



ARCHAEOMALACOLOGICAL REMAINS FROM ULUCAK, WESTERN TURKEY (IZMIR REGION): A PRELIMINARY REPORT

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ABSTRACT

This is a preliminary report of the archaeomalacological material analysis from the chalcolithic site of Ulucak, in Western Turkey. This study is limited to the presentation of the few shells given to us. The importance of this shell material cannot be discussed in detail as it represents a very small sample of the whole.

Regarding to the identification of the shells, bivalves and gastropods, belonging to different environments, are present. *Donacilla cornea* and *Cardium (Cerastoderma glaucum)* come from sandy bottoms, while *Murex trunculus* and *Conus mediterraneus* come from rocky environments. They are probably dietary remains and their significance in the nutrition has to be examined.

The general economic patterns at Ulucak are actually quite different from those of the past already known Anatolian and Aegean sites. A detailed comparison with prehistoric coastal sites in Anatolia and Greece is necessary in order to interpret the Ulucak remains. This will be a subject to be discussed in the final publication of the material.

INTRODUCTION

Shells found in excavations provide information on the habits and everyday activities of the inhabitants of a settlement. For example, shells found in large quantities are associated with food residues, where it is reasonable to

assume consumption of large number of mollusks. On the contrary, those found in smaller quantities were normally used for making objects. As with all archaeological finds, the state of preservation of molluscs varies, depending on the closer and wider environment

of their discovery. Molluscs constitute a sensitive material and such finds should be treated, in the same way as other categories of environmental remains of an archaeological nature. Examination of the malacological material from an archaeological site is not confined to identifying and classifying the species but its importance lies in the scholar's attempt to place man in his actual space of action (for a complete study regarding malacological material from archaeological sites the reader is referred to Karali 1999).

The archaeological evidence on molluscs in the diet of prehistoric man is incomplete because there are few full studies of the malacological material from sites, especially in Western Turkey. In the Neolithic period molluscs were evidently an important dietary supplement as borne out by the large quantities in which they were found (in the cases that malacological studies were conducted). This was not the case only for Greece but also for Turkey: At Kumtepe A oysters seemed to be one of the main components of diet.

The Phylum Mollusca, the second largest phylum in the Animal Kingdom, comprises some 100,000 living species as well as thousands of extinct ones. There are five main classes of mollusks, three of which are commonly called "shellfish" in English; these are the Gastropoda (univalves – snails, etc.), the Bivalvia or Pelecypoda (bivalves – oysters, mussels, etc.), and the Polyplacophora or Amphineura (chitons) with eight overlapping plates along the back. Since the first two classes of shellfish mentioned are frequent in the intertidal zones and in shallow water communities of coasts and estuaries they make by far the greatest contribution of all mollusks to human diet.

Some living kinds of shellfish are represented in fossil form in Palaeozoic rocks, and given the relative stability of closely related molluscan faunas in the geological record it is reasonable to assume that shellfish communi-

ties substantially similar to those of the present day formed part of the littoral environment throughout the period of early human evolution. Whether or not early man exploited this resource is still a matter of debate, as is the hypothesis that there was a major economic concentration upon shellfish towards the end of the Pleistocene and in early Holocene times.

In his struggle to adapt to the environment man endeavored to satisfy that triad of basic needs defined by Plato and Aristotle (Politics, A8, 1256a, 18 – 1256b, 7): food, shelter and clothing (της τροφής της οικίσεως και της εσθήτος). The contribution to archaeology of the study of palaeoenvironmental remains – among them those of mollusks – lies in the interpretation of these three needs (without of course neglecting the interpretation also of concepts and beliefs).

There is abundant malacological material in the Aegean area, mainly on account of its geographical location. The findings from its study constitute important information on man's way of life and facilitate the archaeological interpretation of diverse sectors, such as fishing, diet, tools, jewellery, building materi-

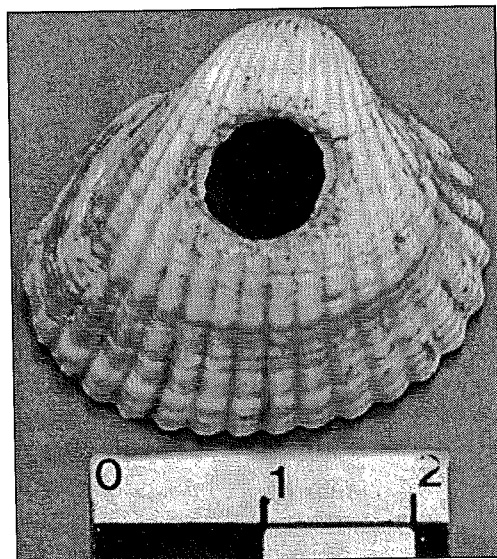


Fig. 1: Seashell from Ulucak.

al, fillers / tempers, burial habits, toys / games, symbolism, artistic representation.

The Aegean people's involvement with the sea has a long and fascinating history. As far as fishing is concerned, study of the aggregate of remains provides valuable information on man's technological progress, choices and conceptions. Since the equipment required for fishing or collecting mollusks depends on the habits and habitat of each species, an assemblage of fishing tackle (e.g. special vases, tools such as harpoons, blades, knives) and shells of

mollusks which live in deep waters (e.g. triton), indicates the use of cultural development and man's relations with the sea and seafaring are revealed.

This paper is a preliminary report of the archaeomalacological material analysis from the chalcolithic site of Ulucak, in Western Turkey. No information was provided regarding the sampling from Ulucak and the recovery techniques of the shell remains, the detailed chronology of the excavated levels and the associated archaeological material. This

Stratigraphy	Species	State of preservation	dimensions
DOE, Deniz Kabugh (Va)	<i>Murex trunculus</i> Linné	1 complete specimen	H:80mm W: 55mm
DBM, Deniz Kabugh (IV)	<i>Cerastoderma glaucum</i> Poiret	Fragment	24 x 12mm
DBL, Deniz Kabugh (IIb2)	<i>Cerastoderma glaucum</i> Poiret	Fragment	29 x 12mm
DFV, I, tabaka (Deniz Kabugh)	<i>Cerastoderma glaucum</i> Poiret	3 complete ones	30 x 30mm
			18 x 11mm
			10 x 12mm
		2 fragments	22 x 24mm
			11 x 11mm
DAT, Deniz Kabugh (IIb1)	<i>Cerastoderma glaucum</i> Poiret	2 complete	34 x 28mm
			25 x 22mm
		2 fragments	34 x 33mm
			22 x 24mm
DKJ, Deniz Kabugh (IIIc)	<i>Cerastoderma glaucum</i> Poiret	almost complete	40 x 35mm
DIM, Deniz Kabugh (Va)	Valve fragment	1	33 x 13mm
DOP, Deniz Kabugh (Vb)	Valve fragment	1	31 x 23mm
DRA, Deniz Kabugh (Vb)	<i>Conus mediterraneus</i> Bruguière	almost complete	17 x 10mm
	<i>Donacilla cornea</i> Poli	complete valve	20 x 7mm
	Gastropod	fragment	28 x 12mm

Table:1 Seashells from Ulucak, Izmir.

study is limited to the presentation of the few shells given to us (Fig. 1). But the importance of this sample lies on the fact that it is a part of a Greek – Turkish scientific collaboration.

The identifications were conducted by using the relevant literature and the comparative collection of the laboratory of Environmental Archaeology (The University of Athens, Faculty of Philosophy, Department of Archaeology), created by L. Karali.

RESULTS & DISCUSSION

The results obtained are presented in the following table 1. The importance of this shell material cannot be discussed in detail as it represents a very small sample of the whole.

Regarding to the identification of the shells, bivalves and gastropods, belonging to different environments, are present. *Donacilla*

cornea and *Cardium* (*Cerastoderma glaucum*) come from sandy bottoms, while *Murex trunculus* and *Conus mediterraneus* come from rocky environments. They are probably dietary remains and their significance in the nutrition has to be examined. The site is today 25 km away from the shore. The location of the site has to be examined in order to understand how these seashells came to Ulucak. What do they represent, are they a part of the everyday food consumption?

The general economic patterns at Ulucak are actually quite different from those of the past already known Anatolian and Aegean sites. A detailed comparison with prehistoric coastal sites in Anatolia and Greece is necessary in order to interpret the Ulucak remains. This will be a subject to be discussed in the final publication of the material.

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