

A PROPOSAL TO SUPPORT

# A Research Expedition: The Ma'agan Mikhael Ancient Ship Replica

SCHOOL OF ARCHAEOLOGY AND MARITIME CULTURES  
THE LEON RECANATI INSTITUTE FOR MARITIME STUDIES



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## The Ma'agan Mikhael Ancient Ship Replica

Thousands of shipwrecked vessels have been found in the Mediterranean Sea over the years. Because of the destructive power of the sea, only a few fragments of a limited number of wooden ships have been discovered. Fragments like these are the focus of maritime research at the Leon Recanati Institute for Maritime Studies, a world leader in this field. To advance the study of seafaring in Antiquity and expand our knowledge of the ancient Ma'agan Mikhael ship, our researchers built a [sailing replica](#) of this remarkably well-preserved trading vessel and launched it in 2017. Today, the replica sails on the open Mediterranean Sea and is being used for educational excursions and research expeditions.



### The Research Expedition: Greece and the Aegean Sea Countries

The research expedition, planned for the end of the year (November 2022), is intended to bridge significant gaps in our knowledge regarding ancient maritime relations and practices from 2,400 years ago. The voyage will focus on the way ships departed from the Levant to western destinations such as Greece, Crete or North Africa, contrary to the prevailing winds. Assumptions in the research community are that the 'traditional' period of sailing is limited to the summer months. However, recent research has pointed to seasonal opportunities during the winter season when 'favorable winds' from the east may provide conducive conditions for conducting maritime communications and trade voyages in the eastern Mediterranean. The planned expedition will put to the test the prevailing research paradigm, and will bring to fruition a unique opportunity – to utilize a remarkable experimental archaeological resource for the purpose of verifying the seasons and routes by which sailors from the Levant could return to the Aegean countries.

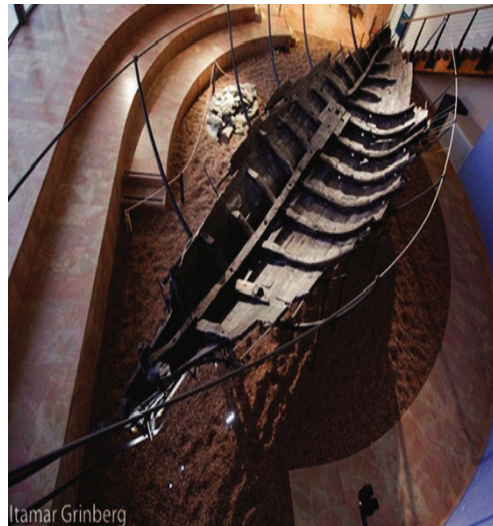
**Background.** The Ma'agan Mikhael ship was discovered in 1985, some 70 meters offshore Kibbutz Ma'agan Michael, by kibbutz member Ami Eshel as he was diving. What attracted his attention were ceramic shards and timbers which were protruding from the seabed. A preliminary investigation established that under about three meters of sand and water, an ancient merchant ship lay buried.

**The Excavation.** In 1988 and 1989, a team of marine archeologists and technical personnel from the Leon Recanati Institute for Maritime Studies excavated the site. They were joined by nautical archeologists from Israel and abroad. The overall project was directed by the late Dr. Elisha Linder, founder of the Institute for Maritime Studies and the Department of Maritime Civilizations at the University of Haifa, and the excavations were led by Jay Rosloff from Texas A&M University.

**The Finds.** A great portion of the hull was found to be extraordinarily well preserved, with its lower structure completely intact. It included the keel, many of its planks, 14 frames, the mast-step and other internal components of the hull. The anchor discovered near the bow is recognized as a rare design. It is made of oak, has one arm, and its stock is weighted with lead. The ship's cargo included 70 ceramic items, metal objects, and some 12.5 tons of decorative stones. A surprising number of organic materials were also found well preserved, including a large quantity of ropes, a small woven basket filled with carpentry tools, twigs, two wooden ornamental boxes, olive pits, grape seeds and barley.



**The numerous parts of the hull and the high quality of its preservation provide unique knowledge about the methods and means of construction of ancient merchant ships. The findings enable us to study the detailed work of the shipwrights, but there is still much to be learned.**



**The Conservation and Reassembly Process.** The waterlogged timbers were carefully extracted from the seabed, brought to the University, and treated in specially designed conservation tanks.

The seven-year long conservation and reassembly process led by the late Professor Yaacov Kahanov was completed in 1999. Now a featured exhibit at the Hecht Museum, the excavation and preservation project has generated three books and dozens of scholarly articles.

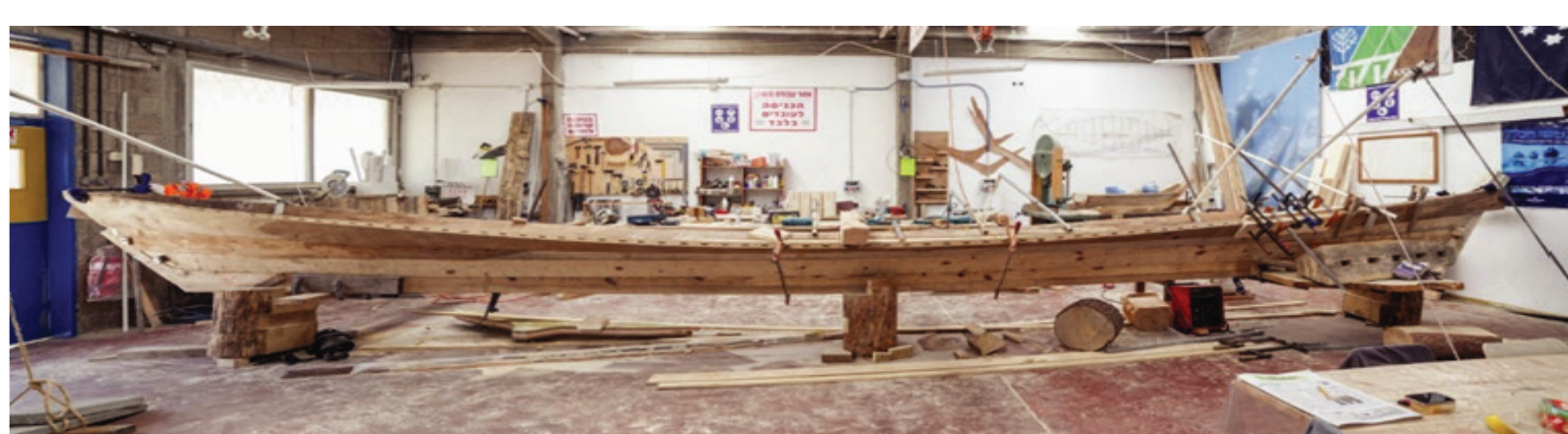
The project was made possible thanks to the generous support of Lord Anthony and Lady Evelyn Jacobs of London.

Additional supporters include the Israel Science Foundation, the Hecht Foundation, Sammy Ofer and the University of Haifa.



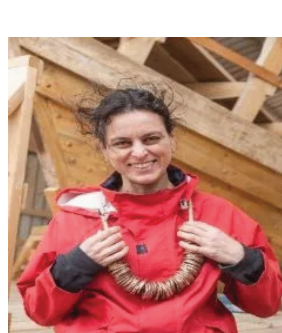
**The Replica Building Process.** Building the replica of this remarkably well-preserved trading vessel, and the reconstruction of the hull of the ship brought to life the ancient methods that were originally implemented by the ancient shipwrights. A team of University of Haifa researchers, graduate students and volunteers took part in the various aspects of the project. The entire project was headed by the late Professor Yaacov Kahanov from the Recanati Institute for Maritime Studies, University of Haifa, and conducted in cooperation with the Nautical College at Akko, the Israel Antiquities Authority and the Jewish National Fund.

The building of the ancient ship is consistent with the academic agenda of the University of Haifa, advancing basic and applied marine research and teaching.



Cooperation with the Nautical College at Akko added value to the project, while strengthening the northern region and coexistence in the diverse population of Akko.

The research project is positioning the Recanati Institute for Maritime Studies at the forefront of this specialized field, which includes similar projects in France, Cyprus, Denmark, and Norway.



**Prof. Deborah Cvikel** is a researcher at the Leon Recanati Institute for Maritime Studies, and a senior lecturer in the Department of Maritime Civilizations at the University of Haifa. She is the director of the Ma'agan Mikhael Replica Project. Her areas of research and teaching are maritime history based on underwater archaeology, seamanship and ship-handling, and ancient ship construction.

## Request for Support

The research project has attracted the generous support from our dedicated friends, including the late Mrs. Sara Arenson, founder of *Adam and Yam*, among the founders of the Department of Maritime Civilizations, together with her late husband, Avi Arenson.

The upcoming research expedition requires funding to support an escort ship, the onboard research crew and fuel for approximately eight weeks.



**We invite you to partner with us and our dedicated friends to support this unique maritime research project.**

**A total of \$1 million** is needed to enable the University of Haifa's research and marine teams to undertake this research expedition to Rhodes. Your support will enable our research teams to embark upon this fascinating expedition to retrace the maritime ties that existed thousands of years ago.

**Thank you for your kind consideration of this request**

