

THE MOUSTERIAN LEAF POINTS IN CRIMEA: CLASSIFICATION, CHRONOLOGY, ORIGINS

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Four Mousterian cultures have been identified in Crimea to date: the Akkaiskaya, Kabazijskaya, Kiik Koba, and Staroselye ones. Only the Akkaiskaya lithic inventories contain a relatively large number of unifacial and bifacial leaf points (about 50 pc.). The Staroselye inventory contains only 11 pieces while the Kabazijskaya and Kiik Koba cultures each contain only singular examples. This paper will discuss these bifacial leaf points.

Using a classificatory scheme developed by Kozłowski (1961) and Haesaerts and Sirakova (1979), these points can be divided into the following groups: A) laurel leaf (symmetrical and asymmetrical), B) willow leaves (symmetrical and asymmetrical), C) poplar leaves (symmetrical and asymmetrical), and D) sub-triangular points (symmetrical, slightly asymmetrical elongated and short ones). These groups can be further subdivided into unifacial and bifacial spear points. Group D contains unifacial points. Most often they are small in size, feature bifacially thinned bases, and could have served as lance points. The Akkaiskaya culture contains all four groups, the Kabazijskaya only group A, the Kiik Koba group D, and the Staroselye one groups A, B and D.

In working with these leaf points it became necessary to subdivide type A into true laurel leaf and laurel leaf like ones (either symmetrical or asymmetrical) with convexo-narrowed bases as well as with convexo-widened bases. The Crimean inventories sometimes also contain laurel leaf points with two convex ends, with straight or slightly concave bases on one side. Group B points subdivide into symmetrical willow leaf with convex wide bases. Group D points separate out into those symmetrical and asymmetrical sub-triangular ones with convex, straight, and concave bases. Leaf points of the Akkaiskaya culture are widely represented in inventories of the multi-layered sites of Zaskal'naya V, Zaskal'naya VI, Prolom II, Chokurcha I, Sary-Kaja, and other sites. Leaf points of the Akkaiskaya culture tentatively consist of the following categories: laurel leaf — 50%, subtriangular — 32%; willow leaf — 14%, and poplar — 4%. The largest number of them come from the second and third cultural layers of Zaskal'naya V and VI.

The prevalence of leaf points, especially of bifacial ones, in the Akkaiskaya culture can be explained by numerous factors, foremost of which relate to the raw material on hand. The most important sites of the Akkaiskaya culture sit next to numerous outcrops of Cretaceous flint containing both tabular and cobble deposits. Large and flat pieces of tabular flint are most suited for quick and expert making of hunting and maintenance tools.

Here we should note that S.A. Semenov, a major specialist on primitive technology, in discussing the inferior tabular flint used to make tools at Kostenki I, lower layer, wrote that: "The only method that could be used to make kni-

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ves and points of this material was one of bifacial workmanship. The cortex had to be first removed from both sides, which was done via pressure flaking. Given this raw material and manufacturing technique, tools from the lower layer of Kostenki I at best resemble Neolithic tools while the less successful pieces appear much cruder and resemble the more archaic Middle Palaeolithic tools made by bifacial retouch" (Semenov, 1957, p. 73).

If we consider the Akkaiskaya culture as a whole, it is distinguished by a large percentage of bifacially worked tools which are dominated by various types of knives with gripping platforms. The tradition of fashioning working edges and gripping edges is also seen in unifacial tools : knives, side scrapers, points, denticulates, etc.

Thus it is apparent that the qualitative and quantitative dominance of bifacial leaf points, used to top spears, depended on the presence of tabular flint – something that the makers of Akkaiskaya inventories had in abundance. This tool type cannot be functionally associated with hunting of large gregarious taxa such as mammoths, however.

The hunting and butchering of large game is associated with bifacial knives with gripping platforms and hafted knives. I have discussed this association in detail in the monograph *Akkaiskaya Musterskaya Kul'tura*. The association of knives and bones of large animals (mammoth) could be traced not only because of the abundance of this artifact type but also because the pertinent archaeological record contains both multi-layered base camps and, possibly, kill and butchering locales. This functional association was strengthened by the presence of tabular raw material as well as edge wear studies by A.E. Matyukhin conducted on the bifacial processing tools. Edge wear studies separated out the knives from the points and showed that the points, due to their different functions, require further research attention. The first phase of this research has to separate out finished from unfinished hunting implements, and, using morphological and technological traits (form, edge angles, thickness of the working edge, shape of the bases, etc.) as well as edgewear damage, determine their function.

It is likely that the form and function of the tools will not coincide because the same tool could have been used for different purposes (Matyukhin 1983, p. 187). Such is the case, for example, with Upper Palaeolithic side notched points-wedges from Kostenki I, Pushkari I, Borschevo I, among others, which in addition to being used as points also served as knives. S.A. Semenov noted that: "in reality the functions of a spear or lance point and knife-dagger are very similar. As a result both tool types show similar retouching ... as well as that." Very often points (side notched, Yu.K.) were used for butchering the carcasses of animals. Such pointed tools were especially necessary for the butchering of mammoths whose carcasses could not have been processed with blunted knives (Semenov, 1957, p. 118). The unfinished and crudely retouched leaf shaped bifaces, which have at least one long edge blunted for gripping or which have at least one prominent platform usable for the same purpose, could also have been used for this purpose.

Analyzing the Akkaiskaya culture leaf points with this in mind, we see that the inventories contain few finished items but a multitude of broken bifacially worked tools with rounded and pointed ends. The second and third cultural layers of Zaskal'naya sites contain a few hundred of them. This inventory awaits further edgewear and damage study. Special attention needs to be paid to the damage of the points resulting from impact with the prey animal. This damage can only be studied when large collections are available. The first phases of such a study can be done through simple visual inspection of the damaged points. The second phase of the study involves the analysis of macro and micro damage to the working edges and the correlation of these data with those obtained during the first phase of analysis.

The second and third of both Zaskal'naya V and VI contain a small number of bifacially worked leaf points. These cultural layers are found under the collapsed roofs of the rock shelters and radiocarbon date to more than 40,000 – 50,000 B.P. Spore and pollen data indicate that these layers formed when steppe vegetation predominated. Such open landscapes were hospitable to mammoths, horses, and other gregarious herbivores. The flowering of

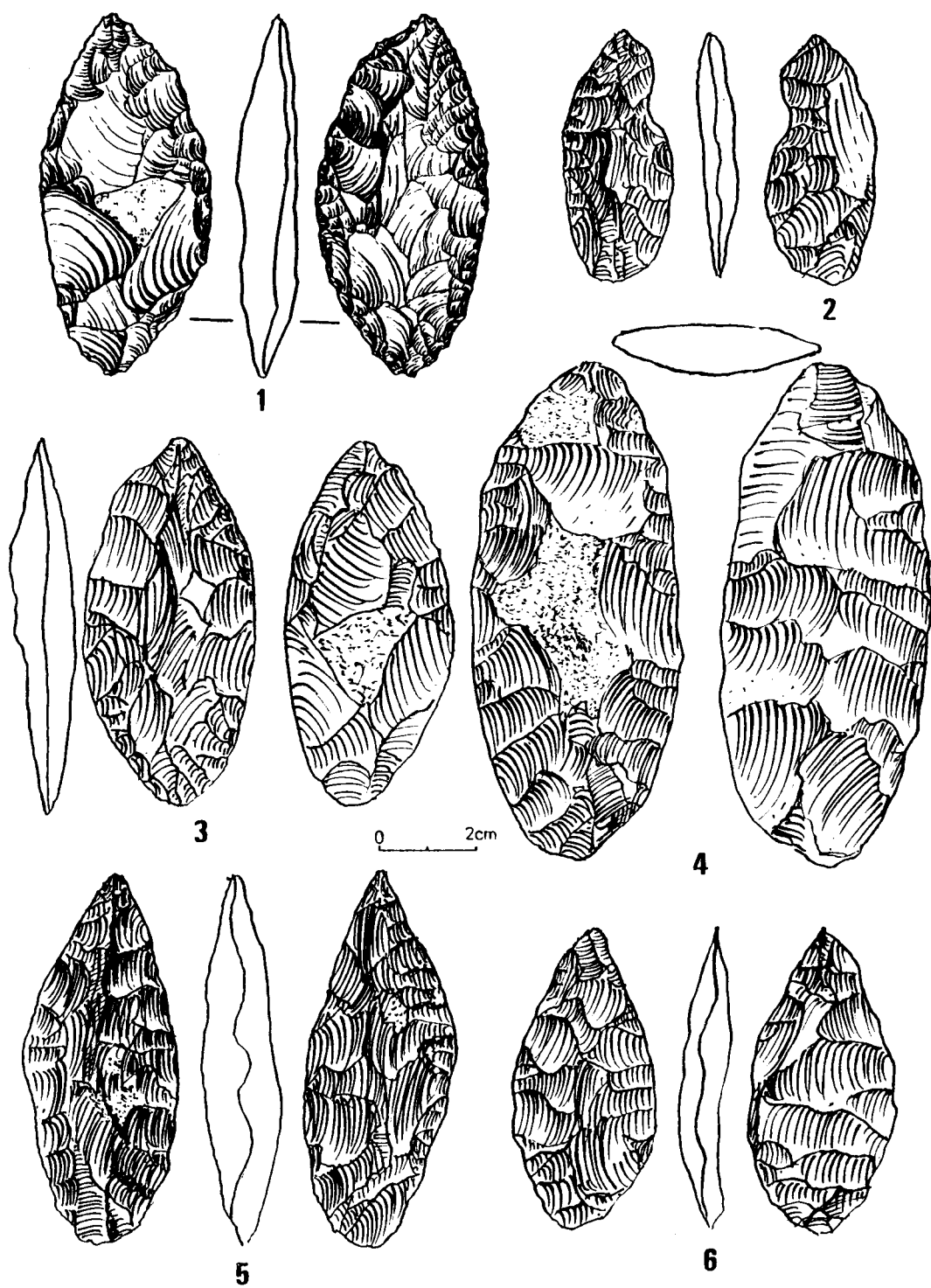
the Akkaiskaya culture occurred precisely during this period when the settled flint knappers could make thousands of different hunting and processing tools.

The discovery of two fragments of unifacial and bifacial willow leaf points in the IVth layer of Zaskal'naya V permits us to determine the chronology of the leaf points. Both points are rolled, covered with a thick yellowish-green patina, and contain evidence of re-use. Items with the same degree of rolling and patination (nuclei, blanks, tools) are occasionally found in the lowest layers at Zaskal'naya sites as well as in the trenches in front of the sites. This suggests that the Zaskal'naya inhabitants collected this material from an older, as yet undiscovered, site and brought it to Zaskal'naya. Both of the fragments of willow leaf points, as well as other similarly shaped tools, as well as a half of the laurel leaf points found together with hand axe-like knives and small hand axes, found in the lower layer of Zaskal'naya IX, date to the Riss-Wurm.

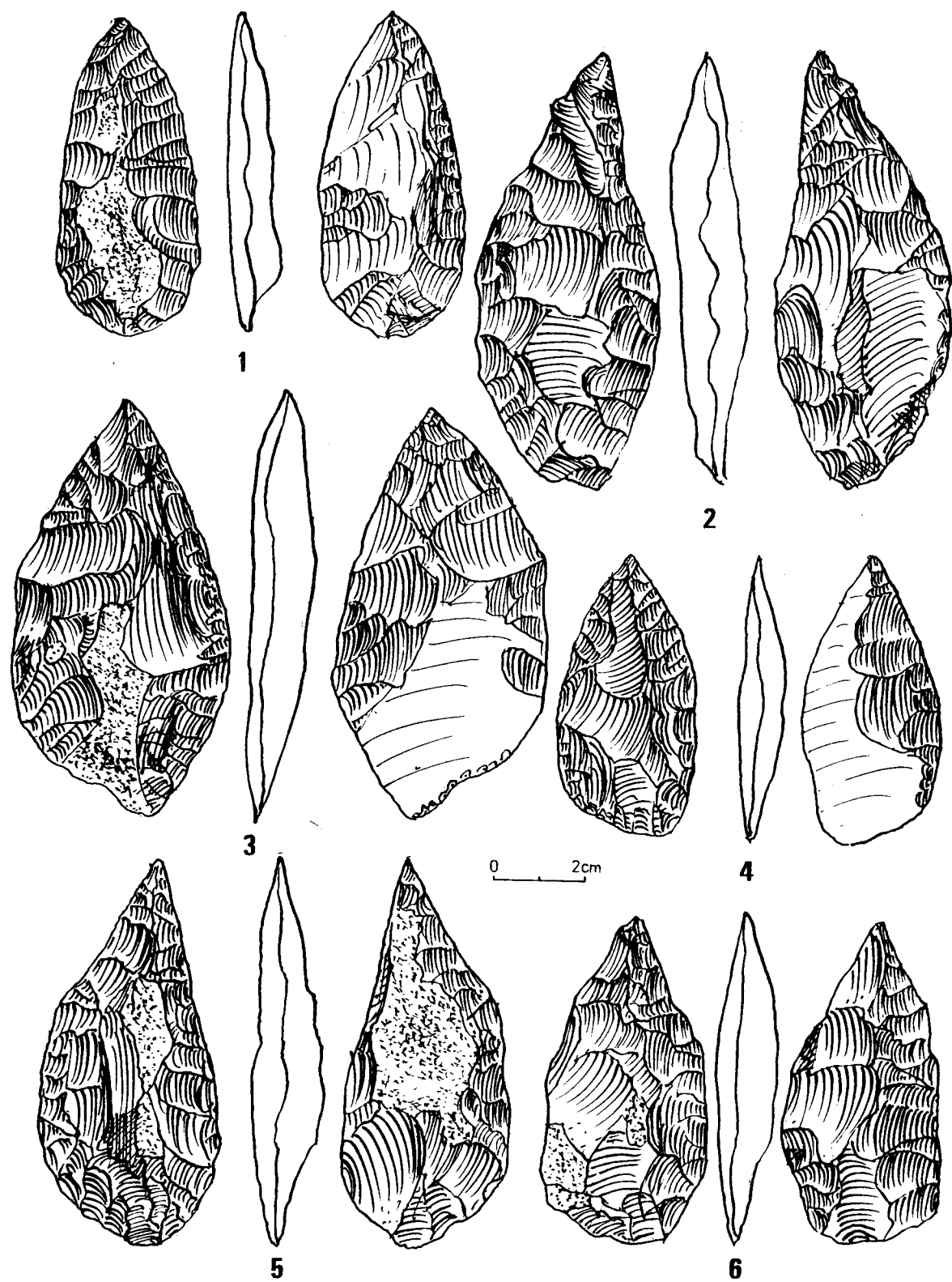
Given their considerable age and the fact that leaf points are found in very diverse region, their development should thus be seen as an autochthonous convergent phenomenon.

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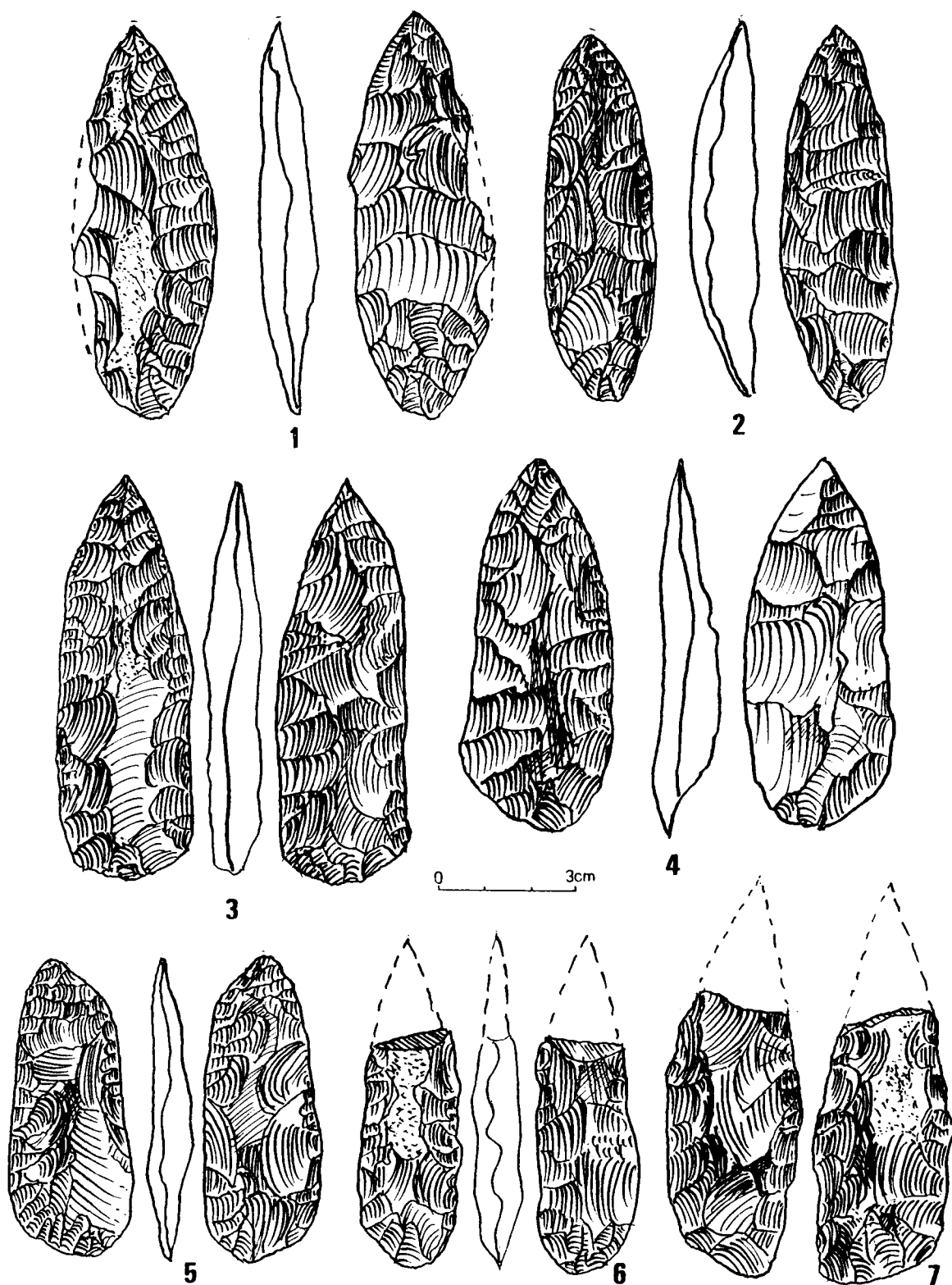
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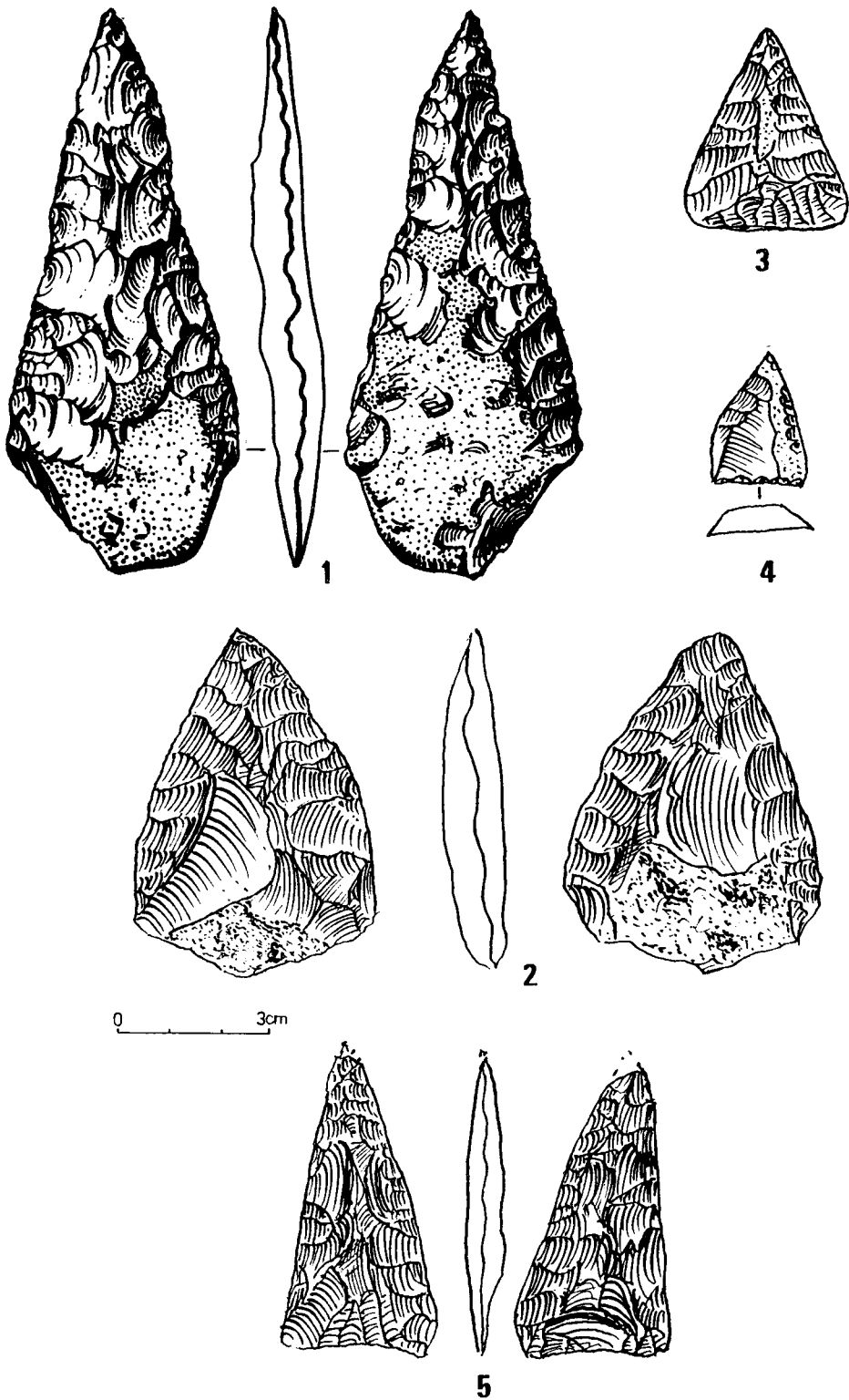
Pl. 1. 1-6. Leaf-shaped points of the Akkaiskaya culture (site Zaskalnaya VI, layer II-III).



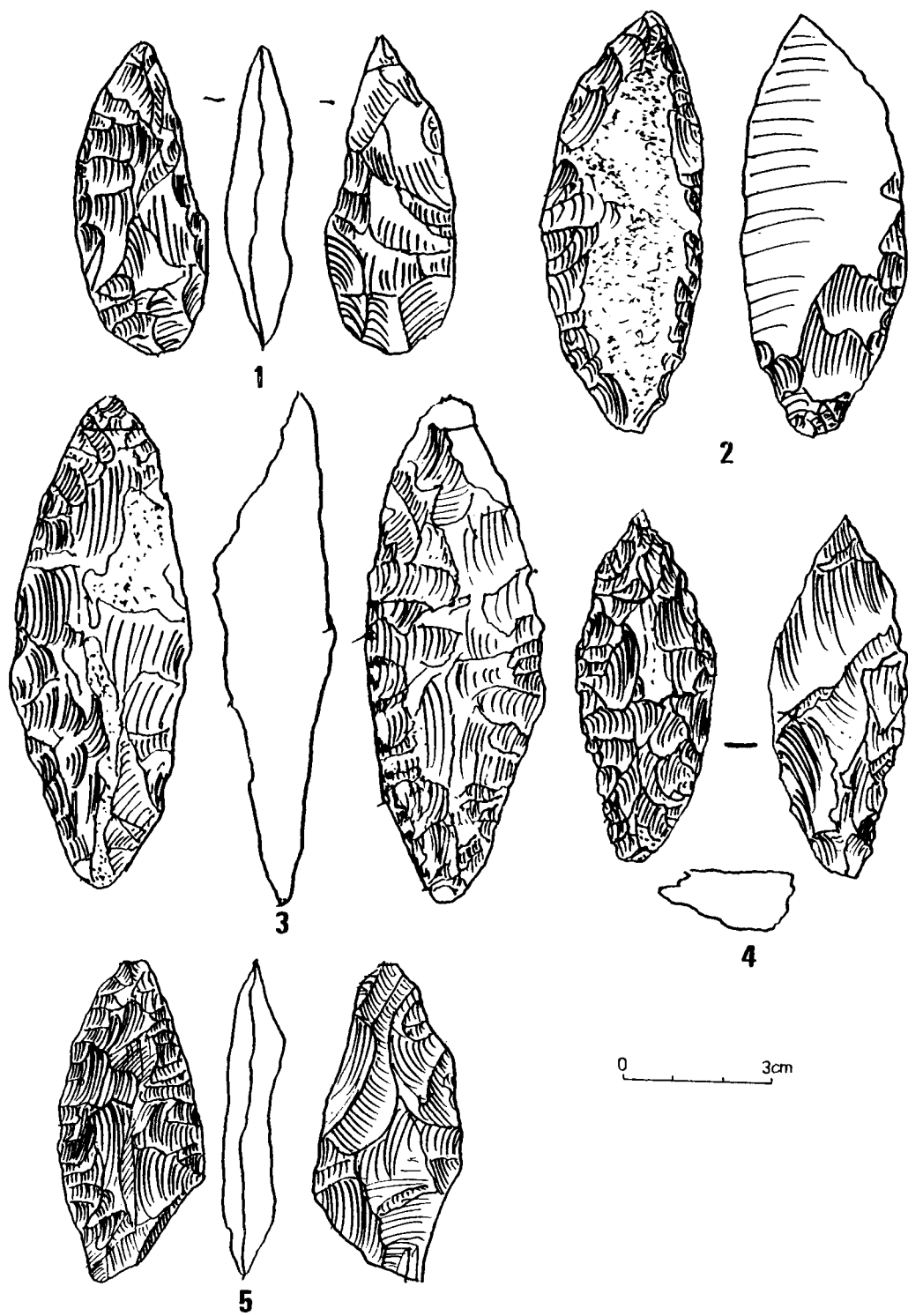
Pl. 2. 1-6. Leaf shaped-points of the Akkayskaya culture (1 - Zaskalnaya V layer II, 2 - Zaskalnaya VI layer II, 3 - Sary-kaya I, 4-6 - Zaskalnaya V layer II).



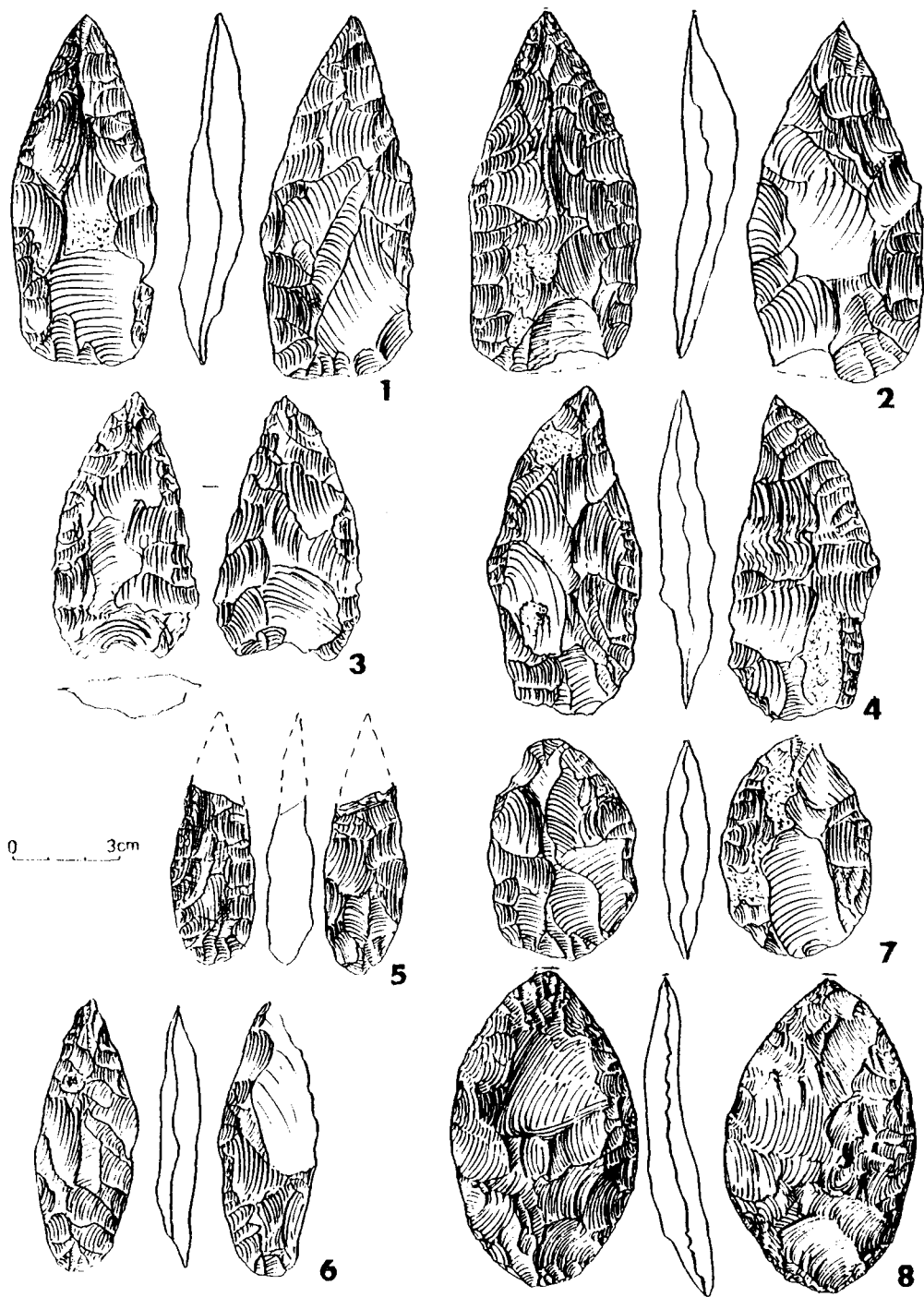
Pl. 3. Leaf-shaped points of the Akkaskaya culture (1,2 - Zaskalnaya VI layer II, 3 - Zaskalnaya VI layer III, 4-6 Zaskalnaya V (trench), 7 - Zaskalnaya V layer IV).



Pl. 4. Triangular bifacial points of the Akkaiskaya culture (1 - Zaskalnaya VI layer III, 2 - Zaskalnaya VI layer IV, 3-4 - Zaskalnaya V layer IV). Kiik-koba culture (5 - Prolom I).



Pl. 5. Leaf-shaped points of the Starosiele culture (1-4 - Starosiele, 5 - Kabazi II, layer II level 13).



Pl. 6. Triangular bifacial points of the Starosiele culture (1 - Kabazi V, layer I, 2,4 - Bonch-Osmolovski site, 3 - Starosiele); Willow leaf-shaped points of the Starosiele culture (5,6), Poplar leaf-shaped points of the Akkaiskaya culture (7,8s).