

Material Engagement, Resources and New Discoveries in Central Anatolian Neolithic*

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The shift from a mobile life of hunting and gathering to a sedentary way of life was a remarkable transformation in human history. Renfrew suggested that the development of sedentary way of life allowed a much more varied relationship with the material world to develop (Renfrew 2001: 127). Human culture becomes more substantive and more material and this is related to sedentism. When people had settled, emergence of certain materials as embodying wealth and prestige led to fundamental changes in the society. The material engagement has the effect of creating a more stable and structured society. Hodder regards sedentism as one of the products of entanglement (Hodder 2004: 46). According to him each material act such as plastering a floor or making mud bricks involves a network of entanglement, and the entanglements extend into a network which is material, social, symbolic and conceptual. On the basis of Çatalhöyük excavations he also argues that material entanglement creates the possibility for a greater human intervention that lies behind the processes of storage, sedentism and domestication (Hodder 2006: 237 ff.). The remarkable Neolithic site of Çatalhöyük, which is situated in Central Anatolia, encompasses densely packed mud-brick buildings with a wealth of art and artefacts. It was dated to 7450-6000 cal. BC, Late Aceramic Neolithic and Pottery Neolithic Periods (Hodder 2006). On the other hand, Aşıklı Höyük (and now Boncuklu) is the yet known earliest settlement in the region and covers the millennium before Çatalhöyük. Excavations at the site evidenced the life of a sedentary community whose subsistence was dependant primarily on hunting animals and gathering wild plants as well as some agriculture. It is a large and densely packed site, dated to 8500-7450 cal. BC,

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Aceramic Neolithic Period (Esin and Harmankaya 1999). Three small late Aceramic Neolithic sites have been located around Aşıklı Höyük. Among these sites, Musular is the only one that has been excavated. Musular is a non-domestic site, most probably related with the ceremonial activities of cattle hunting (Duru and Özbaşaran 2005; Özbaşaran *et al.* 2007). It was dated to 7600-6600 cal. BC, contemporary with Canhasan III (French 1972). There can be no doubt that Central Anatolia is one of the key regions for understanding the development of sedentary way of life.

Salt in Prehistoric Central Anatolia

The materialization of the Neolithic society made resources precious - stones to make tools, clay to make bricks and plasters, salt to preserve food etc. Resources were important for human subsistence and their products were important exchange items linking together communities. Resources, as socially constituted, play an important role in the ordering of cultural relations. Control over the main resources may have been an important source of power. Central Anatolia was probably an attractive region for early sedentary communities with its plentiful resources, mainly obsidian and salt. Central Anatolian obsidian has been investigated since the 1960s (e.g. Renfrew *et al.* 1966; Renfrew 1968). In the 1990s a new research project was initiated by the Prehistory Department of Istanbul University and CNRS, France with the principle aim of investigating obsidian sources in detail. The project also sought to locate obsidian workshops near the sources to define different *chaîne opératoire* and to link these workshops with the prehistoric settlements (Cauvin and Balkan-Atlı 1996; Balkan-Atlı *et al.* 1999). On the other hand, the Central Anatolian Salt Project (CASP) was initiated recently with the aim of defining the use of salt, the date, intensity and significance of salt trade in Anatolian prehistory through a pilot investigation of Tuz Gölü and neighboring archaeological sites (Erdoğu and Fazlıoğlu 2006; Erdoğu and Özbaşaran, in press). Tuz Gölü is a large lake, measuring ca. 85x60 km, and is an important regional source of salt. The water has a high salt content, up to 33% saline, which evaporates in summer to form salt crusts some 5-30 cm in thickness (Koday 1998-99: 131).

Salt was a source of major importance in ancient times (e.g. Nenquin 1961; Multhauf 1978; Adshead 1992). Its biological role in the maintenance of human and animal health, its use in the preservation of foodstuffs, possible production functions such as tanning, pickling and other functions such as in the working of metals, in the making of cheese, during mummification, and consequently the need to move salt from salt-rich to salt-poor areas have led

scholars to ascribe a huge importance to discovery, exploitation and movement of salt in ancient times.

It is generally accepted that increasing sedentism led to interest in methods of food preservation for long periods. Domestication of animals, processing their skin and the secondary products would also have included salt. In Central Anatolia, the earliest archaeological evidence for using salt comes from the Neolithic site of Çatalhöyük. Concentrated salt deposits were found in a number of food preparation and cooking areas and at least in one case salt deposits were found in oven rake-out with food preparation or cooking debris (Building 17, space 170 on the NE platform) along with charred plant remains (Atalay and Hastorf 2005). However, the possibility of an earlier use of salt comes from the late Aceramic Neolithic site of Musular in Central Anatolia. Archaeological evidence suggests that cattle-hunting was especially important for the settlement. The size and the age pattern showed that wild cattle were chosen intentionally for hunting. The large quantity of obsidian arrowheads and cutting tools support the idea of hunting and butchering where the dominance of scrapers suggests hide processing. Structures at Musular lay mainly on the bedrock. Duru and Özbaşaran suggest that the flat bedrock of Musular would also have provided suitable areas for butchering and sharing of hunting animals, as well as other activities (Duru and Özbaşaran 2005: 23). Probably salt was used in preserving, curing meat and tanning at Musular.

Survey Results

One of the objectives of the Central Anatolian Salt project is to conduct a systematic extensive and intensive field survey around Tuz Gölü, and to find and investigate potential salt exploitation sites (Erdođu and Kayacan 2004; Erdođu and Fazlıođlu 2006). The survey was carried out in two phases. In the first phase, promising areas for salt exploitation were surveyed by field walking, assisted in some cases by the information provided by local villagers. In the second phase, a more detailed investigation of Neolithic sites was undertaken. The main objective of the second phase of the survey was to investigate the Neolithic sites close to the Salt Lake coeval with Aşıklı Höyük, Musular and Çatalhöyük, possibly related to salt exploitation.

The survey was conducted in the south-east part of Tuz Gölü in the Aksaray region (Fig. 1). In the south-east part of Tuz Gölü large scale sedimentation occurred between 18,000 and 13,000 years ago and formed a wide terrace along the lake side. The sedimentation occurred in this period as a result of a change in the water level, which rose 10-30 m causing the lake to expand up to the southern edge of the basin (Kashima *et al.* 1998). Just before

the Holocene, the water level of Tuz Gölü began to fall and the south part of the basin terraced. Archaeological sites were found on the first terrace of the lake which rose slightly above the recent salt flats. It is a low, completely flat and dry terrace almost without any vegetation.

Among archaeological sites Karabatak is noteworthy in that 13 concentrations are characterized by prehistoric artefacts. Karabatak is located ca. 3 km west of Yeşiltepe village (Fig. 2). Most concentrations were situated on some kind of beach ridges. In prehistoric times probably a small lake existed in this area, which needs to be confirmed by geomorphological investigations. Survey results show that these small concentrations constitute not actual occupations but some kind of activity areas probably related to salt exploitation. Chipped stone implements of Karabatak constitute important groups of findings. The raw material used in the chipped stone industry of Karabatak consists mainly of obsidian. The preliminary investigations on the chipped stone industry show that arrowheads or spearheads are quite numerous in the Karabatak assemblages and they can be compared with other Aceramic and Pottery Neolithic and the early Chalcolithic sites of Central Anatolia such as Musular (Kayacan 2003: Fig. 5), Canhasan III (Ataman 1988: Fig. 74), Çatalhöyük (Conolly 1999: Fig. 4.1) and Tepecik/Çiftlik (Bıçakçı 2001: Fig. 5-6). A total of 21 arrowheads were found in 7 concentrations, and they are mostly bifacially pressure retouched arrowheads (Fig. 3). Unifacially pressure retouched arrowheads with inverse retouch were also found. At least two unifacially pressure retouched arrowheads with inverse retouch limited to the proximal end of Karabatak concentration 11 show good parallels with the late Aceramic Neolithic arrowheads of Musular (Özbaşaran 2000: Fig. 16: 1-2; Kayacan 2003: Fig. 5: 1-2) (Fig. 4; 3). Similar arrowheads can also be found at the late Aceramic Neolithic sites of the Konya Plain (Baird 2002). Two broken unifacially pressure retouched arrowheads of Karabatak 11 have incised markings on their ventral surface (Fig. 4; 1-2 and Fig. 5). Similar unifacially pressure retouched arrowheads with incised markings have been found in the late Aceramic Neolithic site of Canhasan III (Ataman 1988: Figs 86 & 87), and one sample has also been found in Kaletepe (personal communication by N. Balkan-Atlı).

Concentrations at Karabatak yield mainly medieval and bronze age potteries. Neolithic and Chalcolithic potteries were found only in three concentrations (2, 7 and 11), and similar potteries were noted at Musular, Sapmazköy and Güvercinkayası in Central Anatolia (Erdoğan and Fazlıoğlu 2006: Fig. 5).

About a kilometer north of Karabatak, near the shore of the lake lies another site - Sontepe- where obsidian implements were collected from slopes of

small natural hills (Fig. 6). The majority of the obsidian artefacts are flakes and arrowheads. A shouldered broken arrowhead with a tang formed by abrupt retouch on each side shows good parallels with the Aceramic Neolithic site of Aşıklı Höyük (Balkan-Atlı *et al.* 2001: Fig. 5; 5-8). A microlith and small round scrapers can also be compared with Aceramic Neolithic sites of Central Anatolia (Fig. 7).

Bifacially and unifacially arrowheads with Neolithic and Chalcolithic potteries were also found in Yavşanlık and Has Süleyman about a few kilometers east of Karabatak, and at the site of Sapmazköy. Finds from these sites have already been published in detailed articles (Erdođu and Kayacan 2004: Fig. 5; Erdođu and Fazlıođlu 2006: Fig. 3-4).

Concluding Remarks

Sedentism is probably linked with intensification of exploitation and use of abundant resources. Central Anatolia, with its plentiful resources, was an attractive region for the early settled communities, and salt was one of its main resources. The large Salt Lake on the Anatolian plateau is an important source of salt. The earliest archaeological evidence for using salt comes from the Neolithic site of Çatalhöyük. Potential salt exploitation sites were found during our surface survey in the southeastern part of Tuz Gölü. The salt exploitation may account for the location of Karabatak, Sontepe and Yavşanlık. The earliest finds from these sites are dated to the Aceramic Neolithic period, ca. 8500-6600 cal. BC. With additional geomorphological and archaeological work, it will in the near future be possible to define and explain the social and cultural impact of salt exploitation and trade in Central Anatolia as well as the relationship between salt sources and major archaeological sites.

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Nesnelerin İçselleştirilmesi, Hammadde Kaynakları ve İç Anadolu Bölgesi Neolitiği Hakkında Yeni Bulgular

C. Renfrew'a göre yerleşik düzenle birlikte toplumların maddi bağımlılıkları artmış ve maddi nesnelere bütünleşen insan daha sağlam bir toplum yapısı oluşturmuştur. Nesnelerin sembolik güç kazanmaları, bunun sonucunda da onlarla bütünleşerek toplumsal ve ekonomik değişikliklerin yaşanması, yerleşik düzen ile birlikte başlamıştır. I. Hodder, Renfrew tarafından ortaya atılan maddi dünyanın bilinçsel ve toplumsal dünyalardan ayrı tutulamayacağı görüşünü destekler. Ona göre yerleşiklik maddi iç içe geçmişlikle bağlantılıdır ve nesnelerin içselleştirilmesi yerleşikliğe yol açmıştır. Çatalhöyük örneğinde olduğu gibi nesnelerin içselleştirilmesi toplumsal bağları güçlendirmiştir, bu da yerleşiklik, evcilleşme ve depolama süreçlerine yol açmıştır. Bugünkü bilgilerimize göre İç Anadolu'da yerleşik düzene geçişi veren en erken yerleşim yeri M.Ö. 8500-7450 yıllarına tarihlendirilen Aşıklı Höyük'tür (Boncuklu Höyük'te yapılan yeni kazılar da aynı dönemi vermiştir). Gerek Aşıklı Höyük ve Musular, gerekse Çatalhöyük'te yapılan kazılar İç Anadolu Bölgesi'nin erken yerleşik topluluklar için çekirdek bir merkez olduğunu göstermiştir.

Yerleşik düzene geçtikten sonra toplumların maddi bağımlılıkları hammadde kaynaklarını daha da önemli kılmıştır. İç Anadolu Bölgesi başta obsidiyen ve tuz olmak üzere hammadde kaynakları bakımından oldukça zengindir. Bölgede obsidiyen kaynakları ile ilgili araştırmalar 1960'lı yıllarda başlatılmış olsa da tarih öncesi dönemlerde tuz üretimi, kullanımı ve ticareti ile ilgili araştırmalar son yıllarda İç Anadolu Tuz projesi kapsamında gerçekleştirilmiştir. Özellikle yerleşik düzene geçildikten sonra yiyeceklerin uzun süre saklanmasında, hayvanların evcilleştirilmesinden deri tabaklamasına kadar tuzun kullanılmaya başlandığı bilinmektedir. İç Anadolu Bölgesi'nde tarih öncesi dönemlere ait tuz kullanımı ile ilgili en erken kanıtlar Çatalhöyük yerleşmesinden gelmektedir. Mikromorfolojik analizler sonucunda bir binanın (17 nolu bina) içindeki yemek hazırlama bölümünde ve ocak yanındaki gündelik artıklarda tuzun izine rastlanılmıştır. Tarih öncesi dönemlere ait tuz kullanımı ile ilgili dolaylı bir örnek ise, Akeramik Neolitik Çağ'a tarihlendirilen Musular'dan gelmektedir. Musular, Aşıklı Höyük yakınında yer alan özel faaliyet alanı olarak değerlendirilmektedir. Arkeolojik veriler, Musular'da iri yabani sığır avcılığının önemli olduğunu, sadece belirli büyüklükte ve

yaş gruplarında sığırların seçilerek avlandığını ortaya çıkarmıştır. Obsidiyen aletlerin büyük bir bölümü okuçlarından oluşmaktadır. Kazıyıcılar ikinci büyük grubu oluşturmaktadır ki mikroskopik analizler hayvan derilerini yüzmekte kullanıldıklarını işaret etmektedir. Yoğun avcılık faaliyetleri ile karakterize edilen Musular'da, gerek deri işçiliği için, gerekse etin uzun süre saklanması için tuza ihtiyaç duyulmuş olması gerektiği düşünülmektedir.

2003 yılından bu yana İç Anadolu Bölgesi Tuz Projesi kapsamında sürdürülen yüzey araştırmalarının amaçlarından biri Tuz Gölü çevresinde Çatalhöyük, Aşıklı Höyük ve Musular ile çağdaş, tuz üretimi ve ticareti ile bağlantılı yerleşim yerleri veya atölyeler bulabilmektir. Tuz Gölü'nün güney kesiminde gerçekleştirilen araştırmalarda Tuz Gölü'ne yakın bir konumda Karabatak mevkiinde, tarih öncesi dönemlere tarihlendirilen buluntular küçük öbekler halinde bulunmuştur. Daha çok mevsimlik kamp yerleri izlenimi veren 13 öbekten toplanan obsidiyenden yapılmış tek veya çift taraflı baskı düzeltili ok/mızrak uçları Karabatak'ın en önemli buluntu topluluğunu oluşturmaktadır. Karabatak'ta bulunan ok/mızrak uçları İç Anadolu Bölgesinde Musular, Canhasan III, Çatalhöyük ve Tepecik/Çiftlik gibi Geç Akeramik Neolitik, Çanak çömlekli Neolitik ve İlk Kalkolitik dönemlere tarihlendirilen yerleşmelerde bulunanlarla karşılaştırılabilir. Özellikle 11 nolu öbekte ele geçen tek taraflı düzeltili ok/mızrak uçları, Musular Geç Akeramik Neolitik Çağ'a ait ok/mızrak uçlarının benzerleridir. Ayrıca aynı öbekte bulunan tek taraflı düzeltili 2 ok/mızrak ucunun üzerine kazıma ile yapılmış işaretlerin benzerlerine Geç Akeramik Neolitik Canhasan III ve Niğde-Kaletepe obsidiyen atölyesinde de rastlanmıştır. Karabatak mevkiinde toplanan çanak çömlekler bölgede Musular, Sapmazköy, Güvercinkayası ve Karakuyu II gibi Son Neolitik ve Kalkolitik çağlara tarihlendirilen yerleşmelerden gelen çanak çömlekler ile karşılaştırılabilir.

Karabatak mevkiinin yaklaşık 1 km kuzeyinde Tuz Gölü'nün tam kıyısında Sontepe adını verdiğimiz mevkiide alçak bir tepenin yamaçlarından toplanan obsidiyen aletler içinde Aşıklı Höyük yerleşmesinden bilinen (M.Ö. 8500-7450) küçük yuvarlak kazıyıcılar ile bir mikrolit alet ve okucu şimdiye kadar Tuz Gölü çevresinde ele geçmiş en erken buluntu topluluğunu oluşturmaktadır. Araştırmalarımız sırasında gene Neolitik ve Kalkolitik çağlara ait buluntular Ulukışla köyünün kuzey doğusunda Yavşanlılık ve Has Süleyman yerleşmelerinde de ele geçmiştir.

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Fig. 1 Location map of Neolithic sites in the survey area



Fig. 2 Karabatak

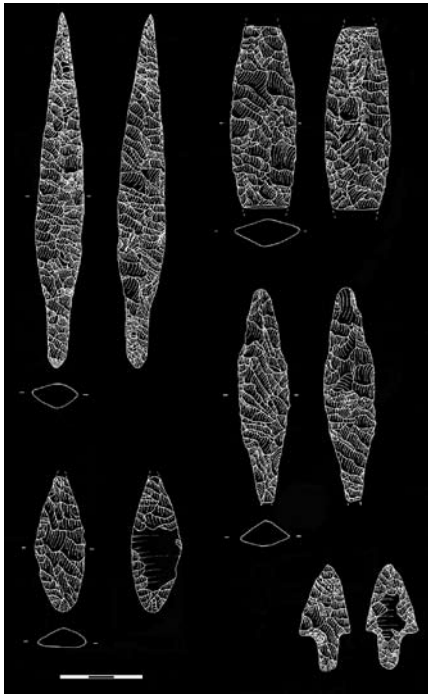


Fig. 3
Arrowheads from
Karabatak

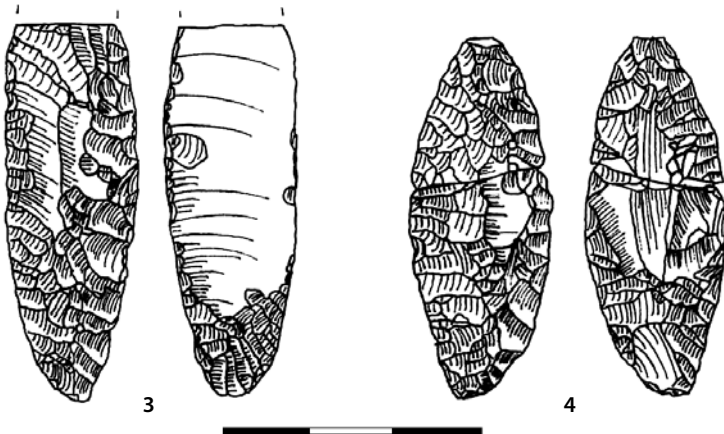
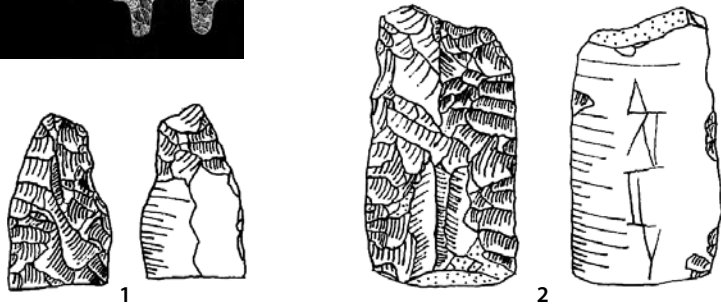


Fig. 4
Arrowheads
from
Karabatak



Fig. 5
A uniaxially pressure
retouched arrowhead with
incised markings from
Karabatak



Fig. 6 Sontepe

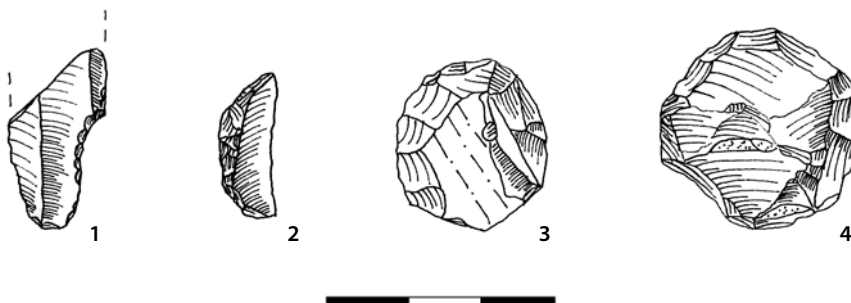


Fig. 7 Obsidian implements from Sontepe