

## UNDERWATER SURVEY - 1973

Dr. GEORGE F. BASS

A search for ancient shipwrecks off the Turkish coast was conducted by the American Institute of Nautical Archaeology between August 21 and October 15, 1973.<sup>1</sup> The survey was limited to the southwest region, mostly between Bodrum and Antalya. 17 wrecks were located.

The first half of the search was spent on the 10-meter boat *Günyel*, from which we used a combination of side-scanning sonar and underwater television. Although this combination of equipment had proved useful in locating a deep wreck near Yalıkavak in 1967, we did not have great success with it in 1973. In fact, we found only one of the wrecks with it :

A. Mandalya Körfezi (wreck no. 7). A wreck of unknown date, but no earlier than Roman, was found at a depth of 23 meters in extremely muddy water. Because of the poor visibility, divers could see nothing, but by probing blindly into the muddy bottom with their hands they located a few sherds.

<sup>1</sup> The survey was made possible by a grant from the National Geographic Society. Most of the diving and electronic equipment was provided by the University Museum of the University of Pennsylvania.

Staff included G. F. Bass, John Gifford, Merih Karabağ, John Broadwater, Joseph K. Alexander, Cumhuriyet İlik, Donald A. Frey, Donald M. Rosenkrantz. The *Günyel* was captained by İbrahim Günyel, and the *Kardeşler* was operated by Mehmet and Nihat Turguttekin. Mehmet Bey was also in charge of all local arrangements for the expedition.

Yüksel Egdemir served as archaeological commissioner and was, unofficially, co-director of the survey. He established many of the contacts with sponge divers, and through his skill in diving actually located most of the wrecks on the sea bed.

The second half of the survey was conducted from the 65-foot trawler *Kardeşler*, which was outfitted with compressors, air banks, and a recompression chamber so that a team of three American and three Turkish divers could personally inspect sites they were directed to by sponge divers. 15 of the 16 sites found in this manner had been partially looted. Because of the danger of continued looting, published locations are only approximate, but exact locations have been given to the Turkish antiquities department. In the following list, the more promising wrecks are given first, in chronological order (numbers in parentheses are those assigned in sequence as the wrecks were found and catalogued) :

B. Archaic wreck (no. 17). Found on the north coast of Kerme Körfezi, the wreck lies partly on sand and partly on rock at a depth of 36 meters. The few visible remains, including a pithos, 84 m. high (res. 1), a large krater, and a beily-handled amphora (res. 2), suggest a seventh-century B.C. date. This is the only wreck discovered which seems not to have been looted.

C. Classical wreck (no. 15). A cargo of Knidian amphoras (res. 3), also 36 meters deep, lies partly on rock and partly in sand on the southeast coast of the peninsula extending southwest from Marmaris. The exposed layers of amphoras have been badly robbed.

D. Hellenistic wreck (no. 1), near Knidos. The cargo comprised lamps (res. 4), two-handled bowls, both with vertical

handles (res. 5) and with horizontal handles bent upward and folded over at their outer ends (res. 6-7); these date from the second or first century B.C. The wreck is 36 meters deep, largely on rock, and has been looted.

E. Hellenistic wreck (no. 16), also near Knidos. The cargo is of terracotta tiles, both pantiles and cover tiles, but cooking wares and a few amphoras are also visible, mostly on rock. The wreck seems to be of the same period as D, above. The depth is 36 meters.

F. Roman wreck (no. 11), lying north of Cape Gelidonya, at a depth of 40 to 44 meters. A cargo of large plates and bowls, not yet dated precisely but probably of the early part of the modern era, are scattered along a slope, partly in sand and partly on rock<sup>2</sup>. The wreck had been looted.

G. Roman wreck (no. 18), lying off the north coast of Gökova or Kerme Körfezi at a depth of 36 meters. The cargo of Rhodian amphoras (res. 8) is from the 1st or 2nd century A.D. Looters have inadvertently uncovered traces of the wooden hull.

H. Byzantine amphora carrier (wreck no. 9) near Bozburun (res. 9). The wreck lies in deep sand, has scarcely been touched by looters, and promises to be well preserved. The depth is once more 36 meters.

I. Glass cargo (wreck no. 14). Fragments of green and purple glass ingots and vases (res. 10-11) are so thick that it is impossible to probe gently with one's hands without suffering cut fingers. The wreck, which is very late Byzantine or later, is 36 meters deep, very near C (above). A few amphoras (res. 12) are embedded in the sand near one end of the site.

<sup>2</sup> This wreck and N (below) were actually both visited earlier, in 1970, by Dr. Frey during the course of a survey he conducted for the University Museum of the University of Pennsylvania.

The remainder of the wrecks are probably not worthy of further investigation :

J. Amphora fragments, probably 3rd century A.D., on rock at a depth of 8 to 10 meters near Iskandil Br. (wreck no. 2).

K. Scattered pottery, undated, 5 to 7 meters deep near Kızıl Ağaç Adası (wreck no. 3).

L. Two large vertical handles of Phoenician or Cypriot type from the 7th or 6th century B.C., and a bowl were found 5 to 10 meters deep among other sherds near Kepece Br. (wreck no. 4).

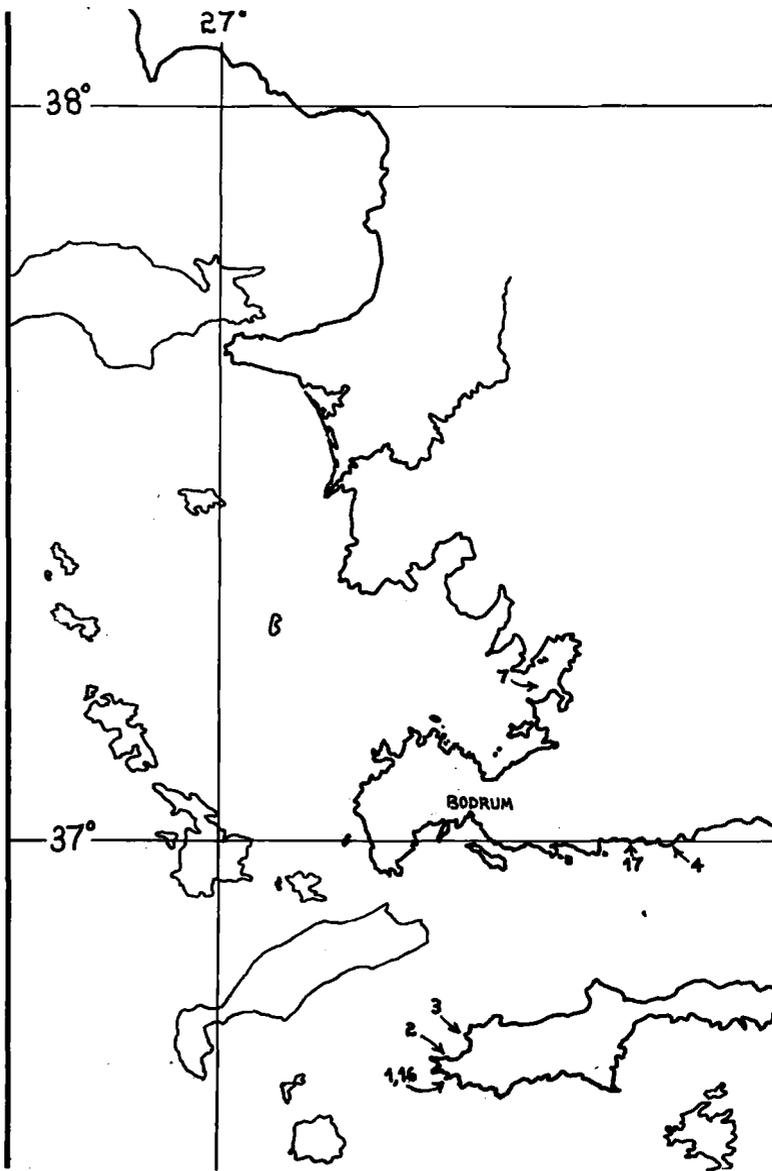
M. Pseudo-Koan amphora of 1st century A.D., and scattered fragments of other amphoras, found about 30 meters deep north of Ince Ad. near Marmaris. Sponge diver informant says that a wreck was there; if so, it has been looted completely (wreck no. 10).

N. Hearth tiles, 46 meters deep, near F (above). This was thought to be the cargo of a very small boat, but the extent of the tiles (only 5 m. × 3 m.) suggests that they may represent only the galley of a ship which travelled either empty or with perishable cargo and thus has no other visible remains; no wood would be preserved here because the tiles lie on rock, with no protective covering of sand to shield them from shipworms (wreck no. 12).

O. Near Kalkan a large number of scattered amphora sherds were found, including a seventh-century B.C. handle, at a depth of 40 meters. We were told a wreck lay here, but either we did not dive on the correct spot or the wreck has been completely looted (wreck no. 13).

P. "Site" 8, a mass of sherds of mixed date in front of Serçe Liman probably represent pottery dumped from fishermen's nets rather than wrecks.

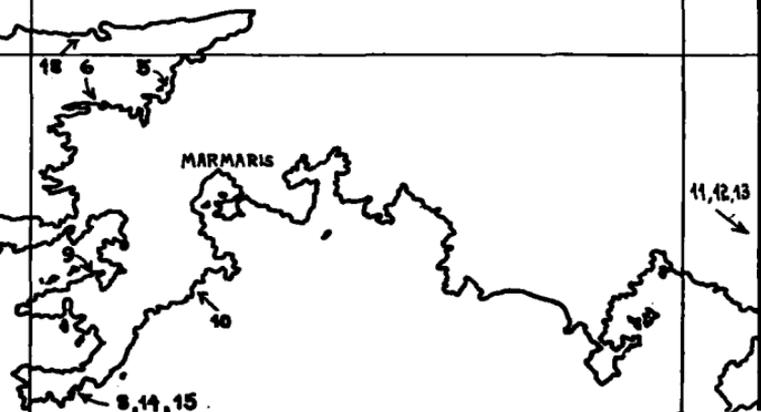
Q. Fragments of unidentified amphoras and pithoi, south of Karaça Ad. at a depth of 10 meters (wreck no. 5).



28°

### 1973 UNDERWATER SURVEY: SITE LOCATIONS

- 1 1 KM. SE OF KNIDOS
- 2 1 KM. SE OF ISKANDIL BR.
- 3 OFF KIZILAGAC AD.
- 4 OFF KEPEC BR.
- 5 OFF KARACA AD.
- 6 OFF NERGIZ BR.
- 7 ASEN KORFEZI - SOUTHERN SIDE
- 8 SERCE HARBOR - INSIDE
- 9 OPPOSITE KAMERIYE AD.
- 10 N OF INCE AD.
- 11 NE OF ADRASAN LM. - OFF TUZLA BR.
- 12 NE OF ADRASAN LM. - OFF TUZLA BR.
- 13 OFF POINT E OF KALKAN VILLAGE
- 14 MOUTH OF SERCE LM.
- 15 MOUTH OF SERCE LM.
- 16 1 KM SE OF KNIDOS
- 17 OFF ARMUTGUKBUKU - TEKEREK LM.
- 18 OFF SANJAK BR.



UNDERWATER SURVEY — 1973



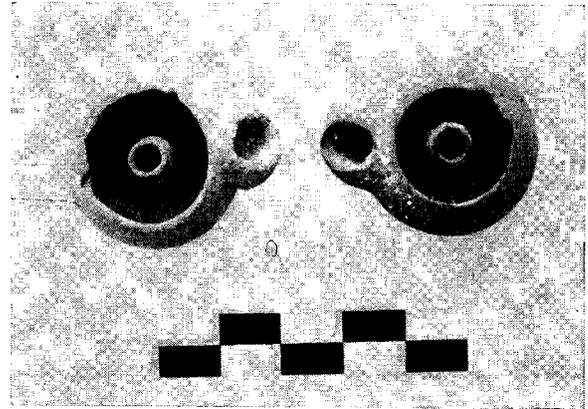
Res. 1



Res. 2



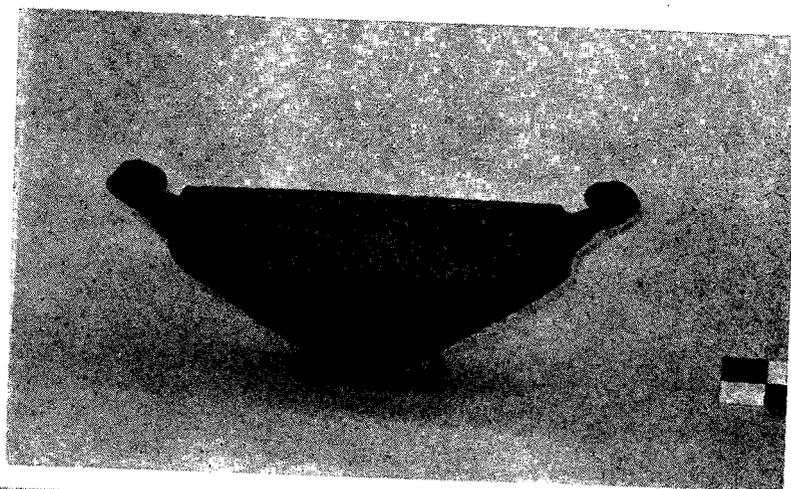
Res. 3



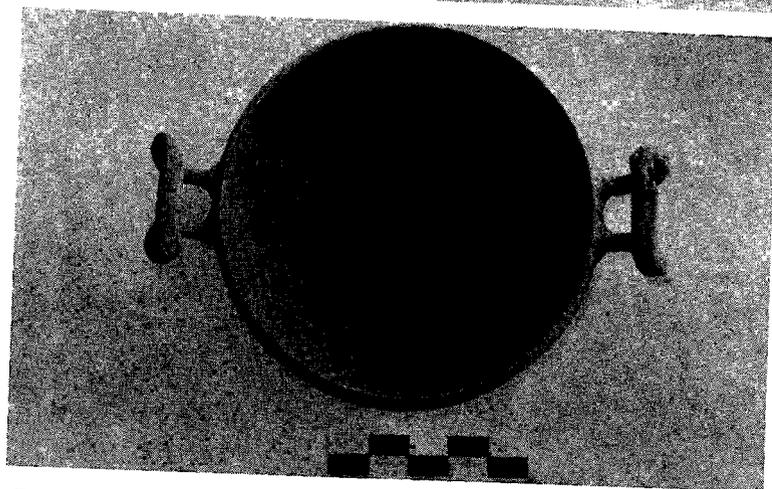
Res. 4



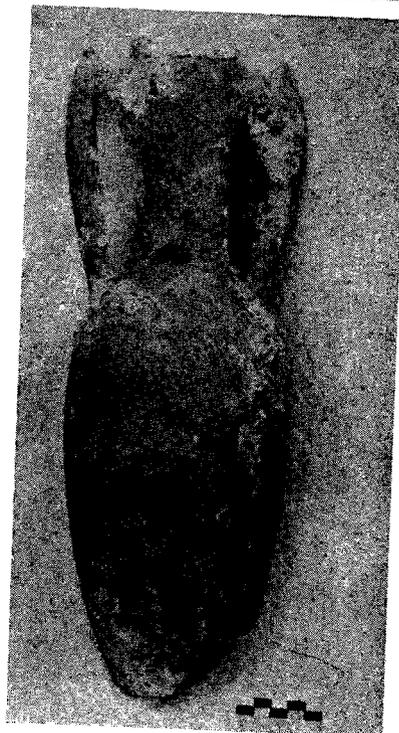
Res. 5



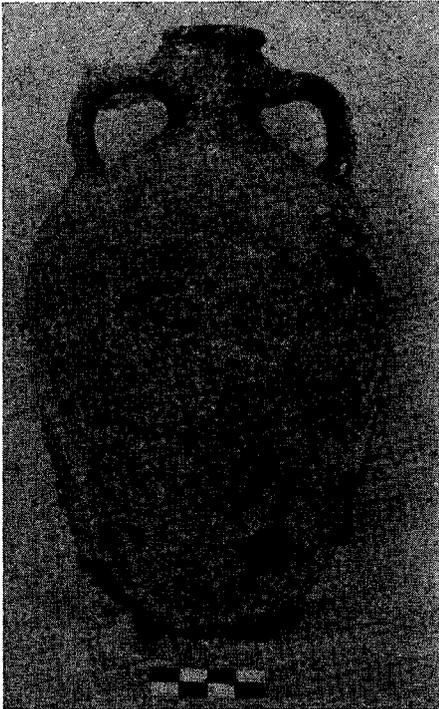
Res. 6



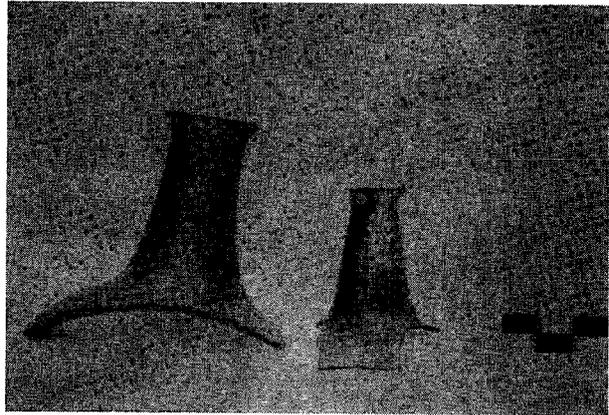
Res. 7



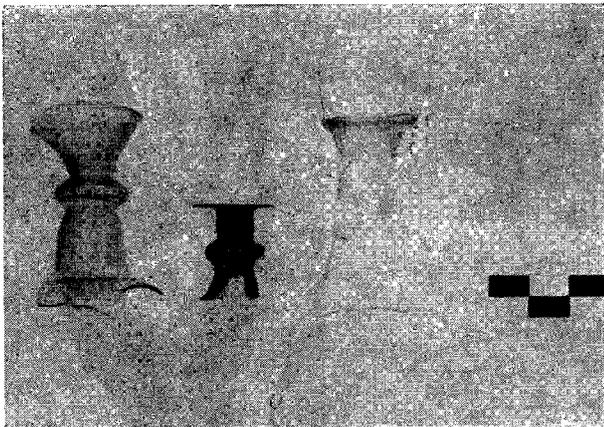
Res. 8



Res. 9



Res. 10



Res. 11



Res. 12