boats have been scientifically excavated, but many thousands remain to be studied. Imagine what can be learned from them. ●

CYNTHIA JONES EISEMAN received her Ph.D. in *Classical Archaeology* from the University of Pennsylvania. She is currently writing a history of Society Hill, Philadelphia, during its redevelopment in the mid-20th century.

FOR FURTHER READING

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