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CRIMEAN ASSEMBLAGES WITH BIFACIAL TOOLS : BRIEF REVIEW

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The sites of Riss-Wurmian and especially Wurmian age with bifacial pieces are significantly represented on the territory of the Eastern Europe. The great majority of them are known in the Southern area of East European Plain and in the Crimea. Different terms are involved for description of assemblages under discussion, namely: Eastern Micoquian, Mousterian with Acheulean Tradition, East Micoquian and Bockstein Facies, Bifacial Mousterian, Bifacial Mousterian with Micoquian Tradition etc. The term "Eastern Micoquian", proposed by M. Gábori (GÁBORI 1976) seems to be the most preferable among them.

Stratified sites with bifacial tools are specifically numerous in the Crimea. It allows us to regard certain aspects of Eastern Micoquian problem using new data on Crimean MP.

The main sites

Following sites can be refered to the number of important ones, namely: Kiik-Koba, Chokurcha 1, Volchi Grot, Ak-Kaya III, Zaskal'naya V and VI, Krasnaya Balka, Prolom I and II, Sary-Kaya I, Buran-Kaya III, Starosel'ye, Kabazi II and V, GABO, and several others. All the sites excluding Sary-Kaya 1 and Krasnaya Balka constitute habitations in caves with S or SW orientation. Sufficient number of cave refuges were collapsed in ancient times and to the moment of excavations the culture-bearing sediments were out of actual caves. Overhelming majority of sites is connected with the 2d Ridge of Crimean Mts. with average altitudes ca. 200-400 m a.s.l.

Geochronology and absolute dates

Due to natural science data in hands the Crimean sites under consideration embrace the time span from, at least, Amersfoort up to the end of Interpleniglacial. There are several absolute dates for different sites, both ESR and 14-C. First group of dates ranged roughly from 20 to 70 Ka, second concentrated mainly between 30-35 Ka BP (see for references Stepanchuk in press a). Final Crimean MP, as it suggested, have comparatively late age and coexists temporally with EUP (STEPANCHUK 1996a).

Palaeogeography and fauna

The data in hands points to absence of crucial climatic changes in the Crimea during the early and middle Wurm. Comparatively soft climate is suggested. Temperature and humidity fluctuations during post-Eemian period of MP development did not led to cardinal changes of landscape, and Steppe still remain dominated one (ARKHEOLOGIYA I PALEOGEOGRAPHIYA 1978). Open landscapes, changed with more/less forested ones were especially characteristic for the whole East European Plain and Crimea during Late Pleistocene (GRICHUK 1989; PALEOGEOGRAPHIYA 1982; SIRENKO *et al.* 1990). Paleolandscapes of Crimean Mts. during Eem / post-Eem transition and through the time of the last glacial were characterised by decline of decidious forests and invasion of boreal vegetation. At the same time Crimea payed no data on Alpian flora (DIDUKH 1992). Species well adapted to Steppe are

dominated among megafauna. The most common are mammoth, wooly rhinoceros, bison, horse, asl, saiga, as well as giant, red, and reindeers. Comparatively high frequency of antilopa saiga and deers allows to distinguish a local type of fauna in frames of so called Mammoth Complex (BIBIKOVA & BELAN 1979). There are also cave bear, wolf, fox, polar fox, hair etc. The main part of Crimean microteriofauna is represented by Steppe species (REKOVETS 1994). MP ornitofauna is characterised by dominated forest species (BARYSHNIKOV & POTAPOVA 1992).

Stone assemblages: typology, technology

Assemblages with bifacial tools are not homogenious. Already during early 60-th and 70-th the "Bifacial Mousterian" of the Crimea was not regarded as simple unity and so called Kiik-Koba, Ak-Kaya, and Starosel'ye mousterian cultures were distinguished (GLADILIN 1976; KOLOSOV 1967; see also STEPANCHUK 1991; KOLOSOV *et al.* 1993a).

AK-KAYA industrial tradition represented by ca. 20 sites concentrated in the Eastern part of the 2d Ridge of Mts. Zaskal'naya V and VI, Sary-Kaya I, Krasnaya Balka, Prolom II, Chokurcha I are among the number of better investigated sites (KOLOSOV 1983, 1986, 1988; KOLOSOV & STEPANCHUK 1989; ERNST 1934; KOLOSOV *et al.* 1993a). Industry is characterised by orientation both to bifacial (up to 30 %) and big flake-blade blank. Cores are frequent; there are centripetal, discoide (according to BOEDA 1993), protoprismatic, and Levallois of recurrente and preferentiel types. IFs 23/30; Ilam ~7. Sidescrapers are dominated among flake-tools. Points are comparatively frequent. Different thinned types are well represented. Biface-knives are extremely frequent among bifacial tools. The latter includes also sidescrapers, points, certain number of leafpoints and single hand-axes. Besides bifacial and flake knives with backs industry includes numerous backed sidescrapers, denticulates etc. (KOLOSOV 1983: 139-140). The special nomenclature enumerated 8 types of bifacial backed knives. Several types of flake knives are distinguishe, as well (KOLOSOV 1978, 1983, 1986).

The sites of *KIIK-KOBA industrial tradition* are known at the same area as Ak-Kaian. These are Kiik-Koba, IVth layer, Prolom I, two layers, the upper MP layer of Buran-Kaya III, and, probably, the middle layer of Volchi Grot (BONCH-OSMOLOVSKI 1940; KOLOSOV 1979; STEPANCHUK 1994; YANEVICH unpublished materials; BADER & BADER 1979). Industry is oriented to obtainment of a big flake and also to bifacially worked blank (up to 15 %). Deficit of high quality raw materials led to intensive utilisation of lithic resources and resulted in microhabitus of tool-kits, abundant multiedged tools, rare and exhosted cores, extremely high quantity of retouching and resharpening waste chips. Bifacial working waste flakes were used widely for tool manufacture. There are centripetal, discoidal, amorphous, and protoprismatic cores. IFs 25; Ilam ~10. Various types of points on flakes are very frequent, dejete are common; there are different sidescrapers, knives etc. Thinned pieces are common; there are several specific types, namely Kiik-Koba points and so called triangles. Bifacial tools are represented by points, sidescrapers, rare leafpoints and single atypical biface-knives.

The sites of *STAROSEL'YE industrial tradition* are only known in South-Western Crimea. There are Starosel'ye, Kabazi V and II, layer III, Bakhchisaray, GABO, probably Kabazi I and assemblage of Chokurcha II (FORMOZOV 1958, 1959; CHABAI 1992; KOLOSOV *et al.* 1993a, 1993b; KRAINOV 1979; STEPANCHUK 1996b; unpublished materials stored in Public Archaeological Museum, Simferopol). Industry is oriented mainly to big

flake and bladey flake; bifacial blanks are not numerous (up to 5 %). Centripetal, protoprismatic (sometimes semi-volumetric), as well as Levallois centripetal and preferentiel knapping techniques were applied. IFs 15/23; I lam 5/20. Sidescrapes, especially simple and double, constitute majority among flake tools. Points are represented, there are à dos aminci pieces, limaces. The overhelming majority of bifacial tools is represented by elongated slightly assymetrical leafpoints.

Bone artefacts

Discussed sites are yielded rather numerous bone artefacts. Bone fragments with traces of utilisation are common, namely: bones with incisions, traces of scraping, polishing, cutting, crushing, with punched semi-holes etc. The evidence of utilizaion of bone as raw materials (cutting, sawing) are single and more problematic. Intentionally prepared bone tools or objects with signs of intensive use constitute a high interest. There are awls, perforators, polishers, "spades", retouchers and anvils, sometimes very numerous, retouched pieces etc. So called "mobile art" objects are unique. Prolom II series of finds consists of horse canine with five longitudinal deep incisions, several long bone fragments with groups of incisions, phalange of Saiga with fan-like disposed thin incisions (KOLOSOV 1986; STEPANCHUK 1993).

There are also known ocher fragments with traces of intensive scraping and, more rarely, polishing. Several sites yielded numerous stone retouchers.

Anthropological finds and burials

Human remains associated with MP assemblages with bifacial tools are rather numerous in the E. Crimea, where they are known at the Kiik-Koba, layer IV (1 individual), Zaskal'naya VI layer III/IIIa (uncomplete remains of minimum 5 individuals aged between 1-15 years), Zaskal'naya V "trench" (skull fragment and hand bone of 1 /?/ individual), Zaskal'naya V, layer V (skull fragment), Prolom II, layer I (hand phalange). (BONCH-OSMOLOVSKI 1940; KOLOSOV 1983, 1986; SMIRNOV 1987, 1991; ALEKSHIN 1993; VLČEK 1976). The site of Starosel'ye, SW Crimea produced well documented remains of at least one individual and several separate human bones. East Crimean finds are defined anthropologically as Homo s. neanderthalensis (cf.: YAKIMOV & KHARITONOV 1979; DANILOVA 1979, 1983; VLČEK 1976). Starosel'ye burial of Homo s. sapiens child stands out of the row (FORMOZOV 1958; ALEKSEEV 1985; SMIRNOV 1991; etc.). The age of the latter find already for a long time calls certain scepticism (cf.: KLEIN 1969; etc.). Recent discovery of medieval burials at the site adds to this scepticism (MARKS *et al.* 1994). Thus, the chronological position of Starosel'ye child needs in additional argumentation.

All in all remains of minimum 11 individuals of fossil man are known in the context of MP sites of the Crimea. As it can be suggested eight finds can be regarded as connected with intentional burial practice, namely the finds from Kiik-Koba, Zaskal'naya VI, and Starosel'ye. In it's turn seven of them are associated with industry under discussion. Burial rite is various, there are inhumation of complete body in different postures; collective (?) dismembered (?) inhumations; in a pit; under a mound (BONCH-OSMOLOVSKI 1940; FORMOZOV 1958; KOLOSOV 1983, 1987; SMIRNOV 1991). Ratio adult/adolescent/child is 1:2:5. Must be emphasised that in all cases the finds are associated with long-term cave sites.

Dwellings and defence constructions

Bone concentration (mammoth bones generally) discovered at Chokurcha I (ERNST 1934) is interpreted sometimes as defence construction/dwelling evidence

(CHERNYSH 1965; LYUBIN 1970). Planigraphical peculiarities of the IVth cultural layer of Kiik-Koba suggest existing of special defence construction (LYUBIN 1969).

Type of sites and season of habitation

The overhelming majority of Ak-Kaya sites are represented by cave settlements which are localised not far from lithic raw materials outcrops and in the vicinity of actual water springs. There are base camps (Zaskal'naya V and VI, Chokurcha I etc., short-term camps and hunting halts (Prolom II, Adji Koba e.a.), workshops (by Prolom, by Sary-Kaya), probably kill-sites (Krasnaya Balka, Sary-Kaya I). All the Kiik-Kobian sites constitute base camps in caves situated comparatively far from high quality raw materials outcrops. Staroselian sites repesented partly by cave habitations and partly by open air sites but in the very vicinity of rocks. Abundant raw materials and water springs are not too far. There are base camps (Starosel'ye e.a.), short-term camps (GABO e.a.), and, probably, workshops.

Paleontological data suggests mainly summer season for the site of Prolom II (BARYSHNIKOV *et al.* 1994). Round year habitation is supposed for Chokurcha I and Kiik-Koba (BARYSHNIKOV *et al.* 1990). High frequency of milk teeth of saiga in MP layer of Adzi-Koba also suggests summer season and points additionally on the time of hunter exploatation of flat highlands. As indirect guide on season of habitation the data concerned the quantity of charred bones in culture-bearing layers can also serve. This connection is well confirmed for the sites which have independent determinations of seasonality. In general, definitions of type of site (base, short-term, etc.) which argued in terms of living intensity indices are well correspond with presumable seasonality. Thus, data in hands allows us to see no objections to suppose residental way of land use for carriers of industrial traditions under discussion.

Hunting activity data

The lists of the main game species are rather different for the sites of different industrial traditions. Ak-Kaian and Staroselian lists demonstrate the domination of Steppe species. In contrary, Kiik-Kobian list points to certain rose of forest species (more detail review see STEPANCHUK in press b). As it seems, some interdependences exist between the frequency of certain big game species and the type of industry. Both concentrated in SW Crimea typical Mousterian (Kabazian) and Staroselian sites demonstrate crushing predomination of Asinus hydruntinus. Ak-Kaian and Kiik-Kobian sites of the E. Crimea, in contrary, represent clear orientation to mammoth, giant deer, saiga, and horse.

Discussion and conclusion

As it was already emphasised a whole row of terms exists proposed for description of East European assemblages with bifacial component in tool kits. The term "Eastern Micoquian" seems to be the most preferable among them. But it appeared to be too meaningfull and embraced in fact all the known East European sites with bifacial tools. We already stated that the Crimean Middle Palaeolithic with bifacial tools is by no means homogenious. At the moment the existence and partial co-existence of three distinct groups of sites is supposed and argued. For a long time the most typical assemblages of each Crimean "bifacial" tradition were assumed as Micoquian (cf. Kiik-Koba, Starosel'ye, Zaskal'naya). But now it seems to be little bit simplified explanation. As it well known, Central European Micoquian industries are characterised by obligatory use of bifacial blank technology and by stable typological composition of morphologically various biface-knives, added by hand-axes, bifacial points and sidescrapers embraced by

"Faustkeilblätter" group, and sometimes by leafpoints. Coming from this regularity, traced for the Central European assemblages, as true Micoquian only those Eastern sites can be classified which includes series of typical biface-knives. In certain sense biface-knives can be regarded as "fossile directeur".

For the Crimea only the Ak-Kaian industrial tradition can be defined as Micoquian. This definition is argued by numerous biface-knives, bifacially worked points and sidescrapers, and single hand-axe-like tools. As to the two other kinds of Crimean MP with bifacial tools, namely Kiik-Kobian and Staroselian, such definition can hardly be proved, as soon they have practically no the most typical Micoquian tools, i.e. biface-knives. At the same time, certain "Micoquian nuance" is tangible in their tool-kits, due to, at least, developed bifacial blank technology, and odded rather atypical biface-knives (Kiik-Kobian) and leafpoints (Staroselian). These "nonfull-fledged" Micoquian or, in other terms, Micoquian-influenced industries can be defined as para-Micoquian.

The nature of Micoquian "nuance" can be rather various. It can resulted from convergent development, and can be explained in terms of immediate Micoquian influence. The South-Western, and, very likely, the whole Southern area of the Eastern Europe from the beginning of the last glacial or from the end of Eem, represented the vast contact zone between European Micoquian, Balkanian Charentian, Levallois-Mousterian and local substrate. Industrial traditions which were appeared here are characterised by advanced bifacial technology and their tool-kits include single or/and atypical biface-knives, points, sidescrapers, sometimes numerous leaf-point-like pieces, and developed flake-tools with significant number of points, diverse sidescrapers, including limaces and thinned pieces. These traditions combine, as it can be seen, both Micoquian and Charentian traits and can be regarded as para-Micoquian. Techno-typological variability of these assemblages is rather high. Thus in the Crimea two kinds of para-Micoquian are distinguished. Due to less pronounced "Micoquian nuance" Starosel'ye type assemblages can be classified as Eastern Charentian rich in bifacial leaf-points, as well. At the same time both East Europen plain and Crimea yielded true Micoquian sites. They are especially numerous in the peninsula, and represented distinct Micoquian province.

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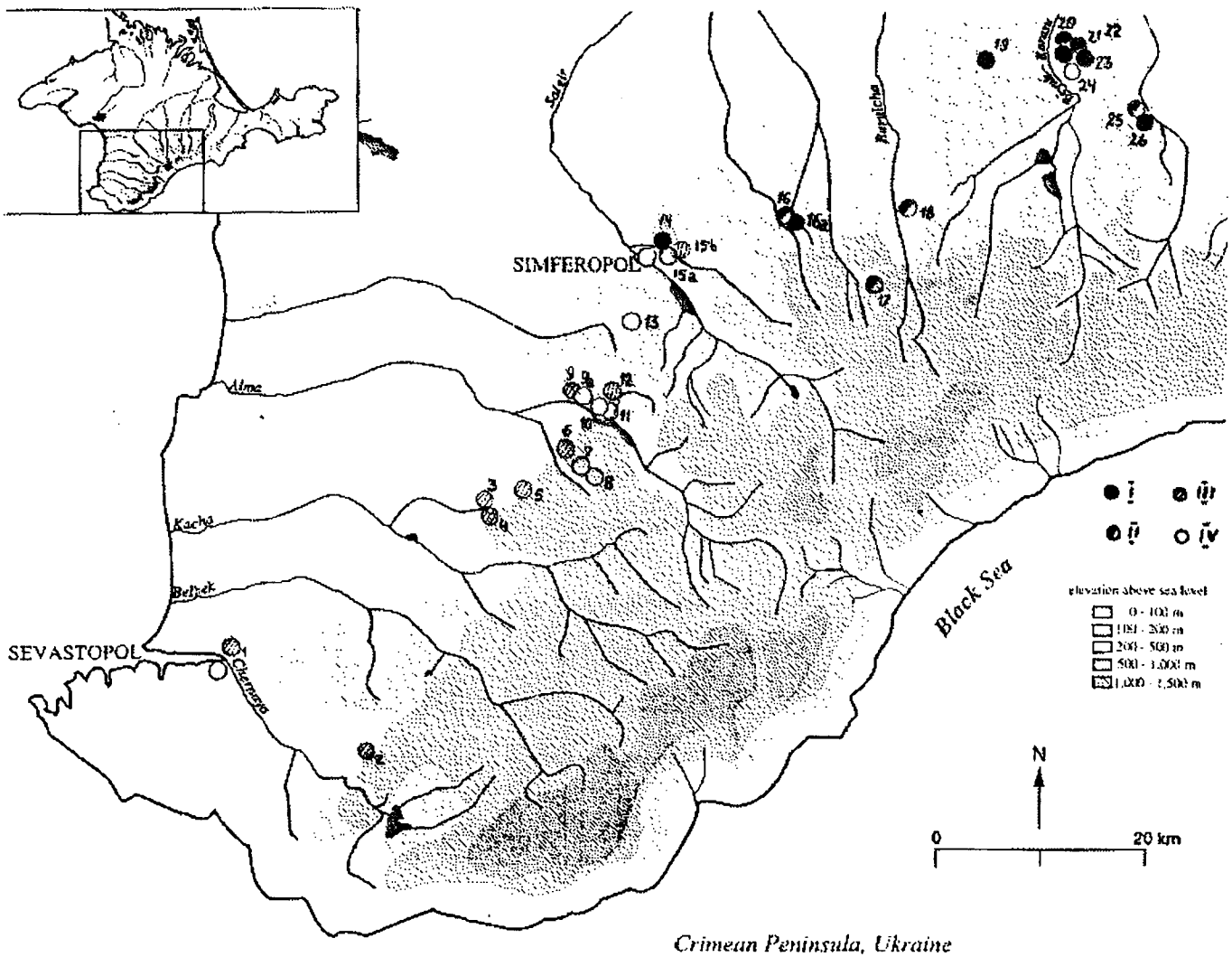

Legend:
I Micoquian of Ak-Kaya industrial tradition;
II para-Micoquian of Kiik-Koba industrial tradition;
III para-Micoquian of Starosel'ye industrial tradition;
IV Typical Mousterian of Kabazi industrial tradition.

Sites: 1. Alanar, 2. Kokluz, 3. Bakhchisarai, 4. Starosel'ye, 5. Ulakly, 6. GABO, 7. Shaitan-Koba I; 8. Shaitan-Koba IV; 9,9a. Kabazi II; 10. Kabazi I; 11. Kabazi III; 12. Kabazi V; 13. Kholodnaya Balka; 14. Chokurcha I; 15a. Chokurcha II (after O.N. Bader); 15b. Chokurcha II (after A. Stolbunov); 16, 16a. Volchi Grot, 17. Kiik-Koba; 18. Buran-Kaya III; 19. Sary-Kaya I; 20. Ak-Kaya III; 21. Zaskal'naya V; 22. Zaskal'naya VI; 23. Krasnaya Balka; 25. Prolom I; 26. Prolom II.

Fig. 1. The map of principal MP sites of the Crimea (after STEPANCHUK in press a)

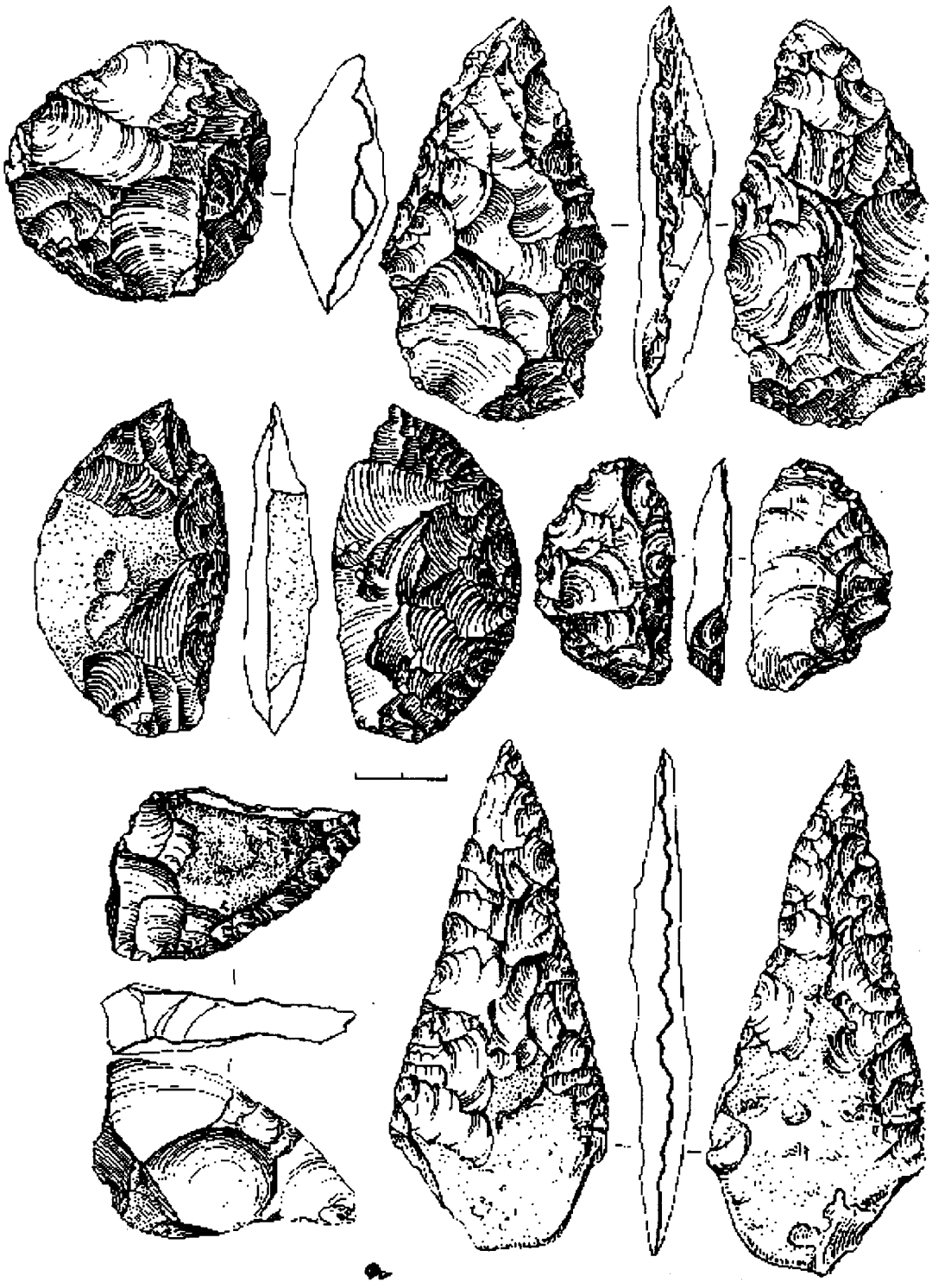

Fig. 2. Micoquian of Ak-Kaya industrial tradition :
materials from the IIId layer of Zaskal'naya VI.

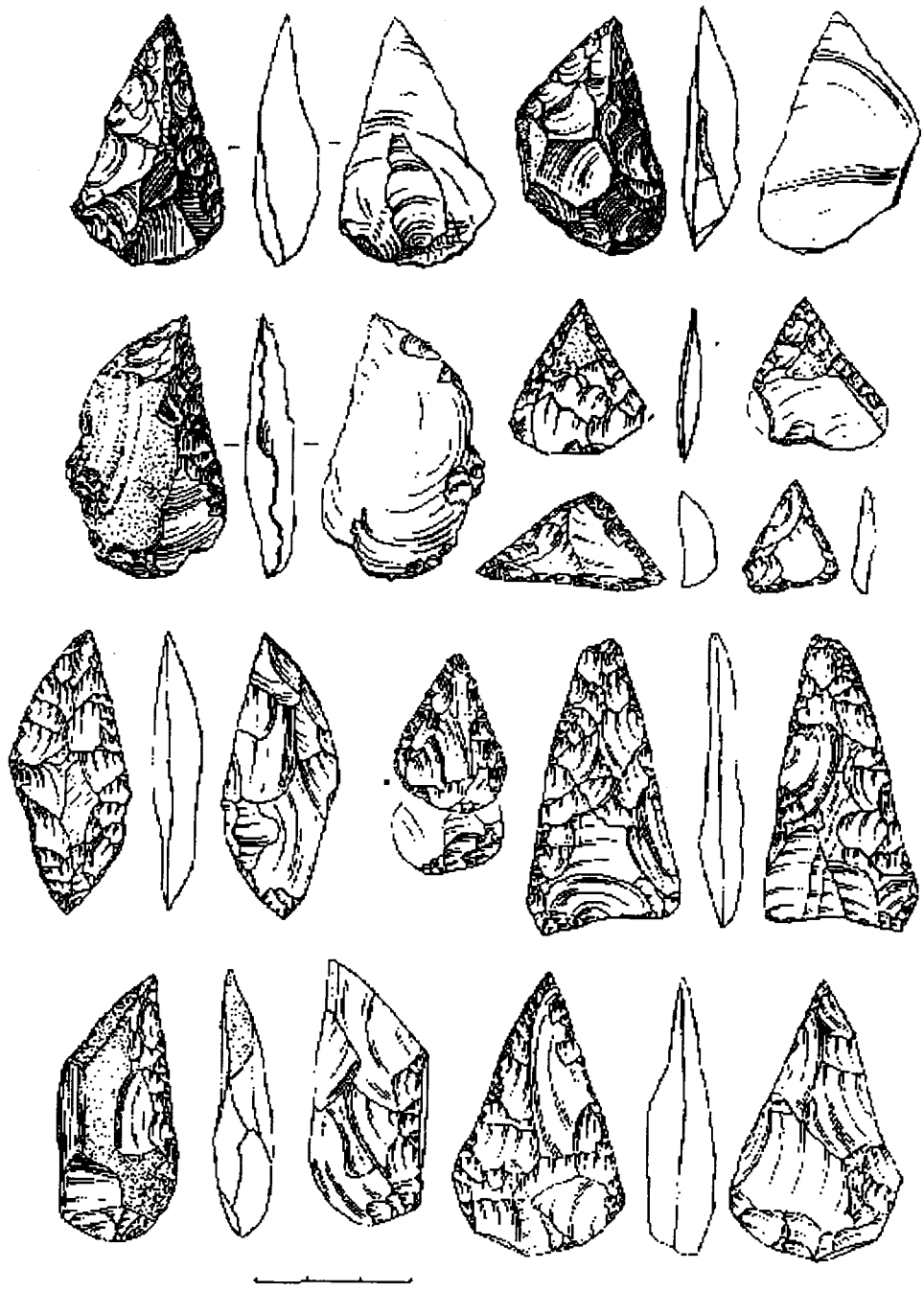

Fig. 3. Para-Micoquian of Kiik-Koba industrial tradition:
lithic artifacts from the site of Prolom I.

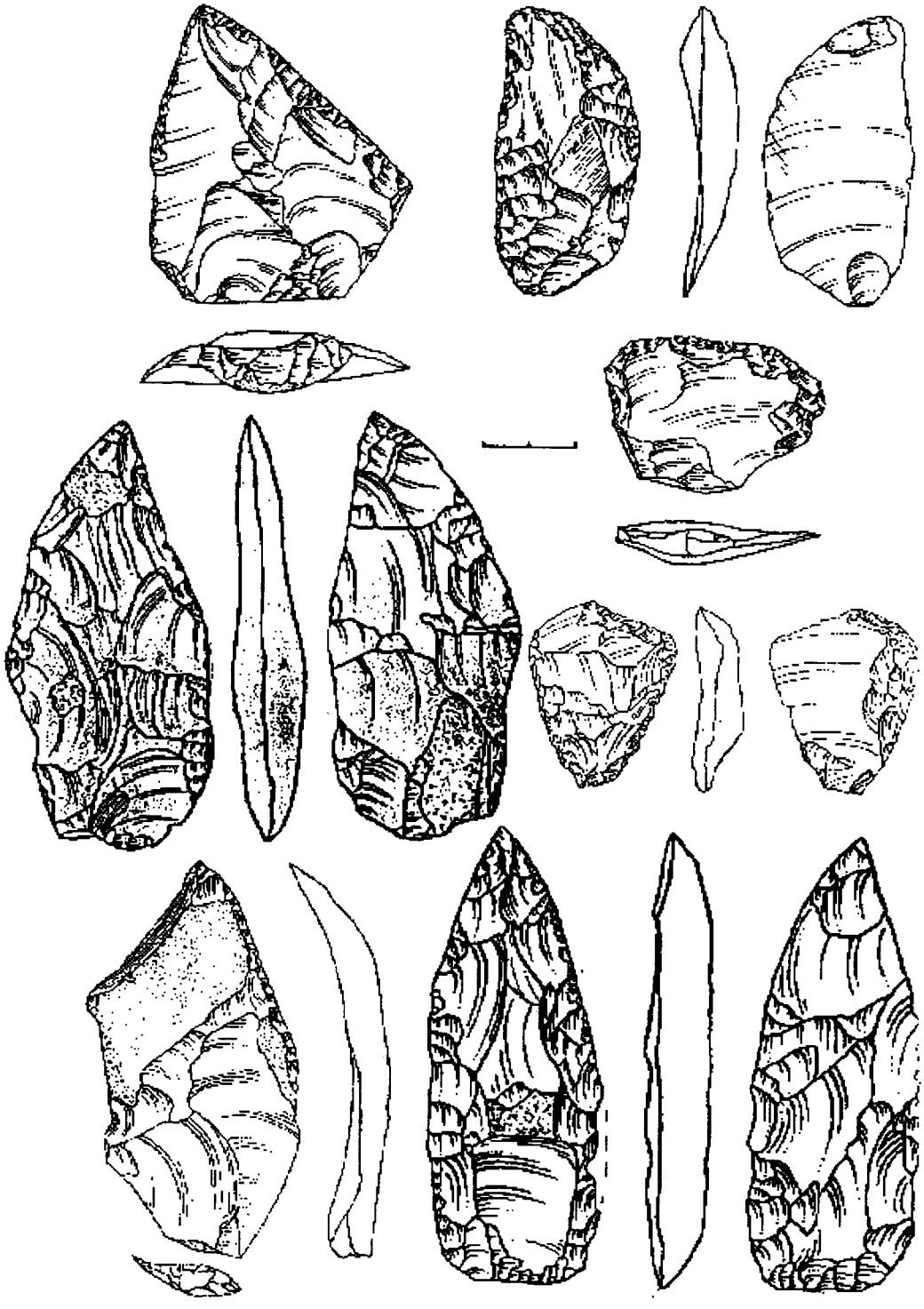

Fig. 4. Para-Micoquian of Starosel'ye industrial tradition:
materials from the sites of GABO and Kabazi V.