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The distribution of Acheulean culture and its possible routes in Turkey

*La distribution de la culture acheuléenne et ses itinéraires possibles en Turquie*

Harun Taşkıran

University of Ankara, Faculty of Languages, History and Geography, Department of Prehistory, Sıhhiye, 06100 Ankara, Turkey

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ABSTRACT

Turkey is a country located at the crossroads of possible migration routes between three continents and, as such, it plays a pivotal role in the distribution of Acheulean culture in Eurasia. Although Acheulean culture, which is considered to have reached Turkey via the “Levantine corridor”, shows a wide distribution in the Turkish Anatolian side, it is not found in the Thrace part of Turkey. Therefore, the spread of Acheulean culture from Turkey towards the Balkan Peninsula, i.e., in southeastern Europe, via the Thrace region of Turkey is not considered. However, the cultural artifacts of Acheulean culture are often found in eastern and southeastern Anatolia. The Acheulean cultural artifacts, especially bifaces, found in the open-air sites settled on the old river terraces – generally in the Euphrates and Tigris Basin – are strong indications of the distribution of Acheulean culture in Anatolia as well as the possible migration route of *Homo erectus* from Anatolia to the Caucasus. Many Acheulean sites recently identified in the Caucasus seem to support such a distribution as well. This paper discusses the distribution of Acheulean culture and possible routes spreading into Turkey according to the geographic regions.

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R É S U M É

La Turquie est un pays qui se situe au carrefour des routes de migrations de trois continents et joue un rôle essentiel dans la distribution de la culture acheuléenne vers l'Eurasie. Cette culture arrive en Anatolie en suivant le corridor Levantin, car plusieurs sites paléolithiques ont été signalés, au nord, autour de la ville moderne d'Hatay. La culture acheuléenne est dispersée à travers l'Anatolie, notamment à l'est et au sud-est. Aucun témoignage n'a été signalé en Thrace du côté turc, et dans la péninsule Balkanique vers le Sud-Est de l'Europe. Cependant, les vestiges de la culture acheuléenne sont très denses dans les régions Est et Sud-Est de l'Anatolie. Les vestiges culturels acheuléens, en particulier les bifaces trouvés sur les sites en plein air en contexte d'anciennes terrasses fluviales, sont nombreux le long de l'Euphrate et dans le bassin du Tigre. Ils constituent une preuve évidente de la distribution

E-mail address: htaskiran@ankara.edu.tr<https://doi.org/10.1016/j.crpv.2016.12.005>

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de la culture acheuléenne en Anatolie et de l'éventuelle route migratoire des *Homo erectus*, depuis l'Anatolie vers le Caucase. La localisation de nombreux sites acheuléens récemment identifiés dans le Caucase semble l'affirmation de cette distribution. Dans cet article, sur la base de la répartition géographique des industries, la dispersion de la culture acheuléenne et ses probables axes de diffusion en Turquie seront étudiés.

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1. Introduction

The Turkish Republic territory in Asia is called Anatolia, whereas the European territory is called Thrace. Anatolia is a peninsula located in the southwestern end of Asia surrounded by the Black Sea to the north, the Marmara and Aegean Seas to the west, and the Mediterranean Sea to the south. Anatolia is also known as Asia Minor in old western sources. The Anatolian peninsula has been the cradle of a number of civilizations since prehistoric ages because of its strategic location between Europe, Asia, the Near East and the Caucasus. Therefore, Turkey has been continuously occupied since the Paleolithic Age owing to its strategic location. All of the archeological excavations and surveys have showed that all of the regions in Turkey had settlements with artifacts from Acheulean culture. Most of the settlements are Acheulean open-air sites. Acheulean bifaces detected by stratigraphy have only been found in the Karain Cave and Kaletepe Deresi three sites (KD3).

Turkey is made up of seven geographical regions. South-eastern Anatolia is clearly the richest region in terms of the distribution of Acheulean culture. The first biface, proving that Acheulean culture existed in Turkey, was also found in this region. It was found by J.E. Gautier in 1894 on the surface of old alluviums of the Euphrates in Şanlıurfa/Birecik, in the southeastern region of Anatolia (Fig. 1). E. Chantre, K. Bittel and İ.K. Kökten stated that the biface belongs to Acheulean culture (Bittel, 1934; Chantre, 1898; Kökten, 1947a).

2. Paleolithic studies carried out on Acheulean culture in Anatolia

Nearly 120 years has passed since the first discovery of Acheulean bifaces found in the southeastern Anatolia region, and the number has greatly increased during this period. All of the bifaces were found on the surface and generally around Gaziantep, Şanlıurfa and Adıyaman (Bostancı, 1961, 1971, 1975; Çiner, 1958; Erguvanlı, 1946; Garrand, 1997; Kansu, 1964; Kökten, 1947a, 1947b, 1952).

Actually, due to systematic surveys carried out in the Euphrates Basin, local concentrations of Acheulean bifaces are very well known in the southeastern Anatolia region. One of the most significant factors in the increase in biface discoveries is the systematic and intensive surveys Kökten initiated in the Euphrates Basin within the scope of the Keban Dam project. It was continued by different researchers within the scope of the Karakaya, Atatürk and Birecik Dam projects (Albrecht et al., 1984; Bourguignon and Kuzucuoğlu, 1999; Kökten, 1971, 1974, 1976; Özdoğan, 1977; Yalçınkaya, 1984).

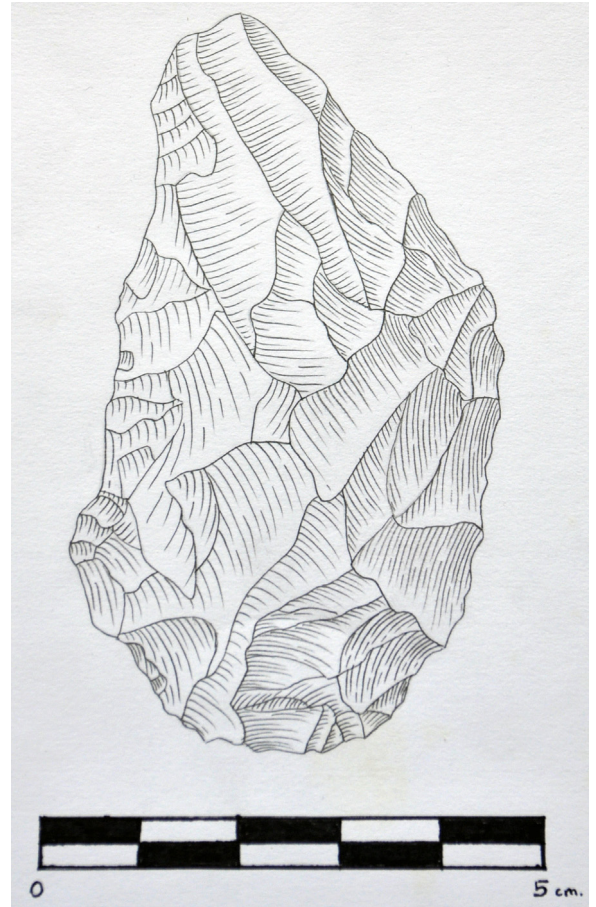


Fig. 1. The first Acheulean biface in Anatolia found in Birecik by Gautier in 1894.

Fig. 1. Premier biface acheuléen d'Anatolie trouvé en Birecik par Gautier en 1894.

Drawing by Z.F. Taskiran.

The last dam built on the Euphrates was the Karkamış Dam. The archeological surveys carried out from 1998 to 2000 in the reservoir area have once again shown the richness of the Euphrates Basin (Taşkıran, 2002a, 2002b; Taşkıran and Kartal, 1999, 2001). Seventy open-air sites or discovery locations were identified during the surveys, which showed that bifaces typologically belong to the Middle or Late Acheulean period. Dızımırtaş is a great Paleolithic open-air site presenting typical examples of the Late Acheulean period. Most of the 74 bifaces obtained from this open-air site are in amygdaloidal shapes (Fig. 2).



Fig. 2. Acheulean amygdaloidal biface, Euphrates Basin.
Fig. 2. Biface acheuléen amygdaoloïde, bassin de l'Euphrate.

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Fig. 3. Acheulean trihedral pick, Euphrates Basin.
Fig. 3. Pic acheuléen triédrique, bassin de l'Euphrate.

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Moreover, ovoid, cordiform and Micoquian bifaces, and partial bifaces on flakes, were also found. It is possible to state that a Late Acheulean culture characterized by trihedral picks (Fig. 3) existed in the area of the Euphrates Basin in Anatolia (Taşkıran, 2008), similar to that in northern Syria (Copeland, 2004; Hours, 1981; Muhesen, 1985).

The other important river of the region is called the Tigris. Unfortunately, the Paleolithic potential of the Tigris Basin remained unknown until the 2000s. A great number of biface discoveries were made during a survey, which was carried out under my responsibility in the reservoir area within the scope of the Ilisu Dam project. Identified open-air sites and Acheulean bifaces showed the richness of the Tigris Basin in terms of Acheulean culture (Taşkıran, 2006, 2007, 2008; Taşkıran and Kartal, 2003, 2004a, 2004b, 2008, 2009, 2011; Taşkıran et al., 2005). Most of the local discoveries up to now are from the lower and middle Paleolithic Age. The Acheulean bifaces are the most abundant among all the surface materials collected (Fig. 4). Not only the amygdaloidal bifaces of classical types, but also partial bifaces on small or big flakes are widely found. Moreover, some cleavers on flakes (Fig. 5) and a very few trihedral picks were also found. Bifaces weighing over 1 kg were found particularly in the Raman Mountain (Taşkıran and Kartal, 2004a, figs. 22 and 24).

After the Paleolithic Age surveys carried out in the Tigris Basin, Diyarbakır, Batman and Mardin provinces were also seen to be rich in terms of biface discoveries in addition to the Gaziantep, Şanlıurfa and Adıyaman provinces in the southeastern region of Anatolia. The Paleolithic Age survey at Ilisu reservoir could not be carried out within the provincial borders of Siirt. In the future, when the surveys are fully completed, it is highly possible that biface discoveries will be made in Siirt province as well in the region of the Botan stream flowing on the provincial borders. Therefore, all of the provinces of the southeastern Anatolia region, except for Şırnak, are the richest areas of Turkey in terms of biface discoveries.

Bifaces have been found in some other regions of Turkey. However, the number is very small and they are isolated discoveries. The central Anatolia region is another rich region in terms of biface discoveries. Acheulean bifaces were found during surveys that took place around Ankara in the 1940s and 1950s (Bittel, 1934; Kansu, 1939; Kansu and Ozansoy, 1952; Kökten, 1953; and later in the 2000s Kartal, 2005). Another place where numerous bifaces have been identified is the Niğde province in the same region. It is known that many bifaces were found around the Göl-lüdağ Mountain during surveys that were carried out to find obsidian sources in the province (Nur Balkan-Atlı, personal communication, October 4, 2013; see also Balkan-Atlı et al.,



Fig. 4. Acheulean amygdaloidal biface, Tigris Basin.
Fig. 4. Biface acheuléen amygdaloïde, bassin du Tigre.
 © H. Taskiran.

2009). Bifaces were not only found on the surface but also from deeper stratigraphy in the Niğde province. During the archeological excavations carried out at Kaletepe Deresi 3 (KD3), bifaces made of obsidian and rhyolite were identified by stratigraphy in an Acheulean position (Slimak, 2004; Slimak et al., 2005). It is obvious that more surveys should be carried out both in the Ankara and Niğde regions because of the strong potential for Acheulean bifaces in these provinces. Bifaces have been found in the Eskişehir (Chaput, 1941), Nevşehir (Todd and Pasquare, 1965), and Çankırı and Çorum¹ provinces in the central Anatolia region.

Bifaces are also found in the Mediterranean region both on the surface and in the stratigraphy, like the central Anatolia region. Many bifaces were found on the surface in and around Hatay province located in the eastern part of the region (Şenyürek, 1961; Şenyürek and Bostancı, 1958a, 1958b). Hatay has a high potential for biface discoveries because it is situated on the “Levantine Corridor” in the

¹ Two bifaces found in the Çorum and Çankırı provinces are present in the collections of the Prehistory Department in Ankara, but no report was made on these samples.



Fig. 5. Acheulean cleaver, Tigris Basin.
Fig. 5. Hachereau acheuléen, bassin du Tigre.
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Near East, and along the possible migration routes of the Paleolithic Age.

Furthermore, Acheulean bifaces were found in the area called KM 43 during the survey carried out in Kahramanmaraş province, which is also located at the end of the “Levantine Corridor” (Carter, 1995). Antalya, located in the West of the region, is another province where there are dense occurrences of Paleolithic Age culture. Bifaces are found in stratigraphic positions older than 400,000 BP in the Karain Cave located in this province (Kökten, 1949, 1955; Yalçınkaya et al., 2009). Although bifaces were not found in a wide area between Hatay and Antalya provinces, one should bear in mind that the Mediterranean region has a strategic position in terms of biface distribution in Anatolia.

The eastern Anatolia region also has potential for biface discoveries. Bifaces were found during surveys carried out by İ. Kılıç Kökten on the provincial borders of Elazığ and Tunceli as part of the Keban Dam project (Kökten, 1971, 1974, 1976). Kökten also found Acheulean bifaces around Erzurum (Koşay, 1984). Another significant discovery in this region is Kars and its surroundings where basalt bifaces (Fig. 6) found by Kökten are distinctive examples (Kökten, 1942, 1943, 1948, 1953). Notably, Kars is located on one of the crucial routes used by the migration of *Homo erectus* out of Africa. This route also plays an important role in



Fig. 6. Acheulean basalt biface, northeastern Anatolia.

Fig. 6. Biface acheuléen basaltique, Anatolie nord-orientale.

Photo: H. Taşkıran.

access to the Caucasus with a tradition of making bifacial tools.

Acheulean bifaces are much more rarely found in other regions of Turkey. For instance, while two bifaces were found in Kastamonu province (Bostancı, 1952) in the western part of the Black Sea region, only one biface was found in Samsun (Kökten, 1951), Ordu (Kökten, 1963) and Bayburt provinces (Gündüzalp, 1986) in the eastern part of the Black Sea region. Individual, or very few, bifaces were found east of the Bosphorus (Atasayan, 1941 and Jelinek, 1980), in Bursa (Dinçer, 2010) and Çanakkale in the Marmara region, in İzmir (Kansu, 1963, 1969) in the Aegean region and Kütahya (Efe, 1990) in the central western Anatolia region. The recent finding of a typical Micoquian biface in Afyonkarahisar also makes the Aegean region a significant location (Taşkıran and Taşkıran, 2011).

The greatest discovery in the Aegean region in recent years was of human fossil remains of *H. erectus* in Kocabaş, which dates back 1.2 million years (Lebatard et al., 2014). After the discovery of fossil remains of *H. erectus* in Kocabaş (in Denizli province), a Paleolithic survey was conducted by Dr. Kadriye Özçelik in that region in 2014. Acheulean bifaces were also found in Denizli province during this survey (Özçelik et al., 2016).

When we look at the general distribution of Acheulean bifaces in Turkey, it appears that Acheulean culture is considered to have reached Turkey via the “Levantine Corridor” through Hatay. On the other hand, our knowledge is very limited about a definite date for Acheulean culture in Anatolia, in spite of the concentrated Acheulean findings. The only information on this is presented by Minzoni-Déroche (1987) as the result of a comparison with northern Syria. In the survey around Gaziantep, the geomorphological environment where Paleolithic tools were found was taken into consideration. Quaternary terraces of the Euphrates were examined, and some bifaces were collected from conglomerates present in these terraces. The material collected from the Quaternary Fluvial II (QF II) formation was dated as late Acheulean, i.e., c. 300,000 BP, based on technical and typological features. Bifaces collected from the Quaternary Fluvial III (QF III) formation were dated as middle Acheulean, i.e., c. 700,000 BP (Minzoni-Déroche, 1987,

1988, 1989). When the hypothesis of the African *H. erectus* migration and the dissemination of Acheulean culture into Eurasia through the “Levantine Corridor” is taken into consideration, the ages of the oldest settlements in the Near East (Bar-Yosef, 1994) such as Ubeidia (1,400,000 to 1,000,000 BP) and Geshert Benot Ya’aqov (900,000 to 680,000 BP), in addition to the dates obtained from the Euphrates terraces, seem to be reasonable.

Therefore, it is obvious that Anatolia plays a pivotal role in terms of the distribution of Acheulean culture from Africa, and it is possible to draw some routes when looking at the distribution of Acheulean culture in Turkey (Fig. 7). *H. erectus* groups entering Anatolia through Hatay might have followed the Mediterranean shoreline and come up to Antalya moving westward. Although there is a gap between Hatay and Antalya in terms of the discovery of Acheulean culture, it was possible for men to follow such a route and easily arrive at the Karain Cave. The journey from Antalya to Denizli may also be supported by the discovery of Kocabaş Man (*H. erectus*) in Denizli. The journey could have been from Antalya to Denizli or vice versa. If that is the case, and Dursunlu (Güleç et al., 1999) is thought to be the oldest discovery location in Anatolia, *H. erectus* could have followed a westward migration route from the North of the Taurus Mountains.

Looking at the distribution of Acheulean bifaces, one may possibly assume an alternative northward migration route via Hatay, far beyond the Taurus Mountains, reaching central Anatolia rich in obsidian sources, and then turning to the east of the Bosphorus (Fig. 7). Yet another route may also be suggested through Antalya up to the North and then via Denizli, Afyon, Kütahya, Eskişehir, Bursa and Kocaeli to the east of the Bosphorus. Unfortunately, both northwest routes have shown that no transition from Anatolia to Thrace can be assumed. No Acheulean cultural remains have been found in Thrace. Biface-making techniques cannot be found in the Yarımburgaz Cave located in this region and dating back 400,000 years BP (Kuhn et al., 1996, 1998). Moreover, Acheulean bifaces have not been found in the Balkan Peninsula. Therefore, a transition from Anatolia to southeastern Europe, or vice versa, cannot be assumed. Although evidence is scarce, recent discoveries in the Aegean Islands suggest that there may be a possible Pleistocene land bridge between the islands (Galanidou, 2013; Galanidou et al., 2013; Kopaka and Matzanas, 2009; Strasser et al., 2011).

Acheulean cultural remains are frequently found in the Caucasus (Lioubine, 1998; Ljubin and Bosinski, 1995). According to the location of discoveries of Acheulean bifaces in Turkey, the most probable route is from Turkey to the Caucasus. This route starts from the southeastern Anatolia region, more particularly from the Euphrates Basin, and reaches the Caucasus from the northeast for the distribution of Acheulean culture. It is highly possible that *H. erectus*, migrating out of Africa, followed this route to reach the Caucasus (Fig. 7).

Another issue for discussion is the “Movius Line”, which is applied to Turkey. The “Movius Line”, suggested by L. Hallam, divided Eurasia into two parts: the southern and northern parts (Movius, 1944, 1948). According to the “Movius Line”, some parts of Turkey were located to the



Fig. 7. Map of possible *Homo erectus* routes suggested by biface discoveries.

Fig. 7. Carte des itinéraires possibles d'*Homo erectus*, suggérés par les découvertes de bifaces.

south of this line while some parts were located to the north. However, the whole of Turkey should be taken as being south of the “Möbius Line” according to existing data that shows rich Acheulean discoveries in Kars and the Caucasus. Thus, the aforesaid line has no validity in terms of Turkey.

3. Conclusion

Surveys carried out in Turkey up to now, along with existing data, show that Turkey, especially the Anatolia region, played a crucial role in terms of Acheulean culture. Acheulean bifaces are found in all Turkish regions but not so far in the Thrace part of the Marmara region. Does Turkey represent a bridge for the distribution of Acheulean culture into Eurasia? We can answer in the affirmative to this question. However, the transition from Turkey to Europe is still unclear. According to the Acheulean bifaces found densely in southeastern and eastern Regions of Anatolia in Turkey, the most important migration route via Near East Levant Corridor reaching Caucasus has been established on the Anatolia Bridge. In conclusion, Paleolithic caves or open-air sites should be excavated on a line from Hatay to Caucasus – especially in Kars, Ardahan and Iğdır provinces and/or north of the Van province – in order to find Acheulean cultural remains. It will be a great contribution in terms of gathering much more concrete information about the transition of Acheulean culture into the Caucasus.

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