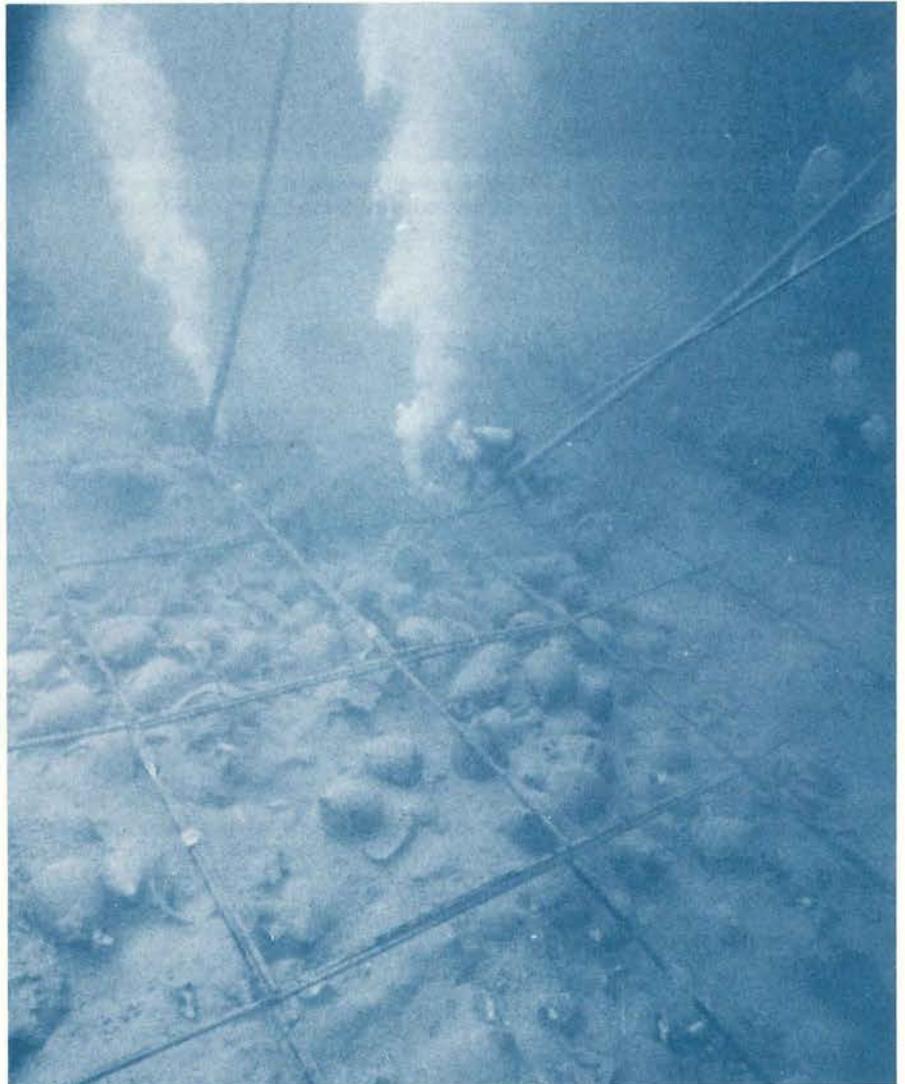




THE HELLENISTIC WRECK AT SERÇE LIMAN

In 1973, when sponge diver Mehmet Aşkin (see PROFILE) led George Bass to the 11th century "Glass Wreck" at Serçe Liman, Turkey, he revealed another location, closer to the harbor mouth, which had also produced amphoras. Although it was known that this site had been heavily looted of amphoras prior to 1973, an initial dive that year, and a further probe in 1978 indicated that some amphoras were still present.

This past summer, Bass requested that Cemal Pulak, Turkish graduate student and veteran of INA excavations since 1975, supervise a test of this site to determine its extent and evaluate its potential. Pulak and Bass were surprised to find that the looters had removed only the visible upper layers of amphoras. More than a hundred amphoras, in two sizes, were recorded on the site plan and raised to the surface during this initial work. In one two-meter grid section a test pit was excavated to a depth of more than a meter, revealing the presence of a variety of



A section of the Hellenistic site, located 35 meters below the surface at the foot of a submarine cliff.

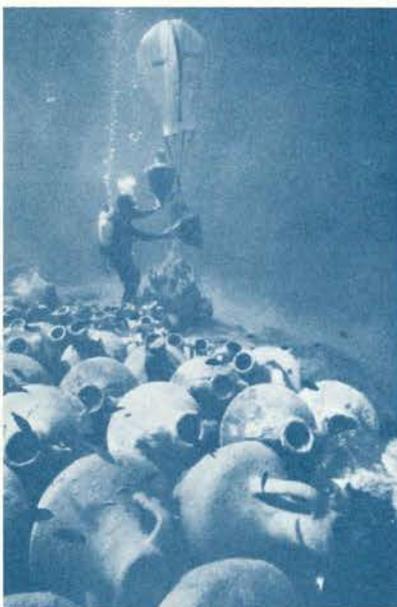


Photo: Don Frey

material. In the last days of the work, what seemed to be a rocky slope above the wreck was found to be instead a massive rock-slide of huge boulders which lie partly over the wreck. Although the removal of these boulders may be too difficult or too dangerous to allow complete excavation, plans have been made for a team to return

in 1980 to determine the feasibility of further work on this Hellenistic site.

In anticipation of the continuing activities on the Hellenistic site we here provide Newsletter readers with a glimpse of the initial work in this brief two-page pictorial essay.

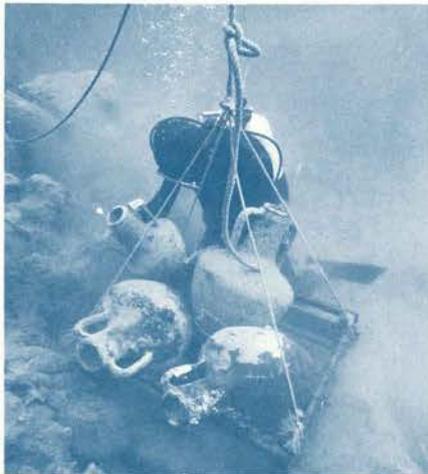
The Hellenistic Wreck (continued)



Millstones, ballast stones, small globular vessels without handles, and pottery fragments were encountered at the bottom of the test pit, just above the first traces of wood remains.



George Bass and Don Frey at work on the site.
Photo: Pilar Luna



Amphoras recovered from the site were carried to the decompression stop for temporary storage and later raised to the surface. After removing and examining their contents, the amphoras were given conservation treatment and shipped to the Bodrum Museum. Photo: Don Frey



As the test excavation continued and new features emerged, supervisor Cemal Pulak daily updated the site plan using excavation notes and photographs.



Contrary to original expectations, a quantity of varied artifactual material has been recovered from the site. Careful study, research and analysis of this material has yet to be undertaken.
Photo: Don Frey

Ann Bass carried out the painstaking, but essential, task of mending amphoras recovered from the site. These will be included in the study of capacities of amphoras from the wreck. Photo: Don Frey



PEOPLE AND PROJECTS

George Bass and Don Frey, with other INA staff and volunteers, continue daily work on the "Glass Wreck" material at the Bodrum Castle Museum while making plans for the 1980 field season in Turkey . . . Robin Piercy is back in Mombasa, Kenya, directing the final planned season of excavation on the *Santo Antonio de Tanna*. . . Fred van Doorninck and Dick Steffy are busy in College Station with a full schedule of teaching duties at Texas A&M University. . . Dick reports that a pilot model of the "Glass Wreck" is underway in the model shop. . . Roger Smith, Director of the Cayman Islands project, has recently returned from several weeks archival research in London, The Hague, Seville and Madrid. . . Under the guidance of Don Hamilton, A&M Nautical students (now numbering 24) have been conserving and restoring material from the Caymans pro-

ject. . . Don Keith's article on the Shinan site in Korea is the cover story in the most recent edition of *Archaeology* (Vol. 33, No. 2). . . INA and the work at Serçe Liman were the subject of an impressive *New York Times* Sunday Supplement story (January 27, 1980) by Robert Rheinholt. . . *IJNA* has recently published articles or notes by Jeremy Green, Cynthia Eiseman, Robin Piercy and A&M Nautical student, Carol Olsen. . . The INA Tour article, originally scheduled for this issue of the Newsletter will appear in a later edition. . . Cynthia Eiseman and Ken Cassavoy manned an INA booth at the "Science in Archaeology" exhibit during the December AIA meetings in Boston. . . and, in College Station, INA Administrative Assistant, Catherine Meyer, continues excavation and analysis of the receipts from the 1979 field work.

THRACIA PONTICA

George F. Bass, with Texas A&M graduate students Robert Adams and Dorothy Slane, were the only American representatives at Thracia Pontica I, the first international symposium on the Black Sea and the Mediterranean World, held at Sozopol, Bulgaria, from October 9 to October 12, 1979. Dr. Bass delivered a paper on the Yassi Ada Seventh-Century ship and its Black Sea connections, and also presided at one of the sessions. The Symposium was attended by scholars from a dozen countries, and the INA group was especially pleased to spend several evenings exchanging ideas with Dr. Michael Lazarov, author of a book on nautical archaeology in Bulgaria, and with Dr. Joseph Brashinsky, a specialist on amphoras, from the Institute of Archaeology in Leningrad.

PROFILE



George Bass and Mehmet Aşkin. Photo: İsjik Bekman

"I . . . joined KARDESHLER's crew outside the harbor coffeehouse, where we slowly sipped cups of thick, sweet Turkish coffee. The diver, Mehmet Aşkin (pronounced Ashkin), played cards at a neighboring table. He never glanced at us. After half an hour I asked our Mehmet [Turgutekin] when something would happen. He told me to be patient.

Mehmet Aşkin finished his game and approached, flanked by his companions at cards. With neither friendliness nor hostility on his wide, dark face he affirmed that he knew of several wrecks that he would show us. . . ."

Such was the inauspicious first meeting between George Bass and Mehmet Aşkin. Little did either man suspect that this encounter would lead eventually to the excavations of the Islamic "Glass Wreck" and the Hellenistic Wreck sites in Serçe Liman.

By September of 1973, after two months of fruitless searching along the southwestern coast of Turkey, INA's initial project, a shipwreck survey, had yet to discover a site worthy of becoming the Institute's first

excavation. The site would have to be an important one, with a well-preserved hull and from a period which would fill the chronological gaps between other wrecks which George Bass and his colleagues had already excavated.

Morale of the crew was at a low point when the survey vessel, under the guidance of Aşkin, entered the harbor of Serçe Liman. Acting on his advice, five divers went down in two teams to locate a place where bits of broken glass lay scattered over the harbor bottom in about 110 feet of water.

The three Turks dived again that afternoon and returned after half an hour, their hands laden with glass. Fragments of bowls and decanters and raw glass ingots flashed purple and green and yellow as they laid them on the deck.

"There's glass everywhere! You can't fan the sand without cutting your fingers. It's a good one, George, a really good one."

*Mehmet Aşkin smiled for the first time. He mentioned a cargo of amphoras only yards away. . . .**

The now-famous "Glass Wreck" and the nearby Hellenistic site have been the focus of INA field research in Turkey for the last four years. The location of these two wrecks through information supplied by Mehmet Aşkin was the turning point in what was to become a highly successful survey, the results of which have determined INA excavation priorities in Turkey since 1973.

Mehmet Aşkin was born in 1927 in the town of Bozburun, a coastal community only a few miles north of Serçe Liman. His first career, interrupted only by three years of military service, was that of shoemaker. In 1956 Mehmet's family fell onto hard times. An eldest son, he gave up the shoemaking trade and took to sea on his father's boat in the more lucrative profession of sponge fishing. During the next five years Mehmet worked for his father as both captain and sponge-diver.

In 1961 the Turkish sponge market went into decline and Mehmet temporarily moved on to other things; however, after only two years, Mehmet was drawn by his love for the sea to purchase his own vessel and return to sponging. Over the years his search for sponges has taken him across most of the Mediterranean coast of Turkey, from Silifke, near Mersin on the southern coast, to the Dardanelles in the north.

Although he no longer dives professionally, Mehmet continues to operate his vessel, *Turhan*, and his fondness for his work remains unabated. His prodigious sponge-diver's memory, already so important to INA, remains a storehouse of potential archaeological sites.

*All quotations taken from *Archaeology Beneath the Sea*, by George F. Bass, Walker and Co., (1975) New York.

THE PORTICELLO SHIPWRECK

The Porticello shipwreck was discovered in the Straits of Messina in 1969 by a Calabrese fisherman; in the following months he and several scuba-diving associates looted the site and sold artifacts retrieved from it on the lucrative antiquities market. Their activities eventually came to the attention of Dott. Giuseppe Foti, Soprintendente alle Antichità for the province of Calabria, and director of the Museo Nazionale in Reggio Calabria. He called a halt to the plundering, retrieved antiquities then in the possession of the looters, and invited a team of experienced archaeologists specializing in nautical excavation to salvage the remains.

In 1970, this team, from the University Museum, University of Pennsylvania, under the direction of David I. Owen, salvaged what remained of the shipwreck on the seabed and undertook to examine all the remains, using field methods established at other University Museum projects in Turkey and Cyprus. I was invited by Dr. Owen to prepare the final excavation report, which was presented in December 1979 to the faculty of the University of Pennsylvania, Classical Archaeology graduate group, as my doctoral dissertation.

Despite the poor condition of the site when the excavators investigated it, a number of observations could be made: the Porticello ship was a merchant vessel of approximately 20 m. in length, with a burden of about 30 metric tons. The hull was built according to the traditional Mediterranean method using mortise-and-tenon joints to edge-join strakes, with clenched copper nails joining strakes and frames; she was square rigged and carried several anchors composed of wood, lead, and bronze. Parts of the hull were protected by sheets of lead patching.

The cargo on her final voyage consisted of four types of transport amphoras: those from Byzantion (called Solokha II amphoras) and Mende contained wine; those from Moyta (a Punic town in western Sicily) contained salt fish; and a fourth type, of unknown origin, is of characteristic Greek form and probably also carried wine. Also in the cargo were lead ingots from the famous mines at Laurion near Athens (as determined by lead isotope analyses); ink in spherical terracotta pots; and not less than two life-size bronze statues of Greek tradition. The head of one statue had been sold by the looters and its present whereabouts is unknown. The other head, a very distinctive portrait of an old man with a very long beard, and fragments from both statues are in the Museo Nazionale in Reggio Calabria.



A team member excavating in the main amphora pile of the Porticello site.

A few personal possessions, cooking wares, and eating pottery were recovered from the stern area of the vessel. Attic black glaze cups with impressed decoration (called bolsals) and Attic lamps permit the wreck to be dated to the years 415 to 385 B.C., making the Porticello ship the only merchantman of the Greek classical period to have been found to date. The date given by this pottery is confirmed by the dates of the Mendeian and Motyan transport amphoras and by the date of the hull, as established by radiocarbon analyses. The closely datable archaeological context is particularly important with respect to the sculpture, which otherwise would be difficult to date on stylistic grounds.

The course of the ship's final voyage is not possible to establish with certainty, owing to the destruction of the site by looting, but the captain could have found a market for his cargo items virtually anywhere in the western Mediterranean, in Italy, southern France, northeast Spain, or the islands. The usual index of Greek trading activity in the west, Attic figured pottery, has recently undergone renewed studies, which have shown that imports of that pottery did not decline in the 5th century, as was once believed. The Porticello shipwreck's cargo serves as a reminder of the sorts of trade items from Greece, other than Attic pottery, which played an important role in maritime commerce, but which hitherto have not enjoyed the attention of archaeologists and historians. Furthermore, the presence of cargo items of Greek and Punic origins in a single cargo emphasized the necessity that scholars cease assuming that trade items from one city-state or culture were necessarily carried on merchant vessels of the same origin.

It is my hope that the Porticello shipwreck will be published in final form in the

not-too-distant future. In the meantime, interested scholars can familiarize themselves with the ship by studying the several preliminary reports published by Dr. Owen and by me. A complete list of these reports follows.

— Cynthia Jones Eiseman

The Porticello Shipwreck Preliminary Reports

Cynthia Jones Eiseman

"Amphoras from the Porticello Shipwreck (Calabria)," *International Journal of Nautical Archaeology* 2 (1973) 13-23.

"Classical Inkpots," *American Journal of Archaeology* 79 (1975) 374-5.

"The Porticello Shipwreck," *AJNA Newsletter* 2:1 (1975) 1-4.

"The Porticello Shipwreck: Lead Isotope Data," *MASCA Journal* 1 (1978) 18.

Lead Ingots from the Porticello Shipwreck, unpublished M.A. thesis, University of Pennsylvania, 1978.

"Greek Lead: Ingots from a Shipwreck Raise Questions about Metal Trade in Classical Times," *Expedition* 22:2 (1980) forthcoming.

David I. Owen

"Picking up the Pieces: The Salvage Excavation of a Looted Fifth Century B.C. Shipwreck in the Straits of Messina," *Expedition* 13 (1970) 24-29.

"Excavating a Classical Shipwreck," *Archaeology* 24 (1971) 118-129.

"Archeosub nello Stretto di Messina," *Magna Graecia* 6 (1971) 6-8.

"Ausgrabung eines Schiffswracks aus dem 5. Jahrhundert v. Chr. in der Strasse von Messina," *Antike Welt* 4 (1973) 2-10.

OLIVER C. COLBURN

It is with a great sense of loss that we report the death of Dr. Oliver C. Colburn on December 6, 1979. Born in 1910, Ollie, as he was known to his friends, pursued a very successful career in business, and was one of those few fortunate individuals who was able to retire early from that effort and pursue his first love, archaeology.

Early in the 1960's he enrolled as a graduate student in the Classical Archaeology program at the University of Pennsylvania. As a student, he participated in the excavations at Gordion and became a member of the team that searched for Sybaris. Out of the latter project grew his involvement at the site of Torre del Mordillo, which became the subject of his dissertation.

As a member of the Board of Managers of the University Museum, he befriended George Bass and helped support Bass' early work in nautical archaeology. In 1970 he made a generous donation to the Porticello shipwreck excavation, and later became a founding member of the Institute of Nautical Archaeology.

Ollie served as a Research Associate in the University Museum's Applied Science Center for Archaeology, a member of the Board of Trustees of the Archaeological Institute of America, and an Associate Trustee of the University of Pennsylvania. His passing will be deeply felt by his associates and many friends.

C.J.E.

BOOK REVIEW

Maritime Archaeology. By Keith Muckelroy. "New Studies in Archaeology" Series, Cambridge University Press, London (1978). Pp. 270, 109 Figs., 12 Tables. Hardback \$37.50, paperback \$9.95.

In the words of its author, *Maritime Archaeology* is not, "... a manual on how to practice archaeology under water," "... an attempt to summarize the results of every underwater investigation ever undertaken," or "... a wreck-hunter's guide to untapped wealth on the seafloor." It is, "... a statement... of which problems constitute the proper concern of maritime archaeology, the extent to which recent work has tackled such matters, and the directions in which future studies might profitably proceed." As such, *Maritime Archaeology* is the long-overdue, first serious attempt to outline a formal theory for the discipline.

Before proceeding further, it is necessary to define maritime archaeology, as perceived by the author, and to probe its relationship with nautical archaeology:

Maritime archaeology is the scientific study, through the surviving material evidence, of all aspects of seafaring: ships, boats, and their equipment; cargoes, catches, or passengers carried on them, and the economic systems within which they were operating; and other possessions reflecting their specialized lifestyle.

This verbal description and a schematic accompanying it differentiates between nautical and maritime archaeology in that the former includes the study of ship and boat finds from "non-marine contexts," such as boat burials on land, while the latter does not. Maritime archaeology, on the other hand, includes the study of sites originally deposited under water which have since been artificially drained, and "various aspects of seafaring," neither of which are included under the rubric of nautical archaeology. This distinction seems to the reviewer rather artificial. Certainly, Muckelroy's definition of nautical archaeology is too restrictive to suit the theory and practice of the Institute of Nautical Archaeology. If we disagree with the author's distinction between nautical and maritime archaeology, we must applaud his effort to formally define and precisely delineate the scope of our common interest.

Maritime Archaeology is divided into two parts. Part One is comprised of a review of the scope of maritime archaeology and briefly addresses such topics as the constraints and advantages of working under water, contributions of underwater archaeological work to date, and potential future contributions of the discipline. Part Two, entitled "Towards a theory of

maritime archaeology," is the most significant and unique part of the book, Part One providing only the background information and examples on which Part Two is based.

In Chapter 1, "Introducing maritime archaeology," the author states, "At the same time, the standards, ideas, and procedures laid down by George Bass and his team over fifteen years ago remain the model which present-day workers seek to emulate." While this statement is, no doubt, gratifying to Bass, it is perhaps a little disappointing that practitioners of the discipline are not now regularly surpassing the quality of the early work accomplished by one of its pioneers. Perhaps partially in order to explain this state of affairs, the second chapter, "The constraints of work under water," goes on to describe the physical, technological, and psychological constraints imposed by the underwater environment. The third chapter, "The contribution of current work under water," enumerates the contributions of past and current underwater work, and sets the stage for the fourth chapter, "The unrealized potential of maritime archaeology."

Chapter 4 rightfully points out that although underwater investigations have been taking place for approximately 30 years, these have tended to be temporally and spatially selective; with the result that we still know almost nothing about the evolution and history of ships outside Mediterranean and northern European waters, or about maritime trade in prehistoric times. To date, the main thrusts of maritime archaeological investigations have been: (1) The history and evolution of hull construction in the Mediterranean during Classical times; (2) maritime trade in the Mediterranean during the Classical period; (3) maritime trade between Europe and the New World after 1500; (4) the excavation of large sea-going ships likely to contain intrinsically valuable artifacts or rare weapons; and (5) work on relatively shallow, convenient sites requiring a minimum of technological support. Muckelroy observes that this list representing the past priorities of the discipline in general was determined by circumstance and convenience, rather than by careful consideration of which problems constitute the appropriate concern of maritime archaeology. His book represents an effort to construct a research design rigid enough to concentrate the attention of the discipline on specific themes, but flexible enough to accommodate possible avenues of research which may develop in the future.

Readers of this *Newsletter* are aware that the Institute of Nautical Archaeology has in recent years initiated investigations into at least five of the seven subjects of unrealized potential listed in Chapter 4; notably, deep water shipwreck archaeology.

gy utilizing saturation diving technology, the history of ship construction in East Asia and Oceania, inland craft of the American Great Lakes and certain rivers in the United States, maritime trade in the Orient before 1500, and the history of certain anchorages in the Mediterranean. Since most of these investigations were begun before *Maritime Archaeology* was published, they represent an instance of parallel, independently developed awareness of future avenues of research.

Part Two contains the author's most significant and original contributions. It is divided into four chapters, the first three of which treat, respectively, the shipwreck, the ship, and maritime cultures.

Chapter 5, "The archaeology of shipwrecks," to which more than one-fifth of the book's length is devoted, begins with the definition:

A shipwreck is the event by which the highly organized and dynamic assemblage of artefacts are transformed into a static and disorganized state with long-term stability.

Muckelroy goes on to develop a highly lucid conceptualization of the evolution of a shipwreck. It is divided into sub-sections treating wreck sites and their environments, potential "extracting filters," which account for loss of artifacts and parts of the ship's structure during and after sinking, and "scrambling devices," which may have dispersed and redistributed the remains of the ship and its contents. The problems in analysis and interpretation which accompany relatively intact, "continuous" sites (e.g. the Yassi Ada Byzantine ship) are few in comparison to those associated with badly scattered, "discontinuous" sites (e.g. the *Kennemerland*, with which the author has been extensively involved); consequently, he devotes a considerable amount of space to the application of statistical sampling methods to discontinu-

ous sites. In view of the fact that the British Isles seem to abound in such sites, Muckelroy's preoccupation with them is understandable. The author's explanation of the statistical tools he has adapted for application to shipwreck sites seems to assume that the reader has had more than a passing acquaintance with analytical archaeology. This reader, excluded by that assumption, would have appreciated the addition of a glossary of statistical terms somewhere in the text, and closer integration between the explanations of certain statistical procedures in the text and the figures and tables which complement them. Careful reading of this chapter has left the reviewer with no doubt as to the utility of analytical approaches to shipwreck archaeology — and completely in agreement with the author's admonition in a previous publication, "... there are great virtues in showing restraint in their application."

In this country and elsewhere, badly disrupted, discontinuous sites frequently have been considered less archaeologically significant than intact ones, even to the point of suggesting that they deserve only simple salvage since the distribution of finds within them seems incomprehensible. This chapter should provide enlightened archaeologists with documented evidence to the contrary.

Chapter 6 treats, "The archaeology of ships," and investigates the three aspects of the ship in its normal activities: as a machine, as an element in a military or economic system, and as a closed community. Its importance disguised by its brevity (11 pages), this chapter is devoted to the proposition that, "... the potential and limitation of our understanding of [the original vessel] by archaeological means ultimately defines the scope of the whole sub-discipline of maritime archaeology...."

Chapter 7, "The archaeology of maritime cultures," reminds the reader that the ultimate goal of maritime archaeological investigations is not achieved with the recovery of artifacts, or even with the reconstruction of the ship from its excavated remains, but rather with gaining an insight into the maritime culture which produced it.

Chapter 8, "Theory and practice," refocuses the reader's attention on the author's main concerns, and introduces practical observations on the special legal, financial, and organizational aspects of maritime archaeology. This, the last chapter in the book, concludes with a paragraph on, "... the many personal pleasures to be derived from involvement in this work." In view of the abundance of difficulties, dangers, and theoretical complexities to which the preceding text is devoted, perhaps this aspect deserves a little more development.

Although the preceding remarks occasionally have suggested defects or omissions in the text of *Maritime Archaeology*, these do not detract significantly from the overall excellence of the work or its value to serious students of the discipline. The hardback edition is a quality publication with good figure reproduction and space provided in the margins for note-taking. The price of the book is commensurate with those of other scholarly texts, and well-worth the investment. A paperback edition is available for approximately one-third the cost of the hardback. An appropriate tribute to D. L. Clarke, whose influence on the work is everywhere evident, *Maritime Archaeology* should become the standard theoretical text for maritime (or nautical) archaeologists, and firmly establish the author's reputation as one of the foremost theoreticians of the discipline.

Donald H.Keith

THE VIRAZON



Virazon in Serçe Liman. Photo: Gay Piercy

INA has purchased its first research vessel, the 65-foot, steel-hulled *Virazon*, now being outfitted with decompression chamber, air tanks, compressors and other diving equipment in Bodrum, Turkey. The vessel, a former U.S. Army T-Boat, was first taken to Turkey in 1964 by Dr. Bass for the University of Pennsylvania, but was later transferred to the U.S. Air Force in Izmir. With INA's Tufan Turanlı as captain, and the Institute's logo proudly painted on both sides, the *Virazon* will be used to conduct underwater surveys and will serve as a base for underwater excavations in the Mediterranean.



Captain Tufan Turanlı in *Virazon* wheelhouse. Photo: Don Frey

SERÇE LIMAN ANCHORAGE SURVEY

During the 1979 field season at Serçe Liman, Turkey, a survey was undertaken of the anchorage site on the slope area above the medieval "Glass Wreck." Almost 300 identifiable artifacts were recorded and recovered in the survey area, including ceramics, glassware and anchors. Along with the material recovered from the slope, all "intrusive" artifacts recorded during excavation of the "Glass Wreck" were included in the analysis.

The anchors found on the slope provide some confirmation of the identification of this area of the harbor as a favored anchorage. A stone anchor was found beside the bow anchor of *Ünlüoğlu*, the expedition supply boat; a stone anchor stock was found near the bow anchor of INA's research vessel, *Virazon*. The juxtaposition of these anchors, ancient with modern, seems more than just coincidental, rather, it seems to provide an indication of the recognized desirability of this location as a sheltered anchoring place.

After the recovered artifacts had been cleaned and catalogued, it became apparent that many cultures and periods were represented in the material from the 70 by 56 meter survey area. Surprising numbers of cooking pots, jugs, bowls, plates and even roof tiles were recovered. These, more than the amphoras recovered, may lead to exact identification of the nationalities of the ships which sheltered here in antiquity.



Dorothy Slane sorts material from the anchorage survey. Photo: Don Frey

Although most of the glassware recovered was material which had been scattered from the "Glass Wreck," one bottle neck bearing a Greek inscription represents an earlier period, as does a Roman tray which may be of Egyptian manufacture.

Initial identification of some of the fragmentary amphoras shows that ships containing Rhodian, Koan, Chian, Samian, and Knidian amphoras visited this natural harbor during several different periods of antiquity. There is also evidence that ships from other parts of the Greek world, as yet unidentified, used Serçe Liman as an anchorage. Several amphoras have been tentatively assigned a Black Sea origin. From farther afield, three identical amphora handles indicate a Phoenician/Cypriote presence in the harbor. North African ships may also have visited Serçe Liman at various periods, though the few examples of amphoras from this area may only indicate that Greek ships had visited ports in that part of the Mediterranean prior to sheltering in the harbor.

Important historically, the geographical location of Serçe Liman, opening off the southwestern coast of Turkey towards Rhodes, made this harbor at the crossroads of the Aegean and eastern Mediterranean a convenient shelter for ships of all nations. Preliminary research has revealed certain predictable patterns in the

history of the use of the harbor. Finds from the 2nd millennium B.C. indicate trade coming from the Levant and Cyprus. So far no artifacts from north or west of the harbor have been identified for this period. This conforms with what is known of shipping in the Middle Bronze Age. With the rise of the Greek city-states in the 1st millennium B.C., the emphasis shifts from the southeastern Mediterranean to the islands off the Anatolian coast and Cyprus. Throughout this and the Hellenistic periods, the island republics are dominant in their use of this anchorage at Serçe Liman. By the 1st century A.D., with the growing importance of Rome in Anatolia and the East, while the shipping may still have been dominated by the islanders, the pottery lost or discarded at Serçe Liman comes from all over the Mediterranean and the Black Sea, from Tunisia to Rumania to Egypt. After the establishment of Constantinople as the capital of the Eastern Roman Empire, use of the anchorage was dominated once again by ships of the Aegean and Black Sea. At this writing, the history of the anchorage from the 11th century A.D. to the present is largely unknown. Further analysis of the ceramic record, however, should help clarify the activities at Serçe Liman during that period.

Dorothy A. Slane



Oğuz Alpözen and Don Frey lift an anchor stock recovered during the survey. Photo: Robin Piercy

The Institute of Nautical Archaeology is a nonprofit scientific/educational organization whose purpose is to gather knowledge of man's past as left in the physical remains of his maritime activities and to disseminate this knowledge through scientific and popular publications, seminars, and lectures. The INA Newsletter is published periodically by INA and is distributed to its members and Supporting Institutions to inform them of INA's activities. INA is an equal opportunity organization.



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