A Prehistoric Stone Axe Production Site in Turkish Thrace: Hamaylitlarla

Onur Ozbek
Institut Francais D’Etudes Anatoliennes, Istanbul, Turkey
ozbekonur@yahoo.com

ABSTRACT – Hamaylitlarla is a prehistoric, polished stone axe production site, situated on a low hill dominating the Aegean Sea and the straits of the Dardanelles. This site is also a settlement yielding early Neolithic ceramics. The researcher gives brief information on his preliminary observations on the mound and its situation according to the rock outcrops in the region. In this paper, the first results of the petrologic analysis of the metamorphic rocks are also presented.

IZVLEČEK – Hamaylitlarla je prazgodovinsko najdišče, kjer so izdelovali glavne kamnine sobe. Leži na nizkem hribu, le še dvajseto mestegom morjem in cisto Dardanel. Na najdišču je tudi naseljena z zgoljenjevanjsko keramiko. V členku pravdno podajamo preliminarne rezultate o najdišču in njegovem položaju glede na površinsko razredbovanje metamorfih kamenov v regiji. Predstavljamo tudi prve rezultate petroškega analiziranja kamnin.

KEY WORDS – Thrace; prehistory; polished stone axe production; chaine-opératoire; axe blanks

INTRODUCTION

As in other early agricultural societies in Europe, polished stone axes also played an important role in the development of Neolithic societies in eastern Thrace. Despite the fact that much work still remains to be done on this subject, following the recent discovery of three prehistoric stone axe production sites in Thrace, the author intends to give information on one of them which is called Hamaylitlarla.

The existence of the preferred source of metamorphic rock outcrops on the mountainside of Ganos (Sarkov) overlooking the Marmara Sea, was quite sound for the grouping of the three prehistoric sites. A two-year archaeological-geological fieldwork project, which began in 1997, provided us information about the extent and limits of the quarry sites and metamorphic rock outcrops profitable for the production of stone axes. Situated at a strategic position like the Gelibolu Peninsula1, the diffusion of stone axes from the three prehistoric production sites of Fenerkarafutar, Yartarla and Hamaylitlarla (Burun) (burun) would not have been so difficult. In this paper, we intend to give information about the preliminary results of our surface surveys of the early Neolithic2 site of Hamaylitlarla and its environment.

Being one of the earliest Neolithic sites in this region, it is probable that Hamaylitlarla will shed light on roughout manufacturing knowledge in the production of stone axes.

1 See Öndögaj (1986) for the first archaeological field surveys and its results concerning this region.
2 For a detailed discussion of the relative chronology of the site of Hamaylitlarla and the related sites in the same region, see Endo in this publication.
The locality and its regional context

The site of Hamayliyarla is situated 14 km West of Sarköy, a small town on the Marmara coast, near the town of Tekirdag. Before our first visit to the site in the spring of 1997, this place was only known as a flat mound, namely "boynık", yielding ceramic finds. The following year, after we had begun sourcing studies on the same area, we were able to locate outcrops of metamorphic rock. This led to sample collecting for a petrologic analysis on a 225 km² area.

It is worthwhile taking into consideration that the region is under close examination by specialists on tectonic bases with regard to seismic activity. Thus, we can say that the geological surveys that were slowed down in the last 20 years could fit the picture of a "typical" ethnographic and archaeological model of a raw material extraction site, as we are familiar with from New Guinea and Europe. However, it was rather interesting to realise that such localities was pointless given the plentiful occurrences of the raw material not very far from the site (Fig. 2). The raw materials near the sites were in the form of boulders sliding from the slopes of the hills of Sarika-yalar. Thus, to put it briefly, only a kilometre from the site, one could easily reach the amount of rocks one needed. Nevertheless, the distance between the outcrops of metamorphic rocks and the site was about 5 km.

**DESCRIPTION OF THE ARTEFACTS**

According to our laboratory analyses the material of the polished stone axes was of a single type of rock: metamudstone. The occurrence of the metamorphic outcrops on the slopes of Ganos Mountain was not abundant, despite some of the outcrops on a limited number of loci. On some

---

5 The site was already under protection by the local museum thanks to the efforts of M. Alık İsin, the director of this museum.
6 As this paper is not intended to discuss the petrologic analysis carried out on the samples obtained from the potluted quarry sites in the region, the author gives brief information on the matter. See Özbek and Erol in press for the petrologic analysis.
7 See mainly Pétrequin and Pétrequin (1993) for a general assessment of the rock outcrops on the slopes of Ganos Mountain.
8 The term "axe" is used here in a general sense, putting the axes and the adzes in one group: wood-working implements, whether they are used for tree felling or in carpentry in the settlements.
parts of these inclination surfaces, one could easily notice the presence of metabasites as boulders, some weighing 1 kilogram and some 100 kilograms.

The Hamayltitar production site seems to cover an area of 400 m², while the mound seems to spread over a 120 x 120 m field. We collected many roughouts, flakes, hammers and blocks from the locality, and following our laboratory analyses, we saw that they were of the same material.

As the mechanical properties of the stone played a big role in the production technique, what we observed was the intense practice of knapping and pecking. According to our experimental studies, we can say that with this raw material it is very difficult to orient any of the edges of an axe model. As the rock itself had no orientation in either the macro or micro (mineralogical) basis, it was also impossible to expect to obtain roughout blades right after the flaking process. The makers of these roughout axes also had no chance to saw the material. On the contrary, it is sound to say that pecking would take less time than sawing this rock.

One can say at first glance that the forms of the roughouts (Figs. 3, 4) reflect a close resemblance to the Lower Paleolithic quartz hand axes in general.

**Axe roughouts**

Their weights vary from 400 grams to 1000 grams. Most of them are waste material, as they were probably broken during the production stage (Fig. 3). If we take into account their mean sizes, we can estimate that they were planned to be 20–25 centimeters when finished. Most of them should be regarded as roughouts of big axes, rather than symmetrical axes. Their cutting edges were left untouched after being flaked, and never pecked.

**Hammers**

Their weights vary from 150 grams to 800 grams. They are usually broken axe roughouts, transferred to hammers after they were broken. We did not see any of the sphere shaped hammers we came across at the other sites.

**Flakes**

The flakes are 50 to 200 gram pieces, and very difficult to notice during the collecting of the material (Fig. 3.5, Fig. 4.1). The quantity of flakes collected on this mound is also too small to make a statistical analysis.
is evident from the many studies held in different parts of the world with many different cultural contexts\textsuperscript{7}, the forms of axes do not change much with time. However, it is interesting to note that the finished axe material of the neighbouring excavated Neolithic site of Hoca Çeşme bears a close resemblance to the Hamaylitlar material, according to petrological analysis. The 20–25 cm (1242 gr.) long forms unearthed from this prehistoric mound generally fit the planned models of the Hamaylitlar roughouts in weight and in shape.

We expect that it will be possible to make a broader study of the region in the future. In addition, we will have more information about the paleogeography and geology of the Gelibolu Peninsula. This project will also increase our databases on the Neolithic settlements in the area.

\textbf{ACKNOWLEDGEMENTS}

\textit{The author wishes to express his thanks to the director of the Tekirdag Museum, M. Akif Isin, for providing logistic support and for his active interest in our study. The survey team, headed by Onur Ozbek, were M. Akif Isin, Burcu Erdogu and Kesan Erol. Above all, our thanks are especially due to Marie-Claire Cansis and Mehmet Özdoğan for encouraging the realization of this study.}

\textbf{CONCLUSION}

The dating of our material is one of the most important problems in this study. As we could not open test trenches or start an excavation on the site due to the lack of an excavation team and sponsor problems, we can not discuss the material in a stratigraphic context for the moment. However, in the near future, we await a multinational excavation on the site.

We would like to express the fact that it is unwise to expect great help from typology in 'axe studies'. As

\textsuperscript{7} It is worth mentioning the studies by Buret (1985) of the Neolithic sites of Switzerland, and Moundera-Agrafioti on the Neolithic sites of Greece (1981).
REFERENCES


171