

# *LIMAN TEPE*

KLAZOMENAE HARBOR EXCAVATIONS



\* HAYAT ERKANAL - VASIF ŞAHOĞLU - İRFAN TUĞÇU

“İzmir Region Excavations and Research Project<sup>1</sup>” 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)<sup>2</sup> 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 Period<sup>3</sup> through the Roman Period<sup>4</sup> 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-history<sup>5</sup>.

<sup>1</sup> 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.

<sup>2</sup> <http://ankusam.ankara.edu.tr>

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

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

<sup>5</sup> ERKANAL – ŞAHOĞLU 2012.

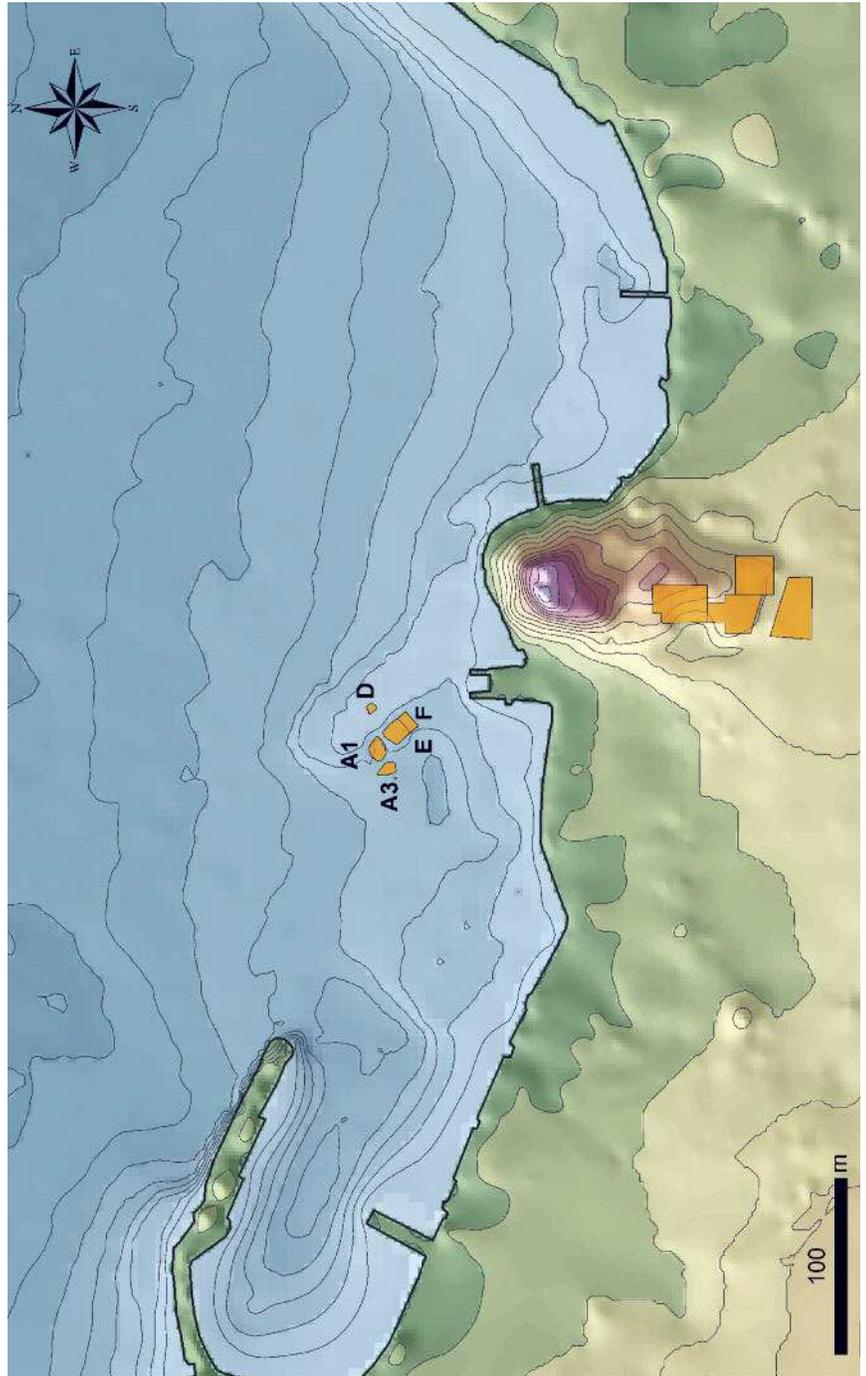


Fig. 1 – Topographical map of Liman Tepe showing the excavation areas.

\* Prof. Dr. Hayat Erkanal - Research Center for Maritime Archaeology (ANKÜSAM), Ankara University Harbiye Caddesi No. 2, Denizli Mahallesi, Çeşmealtı - Urla, İZMİR

Assoc. Prof. Dr. Vasif Şahoğlu - Research Center for Maritime Archaeology (ANKÜSAM) & Faculty of Language History and Geography, Department of Archaeology, Ankara University 06100, Sıhhiye, ANKARA

Research. Assist. Dr. İrfan Tuğcu - Department of Archaeology, Osmaniye Korkut Ata University, OSMANİYE.



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 subsidence<sup>6</sup>, 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 years<sup>7</sup> (**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**).

<sup>6</sup> ERKANAL – GÜNEL 1997, 248.

<sup>7</sup> ERKANAL vd. 2010; ERKANAL vd. 2012; ŞAHOĞLU 2010.

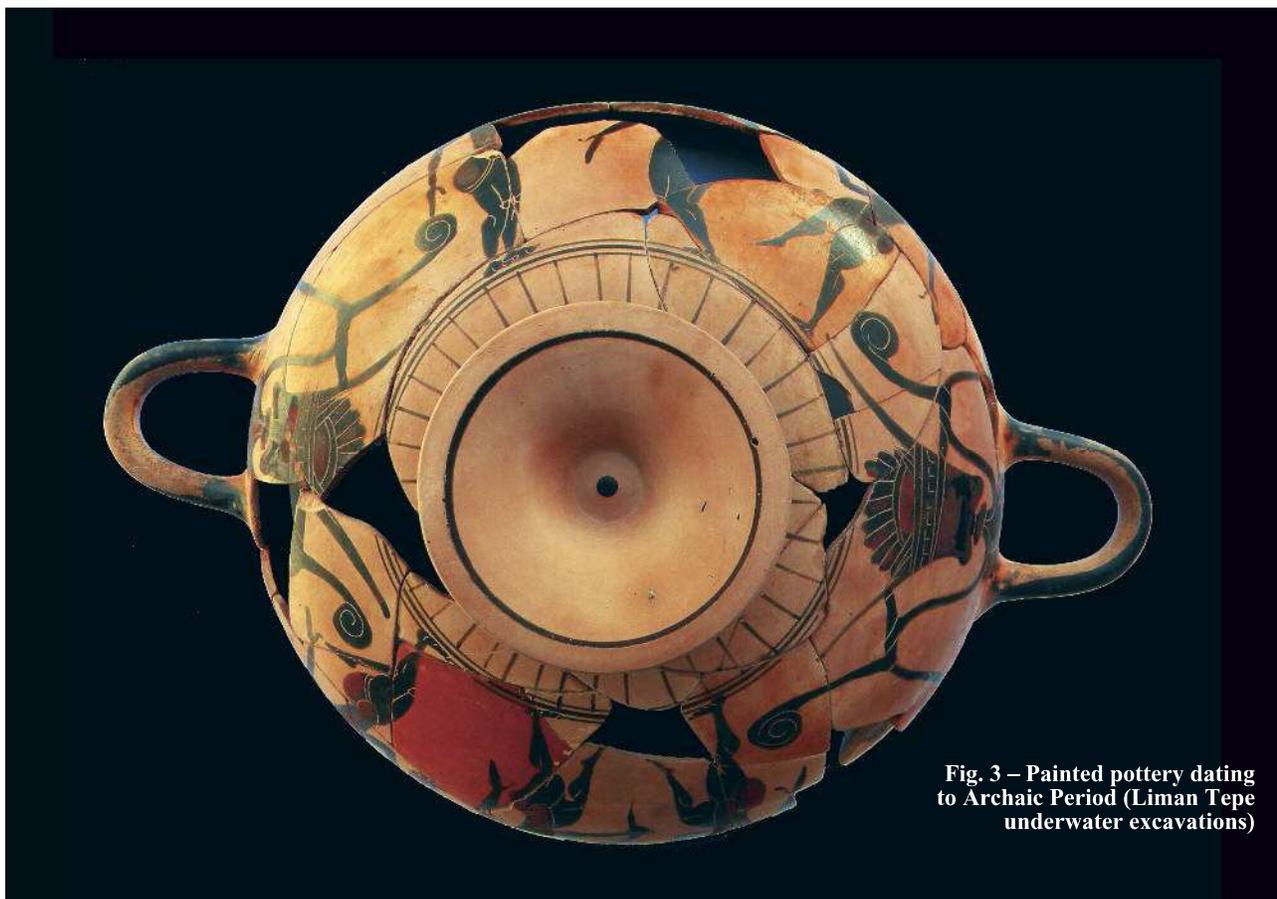


Fig. 3 – Painted pottery dating to Archaic Period (Liman Tepe underwater excavations)

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

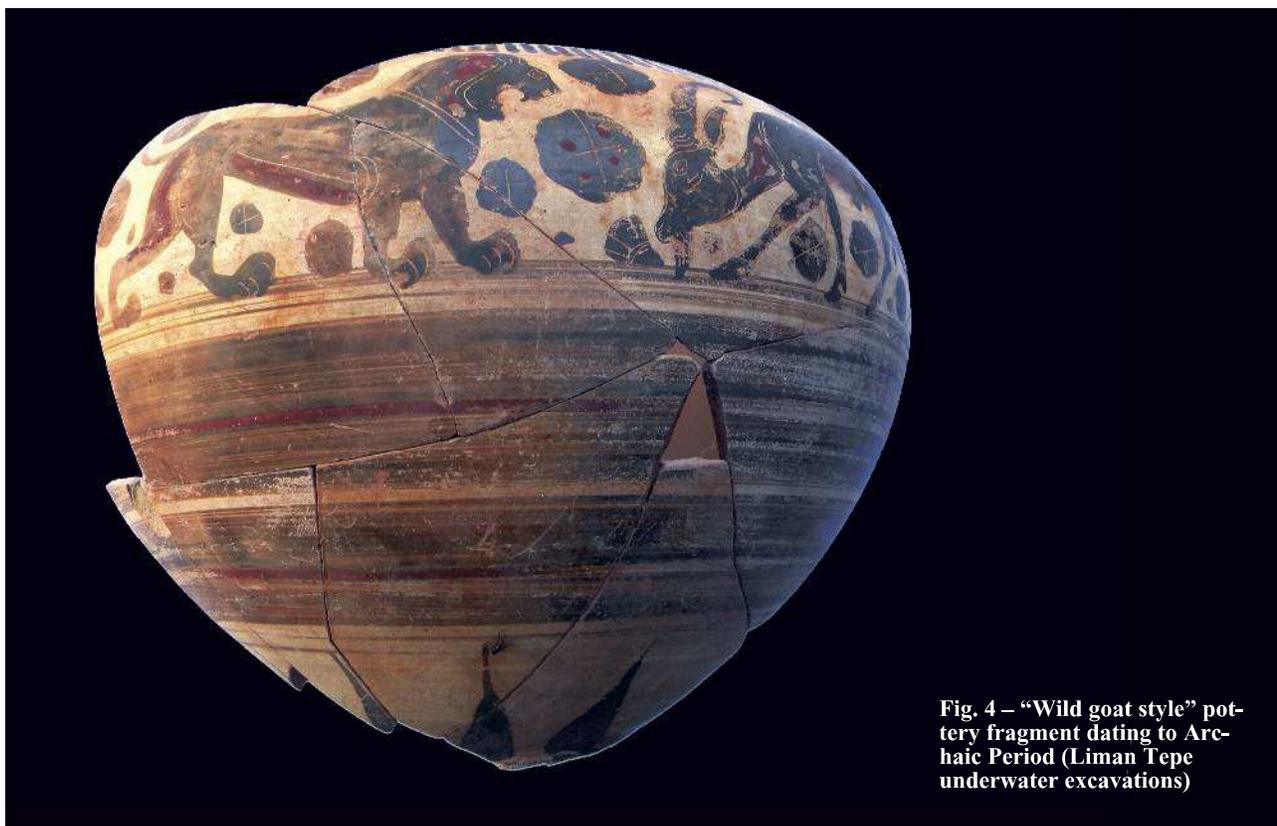
Considering the floor where Roman Period sherds that belong to large pithoi are revealed, three different periods of use were identified for the harbor. These pithoi sherds found, at Area A1, Area E, and Area F, were documented and temporarily replaced underwater for preservation.

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.

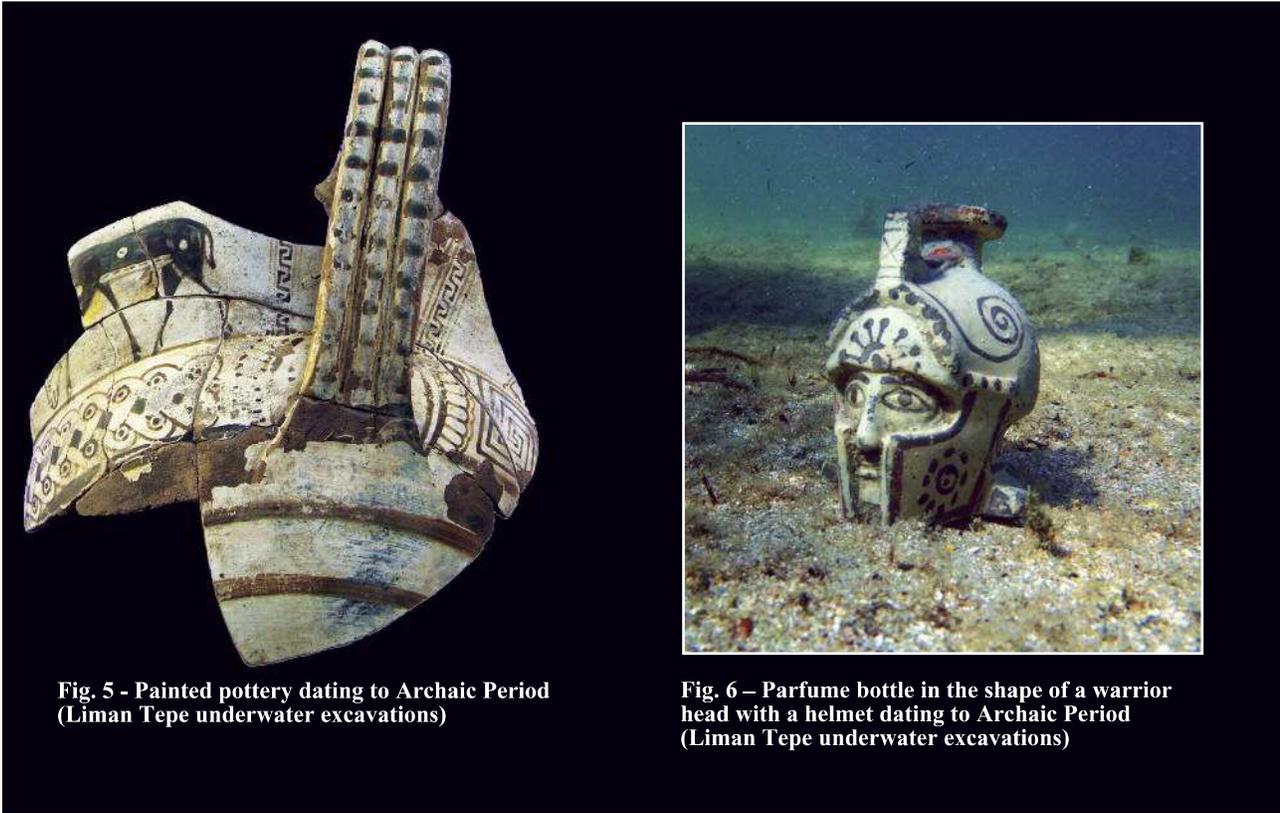
Due to the coastline formation, we focused on the possibility of a parallel construction breakwater. The potential area for a second breakwater was approximately 300 m west to the currently excavated breakwater of the Classical Period, in the area where the

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.

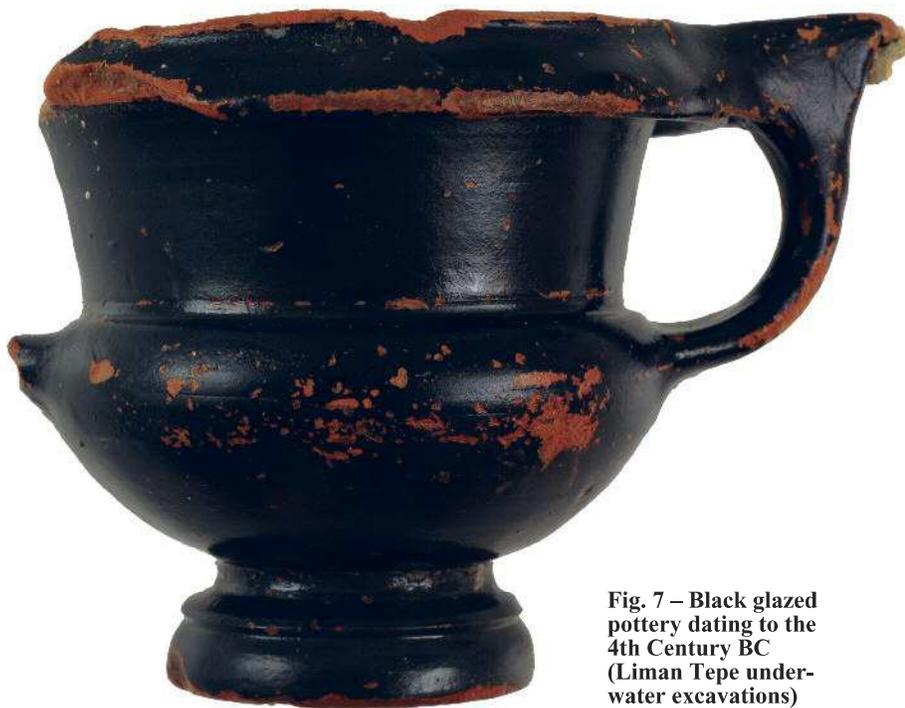


**Fig. 4 – “Wild goat style” pottery fragment dating to Archaic Period (Liman Tepe underwater excavations)**



**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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