



INSTITUTE OF ARCHEOLOGY
AND ART HISTORY OF ROMANIAN
ACADEMY CLUJ-NAPOCA



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JOURNAL OF ANCIENT HISTORY
AND ARCHAEOLOGY

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No. 11-1 / 2024

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DOI: <http://dx.doi.org/10.14795/j.v10i4>

ISSN 2360 266x
ISSN-L 2360 266x

Design & layout: Francisc Baja



EDITURA MEGA | www.edituramega.ro
e-mail: mega@edituramega.ro

LIFE ACTIVITIES IN THE REGION IN THE NEOLITHIC, CHALCOLITHIC, AND BRONZE AGES IN THE LIGHT OF THE STONE TOOLS FOUND IN THE ORDU AND SINOP MUSEUM

DAVUT YİĞİTPAŞA

Ondokuz Mayıs University, Samsun
davut.yigitpasa@omu.edu.tr

AYNUR YAĞCI

Ondokuz Mayıs University, Samsun
aynuryagci52@gmail.com

Abstract: Through short-term excavations carried out in the settlements of Dündartepe, Kaledoruğu, and Tekkeköy in Samsun, significant data has been gathered regarding the prehistory and protohistory periods of the Central Black Sea Region. The study involved comparing stone tools found in the aforementioned sites to those found in Sinop/Kovuklukaya Mound, Sinop/Maltepe Mound, Ordu, and Sinop Museums, to classify and evaluate their typology and functionality. Additionally, this study has contributed to the identification of stone tools, the determination of their types, usage areas, and dating. The main sources of livelihood for these settlements during the Late Chalcolithic Age were primarily animal husbandry, followed by agriculture. Stone tools were widely used, but metal tools were also employed in vital activities, despite their scarcity. The finds examined included stone axes, arrows, ceremonial axes, hand stones or mortars, and cutting tools. The finds were generally dated to the Neolithic, Chalcolithic, and Bronze Age ranges. Notably, although no Neolithic settlements had been identified in the Black Sea Region previously, the Neolithic finds from this study may indicate that the region was inhabited during this period. Formun Üstü

Keywords: *Ordu Museum, Sinop Museum, Stone Tool, Stone Axe, Cutting Tools.*

DOI: 10.14795/j.v11i1.1004

ISSN 2360 – 266X

ISSN–L 2360 – 266X

INTRODUCTION

The prehistoric periods of Ordu Province have been primarily studied through research conducted in Ünye-Cevizdere Location and Yüceler Village¹. Stone tools discovered on the benches in Yüceler Village, which date back to the Paleolithic Period, are particularly significant as they represent the first such finds on the Black Sea coast².

Excavations conducted by K. Kökten in the caves around Yüceler Village, located east of the Ünye District of Ordu Province in 1944–45 and along the Ünye-Cevizdere River in 1963–64, uncovered skeletal fragments of humans and domestic animals, which are believed to date back to the Middle and Upper Palaeolithic Periods³. Additionally, large flake scrapers, end scrapers, round scrapers, and blades, as well as a flint hand axe from the Lower Palaeolithic Age, were discovered. These findings indicate that the earliest

¹ KÖKTEN 1962, 275–276.

² KÖKTEN 1962, 276 (Levha I–II, 277–278).

³ KÖKTEN 1962, 275–276.

culture in the region belongs to the Lower Palaeolithic Age and represents the oldest archaeological finds on the Black Sea coast, establishing that settlement history in the region dates back to the Lower Palaeolithic. The existence of the Middle Palaeolithic Age is also evidenced by discoveries at Tilkikaya Mevkii and Cıngırt (Cınkırt) Rock⁴ near Ünye. Flint finds obtained from drilling at the Ünye Tozkoparan Mevkii was dated to the Upper Palaeolithic period (40,000–12/10,000 BC)⁵.

As is well known, the Black Sea region is an important point for the elucidation of cultural relations with southern Russia, Crimea, and especially the Caucasus. A few biface tools of the Acheulèn, Abbevillien and Micoquien types found on river banks around Samsun and Ordu in the coastal areas or Bayburt and Kastamonu in the south of the Northern Anatolian Mountains suggest that at least the first humans traveled as far north as Anatolia⁶.

The “Neolithic Revolution” theory, which emerged in the 1940s and 1950s, suggested that Mesopotamia was the birthplace of a prehistoric civilization and that this civilization spread from Mesopotamia to other regions⁷. Lloyd, Bittel, and Orthman claimed that the areas south of the Taurus Mountains were inhabited since the Early Bronze Age (3000 BC)⁸. Burney argued that there were no Neolithic settlements in Northern Anatolia except Thrace⁹. Dönmez indicated that no archaeological evidence that can be dated to the Neolithic and Early Chalcolithic periods was found in the Central Black Sea Region¹⁰. Özgüç suggested that the Central Anatolian Chalcolithic period should be pushed to an earlier date¹¹. In addition, the absence of Neolithic settlements in the Central Black Sea Region implies that these assumptions need to be questioned. One of these assumptions is that Neolithic settlements were covered by dense vegetation in the region. Another idea is that the settlements belonging to the Neolithic period, especially on the plains, might have been submerged under alluvial fill due to some geomorphological factors¹². According to this theory, which is also associated with Noah’s Flood, the water level of the Black Sea suddenly rose 8,400 years ago and submerged the settlements¹³.

Between Sinop and Cide, a Neolithic settlement (site 82) has been identified, which is claimed to be a submerged Neolithic settlement¹⁴. Furthermore, M.A. Işın states that there may be a Palaeolithic center in Inceburun in his recent studies¹⁵. The excavations and surveys conducted between 1953–1987 revealed Chalcolithic centers such as Kabalı Höyük, Kıran Höyük, Kocagöz Höyük, Maltepe Höyük, Çimbektepe, Halil Usta Tepesi, and Sarımustafa Tepesi¹⁶.

The excavations of Kocagöz Höyük were started by A. Erzen in 1953, where pottery and stone tools dating to the Early Bronze Age were found together with a Chalcolithic Age settlement¹⁷. One of the most important settlements for the archaeology of Sinop is Boyabat/Kovuklukaya. Pottery dating to the EBA and similar to Samsun İkiztepe samples and traces of metal use dating to the 3rd and early 2nd millennium BC are among the important data¹⁸.

The finds made of stone in the Chalcolithic Age level of Samsun/Tekkeköy Tütün Tarlası are very numerous. Flat axes, mace heads, two or three-faceted, retouched or unretouched silex, obsidian knives, hand mills, terracotta weights and spindle whorls, hammers, and hoes made of deer horn are among the other finds¹⁹. Finds belonging to other Chalcolithic Age settlements are recovered from excavations such as Dündartepe, Horoztepe, İkiztepe in Samsun, Deliklitepe and Kürkürün Tepe Mound²⁰ in Samsun, Amasya, Ordu, and Tokat provinces and Ch. Burney’s surveys in the Central and Western Black Sea Region²¹. The presence of the Chalcolithic Age at Samsun/Kaledoruğu has also been accepted by the excavation head²², and Thissen states that the finds belonging to the EBA level are contemporary with the Copper Age of Dündartepe, i.e. the LCA²³. The “Culture Level II” of Tekkeköy was labeled as Copper Age by the excavators²⁴, while Thissen pointed out the presence of the Late Chalcolithic Age²⁵.

The settlements in Ordu/Mesudiye and Kumru Districts were intensively inhabited during the Chalcolithic Age but were abandoned at the end of the EBA²⁶. It is emphasized that Mesudiye and Kumru Districts are the settlements that show a transition feature by connecting Central Anatolia to the Black Sea²⁷.

TYPOLICAL INVESTIGATION OF NEOLITHIC AGE WORKS

In this study, there is one stone ax representing the Neolithic Age in Ordu Paşaoğlu Mansion and Ethnography and Sinop Museum. The axes, which emerged as an advanced product of ground stone technology in the Neolithic Age, the choice of raw materials used in production, and the variety of sizes and shapes reveal that axes have versatile uses²⁸.

Flat Stone Axes (Celt)

Axes are tools that mankind has not dropped for millions of years. It has been determined that ground stone axes have been used in almost all Prehistoric and Protohistoric

⁴ EROL 2013.

⁵ MELLINK 1966, 141; ÖZSAİT 2000, 35.

⁶ YALÇINKAYA ET AL 2009, 19.

⁷ ÖZDOĞAN 1996, 187–188; ÇALIŞKAN AKGÜL/DİNÇER 2021, 1–6.

⁸ LLOYD 1956, 53–54; BITTEL 1950, 16–17; ORTHMAN 1963.

⁹ BURNEY 1956, 189.

¹⁰ DÖNMEZ 2004a, 66.

¹¹ ÖZGÜÇ 1945, 357.

¹² DÖNMEZ 2000, 29.

¹³ RYAN 2007, 63–88; ÇALIŞKAN AKGÜL 2016, 14.

¹⁴ BALLARD *et al.* 2001, 607–623. For the research questioning whether there is a Neolithic settlement, see. DURING 2008, 21.

¹⁵ İŞİN *et al.* 1992, 7.

¹⁶ UMAR 1993, 342.

¹⁷ ERZEN 1956, 72; KOÇAK 1993, 18.

¹⁸ DÖNMEZ 2004, Fig. 9 Pls. 1–12.

¹⁹ KÖKTEN/ÖZGÜÇ/ÖZGÜÇ 1945, 361–400.

²⁰ YİĞİTPAŞA 2013, 339–358.

²¹ ÖZSAİT 2000, 35–36.

²² KÖKTEN/ÖZGÜÇ/ÖZGÜÇ 1945, 390.

²³ THISSEN 1993, 220.

²⁴ KÖKTEN/ÖZGÜÇ/ÖZGÜÇ 1945, 386–387.

²⁵ THISSEN 1993, 220.

²⁶ ÖZSAİT 1992, 357–376; 1993, 312–315; 1994, 285–300; 1995, 459–482; 2002, 191; 2005, 263–274; 2008, 293–306.

²⁷ ÖZSAİT 2002, 198.

²⁸ YAYLALI/BİRCAN/TÜTÜNCÜLER 2014, 7.

Age settlements in Turkey since the Neolithic Age²⁹. In addition to their use as a weapon, they were also used as tools to cut things. Cutting ground stone tools are classified as axes, chisels, chisels, and hoes according to their usage areas and shapes³⁰.

Axes, one of the earliest cutting ground stone tools in Anatolia; is known from the Aceramic Neolithic layers of the settlements of Hallan Çemi³¹ (Batman), Göbeklitepe³² (Urfa), Taşlı Tepe³³ (Urfa), Cafer Mound³⁴ (Malatya), Çayönü³⁵ (Diyarbakır), Körtik Tepe³⁶ (Diyarbakır). One of the Körtik Tepe axes was identified as the 'Ceremonial Ax' because of the geometrical decorations on its surface. It is also known that among the Early Neolithic Age finds in Salat Camii Yanı³⁷ (Diyarbakır) and Sumaki Mound³⁸ (Batman), axes of various shapes and sizes were found³⁹.

The artifact that we dated to the Neolithic Age in our study groups are two axes produced by the ground stone industry. The first of these is from the Ordu Museum, which we examined in Catalog No. 1, and the second is from the Sinop Museum, which we examined in Catalog No. 2.

They are tools used for cutting, chipping wood, or similar soft materials or as a weapon. They are made as a result of shaping the stone selected as raw material during the production phase by rubbing⁴⁰. It was determined that solid and hard textured stones were preferred in cutting ground stone tools. Therefore, it is understood that generally metamorphic (metamorphic) rocks, then volcanic rocks, and very few sedimentary (sedimentary) rocks are used⁴¹.

It is accepted that the axes, which are made ready for use by obtaining a smooth surface by polishing, are used according to their shapes. The side faces of the axes are mostly left raw. Sometimes the upper part of the lateral face, close to the nape, is particularly smoothed. This application is to prevent the tool to be attached to the wooden or bone handle from slipping when attached and to ensure a solid hold⁴².

In our study, two stone axes dated to the Neolithic Age were handled typologically and evaluated as flat ax type.

Flat axes, which are made of flakes, blades, or cores of various stone types and shaped partially by rubbing, are tools with one blunt and one flat tip⁴³, narrow and long side faces, oval or circular cross-sections, and wide front and back faces. Attaching to a handle is carried out on the blunt side of the ax, while the flat end serves as the mouth. Almost all flat axes were used either attached to the handle or inserted into a handle. Although bone or horn handles in which flat axes

were placed were found during the excavations, it is thought that wooden handles that have not survived until today are also widely used⁴⁴.

The use of stone axes must have decreased as metal tools, which often perform the same function as stone tools, began to fall off. It is known that flat axes have been used in Anatolia since the Pre-Pottery Neolithic. They continued to be used alongside metal axes without changing their form⁴⁵.

The flat stone ax representing the Neolithic Age, which we examined in catalog no 1, came to the Ordu Museum through a donation and the exact location is not known. It has a greenish color. The blades of this type of ax are generally in the same form. The difference is only in their length and width. Our work has a long body; It has a wide mouth, oval can ross-section, and a narrow neck that is rounded. There is a crack in the middle part of the body to cover the whole body. It was probably accidentally broken and then tried to be repaired again (Fig. 1).

The flat stone ax representing the Neolithic Age, which we examined in Catalog No 2, came to the Sinop Museum by purchasing from Basri Özgen and its exact location is not known. The body, which thickens from the wide pointed mouth, narrows again and forms the rear part. The stone, which is green in color, called a green stone, also called diabase, has a perforated surface like a sponge. The parts near the mouth are shiny. The back is broken. Two large pieces were broken from the back and small pieces were broken from the surface. A stone tool in the form of an ax and again from the same raw material as in [3-7], the difference is that it was not made as an ax, that is, it was made/used as a chisel or splitter. These finds are generally species used in wood-working. Especially the fractures on the back indicate that it was used by hitting it with another tool, and the chips coming out of it show this. Likewise, the fact that such tools were not meticulously finished indicates a situation in which they often fulfill their function (Fig. 2).

A similar example is a green stone hand ax that can be dated to the Neolithic Age, among the floor finds of a Lydian house dated to the first half of the 6th century BC in Sardis. It is stated that such Neolithic hand axes were collected during the Ancient Period, as it was believed that they were lightning stones or lightning bolts falling from the sky when lightning struck⁴⁶. M. Korfmann mentions the existence of societies in which a belief that stone axes and chisels were believed to be associated with the god of air from ancient times to recent times, and that these tools protect people from lightning⁴⁷.

Similar to the axes that we can follow in a wide distribution area in the geography of Turkey; It has been found in many excavated settlements such as Aşağı Pınar⁴⁸, Aşıklı Mound⁴⁹, Bademağacı⁵⁰, Barçın Mound⁵¹, Ege Gübre⁵², Höyücek⁵³,

²⁹ YAYLALI/BİRCAN/TÜTÜNCÜLER 2014, 29.

³⁰ YAYLALI/BİRCAN/TÜTÜNCÜLER 2014, 12.

³¹ ROSENBERG 1993, 119-120, 130, Fig. 12.

³² KÖKSAL/SCHMİDT/SCHMİDT 2007, 52, 129.

³³ ÇELİK *et al.* 2011, 229, 234, Res. 5.

³⁴ BALKAN ATLI 1994, 92, 223, Fig. 71.

³⁵ DAVIS 1982, 99-104, 140-142, 148-151.

³⁶ ÖZKAYA/COŞKUN 2011, 83, 85, 87.

³⁷ MİYAKE 2011, 286.

³⁸ ERİM ÖZDOĞAN 2011, 32, 57, Fig. 35 A.

³⁹ YAYLALI/BİRCAN/TÜTÜNCÜLER 2014, 29.

⁴⁰ ÖZDOĞAN 2015, 30.

⁴¹ ÖZBEK 2008, 266.

⁴² GÜLDOĞAN 2008, 523 vd.; YAYLALI/BİRCAN/TÜTÜNCÜLER 2014, 18; SHEA 2019.

⁴³ BLEGEN 1928, 197.

⁴⁴ GÜLDOĞAN 2011, 47.

⁴⁵ BAYKAL/SEEHER 1996, 83.

⁴⁶ CAHILL 2012, 221, 229, Fig. 13.

⁴⁷ YAYLALI-BİRCAN-TÜTÜNCÜLER 2014, 40.

⁴⁸ ÖZDOĞAN 2013, 265, Fig. 156.

⁴⁹ EŞİN 1994, 95, Res: 10.

⁵⁰ DURU 2016, 175, Res: 752-753.

⁵¹ GERRITSEN-ÖZBAL 2014, 481, Res. 6.

⁵² SAĞLAMTİMUR 2012, 223, Fig. 28.

⁵³ DURU 2016, 175, Res: 754.

Kırklareli Mound⁵⁴, Kuruçay Mound⁵⁵, Uğurlu-Zeytinlik: Gökçeada⁵⁶, Ulucak Mound⁵⁷, Yeşilova Mound⁵⁸.

We propose to date the polished stone ax samples, which we have evaluated, to the Neolithic Age by evaluating them both in terms of construction technology and form and comparing them with similar ones.

TYOLOGICAL EXAMINATION OF CHALCOLITHIC AGE WORKS

In our study, the typological evaluation of the works, not functional, is because most of the works are purchases. There will be 5 works in the ax category. Of these, Catalog No. 3, Catalog No. 4, and Catalog No. 5, which were purchased by the Ordu Museum, were found in Sinop/Lala village, Altınoğlu mah. Catalog No. and Sinop/Kovuklukaya Mound at İvy'a's Place is the ax we examined in Catalog No. 7 found in trench no. I of the Necropolis. The hand stone and mortar found in Sinop Hacıoğlu Village, Maltepe Höyük from the Sinop Museum were examined in Catalog No 8. In our chipped stone artifact group, arrowheads will be evaluated. In addition to the construction technology, there are 2 arrowheads in this group (Catalog No 9, Catalog No 10).

Flat Stone Axes (Celt)

The versatile use of axes has caused axes in similar forms to be named differently. Large triangular axes: Ax; flat stone ax: Large chisel; large rectangular axes: Hand axe; small triangular shaped axes: Flat axe, flat axe, triangular shaped ax, flat ax shaped scraper, chisel, miniature triangular chisel, chisel; rectangular small axes: The rectangular ax was called rectangular chisel or chisel⁵⁹. Since this situation created confusion, the Chalcolithic Age ground stone cutting tools preserved in the Ordu Museum warehouse were examined under the general definition of "stone axes". In addition, its construction is explained in detail in the e 2.1. Flat Stone Axes above.

Our works, which were brought to the Ordu Museum through purchase, reflect the characteristic features of stone axes. In creating the typology of the axes in question, a general distinction had to be made. Accordingly, our works were grouped as flat stone axes in line with the examples we examined.

As far as we know from the settlements excavated for the Chalcolithic Age, there are also examples of stone axes with handle holes⁶⁰. As we mentioned above, the definitions regarding the use of ground stone tools are quite complex. For example, the sample recovered from Değirmentepe is described as a slotted hammer-ax⁶¹. The stone axes we discussed in our study are of the "flat ax" type.

In some cases, it is seen that axes are considered in the category of "war tools". The main feature that distinguishes

battle axes from other axes is the absence of signs of use on them. Traces of use, on the other hand, can be distinguished by greatly enlarging the negative film after a detailed examination. Battle axes first appeared in association with the disintegration of the primitive social system, with physical and typological differences⁶². No analysis has been made to show that the tools we discussed could have been used for both daily use and combat functions.

The neck parts of the 5 samples we have are rounded (Cat. No. 4–7) by the purpose of use in 4 of them, and one of them is broken or damaged during use (Cat. No. 3). No indication of use on only one sample (Cat. No. 5). This example, which we think has been completed but not used, can be interpreted as a votive item or a burial gift. It is used for belief, in connection with the belief in the other world, as cutting ground stone tools are left next to the burial as a dead gift⁶³. In a study conducted in Bulgaria, a large number of burial sites belonging to the Late Neolithic and Early Chalcolithic Ages were handled and the finds were evaluated. It is stated that there are stone axes made of various stones among the grave finds⁶⁴. There is an example in which instruments similar to our work in the form are defined as idols⁶⁵.

It is possible to draw parallels with the Balkans with the data obtained from the excavated settlements such as Troia, Beşik-Sivritepe, and Gülpınar in the Thrace-Marmara Region⁶⁶. This also applies to axes.

Our works came to the Ordu Museum through purchase. A. Karaduman states that the artifacts with inventory numbers 273 and 274 were recovered from the Küllüce II settlement, which is 300 m west of the Küllüce I settlement, which is located in the southwest of Ordu/Mesudiye-Müslim Sarıca Neighborhood⁶⁷. M. Özsaıt stated that the 1993 surface finds belong to the EBA and Iron A indicating that the lower floors show findings pointing to earlier settlement⁶⁸.

The upper face of the ax (Ordu Museum), which we examined in Cat. No. 3, is slightly concave, rounded by lowering to the sides, and noticeably thinner towards the sharp end. There are breaks and traces on the mouth and nape caused by use. These traces show that the ax was used on both sides. The reason for the ruptures and breaks can be explained as the result of the resistance encountered by the tool while working on hard or very hard textured materials. The fact that it was heavily damaged during use suggests that this ax was used more than the others. The cutting edge has a bend due to the shaping of the tool (Fig. 3).

Similarly; It is known from the settlements of Gülpınar⁶⁹, Kuruçay Mound⁷⁰, Kum Tepe⁷¹, Pulur⁷² and Suluin⁷³. Different types of these stone axes are found in Sirlek Tepe⁷⁴,

⁵⁴ ÖZDOĞAN *et al.* 2005, 332, Res. 14.

⁵⁵ DURU 1994a, Lev. 223, Res. 7.

⁵⁶ ERDOĞU 2012, 15, Res. 3.

⁵⁷ ÇEVİK ET AL 2016, 273–274, Res. 2, 4.

⁵⁸ DERİN 2012, 52, Çiz. 1/1.

⁵⁹ YAYLALI/BİRCAN/TÜTÜNCÜLER 2014, 27.

⁶⁰ ÖKSE *et al.* 2012, 203, Res. 8.

⁶¹ ESİN/HARMANKAYA 1987, 103, Res. 38/3.

⁶² SEMENOV 1970, 133.

⁶³ SİLİSTRELİ 1986, 131.

⁶⁴ AVRAMOVA 2008, 212.

⁶⁵ KARADUMAN 2015, 112.

⁶⁶ GABRIEL 2001, 345.

⁶⁷ KARADUMAN 2015, 84.

⁶⁸ ÖZSAIT 1995, 464.

⁶⁹ KAPLAN *et al.* 2013, 398, Res. 3.

⁷⁰ DURU 1994a, Lev. 231, Res. 6.

⁷¹ SPERLING 1976, Pl. 70, Res. 560.

⁷² KOŞAY 1976, Lev. 100/1.

⁷³ TAŞKIRAN *et al.* 2011, 437, Res. 2/3.

⁷⁴ TÜRKER *et al.* 2019.

Doğankaya Tepecik⁷⁵, Karadora Mound⁷⁶, Azay Tepe⁷⁷, and İkiztepe Tepe II in the Bafra Plain (Level II, Phases 6–7, EBA I and Hill II, Level III, 3.–4 and 6th–8th, LCA)⁷⁸ are represented by many examples.

Especially the front and rear blades of the ax we examined in Catalog No 4 (Ordu Museum) were polished by rubbing and smoothed and lubricated. The mouth part is sharpened by thinning symmetrically from both wide surfaces. The continuity of the sharpness of this type of ax is ensured by their continuous sharpening⁷⁹. It is understood that the lateral faces close to the nape were left coarse. There are hardly any breaks on the blade of the stone axe. One side of the tool is flatter and the other side is thicker near the middle. A convex line is formed between the body and the rim from the nape to the sharp tip on the outer surface. This feature suggests that the tool could have been used as a hand-held scraper (Fig. 4).

Similar to; It can be found in settlements such as Aktopraklık⁸⁰, Beşik-Sivritepe⁸¹, Değirmen-tepe⁸², Gülpınar⁸³, Güvercinkayası⁸⁴, İkiztepe⁸⁵, Kuruçay Mound⁸⁶, Kum Tepe⁸⁷, Korucutepe⁸⁸, Ulucak Mound⁸⁹.

The example we examined in Catalog No 5 (Ordu Museum) is smaller than the 2 examples above. Undoubtedly, this example is used by being attached to a handle like the others. Our example, on which there is no indication of use, can be interpreted as completed but unused, as well as a votive object or a burial gift. It is not possible to make a definite judgment regarding the non-in situ finds (Fig. 5).

İkiztepe⁹⁰, Değirmen-tepe⁹¹, Köşk Mound⁹², Tepecik⁹³, and Tülintepe⁹⁴ are some of the settlements where similar ones were found.

The ax (Sinop Museum), which we examined in Catalog No 6, was surveyed by museum experts in Sinop/Lala village, Altınoğlu mah. It was found at İvya's Place. Well-worked, widening from the bottom to the rim. The rim is still sharp and has a slight tear on the edge. The place to attach the handle is round and slightly pointed. A typically polished stone axe. The fact that the surface was not very well polished indicates that such tools were probably used frequently (Fig. 6).

The ax that we examined in Catalog No 7 (Sinop Museum) was recovered from the surface soil of Necropolis No. I of Sinop/Kovuklukaya Mound. The rectangular prismatic body

is thinned at the tip and burnished as a blade back, ending with a narrower and thicker blunt form in the background. A typical polished stone ax/cutting tool. It is very similar to Catalog No 6 and has been given a standard shape, giving the typical function-oriented function. This one was not finished with the same care but was used in woodworking. The fact that the surface was not very well polished indicates that such tools were probably used frequently (Fig. 7).

We propose to date the 5 flat stone axes in our study group to the Chalcolithic Age as a result of our investigations and comparisons with similar ones.

Despite the large number of axes found in the above-mentioned centers, the works that we tried to date according to their typology could only be made with very limited data because very few of them have pictures or drawings in publications.

According to the available data, axes that are large or small in size, with a triangular body, narrow in width and length, and shaped by rounding the neck are the forms used in Anatolia since the Pre-Pottery Neolithic. This form is also known from Chalcolithic and EBA cultures⁹⁵.

Hand Stone and Mortar

The hand stone and mortar (Dibek) (Sinop Museum) survey that we examined in Catalog No 8 was found in Sinop Hacıoğlu Village, Maltepe Mound. The knife industry at Maltepe Mound is quite unusual and is only observed at a few prehistoric sites. It is thought that this tool was found with ceramics dating to the Chalcolithic Age in the mound, that this type is a continuation of a long tradition in the Black Sea, and that dates should perhaps be taken earlier for the Chalcolithic of Sinop⁹⁶. Six concave cavities on the lower and upper level flat, cylindrical body give the impression of a knot in the middle, a mixture of seashells, in solid condition. This tool was probably the head of a stone hammer. It was converted from another broken tool and continued to be used. It was used as a hand stone and a mortar. It was used together with the lower grinding stone as a hand stone, which is also a stone that has been in use for a long time. It is mostly used on small-grained and soft plants or similar organic tissues. After the Late Neolithic period, such tools were shortened in length, but the fact that they were made from another tool indicates that the find was a little far from the volcanic rock raw material (Fig. 8).

Stone Arrowheads

Hunting is one of the important factors to create a nutritional economy that will meet the population growth in communities that tend to transform into urban societies. When we look at this period, it is seen that hunting continues. The people of the period produced arrowheads while hunting, placed them on a stick, threw them with the help of a bow, and used them as arrows. Arrowheads must have been used as war tools in this process leading to urbanization as well as hunting. Arrowheads, which were originally

⁷⁵ TÜRKER *et al.* 2019.

⁷⁶ TÜRKER 2021, Fig. 6.

⁷⁷ TÜRKER *et al.* 2019, Res. 14.

⁷⁸ ALKIM *et al.* 2003, Lev. XXXVI/2–4, Lev. LXII/11, LXIV/4–10; BİLGİ 2012, 100, Res. 11.

⁷⁹ YAYLALI/BİRCAN/TÜTÜNCÜLER 2014, 28.

⁸⁰ KARUL 2007, 388, Fig. 8.

⁸¹ GABRIEL 2001, 345.

⁸² ESİN/HARMANKAYA 1987, 125, Res. 39/5.

⁸³ KAPLAN *et al.* 2013, 398, Res. 3.

⁸⁴ GÜLÇUR/KİPER 2007, 124, Res. 13.

⁸⁵ ALKIM *et al.* 2003, 106, Lev. LXIV,6-İ/78–488.

⁸⁶ DURU 1994a, Lev. 165; Res. 7/8.

⁸⁷ SPERLING 1976, Pl. 70 / 424.

⁸⁸ LOON 1973, 396, Pl. 1/B.

⁸⁹ ÇEVİK-VURUŞKAN 2014, 596, Res. 7.

⁹⁰ ALKIM *et al.* 2003, Lev. LXIV, 10-İ/78–149.

⁹¹ ESİN/HARMANKAYA 1987, 124, Res. 38/2.

⁹² SİLİSTRELİ 1986, 140, Res. 12.

⁹³ ESİN 1982, Lev. 65/10.

⁹⁴ ESİN/ARSEBÜK 1982, Lev. 87/5.

⁹⁵ YAYLALI/BİRCAN/TÜTÜNCÜLER 2014, 38.

⁹⁶ DOONAN *et al.* 1998, 346, Şek. 4.

produced as long-range weapons, later became one of the most effective weapons⁹⁷.

The oldest known arrowhead is currently known from South Africa's Sibudu Cave. In the analyzes made on the finds dated to 62000 BC, blood residues were found on the tips⁹⁸.

The common feature of the ends is that the two side edges join together to form a pointed tip at the front. Studies show that arrowheads come in a wide variety of shapes, sizes, and styles. The main purpose of producing arrowheads is to reach the target quickly and do as much damage as possible. The tip must be sharp enough so that it does not deviate from the target after launch⁹⁹.

The ends can be attached to the handle in different ways. The most frequently used is the one that is inserted by making a notch at one end of the material chosen as the handle. The arrowhead can be secured with a sticky material or cross-linking by inserting the handle or the bottom into the notch. The stems can be tied together by ropes made of wool, leather, animal nerves, or plant fibres; In addition, it is foreseen that it can be strengthened with adhesives made by using various substances found in nature. If the above-mentioned reinforcements are not applied to the attachment of the arrowhead after it is inserted into the notch opened on the handle, the arrowhead can be retracted to the feet instead of piercing the target in case of impact. It has been experimentally understood that the arrowhead can be mounted on the handle without making a notch on the handle, but this method is weak. It is stated that this mounting method is also used in metal arrowheads¹⁰⁰.

As it is understood from the data obtained from the excavated centers, it is seen that the arrowheads were also used as grave gifts. In a study conducted in Bulgaria, burial sites belonging to the Late Neolithic and Early Chalcolithic Ages were examined and it was concluded that arrowheads were found only in the graves of male individuals¹⁰¹.

In the content of the subject, it will not be separated as used as a hunting tool or a war tool. All of them will be separated according to their typological features under a title and will be mentioned in the order. The arrowheads we examined in this part of our study group were made of stone.

The people who started to make tools used a technique called flaking technique for over two million years in the making of stone tools, and because tools were produced using the same method for such a long time, it was called the chipped stone industry. In this technology, the stone to be used for tool making must have glassy breakage and be hard. Flint is the most abundant and has these properties in nature. Flint is a modified sedimentary rock. Different techniques were used to give the desired shape to the stone. These techniques, which are used in the tradition of chipped stone making, enable to extraction of pieces of various sizes from the stone mass used as raw material. By hitting the back of a sharp spacer with the tip placed at an appropriate angle on the appropriate part of the stone mass on which flakes are

to be extracted, regularly shaped, thin long, parallel-edged flakes called blade tools were extracted. Correcting the edges of the blades enabled smooth and precise tools to be made. One of the techniques used in tool-making is the pressing or indirect striking technique. This technique is based on the principle of pressing an intermediate piece placed on the piece to be removed, with the body or hand, depending on the size of the tool to be made¹⁰².

It is understood that the arrowheads, which are the products of the chipped stone industry, were shaped by removing the piece/chip with the printing technique from the material chosen to make the tool. Experimental studies have shown that flint becomes smoother and more brittle when heated, and thus it becomes easier to chip¹⁰³. Heated flints are particularly well suited for printing retouching. The heating process changes the color of some rocks. A chemical change occurs depending on the amount and type of the few metal oxides in the flint. The surface of the heated flint becomes slippery and shiny¹⁰⁴.

The size and shape of the tool that can be made by chipping from flint are related to the mass of the material chosen as raw material. For this reason, tools made of flint were combined with wooden, bone, or horn handles as a solution. The bonding was often done with an adhesive such as resin, gum, or natural pitch¹⁰⁵. Remains of ochre on some chipped stone tools suggest that ochre was also used as an adhesive to attach tools to a handle¹⁰⁶.

Since the arrowheads we discussed were brought to the museum by purchasing, and their find locations are not known, an evaluation will be made by comparison with the arrowheads obtained from other centers. It is understood that all of the arrowheads belonging to the chipped stone tool industry we studied were made of flint. The arrowheads in question consist of a wing or shoulder, back, and handle. It will be easier for us to categorize and examine the stone arrowheads, whether they are construction techniques or how they are used. We evaluated the 2 arrowheads we discussed in this section in the category of arrowheads with handles.

Stalked ends are very common in Anatolia. It is known that they were also produced in the Neolithic Age. Arrowheads made of obsidian, which are known from the Early Neolithic and Early Chalcolithic layers of Çatalhöyük and show very typical features, are generally bifaced. They have light or very protruding stems at the bottom. Since these instruments were manufactured and used for a long time, they are poor indicators for chronology¹⁰⁷. Such bifurcated shank tips are characteristic of the Early Neolithic Period (Çatal Höyük/Mersin/Amuk Complex A-B)¹⁰⁸.

Our works came to the Ordu Museum through purchase. The arrowheads are registered with the invented number of A. Karaduman 134 and 136 are located in Ordu/Mesudiye, Göllüyazı (Sarıca) Mevkii of Kafisarıca Village, 300 m. of

⁹⁷ TEKİN 2018, 30.

⁹⁸ LOMBARD 2014, 80–86.

⁹⁹ TEKİN 2018, 30.

¹⁰⁰ BURIAN/FRIEDMAN 1977, 56.

¹⁰¹ AVRAMOVA 2008, 212.

¹⁰² ÖZDOĞAN 2002c, 54; KOLANKAYA/BOSTANCI 2018, 148–149.

¹⁰³ PATTERSON 1995, 72.

¹⁰⁴ INIZAN ET AL 1999, 24.

¹⁰⁵ ÖZDOĞAN 2002c, 54.

¹⁰⁶ KOLANKAYA/BOSTANCI 2012, 32.

¹⁰⁷ CARTER 2011, 10.

¹⁰⁸ BAYKAL/SEEHER 1994, 74.

the Ordu-Sivas highway. It states that it was recovered from Göllüyazı I settlement, which is located east of it¹⁰⁹.

In handle arrowheads, the handle is separated from the body by a distinct shoulder. It is possible to classify the handle arrowheads in two groups as two shouldered arrowheads with handle and single shouldered arrowheads with handle¹¹⁰. The arrowheads that are the subject of our study have a handle and two shoulders. In this type, the ends we examined have rounded, shoulder-shaped projections on the sides instead of wings. There are light or very protruding stems at the bottom. These protrusions ensure that the tip is well-connected to the handle and is very robust. Each end may not have a handle. There are 2 arrowheads in this group of our study. These arrowheads appear to have longer sides than the winged ones. In addition, the stems of the works we have are blunt and short.

It is seen that the tip of the arrowhead, which we examined in Catalog No 9 (Ordu Museum), is broken on both surfaces. After the surface corrections, denticulation corrections were made on the edges. The back of the tool in the middle of the body is thick and the cutting side edges are connected to the handle by a narrow shoulder. The handle is like a natural continuation of the trunk. This type of tip, as in winged tips, is designed to allow the wound to become lethal during the removal of the shoulder part. The surface of the tool, which is brown in color, is slippery (Fig. 9).

It is seen that the tip of the arrowhead (Ordu Museum), which we examined in Catalog No. 10, is sharpened to stab, and the lateral edges are quite sharp. The symmetry on the wing parts of the winged arrowheads is not seen in the shoulder part of the shouldered arrowheads. The shoulder parts of the instrument we examined do not have the same symmetry between the body and the handle (Fig. 10).

Similarly; It is known from the excavated settlements such as Değirmentepe¹¹¹, Güzelova Mound¹¹², Köşk Höyük¹¹³, Korucutepe¹¹⁴, Kuruçay Mound¹¹⁵, Norşuntepe¹¹⁶, Çine-Tepecik Mound¹¹⁷.

According to our dating method, which is based on the comparison and examination of similar ones, we suggest that the stemmed arrowheads we examined should be dated to the Chalcolithic Age.

TYOLOGICAL ANALYSIS OF BRONZE AGE WORKS

There will be 1 artifact in the ceremonial ax and sandstone and pestle category, and 2 artifacts in our cutting tool group.

Ceremonial Stone Ax

The ax (Sinop Museum), which we examined in Catalog No. 11, has a symbolic or ceremonial function rather than being actively used. Its surface is very well polished (Fig. 11).

Cutting Tool (Blade)

The flint cutting tool we examined in Catalog No. 12 (Sinop Museum) Sinop/Boyabat/Kovuklukaya Mound, Necropolis from trench 6. Black-colored half-moon shape, blunt back, oval at the tip, oval at the tip, straight cut on the back. Scraper made of dark brown flint flakes. This tool is a very common type, especially common with the Neolithic (Fig. 12).

The flint cutting tool we examined in Catalog No 13 (Sinop Museum) Sinop/Boyabat/Kovuklukaya Tumulus, Necropolis from trench 6. The tip is oval, the back is straight-cut. Again, a tool with a retouched edge made on flakes. It has been chipped in both directions. This tool is a very common type, especially common with the Neolithic (Fig. 13). It is one of the flint tool types that has been seen for a long time in Anatolia and seen throughout the ages.

Similarly; It was found in Tatardere¹¹⁸, Dombalaktepe¹¹⁹, Diklimtepe¹²⁰, Azay Tepe¹²¹, Şirlek Tepe¹²², Gökçeboğaz¹²³, Karadora,¹²⁴ and İkiztepe Mound¹²⁵ in the Coastal Section of the Samsun Region.

CONCLUSION

The way the material group with Catalog Numbers 1–5, 9, and 10, which is not in situ, arrives at the museum is through purchase, grant, transfer, and confiscation/forced purchase. The way the artifacts come to the museum is insufficient to illuminate many issues stratigraphically and chronologically. From this point of view, the material itself, the style critique, came to the fore as a more important source of information in illuminating the subject. The problems of periodical problems of these stone tools are experienced in many excavations and surveys in Anatolia.

Even though some of the artifacts brought to the Ordu and Sinop Museum were acquired through purchase and the sellers may give a different place name, at least the place of origin of Catalog No 3, 4, 9, and 10 is specified, Catalog No 6 and it is important that Catalog No. 7, 11, 12, and 13 were found during the survey of 8, and most importantly, that Catalog Nos. 7, 11, 12 and 13 were obtained from the Sinop/Kovuklukaya Mound necropolis soundings. Apart from the fact that most of the artifacts are not excavated material, another negative factor is the absence of stratified samples as a result of archaeological excavations in Ordu and other provinces around Sinop. While making the evaluation, the artifacts with clear layers and similar examples found in the neighboring museums were used. Despite all the negativities, as a result of the research we have done about the mentioned artifacts, it has been tried to be dated by using the comparison method with similar ones. Dating has been made as a result of comparisons of styles and forms with

¹⁰⁹ KARADUMAN 2015, 82–83.

¹¹⁰ BRAIDWOOD 2008, 98.

¹¹¹ ESİN 1983, 161, Res. 21/3.

¹¹² KOŞAY/VARY 1967, 23.

¹¹³ ÖZTAN *et al.* 2010, 266, Res. 6.

¹¹⁴ YÜKSEL 2013, Lev. 2/a, 3/c.

¹¹⁵ DURU 1994a, Lev. 238, Res. 7.

¹¹⁶ YÜKSEL 2013, Lev. 5/d; 6/b; 7/e; 9/e-f; 10/a; 11/c; 12/c; 14/a-d.

¹¹⁷ KOLANKAYA/BOSTANCI/CARTER/WEİR 2020, Şek. 5.

¹¹⁸ TÜRKER 2016, 29.

¹¹⁹ TÜRKER 2016, Res. 9/c, e-f.

¹²⁰ TÜRKER 2017a, 402.

¹²¹ TÜRKER *et al.* 2019, Res. 13/5–7.

¹²² TÜRKER *et al.* 2019, Res. 13/11–13.

¹²³ TÜRKER 2017b, Çiz. 2–3.

¹²⁴ TÜRKER 2021, 9.

¹²⁵ BAYRI/BAYKAN 1988, 118.

artifacts found in scientific excavations and examples found in museums. Due to the lack of information such as the find location and context, our evaluations were based on typology rather than functions.

The flat stone axes (Cat. No. 1–7) that we gave to the Neolithic and Chalcolithic Ages, among the works that we tried to evaluate chronologically and typologically in our study, are cutting ground stone tools. In the historical process, it is understood that their production continues by acquiring new techniques or by developing some techniques from the old days. It is seen that ground stone axes were used intensively from the Pre-Pottery Neolithic Age to the Early Bronze Age in the geography of Turkey. These tools show a decrease in EBA. The reason for this should be the preference of those made of metal. It is seen that stone axes were also used in the Middle Bronze and Late Bronze Ages, even though they are represented with few examples. It is understood that it became a rarely used tool group in the Iron Age.

Findings from various settlements show that stone artifacts have indispensable importance for the Neolithic and Chalcolithic Ages. These tools are also found in burial customs in the Neolithic and Chalcolithic Ages. Especially men were buried in the grave with their weapons. This is proof of how important a gun is to a man. Therefore, in the content of the subject, there is no distinction made as these were used as hunting tools, as warols, and the burial gifts. Even today, people use highly developed or close versions of primitive weapons. Although it is always thought that the stone axes found were used for the second time, especially since could be used as a polishing stone in pottery making, it is not possible to prove this idea. However, the hand stone and mortar (Dibek) in Catalog No 8, which we dated to the Chalcolithic age, were probably stone hammer head. It seems to have been converted from another broken tool and continued to be used.

While he thought that these polished and fine-grained axes, which are thought to have been used in woodworking and breaking bones, could be Umurtak¹²⁶ chisels, Mellaart¹²⁷ carpenter's tool, and Duru¹²⁸ said that they were found in the sanctuary together with idols and figurines.

Kastamonu/Kahintepe and Sinop site 82, which have been defined as the Neolithic Age until now, are two important settlements in the Black Sea, the results of which contain various discussions. Therefore, the finds that we have dated as Neolithic above may indicate that the region was inhabited during this period as well.

Bronze Age stone arrowhead samples (Cat No. 9–10) are of winged arrowhead type. It can be said that winged arrowheads have a longer flight distance. The diversification of plants and animals that make up the food of people over time has resulted in changes in the tools and industry produced. Based on this detail, it is possible to say that the arrowheads produced may have been produced with certain characteristics according to certain animal groups.

The ax that we examined in Catalog No 11, which we dated to the Bronze Age, has a symbolic or ceremonial function rather than being actively used. The flint cutting tools

that we examined in Catalog Nos 12 and 13 are the most common types, especially with the Neolithic.

Various rock shelters and caves have been identified in the Central Black Sea Region. However, another question that arises with these findings is about which period the caves and rock shelters can be dated. Therefore, new research should be based on detecting caves or rock shelters hidden in the wild, rather than looking for mounds or open-air settlements in the first place. The real question is whether the two stone axes we date to the Neolithic period represent a settled farming society. The chronology and terminology problem of the Central Black Sea is valid for the settlements in all Black Sea littoral countries.

The results of our study once again reveal the importance and necessity of increasing the number of scientific excavations and surveys around Ordu and Sinop.

ACKNOWLEDGEMENTS: We thank the directors and experts of Sinop and Ordu Paşaoğlu Mansion and Ethnography Museum for allowing us to publish these works. I sincerely thank Adnan Baysal and Hülya Çalışkan Akgül for sharing their personal views. Part of this study was produced from the master's thesis titled "Ordu Paşaoğlu Konağı ve Etnoğrafya Müzesi'nden Bir Grup Eserin Değerlendirilmesi: Neolitik Çağ'dan Hellenistik Dönem'e". The thesis was completed by Ondokuz Mayıs University PYO within the scope of BAP. It was supported by the project number FEN.1904.18.027.

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¹²⁶ UMURTAK 1994, 70.

¹²⁷ MELLAART 1970, 157.

¹²⁸ DURU 1994b, 733.

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CATALOG

The catalog is arranged in parallel with the narrative in the text, taking into account the works and according to the chronological order of each group within itself.

Neolithic Age Axes

Catalog No: 1 (Ordu Museum)

Figure No: 1

Title of Work: Ax/Chisel Tool

Museum Inventory No: 13

Arrival at the Museum: Grant/Donation

Arrival Date to the Museum: 25.01.1989

Material: Stone/Serpentine?

Dimensions: Length 19,0 cm., Mouth Width 6,35 cm., Thickness 2,44 cm.

Description: There are fractures due to use in the mouth part, which is understood to be sharp. It starts from the mouth and narrows upwards. The handle is rounded. There is no sign of it being used by being tied to a handle. There is a crack in the middle part that goes around the whole body. It is close to green in color and its surface is quite shiny and smooth.

Similar: Çevik vd. 2016, Res. 2, Res. 4; Derin 2012, Çiz. 1/1; Duru 1994a, Res. 7; Duru 2016, Res. 752–753; Duru 2016, Res. 754; Erdoğan 2012, Res. 3; Esin 1994, Res. 10; Gerritsen and Özbal 2014, Res. 6; Özdoğan vd. 2005, Res. 14; Özdoğan 2013, Fig. 156; Sağlamtimur 2012, Fig. 28.

Condition: Whole

Period: Neolithic

Place of Publication: Not published, Yağcı 2019.

Catalog No: 2 (Sinop Museum)

Figure No: 2

Title of Work: Ax/Chisel Tool

Museum Inventory No: 38.1.78

Arrival at the Museum: Purchasing (Basri Özgen)

Arrival Date to the Museum: 25.01.1989

Material: It is a stone called a green stone, also called diabase.

Dimensions: Length 20 cm., width 6,3 cm., thickness 3,8 cm.

Description: The body, which thickens from the wide pointed mouth, narrows again and forms the rear part. Green in color, with a perforated surface like a sponge. The parts near the mouth are shiny. The back is broken. Two large pieces from the back and small pieces were broken off from the surface, a stone tool in the form of an ax and the same raw material as in the find [6], with the difference that it was not made as an ax, that is, it was made/used as a chisel or separator. These finds are generally used in woodworking. Especially the fractures on the back indicate that it was used by hitting it with another tool, and the chips coming out of it show this. Likewise, the fact that they were not finished with care indicates a situation in which such tools often fulfill their function.

Similar: Frangipane et al. 2001, 105–139; Çevik vd. 2016, Res. 2, Res. 4; Derin 2012, Çiz. 1/1; Duru 1994a, Res. 7;

Duru 2016, Res. 752–753; Duru 2016, Res. 754; Erdoğan 2012, Res. 3; Esin 1994, Res. 10; Gerritsen and Özbal 2014, Res. 6; Özdoğan vd. 2005, Res. 14; Özdoğan 2013, Fig. 156; Sağlamtimur 2012, Fig. 28; Pınarcık vd. 2020, Res. 2, 8.

Condition: Whole

Period: Neolithic

Place of Publication: Not published, Yağcı 2019.

Chalcolithic Age Axes

Catalog No: 3 (Ordu Museum)

Figure No: 3

Title of Work: Ax/Chisel Tool

Museum Inventory No: 273

Arrival at the Museum: Purchase (A. Karaduman says that it was recovered from the Küllüce II settlement, which is 300 m west of the Küllüce I settlement, which is located in the southwest of Ordu/Mesudiye-Muslim Sarıca District.)

Arrival Date to the Museum: 19.10.2010

Material: Stone

Dimensions: Length 7,5 cm., Mouth Width 4,8 cm., Thickness 2,9 cm.

Description: It has a form that narrows as it goes upwards from the mouth part. It has an oval thick body and an oval cross-section. The part near the mouth is brighter and smoother. The mouth part of the tool is polished due to sharpening and shaping, while the other parts are left unfinished. There is breakage and wear on the mouth part, which is understood to be due to use. Wear and abrasion caused by use on the thick neck surface indicate that this side of the tool is also used. The concave striking face on the neck increases the possibility of seeing the use of a double-sided ax-hammer.

Similar: Bilgi 2012, Res. 11; Duru 1994a, Res. 6; Kaplan vd. 2013, Res. 3; Koşay 1976, Lev. 100/1; Sperling 1976, Plate: 70, Res. 560; Taşkiran vd. 2011, Res. 2/3.

Condition: Whole

Period: Chalcolithic

Place of Publication: Karaduman 2015, s. 85, Lev. 1; Yağcı 2019.

Catalog No: 4 (Ordu Museum)

Figure No: 4

Title of Work: Ax/Chisel Tool

Museum Inventory No: 274

Arrival at the Museum: Purchase (A. Karaduman says that it was recovered from the Küllüce II settlement, which is 300 m west of the Küllüce I settlement, which is located in the southwest of Ordu/Mesudiye-Muslim Sarıca District.)

Arrival Date to the Museum: 19.10.2010

Material: Stone

Dimensions: Length 6,9 cm., Mouth Width 4,9 cm., Thickness 1,8 cm.

Description: It has a triangular form narrowing upwards from the mouth part. It has an oval cross-section, a wide mouth, and a rounded neck. Except for the side edges, it has a shiny and smooth surface. To make the surface smooth, it must be polished. They may have done the polishing to make the tool smooth, or it may have gained shine due to the effect

of the material it came into contact with during use. The process of smoothing the tool should be done to increase its function of the tool and maintain its durability during use. The rim is sharp, there are hardly any minor abrasions. The rounded neck part is also suitable for hand use. It is black in color.

Similar: Alkım vd. 2003, Lev. LXIV, 6-İ/78-488; Çevik and Vuruşkan 2014, Res. 7; Duru 1994a, Lev. 231, Res. 7/8; Esin and Harmankaya 1987, Res. 39/5; Gabriel 2001, s. 345; Gülçur and Kiper 2007, Res. 13; Kaplan vd. 2013, Res. 3; Karul 2007, Fig. 8; Loon 1973, p. 396, Plate: 1/B; Sperling 1976, Plate: 70/424.

Condition: Whole

Period: Chalcolithic

Place of Publication: Karaduman 2015, s. 85, Lev. 1; Yağcı 2019.

Catalog No: 5 (Ordu Museum)

Figure No: 5

Title of Work: Ax/Chisel Tool

Museum Inventory No: 275

Arrival at the Museum: Purchase

Arrival Date to the Museum: 19.10.2010

Material: Stone

Dimensions: Length 4,3 cm., Mouth Width 2,6 cm., Thickness 0,9 cm.

Description: It is small in size. It has a triangular form narrowing upwards from the mouth part. Except for a small part of the body, the surface is shiny and smooth. It has a sharp muzzle and a rounded nape. There are very few minor abrasions on the rim. One side is machined flat compared to the other. It is brown in color.

Similar: Alkım vd. 2003, Lev. LXIV, 10-İ/78-149; Esin 1982, Lev. 65/10; Esin and Arsebük 1982, Lev. 87/5; Esin and Harmankaya 1987, Res. 38/2; Silistreli 1986, Res. 12.

Condition: Whole

Period: Chalcolithic

Place of Publication: Not published, Yağcı 2019.

Catalog No: 6 (Sinop Museum)

Figure No: 6

Title of Work: Ax/Chisel Tool

Museum Inventory No: 12.1.88

Arrival at the Museum: It was found during the survey conducted by museum experts. Lala village Altınoğlu Dist. İvya's place, Sinop.

Arrival Date to the Museum: 19.10.2010

Material: The stone, also called green stone/diabase.

Dimensions: Length 9,5 cm., Mouth Width 6 cm., Thickness 2,9 cm.

Description: Well-worked, widening from the bottom to the rim. The rim is still sharp and has a slight tear on the edge. The place to attach the handle is round and slightly pointed. A typically polished stone axe. The fact that its surface was not polished very well indicates that such tools were probably used frequently.

Similar: Bilgi 2012, Res. 11; Duru 1994a, Res. 6; Kaplan vd. 2013, Res. 3; Koşay 1976, Lev. 100/1; Sperling 1976, Plate: 70, Res. 560; Taşkırın vd. 2011, Res. 2/3; Karaduman 2015, s. 85, Lev. 1; Pınarcık vd. 2020, Res. 7.

Condition: Whole

Period: Chalcolithic

Place of Publication: Not published.

Catalog No: 7 (Sinop Museum)

Figure No: 7

Title of Work: Ax/Chisel Tool

Museum Inventory No: 8.2.002

Arrival at the Museum: From the surface soil of trench Necropolis no. I of Sinop/Kovuklukaya Mound.

Arrival Date to the Museum: 08.02.2022

Material: The stone, also called green stone/diabase.

Dimensions: Length 6,5 cm., Mouth Width 1,6 cm., Thickness 2,9 cm.

Description: The rectangular prism body is thinned at the tip and burnished as a blade back, ending with a narrower and thicker blunt form in the background. A typical polished stone ax/cutting tool. It is very similar to Catalog No 6 and has been given a standard shape, giving the typical function-oriented function. This one was not finished with the same care but was used in woodworking. The fact that its surface was not polished very well indicates that such tools were probably used frequently.

Similar: Bilgi 2012, Res. 11; Duru 1994a, Res. 6; Kaplan vd. 2013, Res. 3; Koşay 1976, Lev. 100/1; Sperling 1976, Plate: 70, Res. 560; Taşkırın vd. 2011, Res. 2/3; Karaduman 2015, s. 85, Lev. 1; Pınarcık vd. 2020, Res. 7; Türker 2021, Fig. 6.

Condition: Whole

Period: Chalcolithic

Place of Publication: Not published.

Hand Stone and Mortar

Catalog No: 8 (Sinop Museum)

Figure No: 8

Title of Work: Hand stone and mortar

Museum Inventory No: 19.1.99

Arrival at the Museum: Sinop Hacıoğlu Village, Maltepe Mound. From the survey led by P. Owen Doanan.

Arrival Date to the Museum: 19.01.1999

Material: Andesite.

Dimensions: Length 10 cm., bottom diameter 6,6 cm., height 6,4 cm.

Description: Six concave cavities on the lower and upper level flat, cylindrical body give the impression of a knot in the middle, a mixture of seashells, in solid condition. It was used as a hand stone and a mortar. It was used together with the lower grinding stone as a hand stone, which is also a stone that has been in use for a long time. It is mostly used on small-grained and soft plants or similar organic tissues. After the Late Neolithic period, such tools were shortened in length, but the fact that it was made from another tool indicates that the point where the find was found is a little far from the volcanic rock raw material.

Similar:

Condition: Whole

Period: Chalcolithic

Place of Publication: Doonan et al 1998, s. 345-356.

Arrowheads

Catalog No: 9 (Ordu Museum)

Figure No: 9

Title of Work: Arrowhead / Shank

Museum Inventory No: 134

Arrival at the Museum: Purchase (A. Karaduman states that the arrowheads registered with inventory numbers 134 and 136 were recovered from Göllüyazı I settlement, 300 m east of the Ordu-Sivas highway in Göllüyazı (Sarıca) Locality of Kafisarıca Village, Ordu/Mesudiye).

Arrival Date to the Museum: 05.07.2007

Material: Silex

Dimensions: Length 4,4 cm., width 1,2 cm., thickness 0,6 cm.

Description: It is of arrowhead type with handle. It is made in a flat, elongated, triangular form. The back is thick. The edges are sharpened. The tip is broken. It is made of brownstone.

Similar: Duru 1994a, Res. 7; Esin 1983, s. 161, Res. 21/3; Koşay and Vary 1967, s. 23; Öztan vd. 2010, Res. 6; Yüksel 2013, Lev. 2/a; 3/c; Yüksel 2013, Lev. 5/d; 6/b; 7/e; 9/e-f; 10/a; 11/c; 12/c; 14/a-d.

Condition: There are some broken

Period: Chalcolithic

Place of Publication: Karaduman 2015, s. 83, Lev. 1; Yağcı 2019.

Catalog No: 10 (Ordu Museum)

Figure No: 10

Title of Work: Arrowhead / Shank

Museum Inventory No: 136

Arrival at the Museum: Purchase (A. Karaduman states that the arrowheads registered with inventory numbers 134 and 136 were recovered from Göllüyazı I settlement, 300 m east of the Ordu-Sivas highway in Göllüyazı (Sarıca) Locality of Kafisarıca Village, Ordu/Mesudiye).

Arrival Date to the Museum: 05.07.2007

Material: Silex

Dimensions: Length 4,0 cm., width 1,8 cm., thickness 0,5 cm.

Description: It is in the form of a flat triangle. The tip is pointed, and the sides are sharp. There is a ledge at the bottom for the arrow to enter. It is made of black colored stone.

Similar: Duru 1994a, Res. 7; Esin 1983, s. 161, Res. 21/3; Koşay and Vary 1967, s. 23; Öztan vd. 2010, Res. 6; Yüksel 2013, Lev. 2/a; 3/c; Yüksel 2013, Lev. 5/d; 6/b; 7/e; 9/e-f; 10/a; 11/c; 12/c; 14/a-d.

Condition: Whole

Period: Chalcolithic

Place of Publication: Karaduman 2015, s. 83, Lev. 1, Yağcı 2019.

Bronze Age Ax

Catalog No: 11 (Sinop Museum)

Figure No: 11

Title of Work: Ax

Museum Inventory No: 16.7.77

Arrival at the Museum: From the surface soil of trench Necropolis no. I of Sinop/Kovuklukaya Mound.

Arrival Date to the Museum: 12.07.1977

Material: Diorite

Dimensions: Length 7,2 cm., mouth width 0,8 cm., hole diameter 3,2 cm.

Description: It has a much more symbolic or ceremonial function than it is actively used. Its surface is very well polished.

Similar:

Condition: Whole

Period: Bronze

Place of Publication: Not published, Yağcı 2019.

Cutting tool

Catalog No: 12 (Sinop Museum)

Figure No: 12

Title of Work: Stone cutting tool

Museum Inventory No: 8.17.02

Arrival at the Museum: Sinop/Boyabat/Kovuklukaya Mound, Necropolis Trench 6

Arrival Date to the Museum: 17.08.2022

Material: Silex

Dimensions: Length 8,2 cm., mouth width 0,6 cm., thickness 1 cm.

Description: Black colored half-moon shape, blunt back, oval at the tip, oval at the tip, straight cut on the back. Scraper made of dark brown flint flakes. This tool is very common, especially with the Neolithic.

Similar: Çalışkan Akgül vd. 2022, Res. 5b; Türker 2021, Kat. No. 33, 35; 2022, 6–8, 12–13.

Condition: Whole

Period: Bronze

Place of Publication: Not published.

Catalog No: 13 (Sinop Museum)

Şekil No: 13

Title of Work: Stone cutting tool

Museum Inventory No: 8.18.02

Arrival Date to the Museum: Sinop/Boyabat/Kovuklukaya Mound, Necropolis Trench 6

Müze Geliş Tarihi: 18.08.2002

Material: Silex

Dimensions: Length 6,8 cm., mouth width 0,7 cm., thickness 1,1 cm.

Description: The tip is oval, and the back is straight-cut. Again, a tool with a retouched edge made on flakes. It has been chipped in both directions. This tool is very common, especially with the Neolithic.

Similar: Çalışkan Akgül vd. 2022, Res. 5b; Türker 2021, Kat. No. 33, 35; 2022, 6–8, 12–13.

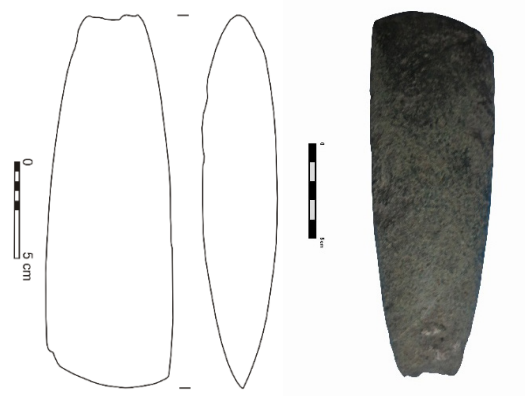
Condition: Whole

Period: Bronze

Place of Publication: Not published.



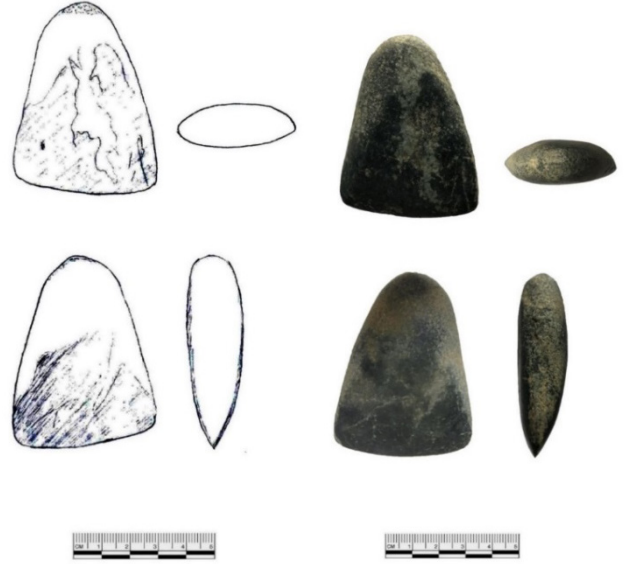
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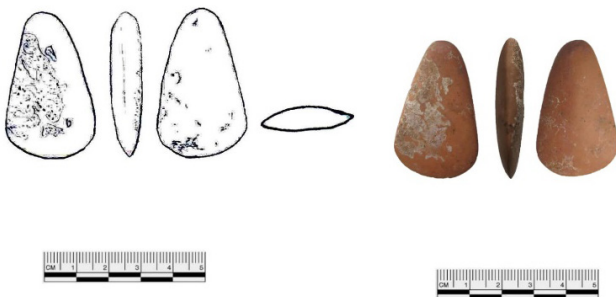
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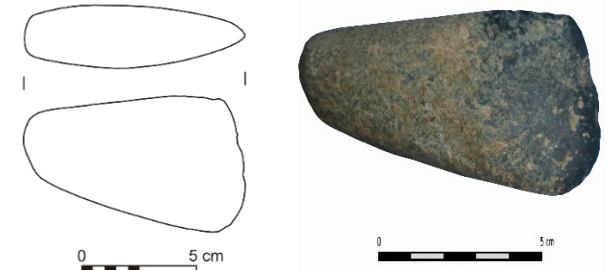
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Şekil 4



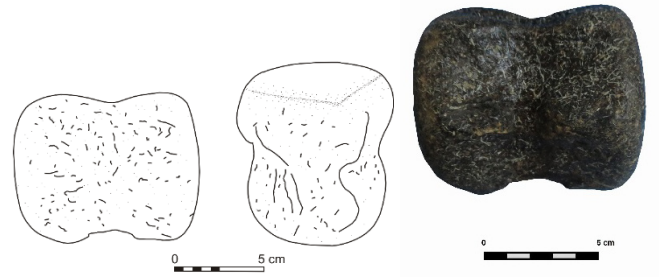
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Şekil 6



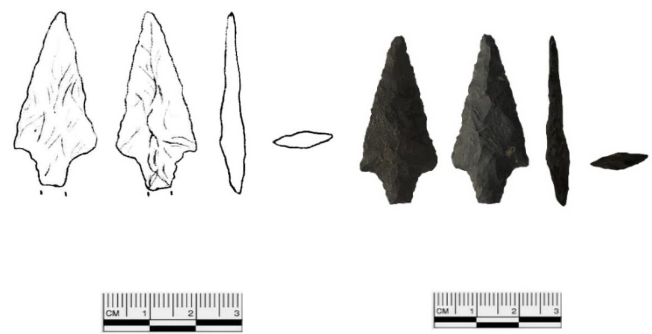
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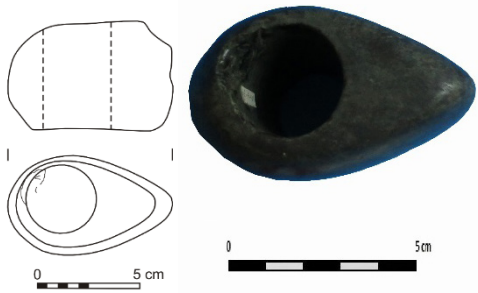
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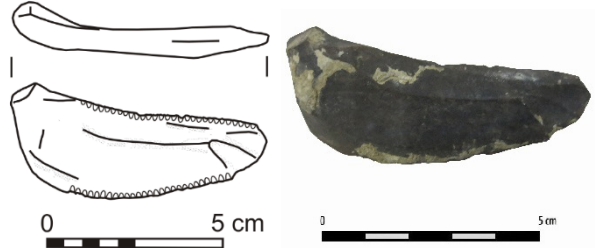
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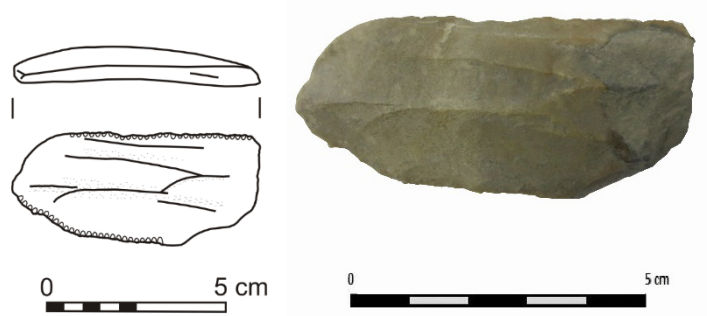
Şekil 10



Şekil 11



Şekil 12



Şekil 13