TRACKING THE NEOLITHIC IN THE NEAR EAST

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Lithic Perspectives on Its Origins, Development and Dispersals

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YOSHIHIRO NISHIAKI, OSAMU MAEDA & MAKOTO ARIMURA

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Nurcan Kayacan, A. Nigel Goring-Morris, Güneş Duru and Mihriban Özbaşaran

Abstract

Volcanic Cappadocia is a unique region in Anatolia, having a diverse geology that has provided prehistoric communities with a variety of raw material sources, including obsidian, basalt and tufa, as well as water resources in the catchment area of the Melendiz River and its tributaries. However, data on the presence of local prehistoric communities in the region has been scarce. Of late, studies concentrated on the transition from a mobile hunter-gatherer way of life to sedentism and food production in the region. Recent research at Aşıklı Höyük has provided substantial evidence on the processes of early sedentism of a mid-9th and 8th millennium cal. BCE community on the banks of the Melendiz River. However, an in-depth understanding of the cultural context of the transition to sedentism required further research. The Cappadocia Prehistoric Survey (CAPs) was initiated in 2016 to gain further data on this timeframe. Three seasons of survey and the subsequent excavations at the newly discovered site of Balıklı since 2018 provide new evidence on the early Neolithic communities and the diversity of lifeways towards the end of the 9th and the beginning of the 8th millennium cal. BCE in the region, which is the main focus of this study.

Central Anatolia, survey, Epipalaeolithic, Neolithic, obsidian

Nurcan Kayacan
Istanbul University, Istanbul, Turkey
Corresponding author:
nurcan_kayacan@yahoo.com

Mihriban Özbaşaran
Istanbul University, Istanbul, Turkey

A. Nigel Goring-Morris
The Hebrew University of Jerusalem, Jerusalem, Israel

Güneş Duru
Mimar Sinan Fine Arts University, Istanbul, Turkey

1. Introduction

The transition from mobile hunter-gatherer ways of life to year-round sedentism and food production has been subsumed under the term of 'Neolithic' (Childe 1942; Braidwood 1946; Kenyon 1957; Bar-Yosef and Belfer-Cohen 1989). Despite this generic definition, the period is characterized by the variable lifeways of different communities dispersed throughout vast areas (*c.* 4 million km^2) of Southwest Asia. The tendency of categorizing settlements and communities as homogenous cultural groups has recently been abandoned in favor of understanding their unique local environmental and cultural preferences, behaviors, and identities (*cf.* Duru 2018).

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In the distinct geography atop the central Anatolian plateau (Fig. 1), groups of hunter-gatherer communities began settling down at Aşıklı Höyük during the mid-9th millennium cal. BCE (Özbaşaran *et al.* 2018), centuries later than in the Levant (the Middle Euphrates and southwards), where the Pre-Pottery Neolithic (PPN) paradigm was first defined (Kenyon 1957). The early PPN villages in the Levant display intensive webs of interactions, as evidenced by symbolic affinities, the adoption of common technologies, and the proliferation of extensive exchange networks (Belfer-Cohen and Goring-Morris 2011; Ibáñez *et al.* 2015; Goring-Morris and Belfer-Cohen 2011). Early central Anatolian villages, on the other hand, were geographically peripheral to this technological and cognitive interaction sphere or *koine*, and initial sedentary lifeways here were sustained with unique solutions (Baird *et al.* 2018; Özbaşaran *et al.* 2018). Yet, this insularity as reflected by the techno-cultural distinctions between the two regions either side of the Taurus mountains was maintained notwithstanding the documented long-distance circulation of central Anatolian obsidian into southwest Asia; in the Levant this occurs as sporadic obsidian lithics during the Upper Palaeolithic, but significantly increases in tempo during the Late Epipalaeolithic and, especially, PPN Periods (Briois *et al.* 1997; Cauvin *et al.* 1998; Binder and Balkan-Atlı 2001; Delerue 2007; Şevketoğlu and Hanson 2015; Frahm and Hauck 2017; Frahm and Tryon 2019). Thus, the enigmatic nature of the Aceramic Neolithic Period in the region required a more in-depth understanding of Neolithisation processes in Volcanic Cappadocia.

There was an apparent lack of settlements dating as early as Aşıklı Höyük with its long occupation sequence, and the reasons behind the seeming isolation of Aşıklı were unknown. Accordingly, an intensive systematic survey research program in the region, including the marginal areas of this topographically diverse geography, was initiated in 2016 with the aim of identifying the early hunter-gatherer groups that lived in the region prior to sedentism. Three seasons of the Cappadocia Prehistoric Survey (CAPs) provided further insights into the Epipalaeolithic and Neolithic Periods in Volcanic Cappadocia (see below). Against this background, our paper presents preliminary results from the analyses of the chipped stone finds from the Cappadocia Prehistoric Survey-CAPs and the site of Balıklı. The latter was identified in the first season of CAPs, where unfortunate damage to the site led us to start rescue excavations. This contribution introduces new find-spots, which demonstrate strong relations between the local early Aceramic Neolithic and the pre-Neolithic sequence, ands aims to provide new data for discussing the transition to sedentism.

2. The Cappadocia Prehistoric Survey (CAPs)

The volcanic and associated tectonic activities that formed the present-day landscape of Cappadocia have created unique and diverse geological and ecological habitats in the region, with volcanic flows, plains, alluvial valleys, hills, plateaux, mesas, highlands, and mountains, dissected along fault lines by canyons, rivers, and wetland areas (Mouralis *et al.* 2019). The area remains tectonically active and local volcanic eruptions have been documented in the area during the Holocene (Schmitt *et al.* 2014). Palaeoenvironmental data for the terminal Pleistocene-early Holocene are provided by nearby pollen cores from the lakes at Acıgöl and Narlıgöl (Woldring and Bottema 2001/2002; Roberts *et al.* 2016).

The perennial Melendiz Çay (river) is one of the principle drainage basins in eastern central Anatolia, draining northwestwards into the hypersaline Tuz Gölü salt lake (900 m asl, 1650 km^2 in extent). The headwaters are located in the high (2000->3000m asl) volcanic topography of the Hasan Dağı, Göllü Dağ and the Melendiz mountains framing the Çiftlik basin (*c.* 1500 m asl) to the south and east, while to the north and east the gently rolling watershed is shared with tributaries of the Halys Çay (Red river), which flows westwards and then northwards to the Black Sea.

The headwaters of the 120 km long course of the Melendiz River are located in the Melendiz Massif (2963 m asl, with evidence for glacial features towards the summit) in Niğde province, near the obsidian outcrops not far from the wetlands of the Çiftlik plain (1530 m asl) to the south. From there the river debouches to the northwest, through the narrow Ihlara Valley canyon, following which the floodplain widens significantly near Aşıklı Höyük at 1110 m asl. Three kilometres further downstream to the northwest is the confluence in the Mamasın dam area of a major tributary, the perennial Karasu, which flows into the Melendiz from the northeast before they flow down together through a meandering gorge cutting through the Aksaray escarpment and then, finally, across the wide plain into the Tuz Gölü.

The geomorphologic and topographic structure of the region led us to concentrate on surveying the catchment areas of the Melendiz River and its branches, encompassing a total area of *c.* 25 × 25 km (Fig. 1). The focus of the intensive survey was to locate evidence for post-Last Glacial and early Holocene occupation of the region and the initiation of sedentarising communities. Given the scale of the Melendiz catchment (>600 km^2), and the likelihood that sites might be very small-scale, primarily featuring microlithic assemblages, as well as the limited size of the survey team, the methodology of the survey judgmentally sampled the varied landscapes in

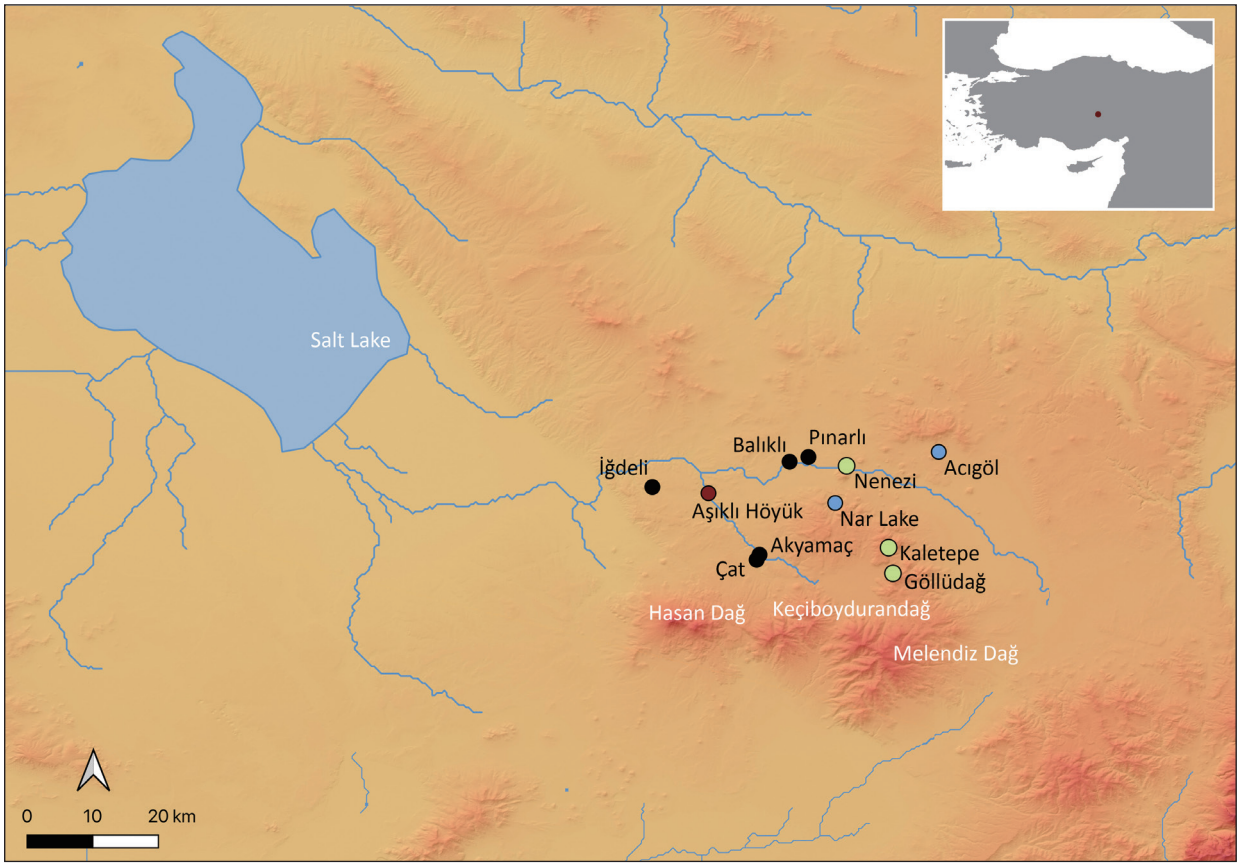

Fig. 1. Terminal Pleistocene and early Holocene sites and find-spots identified during the CAPs survey, nearby obsidian sources and pollen cores.

the survey region by pedestrian transects. This included: the banks, floodplains, alluvial plains and wetland sources of the Melendiz and Karasu rivers, as well as the adjacent rolling hills, plateaux, mesas and bluffs down to the gorge above Aksaray.

Previous research had revealed only sparse evidence for terminal Pleistocene – early Holocene occupation in central Anatolia. Indeed, microlithic industries are only known from the Konya plain sites of Pınarbaşı and Boncuklu and, >140 km to the east in the Melendiz catchment area, much closer to the obsidian sources, the early levels of Aşıklı, and Acıyer (Balkan-Atlı 1998; Pirie 2011; Baird *et al.* 2012, 2013; Astruc 2018; Kayacan and Altınbilek-Algül 2018; Muller *et al.* 2018). Together, these sites span the period between *c.* 13,000-8300 cal. BCE, with most assigned to the end of the period. In all these assemblages, obsidian from local central Anatolian sources comprises almost the sole raw material used. Over the Taurus mountains to the southeast, this timespan corresponds to the Late Epipalaeolithic Natufian, PPNA and Early PPNB in the Levant.

At Aşıklı, detailed analyses of the abundant assemblages demonstrate that the size of chipped stone blanks and tools gradually increased during the later occupation phases, around the mid-8th millennium BCE (Yıldırım-Balcı 2007, 2011; Kayacan and Altınbilek-Algül 2018). This indicates that the local 'Epipalaeolithic' microlithic lithic tradition was not replaced suddenly by the introduction of new, blade-oriented 'Neolithic' knapping traditions, but rather that it was a slow, prolonged process of substitution and assimilation through the early stages of the local Neolithic. Accordingly, the assignment of ephemeral microlithic surface assemblages might not only represent the Epipalaeolithic but also the early stages of the local Neolithic.

The survey was conducted following careful perusal of satellite photos and maps for areas of potential interest, based also on brief visits to sites located in the region during previous surveys, little evidence for subsequent destruction by recent development, and with a view to sampling as many different and varied topographic settings as possible. Pedestrian transects were conducted with team members spaced at intervals of *c.* 20-100 m, dependent on the terrain. Intensive collection was then conducted in archaeological find-spots, which were recorded and mapped digitally.

Three years of survey research (2016-2018) indicated that, except in specific settings, evidence for the terminal Pleistocene – early Holocene was generally extremely sparse. The results demonstrated that, in addition to the obviously cultivated terraces of the Melendiz and Karasu, and the alluvial plain of the Karasu basin, almost all flattish upland areas with some soil cover have been ploughed at least once in recent decades (presumably reflecting the introduction of the tractor).

The earliest items discovered included rolled Middle Palaeolithic Levallois material eroding from gravels at the southern edge of the Karasu basin. Archaeological find-spots corresponding to the period of interest concentrate in two main zones: at the edge of the bluffs and on the higher terraces of the Ihlara Valley; and in the upper reaches of the Karasu basin, the main tributary of the Melendiz. The Ihlara Valley is an impressive gorge, some 110 m deep and 200 m wide, formed by down-cutting and erosion of Pleistocene volcanic rock flows and tuffs after exiting from the Çiftlik depression and associated wetlands surrounded by the Melendiz massif. The uppermost reaches in the north of the Karasu basin also has extensive wetland and swamp areas, surrounded by rolling hills of pyroclastic rocks. The obsidian sources of Nenezi Dağ are located 6 km away to the east at the edge of the basin, while Göllüdağ is 22 km away on the other side of the Melendiz massif.

3. Ihlara Valley

The obsidian assemblages from two small, deflated sites, namely Çat and Akyamaç, located on opposite sides of the Ihlara canyon are noteworthy (Fig. 1).

The site of Çat is located within the gorge on the surface of a flat erosional terrace remnant, *c.* 130 × 75 m in extent above the present floodplain at 1265 m asl on the left bank. Several bedrock mortars were noted in exposed areas, while the flat terrain has probably prevented items from being washed away. Still, the sparse scatter of obsidian artefacts was clearly weathered and there were no indications for the presence of in situ deposits. Intensive collection (without sieving) was conducted in ten different units, over a strip *c.* 80 m in length. The Çat assemblage includes: blades, bladelets, flakes, and tools made on these blanks, similar to those characteristic of the Epipalaeolithic and early Aceramic Neolithic in central Anatolia. Among the tools, obliquely truncated blades and bladelets, a backed bladelet, and a lunate are notable (Fig. 2: 1-4). Two pressure retouched points and splintered pieces (*pièces esquillée* or 'wedges') that are likely dated to the later phases of the Pre-Pottery Neolithic were also recovered. The assemblage is dominated by transparent obsidian that probably derives from Göllüdağ, some 15-20 km upstream. The distinctive greenish-grey obsidians from Nenezi Dağ, 20 km to the north, are also abundant. The most unusual item from this find-spot is the single specimen of reddish-brown obsidian, possibly deriving from sources to the northeast near Nevşehir, 45 km to the north. The circulation of such isolated examples is known from the earliest levels of Aşıklı Höyük as well (Kayacan and Altınbilek-Algül 2018: 367, 368).

In the heavily eroded and deflated Akyamaç find-spot, not far from Çat above the Ihlara gorge, a bidirectional core, bidirectional blades, and splintered pieces were found. Although a group of finds comprised of characteristic debitage can be attributed to the later stage of the Aceramic Neolithic, it is currently unclear if the entire assemblage could be related with a single occupation. Therefore further investigations of the find-spot are necessary to provide clearer dating of Akyamaç.

Another deflated find-spot is located on the rocky ridges surrounding Sevinçli town from the south, close to the main Aksaray escarpment overlooking the Tuz Gölü depression, about 10 km to the west-northwest of Aşıklı Höyük. An obsidian scatter in the same area, İğdeli, includes knapped obsidian with Epipalaeolithic characteristics (Fig. 1). The site, at 1210 m asl, lies on the upper slopes of a prominent rocky spur overlooking and dominating the extensive rolling plains southeast of Sevinçli. Here, amidst collapsing ignimbrite cliffs small historical caves, rock-shelters, and rock-cut graves dominate the spur. The material, collected from an area of 10 m^2 on an even surface next to a rock-shelter, includes blades, bladelets, a lunate, two microburins, four backed blades, an obliquely truncated blade, a pointed blade, and a burin (Fig. 2: 6-9).

4. Karasu Basin

In contrast to the course of the Melendiz, the Karasu flows through gently rolling countryside, emanating, via a fault in the underlying ignimbrite, from the Karasu basin, a shallow SSW – NNE oriented depression, measuring 15 × 2-6 km. The southern end of the basin, with extensive alluvium, has been and continues to be intensively cultivated. At the northern end of the basin a remnant of the, until quite recently, extensive wetlands (formerly extending over an area of *c.* 7 × 2 km), where combinations of springs, seeps, and swamps and marshes comprise the headwaters of the Karasu.

The two find-spots in the Karasu Basin yielded chipped stone finds with Epipalaeolithic characteristics. Among them, the lava 'tube' cave of Pınarlı is located adjacent to a presently inactive spring, near the shore of one of the old swamps or shallow lakebeds (Fig. 1). A small collection of obsidian in and around the front of the cave included two distinctive Epipalaeolithic thumbnail scrapers (Fig 2: 5). The second locality in the same basin is the site of Balıklı, located on a slight natural rise, at 1175 m above sea level, and is surrounded by wetlands and swamp areas.

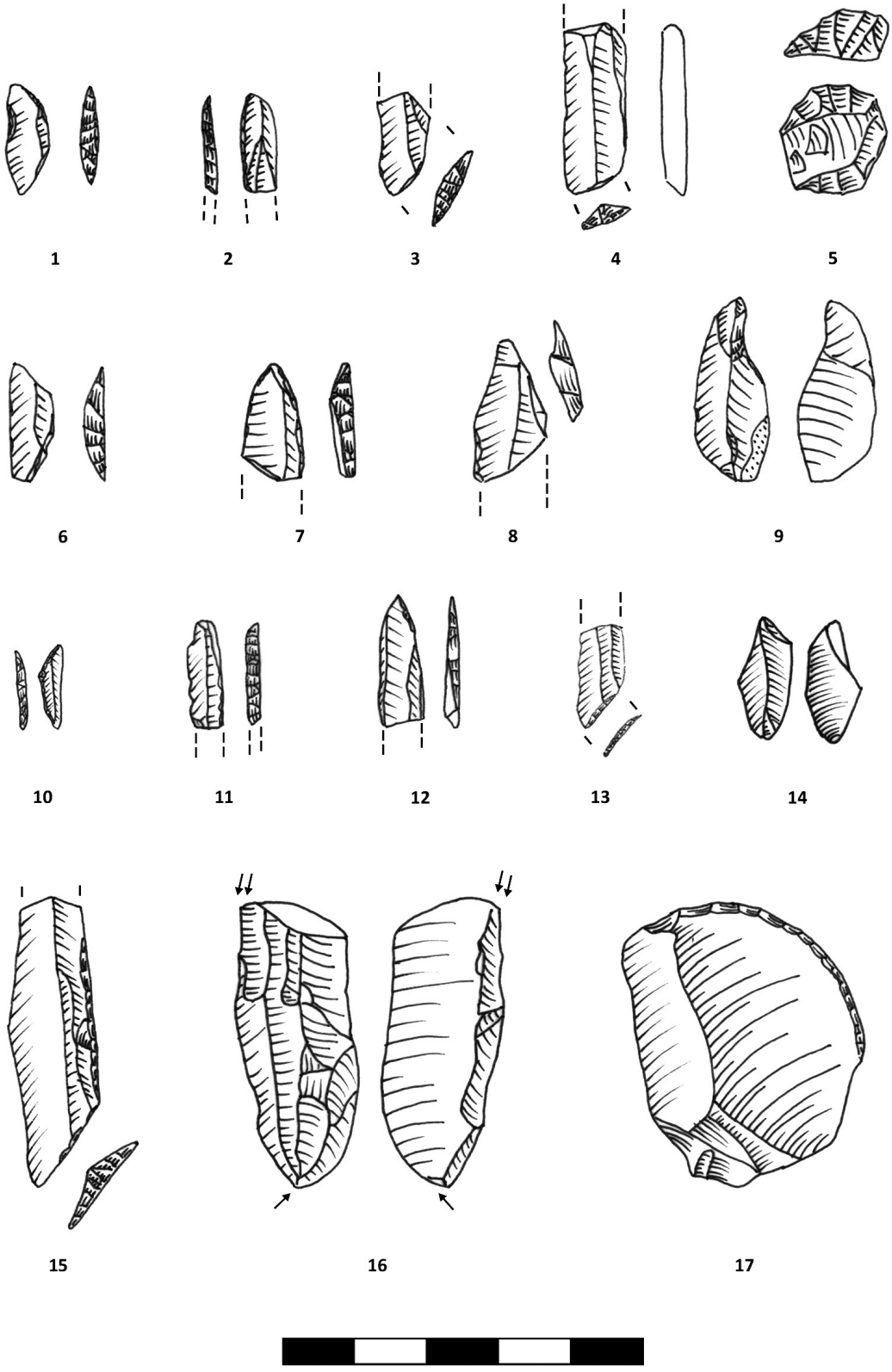

Fig. 2. Chipped stone artifacts from sites investigated during the CAPs survey: Çat (1-4, lunate, backed bladelet, obliquely truncated bladelets); Pınarlı (5, thumbnail scraper); İğdeli (6-9, lunate, pointed bladelet, obliquely truncated bladelet, proximal microburin); Balıklı (10-17. triangle, backed bladelets, pointed bladelet, obliquely truncated bladelet, proximal microburin, obliquely truncated and backed blade, multiple burin, scraper on flake).

Fig. 3. Overview of Balıklı excavations with semi-subterranean circular/oval buildings. Note illicitly excavated pits.

5. The Balıklı settlement

Balıklı is a significant settlement of *c.* 1.0 hectare, with a 1.0-2.5 m thick archaeological sequence dated to the late 9th millennium cal. BCE according to radiocarbon dates (Fig. 3). It is located at the southern end of the Karasu wetlands on a slight promontory representing the end of a lava flow deriving from the NE, 1-2 m above the swamps and springs, at an elevation of 1175 m asl. It lies 13 km northeast of Aşıklı Höyük as the crow flies, and 6 km almost due west of the Nenezi Dağ (1680 m asl), (Fig. 1). The large untested later Neolithic/ Chalcolithic (?) site of Çakılbaşı is located about 1 km to the northeast (Gülçur 1995a, 1995b). Balıklı was first detected in 2015 during a preliminary visit by the Aşıklı team to the obsidian sources in and around Nenezi Dağ. In 2016, illegal mechanical excavations in three locations severely damaged the site. Systematic surface collections were conducted during the 2016 and 2017 CAPs seasons; this revealed a chipped stone assemblage comparable to the earliest phases of Aşıklı Höyük. Rescue excavations were initiated in 2018 at the site under the directorate of the local museum of Aksaray. The shallow stratigraphy, reaching *c.* 1.8 m depth, indicates that the settlement was likely of relatively short duration, perhaps on a seasonal basis. Initial surface scraping exposed several structures, revealing what appears to be a dense and clustered settlement layout, while the illicitly dug pits provided excellent sections. Nearly identical semi-subterranean, circular/oval buildings with stone and mud walls, plastered floors, with several internal features and burials, and often with multiple phases were unearthed during the excavations between 2018 and 2020 (Fig. 3). Chipped stone tool, faunal, botanical and groundstone assemblages are all abundant and excellently preserved.

Obsidian is, by far, the main raw material for the profuse Balıklı chipped stone industry. Sourcing studies began with macroscopic color and texture analyses on 11,177 obsidian artefacts (deriving from the surface collections and initial excavations). They revealed that the majority (94.5%) is on the transparent obsidian known from Göllüdağ (*c.* 20 km distant from the site). The 2.1% of opaque and semi-opaque, greenish obsidian derives from the much closer Nenezi Dağ sources. The rest (3.4%) derives from presently unidentified sources. A minor fraction (0.2%) of this group comprises reddish-

brown obsidian. As noted above this reddish-brown obsidian is also present in small quantities from the mid-9th millennium cal. BCE levels of Aşıklı Höyük, and at the Çat find-spot, so it's presence, albeit in small quantities, may indicate some circulation of this material during the early- and mid-9th millennium cal. BCE and its preference by the local communities.

Technological analyses indicate that all elements of the knapping process are present at Balıklı. The thick and thin flakes with natural ('cortical') surfaces, opening platforms, blades with natural surfaces and crested blades belonging to the initial phases of the knapping, as well as the rejuvenation flakes, blades, and tablets from the later stages of the knapping sequence attest to intensive on-site knapping. The production is focused on the serial removal of targeted narrow blade and bladelet blanks by direct percussion. Their cores are generally found in an exhausted state with deteriorated knapping and removal surfaces. Specimens with crested and natural surfaces are also found. The obsidian blocks/nodules appear to have been cleared of the natural surface when deemed necessary (*i.e.* planned targeted blank removal surfaces), while those parts of the nodule that would not pose an obstacle for knapping were left 'as is' with their natural surfaces intact. Knapping was both uni- and bidirectional, aiming to produce targeted blade/lets measuring 23-104 mm length, 5-15 mm width and with a thickness of 1-6 mm. There is no significant metric distinction that would suggest the production of two different targeted blank sizes, *i.e.* blades and bladelets. Further excavations will undoubtedly widen the lithic repertoire, as well as providing a more definite stratigraphy, which would allow us to make more coherent evaluations on this distinction. The chipped stones from Balıklı go in line with other surface collections from the survey, as well as with Aşıklı early assemblages, which testify about the dominance of direct percussion for blade and bladelet making. This is contrasting the partially contemporaneous well-known Kaletepe-Kömürcü knapping systems and the use of naviform and pressure knapping systems (Binder and Balkan-Atlı 2001).

Among the tool types those on blade and bladelets predominate. Semi-circular and end scrapers are rare, and there are some burins. Amongst the tools on blade/lets, some display a continuum of size ranges through blades and bladelets. These include obliquely truncated blade/lets, backed blade/lets, pointed blade/lets, retouched blade/lets and such microlithic forms such as triangles, elongated lunates, and the smaller-sized versions of the tools made on blades (Fig. 2: 10-17). The high microburin index (Imbt) indicates the widespread use of this technique in microlith production. The proximal or distal ends of the blades and bladelets

Fig. 4. Balıklı projectile points.

were snapped obliquely by means of mbt (microburin technique), and the snapped parts of the resultant *piqant trièdres* were retouched to produce sharp oblique truncations. On rare occasions, both the proximal and distal ends were so snapped, and the middle section (double *La Mouillahs*) was transformed into a double obliquely truncated blade/let.

Of considerable interest is the presence of numbers of a distinctive projectile point type at Balıklı (Fig. 4) that are almost identical to the two items from the basal levels at Cafer Höyük, on the uppermost part of the Middle Euphrates where they were defined as "Cafer Points" by M.-C. Cauvin (1991: 118, 120). These points are asymmetric, single-shouldered and tanged, with their two lateral sides, or rarely only one, being retouched. Within the group of points, a portion was made with the tip intentionally formed by a distal microburin removal on the blade/let blank. Although only two were recovered at Cafer they are quite numerous at Balıklı.

Tools on flakes are less numerous compared to those on blades, although retouched flakes on one edge are present. There are also flakes with very thin, nibbled retouch and other flakes that were used as scrapers but display no indications of formal retouch. Notched flakes and splintered pieces (*pièces esquillée*) are also present but rare.

6. Concluding remarks

Volcanic Cappadocia comprises a distinct and topographically diverse geography with rich resources and an ecological and topographical diversity due to its volcanic geomorphology and tectonic activity. The results of the recent survey and excavations attest to the attractiveness of the landscape of the region by different groups during the early Holocene, often for continuous habitation for centuries (Bıçakçı *et al.* 2012; Özbaşaran *et al.* 2012; Balcı and Çakan 2017; Yaman *et al.* 2017, 2018; Güngördü and Başoğlu 2019). The earliest human presence in the region dates to the Middle Pleistocene, as evidenced by the excavations at Kaletepe Deresi 3 (Slimak *et al.* 2007) on the Göllüdağ obsidian sources, as well as the Lower and Middle Palaeolithic finds found during the survey of the Göllüdağ area (Balkan Atlı *et al.* 2010; Kuhn *et al.* 2015). The long-distance circulation of obsidian from Cappadocia to the Northern Levant started as early as during the earlier Upper Palaeolithic (*c.* 40,000 BP) at Ksar Akil and Yabroud II rock-shelters, and expanded significantly in quantity to the middle Euphrates, Levant, and Cyprus during the Late Epipalaeolithic, from *c.* 14,000 BP onwards (Cauvin *et al.* 1998; Briois *et al.* 1997; Binder and Balkan-Atlı 2001; Khalaily and Valla 2013; Şevketoğlu and Hanson 2015; Frahm and Hauck 2017; Frahm and Tryon 2019). However, despite the data on human mobility in the region, the general lack of pre-Neolithic evidence for local groups and their lifeways creates a chronological gap prior to the more intensive Neolithic occupations. This chronological gap prevents an in-depth understanding of the transition from a mobile hunter-gatherer way of life to sedentism and food production.

The Cappadocia Prehistoric Survey Project has yielded new data on this timeframe. The survey data from the Pınarlı rock shelter, and the İğdeli, Çat, Akyamaç and Balıklı sites, as well as the preliminary results from the subsequent excavations at Balıklı provide local evidence on the presence of Aşıklı's contemporaries in the region and suggests that new research will yield data on the intermediate stage from forager to farmer lifeways in Volcanic Cappadocia. The locations of these find-spots indicate that the pre-9th millennium cal. BCE hunter-gatherer communities in the region preferred volcanic slopes near abundant water resources and terraces in front of natural rock shelters. A similar tendency towards such formations of deep valleys where game species could be observed and hunted, was known from Avladağ and Pınarbaşı in Karaman. With the onset of the 9th millennium cal. BCE, there was a shift towards initial sedentism in wetland swamp areas with more water resources, nearby lakes and rivers. Aşıklı, as well as Sofular Höyük (Nevşehir), and the sites of Acıyer, Bunuş, Damsa, Dededağ, Hantepesi, İninönü, Selime, Yellibelen, Sırçantepe, Taşkesti, Güllüce, İlbiz, and Toparınpınar are located in such formations throughout the branches of the Melendiz River flowing from the easternmost edge of the Melendiz Mountain Range (Todd 1980; Omura 1992; Gülçur 1995a, 1995b; Balkan-Atlı and Cauvin 1998; Balkan-Atlı *et al.* 2009; Balkan-Atlı *et al.* 2013; Başoğlu *et al.* 2018; Güngördü and Başoğlu 2019).

Pınarlı rock shelter, identified during the CAPs survey, is among the earliest find-spots in the region, exhibiting Epipalaeolithic characteristics in its lithic industry, and likely dates relatively early to the pre-9th or early 9th millennium cal. BCE. Similar examples to the two thumbnail scrapers found in front of the rock shelter are known also from Pınarbaşı rock shelter B (13,400-12,900 cal. BCE) in Konya-Karaman (Pirie 2011; Baird *et al.* 2013). The other find-spots, İğdeli and Çat may also be dated to the pre-9th or 9th millennium cal. BCE. The obsidian industries of these sites include diagnostic tools of this period, *i.e.* truncated blades, backed blades, microliths, and microburins that were discarded during production. The raw materials of both sites, including Balıklı as well, were procured mainly from the more distant Göllüdağ sources, followed by Nenezi Dağ. Although represented by only a few finds, the reddish-brown obsidian from these sites suggests another pattern unique to the 9th millennium cal. BCE. These data are strikingly similar to the mid-9th millennium cal. BCE levels (Levels 5-4) of Aşıklı Höyük. Among these industries that display affinities to Epipalaeolithic traditions, Balıklı differs with its distinctive, Cafer-type arrowheads. In central Anatolia, these distinctive one-shouldered, tanged arrowheads with a distal mbt scar are almost unique to Balıklı and show similarities to the two arrowheads found >350 km due east in the 9th millennium cal. BCE lowest levels at Cafer Höyük on the upper Euphrates, on the flanks of the Eastern Taurus mountains (Cauvin 1991: 118, 120). A similar item was recently published from Sofular, 65 km away to the northeast on the banks of the Halys river, dating to the end of the 9th and beginning of 8th millennium cal. BCE (Başoğlu *et al.* 2018).

The Aşıklı microliths include the scaled down, smaller forms of the obliquely truncated blades and some triangles. There are also intermediate forms. Lunates are rare and they tend to be elongated and abruptly backed, as is the case for the lunates at Aşıklı, and the single examples from Çat and İğdeli. The other microliths from these find-spots also appear to represent smaller versions of the macrolithic blade tools.

Further studies concentrating on the differences and similarities between the chipped stone industries from the sites presented in this study should contribute to a better understanding of the cultural characteristics and chronological trajectory of developments and unique aspects of the region during the Epipalaeolithic and Neolithic periods. The Cappadocia Prehistoric Survey,

in this context, has provided substantial data on the transition to sedentism and food production in the region, which was until now known almost solely from Aşıklı Höyük. For sure, the ongoing excavations at Balıklı will enable further contextual evaluations and comparisons, within the region and further afield.

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