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Maritime Archaeology Periodical



TINA TURKISH UNDERWATER ARCHAEOLOGY FOUNDATION

FOUNDATION

Founded by a group of maritime-lover businessmen in 1999.

SCOPE

- ❖ To make the international society and scientists familiar with our abundant archaeological cultural heritage in Turkey and its seas. With this idea in mind, to make national and international publications, and organize conferences, panels, seminars, forums, symposiums, workshops, fairs, festivities, exhibitions, and artistic activities such as festivals, excursions and meetings.
- ❖ To support local and international scientific institutions, museums, and universities involved in activities of surveys, excavations, conservations and exhibitions under the approval and inspection of the Turkish Ministry of Culture and Tourism.
- ❖ To perform underwater surveys and excavations in our seas using scientific methods and current technological facilities under the approval and inspection of the Turkish Ministry of Culture and Tourism.
- ❖ To identify the archaeological artifacts lying underwater, reporting their whereabouts to relevant authorities for protection.
- ❖ To seek cooperation with the museums and institutions involved in the field and support their activities. To ensure enhancement of such museums and cultural activities, and take necessary steps to provide opportunities for new initiatives.
- ❖ To take necessary measures to prevent the pollution of our seas which becomes increasingly harder to fight back, ensure that such measures are taken, and cooperate with other institutions in this sense.
- ❖ To contribute to the educational and training institutions dealing with our scopes, and provide scholarships for dedicated students.

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PRESENTATION

UNRAVELING THE GLOBAL MARITIME HISTORY IS A SERVICE OF UTMOST SIGNIFICANCE FOR THE HISTORY OF HUMANITY

Being surrounded by sea on three sides, Turkey is one of the countries that possesses the richest underwater archaeological cultural heritage. It has always been a focus of interest by its archaeological assets, particularly the cultural heritage in the field of underwater archaeology. The most tangible evidence on this interest is the history of underwater archaeological explorations exceeding more than fifty years, and variety and quality of revealed findings. The most ancient underwater archaeological findings, unparalleled artefacts exhibited in museums, and abundant maritime history prove that it is one of the most important centers in the world. Unquestionably, behind this archaeological wealth there are world-renown competent scientists.

TINA (Turkish Foundation for Underwater Archaeology), reaching almost 15 years from the date of its foundation, aims to elucidate the world's maritime history and publicize the scientific studies in this field by publishing the works of scientists from all over the world working in the field of "underwater archaeology".

We hope that continuity and effectiveness of our journal will contribute to the targeted service initiative.

Oğuz Aydemir

*TINA Turkish Foundation for Underwater Archaeology
Chairman of the Board*

EDITOR

Greetings to everyone from the first issue of TINA Maritime Archaeological Periodical.

An excavation performed at Cape Gelidonya on the southern coast of Turkey 54 years ago helped us better imagine the advancement of humankind throughout the history. Being aware of the fact that it is possible to perform an archaeological excavation under the water similar to the land archaeology, the team carried out excavation of the world's oldest known shipwreck at that time. As of now, archaeologists around the world keep exploring the maritime history both underwater and on land.

Archaeological excavations performed throughout the years revealed Turkey's significant role in the world's maritime history. And in 1999 TINA (Turkish Underwater Archaeological Foundation) was established. The objective is to inform the world society and scientists about the abundant archaeological cultural heritage in Turkey and its seas.

TINA Maritime Archaeological Periodical

TINA Maritime Archaeological Periodical is a periodical which aims to provide scientific contribution through presenting information on the "maritime archaeological activities" performed around the entire world.

Our goal is to create a magazine that discusses the works of maritime archaeologists working at every corner of the globe. Our pages will cover maritime archaeological excavations, scientific projects, news, conferences held in this line of work, university programmes and scientific education in the field as well as the new technologies. Of course, this will become true with you, our colleagues. We invite you to the magazine that will be enriched in coverage with your contributions.

Chief Editor, Publisher

Mehmet Bezdán

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LİMAN TEPE

KLAZOMENAE HARBOR EXCAVATIONS



* HAYAT ERKANAL - VASIF ŞAHOĞLU - İRFAN TUĞCU

“İzmir Region Excavations and Research Project¹” was begun in 1992 with Urla/Liman Tepe Excavations led by Hayat Erkanal. Excavations have been ongoing since 2006 by Ankara University Research Center for Maritime Archaeology (ANKÜSAM)² that has now completed its institutionalization process. The project consists of four excavations on land, of which two were completed, two ongoing, and an underwater excavation.

The most extensive of these excavations takes place at Liman Tepe, İskele Quarter in the Urla District of the İzmir Province. Excavations at this site have revealed eight cultural layers to date. The site was inhabited continuously from the Chalcolithic Period³ through the Roman Period⁴ without interruption. The strong fortification system revealed at Liman Tepe dates to the 3rd Millenium BCE. The architectural structures reflect a presence of a central administrative authority, and the archaeological finds reflect relations with central Anatolian cultures, as well as with cultures from overseas countries, and suggests the center was one of the most important Aegean ports in pre-history⁵.

¹ İzmir Region Excavations and Research Project (IRERP) is coordinated and executed by Ankara University Research Center for Maritime Archaeology (ANKÜSAM). All the work performed within this scope is supported by the Ministry of Culture and Tourism of the Republic of Turkey, Ankara University Rectorate, Faculty Of Languages, History And Geography of the Ankara University, Turkish Historical Society, The Turkish Institute of Nautical Archaeology (TINA), Institute for Aegean Prehistory (INSTAP), INSTAP-SCEC, and Urla Municipality.

² <http://ankusam.ankara.edu.tr>

³ A stratified sequence is observed dating from the 5th Millenium BC to the Roman Period without interruption. Please see ERKANAL 1999 326.

⁴ For Liman Tepe stratigraphic sequence, please see ERKANAL - GÜNEL 1996 310; ERKANAL 1999, 326 vd.; GÜNEL 1999, 43, Tab 1; ŞAHOĞLU 2005, Fig 2

⁵ ERKANAL – ŞAHOĞLU 2012.

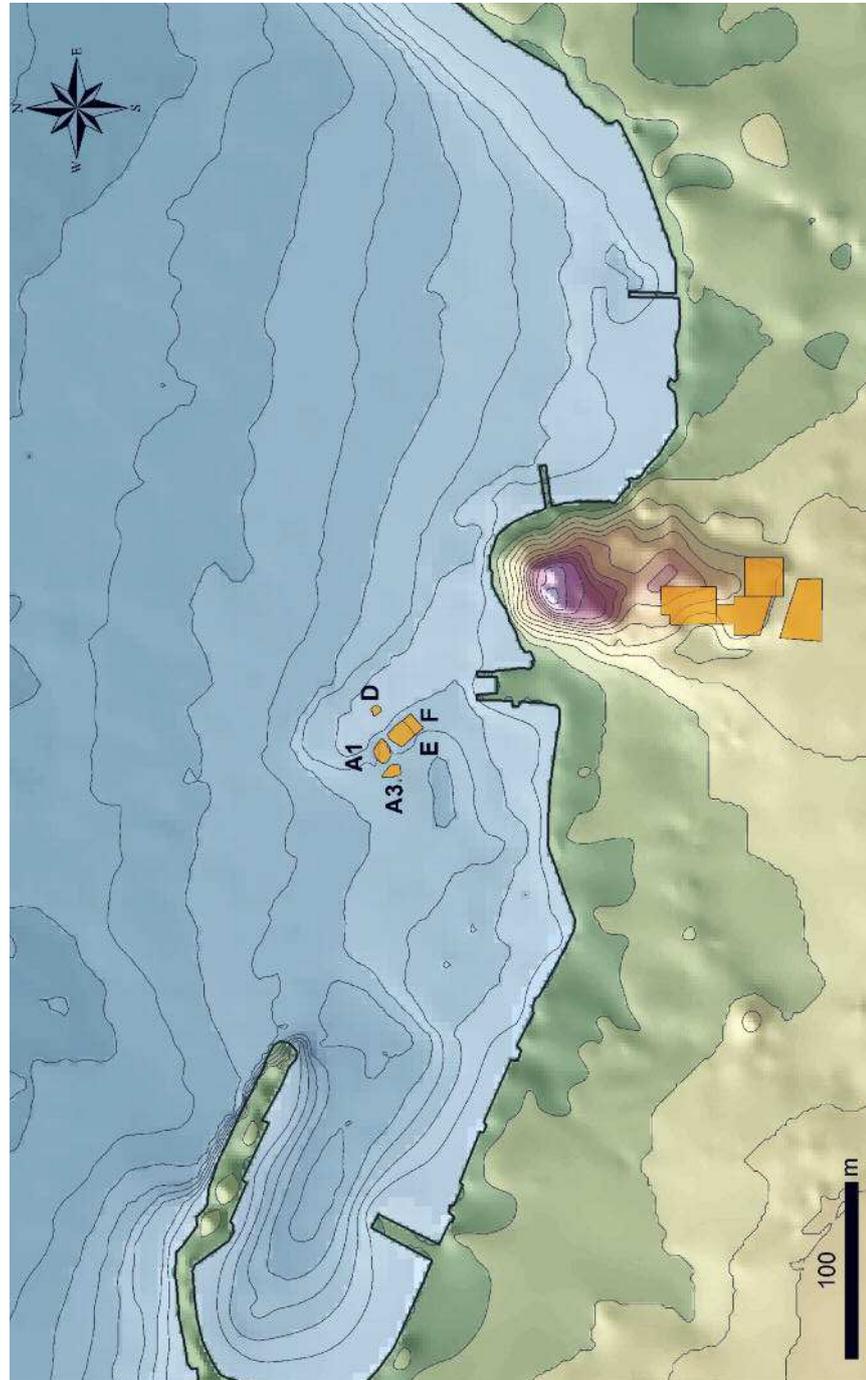


Fig. 1 – Topographical map of Liman Tepe showing the excavation areas.

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Fig. 2 – Aerial photo of Liman Tepe / Klazomenai showing the submerged breakwaters. (Photo: Hakan Çetinkaya)

Liman Tepe survived as Klazomenai throughout the Classical Era.

Upon discovery of various submerged architectural features just north of Liman Tepe in 1995 using aerial photographs, documentation of the remains were immediately initiated. Parts of the Bronze Age settlement were thought to have sunk due to tectonic subsidence⁶, but further research suggested that the architectural remains belonged to the facilities of an archaic harbor of Klazomenai. The joint underwater archaeological excavations of Ankara and Haifa Universities of the remains were carried out between 2000 and 2006. The underwater excavations and research has been continuing as an ANKÜSAM project since 2007.

The initial excavations focused mainly on the breakwater that encompassed the harbor. The breakwater structure is approximately 100 m long, and it has a width of up to 35 m. The advantages of using the breakwater were justified to a degree after the excavations

performed between 2000-2006 (fig. 1-2).

A trench of 10 x 10m was dug in area E, south of the breakwater, and within the limits of the harbor in 2007 for identifying the first construction and use phases of the harbor facilities encompassed by the breakwater. In 2012, a new trench immediately adjacent to the former was dug (area F) to expand the excavation area. These excavations were aimed at revealing the harbors stratigraphic sequence and continued through 2013, with more excavation plan for upcoming years⁷ (fig. 1-2).

The earliest construction date of the harbour facility may go back as early as late 7th century BCE. The harbour was intensively used during the Archaic Period (fig 3-6), then it may have been abandoned during the 5th century BCE, only to be intensively used again during the 4th century BCE (fig. 7).

⁶ ERKANAL – GÜNEL 1997, 248.

⁷ ERKANAL vd. 2010; ERKANAL vd. 2012; ŞAHOĞLU 2010.

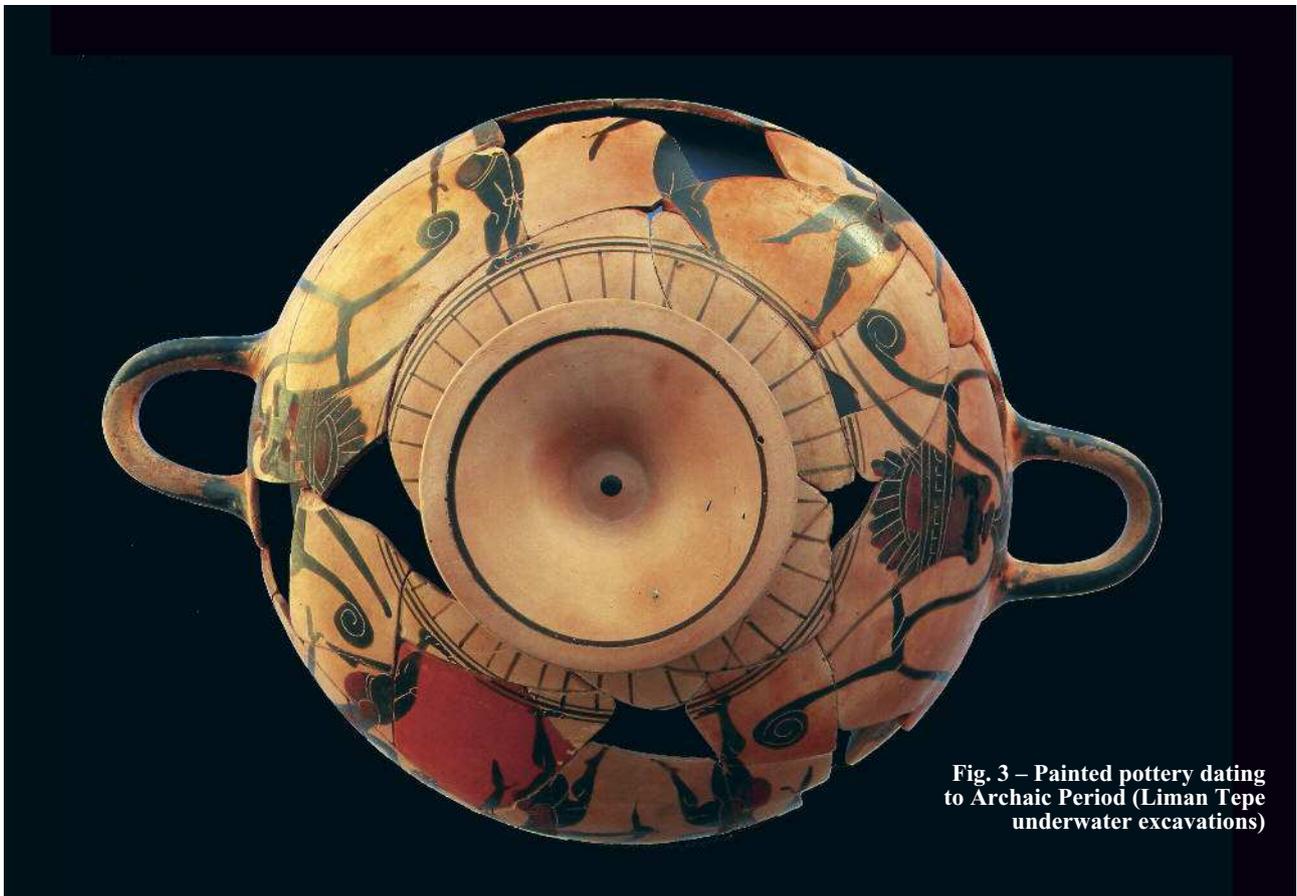


Fig. 3 – Painted pottery dating to Archaic Period (Liman Tepe underwater excavations)

Both 6th century and 4th century harbour floors have yielded particularly unique archaeological assemblages.

Considering the floor where Roman Period sherds that belong to large pithoi are revealed, three different periods of use were identified for the harbor. These pithoi sherds found, at Area A1, Area E, and Area F, were documented and temporarily replaced underwater for preservation.

All sherds were later brought to Area A1, enumerated, and reburied. After completion of the well-equipped restoration laboratory building on the new campus of ANKÜSAM (supported by TINA, the Koç Foundation and Urla Municipality), the sherds will be gradually taken out of the sea for necessary preservation and restoration work.

Due to the coastline formation, we focused on the possibility of a parallel construction breakwater. The potential area for a second breakwater was approximately 300 m west to the currently excavated breakwater of the Classical Period, in the area where the

modern Urla breakwater lies. Following evaluation of several aerial photographs, we identified the presence of a second breakwater with a large section left underneath the modern breakwater, and with similar features to the Classical period breakwater (**fig. 2**). The second breakwater is important for understanding the size of the ancient harbor. The coastline length encompassed by the two breakwaters is approximately 500 m. A harbor structure this size clearly reveals the maritime power of the ancient city of Liman Tepe / Klazomenai (**fig. 2**).

The harbour floors at Areas E and F date to the 4th and 6th Century BCE respectively and have yielded artifacts that were much better preserved compared to any site on land across Turkey. Although restoration and conservation of metal, wooden components and pottery take a considerable amount of time, they are all being performed in the laboratory of ANKÜSAM. Once the conservation and restoration processes are completed, we anticipate the artifacts to be displayed at the Archaeology Museum of İzmir.

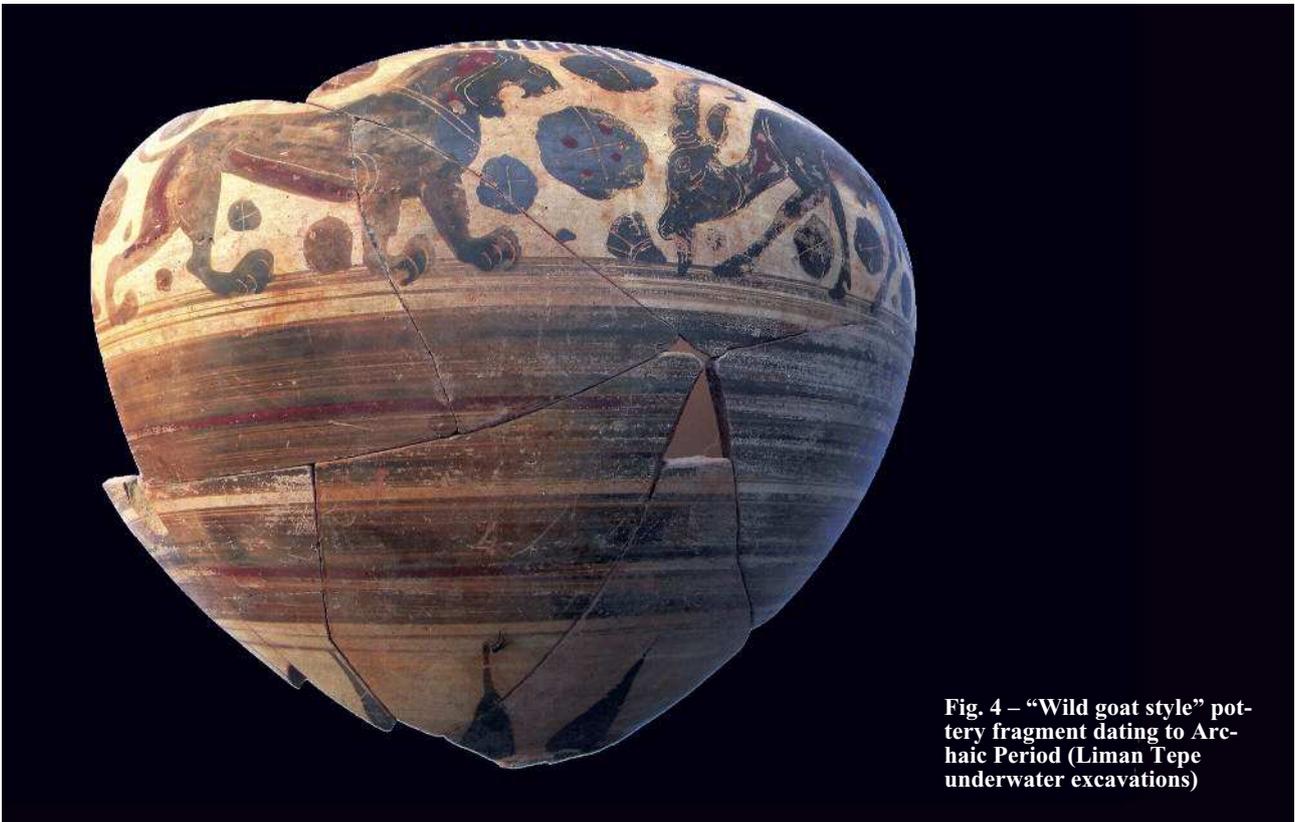


Fig. 4 – “Wild goat style” pottery fragment dating to Archaic Period (Liman Tepe underwater excavations)



Fig. 5 - Painted pottery dating to Archaic Period (Liman Tepe underwater excavations)



Fig. 6 – Perfume bottle in the shape of a warrior head with a helmet dating to Archaic Period (Liman Tepe underwater excavations)

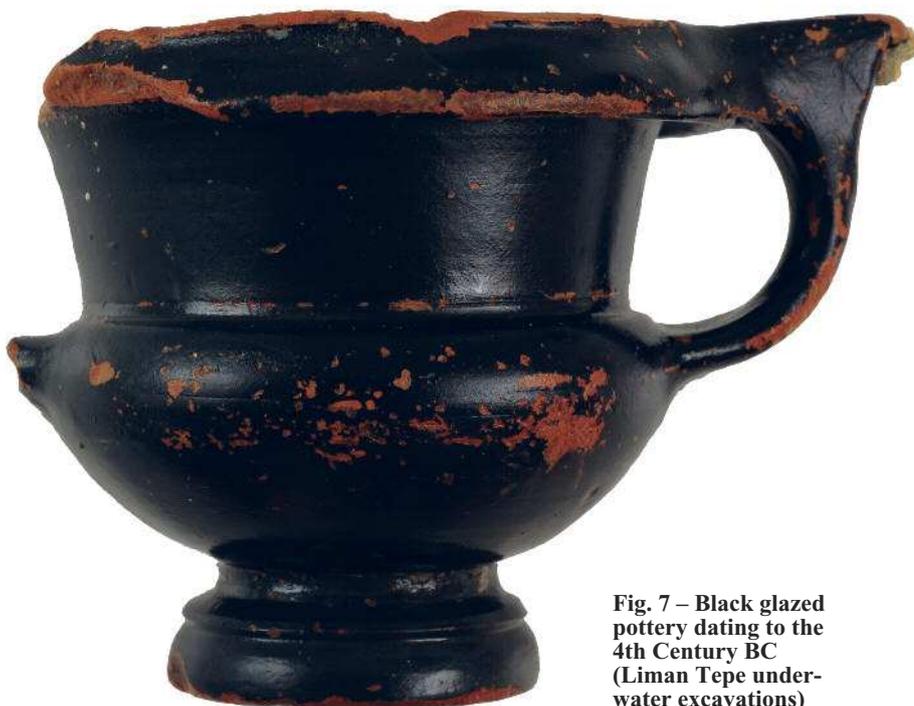


Fig. 7 – Black glazed pottery dating to the 4th Century BC (Liman Tepe underwater excavations)

Following completion of the construction for ANKÜSAM's Urla campus in 2014, the underwater research projects of Erythrai and Teos will be accelerated and continued under the auspices of the research center. We are currently planning to perform an excavation in one of the Ottoman Period shipwrecks recently identified as a result of the surveys in the area, and we are also planning on completing documentation of anchorage sites which were also found during underwater surveys. Geomorphological work performed in co-operation with McMaster University will continue in 2014 both on land and underwater, particularly in the area where the second breakwater was identified.

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