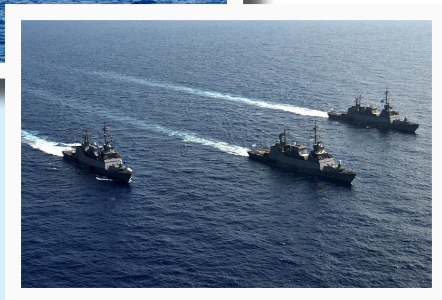
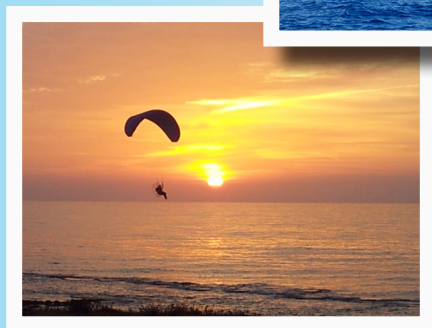
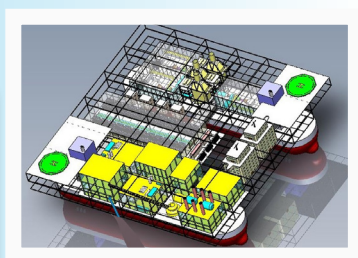


# MARITIME STRATEGIC EVALUATION FOR ISRAEL 2016

Chief editor: **Prof. Shaul Chorev**

Edited and produced by: **Ehud Gonen**



## Chapter 13: Marine Archaeological Assets

### *Assaf Yasur Landau*

In the Mediterranean Sea, opposite the coast of Israel, there is an abundant treasure of cultural and heritage assets which have national and international importance. These assets are unique in that they embody a continuum of at least 8,000 years of human activity related to the sea. The structure of Israel's coast has led to the preservation of exceptional assets, including sunken Neolithic villages, the cargo of Canaanite ships, remains of ports, cargo from the Iron Age (the period of the Monarchy) and ships and ports from the Roman period up to the Ottoman period. Marine archaeology deals with all remnants of the cultural and material heritage, from the coast and out to the open sea, including port facilities, sunken ships, parts of cargo and sunken prehistoric villages. Marine archaeology is interested in remains from periods that are defined by law as ancient (before 1700 A.D), as well as remains with historical value from later periods (such as remains of ships from the 19<sup>th</sup> century and even the 20<sup>th</sup> century, including ships used to smuggle immigrants to Israel which have historical-national value).

The issue of preserving the marine cultural heritage along the coast of Israel is today at a crossroads. The development of maritime and coastal infrastructure, including the gas infrastructure, desalinization plants, and accelerated construction along the coast (despite the protection of the law<sup>1</sup>) creates a situation in which cultural assets are in danger in many areas, including the coastal region, the territorial waters, the Contiguous zone and the economic waters of the State of Israel.

In contrast to the ecological system, cultural assets are not renewable and cannot be rehabilitated. When they are destroyed, there is irreversible damage to our ability to learn and to reconstruct the history of Israel and of the Eastern Mediterranean.

### **The state of knowledge**

Israel is one of the pioneers in underwater archaeological research. During the last fifty years, a great deal of data has been gathered on the cultural heritage and the underwater archaeological sites in our region. This knowledge includes the following categories:

1 Law for the Protection of the Coastal Environment, 5774-2004.

- Sunken ships
- Ports and anchorages
- Sunken prehistoric settlements

Unfortunately, this knowledge is restricted, almost exclusively, to the coastal area, up to a depth of about 15 meters. In contrast, the level of knowledge declines at greater depths and even more so in the case of sites of ancient sunken ships in most areas of Israel's territorial waters and all of its economic waters. Even by optimistic estimates, for only 10 percent of the territorial waters and less than 1 percent of Israel's Contiguous zone and economic waters is there systematic knowledge based on an archaeological survey. This situation is described in two recent policy papers on maritime planning: Maritime Spatial Planning for Israel<sup>2</sup> and Policy for Israel's Maritime Domain in the Mediterranean.<sup>3</sup> These documents are based on underwater surveys and archaeological digs carried out in recent decades and they present information primarily on sites near the coast and its immediate vicinity. The two documents emphasize the severe lack of knowledge regarding sites in deeper water. This is a critical constraint on any planning process within Israel's maritime domain.

The inclusion of accumulated knowledge in the Policy Document for the Management of Coastal Waters published by the Ministry of the Interior in 1999 led to the mapping of heritage and archaeological sites according to the importance of their preservation within the variety of considerations to do with the development and preservation of the coastal environment. Currently, we do not have sufficient knowledge for such an integration of heritage and archaeological sites within the future planning of the adjacent and economic waters of Israel.

## The international element

The UNESCO Convention on the Protection of the Underwater Cultural Heritage (2001) set down the principles for protecting the assets of the maritime heritage both in the economic waters and beyond. Israel, along with the US and other countries, chose not to join the Convention and it is hard to imagine that the complex relations with UNESCO, as well as the content of the Convention, will change to an extent that will enable Israel to join the Convention in the foreseeable

2 The Center for Urban and Regional Studies, the Faculty of Architecture, the Technion <http://msp-israel.net.technion.ac.il>

3 Policy for the Maritime Domain of Israel in the Mediterranean, Ministry of the Interior. <http://www.moin.gov.il/Subjects/merchav-yami/Pages/allreka.aspx>

future. Nonetheless, even without joining the Convention, academic and non-government bodies can join a UNESCO body involved in marine archaeology called the Network for Underwater Archaeology (UNITWIN) whose members included universities in the US, Australia, Japan, Egypt and Turkey.

Another international convention that is related to the marine cultural heritage is ICOMOS, an international body that works for the protection of cultural heritage. The organization has a branch in Israel that operates as a non-profit organization. Alongside this convention, there are best professional practices for the protection of marine heritage. An example of such a code is the document of principles that was the result of two conferences on the preservation of maritime heritage: at Brock University in October 2009 and at Pennsylvania University in March 2010. The document is referred to as the Penn-Brock Statement and represents a consensus reached by researchers at leading universities in the US, Britain, Canada, Turkey and Slovenia, as well as experts from the Antiquities Authority in Israel. The document presents the ethical and research goals of marine archaeology and the protection of the underwater cultural heritage. De facto, the document serves as the guide for practice in underwater archeology.

The geopolitical environment in the Eastern Mediterranean makes it difficult for Israel to be part of regional initiatives related to maritime heritage. Thus, for example, Israel was prevented from participating in the Mare Nostrum project of the EU, which includes collaboration between Lebanon, Greece and Italy. The project is creating a heritage trail between the coastal cities of the Mediterranean along the sea routes of the Phoenicians and allocates significant resources to the training of local tourist guides, the creation of tourist attractions and the establishment of museum exhibits.

In Egypt, the archaeological authority underwent an upheaval following the replacement of the Supreme Council for Antiquities by a government ministry in which the unit for marine archaeology does not have an official status. Most of the underwater activity in the country is carried out by foreigners. This activity, in addition to the political challenges in the relations between Israel and Egypt hinder Israeli-Egyptian collaboration on archaeological matters.

## **Gaps in legislation and regulation**

Currently, there is no declared policy for the preservation of antiquities within Israel's economic waters. This is primarily because the Antiquities Law (5728-1978) protects antiquities in Israel's territorial waters and Contiguous zone

---

only. The antiquities in the economic waters, including remains of ancient ships with great scientific value, are vulnerable. Damage to these remains can occur unintentionally or as a result of negligence during the development work on the gas fields or other maritime infrastructure or even as a result of intentional damage as part of commercial exploitation for purposes of profit. Therefore, effort should be invested in setting down a policy that will protect the antiquities in Israel's economic waters, through the use of rules derived from international conventions and best practices.

### **Commercial marine salvage of antiquities**

The search by the US navy for the Dakar submarine led to the discovery of two Phoenician ships from the 8<sup>th</sup> century BCE at a depth of 400 meters in the economic waters of Egypt. The ships were studied and mapped by Robert Ballard and Lawrence Stager and archaeological artifacts that were 2,750 years old were lifted from the ocean floor. This scientific archaeological research demonstrated the huge potential of archaeology at depths beyond diving level and outside of territorial waters.

The appearance on the scene of organizations that have the ability for marine salvage at great depths and also the desire to find antiquities for commercial purposes is not a question of time but in fact already exists. In December 2015, for example, the ship Explorer Odyssey arrived in the Eastern Mediterranean to search for and salvage undiscovered artifacts. The ship is operated by the Odyssey Marin Exploration Company (Nasdaq: OMEX) and has already located and salvaged archaeological artifacts from ancient ships. It is possible that one of the goals of the voyage was to find the huge treasure that was lost with the sinking of the Napreid in 1872. The Odyssey Explorer, which has capability for deepwater salvage, has carried out operations in the waters between Cyprus and Lebanon which have been described by the company as having an archaeological nature. The ship was stopped in Limassol on December 24<sup>th</sup>, 2015 on suspicion that the ship contained antiquities from Cyprus and/or from Lebanon's economic waters. The search led to the seizure of 57 plastic crates containing 5888 artifacts from the 18<sup>th</sup> century that belonged to an Ottoman ship. The ship was finally released in January 2016 and continued on to Beirut.

## The development of the natural gas fields and other infrastructures in Israel's territorial, adjacent and economic waters

When there is an alleged conflict between marine heritage and the development of coastal infrastructure, a solution can almost always be found which will enable the research of the archeological remains that are at risk. Thus, in the case of the wooden ship from the 17<sup>th</sup> or 18<sup>th</sup> century that was discovered during the expansion of the port of Haifa, it was decided that the construction work on the northern breakwater would be carried out in a way that would leave the location of the ship accessible for an archeological dig, which will be carried out soon by the Antiquities Authority.

Nonetheless, the accelerated development of maritime infrastructure during the last decade has raised the problem that we do not have practical archaeological information on cultural heritage assets, and primarily on sunken ships, at depths of greater than 15 meters. In cases where infrastructures and structures are built at diving depth within territorial waters, the Antiquities Authority carries out an investigation for the presence of antiquities, as in the case of the underwater survey carried out along the route of the El Arish-Ashkelon gas pipeline, which went up to a depth of 40 meters. However, when carrying out a survey there is currently no obligation that a representative of the Antiquities Authority or an archeologist be present on the ship carrying it out. This is particularly problematic in the economic waters which are beyond the territorial waters. Although the environmental surveys that are carried out by energy companies are to be found at the Ministry of National Infrastructures and are available (in part or in full) on the Ministry's site, in the vast majority of cases the surveys do not relate to archaeological elements and it is in general not possible to know what scientific method was used to search for the archeological remains, whether a designated survey was done and if so by what means. The result is a significant lacuna in the law and the regulations regarding archaeological surveys, which prevents the effective protection of cultural heritage assets in economic waters, and which does not impose sanctions on an entity or private individual that harms antiquities in these areas.

## Conclusions and proposed solutions

**Foreign relations and security:** The ability of the State to protect cultural treasures within its borders has important implications on the way it is viewed

by the international community. This situation exists despite the politicization of UNESCO in declaring sites as being at risk. Protection of antiquities is a good indicator of the strength and organizational ability of a country, while doing systematic harm to antiquities or the lack of a policy to protect them is one of the leading characteristics of a failed state.

Currently, Israel has good relations with Cyprus and Greece. They can be strengthened even further through collaboration between the scientific communities in the study of marine cultural heritage. Since the universities in the three countries are budgeted by the government, it is important that the first step toward large-scale collaboration be taken by the governments.

**Planning and the environment:** Currently, Israel's knowledge of archaeological sites beyond the shallow depth of 15 meters is anecdotal. As mentioned, it is estimated that systematic information based on an archaeological survey exists for less than 10 percent of the territorial waters and for less than 1 percent of the Contiguous zone and economic waters. Knowledge is not sufficient for any kind of planning beyond the immediate coastal area. It would be worthwhile that any strategic maritime planning in the future regarding Israel's economic waters will include components that will constitute the basis for a national plan for the discovery, protection and nurturing of the maritime cultural heritage.

Use can be made of several elements of the UNESCO Covenant in future planning, even if Israel is not signed on it and primarily elements from within the operative work plan that accompanies the Covenant, as well as elements from the national plans of other states (such as the Spanish national plan, Green Paper 2009 and elements of British research in marine archaeology).

An outline that relates to the place of archaeology and the protection of cultural heritage within a maritime strategy for Israel, which also includes policy measures, has already been presented as part of Maritime Spatial Planning for Israel. The plan emphasizes the importance of protecting the national treasures in deep water, in the territorial waters, in Contiguous zone and in the economic waters. Similarly, the plan emphasizes the organization of existing information on the subject and making it accessible to researchers and the public, as well as the strengthening of supervisory bodies in order to deal with the new challenges of working in the vast territory of the ocean and in deep water.

The gap in knowledge can be bridged, at least partially, by means of a sampling survey to be carried out in several areas within the territorial waters and the

economic waters of Israel, with the goal of understanding the potential antiquities sites located in these huge areas. It is proposed that three areas of 20X20 km be investigated by means of sonar and other means of long-range detection. The sites that are discovered can be investigated by a Remotely Operated Underwater Vehicle (ROV). This is a fairly large-scale project, but is feasible even by means of the existing scientific infrastructures in Israel. It is important that the survey be carried out without dependency on parties with an economic interest. At the same time, the enforcement ability of the Antiquities Authority should be reinforced on two levels:

- Acquisition of independent capabilities for working and supervising in deep water and at major distances from the coast.
- Close supervision, accompanied by appropriate technological means, of work actually being carried out.

Regarding lacunae in the regulations, the US provides an example of how the problem can be solved. It implements the principles of the UNESCO Convention even though it is not a signatory. The most immediate solution is to implement the principles of the Convention by means of regulations that will apply to Israel's economic waters (an area where the Antiquities Law does apply). The regulations would be derived from the Convention or best professional practices to preserve the maritime heritage.

It is recommended that these regulations will expand the supervisory powers of the Antiquities Authority in Israel's economic waters. These powers should be applied starting from the stage of the environmental survey (in other words, a representative of the Antiquities Authority should be present on the vessel carrying out the survey) and up to, and including, the laying of the infrastructure in areas where ancient remains are found. The regulations should prevent the possibility of commercial exploitation of antiquities in the economic waters and should permit scientific archeological work only.

**Economic:** Archaeology has economic potential as well, primarily based on tourism. In 2013, for example, 670,000 people visited the national park in Caesarea. It is reasonable to assume that less than one percent dived in order to view the ancient sunken port of Caesarea, even though there is a diving club on the site.

North of Caesarea is the Tel Dor National Park, which is going through a facelift. The bays near the tel have plentiful archaeological remains and there are two diving clubs, one in Nahsholim and one in Habonim. Here also only a small number of visitors arrive to dive at the site. The development of infrastructure for the exhibition



of marine archaeology will facilitate the expansion of tourism at these sites and will create additional jobs in the area, including diving instructors, restaurants, hotels, etc. Egypt, for example, has understood the tourist potential of marine archaeology. Following the underwater archaeological discoveries in Alexandria, which include spectacular underwater remains of Hellenistic architecture, there is advanced planning for building a huge underwater museum in collaboration with the UN. The museum will be a global tourist attraction, second in Egypt only to the pyramids.