

Chapter 11

KABAZI V: INTRODUCTION AND EXCAVATIONS

ALEXANDER I. YEVTUSHENKO
(with a contribution by C. R. FERRING)

SETTING AND HISTORY OF RESEARCH

The Middle Paleolithic site of Kabazi V is situated on the steep, south facing slope of the Kalinovaya Balka (Guelder Rose Valley), which connects to the right bank of the Alma River. Although the site is not far from Kabazi II (ca. 400 m), which lies on the same mountain but along the west-facing slope of the Alma River Valley, the site situation is quite different. Kabazi II is located on the middle slope, while Kabazi V is situated under the limestone cliff near the top of the slope, at an elevation of ca. 120 m above the modern Alma River flood plain. This setting is more like that of Kabazi I, which was entirely excavated by A. Formozov in the 1950s (Formozov 1959a).

The first Middle Paleolithic flints along this part of the mountain slope at Kabazi V were discovered by the geologists V. Petrun and A. Bilokrys (1962), but the site area was only clearly fixed in 1983 by Yu. Zaitsev. Two years later the site was test excavated by the expedition headed by Yu. Kolosov and was given the name Kabazi V, according to Kolosov's system of new site nomenclature.

In 1986, Yu. Kolosov and V. Chabai undertook the first real excavations at the site. They excavated along the edge of an artificial terrace over an area of 12 m² and also dug a narrow trench from the terrace edge to the cliff. As a result of these excavations, the multi-layered nature of the site was revealed, as well as providing a preliminary judgment that Kabazi V was a buried rock shelter. The sequence of sediment accumulation was subdivided into four units, each separated from the others by levels of rock fall.

Within each of these units were located a few horizons of Middle Paleolithic artifacts and bones which were grouped into four cultural layers, according to their position in the stratigraphic sequence. At the time, all cultural layers were considered in situ.

Based on the recovered artifacts, the three upper layers were defined as a Staroselian industry of the Crimean Middle Paleolithic, while the artifact assemblage of the fourth layer, the lowest, was too limited to permit an industrial designation (Kolosov, Stepanchuk, and Chabai 1988). The preliminary excavations failed to reach the back of the cave and they also did not reach the bottom of the site. In addition, the second unit was not clearly seen in the profiles and seemed to wedge out.

In 1990, excavations of Kabazi V were continued by V. Chabai and the author. The trench started in 1986 was extended and deepened. On the whole, the initial recognition of four geological/archeological stratigraphic units was confirmed, but the new excavations revealed that the stratigraphy was more complex than it first seemed. The uppermost two units, I and II, were subdivided by adding a Unit I-A and a Unit II-A for new archeological horizons. The deposits of Unit II were thicker than originally thought and so were subdivided into levels, consisting of several lenses of artifacts and fauna, each separated from the other by sterile deposits. In fact, these new artifact levels in Unit II (II/3, II/4, II/4a) were individual living floors with traces of fireplaces and with concentrations of flints and bone.

During the same season, the vertical back wall of the cave was reached, as well as part of the stepped floor near the back wall. The discoveries gave additional data for the understanding of Kabazi V.

In 1993 and 1995, excavations were continued by A. Yevtushenko in the same excavation area begun in 1990, as well as in a small zone bordering the 1986 excavations (fig. 11-1). The main focus of the new excavations was the lower parts of archeological Units II and III, while a main goal was getting materials to permit absolute dating of the occupations. During these two seasons of excavations, Levels II/4a and II/7 of Unit II and Levels III/1, III/1a, III/2, III/3, and III/4 of Unit III were uncovered. In addition, these excavations provided a good deal of new data which changed some of the previous perceptions. For instance, it was recognized that the sediments containing Units I, I-A, and II-A were disturbed and mixed by slope wash. The upper part of Unit II (Levels II/1 and II/2) was also partly disturbed in the main excavation block.

Unit III was similar to Unit II, as seen in 1990, when the thickness of the sediments increased toward the back wall of the rock shelter. These thicker sediments contained a number of new living floors with rich assemblages of artifacts and faunal remains

STRATIGRAPHIC SEQUENCE (by C. R. Ferring)

The stratigraphy of Kabazi V was not studied by a geologist prior to the 1993 field season. During the 1986/1990 excavations, the sequence of sedimentation was recognized by formal archeological approaches. That is, the strata and lenses of deposits were recorded according to color, degree of scree content, and superposition of various strata and lenses. In 1993 and, again in 1995, the open profiles were studied in the field and the geologic history of the site and its stratigraphic sequence were ascertained.

The Kabazi V rockshelter formed below the hard nummulitic limestone (Ea) that forms the top of the second ridge cuesta of the Crimean Mountains. The formation of the shelter was enhanced by the weathering of the soft clays and fossiliferous clays (Eb) that underlie the nummulitic limestone. Several beds of these clays contain abundant nummulitic fossils which were released upon weathering and are contained as clasts within the shelter sediments.

Below the shelter deposits today is a steep slope that exposes hard, sparsely fossiliferous chalk, and terminates in the small valley of a tributary to the Alma, about 1 km upstream from their confluence. Colluvial deposits below the shelter suggest that a similarly steep slope existed during site occupations, although the Alma valley was not as deep then as now.

The southern exposure of the shelter probably helped maintain warmer temperatures at the site. This would have increased weathering rates, and may have influenced habitats for microvertebrates and molluscs, accommodating woody vegetation and warmer temperatures.

Sediments were described in two sections at the site. The upper deposits (Strata A-E2) were described and sampled along the west wall of the excavation block. The rock slab (E3) and the Stratum F sediments were described in a sondage located in the southeast corner of that block. Due to the slope of the upper surface of the E3 slab, elevations of stratigraphic units are not equivalent between the two profiles. Below, however, the stratigraphy is described as on Figures 11-1, 11-2 and Tables 11-1, 11-2.

The oldest deposits at the site are Stratum F. These light, yellowish brown silts accumulated during weathering of the bedrock clays. They fine upward, with decreasing amounts and sizes of eboulis and fossil fragments. Unit IV is in the upper part of this stratum.

A major rockfall resulted in the placement of a thick limestone slab (E3) above the Stratum F sediments. This slab dips to the west; as a result, the sediments of Strata E2 and E1 are thicker towards the western part of the excavation block. The positioning of the E3 slab and the Stratum F sediments suggests that archeological deposits could be present under the slab

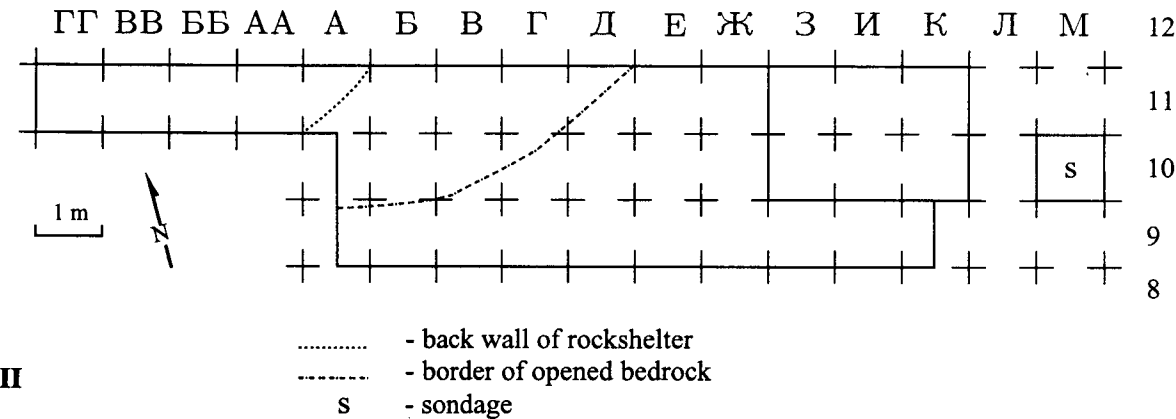
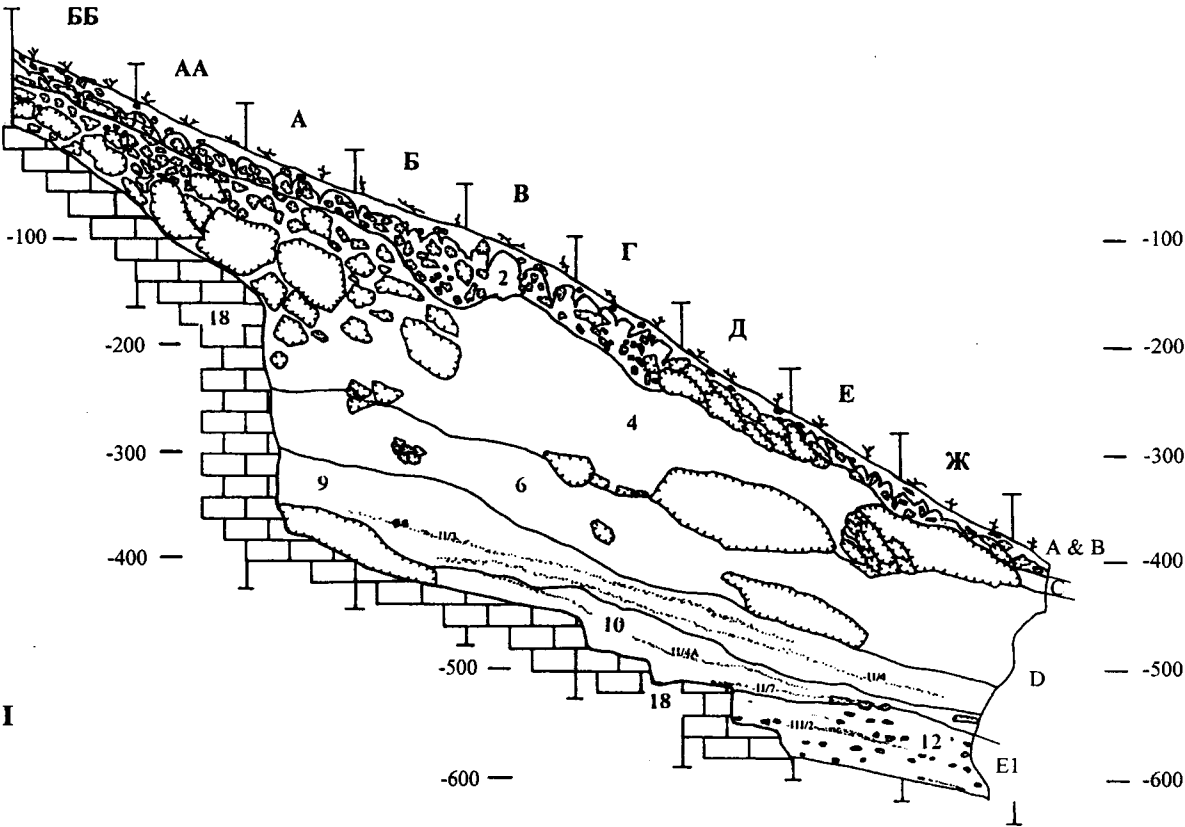


Fig. 11-1—Kabazi V, I—Stratigraphic profile along line "12": 2, 4, 6, 9, 10, 12, 18 (back wall)—lithological layers; A, B, C, D, E1—geological strata; II/3, II/4, II/4A, II/7, III/2—archeological levels. II—Plan of excavated area.

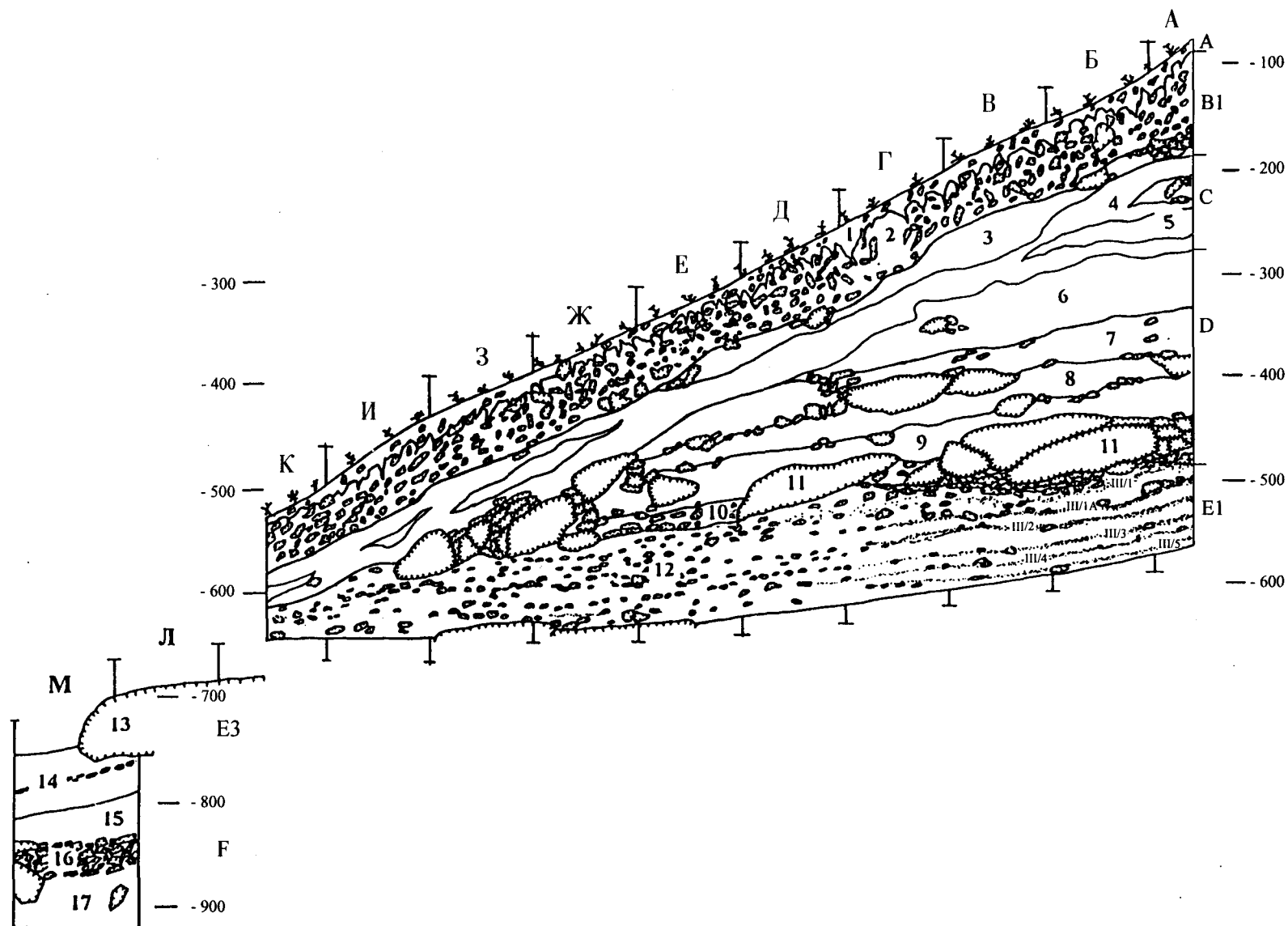


Fig. 11-2—Kabazi V, Stratigraphic profile along line "9": 1-17—lithological layers; A, B, D, E1-E2, E3, F—geological strata; III/1, III/1A, III/2, III/3, III/4, III/5—archeological levels.

TABLE 11-1
Kabazi V, Stratigraphic Description (all colors Munsell moist)

Stratum	Description
A	(Soil A horizon): 10YR4.5/1 poorly sorted gravelly silt loam; many angular and many rounded limestone cobbles and pebbles; thick carbonate crusts on clast bases; gradual wavy boundary.
B1	(Soil Ak horizon): 10YR7/2 gravelly silt; clasts, mainly granules, with some rounded pebble to cobble clasts; continuous carbonate coats and some possible concretions; gradual irregular boundary.
B2	(Soil Ak2 horizon): 10YR7/2 gravelly silt; clasts, mainly granules, with many rounded cobbles and few boulders; continuous carbonate coats on clasts; clear irregular boundary parallel to modern surface.
C	(Soil K horizon): 10YR8/1 silt; massive; contains few granule-size fossil clasts in upper part; thins downslope; upslope it merges with weathered bedrock; faint bedding planes parallel to slope; horizon of common artifacts with chaotic orientations in middle of stratum; lower 10 cm indurated; gradual smooth boundary.
D	10YR7/3 clast supported granule gravel; some thin beds are silt matrix supported; clasts mainly small fossils from bedrock; beds subhorizontal; gradual wavy boundary.
E1	10YR7.5/4 silt with angular cobble to pebble eboulis clasts; some zones clast supported; few thin discontinuous beds of sand-sized rock fragments; few large blocks of limestone rockfall (these are more common and larger in east wall of block); sediments fill vertical fissures in bedrock at backwall part of section; unit thins and pinches out to south; abundant artifacts and fauna between 188-200 cm; hearth in lower part, against bedrock back wall; base of unit appears erosional.
E2	10YR5/3 granular silt, with thin lenses of clast-supported granular to pebble eboulis; base of unit is rockfall slab (at 5.85 m below site datum at described section).
E3	(Sediments below rockfall slab in southeast part of block) 2.5YR6/4 granular silt; massive, very hard when dry; clasts are mainly nummulitic fossil fragments; contains bones and charcoal associated with Cultural Layer 4 in upper part. Increase in eboulis content and clast size with depth, with same silt matrix. 1.7m of exposed sediments below rock slab (0.8 m thick).

and under the bedrock exposed in the east and north walls of the excavation block, but this has not yet been investigated.

Sediments of Strata E2 and E1 are located between the major rock slab (E3) and the bases of discontinuous large limestone blocks of Stratum D. Strata E2 and E1 sediments are mainly brown to light brown silts, derived from weathering of the clay bedrock. These contain angular granule to small boulder eboulis that is more abundant near the back (north) and east walls of the shelter. An erosional disconformity appears to separate Stratum E1 from E2, although no evidence of soil formation and prolonged exposure of the erosional surface is evident. Strata E2 and E1 contain abundant artifacts, fauna, and at least one hearth that is located at the back wall of the shelter in the lower part of Stratum E1. The beds of Strata E2 and E1 appear to be subhorizontal in the west wall profile, but dip to the west following the surface of the E3 limestone slab. Strata E1 and E2 contain major occupational debris in cultural Levels III/1-III/5. Cultural Level III/5 has a concave profile in the west wall of the block, suggesting that the shelter opening may have been oriented to the southwest.

The base of Stratum D is marked by large limestone fragments indicating increased (and apparently, final) roof fall at least in the eastern part of the shelter. This changed water flow through the shelter area, as the remainder of Stratum D has thin beds of nummulitic fossils and small eboulis that are flow-oriented to the south-southwest. These were probably oriented by water flowing to the shelter from the slope of the nummulitic limestone (Ea) above the site. Stratum D contains cultural Levels II/1-II/7.

TABLE 11-2
Kabazi V, Correlation of Geological and Archeological Sequence

GEOLOGICAL SEQUENCE†		ARCHEOLOGICAL SEQUENCE		
Stratum	Lithological Layer	Unit	Level	Complex
A	1	I	I/1	A1
B1	2		I/2	
B2	3	I-A	I-A	
C	4	II-A	II-A	
	5			
D	6 (upper)	II	II/1	A2
	6 (lower)		II/2	
	7		sterile	
	8		sterile	B
	9 (upper)		II/3 (II/3a, II/3b)	
	9 (lower)		II/4	C
	10 (upper)		II/4a (II/5, II/5a, II/6)	
10 (lower)	II/7			
	11	sterile/roof collapse		
E1	12 (upper)	III	III/1, III/1a, III/2	D
E2	12 (middle)		III/3, III/4	E
	12 (lower)		III/5	F
E3	13	sterile/slab		
F	14 (upper)	IV	IV/1	G
	14 (lower)		IV/2	
	15		sterile	
	16		sterile	
	17		sterile	
	18		sterile (bedrock)	

† See figures 11-1 and 11-2.

Stratum C is a massive white silt that has faint, thin beds whose boundaries have been mostly altered by pedogenesis. This stratum is the K horizon of the soil that has formed in the deposits overlying the last roof fall at the site. Deposition of silt by eolian and/or slopewash is indicated by the burial of cultural Level II-A within Stratum C. Continued erosion of the Alma Valley would have exposed chalk to weathering and subsequent eolian transport up the south valley slope. There is no apparent source for these sediments above the site.

Stratum B is divided into B1-B2 based on pedogenic features. These sediments are much coarser than those in Stratum C. They include cobble to small boulder eboulis derived from the limestone above the site. The lower boundary of Stratum B dips steeply to the south-southwest, suggesting erosion of Stratum C prior to deposition of Stratum B sediments. Redeposited artifacts of cultural Levels I/2 and I-A are contained in Stratum B.

Stratum A is the A-horizon of the surface soil; otherwise these sediments are probably part of the same depositional episode as those in Stratum B. Redeposited artifacts of cultural Level I/1 occur in Stratum A. Together, Strata A and B represent increased weathering of the nummulitic limestone (Ea) above the site, with colluvial deposition on top of the former shelter deposits below.

The sedimentologic record at Kabazi V is largely dominated by slope evolution and shelter formation and collapse. The finer-grained deposits in the lower part of the site (Strata F and E) were derived from bedrock clays. Once the clay bedrock was covered by sediments, and after the two major episodes of roof fall (E3 and lower D), colluvial, and possibly eolian, sedimentation appears to have proceeded in an open site setting. Given the bedrock controls on sediment supply, coupled with the change from shelter to colluvial deposition, it is difficult to derive climatic information from the sediments alone.

ARCHEOLOGICAL SEQUENCE

The archeological occurrences within the stratigraphic sequence are most easily seen in Figures 11-1 and 11-2 and Table 11-2. The major geological Strata A through F consist of lithological layers, archeological units, and levels. During excavations, the archeological sequence was subdivided into 6 main units (Table 11-2). Lithological layers 1 and 2 contain archeological Unit I, with two levels (I/1 and I/2). Lithological layer 3 has Unit I-A. Sediments of lithological layers 4 and 5 include Unit II-A. In this unit, the archeological materials were limited to lithological layer 5 and consisted only of large pieces of flint, a very few chips, and poorly preserved faunal remains.

Unit II is more complicated. Partly disturbed archeological levels (II/1 and II/2) were found in lithological layer 6. The 7th and 8th lithological layers were sterile archeologically. In lithological layer 9 there were two archeological levels (II/3 and II/4), each of which was a true living floor. Another living floor, Level II/4a, was uncovered in the top part of lithological layer 10. Also found in this lithological layer were separate lenses (II/5, II/5a, and II/6) of Level II/4a, which have no independent significance. In addition, another living floor, Level II/7, was found in the lower part of lithological layer 10.

Unit III was separated from Unit II by a level of exfoliated limestone rocks (lithological layer 11), which represents the buried remains of the collapsed roof of the rockshelter. The deposits of lithological layer 12 contain Unit III. The subdivision of Unit III into different levels was based on the recognition of different streaks of ashes and lenses of artifacts which marked living floors. Between these living floors were sterile lenses, separating the archeological levels. During the 1986 excavations, three different archeological levels were recognized, but during the more recent excavations of 1993/95 which opened more of the site, additional levels were noted (III/1, III/1A, III/2, III/3, III/4); excavations of this unit are not yet finished.

Unit IV was first uncovered in 1986 in a sondage under the large exfoliated limestone blocks (lithological layer 13) which separated Units III and IV. In lithological layer 14 were found two archeological levels of Unit IV: one (IV/1) above lenses of scree and the other (IV/2) below these scree lenses. In lithological layers 15 through 18, there were no artifacts or faunal remains. Additional excavations of this unit await completion of Unit III work.

Bedrock was exposed only in a limited area of the excavations, but the back wall and stepped bottom of the rock shelter were uncovered (fig. 11-1).

The living floors of Units III and IV formed during the period when settlement took place within the rock shelter. The sediments of Unit II accumulated after the rock shelter roof collapsed and, so, settlement of this period was situated against a vertical back wall. The disturbed sediments of Units I, I-A, and II-A were deposited by slope wash from some place higher up the slope.

Based upon stratigraphic position and similarities in techno-typological attributes, the archeological units and levels have been grouped into several "complexes" (Yevtushenko 1995). Complex A1 includes the assemblages from Units I, I-A, and II-A which were disturbed and mixed. Complex A2 includes the assemblages from cultural Levels II/1 and

II/2, both from partly disturbed sediments of lithological layer 6 in the top of Unit II. Complex B grouped living floors of Levels II/3 and II/4 together. Complex C joins living floors of Levels II/4a and II/7, while Complex D is defined by Levels III/1, III/1A, and III/2. Complex E includes Levels III/3 and III/4. The living floors from Complexes C, D, and E were excavated between 1993 and 1995.

EXCAVATION METHODOLOGY

As mentioned above, the Middle Paleolithic occupational layers at Kabazi V included both living floors and mixed deposits. Given this, several excavation methods were used. The disturbed sediments of Units I, I-A, and II-A were excavated following the angle of slope inclination, but with subdivisions based on the elevation of artifacts within the geological (lithological) layers. This method was also used for the excavation of the sterile levels between living floors in Units II and III. The real living floors occurred in layers of ashes and charcoal and were excavated using the "carpet" method described by V. Chabai in Chapter 8. Some living floors were from 10 cm to as much as 15 cm thick (especially in Unit III), and in those cases, they were subdivided into sub-horizons of 2-3 cm. Such layers were excavated by using a combination of the "inclination angle" and the "carpet" methods.

In 1986, the excavation grid was oriented perpendicular to the visible cliff face behind the site. In 1990, however, the true back wall of the rock-shelter was located and it had a different orientation. The natural direction of the slope's inclination in Unit II and Unit III, therefore, was diagonal to the established grid system. Because of this, during the excavations of these units, supplementary transversal balks were left for stratigraphic control. This prevented the mixing of finds from different occupation levels.

Beginning in 1990, all noticeable artifacts and bones were mapped in place at a scale of 1:10 and all excavated sediments were passed through 5 mm and 1.5 mm screens, by excavation square and layer. As a result, even the smallest pieces of flint and bone were recovered, including microfauna.

ARTIFACT ANALYSES FROM PREVIOUS EXCAVATIONS

After the 1986 excavations, the artifacts were studied by V. Chabai (Kolosov, Stepanchuk, and Chabai 1988, 1993; Chabai 1991). In this study, assemblages from three different cultural layers, one each from Units I, II, and III, were defined as belonging to an early developmental stage of the Starosele facies of the Crimean Mousterian with bifacial tools (see Chapter 1). This judgment was based on the typology of the tool-kits, which were characterized by the relative occurrence of the following tool classes: scrapers, $\cong 60\%$; points, $\cong 18\%$; denticulates, $\cong 12\%$; notches, $\cong 5\%$; while other tools were present only as single examples. The first specific feature of the Staroselian, however, is the presence within the tool assemblages of bifacial tools (5-16%): as a rule, they are bifacial points with leaf or crescent shapes (fig. 11-3: 1-7) or bifacial scrapers with similar shapes (fig. 11-6: 1,3,5). The second specific feature of the Staroselian is the presence within the unifacial tool-kit of converging tools (30%-40%): scrapers, denticulates, and points. The morphological characteristics of these convergent scrapers and points include semi-rectangular (fig. 11-4: 1,2,4,5,7,9), sub-trapezoidal (fig. 11-5: 3,10), semi-, sub-crescent (fig. 11-5: 1,4,6-9; 11-6: 2), semi-leaf (fig. 11-6: 4,6), and triangular shapes.

Technologically, the studied assemblages of Kabazi V had very low blade indices ($I_{lam} = 4.5-5.4$), as well as low faceting indices ($IF = 30-35$ and $IFs = 13-16$). Since these indices were lower than those from the studied samples from Starosele itself, it formed the basis of postulating a *Kabazi V industrial type* within the *Starosele facies*.

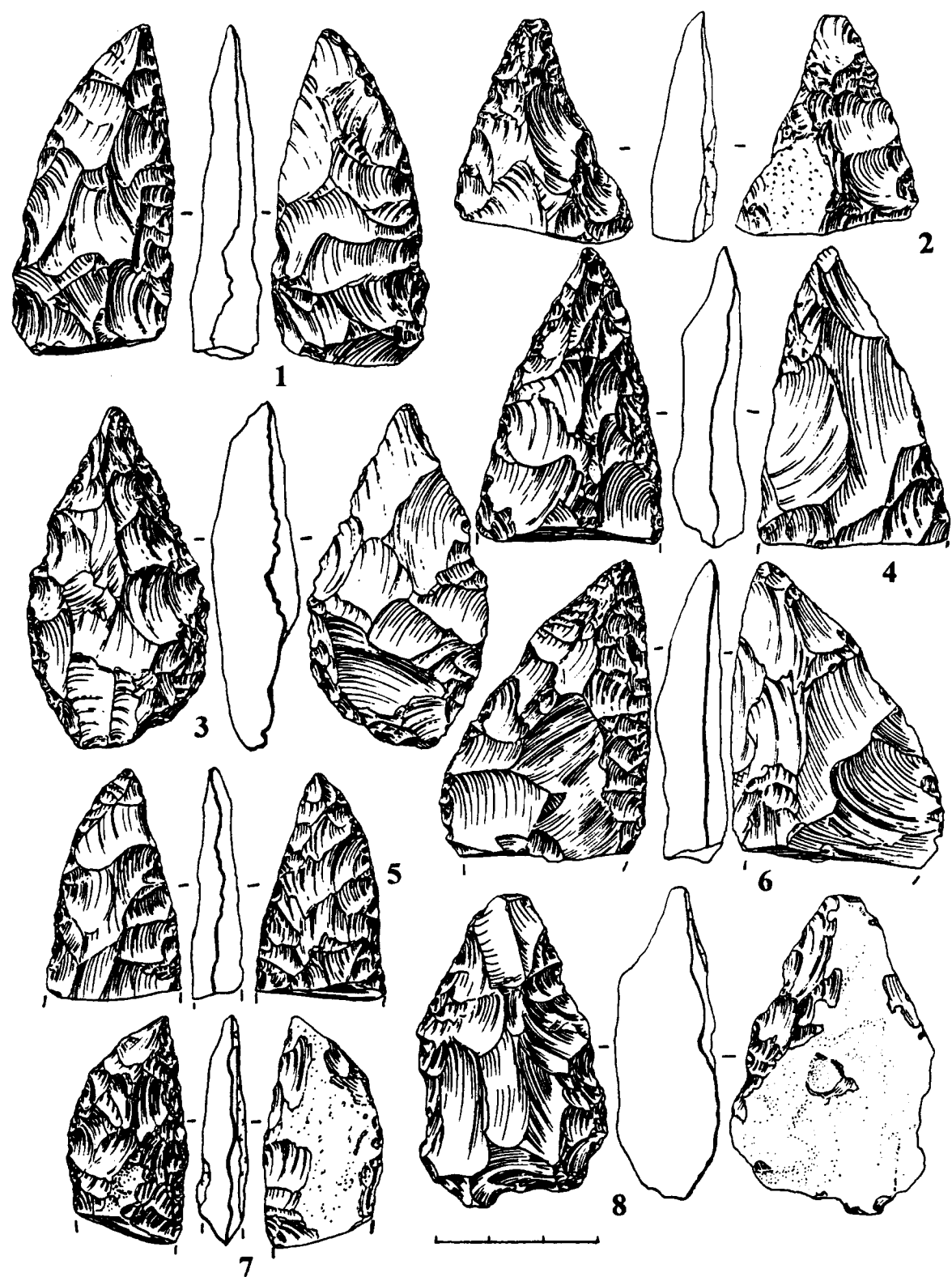


Fig. 11-3—Kabazi V, Unit I (1-6, 8) and Unit II (7), Bifacial tools: 1,3,4,5—leaf-points; 2—broken point; 6,7—crescent points; 8—unfinished bifacial tool.

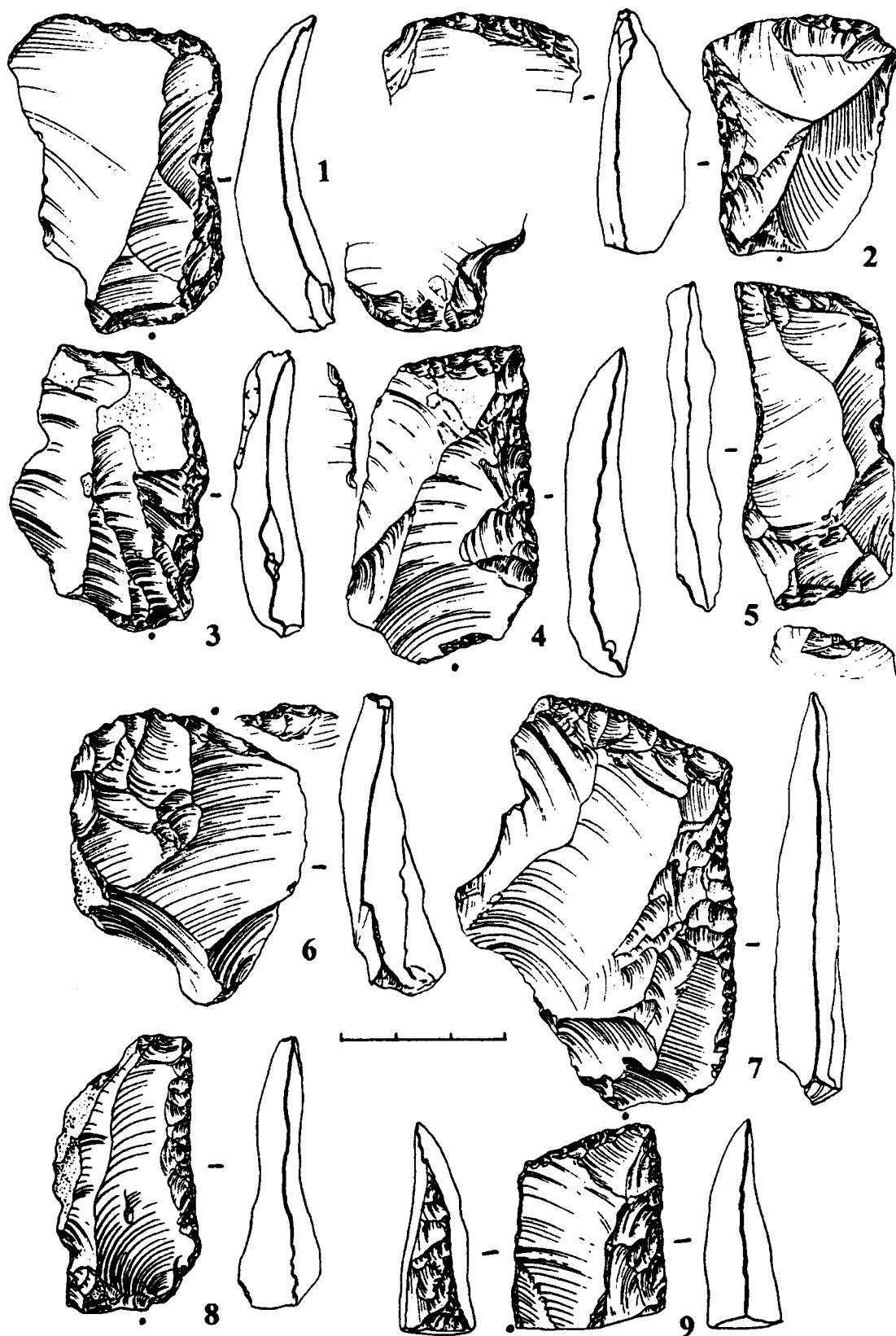


Fig. 11-4—Kabazi V, Unit I (4, 6, 7), Unit II (3), and Unit III (1, 2, 5, 8, 9), Scrapers: 1,4,5,7,9—semi-rectangular; 2—semi-rectangular alternate; 3—simple convex scraper; 8—simple concave scraper. 6—Truncated-faceted piece.

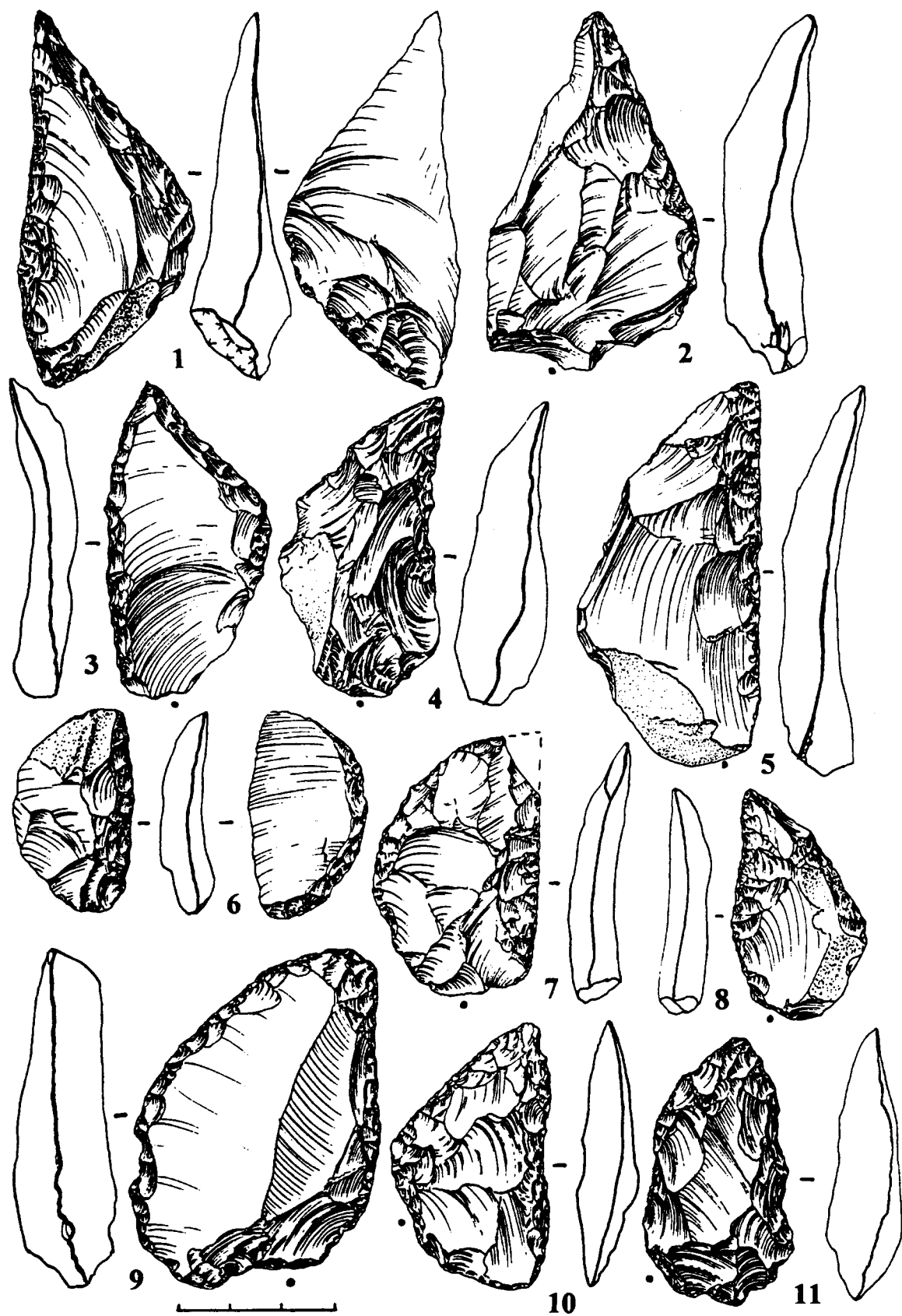


Fig. 11-5—Kabazi V, Unit I (4, 8), Unit II (5), and Unit III (1-3, 6, 7, 9-11), Points: 1—semi-crescent with thinned base; 2—lateral; 3—sub-trapezoidal; 4—hook-like; 7—sub-crescent; 8—semi-crescent; 10—trapezoidal point. Scrapers: 5—simple straight; 6—crescent; 9—sub-crescent; 11—sub-leaf.

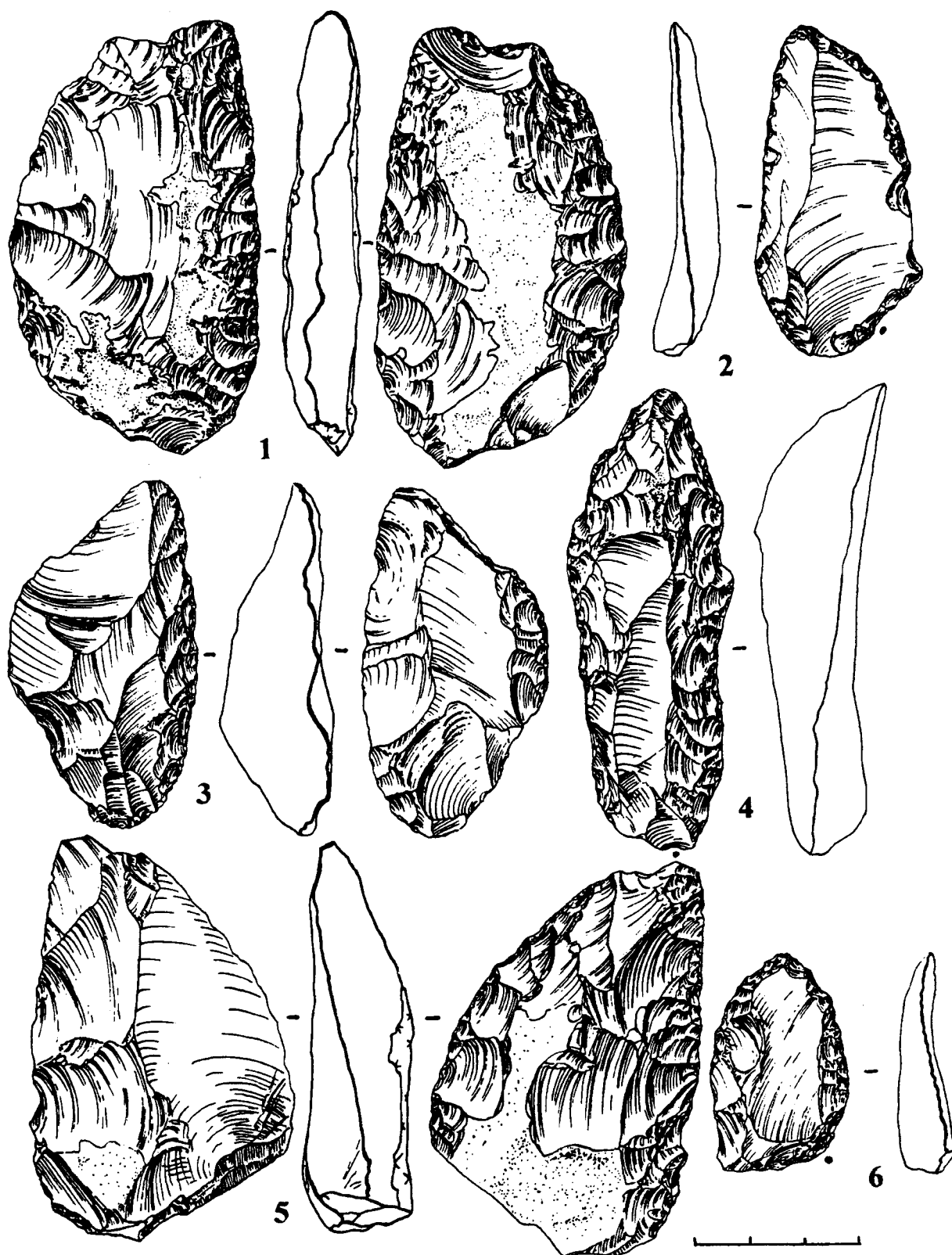


Fig. 11-6—Kabazi V, Unit I (1), Unit II (5), and Unit III (2-4, 6), Scrapers: 1,3—bifacial sub-crescent scrapers; 2—unifacial sub-crescent scraper; 4,6—unifacial semi-leaf scrapers; 5—semi-bifacial sub-crescent scraper.

The description of the flint assemblages above is supplemented by the 1990 samples. The typological features of the new samples were consistent with the old ones, but the technological indices of some levels are different from those of the earlier excavations. The newly acquired Levels II/3 and II/4 had higher blade and faceting indices ($I_{lam} = 9.0$; $IF = 44.8$; $IFs = 22.4$). On the other hand, the indices of Units I, I-A, II-A, and Levels II/1 and II/2 were all close to those from the 1986 samples. These differences can be explained by the different nature of these levels. Cultural Levels II/3 and II/4 are real living floors, while the uppermost layers were disturbed and mixed. It is more difficult to explain the technological differences between the new assemblages and the old ones from Unit III recovered in 1986. There are, however, a few possible explanations; as a working hypothesis, it was suggested that these differences represented time differences within a single facies (Yevtushenko 1995). This hypothesis, however, cannot be tested without additional excavations of Unit III and additional absolute dates.