Préhistoire d'Anatolie, Genèse de deux mondes, Liège, ERAUL 85, 1998, pp. 1-13.

THE PALEOLITHIC OF THE TRANS-CASPIAN REGION: A SURVEY

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The major purpose of this article is to review the Paleolithic sites of the deserted areas lying to the east of the Caspian Sea in the westernmost part of what was formerly Soviet Central Asia (Fig. 1). Up to now almost no information about the Paleolithic of this region has been published in languages other than Russian. Though not numerous and defying geological dating, the materials described below are still important as they fill to some extent the extensive geographic gap between the Paleolithic of West Asia, on the one hand, and the eastern part of Central Asia, on the other hand. No stratified (sealed) Paleolithic sites have yet been found in the region. Moreover, inasmuch as erosion and denudation predominate here (and predominated in the Pleistocene) over the processes of accumulation, it is highly probable that, at least for the most part of this territory, surface finds will remain the major or the sole source of information about the Paleolithic.

1. PALEOLITHIC OF THE DESERT PLATEAUS BETWEEN THE ARAL SEA AND THE CASPIAN SEA

Arid lands lying between the Caspian Sea and the Aral Sea are very much alike regarding both their geological history and present relief. The predominant geomorphological element here are denudation plateaus covered with a solid stratum of Neogene marine porous limestones. The monotony of these flat tablelands is broken either by deep karstic-deflation depressions or by chains of hills and low mountain ranges, often with steep walls. The environmental history of the region is intimately connected with the history of the Caspian Sea. The alternation of the sea transgressions and regressions, and of the corresponding deposits, provides the basis for the geological periodization of the Late Cenozoic of this country (Fedorov 1957; Leontiev et al. 1977). Unfortunately, the resources to provide more or less detailed paleogeographic reconstructions are very limited due to the scarcity of data. In general, the late Cenozoic of the Aral-Caspian region, as well as of the whole Central Asia, is characterized by increasing aridization of climate, which is clearly manifest in palynological spectra (Valueva 1973; Pakhomov 1973). At the same time, both the Pleistocene and Holocene witnessed some relatively more humid and cold periods which are usually correlated by palynologists with the transgressive stages of the Caspian Sea and are believed to have been accompanied with some expansion of the areas occupied by boreal vegetation (Malgina 1961; Abramova 1980, 1985). As to the paleozoological data, only single isolated finds date from the Pleistocene and these are of little use for paleogeographical analysis. All in all, as scarce as it is, the available paleoenvironmental evidence allows one to assume that, despite the progressive aridization, there could have been at least some periods when the western deserts of Central Asia became less hostile for humans such that they could live there. Archaeological data

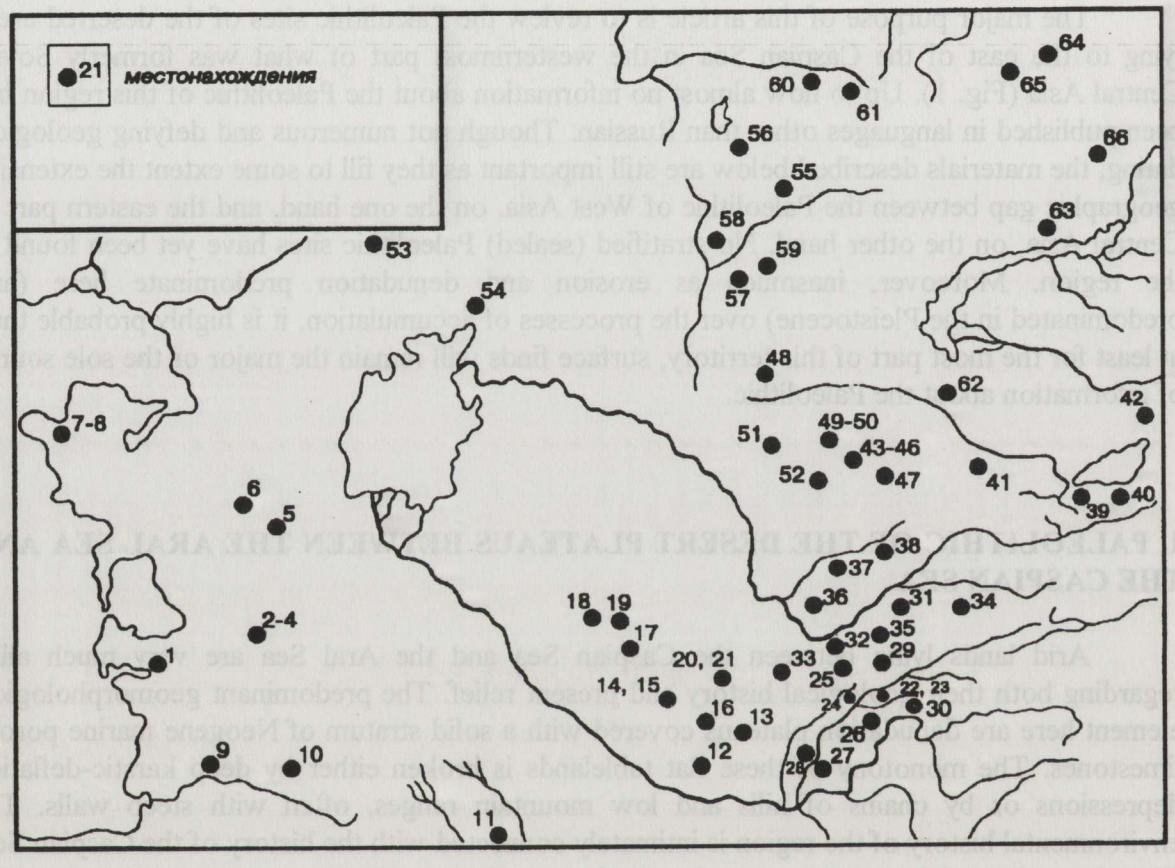

Fig. 1. Paleolithic sites of the former Soviet Central Asia and Kazakhstan. The sites referred to in the text are: 1 - Yangadja; 2-4 - Ga-Kush, Kizyl-Burun, Alam-Kul; 5 - Esen 2; 6 - Karakuduk; 7-8 - Shakhbagata, Kumakape: 9 - sites of Western Kopetdag; 10 - sites of Central Kopetdag; 11 - sites of Badghyz.

confirm this supposition. At present, Paleolithic sites are known here in the following areas: 1) the Krasnovodsk peninsula, 2) the Trans-Uzboi folded area , 3) the Usturt plateau, 4) the Mangyshlak peninsula.

1. *The Krasnovodsk peninsula.* This peninsula juts out into the Caspian Sea, with the Krasnovodsk gulf to the south and the Kara-Bogaz-Gol gulf to the north. Most of the peninsula is occupied by the plateau of the same name, and all finds of Paleolithic tools from the region are associated with the southern slope of this plateau (Vishnyatsky 1989). The slope faces the sea plain and is deeply cut by many dry channels which originate on the surface of the plateau and come down into the plain. The remnants of the slope between the channels are mostly rather narrow and represent sequences of clearly expressed abrasive terraces. It is on the surfaces of these terraces that most of the stone artifacts are found. The Yangadja site discovered in the middle of this century by A.P. Okladnikov represents a giant workshop containing materials dating from different periods from Paleolithic to Neolithic. One of its sections has yielded a collection of bifacial tools with several undoubted handaxes among them (Vishnyatsky 1989a). From this section only bifaces, unretouched flakes and few irregular cores were collected, while other tools were absent. The total number of bifaces is no more than twenty. Though small in number and without firm geological context, these finds deserve special description as they represent a tool type which is very rare in Central Asia. All of the tools on the site are made from indigenous flint, which is available in the area. It is worth noting that the surfaces of all finds from the biface complex are covered by intensive "desert varnish", which is not observed on the Neolithic tools of the same flint (endscrapers, projectile points, prismatic cores), scattered a few hundred meters away from the place where the bifaces were located.

One of the handaxes has lost its base (Fig. 2:1), evidently as a result of an unhappy effort to refine the medial part of the tool. The distal end is carefully worked by bifacial flaking, which is completed with retouching on some sections of the edge. The second handaxe also has a fracture on the proximal end (Fig. 2:2), but this fracture was used afterwards as a striking platform for refinement of the base, and hence one can regard the tool as practically unbroken. In addition, there are the base of a handaxe symmetrical in plan and carefully worked, and two smaller bifaces which are very close to handaxes in their shape and method of manufacture, but one of these is apparently unfinished and the other is hardly damaged. The rest of the bifaces in the collection obviously represent either unfinished handaxes or the blanks for some other tools which are so far unknown in the finished state. Proceeding first from the typological characteristics of the handaxes, and second from the fact that no bifaces are known in the Middle Paleolithic assemblages of Central Asia (with one exception), I consider most plausible (but not indisputable) to classify the described tools to the Acheulean.

Finds of putative Middle and Upper Paleolithic artifacts have also been reported from several other localities on the southern slope of the Krasnovodsk plateau (Okladnikov 1949, 1956, 1966; Dolukhanov 1977).

2. *The Trans-Uzboi folded area.* This region is located in the north-western part of Turkmenia, being bordered by the Uzboi dry channel to the south and south-east, Kara-Bogaz-Gol depression and Kemal-Uzboi narrow to the west, and Usturt precipices to the north.

Paleolithic materials come mainly from four locations (Ga-Kush, Kizyl-Burun, Alam-Kul, Begarslandag) in its south-eastern part known as the Begarslan-Tekedjik low mountain area (Abramova and Mandelshtam 1977; Liubin 1984; Vishnyatsky 1990). All the finds were collected here in very close conditions within the limits of a Neogen-Quaternary proluvial plain, so that their geomorphological position bears no information on their age. None of the four locations has clear limits; isolated artifacts or even small accumulations can be widely dispersed over many kilometers.

Though the collections are by no means homogenous and contain even some admixture of Neolithic tools (which can easily be distinguished after both morphological criteria and the state of preservation), the study of the material leaves no doubt that its largest part should be classified to the Middle Paleolithic (Figs. 3 and 4). Furthermore, the Middle Paleolithic inventories of different sites look very similar to each other regarding their typology, raw material, and state of preservation. Altogether they include about 1000 items, most of which are of good quality grey indigenous flint coming from local Late Cretaceous deposits. Both intact nodules and large pieces of this flint are readily accessible in the environs of each site. The cores are dominated by single-platform ones with parallel flake scars, and one- or double-sided discoidal ones. Blades are extremely rare, flakes usually have plain platforms and dorsal scar patterns corresponding to the character of cores (i.e., either parallel or convergent). Tools are represented by sidescrapers (single straight, single convex, double), denticulates, notches, truncations, rare backed knives, endscrapers and what can be defined as either a point or a convergent sidescraper. About half of all tools are made not on flakes but on natural slabs and other nodules, and it is due to this circumstance that many of them are naturally-backed (though there are debitage-backed tools as well).

3. *Usturt plateau.* The plateau is situated to the south-west of the Aral Sea in Western Kazakhstan and Karakalpakia. A characteristic feature of its relief are numerous depressions, and these are the latter with which all the known Paleolithic sites are associated. The Esen 2 site (Bizhanov 1979; Vinogradov 1981:54-56,) is located in the southern part of the Barsakelmes depression close to chert outcrops. About 60 bifaces accompanied by 150 flakes and chips were collected here from a 90x40 sq. m. area. True cores and retouched flakes are completely absent. One third part of the bifaces are in the initial stage of preparation, the others are nearly or completely finished, but represented mainly by fragments. Judging by the morphology of the rare nearly intact and finished bifaces and the most representative fragments, their makers sought to produce thin, but wide and rather long (no less than 10-12 cm) tools with pointed end and sharp edges. This was done through detaching large flat removals sometimes followed by retouching of parts of the edge. Another large site is Karakuduk (Bizhanov 1979), located on the northern slope of the Barsakelmes depression. The collection includes over 900 items of silicified limestone, which are mainly nodules exhibiting single removals, and primary flakes detached from such nodules. Most interesting are twelve bifaces in different stages of preparation, none of which can be called finished. Probably both Esen 2 and Karakuduk should be considered workshops devoted primarily to the manufacture of bifaces (for more details see Vishnyatsky 1996:32-35). The age of these sites remains debatable. According to E. Bidjanov, the oldest bifaces are Acheulean handaxes (Bidjanov 1983, 1988), but this appraisal, though credible, is not confirmed by any solid arguments. It cannot be ruled out that at least some of the finds are of post-Paleolithic age.

4. *Mangyshlak peninsula.* This peninsula is situated in the extreme west of Kazakhstan and juts out into the Caspian Sea between the gulfs Kara-Bogaz-Gol (to the south) and Mangyshlak (to the north). Most of the stone age investigations in the region were concentrated on the southern shore of Sarytash gulf (Tubkaragan Peninsula), where flint workshops were found along the dry channels Shakhbagata and Kumakape, and also in some other locations. There are many flint bifaces and some true handaxes in the collections from Shakhbagata and Kumakape, and the dating problem is now the most important one. According to A. Medoev, who found and collected the material, some handaxes are Acheulean but in his book, published posthumously (Medoev 1982), this inference was not firmly substantiated. All the finds are without reliable geological context and this impedes chronological ordering of the material. The present author had an opportunity to examine some collections from Mangyshlak. My view is that material of different ages, including the Neolithic, is mixed on the sites, but the presence of some Lower or Middle Paleolithic handaxes is incontrovertible (one of these is depicted in Medoev's book, *ibid.*:fig.6).

2. PALEOLITHIC OF THE SOUTH-WESTERN MOUNTAIN AREA. (KOPETDAG AND BADGHYZ)

1. *Kopetgad.* This is the northern range of the Turkmen-Khorasan mountain system representing a natural border between Turkmenia and Iran. Its total length is about 500 km. This region, like many others, still waits for its explorers. No more than 200 objects claimed to be Paleolithic artifacts have been reported from here, and it is highly probable that some of these are in fact pseudoartifacts. All of them represent surface finds collected at different times by different researchers in the western, central and eastern parts of the range.

All the Paleolithic finds in Western Kopetdag are located in the valleys of the Sumbar (a tributary of the Atrek) and Chandyr (a tributary of the Sumbar) rivers, not far from the town of Kara-Kala. V.P. Liubin collected from here slightly more than 100 stone artifacts (Fig. 5) which were found as a rule on the eroded slopes of the hills among many natural pebbles (Liubin 1984:28-31; Vishnyatsky 1996:37-45). All the objects are made from indigenous limestone and chert. Unfortunately, there is so far no firm geological basis for dating of the finds. On typological grounds, Liubin dated the oldest of them as Acheulean (*ibid.*, p.31) which can be questioned, since no bifaces were found. On the other hand, the predominance in the collections of large pebble cores, chopper/chopping tools, massive sidescrapers and crude flakes allows one to regard Western Kopetdag as an area where pebble industries similar to that of East Asia were formerly distributed. There are also some tools (including what can be called Levallois cores and a convergent sidescraper) which may be regarded as signs of the existence of a true Mousterian in the region.

Central Kopetdag was briefly investigated by V.A. Ranov and B.K. Luzgin in 1964 (Luzgin and Ranov 1966). They collected about 30 stone items at three different locations (Tomchi-Su, Otalgyzov, Yablonovskoe). All the objects thought to be Paleolithic tools were made from soft limestone pebbles which "has caused the very bad preservation of the artifacts" (*ibid.*, p.90). Nonetheless, Ranov succeeded in defining cores, flakes, sidescrapers and also "at

least 4 chopper/chopping tools among them" (*ibid.*, p.90). Most of these finds were considered Mousterian and the others either Mousterian or Late Acheulean (*ibid.*, p.93; Ranov 1971:231). Though no drawings of the chopper/chopping tools have yet been published, the claim of their presence is worthy of note.

Judging from the available descriptions and drawings, the materials coming from Central Kopetdag are very similar to those from the eastern part of the ridge. Here, in the valley of the River Keshefrud, not far from Meshhed, about 60 stone objects (quartzite, quartz and andesite) were collected, which according to Thibault and Ariai are cores, flakes, denticulates, crude sidescrapers, choppers/chopping tools (Ariai and Thibault 1975-1977). The supposed geological age of the finds as 800,000-1,000,000 years (*ibid.*:106), is uncertain and seems to me questionable; in any case, it is in need of additional substantiation.

2. *Badghyz.* This deserted hilly land between the Tedgen and the Murgab rivers represents the northern part of the Paropamiz foothills. Now it is almost waterless, though the analysis of ancient channels and ravines has led some researchers to the conclusion that during the Quaternary Period, Badghyz more than once witnessed the appearance of permanent and rather powerful water streams (Babaev and Gorelov 1985). Single objects defined as Mousterian cores and flakes were reported to be found in the environs of the Rakhmatur spring close to the Iran frontier (Luzgin and Ranov 1966:93; Beregovaya 1984:48), but neither drawings nor descriptions have ever been published. The latter applies also to somewhat more numerous materials collected by G.V. Ivanov on the Pinhan, Dash-Guyu and Egri-Gek locations in the south-western part of Badghyz and assigned by him respectively to the Mousterian and Upper Paleolithic (Ivanov 1979).

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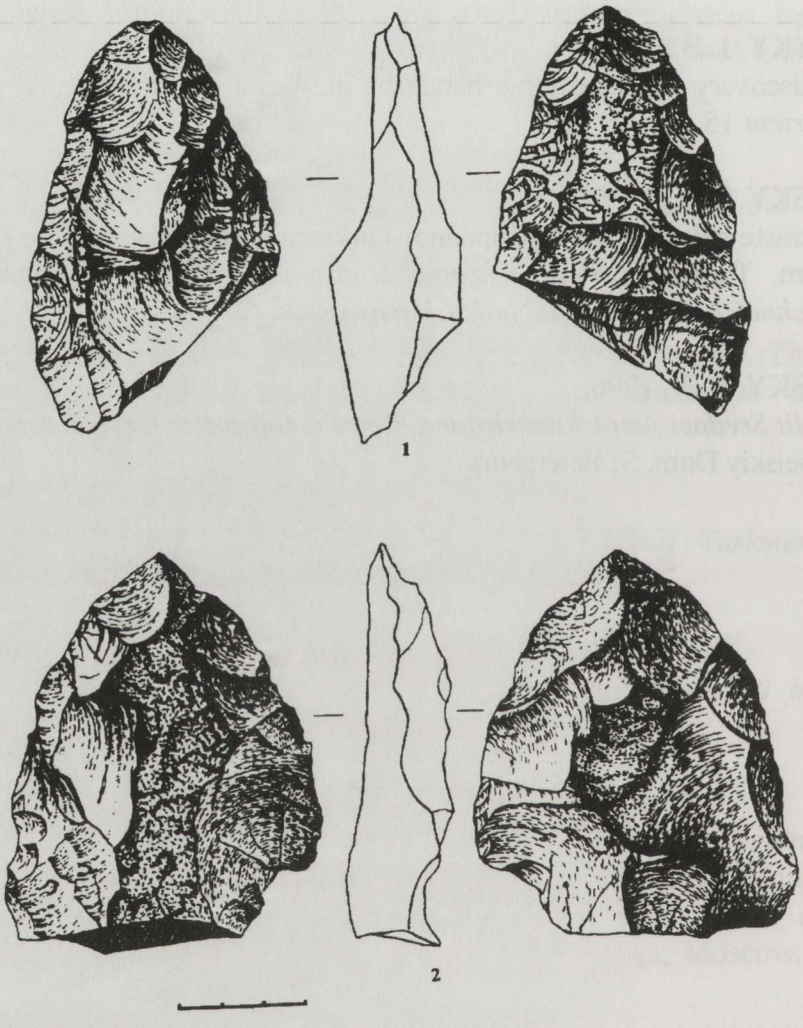

Fig. 2. Handaxes from the southern slope of the Krasnovodosk plateau.

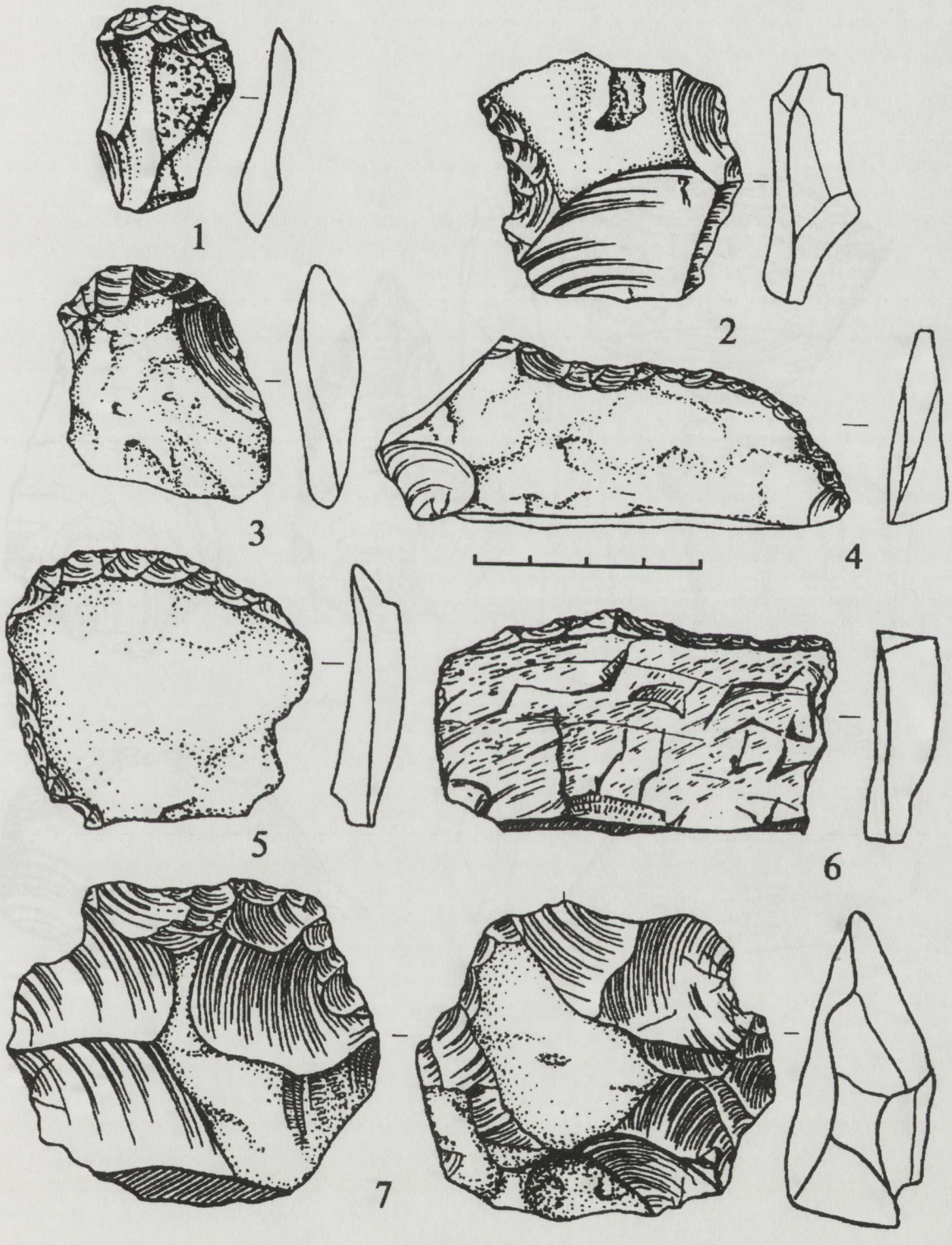

Fig. 3. 1, 2, 5, 7 - Alam-Kul; 3, 4 - Ga-Kush.

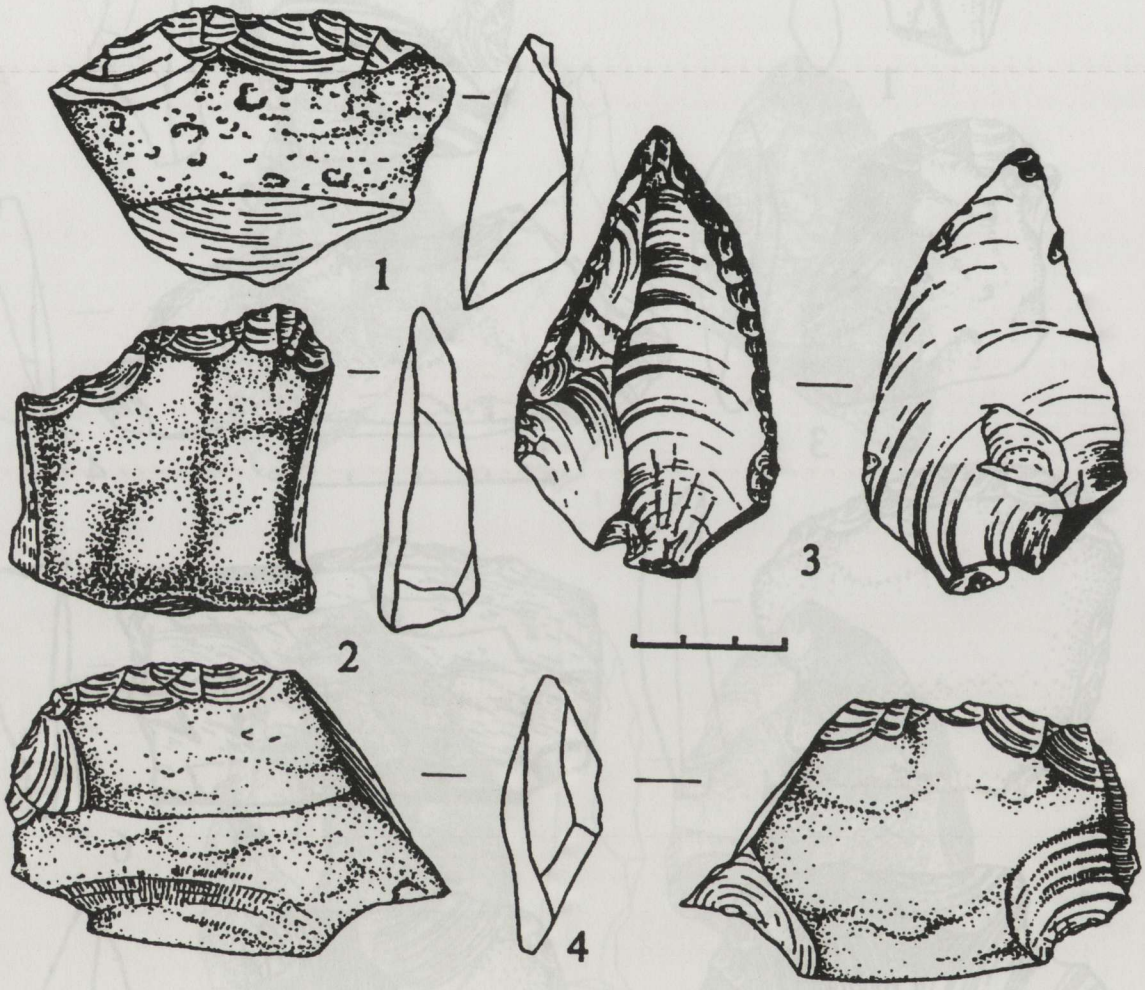

Fig. 4 - 1, 2, 4 - Alam-Kul; 3 - Begarslandag.

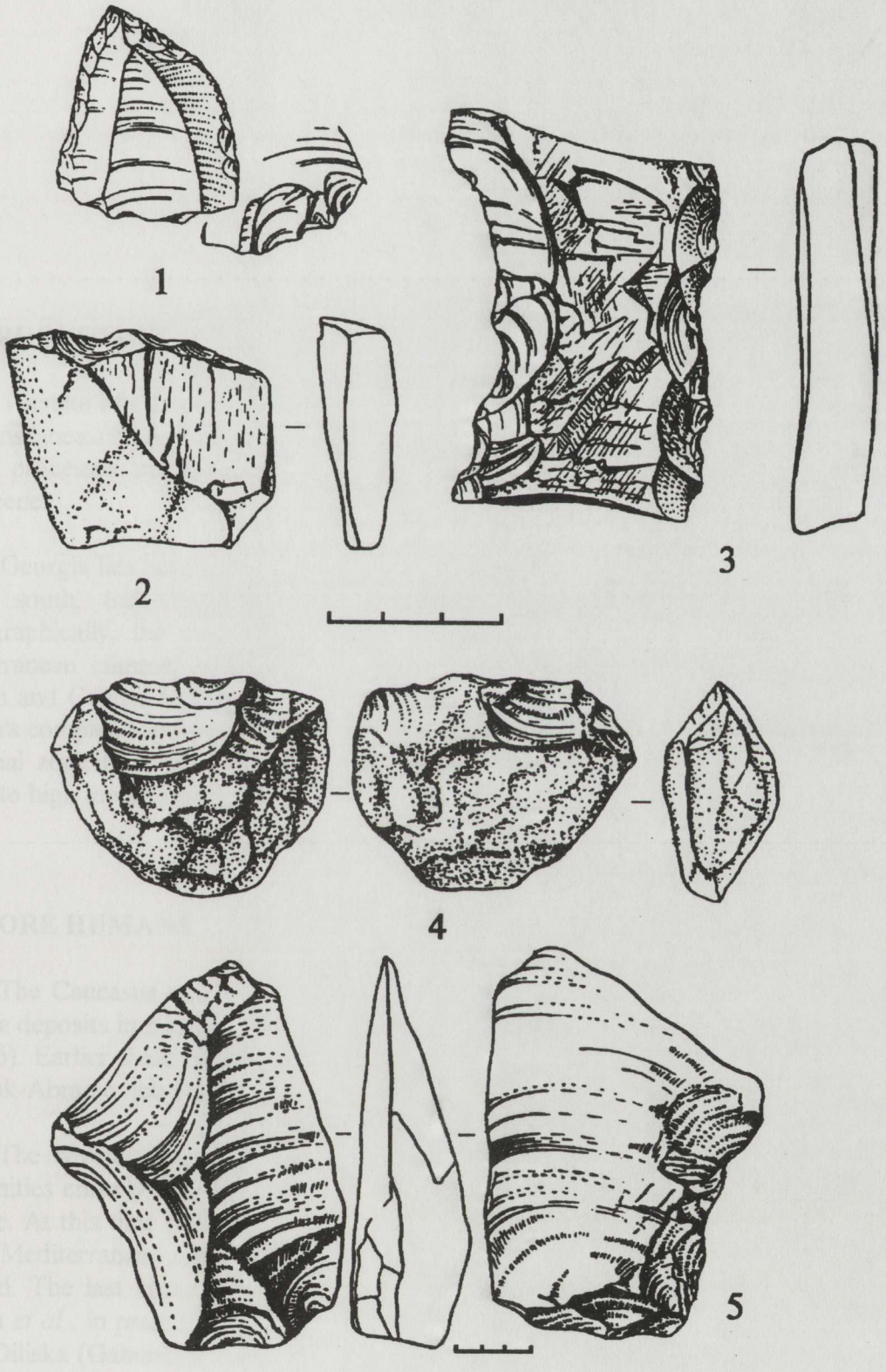

Fig. 5. Tools from Western Kopetdag.