

A NEW MIDDLE TO UPPER PALEOLITHIC "TRANSITIONAL" ASSEMBLAGE FROM BURAN-KAYA III, LEVEL C: A PRELIMINARY REPORT

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The site of Buran-Kaya III was located by A. Yanevich in 1990 in the Bélogorsk region of the eastern Crimea, some 3 km. south of the village of Aromatnoye (Yamada and Yanevich 1995). The site, a small collapsed rockshelter, is situated on the eastern bank of the small Burul'cha River, which flows out of the Crimean mountains toward the northern steppe (Fig. 1). The rockshelter is in a small limestone cliff, some 40 m. long and 18 m. above the present valley floor. The rockshelter itself, however, is only ca. 5 m. wide and was originally about 6 m. from the back wall to the end of the overhang. It has deposits which reach a depth of about 3.5 m. before hitting the dipping bedrock at the edge of the original overhang. Closer to the back wall, bedrock is at about 2.8 m. bd.

The site was first tested in 1990 by A. Yanevich with a 4 sq. m. pit which was taken to a depth of ca. 2.6 m. and then by a 1 sq. m. pit to just above bedrock (Yanevich, Stepanchuk and Cohen 1996). The site was further excavated by Yamada and Yanevich in 1994 in a 2 m. by 3 m. block which went to bedrock ca. 2.8 m. bd. (Yamada 1996). During the course of these limited excavations, 13 cultural layers were recognized, including Late Bronze Age, Eneolithic, Late Neolithic, two Early Mesolithic, three Upper Paleolithic and, at least, five Middle Paleolithic (Yanevich, Stepanchuk and Cohen 1996). While the number of post-Middle Paleolithic layers originally recognized may be modified by more extensive excavations now in progress, it is already clear that the lowest Upper Paleolithic occupation is Aurignacian and that, back from the drip line, it rests virtually on the upper-most Middle Paleolithic level.

Excavations during 1996 have clarified the stratigraphic situation of the various Middle Paleolithic occupations. The original five Middle Paleolithic layers were recognized in excavations carried out some 3 m. in front of the rockshelter back wall, using 5-10 cm artificial spits, "following the general contour of the layers, in so far as these could be observed" (Yanevich, Stepanchuk and Cohen 1996: 316). The 1994 excavations apparently followed the same excavation procedures, although this is not explicitly stated and only four Middle Paleolithic archaeological horizons are reported (Yamada 1996: 15).

The 1996 excavations, undertaken by the Joint Ukrainian/American/Belgian Project, were mainly concerned with removing what remained of the Middle Paleolithic deposits in the area already partly excavated during previous seasons (Fig. 2). In doing so, the 1996 work exposed Middle Paleolithic deposits over a larger area than had previously been excavated and to a greater depth than had been reached before. Excavations were carried out by natural levels, with all artifacts and bones, except for chips and bone splinters, mapped in three dimensions within the grid system and relative to datum. Using these methods, it was possible

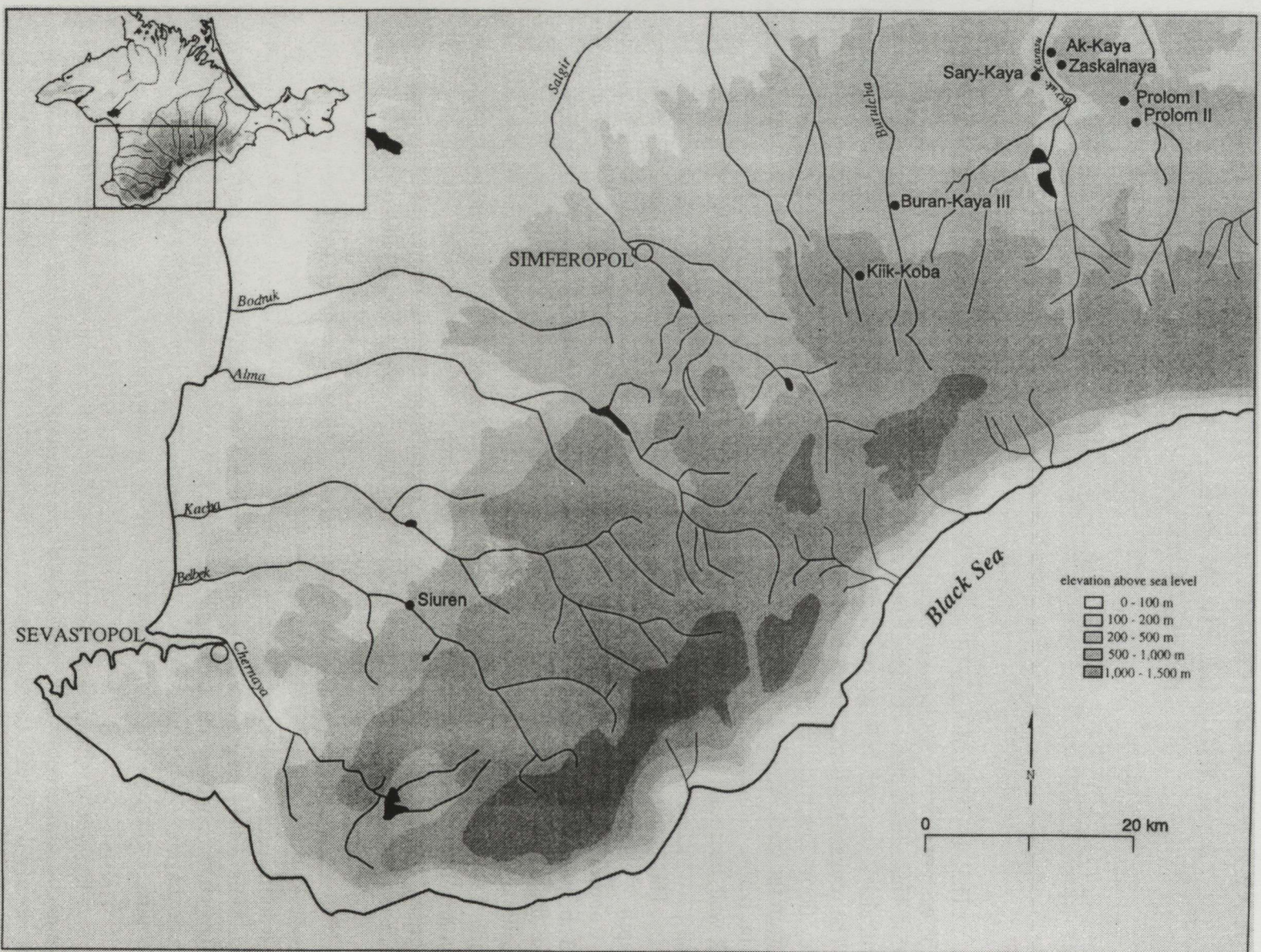


Fig. 1. Map showing the position of Buran-Kaya III in relation to other important eastern Crimean Middle Paleolithic sites, as well as to the Aurignacian site of Siuren.

Buran Kaya III 1996
Level C

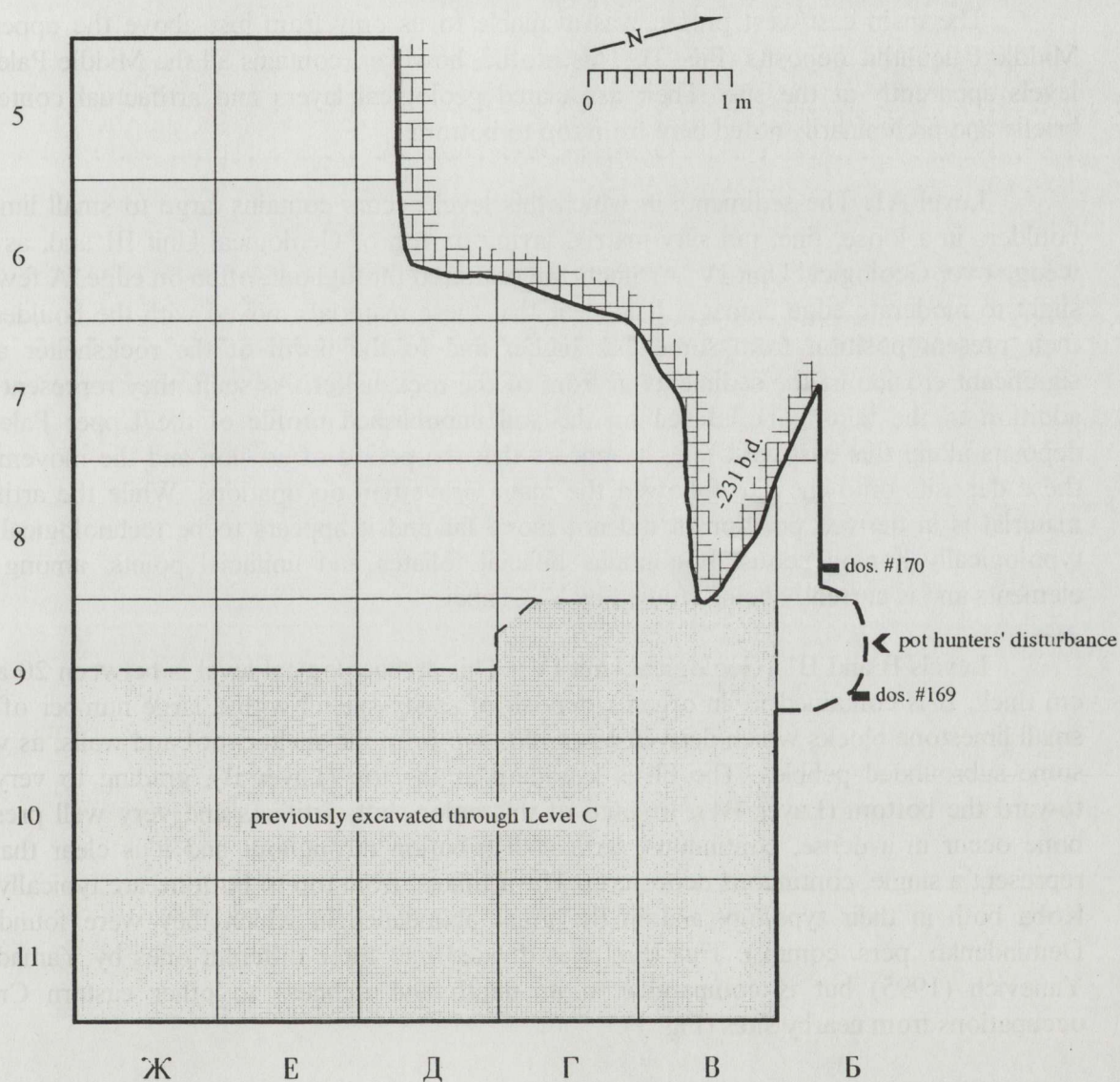


Fig. 2. Plan of excavation area: the shaded area was excavated to below Level C prior to 1996.

to define five Middle Paleolithic archaeological levels, three of which had not been seen previously.

THE ARCHAEOLOGICAL AND GEOLOGICAL SEQUENCE

The main east/west profile was available to us only from just above the upper-most Middle Paleolithic deposits (Fig. 3). This profile, however, contains all the Middle Paleolithic levels apparently at the site. Their associated geological layers and artifactual content are briefly and preliminarily noted here from top to bottom:

Level A1. The sediments in which this level occurs contains large to small limestone boulders in a loose, fine, tan silty matrix, laying on top of Geological Unit III and, as a thin wedge over Geological Unit IV. Artifacts are scattered throughout, often on edge. A few show slight to moderate edge damage. It is clear that these materials moved with the boulders into their present position from somewhat higher and to the north of the rockshelter after a significant erosion of the sediments in front of the rockshelter. As such, they represent a late addition to the talus cone. Based on the still unpublished profile of the Upper Paleolithic deposits along this east/west line, it appears that the period of erosion and the movement of these deposits onto the site followed the main Gravettian occupations. While the artifactual material is in derived position, it did not move far and it appears to be technologically and typologically homogeneous. It contains bifacial foliates and unifacial points, among other elements and is currently being studied by V. Chabai.

Levels B and B1 (Geological Unit IV). This archaeological level is between 20 and 40 cm thick. It is contained in an organic deposit of sandy silt fill with a large number of fresh, small limestone blocks which derived as *éboulis sec* from the shelter roof and walls, as well as some subrounded pebbles. The fill is less dark at the top (Layer B), grading to very dark toward the bottom (Layer B1). In spite of this color shift, artifacts and very well preserved bone occur in a dense, continuous vertical distribution throughout and it is clear that they represent a single, continuous deposition. The artifacts, from top to bottom, are typically Kiik-Koba both in their typology and in the great abundance in which they were found (Yu. Demindenko, pers. comm.). This level was divided into three different ones by Yamada and Yanevich (1995) but is comparable in its depth and richness to other eastern Crimean occupations from nearby sites (Fig. 1).

Level C (Geological Unit IVa). Archaeological Level C occurs in a fine tan layer of overbank deposits of sandy silt with mottles and root casts. These sediments have very few small limestone blocks and pebbles. The artifacts and few bones which occur within these deposits are pristine in condition and show no signs of washing or other disturbance. It is this assemblage which is the main subject of this report.

Level D (Geological Unit III). This consists of a thin scatter of mainly chippage, including some from bifacial reduction, many of which show clear signs of having been washed into the immediate area - even some of the smallest chips exhibit marked edge damage. The

limited sample indicates mostly flake production and bifacial thinning, although a very few tools include a sidescraper and a bilaterally retouched endscraper. The artifacts occur at the base of a massive talus cone of fine sandy silt with small limestone rubble. Its stratigraphic position indicates its deposition prior to the major period of overhang collapse. Given its distribution, only in the southern portion of the site and its artifactual paucity, it is likely that the earlier excavations did not recognize its presence, although the 1 sq. m. test pit reported in Yanevich, Stepanchuk and Cohen (1996: 323, Fig. 2) clearly penetrated into this level.

Level E (Geological Unit II). This occupation, again, is mainly in the southern portion of the excavated area but extends to within ca. 4 m of the rockshelter back wall. Its artifacts show signs of very minor washing, although there is evidence for little artifact movement. In fact, pieces broken in antiquity are close together and, in a number of cases, were rejoinable. The sediments are sandy silt with a large portion of *eboulis* and root casts. The artifact sample is heavily dominated by blade production, there is no evidence for any bifacial flaking, although some of the tools are typically Middle Paleolithic. Additional samples are needed before a detailed evaluation of this material is possible. Below Level E, in Geological Unit I, lie horizontally bedded fluvial sands and gravels which are artifactually sterile. They do indicate, however, that the level of the river was just at the base of the rockshelter entrance prior to any occupation.

THE LEVEL C LITHIC ASSEMBLAGE

The artifact assemblage discussed here comes solely from the 1996 excavations. Although materials from this level were recovered during the 1990 and 1994 excavations and were even partly illustrated (Yamada 1996), they have not been examined in detail by the author but, with the agreement of A. Yanevich, are being included in the comprehensive studies now just beginning. Thus, the sample discussed here comes from an area of about 11 sq. m.

Within the excavated area of Level C, artifacts occurred in clusters (Fig. 4). These clusters mainly consisted of chips and small flakes of the same flint block which were derived from bifacial shaping and thinning. Often, the bifacial tool associated with this debitage was also present in the cluster, usually broken. A more general cluster of flint artifacts occurred at the southern part of the excavations, in sediments banked against the talus cone (Figs. 3 and 4). In addition to these concentrations, there was a thin scatter of artifacts near the western rockshelter wall and at the eastern and northern edges of the excavation area (Fig. 4). This distribution of clustered pieces, each essentially from a single reduction process, clearly suggests ephemeral occupation with little to no disturbance of the surface on which they lay.

The sample itself consists of 2,073 pieces, of which just over 90% are chips measuring less than 3 cm in greatest dimension. In fact, chips measuring less than 1 cm in greatest dimension account for almost 30% of the total assemblage. Excluding chippage, therefore, leaves a rather small sample of only 200 pieces, of which 65 (32.5%) are retouched tools. While there are no true cores, two bifacial preforms were recovered (Fig. 6d). Given that the

Buran Kaya III 1996
West Baulk Profile

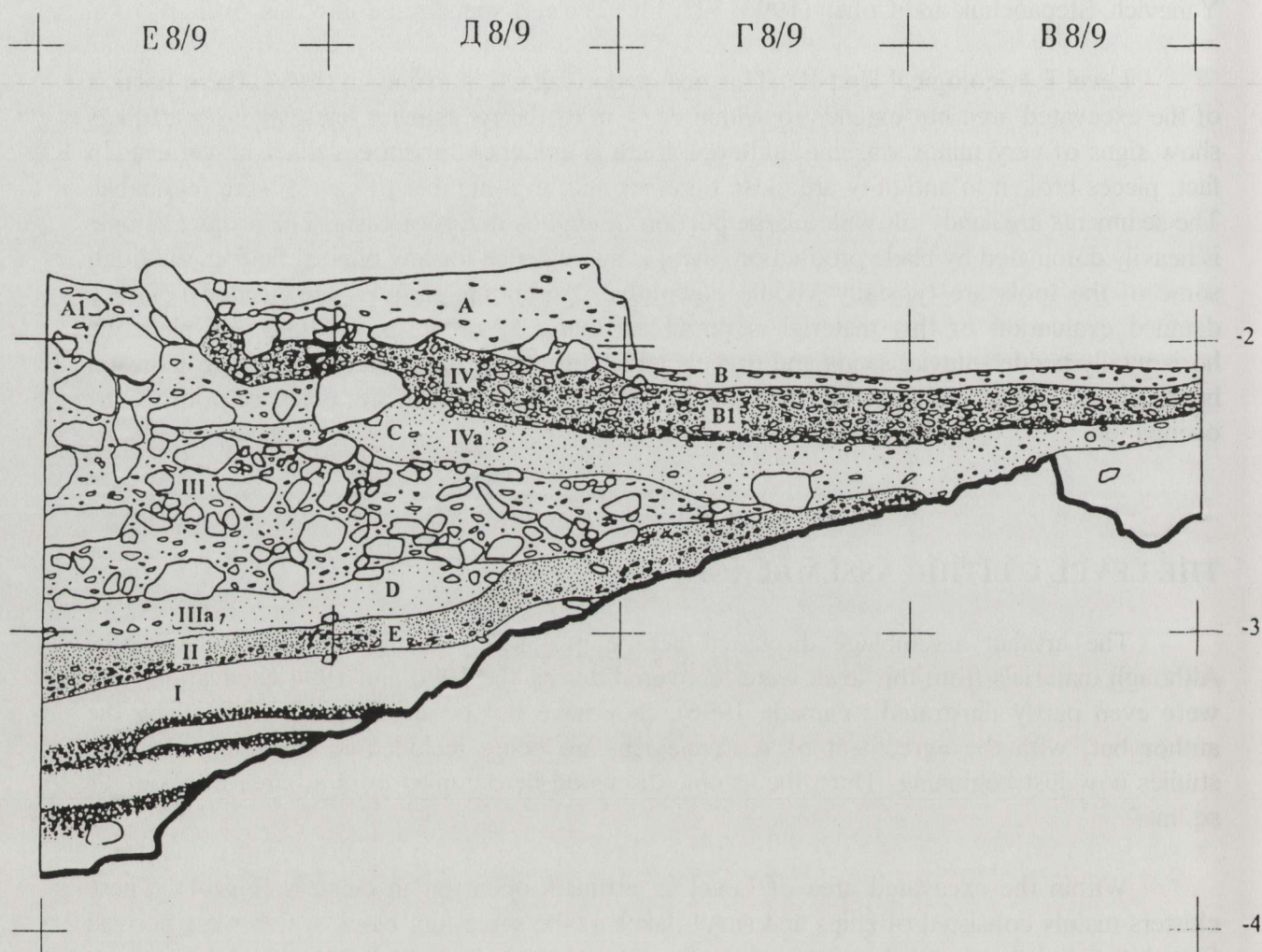


Fig. 3. West profile of existing sediments in 1996. Archaeological Levels are designated as A through E. Geological units as I through IV. See text for description of both.

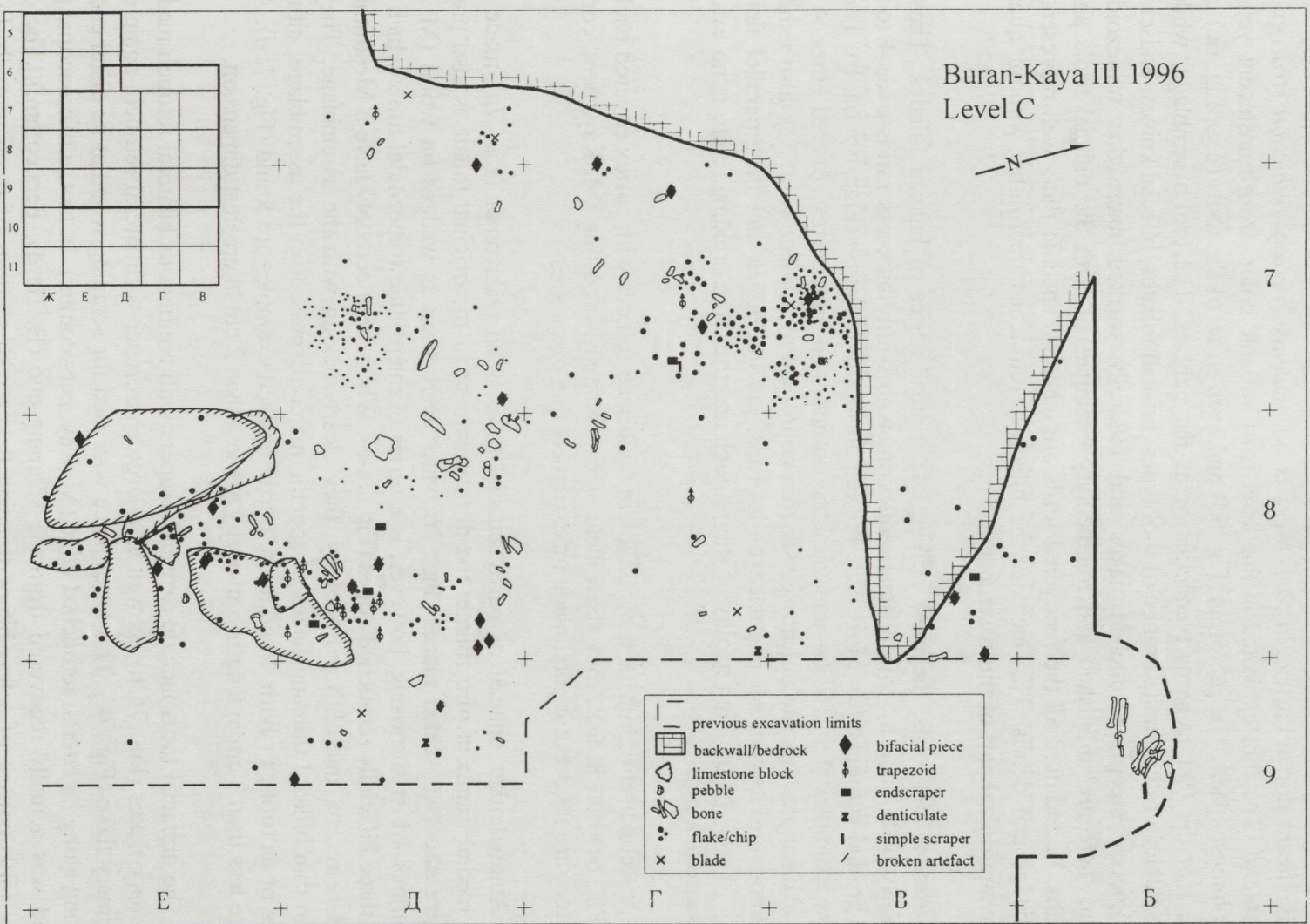


Fig. 4. Plan of tool class, debris and bone distributions for the 1996 excavations of Level C.

flakes (43%) and the "blades" (10.5%) were virtually all derived from bifacial reduction, they tend to be extremely thin, rather incurvate and almost all have small, lipped platforms. The few exceptions appear to have come from early stages of preform reduction, since they tend to have significant dorsal cortex. *In fact, there is no evidence for any reduction strategy other than bifacial.* The flint exploited in this level is of variable color, from translucent yellowish gray to intense black. The preforms (Fig. 6d) and even some of the tools (e.g., Fig. 6c) clearly indicate that the flint came as plaquettes or as flat pebbles. The tool assemblage, while still small, exhibits a rather limited range of tool types: bifacial foliates, bifacial knives, endscrapers, scaled pieces, steeply retouched flakes and bifacially worked microlithic trapezoids. In addition, there are unfinished and fragmentary examples of both the bifacial tools and the microliths. In addition, all the recovered tools are made on specific flints well represented in the debitage and debris. This includes the bifacially retouched microliths: without question, they are an original part of this assemblage.

Among the tools, the most striking are a small series of bifacial foliates. These are particularly well made by true bifacial reduction, with width/thickness ratios over 4 to 1, as well as ground lateral edges. Most were broken during rejuvenation (Figs. 5b: 6a, b). The two complete examples (Fig. 5b) have asymmetric outlines and thin, cortex covered butts. A third complete example, morphologically closer to a point than to a foliate (Fig. 5a), also exhibits a small amount of cortex on one face of its base, ground edges and fine, parallel finishing retouch. In spite of the high quality of the retouch and the edge grinding, there is no evidence for pressure flaking.

A second set of bifacial tools look like unfinished foliates with cortex covered back and faces (Fig. 6c) but, in fact, they show clear signs of extensive cutting (M. Kay, pers. comm.). These, too, are fragmentary and made on extremely thin plaquettes.

Among other bifacial or partly bifacial tools is an endscraper (Fig. 7g) made on a broken medial fragment of a foliate: the distal fragment of the original foliate is also present. There are also two scaled pieces (Fig. 7i) which were used as wedges on wood (M. Kay, pers. comm.). Most surprising, however, is a series of microlithic trapezoidal tools which have two or three bifacially retouched edges (Fig. 7a-e). While these certainly have a Mesolithic, or even more recent, microlith morphology, they clearly belong with the assemblage. They are made on thin bifacial thinning flakes of specific materials present in the assemblage, either as debitage or as tools, or both. In addition, partly finished examples are found (Fig. 7e-f). All of these are less than 3 cm in length: a majority are less than 2 cm in greatest dimension.

The unifacial tools include two endscrapers with continuous bilateral retouch made on thin primary flakes (Fig. 7f, h), as well as a large endscraper with lateral retouch, again made on a primary flake (Fig. 7k). This latter piece was used for scraping wood at its distal end and for cutting along its lateral, retouched edge (M. Kay, pers. comm.). In fact, a microscopic piece of wood was actually recovered from the scraping end (B. Hardy, pers. comm.). The other unifacial tools consist of a few biface thinning flakes with sections of steep retouch. In two cases, the retouch appears to have been done twice, once before a break and once after (Fig. 7j).

In addition to the lithic tools, a number of worked bones were recovered. There are three bone rods, cut and snapped at both ends (Fig. 71-m). The former is made on a small mammal bone, while the latter two are of bird bone. Although not found during the 1996 excavations, a large bone handle made in the same ringed and snapped technique of the Level C worked bone was recovered during the 1990 excavations but this was made on an *Equus* metacarpal (Yanevich, *et al.*, in press). A few other bone fragments show signs of work, but the fragments are too small to permit reasonable description.

DATING OF LEVEL C

Three AMS dates clearly associated with Level C were obtained from Oxford (Pettitt 1997). These included one taken on an unidentifiable large mammal bone, and one from the large *Equus* bone handle, and one from the mammal bone rod illustrated here (Fig. 7m). The dates, in that order, are as follows: 32,350 $\pm$ 700 (OxA-6672), 32,200 $\pm$ 650 BP (OxA-6869) and 36,700 $\pm$ 1500 (OxA-6868). While these dates may seem quite old for such an assemblage, two dates from the overlying Kiik-Koba Level B1 both were ca. 28,600 BP (Pettitt 1997).

DISCUSSION

Given the small sample size, it is not easy to place it within the range of assemblages in Eastern Europe dating between 30,000 and 40,000 BP. Based on the 1990 and 1994 excavations which did recover some materials from our Level C, the whole of the Middle Paleolithic there was identified as Eastern Micoquian by Yamada (1996). While one might argue about whether Kiik-Koba type assemblages should be called Eastern Micoquian, the Level C assemblage certainly is not. In spite of the small number of tools which limits characterizations, however, the total assemblage is highly homogeneous and, so, can be defined. Initially, technologically it is wholly bifacial in orientation: there is no indication of either purposeful blade production or the production of flakes from true cores. The bifacial reduction is truly bifacial (i.e., cross-sections are always bi-convex) and involves edge grinding but not pressure flaking.

Aside from the very well made bifacial foliates, there is nothing about the tools which is Middle Paleolithic in character: no unifacial points, no denticulates, no sidescrapers. On the other hand, only the endscrapers are characteristically Upper Paleolithic. The scaled pieces and the retouched pieces might well occur in any period. The microlithic, bifacially retouched trapezoidal pieces are neither Middle nor Upper Paleolithic. While very small "raclette-like" microliths are known from the Middle Paleolithic late Micoquien of southern Germany, they are not nearly as regular and carefully retouched as these (J. Richter, pers.comm.). The ones from Buran-Kaya III have their closest morphological analogy with proto-historic transverse arrows but they are in no way generically related.

The particularly fine bifacial point has a certain "Paleo-Indian" aspect and, in the quality of its workmanship, has analogies in the Kostenki-Streletskaia assemblages of the Middle Don region, as described by Bradley, Anikovich and Giria (1995). Yet, the Buran-Kaya III lithic assemblage does not fully match any of the proposed stages from the Middle Don. It lacks the concave base bifacial points of all periods, the Middle Paleolithic tools of the early Kostenki-Streletskaia stage (although chronologically it fits best here), as well as the developing blade technology, the burins, and the carinated end-scrapers of the later stages, as seen at Sungir.

Perhaps, as a large lithic sample is obtained, the relationship between this level at Buran-Kaya III and the various aspects of the Kostenki-Streletskaia culture will become clearer. During this period, there are assemblages from, among other places, Moldova, Poland, even Germany, which exhibit extremely fine bifacial reduction, elongated foliates, endscrapers, and little to no blade technology. While these may all be tentatively placed into a very generalized "Szeletian", they are not alone during this 10,000 years. In addition, there are Aurignacian and various forms of true Mousterian, particularly in the Crimea (Chabai 1996). Although the local Crimean Aurignacian appears to be no older than ca. 30,000 BP, dates from the lowest Aurignacian at Siuren I are not available at this writing. It is possible that it may be contemporaneous with the Buran-Kaya III, Level C, assemblage. If so, however, there would be no technological or typological links between them. In addition, the bone tools from Siuren I and those from Buran-Kaya III, Level C, are totally different. Thus, contemporaneous, perhaps, but unrelated.

The bifacial technology of the Buran-Kaya III, Level C, assemblage does have analogies in the Ak-Kaya of the eastern Crimea (Chabai, Marks and Yevtushenko 1995), where some of the numerous bifacial foliates are bi-convex, rather than plano-convex. Yet, the Ak-Kaya is wholly Middle Paleolithic, having abundant sidescrapers and unifacial points and lacking Upper Paleolithic tool types. Even here (J. Rink, pers.comm.), however, the temporal distinction between some Ak-Kaya occupations at Zaskalnaya and the Buran-Kaya III, Level C, assemblage may not be too great and may be much closer than one might think.

In short, the Buran-Kaya III, Level C, assemblage shows broad affinities with both some possibly late Crimean Mousterian, as well as with a range of assemblages which, perhaps, are best thought of as developmentally transitional between the Middle and Upper Paleolithic of Eastern Europe. It is hoped that additional artifact samples will help determine just where the closest affinities lie.

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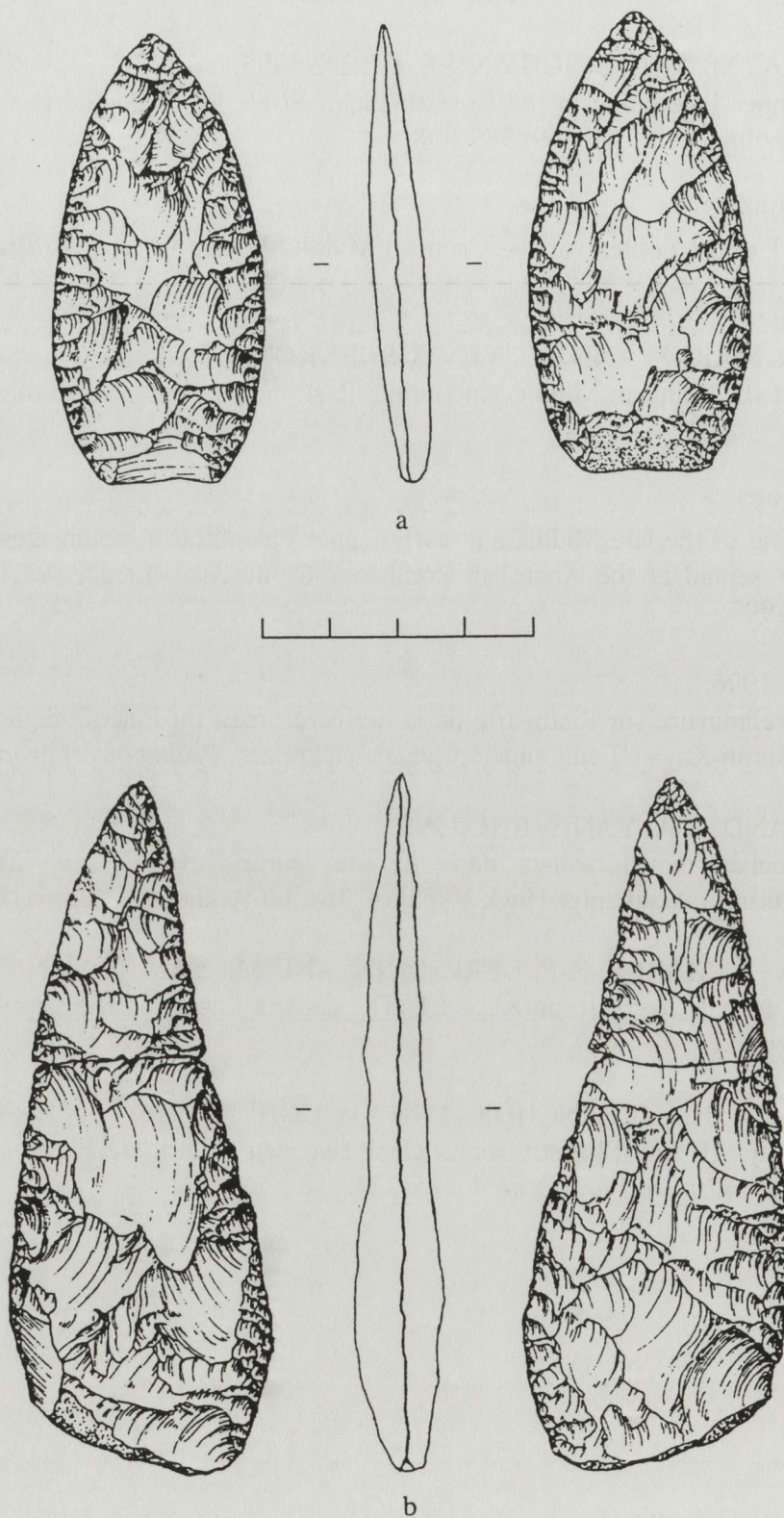


Fig. 5. Bifacial foliates from Level C: a, foliate which approaches a true point; b, asymmetric foliate broken during attempted rejuvenation.

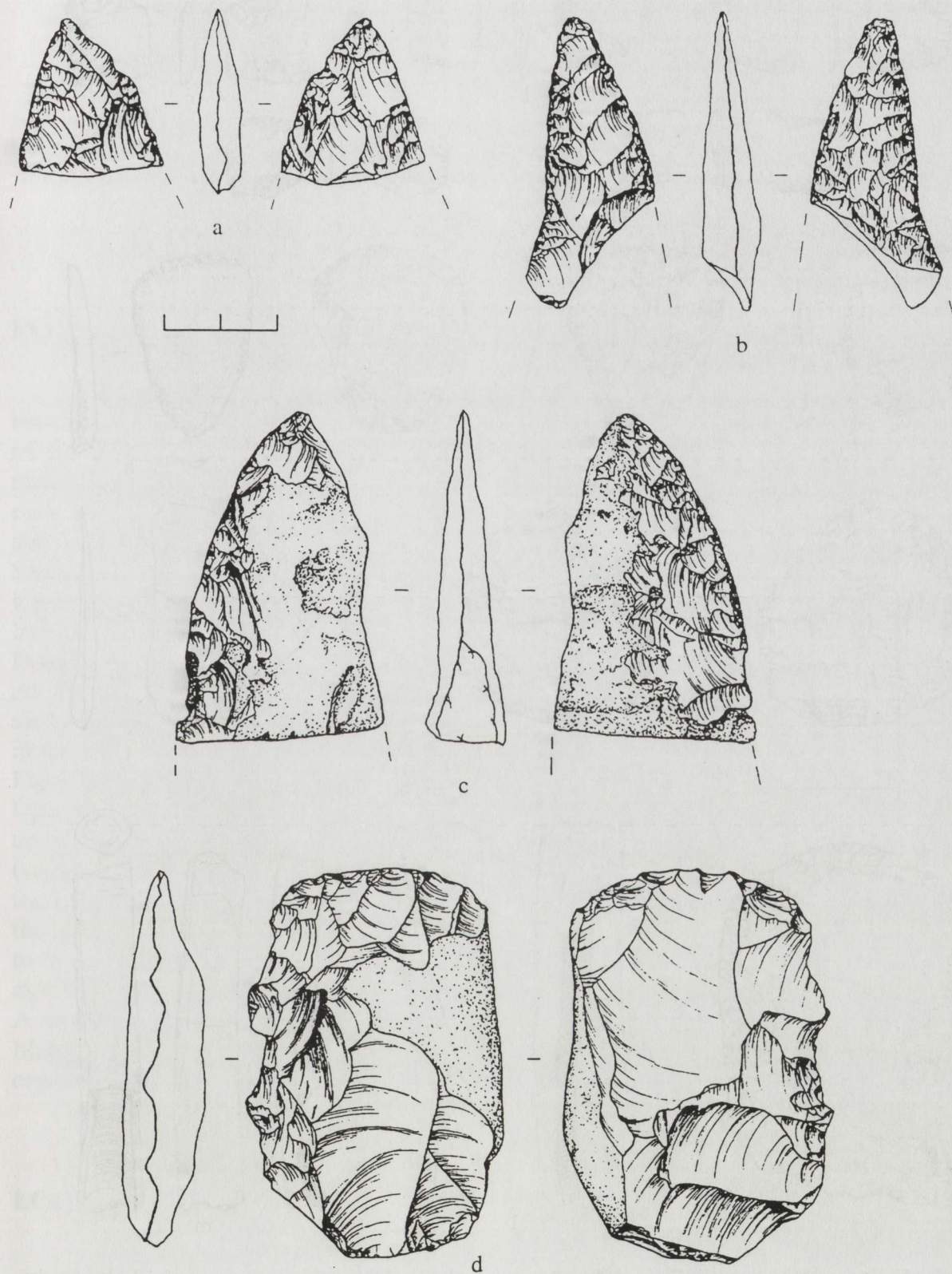


Fig. 6. Bifacial tools and preform from Level C: a-b, distal fragments; c, cortex backed, bifacial knife broken during attempted rejuvenation; d, bifacial preform.



Fig. 7. Various tools from Level C: a-c, bifacially retouched microlithic trapezoids; d-e, unfinished examples of trapezoids; f, h, bilaterally retouched endscrapers; g, endscraper on a fragment of a bifacial foliate; i, scaled piece; j, steeply retouched bifacial thinning flake; k, endscraper with lateral retouch; l - m, bone rods made by ring and snap technique. L is on small mammal bone, while m is on bird bone.