

# The Late Middle and Early Upper Paleolithic in Crimea (Ukraine)

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The Crimean peninsula, situated at the southeastern edge of Europe, is extremely rich in Middle Paleolithic sites. More than 100 localities were studied along the second ridge of the Crimean Mountains and 35 of them have deeply stratified deposits. Upper Paleolithic sites were found at no more than 10 localities. The recent chronological investigations demonstrate that the assemblages of both Crimean MP traditions: the Western Crimean Mousterian (WCM) and the Crimean Micoquian (CM) lasted to about 30 000 BP. Also, the Early Upper Paleolithic assemblages, represented by the Aurignacian and Eastern Szeletian, are dated to about the same time. Three Crimean sites (Kabazi II, Buran-Kaya III and Siuren I) provide the chronological evidence for such a late MP, as well as the coexistence of MP and Early UP industries (Fig. 1). Along with the number of AMS and ESR dates, both late MP extension and MP/Early UP coexistence are seen by: 1) the mixture of MP and Aurignacian typology at Siuren I, Units H and G, and, 2) by the archaeological sequence at Buran-Kaya III, where an Eastern Szeletian industry is overlain by a Kiik-Kobien MP assemblage, which is the facies of Crimean Micoquian. Thus, the Crimea provides evidence for the chronological overlap of the Middle and Upper Paleolithic.



FIG. 1 – The map of the Crimea showing the position of Siuren I, Kabazi II, and Buran-Kaya III sites.

## 1. Buran-Kaya III rock-shelter

The archaeological sequence of Buran-Kaya III has eight major stratigraphical Units, as recognized by A. Yanevich, the first excavator of this site. The uppermost six Units include Medieval, Bronze Age, Neolithic, Mesolithic and Late Paleolithic. A. Marks subdivided unit VII into five levels (Marks, in press). Level A consists of disturbed deposits, which contain the MP artifacts. In level B was found abundant, in situ, artifacts of the Kiik-Kobien MP industry, which is a facies of the Crimean Micoquian. While, level C contains a newly discovered Early UP Eastern Szeletian. Levels D and E produced few artifacts, what makes these assemblages uninformative from the point of view of industrial variability. The absolute chronological positions of Eastern Szeletian of level C and the Kiik-Kobien assemblages of level B have been determined by series of AMS dates (Fig. 2). The AMS dates for levels B and C are stratigraphically consistent: Level B dates to ca. 28 000 BP, while Level C dates either about 32 000 or about 36 000 BP (Pettitt, 1997).

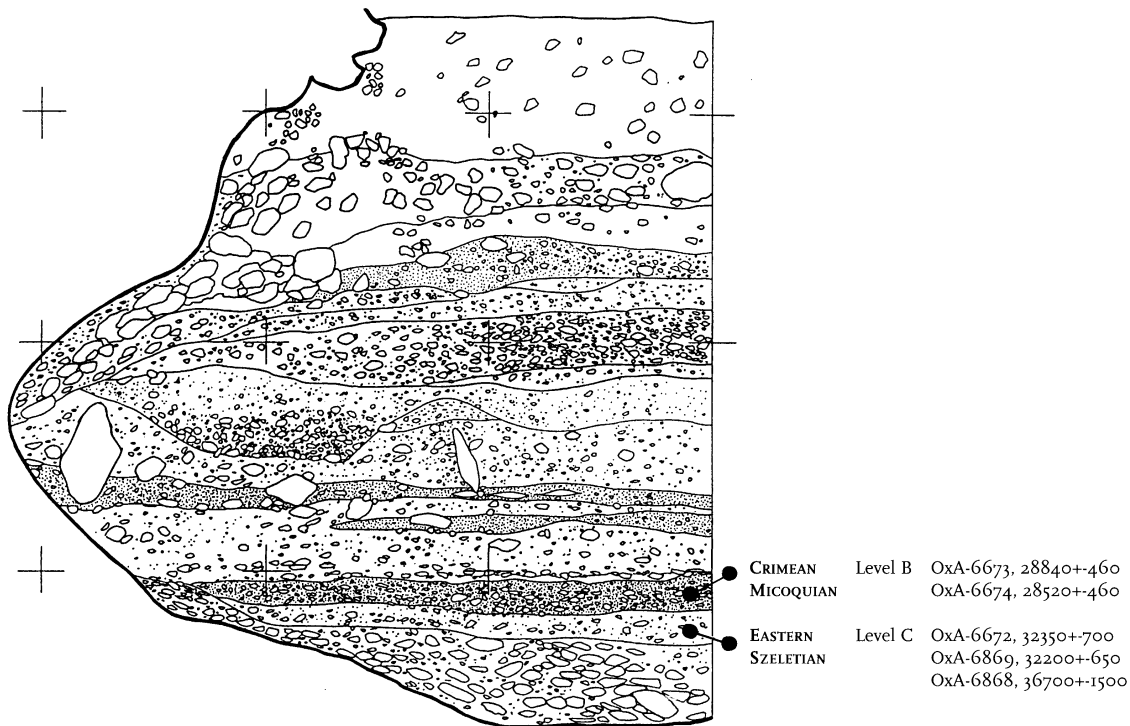


FIG. 2 – Buran-Kaya III, Stratigraphy and AMS Chronology of Level B (Kiik-Koba facies of Crimean Micoquian industry) and Level C (Eastern Szeletian industry). After Marks, in press.

The technology of the Kiik-Kobien assemblage of level B is based on bifacial tool production. Cores are rare and are almost exclusively radial and/or discoidal. Blade production is, at best, fortuitous.

As noted by M. Yamada, the main typological characteristic of the Kiik-Kobien is the abundance of both bifacial and unifacial points (Yamada, 1996). On a whole, the points compose about 40% of all identifiable tools. The unifacial points, as well as scrapers, tend to be canted (Fig. 3). Different kinds of ventral thinning were used for both scrapers and points. Occasionally, unifacial tools were made on bifacial thinning/shaping flakes. Bifacial

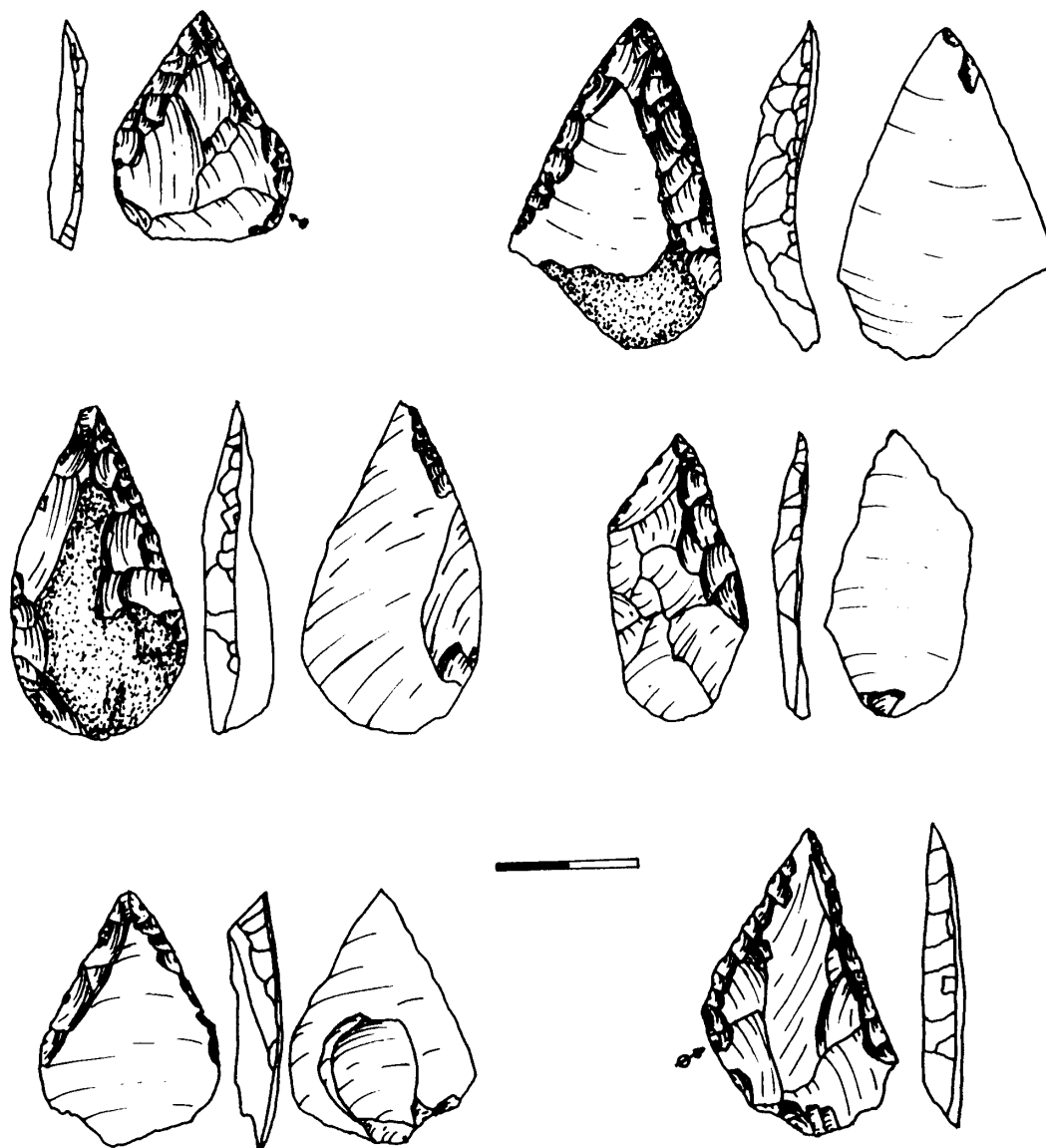


FIG. 3 – Buran-Kaya III, Level B, Kiik-Koba facies of Crimean Micoquian. Points. Redrawn from Yamada, 1996.

tools comprise about 15% of tool-kit. All of them are made in a plano-convex manner. Denticulates and notches are rare (about 10%), as are Upper Paleolithic tools.

A. Marks, in his description of the level C Eastern Szeletian assemblage, noted that technologically “there is no evidence for any reduction strategy other than bifacial” (Marks, in press). Unlike the Kiik-Kobien, however, where only the plano-convex method of reduction was used, the inhabitants of level C produced thin bifacial foliates in a bi-convex Upper Paleolithic manner. The typological structure of the level C assemblage is represented by bifacial tools, end-scrapers on flakes, scaled pieces, retouched pieces and a most peculiar category of artifact — a bifacially retouched microlithic trapezoids (Fig. 4). The majority of tools, including the trapezoids, were made on bifacial thinning/shaping flakes. In addition, a few clearly worked bones were found.

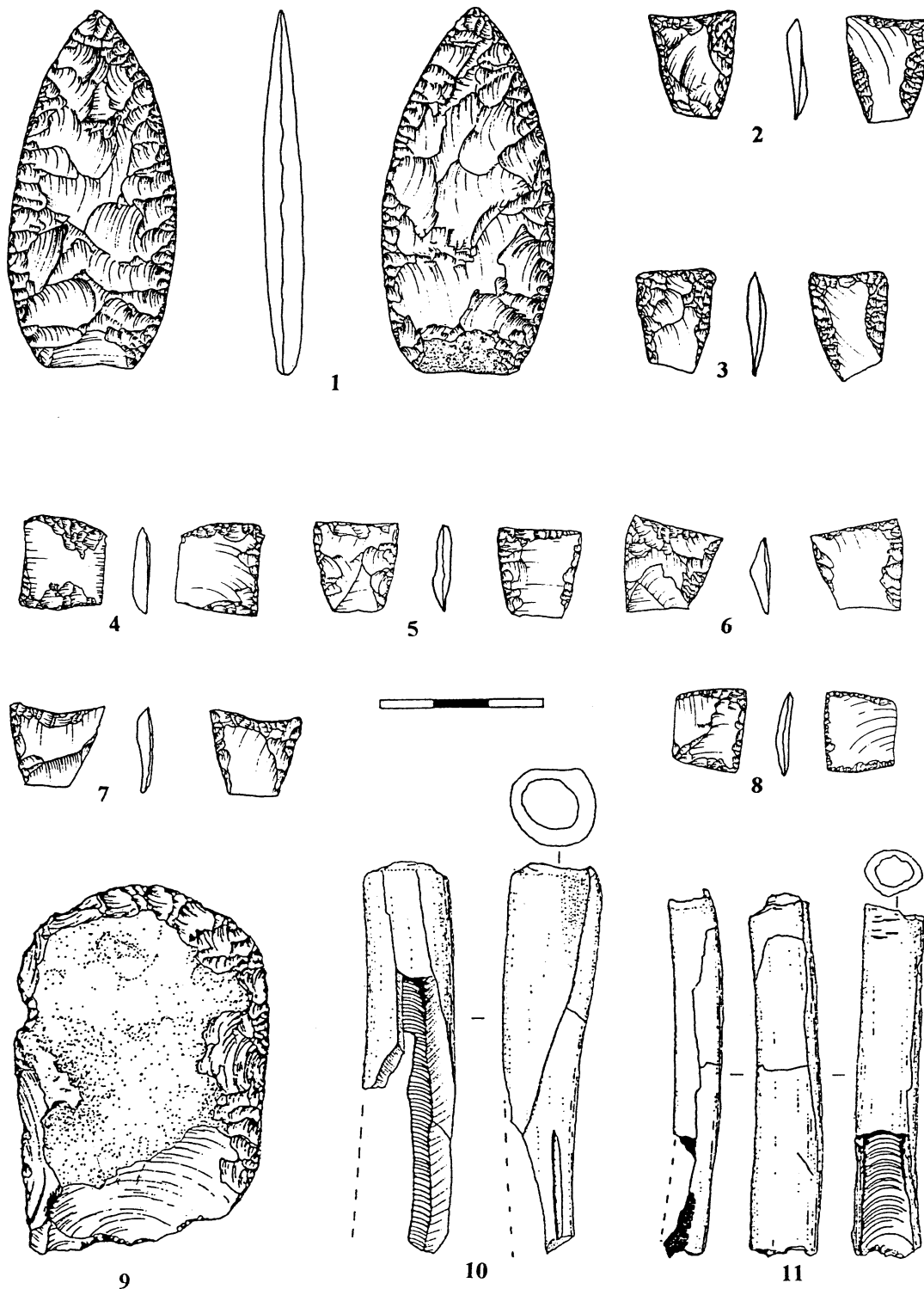


FIG. 4 – Buran-Kaya III, Level C, Eastern Szeletian industry. Artifacts: 1: bifacial foliate; 2-8: microlithic bifacially retouched trapezoids; 9: end-scraper on primary flake; 10 and 11: worked bones. After Marks, in press.

## 2. Kabazi II open-air site

The archaeological sequence at Kabazi II has five Units, which are subdivided into 32 levels and horizons. A chronologically Late MP industry is recognized in the assemblages of Unit II. A number of AMS and ESR dates show that the archaeological levels of Unit II date from 40 to 30 ca. BP (Fig. 5). Moreover, according to N.Gerasimenko's pollen studies, the archaeological levels of Unit II are bracketed by the Hengelo interstadial at their base and capped by deposits of the Denecamp interstadial at the top (Gerasimenko, in press).

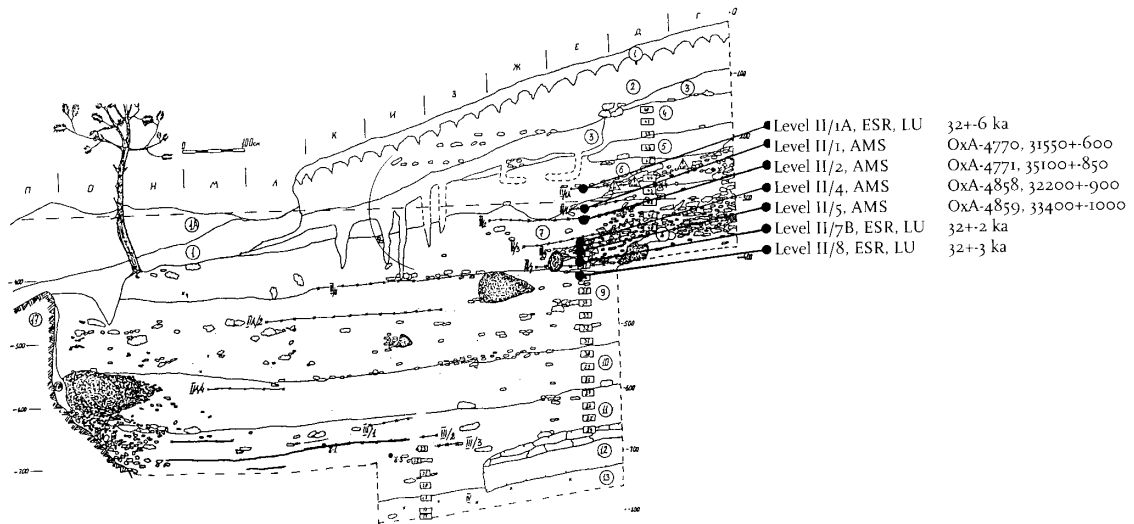


FIG. 5 – Kabazi II, Stratigraphy. The AMS (Hedges et al., 1996) and ESR (Rink et al., 1998). Chronology of Unit II, Western Crimean Mousterian industry.

The Western Crimean Mousterian industry of Unit II has a complete absence of bifacial technology. Two stages of technological development have been recognized in the evolution of the Western Crimean Mousterian. The earliest at Kabazi II (levels II/8 through II/6) is characterized by a marked use of single or opposed platform cores to produce elongated blanks, as well as the presence of Levallois tortoise cores and their products. Blades account for about 20% of the blanks. The latest stage (levels II/5 through II/1A) has only blank production from single and opposed platform cores. The centripetally prepared Levallois blanks are absent. Some true blade cores were exploited volumetrically; also, crested blades and core tablets were used for cores shaping but all blades were struck off with a hard hammer. Blades increased to about 35% of all blanks (Chabai 1996, 1998a, 1998b).

Unlike Crimean Micoquian assemblages, where bifacial tools are common, the WCM typology is based on unifacial tools production only. The unifacial tool-kits are different, as well. The typological structure of the tool assemblage is represented by simple side-scrapers, sometimes double side-scrapers and different types of points.

In spite of the technological evolution toward increasing blade production, there is no comparable change in the tool assemblage. The tool-kits of the latest stage have some new typological features. Almost all tools were made on blades. As usual, all are dominated by

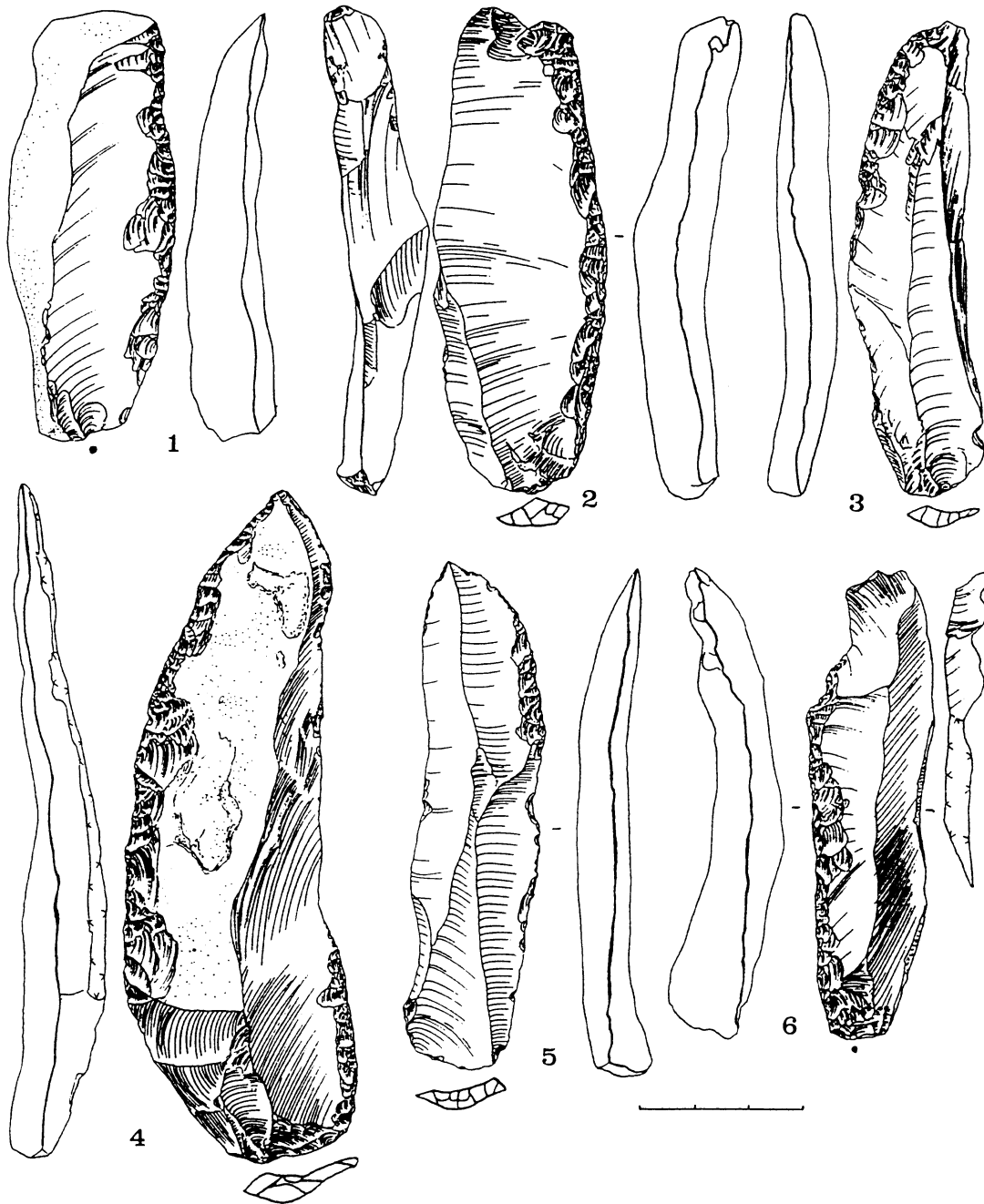


FIG. 6 – Kabazi II, Unit II, Western Crimean Mousterian. Level II/7 (5), Level II/6 (2, 6), and Level II/1 (1, 3, 4). Tools: 1-4: simple convex scrapers; 5: retouched blade; 6: simple straight scraper.

simple side-scrapers, but now made on blades (Fig. 6). Some new types do appear within the class of points. There are: Distal Points, where only the tip is retouched and Obliquely retouched Points. Another innovation was the Obliquely Truncated blade, as well as rare backed blades (Fig. 7). Neither end-scrapers, nor burins were found.

So, the core reduction strategy can be characterized as producing blades in an Upper Paleolithic mode of detachment, while the typological structure of the tool assemblage is clearly Middle Paleolithic.

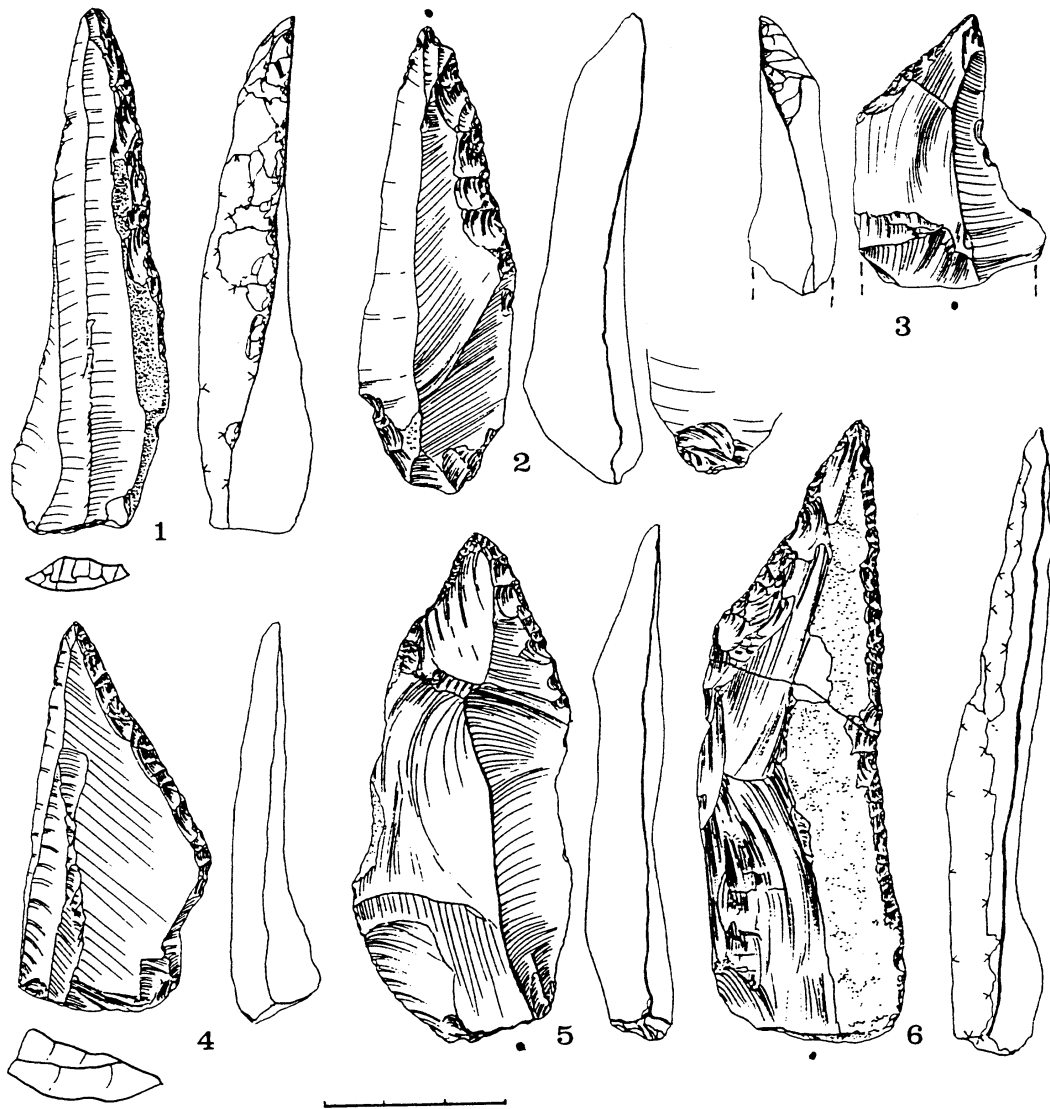


FIG. 7 – Kabazi II, Unit II, Western Crimean Mousterian. Level II/8 (2) and II/1 (1, 3-6). Tools: 1: backed blade; 2: lateral point; 3,4: obliquely truncated blades; 5: distal point; 6: obliquely retouched point.

### 3. Siuren I rock-shelter

An Aurignacian industry was discovered in Siuren I rock-shelter, represented by 9 occupational surfaces, composing four archaeological Units. Only two AMS dates are available: for the lower level of Unit F and upper level of Unit G. Both are about 28 to 29 000 BP (Fig. 8). However, these date only the middle levels, not the lowest, Unit H, nor the uppermost, Unit E.

The Aurignacian from Siuren I, Units F, G and H was identified as a sub-type of Krems-Dufour variant known from Central Europe (Demidenko et al., in press). Technologically the lowest, from Units G and H are characterized by a pronounced component of twisted bladelets and microblades. All together, they compose about 40% of all blanks. True blades do not exceed even 20% of the blanks. The bladelets and microblades are associated

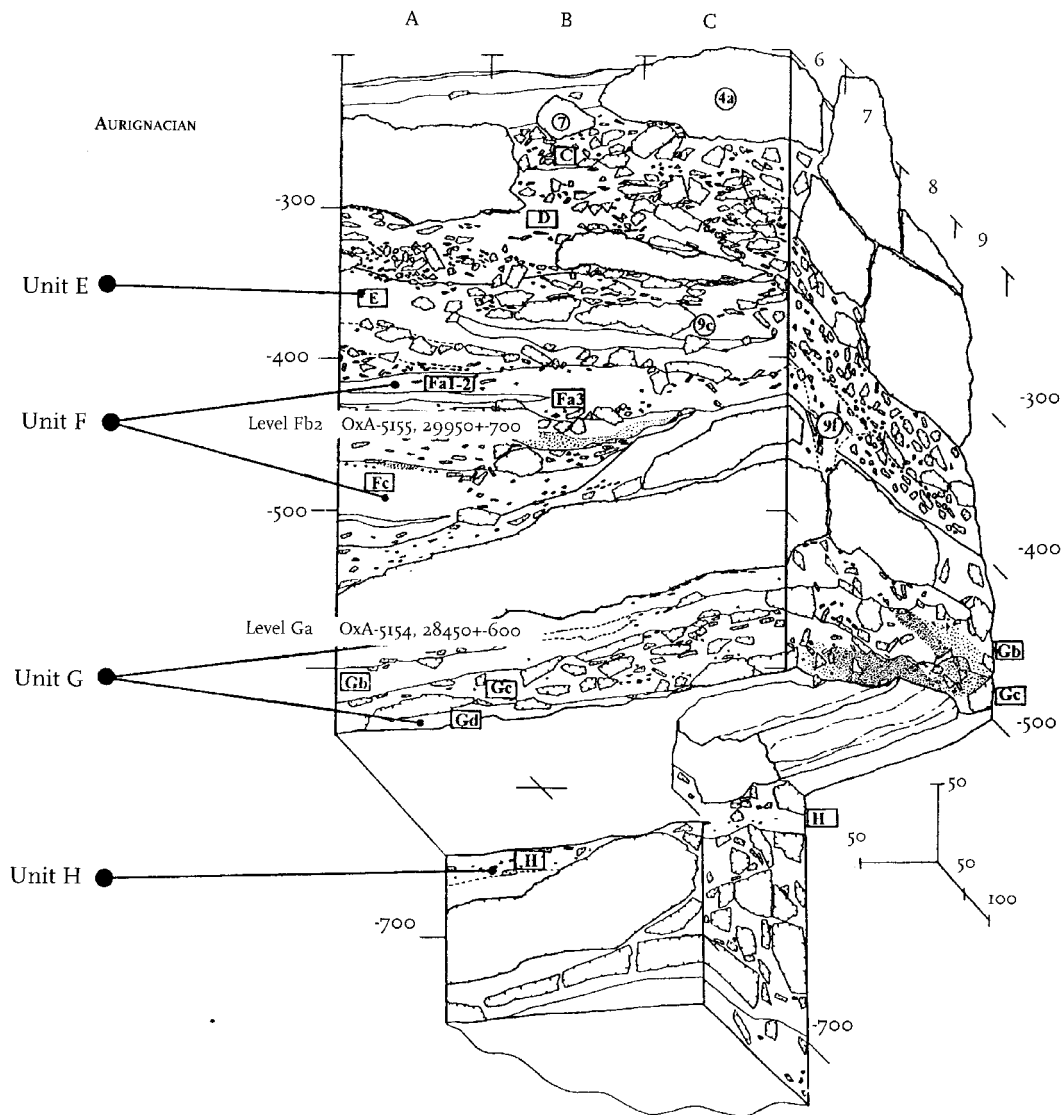


FIG. 8 – Siuren I, Stratigraphy and AMS chronology of Aurignacian occupations.

with carinated cores (Fig. 9). So, there is no doubt about the significant importance of bladelet technology in the Siuren-I, levels G and H.

Moreover, bladelets and microblades with fine and/or semi-steep retouch account for about 60% of the tools. The majority of bladelets and microblades with secondary treatment have alternate or inverse retouch. That is, Dufour bladelets account for about half of the tools. A few points of Krems type were found, as well. Other tools, such as end-scrapers, burins, denticulates, notches, retouched blades individually never accounts for more than about 8% of the tool kit. Combined, they present about 30% of the tools. Carinated tools are rare. At the same time, some Middle Paleolithic tools are a clear component of the Units G and H tool kits. They account to about 10% of all identifiable tools, about the same percentage as for end-scrapers or burins. The Middle Paleolithic tools are subdivided into three main types: points, canted scrapers and bifacial pieces (Fig. 9). Typologically, points and canted scrapers, as well as bifacial tools, have their closest analogy to the Crimean Micoquian. Some of those tools even have ventral thinning, making them identical to some in



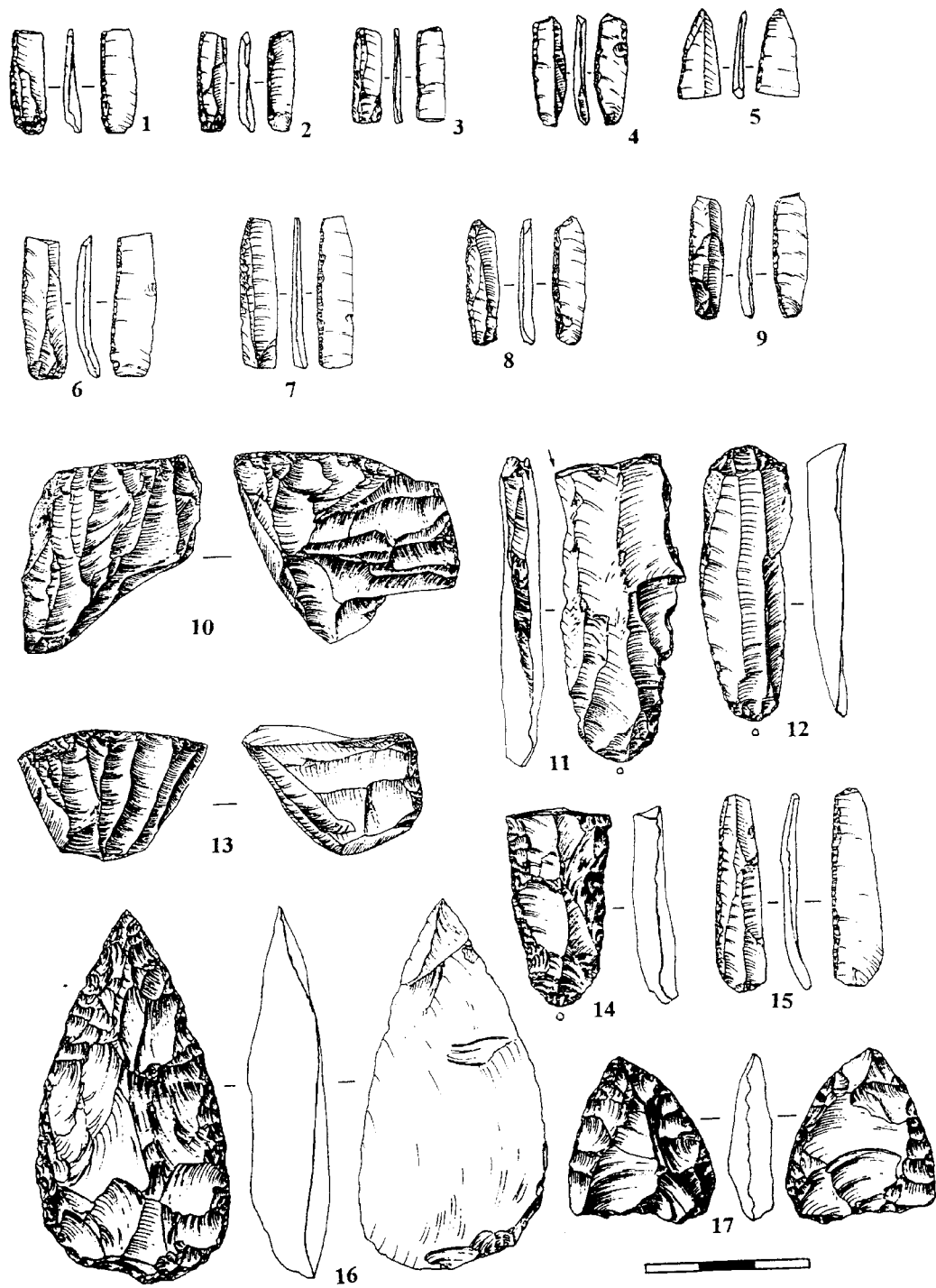


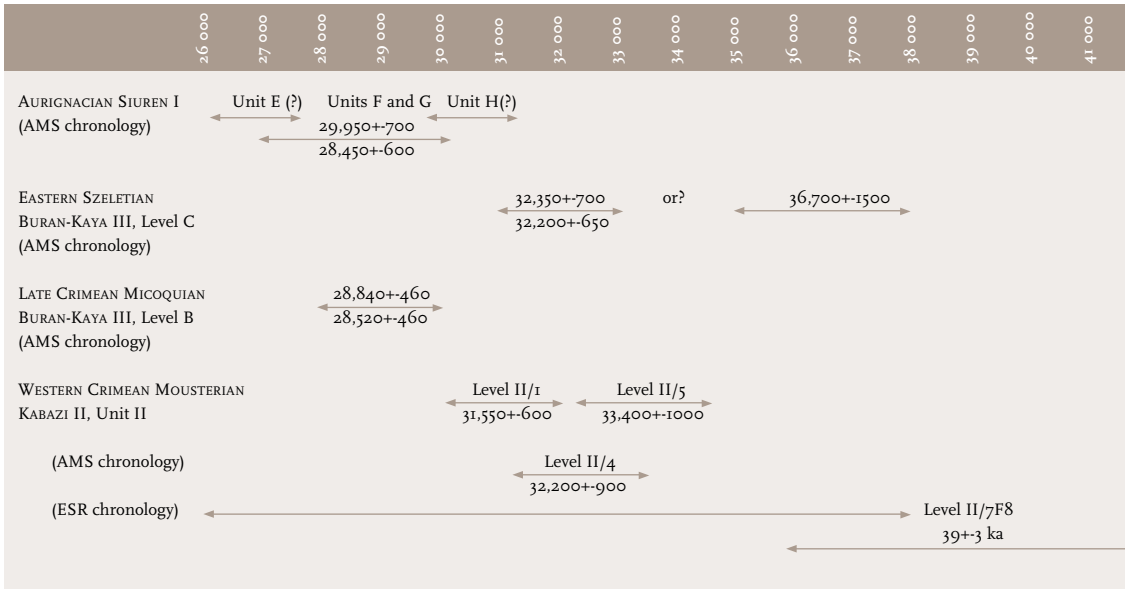
FIG. 9 – Siuren I, Unit G. Tools: 1-4, 6-9, 15: alternatively retouched bladelets and microblades (*Dufour*); 5: alternatively retouched Krems point; 10, 13: carinated cores of Siuren type; 11: burin; 12: end-scraper; 14: retouched blade; 16: leaf-shaped point with distal and proximal thinning made on transversal flake; 17: bifacial point.

the Kiik-Kobien facies of the Crimean Micoquian. The presence of bifacial thinning/shaping flakes and tips of points' rejuvenation suggest MP tool production within the site area. Thus, these MP tools in the Aurignacian assemblages either could be evidence of Micoquian/Aurignacian interaction, or a mechanical mixture caused by episodic visits of Micoquian aborigines to Siuren I.

In the uppermost assemblage of Unit F, the Middle Paleolithic tools are absent. At the same time, the assemblage of Unit F is Aurignacian of Krems-Dufour variant, also. So, the other characteristic features are more or less close to those of Units G and H.

#### 4. Discussion

The AMS and ESR Chronology of Crimean Late Middle and Early Upper Paleolithic (BP).



The Late MP and Early UP are contemporaneous in the Crimea (Fig. 10): that is, the shift from MP to UP covered a relatively long period of time. Two Middle Paleolithic industries, the late WCM and the late CM chronologically coexisted with two Early UP industries, the Aurignacian and the Eastern Szeletian, from about 36 to about 30 ca. BP. This temporal overlap is documented by the AMS chronology of Kabazi II, Buran-Kaya III, Siuren I and the stratigraphy of Buran-Kaya III. Also, the presence of Middle Paleolithic tools in the Aurignacian of Siuren I, Units G and H indicate, at least, the coexistence of Aurignacian and Late Micoquian assemblages in the Crimea. The Micoquian tools in the Siuren I Aurignacian assemblages are the only manifestation of some kind of possible interaction between Late MP and Early UP. The interstratification of Micoquian and Eastern Szeletian in Buran-Kaya III sequence does not support the common idea which views the Crimean Micoquian as the generic base for the “Szeletoid” industries of Eastern Europe.

At the same time, this “coexistence” does not mean that all four industries actually coexisted during about 5000 years in the narrow belt of the second ridge of the Crimean Mountains. During the Last Glacial Crimea was the part of a large zone of dry land of the Eastern European Plain and not a peninsula, as today. The environmental conditions in Crimea between 36 and 30 ca. BP suggest cold and arid climate, similar to ones of the southern part of Eastern European Plain (Gerasimenko, in press). In this, Crimea cannot be viewed as an environmental refugium in Eastern Europe, as is the southern part of Iberia in far Western Europe. The Crimean Mountains, situated on the southern extreme of the huge glacial steppe region that stretches from the Eastern Balkans to the Northern Caucasus, was an open, continuous zone for possible movements, but not a *cul-de-sac* for the last Neanderthals.

Thus, the late Crimean Micoquian, the Western Crimean Mousterian, the Krems-Dufour Aurignacian and the Eastern Szeletian could represent merely episodic visitors to Crimea who may not have met each other, at all.

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