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Contents

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Oval Points and Cattle-Hunting Practices in Central Anatolia during the 8th Millennium BC

Nurcan KAYACAN*

Abstract

The 8th millennium BC in Central Anatolia, so far as is known, is represented by few sites. An evaluation of the present data asserts that the oval-shaped points are a characteristic element of this period, while cattle bones are also abundant. Musular is a special activity site related to pre- and post-hunting activities there were accompanied by certain rituals. The site gives reliable contextualized information about the activities and rituals related to cattle hunting. Ethnographic studies have shown that large game hunting carries a certain importance for contemporary, traditional hunter-gatherer communities. This article aims to give a general overview of oval-shaped points from 8th millennium BC sites in Central Anatolia in the context of cattle hunting. Their technological, typological, and contextual analyses are evaluated as well as their possible social implications, inspired by the theoretical depth that ethnographic studies can provide.

Öz

Orta Anadolu'da MÖ 8. bin yıl, çok az sayıda yerleşme ile tanımlıdır. Mevcut veriler, dönemin en belirgin buluntusunun oval uçlar olduğunu ve bu uçlara yoğun olarak bulunan sığır kemiklerin eşlik ettiğini göstermektedir. Bu yerleşmeler içerisinde Musular, dönemin yaşam biçimi hakkında güvenilir bilgiler sunmaktadır. Yabani sığır kemiklerinin yoğunluğu, oval uç üretimi, kırmızıya boyanmış kireç tabanlı bir yapı, Musular'ın belirli ritüeller eşliğinde avlanma öncesi ve sonrası ile ilgili özel bir uygulama alanı olduğuna işaret eder. Etnografik çalışmaların ortaya koyduğu üzere, günümüz avcı-toplayıcı toplulukları için büyük hayvan avı, statü/güç edinimi, ritüeller ve şölenler gibi birçok sosyal örüntü ile ilişkilidir. Bu yazıda, Orta Anadolu'da MÖ 8. bin yıl yerleşmelerinde görülen oval uçlar sığır avcılığı bağlamında, teknolojik, tipolojik ve bağlamsal analizler yoluyla, etnografik verilerden de yararlanılarak ele alınmıştır.

Introduction

Hunting is one of the oldest means of food acquisition and has been practiced over millennia with different purposes and in diverse forms. Contrary to the general tendency to interpret hunting practices solely in relation to economic necessities, different modes and scales of hunting have been and still are related to the social rules, cultural dynamics, practices, and traditions of communities. The archaeological study of hunting practices and the related material culture therefore allows various insights into the social fabric of prehistoric communities.

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Anthropological research on contemporary, traditional societies who have maintained hunting practices at different scales has shown that besides being part of food acquisition strategies, this activity is rooted deeply in their socio-cultural cosmos. The meanings of this practice range from hunting as a symbol of individual status and power to collective ceremonies and feasts in establishing relations with the supernatural world through hunting[1]. These examples suggest that we archaeologists should consider the socio-cultural aspects of hunting and how they were integrated, besides their need to be contextualized with the meanings, values, and ideologies of different prehistoric communities.

The Awa is a small hunter-gatherer group of 300 individuals living close to the Brazilian Amazon forests. Like the Ka'apor and the Tenetehara, they belong to the Tupi-Guarani family living in an area extending from Brazil to Bolivia and Paraguay. Gonzalez-Ruibal et al. have suggested that masculine identities of Awa men are constructed, practiced, and maintained through the production and use of bows and arrows, and therefore hunting[2]. They are traditional hunters and have distinct rules based on gender roles in hunting practices. The Awa men are responsible for making and using bows and arrows. For the Awa, the arrow bears a further symbolic meaning woven with the concept of fire, abstracted through metaphors of nature and life. This symbolism is practiced during the preparation of the arrows. The arrows are tended close to the fire. Although this allows the arrows to become harder thus providing technical benefits, it also carries a deeper meaning based on a metaphoric equation in which the arrow is meant to be as warm as the living body. It is also believed that the arrow becomes alive near the fire and dies away from it. This symbolism constructed around bows, arrows, and fire is important in considering the multiple layers of socio-symbolic meanings behind its economic benefits.

Practices such as the preparation of hunting tools, ceremonies before and after hunting, single or group hunting strategies, sharing and distribution of the hunted, and various uses of the game are all constructed based on the social rules of the societies that practice them. Another example comes from the Yanomami who live in the Amazon forests between Venezuela and Brazil[3]. They live in villages consisting of groups of 40 to 250 people, and their economy is based on hunting, gathering, and horticulture. It is known that, in addition to hunting for daily needs, the Yanomami people hunt for communal consumption, that is, for feasting[4]. Hunting for feasts exhibits a different pattern of practices including the selection of a group of hunters for this particular event and ceremonies where the young women of the village sing and dance for good luck every night for a week before the hunt. The San community presents another interesting case[5]. San people are also known as the Khwe Khose or the Bushmen and live in the Kalahari Desert close to Botswana and Namibia in South Africa. It is known that there are over 50,000 San people who still live in the traditional way. Although some began to be influenced by modern life, most of the San groups continue traditional hunting and gathering practices. They hunt over 50 species of animals for consumption. Large game such as the antelope and kudu are hunted with poisoned arrows. In regard to the social rules organizing the distribution of the meat from hunting, the San people present an interesting case. The owner of the first ar-

1 France 2009, 134; Chagnon 2004, 319-322; Gonzalez-Ruibal et al. 2011, 10.

2 Gonzalez-Ruibal et al. 2011, 3-4, 10-11.

3 Bates 2009, 164.

4 Chagnon 2004, 320.

5 Bates 2009, 128-129.

row that hits the animal earns the first share. This is followed by other hunters, and then their families and other socially related villagers respectively[6].

These ethnographic cases are important in demonstrating the social, cultural, and symbolic aspects of hunting among hunter-gatherers and other traditional communities. However, where prehistoric communities are concerned, to understand the behavioral, cognitive, and socio-symbolic worlds of the past, one ought to focus first on material culture and its entangled contexts. In the case of hunting, points, which are the acknowledged tools for hunting, are of major importance. Their production, forms, use, and contexts need to be studied in depth prior to any suggestion or interpretation. This article aims to have a general overview on the points from the 8th millennium BC sites in Central Anatolia. Their technological, typological, and contextual analyses enable us to discuss their possible social implications, inspired by the theoretical depth that ethnographic studies provide.

Chronology, Settlements, and the Material – 8th millennium BC

The beginning of the Aceramic Neolithic period in central Anatolia, so far as is known, is represented by the 9th millennium BC sites of Aşıklı Höyük in western Cappadocia and Boncuklu Höyük in the Konya Plain[7]. Both sites are currently under investigation. The inhabitants of Aşıklı and Boncuklu were the earliest sedentary communities in the region. They lived in oval, semi-subterranean *kerpiç* buildings. They practiced the initial stages of animal and plant management alongside the hunting of a wide spectrum of small and large animals and the gathering of a variety of fruits, cereals, and legumes. They procured obsidian – the main raw material of their chipped stone industries – from the sources of Göllüdağ and Nenezi Dağ in Cappadocia. Unidirectional and bidirectional blades and bladelets dominated their chipped-stone industries. Tools include microliths[8] produced by the micro-burin technique, oblique truncated blades, burins, backed blades, pointed blades, retouched blades, and flakes.

Contrary to Boncuklu, habitation at Aşıklı continued throughout the 8th millennium BC without a break in stratigraphy[9]. Within the overall sequence, the way of life changed slowly and gradually, however. These gradual changes include the transition from oval to rectangular buildings, an increase in plant cultivation[10], a growing dominance of caprine management alongside a decrease in broad spectrum hunting strategies[11], a change into a blade production dominated by the bidirectional system, and an increase in tool sizes.

Towards the end of the sequence, during the mid-8th millennium BC contemporaneous with the aforementioned changes, oval points begin to appear at Aşıklı[12]. These longitudinally oval points were shaped by pressure retouch. In addition to the uppermost level at Aşıklı, they are also known from Musular, Yellibelen, and Sırçan Tepe located in Cappadocia; Can Hasan III and Sancak in the Konya Plain; and findspots such as Karabatak and Sapmazköy on

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6 Barclay 2014, 58.

7 Özbaşaran 2013; Baird 2012.

8 The microlith production is dominated by the oblique truncateds, which are not so similar to the typical geometric microliths.

9 Özbaşaran 2013, 5.

10 Ergun 2016, 548.

11 Stiner et al. 2014.

12 Kayacan – Algül forthcoming; Yıldırım-Balcı 2011, 414.

the southern and eastern edges of Salt Lake[13] (Fig. 1). Single examples have also been found during surveys in the region[14]. Those oval points (Fig. 2), which are not known from the early Aceramic period in the region, are considered a characteristic element of the late Aceramic Neolithic period in central Anatolia and date to 7500-7000 cal BC[15]. The chipped stone industry of this period was based on bipolar blades and flakes, and the tools included scrapers, points, splintered pieces, burins, borers, retouched blades, and flakes. The prominent feature was the abundance of scrapers and points.

Among all of these sites, Musular has yielded reliable contextual evidence on the oval arrowheads (Fig. 5). The site is located on the west bank of the Melendiz River, 300-400 m to the southwest of the Aceramic Neolithic settlement of Aşıklı Höyük. It is a multi-period site[16] where the Aceramic Neolithic levels have been radiocarbon dated to the mid-8th millennium BC.

The site is flat and the architectural remains lie either directly on the surface of the tufa bedrock or in its depressions. The overall architectural remains present a specific character. The rectangular building (Building A) (Figs. 3-4) has lime-plastered and red-painted floors, and its internal architectural features, such as benches, post-holes, and a rectangular hearth, resemble the features exposed at Aşıklı in one of the special purpose buildings – Building T. Around this building, there are small-sized channels carved into the bedrock[17], as well as a built channel made by large flat limestones[18]. The well-known 8th millennium BC residential buildings at Aşıklı[19] do not exist at Musular.

In addition to the interior architectural features, the size, plan, and construction techniques of Building A at Musular bear close similarity to the special purpose Building T at Aşıklı. Both buildings date to the middle of the 8th millennium BC. This is the time period when the settlement pattern at Aşıklı was reorganized, as the dwelling area was separated from the area of special purpose buildings by a wide gravel street[20].

Preliminary studies on the faunal remains at Musular show that cattle dominated the faunal assemblage (57%), while sheep and goat follow (39,1%). The cattle included small-, medium-, and large-sized animals; however, the latter two, which correlate well with the normal variations of *Bos primigenius*, were most numerous. The consumed and used cattle bones were deposited in layers in a midden in one of the natural depressions of the bedrock. The abundance of wild cattle remains at Musular presents another interesting pattern when compared to Aşıklı[21]. Cattle quantitatively dominate in the special purpose area at Aşıklı, while sheep and goat dominate in the dwelling area. Cattle hunting at Aşıklı was practiced for communal consumption during feasts and ceremonies conducted in the special purpose area[22]. The role of

13 Kayacan 2003; Balkan Atlı et al 2001; Ataman 1988, 117-118; Baird 2002, 144; Erdoğu et al. 2007, 88, 95; Erdoğu – Kayacan 2004, 222-223; Erdoğu – Fazlıoğlu 2006, 191.

14 Balkan Atlı-Binder 2000, 211; Balkan Atlı et al. 2008, 309.

15 Baird 2002, 143-144; Özbaşaran 2011, 110; Kayacan 2003; Binder 2002, 84.

16 The later period is dated to the early 6th millennium BC and represented by the stone foundations of a multi-roomed building as well as partial architectural remains and pottery; see Özbaşaran et al. 2007; Özbaşaran et al. 2012.

17 Özbaşaran 2007, 51-52.

18 Duru – Özbaşaran 2005, 18-19.

19 Esin – Harmankaya 1999.

20 Duru 2013, 108.

21 Özbaşaran 2013, 7.

22 Özbaşaran – Duru 2015, 50

cattle, that is, its hunting and consumption, likely went beyond the daily nutritive needs of the inhabitants.

Based on the proximity of Musular and Aşıklı, their contemporaneity, and the similarities between their architecture, faunal choices, and concepts, Musular has been hypothesized as a satellite site of Aşıklı. Here cattle hunting, processing of the hunted, and its consumption were practiced. The lack of any residential structures suggests that this off-site was built and used by the Aşıklı inhabitants.

The typological analysis of the chipped stone assemblage from Musular showed that scrapers dominated the industry (53%)[23]. Use-wear analysis[24] conducted on scrapers suggest butchering and hide processing. Additionally, traces of both of these activities were observed on unretouched flakes and blades. This indicates that, besides the formal scrapers, other tools may also have been used for similar purposes. Projectile points (21%), on the other hand, are also of interest. The majority are the oval, pressure retouched arrowheads, with a few examples of Byblos points. Both used and unused examples of projectile points have been found.

Oval points are also known from Can Hasan III located nearby at a now-dried pluvial lake in the Konya Plain. The site is slightly high with a 6 m thick deposit, 4.5 m below and 2.25 m above the ground[25]. It is contemporaneous with Musular and occupied between 7650-6610 BC[26]. The Aceramic Neolithic occupation at the site continued without interruption, as suggested by the seven consecutive building phases. The settlement pattern consists of densely located rectangular buildings with mudbrick walls, very much similar to the 8th millennium BC settlement layout of Aşıklı Höyük in Cappadocia and also Çatalhöyük in the Konya Plain. Other architectural similarities include the occasional renewal of the buildings and the use of ochre on floors. Amongst the faunal remains, cattle dominate the assemblage at Can Hasan III, followed by sheep and goat[27]. The chipped stone assemblage consists of projectile points (30%), thus indicating intensive hunting. However, very few of those were found in well-defined contexts (n=35) with most coming from mixed fills due to subsequent destruction at the site. The projectile points exhibit typological differences, but the majority (n=155) are oval points, which were defined as Can Hasan points. According to Ataman[28], a few Byblos points (n=5), bifacial retouched points (n=5), large oval points (n=2), and miscellaneous points (n=6) are also evident. Scrapers (n=130) are amongst the other common tool types at Can Hasan III. The chipped stone assemblage, when considered together with the faunal remains, indicates the importance of hunting and hide-processing practices.

Suberde, to the northwest of Suğla Lake[29], is another 8th millennium BC settlement where oval points were found. The settlement is located on a calcareous hill 30 m above the lake and consists of a 4 m thick deposit. According to the C14 dates, the site was occupied between 7600-6750 B[30]. The Aceramic Neolithic period at Suberde is known from Levels II and III. The architectural characteristics of this period consist of rectangular buildings with mudbrick

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23 Kayacan 2003, 7.

24 Astruc et al. 2008.

25 French et al. 1972, 182.

26 Thissen 2002, 324-325; Erdoğu et al. 2003.

27 French et al. 1972, 188.

28 Ataman 1988, 177.

29 Bordaz 1973; Bordaz 1969.

30 Thissen 2002, 324, 326.

walls, although buildings with stone foundations have also been found. The archaeozoological analyses indicate that sheep and goat (85%) were the principally exploited animals. The faunal remains from Level II suggest an increase in cattle consumption during this period. Amongst the chipped stone assemblage, points and scrapers are dominant. In accordance with the increase in cattle remains, there is also an increase in the number of points during Level II.

During the systematic intensive field survey conducted in the Tuz Gölü[31] region, sites yielding oval points have been identified. One of these sites is Karabatak located to the south of Salt Lake and 3 km to the west of Yeşiltepe village in Aksaray[32]. The site is characterized by small concentrations of chipped stone and pottery. Alongside scrapers, projectile points (n=21) are abundant within the chipped stone assemblage. These consist of oval-shaped, unifacially, or bifacially pressure retouched points. The pottery shows similarities to the Neolithic and Chalcolithic pottery of the region. However, the unifacially retouched points also suggest the possibility of Aceramic Neolithic occupation in this area[33].

Another site is Sapmazköy, which is located 18 km to the east of Salt Lake[34]. Sapmazköy is an oval, low mound on an Eocene cliff. Amongst the surface finds are pottery, chipped stone and ground stone tools, and faunal remains. Archaeozoological results attest to the presence of sheep and goat, large-sized cattle, and small-sized equids. The chipped stone assemblage is quite numerous (n=2403). Projectile points constitute 18.89% of the assemblage including oval-shaped, unifacially, and bifacially retouched points. Other tools include scrapers, borers, splintered pieces, retouched blades, and flakes. The pottery is dated to the Chalcolithic period around approximately 6000 cal BC. However, the unifacially retouched points indicate an occupation during the late phases of the Aceramic Neolithic period.

Technological and Typological Background of the Oval Points

The oval points could be defined as oval/leaf-shaped points. They have been sharpened at both ends, retouched either all over the surface or only on one side, and measure between 40-80 mm in length. They have been retouched with a pointed hand-held tool using the pressure technique.

During the 8th millennium BC, these points varied in terms of their size and form. Long, short, wide, and narrow varieties are known from different settlements. These variations could be related to the hunting strategies, the identities and preferences of the community, or the individual who produced and used them. However, in contrast with this variety, the production techniques and methods – and thus the norms of oval point production – can be clearly defined.

The chipped stone industry of Musular presents sufficient data to establish a *chaîne opératoire* for the oval points. The material from Musular is of a different length, width, and thickness. Examples of a series of same measurements are also evident. The common points measure around 70 x 15 x 5 mm. Generally, the length varies between 29.5-86 mm, the width varies between 10.39-21.50 mm, and the thickness varies between 3.30-8.70 mm. Nevertheless, examples such as the short-wide ones, short-narrow ones, and long-thick ones have also been

31 Meaning "Salt Lake".

32 Erdoğu et al. 2007, 88.

33 Erdoğu – Fazlıoğlu 2006.

34 Erdoğu – Kayacan 2004.

identified (Fig. 5). The triangular sections stem from the longitudinal back on the upper face (dorsal side), while the lower face is generally flat (Fig. 2).

These measurements and shapes are most likely related to the preparation of the cores. The cores from Musular are generally exhausted and have therefore lost their original shapes, which in turn gives us little information regarding the knapping strategies that could be tracked from the negatives. However, four cores (Fig. 6) left during the initial stages of knapping, which thus have not lost their original forms, are of importance to the discussion here. These cores were knapped with direct percussion through two opposite platforms, namely with the bipolar technique. This knapping technique allowed the production of sharp-ended, oval/leaf-shaped blades. The production stages identified through the cores are as follows: The aimed form of the core had an effect on the selection of the obsidian block. Within the Musular cores, one had been abandoned without any knapping on the backside, while another had only been partially knapped. The presence of natural surfaces on the cores and their use without knapping were most probably related to the choice of the block. For the knapper, the form of the block is important, since it would be time efficient to choose the block most similar in shape to the aimed core[35]. When the geometrics of the cores are considered, transverse sections reveal that they are triangular in shape, which was probably obtained during the selection of the block or within the initial stages of knapping. From the backside to the frontal side of the core, a V-shaped opening on the knapping face allows the aimed triangular shape. This also suggests that during the initial stages of production the block was not prepared bifacially. This was followed by the opening of oblique platforms on both ends. The core was then knapped bilaterally through these platforms (Fig. 7: 1). During this process, blades with natural surfaces or crested blades with triangular sections were produced. Afterwards, the knapper continued to reduce blades from the knapping surface and produced central blades, again with triangular sections (Fig. 7: 2). Those blades with triangular sections, blades with natural surfaces, crested blades, and the central blades were the blanks of oval point production.

The negatives observed on the aforementioned cores from Musular are reduced blades with triangular sections (Fig. 7: 1, 2). The length and width of those negatives (Fig. 2) are similar to the measurements of the Musular points.

Core 1: 93,90 x 26,32 mm
Core 2: 76,51 x 22,42 mm
Core 3: 62,56 x 29,29 mm
Core 4: 80,07 x 21,70 mm

Those triangular sectioned blades that could be regarded as the blanks of the aimed point production were pressure retouched. The common application of pressure retouch during the 8th millennium BC appears to cover the entire dorsal face of the points and covers only the proximal end of the ventral face, approximately 1/5 of the surface. After the dorsal face was retouched, the thick bulb on the proximal end was extracted from the blade. During the extraction, the blade was pressure retouched from both sides to the ventral face, allowing this part of the blade to become thinner. Then the thinner part is broken by hand (Fig. 7: 4). The pressure retouch on the ventral face of the point could be explained by this procedure. It is also worth mentioning that this retouch allowed the point to fit the shaft. This technique, which could be

[35] However, in terms of the social values of a given community, such a knapping strategy might as well have been regarded as a cut corner.

defined as the snapping technique, was used to split the blade, just as in the micro-burin technique employed for microlith production. The debitage from the snapping process exhibited different measurements at Musular (Fig. 8), as did the ones from Can Hasan III[36].

Within the oval points, Can Hasan III stands out with its unique incised projectile points (n=30)[37] (Fig. 9: 1-2). The incisions are located on the non-pressure retouched ventral side. However, a contextual evaluation of their meaning and use could not be conducted since they were found mixed with the surface soil. Ataman states that, although there are similar motives, the incision on each point is different from the other; hence, no pattern could be recognized[38]. Our current knowledge suggests their uniqueness to the Can Hasan III inhabitants. Yet single examples are documented from some localities in Central Anatolia, such as the ones found in the Karabatak locality[39] (Fig. 9: 4-5), the upper levels of the Göllüdağ Kaletepe atelier (Fig. 9: 3) in Cappadocia[40], and examples identified during the surveys conducted in Göllüdağ[41] (Fig. 9: 6).

Discussion

The mid-8th millennium BC in Central Anatolia is represented by the excavated sites of Aşıklı, Musular, Can Hasan III, and Suberde as well as the surveyed sites of Karabatak, Sapmaz, Göllüdağ, Yellibelen, and Sırçan Tepe. The relevant data is known either as survey material or comes from the material of the uppermost levels of the excavated settlements, which were partially destroyed by later occupations and/or by modern agricultural activities. Thus the picture is quite patchy. Nevertheless, the present data from these sites suggest that cattle hunting had significance for the 8th millennium communities of Central Anatolia.

Regarding this significance, Musular gives the richest and most reliable contextualized information about the site, the daily activities of the community, and the cattle hunt. The cores and debitage within the Musular assemblage indicate on-site production. Use-wear analysis reveals that blades and flakes were used for cutting and butchering, and that scrapers were used for hide processing. The dominance of wild cattle over other species, as well as the regular and layered deposition of cattle bones, provides further data on the significance of cattle. The special architectural characteristics, when interwoven together with the above-mentioned data, suggest that Musular was a special activity site related to cattle hunting. Hunting included pre- and post-hunting activities that were accompanied by certain rituals and probable ceremonies[42].

Ethnographic studies on the other hand have shown that large-game hunting generally carries meaning beyond solely being a source of protein, and activities related to this practice, such as meat sharing, are regulated by certain rules[43]. For the Yanomami, meat from the large-game hunt is the only thing that is shared within the community. This practice is what bound

36 Ataman 1988, 108-109, 129.

37 Ataman 1988, 264.

38 Ataman 1988, 266.

39 Erdoğu et al. 2007, 88, 95.

40 Balkan Atlı – Binder 2000, 210-211.

41 Balkan-Atlı et al. 2008, 304, 309.

42 Özbaşaran 2009.

43 Chagnon 2004, 256; Bates 2009, 133.

families together and created social cohesion amongst the inhabitants of the village[44]. In South America, when a tapir - an indigenous animal from this region - is hunted, the hunter gets no share while the meat is distributed amongst the family members. This is considered a practice appreciated by the entire community[45]. The San people regulate the distribution of the meat based on the size of the game. Small-game hunting requires no specific rules for distribution, but certain rules are practiced during the distribution of the meat from large game. Whether or not he or she is the one who made the shot, the owner of the arrow that kills the animal gets the first share. The meat is divided in accordance with the size of the group, while those who receive a share of the meat redistribute it amongst their relatives[46]. The ethnographic data implies that the organization behind the hunt, the size of the game, and the resulting meat-distribution mechanisms are practices of importance that strengthen communal bonds.

When the amount of the wild cattle remains from Musular and their sizes are considered (each weighing approximately one ton), it could be suggested that the organization of the hunting - including the preparation of the tools, transportation of the game to the site, processing and sharing the meat, the bones and the hide - all constitute important events. Furthermore, the building in which these events took place alludes to aspects of symbolism related to the entire hunting process, as suggested by the special purpose building with red-painted, lime-plastered floors at Musular.

Abundant cattle bones, points, and scrapers are the main remains of practices and processes related to hunting. When the presence of similar elements in other contemporaneous settlements in the region is considered, wild cattle hunting appears to have had a common importance for 8th millennium BC communities.

It is difficult to know the exact motivations and meanings hidden behind the incised points from Can Hasan III or what they represented. Nevertheless, ethnographic studies have shown that in some cases the producers mark those items with individual signs. In other cases the arrows were produced in such a way that the individual who made or owned it could be recognized. The Awa provide an example where the owner/producer of the arrow embodies the item with individual choices such as the size and design or simply by putting a feather on the arrow. Such individual differences allow others to recognize the owner of the arrow, even when it is broken[47]. Similarly, the San hunters could also differentiate each other's arrows[48]. The lack of marks on other settlements except Can Hasan III may not necessarily mean that hunters of other communities did not own their points or any other items that might indicate their identity/personality. Shafts made from perishable materials such as wood might well have been marked, incised or decorated with signs of individuals or group affiliations. Size and form variations, which are observed within the Musular assemblage, may also been considered as a marker for the producer or the owner of the item. Nonetheless, one must be cautious in any further interpretation, since the possible form variety could stem from different hunting strategies as well.

Reconstructing prehistoric hunting rituals solely through material culture is a challenging task. The aim of understanding the socio-cultural aspects of prehistoric communities makes it

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44 Bates 2009, 165.

45 Chagnon 2004, 256.

46 Bates 2009, 133-134.

47 Gonzalez-Ruibal 2011, 5-6.

48 Wiessner 1983, 262.

essential to study the archaeological data with a contextual and holistic approach. Musular in this sense enables an integrated interpretation of the data by contextualizing the tools as well as the faunal and the architectural remains exposed in this special site. On the other hand, the chronological span in this article in general is represented by scanty and deficient archaeological data. Yet the ethnographic examples provide motivating and encouraging cases for the further interpretation of the archaeological material beyond functions. However, it should be emphasized that the aim of this article is not to make analogical comparisons between ethnographic and archaeological data, but to accentuate ethnographic studies in understanding the world constructed around archaeological things.

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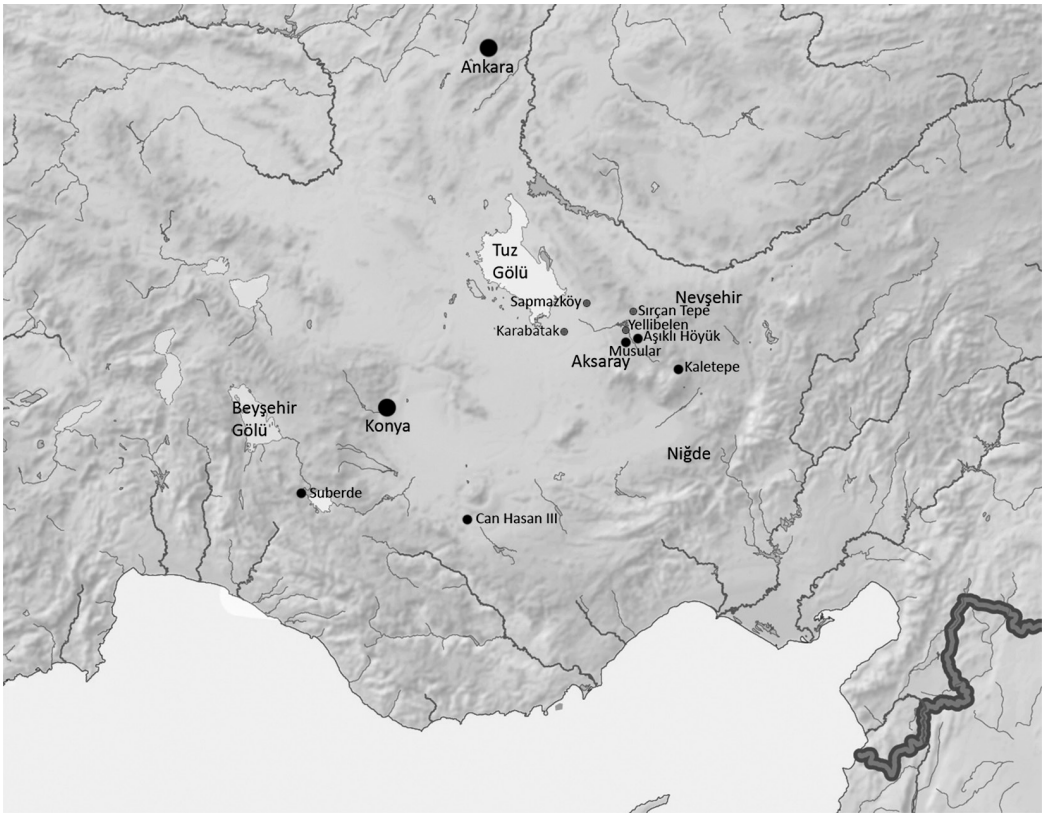

Fig. 1 8th millennium BC settlements in Central Anatolia

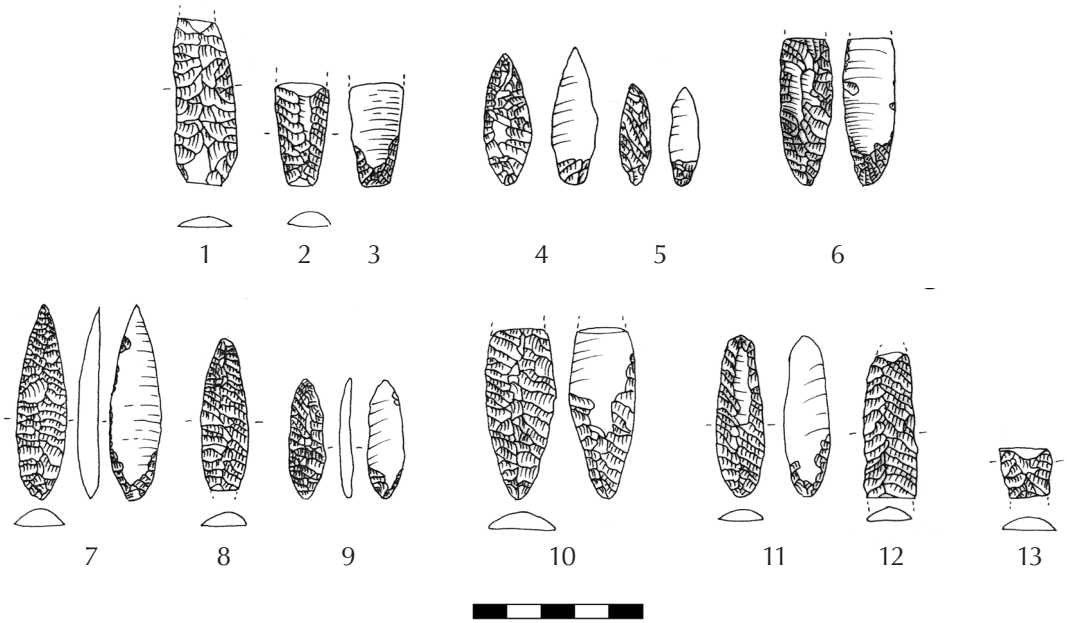

Fig. 2 Oval points: Aşıklı 1-3, Can Hasan III 4-5, Karabatak 6, Musular 7-9, Sapmazköy 10, Yellibelen 11-12, Sırçan Tepe 13 (Balkan Atlı 2001, 32, 35-36; Ataman 1988, 231; Erdoğu et al. 2007, 95; Erdoğu – Kayacan 2004, 223)

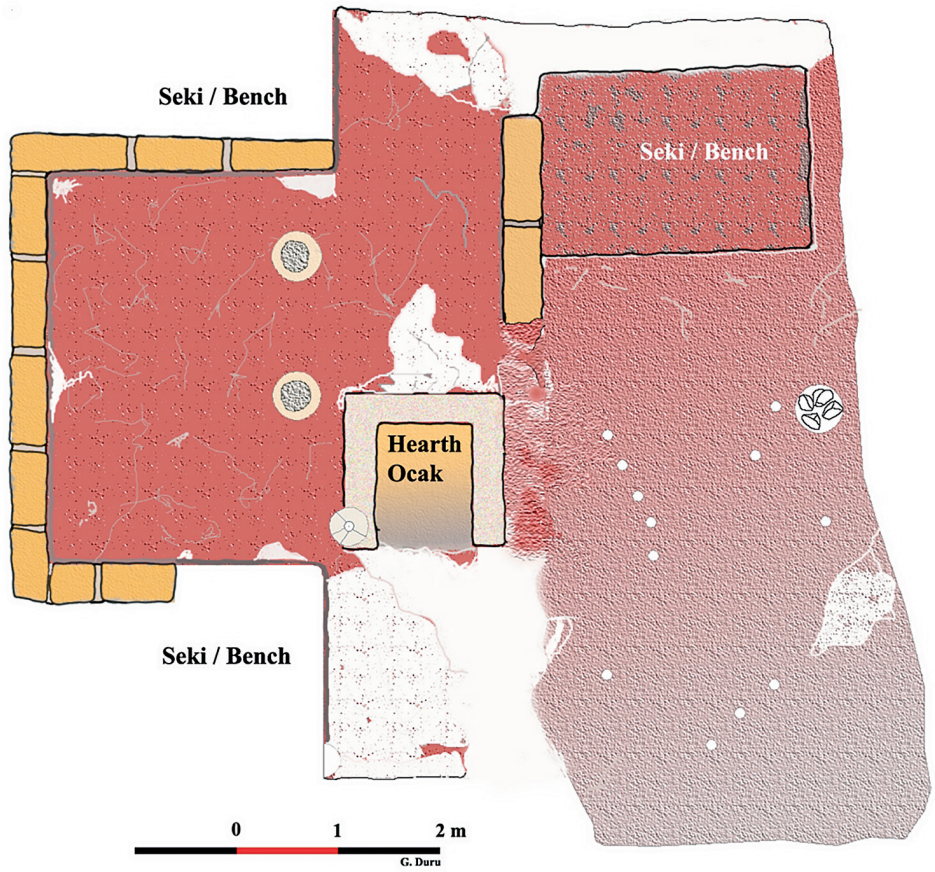

Fig. 3 Building A, Musular (Plan: G. Duru / Musular Project)

Fig. 4 Building A with its lime-plastered, red-painted floor.
Note that the stone walls belong to a later phase (Photo: M. Özbaşaran / Musular Project)

Fig. 5 Oval points from Musular

Fig. 6 Cores from Musular

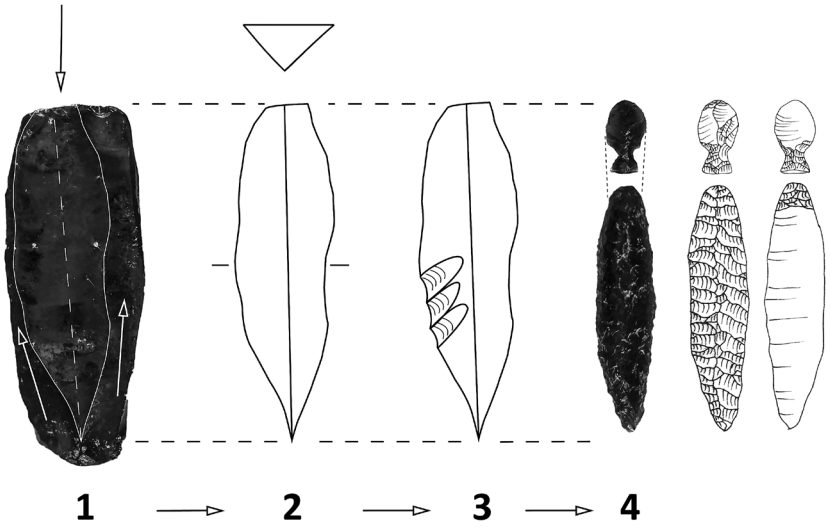

Fig. 7 *Chaîne opératoire* of oval points from Musular

Fig. 8 Snapped bulbar pieces from Musular

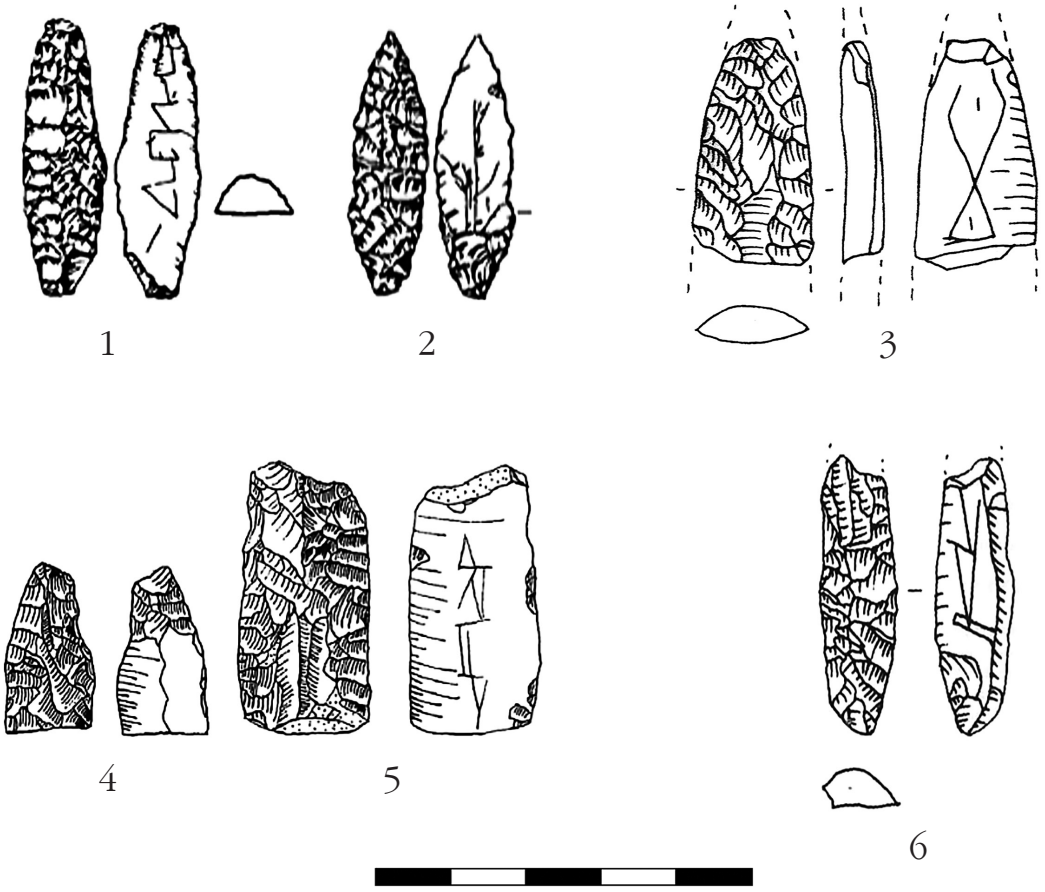

Fig. 9 Incised oval points in Central Anatolia: Can Hasan III 1-2,
Kaletepe 3, Karabatak 4-5, Göllüdağ 6 (Ataman 1988, 270;
Balkan Atlı-Binder 2000, 211; Erdoğu et al. 2007, 95; Balkan Atlı et al. 2008, 309)