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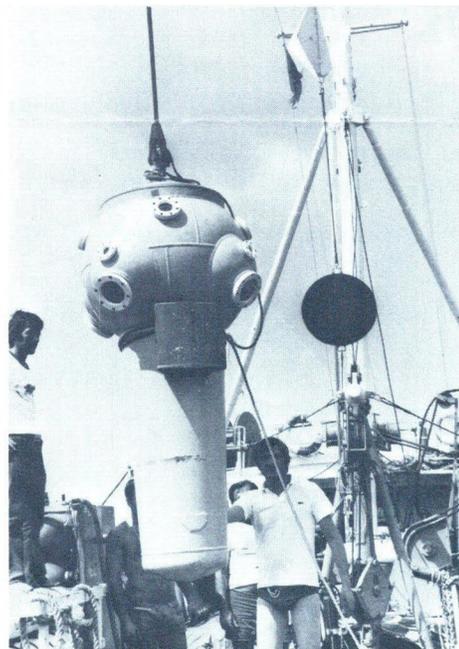


Winter 1977

La Secca de Capistello, Lipari

I must admit that I had second thoughts about the whole operation as I stood in my vertical coffin and heard the muffled sounds of the hatch being irrevocably bolted into place. Already it was hot and cramped inside the Robertina diving bell, and while the rebreathing apparatus drew easily, having a full face mask strapped on only added to my sudden thoughts of claustrophobia. Did I really know what I was doing? Two days earlier I had helped lower the empty bell to 250 meters and watched it come up with no malfunctions, dry as a bone inside. This time I would only descend in it 65 meters to the wreck below us, and the stresses on the bell would be considerably less. But I could not help thinking about all the portholes and what a final act it would be if the bell somehow swung against a rock on the steep slopes below. Why hadn't they designed a hatch that could be released from the inside? Wouldn't it have been safer to include a small cylinder of compressed air and a regulator inside the bell for emergencies? Had I left a comfortable job teaching physics in Istanbul to test new equipment and add my name to those of the four others who had died on this wreck?

With a lurch, the bell suddenly rose out of its cradle and then slowly and deliberately was swung over the side of the ship and lowered into the water. My last sight was a SUBSEA diver laughing at me through a porthole. Then everything went blue and still, very still. I found it a strange but calming sensation to have no further distractions except for the sound of my own breathing as the bell moved effortlessly towards the bottom. Gone were my thoughts of claustrophobia, and the sea had already started to cool the bell. Then abruptly Sergio's friendly voice



The Robertina diving bell.

over my headset broke the silence.

"Donald," he said, "*non dimenticare di controllare l'ossigeno!*"

Glancing upwards I saw that the oxygen content in the bell had already dropped several percent, and I quickly opened the valve of the oxygen tank for five seconds and watched as the meter gradually returned to twenty percent.

As the bell continued its descent, I mused about my first meeting with Giunio Santi, the director of Sub Sea Oil Services. I had joined AINA almost two years ago, and one of my first assignments had been to call on him in Milano to see whether there really was any possibility of AINA and SUBSEA collaborating on some future project. Although his company already had two hundred divers working around the

globe, the demand for more was endless, and SUBSEA was continually training new divers for both shallow and deep work. It was Santi's firm conviction that these trainees needed more practical experience before they took on the hazardous work encountered in places like North Sea oil rigs. He felt that by working together on an underwater archaeological project, his new divers would be motivated and get that experience and, at the same time, make a substantial contribution to underwater archaeology in Italy. In his office he spoke to me of tantalizing programs and underwater equipment which might eventually be put at our disposal: *Freebooter*, a 13-ton shallow diving training vessel; the "monkey," an armored atmospheric pressure diving suit that could be used at depths of hundreds of meters; two submarines; *Corsair*, a 70-ton training vessel for mixed gas diving; and for a joint excavation he might provide a chamber, compressors, a steel barge, and a team of divers. But we had no project in Italy. Indeed, we had no information about possible wreck sites. And I knew that George Bass had had many similar offers during the past fifteen years, which for one reason or another he had not been able to accept.

So that day in the Robertina I was aware that we had come a long way in Italy, because it was the auxiliary winch on SUBSEA's *Corsair* that was slowly lowering the diving bell, while two of their mixed-gas diving trainees stood by fully suited up in case of a mishap. And below me, just coming into view, were distinct layers of amphoras we had uncovered from one of Italy's most important underwater sites, the third century B.C. Hellenistic shipwreck of the Secca di Capistello at Lipari.



Sicily and outlying islands.

We had been led to this wreck by a strange course of events. George Bass, Robin Piercy, and I had come to Sicily in the early spring to join *Freebooter*, her crew, and three divers in search of possible underwater sites along the western coast of Sicily (see AINA Newsletter, vol. 2, no. 4). We had been attracted to the area because of a small bronze statuette brought up in the nets of a trawler near Sciacca some two decades ago. It had been tentatively dated to the 13th century B.C., and the region where it was found appeared to be one where side-scan sonar might be used effectively to search for a wreck. Professor Vincenzo Tusa, the Superintendent of Antiquities for Western Sicily, had given us permission to extend the search area to the Egadi Islands opposite Trapani, where other wrecks had been reported. The weather we encountered, however, was unseasonably bad, and in almost two months we were able to go to sea only nineteen days. This permitted a preliminary survey of Sciacca and inspection of five other known sites. Although we knew that the latter would not be virgin wrecks, the extent of the pillage in this more remote part of Italy astounded us. We found only fragments of pottery at sites which had once been reported to

have had hundreds of amphoras strewn on the bottom. In some cases, the looting was so thorough that it was difficult to determine where further wreck material might lie covered, and if there were hull remains suitable for a preliminary joint excavation, we were unable to find them.

While our survey results were inconclusive and discouraging, we had learned a great deal about alternative sites in Sicily. In particular, we had accepted the kind invitation of Professor Nino Lamboglia, Director of the Istituto Internazionale di Studi Liguri, to participate in the Fifth International Congress of Underwater Archaeology, to be held in Lipari in June. We knew that perhaps a dozen wrecks had been discovered in the surrounding islands, and in particular the German underwater archaeologist, Gerhard Kapitän, had spoken to me enthusiastically about the Capistello wreck and its cargo of black glazed pottery. Gerhard had been a member of a team of divers led by Helmut Schlager who attempted to excavate the wreck in 1969, using conventional SCUBA equipment. But Schlager and one of his assistants had been killed in a tragic diving accident the first season, and the project had been

abandoned. This did not discourage looters who must have found a lucrative market for the finely glazed black Campanian pottery and the Greco-Italic amphoras, and material obviously from this site had been sequestered on several occasions. When I visited Lipari and spoke to Professor Luigi Bernabò-Brea, emeritus Superintendent of Antiquities for Eastern Sicily, he expressed considerable interest in any survey which might provide some information about what remained of this wreck and whether it could safely be excavated. In Milano, Giunio Santi also responded enthusiastically.

"Wait and see," he said. "I'm going to arrange for both *Freebooter* and *Corsair* to be there during the conference."

In the ensuing months, not only did *Corsair* come once to Lipari for a preliminary look at the site after the conference, but she returned for a six-week mixed-gas diving course, and with engineering precision established a four-point mooring system which allowed her to move over the site at will. Our project at Capistello was only possible thanks to the unbelievable efficiency and kindness of Dottoressa Paola Pelagatti, Superintendent of Antiquities for Eastern Sicily, who in a short month cut through all red tape and got a permit for the joint AINA-SUBSEA expedition. Michael Katzev, AINA Vice President, also set aside his work on the Kyrenia ship publication and on short notice flew over from Athens with his wife to direct the survey.

Our work on the Capistello wreck was an exciting experience. The crew of *Corsair* and the team of divers led by Franco Matteucci did everything possible within their own work program to help us survey the wreck. The lunches we had aboard ship surpassed the best local restaurants, and the chef's Italian specialties often dealt devastating blows to our early afternoon efficiency. But what interested us most was that we were standing at the brink of an important new frontier in underwater archaeology because of the depth of the Capistello wreck. There is no precise number of meters beyond which it is unsafe to dive using conventional SCUBA apparatus. Once moving amphoras off the Roman

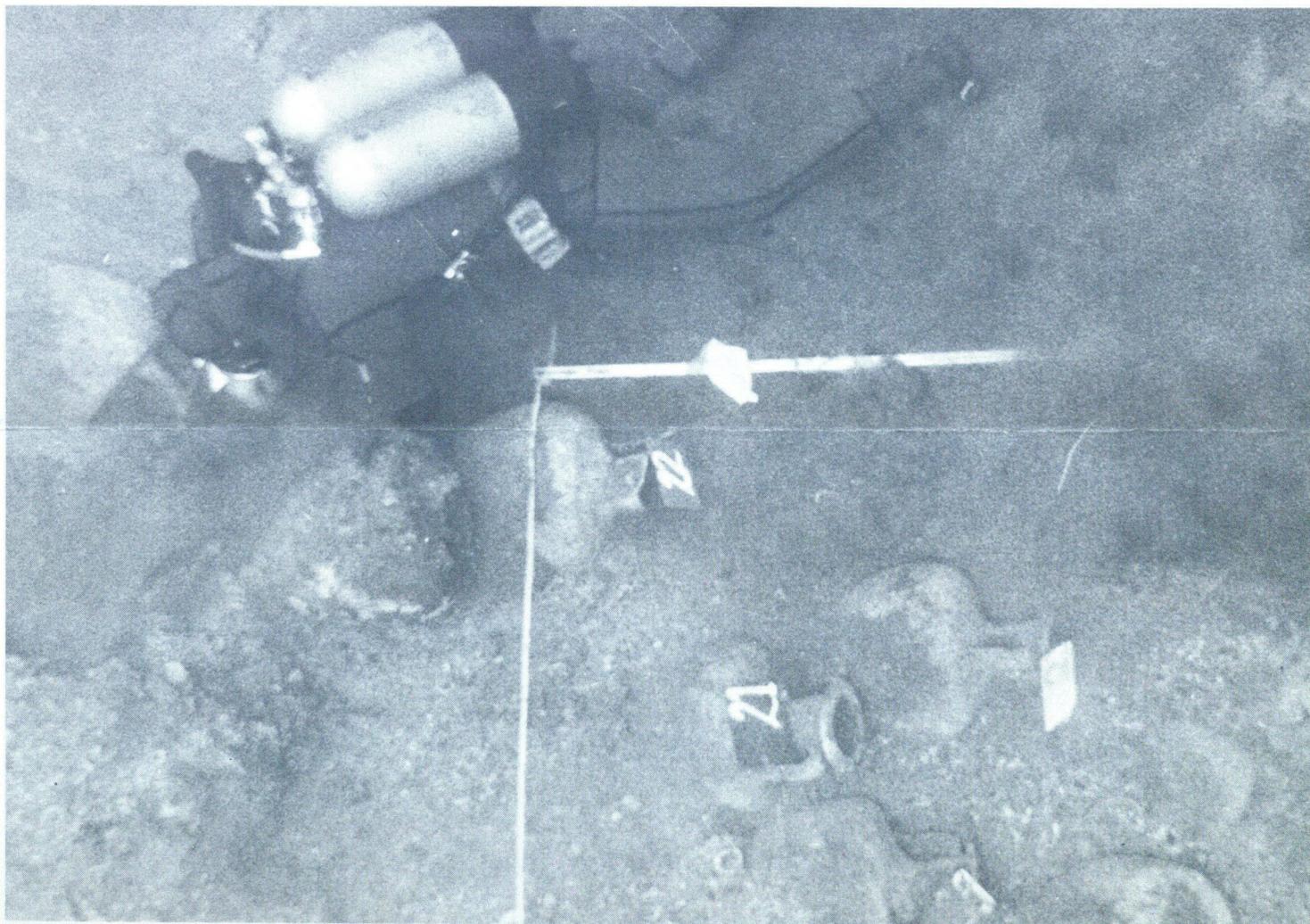
wreck at Yassi Ada, Turkey, I felt giddy at only 40 meters, and I know divers who claim they can work safely at twice that depth with only minor side effects. But it is significant that SUBSEA, with its vast experience in a variety of diving situations, no longer allows its divers to work deeper than 50 meters breathing compressed air. In their commercial work they may go several hundred meters deep, but they breathe an expensive nitrogen-free mixture of helium and oxygen and work with entirely different decompression tables. The expense of mixed gas diving, the length of decompression required by the deeper depths, the complicated technical support required, and the danger involved are all factors which have precluded our working on these "deeper" wrecks. Now at Lipari for the first time we had the opportunity to work on such a site with a professional team. We knew actual bot-

tom time would be extremely limited, and as it turned out the ten SUBSEA divers were able to spend only about twenty minutes per man on the site. But during our campaign together we made more than twenty descents with the training bell or the Robertina to explore and photograph the site. From the bell we were also able to monitor and direct a surface-controlled airlift which made trial soundings half a meter square and uncovered the first layers of amphoras. Using closed-circuit television we observed the SUBSEA divers as they worked on the wreck and instructed them in their work. Our greatest experiment was perhaps this unique collaboration with a commercial diving firm trying to find out whether we could work within their own training program without compromising our own archaeological standards.

We feel ourselves that the survey was an unparalleled success. With SUBSEA's help, the Capistello wreck was relocated and its position accurately plotted, test trenches located intact layers of amphoras, exposed materials were photographed and drawn *in situ*, nineteen amphoras and twenty-two pieces of black glazed pottery were recovered, and in the last days hull fragments, including a frame resting on a strake, were found and recorded.

It would be indeed interesting to return to this site and learn more about the ship, where she was coming from, her cargo, and how she was constructed. Her valuable cargo should also be raised for the museum, rather than being left for looters to break up or carry away. On the other hand, in the words of Michael Katzev, "The site is deep. To excavate it

Franco Matteucci tags amphoras at 65 meters depth.



Robin C.M. Piercy

is dangerous and expensive. Only through a combination of benevolence, industrial skills, and archaeological expertise could the work be done well. Should the costs and the time be devoted to excavating the ship sunk off the Secca di Capistello? These are questions which remain to be answered."

— Donald A. Frey

Acknowledgements

It is indeed a pleasure to acknowledge the assistance of many who helped make the Capistello project a success: Dott. Paola Pelagatti, Primo Dirigente, Soprintendente Archaeological, Siracusa. In Lipari, Prof. Luigi Bernabò-Brea and Dott. Madeleine Cavalier. From Sub Sea Oil Services S.p.A. of Milano, Ing. Giunio Santi, President; Franco Rizzi, Captain of *Corsair*; Franco Matteucci and the team of trainee divers under his direction. Dr. Horst Blanck of the German Archaeological Institute of Rome. AINA Staff members Mr. Michael L. Katzev, Dr. Donald A. Frey, and Mr. Robin C.M. Piercy. Susan Womer Katzev did object drawing and photography. A full report of the project will be published by Mr. Katzev in an AINA report in the *International Journal of Nautical Archaeology*.

Nino Lamboglia

We have just learned of the untimely death of Nino Lamboglia, Director of the Istituto Internazionale di Studi Liburi, Bordighera, Italy. Prof. Lamboglia pioneered underwater archaeology in Italy in the 1950's, and was recognized also for his contributions to the study of Campanian pottery.

— Ed.

Don Frey holds an amphora with its cork stopper sealed in place with pitch. Note the handle impressed with a stamp in Greek letters.



Michael L. Katzev

The Cornwallis Cave Wreck

The first session of work on the wreck of a ship presumably lost during the Battle of Yorktown in 1781 was concluded in August. The wreck, almost

certainly from the defeated British fleet, lies only 12 to 15 feet deep in the York River, Virginia, about 100 yards off shore from Cornwallis Cave. Excavation staff,



Susan Womer Katzev

A group of Campanian black-glazed pottery from the Secca di Capistello shipwreck.

in addition to those listed in AINA Newsletter Vol. 2, no. 4, included volunteers from the Undersea Explorers Club, Inc., of Richmond; from the U.S. Navy Submarine Rescue Ship *Ortolan*, based in Norfolk; and others to be listed in a more complete report. Funding came from the Virginia Historic Landmarks Commission, AINA, and SCM Corporation; logistical support was provided by the Virginia Institute of Marine Sciences; and Colonial Williamsburg Foundation undertook the conservation and study of artifacts.

Although hampered by murky water and strong tides, excavators learned that the hull is preserved at least from the cutwater to the sternpost, a distance of 116 feet 3 inches; maximum surviving hull width was measured at slightly more than 29 feet. The ship was large for the period, measuring about 118 feet on the main deck, and having a beam of nearly 35 feet. Depth of hull survival was somewhat disappointing in areas thus far excavated; at no point did it extend to the waterline. The bow area is believed to be no more than 6 or 7 feet from the rot

line to the bottom of the keel, while the stern survived to a depth of about 6 feet.

J. Richard Steffy reports that the ship was heavily constructed, was probably a three-masted transport or merchantman, and appears to have been of British origin. Oak frames, 22 inches wide and set less than 2 inches apart, are indicative of the massive hull structure. They were drift-bolted through a 14-inch keelson with iron ring bolts. Hull planking was 2 1/2 inches thick and traditionally fastened with wedged treenails, while ceiling planks measured 3 inches thick. Happily, bow and stern construction was well revealed in the wreck, including some areas where confusion has existed concerning methods of fabrication. Typically, important features were the complex of heavy bow timbers (apron, stem, head, etc.), the method of canting bow frames, the construction of bulkheads, and the massive structure supporting the sternpost. As these areas are being evaluated, drawings and a wreck model are being made.

Although efforts were made to avoid excavating large numbers of artifacts before the services of full-time staff conservators are obtained, a number of extremely well preserved objects were, by necessity, raised. These included, along with the expected blocks and deadeyes, a leather powder flask with copper spout, a pewter button marked with insignia of the 80th Highland Volunteers, and a wooden cannonball rack.



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The American 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 AINA Newsletter is published periodically by AINA and is distributed to its members and Supporting Institutions to inform them of AINA's current activities.

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