

# Underwater archaeology

Underwater archaeology is an aspect of archaeological science that deals with the study of submerged material remains and traces of human culture. An interest for the world to be found under the surface of water has existed for a long time, and Alexander the Great was alleged to have dove in a diving bell to see the wonders of the submarine world. The first dive campaigns were launched largely with the aim of salvaging the remains of goods and equipment lost in shipwrecks. Over time the development of diving equipment gave the general public access to the submarine world. A watershed in this regard occurred in the 1940s when Emile Gagnan and Jacques-Yves Cousteau perfected a device for autonomous diving with compressed air, which allowed divers quicker and greater manoeuvrability under water.

The introduction of the autonomous diving device to the general public opened new opportunities, which soon saw their application in underwater archaeology. A number of underwater exploration campaigns were launched in the second half of the 20th century, including reconnaissance and the documentation of underwater archaeological sites around the world. Methods of underwater archaeology exploration and documentation were developed parallel to these processes, adapted to the medium in which the exploration was carried out. The resolution of these challenges in underwater archaeology yielded results and a number of sensational discoveries. We can cite only the best known shipwreck sites, such as Uluburun in Turkey, a Late Bronze Age shipwreck dated to the 14th century BC, a number of Greek and Roman shipwrecks, the 17th century Swedish naval vessel *Vasa*, and recent shipwrecks like that of the *Titanic*. There are also fascinating results from the exploration of sunken cities such as Alexandria in Egypt or Port Royal on Jamaica.

The first written records of underwater archaeological sites in Croatia are to be found in the travelogue of Albert Fortis from the second half of the 18th century, which mentions large vessels at Sućurje on the island of Hvar. In the mid 19th century Mijat Sabljarić records a number of underwater archaeological sites, with a particularly interesting sketch of a sarcophagus built into the waterfront of the Vranjica peninsula. It was at this site in fact that Don Frane Bulić in 1898 took on the services of divers to survey the submarine areas of Vranjica, which we can consider the first attempt to research underwater sites in Croatia.

Consideration for the protection of underwater cultural heritage in Croatia began in the 1960s when it became evident that underwater archaeological sites were very much threatened by robbery and devastation, and that it was necessary that legislation be adopted to protect underwater cultural heritage. Based on the possibilities then present, the obligation to research and protect these sites was undertaken by research teams operating out of Pula, Rijeka, Split,

Šibenik, Zadar and Zagreb in the frame of their institutions – museums, conservation departments, universities and other research institutions, and in recent history in the frame of the Ministry of Culture as the umbrella institution for the protection of cultural heritage. Legal acts were adopted parallel to the development of protection and research methods that regulated underwater activities, and in 2004 Croatia ratified the UNESCO Convention on the Protection of the Underwater Cultural Heritage.

Underwater archaeology in Croatia has yielded a great number of results that pertain to the exploration and protection of underwater archaeological sites. To date over 400 sites have been registered from all historical periods, about 80 can be visited, some with expert guidance. Particular attention has been dedicated to the most threatened sites, protected in situ. Some hundred underwater archaeological sites have been registered in the Croatian Registry of Cultural Objects, affording them special legal protection and care. Eight are protected by steel cages, which allow visitors to see them, but prevent their devastation. It is not easy to enumerate all of the sites in Croatia that have been explored to date, but one certainly ought to single out the names of those that have largely contributed to a better knowledge of our history, such as the find of the Apoxyomenos, Zaton with its antiquity period Liburna ships, the Roman shipwreck off Ilovik, the site in the harbour of Nin with the well known Condura Croatica ships, the post medieval shipwreck off Gnalić, and a number of other sites off the islands of Mljet, Murter, Vis, Hvar, and modern shipwrecks like that of the Szent Istvan, Albanien, Re D'Italia or the Baron Gautsch. The historic and archaeological wealth of the Adriatic Sea is inevitable and holds many secrets yet to be discovered, and it is up to us to find them, and to care for them with the dignity they deserve.

Mladen Pešić