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Palaeolithic Sites and Raw Material Sources in the Western Rhodopes (Bulgaria)

ABSTRACT

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The archaeological investigations in the Rhodopes (vast mountain massif in the central part of the Balkan Peninsula) prove that the area was populated and its local raw materials were exploited from the beginning of the Würm till the Middle Ages period. The archaeological materials reflect several periods of settlement of the region: Eastern Balkan Mousterian with a biface tradition of the Micoquian type (?) / or earlier local variant of the East Balkan Mousterian with leafpoints (with elements of the Micoquian tradition); Mousterian with wide exploitation of discoidal cores; East Balkan Mousterian with leafpoints; Gravettian phase; Tardigravettian phase.

Parole chiave: Rodopi Occidentali, sfruttamento di materia prima, Würm.
Key words: Western Rhodopes, raw materials exploitation, Würm.

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The Rhodopes are a vast mountain massif in the central part of the Balkan Penisula. This compact group of heights presents a complex pattern of valleys, elevations with smooth ridges and to the West rises to 2000 - 2200 metres. These leveled ridges, low cols and deeply cut river network actually enhanced human migration from the Southern part of the Balkan Penisula to Central Europe, and in more general terms, from Asia and Africa to Europe (Fig. 1).

Fig. 1 - Investigation zone in the Western Rhodopes.

The geographic position of the Rhodopes and the abundance of silex deposits were a major factor for the movement of human communities in the Palaeolithic. There exist traces of human activity dating back to the Middle, Upper Palaeolithic and the Epipalaeolithic which implicate the importance of this area for the migration processes.
Systematic investigations in this region took place at the beginning of the eighties. The investigations are concentrated on the Western Rhodopes and comprise mountain zone of altitude varing from 1300 to 1500 m, located to the south of its highest parts (2186 m).

The archaeological materials are not homogeneous. Part of them comes from systematic archaeological excavations (not finished yet), another part from trenches and personal survey of the region. Numerous palaeolithic assemblages are collected by an amateur-prehistorian without precise stratigraphy.

For this reason the conclusions here have only an inaugural character. We think however that, despite of the particularities of the archaeological material, information collected at this stage of investigations is a good base for formulating and interpreting some problems of cultural interactions and migration processes.

During the last glacial period investigated region had lain in proximity of the upper forest border. More than ten deposits of silex have been found uncovered (Fig. 2). In nearly all of them some evidence of primeval man mining activity can be discovered. This includes raw material initial processing at the outcrop and its immediate vicinity. Some open-air sites dating back to the Middle and Upper Palaeolithic have been studied too. I wish to thank sincerely Dr. Maciej Pawlikowski (Academy of Mining and Metallurgy, Krakov, Poland), who carried out the investigations of the raw materials sites.

The geological structure of the Rhodopes determines its abundant and diverse silex deposits. Their final present-day appearance was constituted during the Tertiary and is the result of powerful positive earth core movements, which occurred during the Neogene. All these processes are closely related to the preceeding late-alpine Tectonic period and the vertical elevation of magma that took place then. The Tectonic movements that cut the Rhodopes massif and shattered it to pieces caused eruptions and an overflow of immense masses of rhyolite material (Jaranov, 1940, 1942).

Violent postvolcanic hydrothermal action gave birth to «beams» («columns») - i.e. silication zones of opal-chalcedony in the contact area between oligocene limestone and magma rocks. The width of these silicitation zones exceeds in some cases several scores of metres. They are quite well preserved at some places and it is not difficult to pinpoint their location, but at other places, due to advanced erosion, their position has to be defined by separate larger blocks (often more than two metres big) and debris of varying dimensions. Erosion, mountain side slips and waterflow transport has brought this material into the valleys which could be viewed as secondarily redeposited accumulations of raw materials. A wide diversity of louristic traits, rates of translucence, smoothness, glitter of the artificially or naturally formed surfaces, core characteristics, silicate macrostructure and technological availability for archaeological examination is a distinctive feature of the opal-chalcedony masses (which for the sake of brevity would be referred to hereafter as «silex material»). In fact at some parts of the studied area the raw materials' traits were so conspicuous, that it was pretty easy to define in some sites where palaeolithic men took materials for their tools from. The locations of such «silex columns» show some preserved fragments, solitary bulky blocks and bits of various sizes, which have resulted from ages-long erosion. All this material is scattered over the mountain slopes and a multitude of local stream terraces close to the primary deposit.

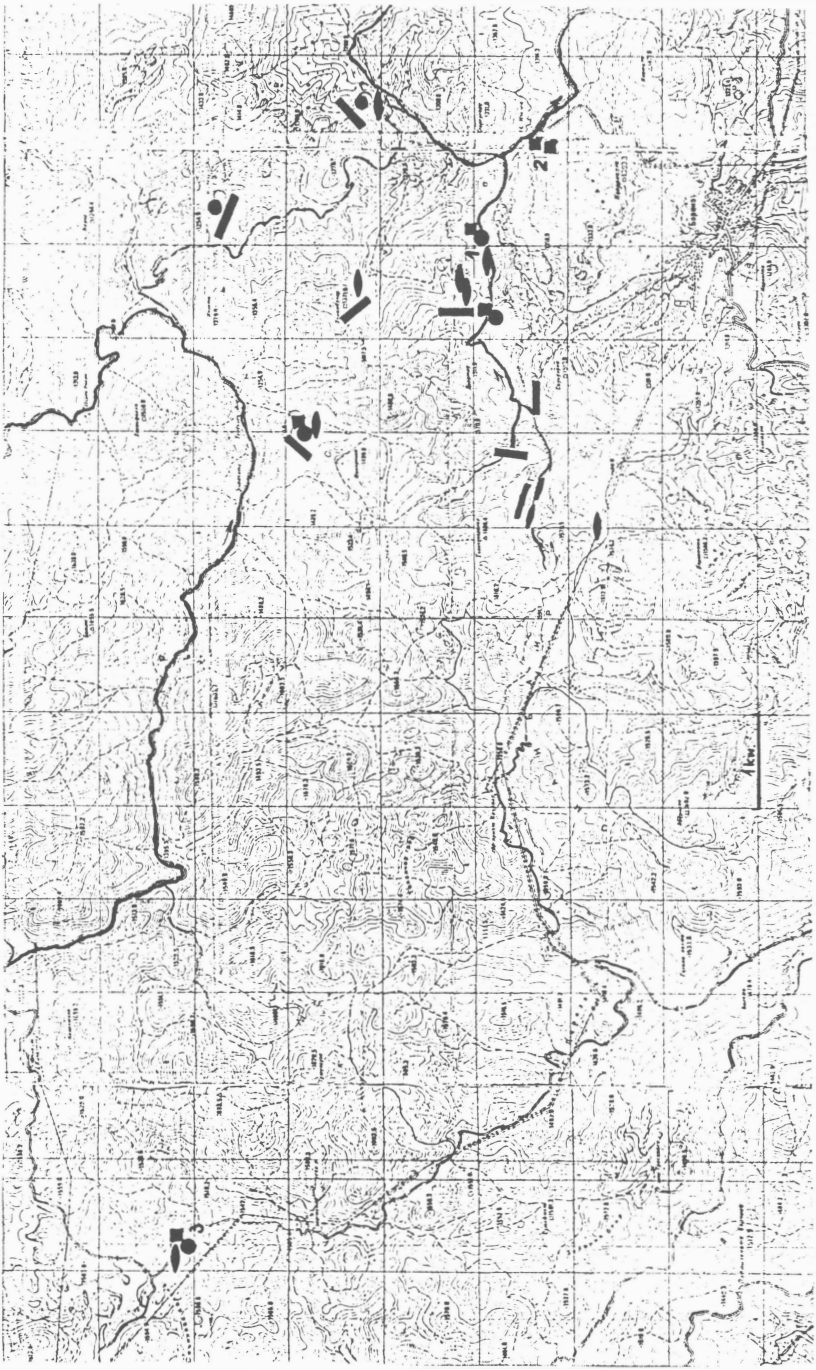

Fig. 2 - Distribution of the Palaeolithic sites and workshops:
Legend: ▬ - silex column; ● - Middle Palaeolithic site; ■ - Upper Palaeolithic site; ⬬ - Palaeolithic workshop; 1 - Kremakliev dol; 2 - Chuchura; 3 - Siroka poliana.

These outcrops are invariably accompanied by multiple flakes and pieces, bearing traces of core preparation. This must be regarded as evidence of the intensive exploitation of the raw material at the site of the primary deposit and at the location of its secondary redeposition. The characteristics of the debitage material exemplify that these silex mines were utilized in the Middle Palaeolithic and later during this period.

The Kremakliev dol valley, where some prospecting studies have been executed, could be regarded as an example of a redeposited accumulation (Fig. 2, 1). The studies revealed the presence of a Middle Palaeolithic culture, showing a predominance of the discoidal core technique. We attach great significance to the found side-scraper with a retouch of the Quina type (Fig. 7, 1). The sequence of the terraces and the sediments covering them, as well as the stratigraphical position of the scattered polygonal structures indicate that the river terrace under scrutiny was occupied by settlers in the Interpleniglacial (50000-30000 BC).

Some two kilometres to the southeast from this valley lies the Upper Palaeolithic deposit Chuchura (Fig. 2, 2). It is located on a 3 - 4 metres wide terrace of a little stream and has yielded a wealth of archaeological material (Fig. 7, 2; Fig. 10, 1-26). The debitage analysis signifies preparation and exploitation of cores for obtaining blades and bladelets. Both, the assemblage structure and some atypical features of the different groups of tools are characteristic of deposits of the «seasonal camp» type. In this case the camp is organized as a microgravettes workshop.

The morphological characteristics of the diagnostic group of tools - backed or shouldered pieces and flat ventral retouches - give us a reason to assign this assemblage to the Tardigravettian complex spread throughout the Mediterranean at the end of the Würm (24000-15000 BC).

The presence of the shouldered pieces refer the site to the later phase of this complex (Ivanova, 1987, 1992; Ivanova & Sirakov, in press).

Several Middle Palaeolithic deposits occupying an area of 3 - 4 square kilometres above see level) are situated to the northwest at a distance of some 20 kilometres (Fig. 2, 3). They lie on a wide, leveled, rhyolite base crest covered with sediment, which is extremely thin at some spots (10-20 centimetres). An unnoticeable network of shallow meandering streams cover the area. Numerous pieces of silex material and artifacts are found in their valleys, just under the turf. Opal-chalcedonic pieces of different size (some larger than 0,5 metres) are scattered all over the area.

The raw material originated from the linear type channels in the rhyolite overburden through which magma settle in. The greater part of this material can be dated back to the Middle Palaeolithic, but there are also few Upper Palaeolithic elements like blade cores, bladelets and trimming flakes (Fig. 6, 1-4, 6).

The interpretation of the Upper Palaeolithic material is hampered by the absence of a series of diagnostic forms, but the revelation of a double platform core of the «Peŝt» type (Fig. 6, 1) justifies the assumption that there had been gravettian settlements that preceeds the epigravettian from Chuchura.

This hypothesis though must be proved by future investigation. Probably the rest of the Upper Palaeolithic forms reflect an epigravettian phase, similar to this of Chuchura. The presence of the «Peŝt» type core between the Upper Palaeolithic materials from Shiroka poliana, and presence of «Rhodopes» raw material in the gravettian layers from Temnata cave, proves some connection between the Rhodopes region and the region to North of the Balkan mountain.

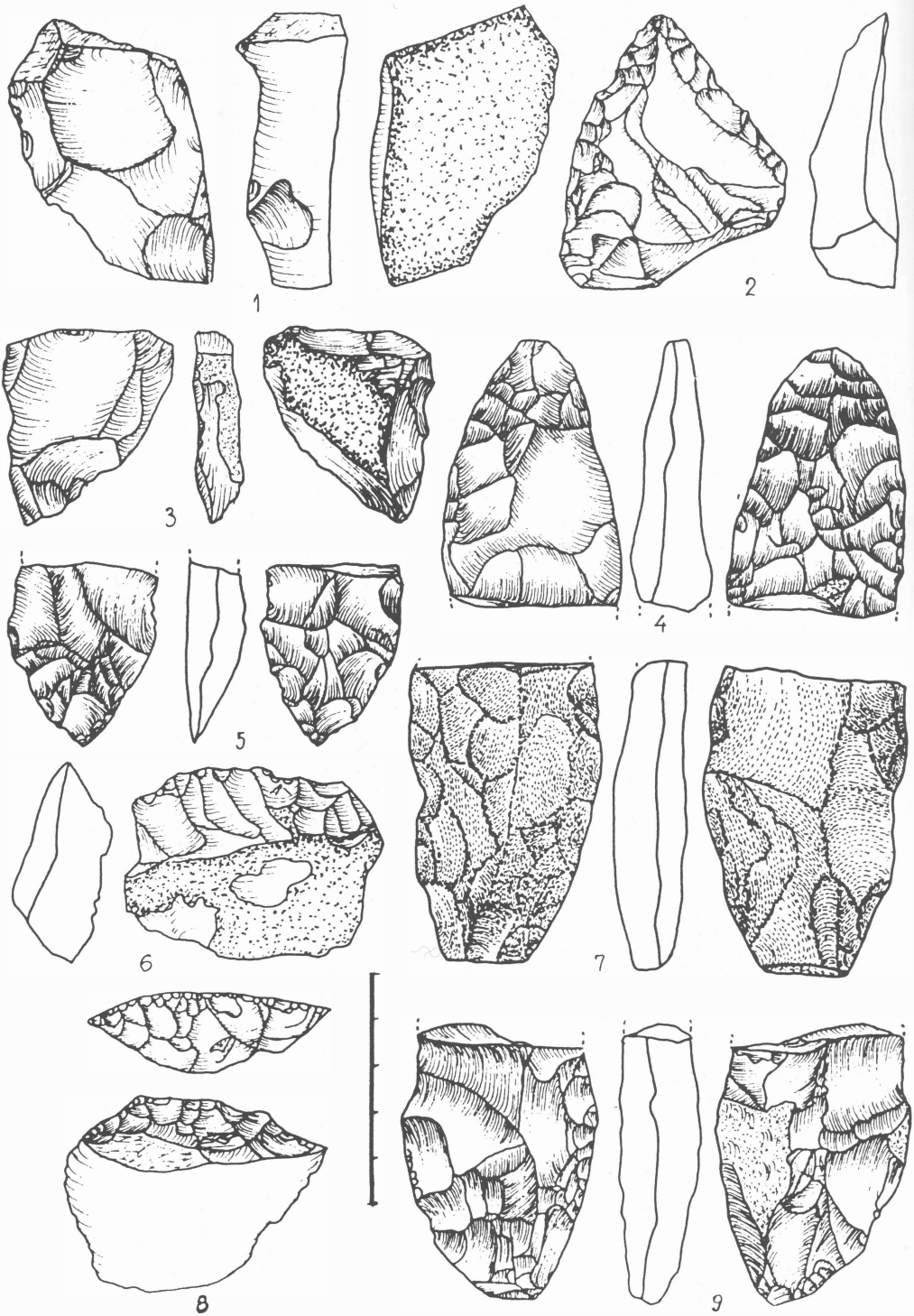

Fig. 3 - 1-9, Siroka poliana, Middle Palaeolithic: 1, 3 Mousterian discoids; 2, 6, 8 side-scrapers; 4, 5, 7, 9 leaf points.

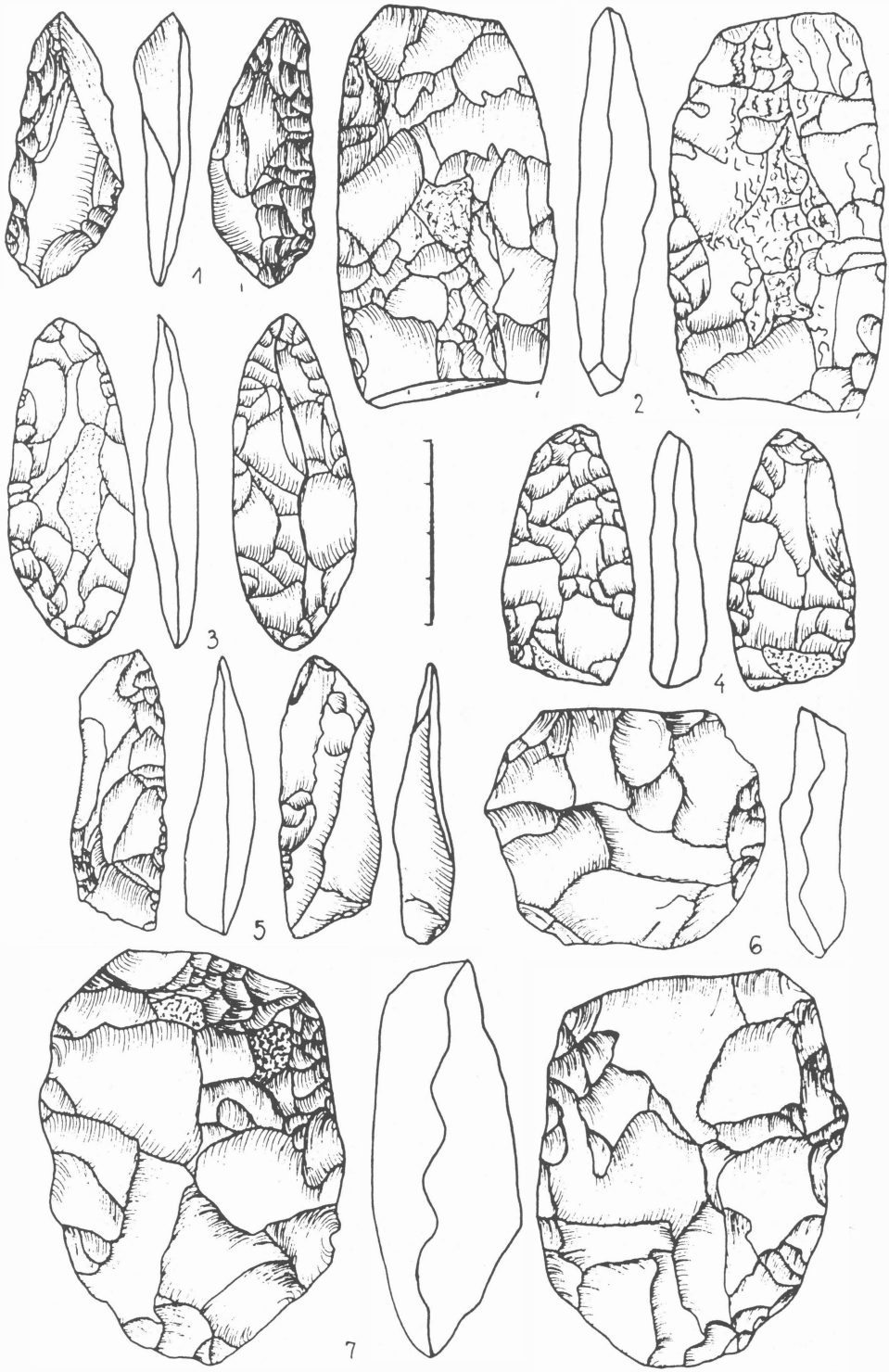

Fig. 4 - 1-7, Siroka poliana, Middle Palaeolithic: 1, 5 bifacial scraper-knives; 2-4 leaf points; 5 Levallois core; 7 Levallois pre-core.

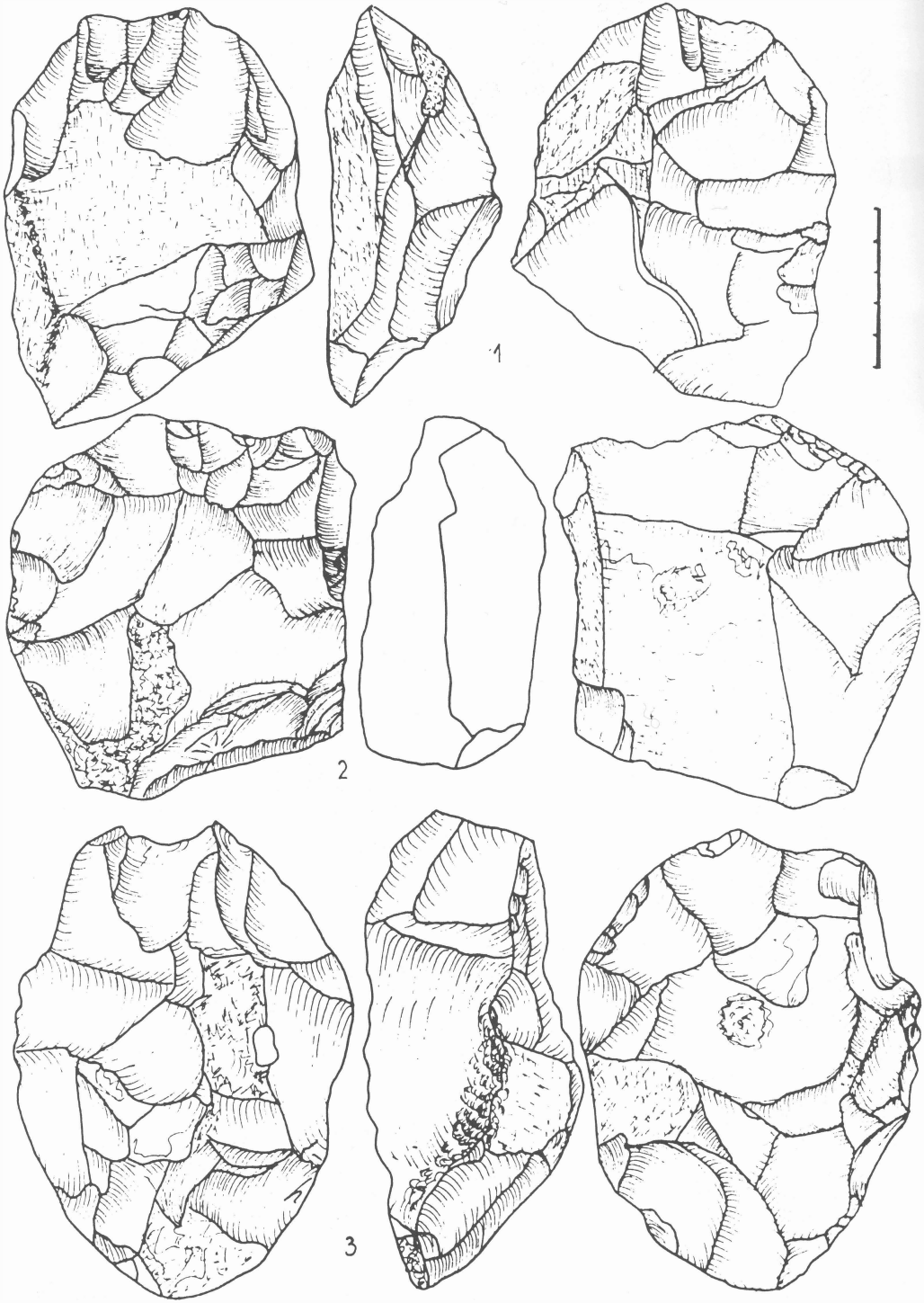

Fig. 5 - 1-3, Siroka poliana, Middle Palaeolithic: 1, 3 pre-cores; 2 mousterian discoid.

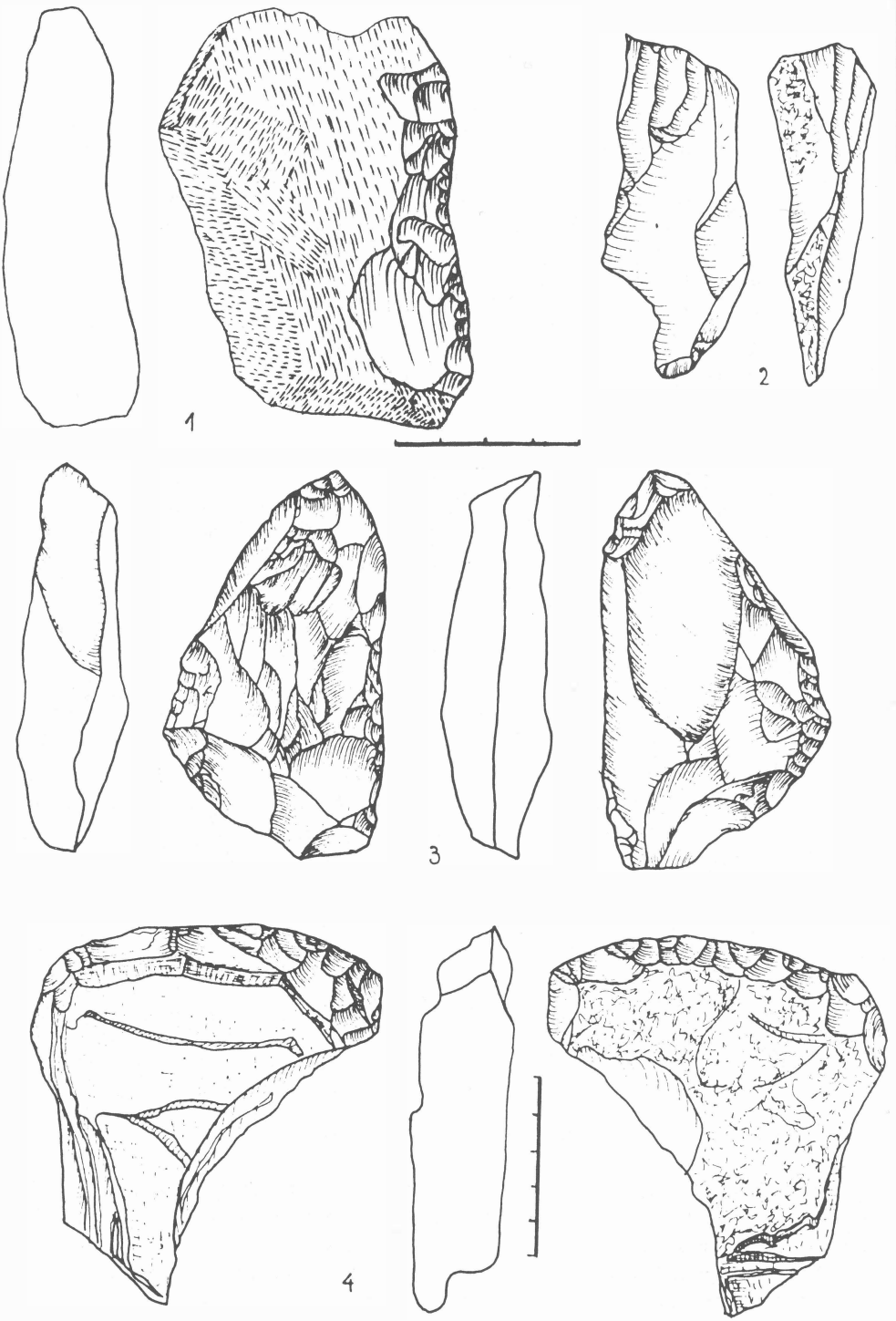

Fig. 7 - 1 Kremakliev dol, Middle Palaeolithic; 2 Chuchura, Upper Palaeolithic; 3, 4, Siroka pöliana, Middle Palaeolithic: 1 side-scraper with Quina type retouch; 2 single striking platform core; 3 bifacial scraper-knife; 4 side-scraper with bifacial retouch.

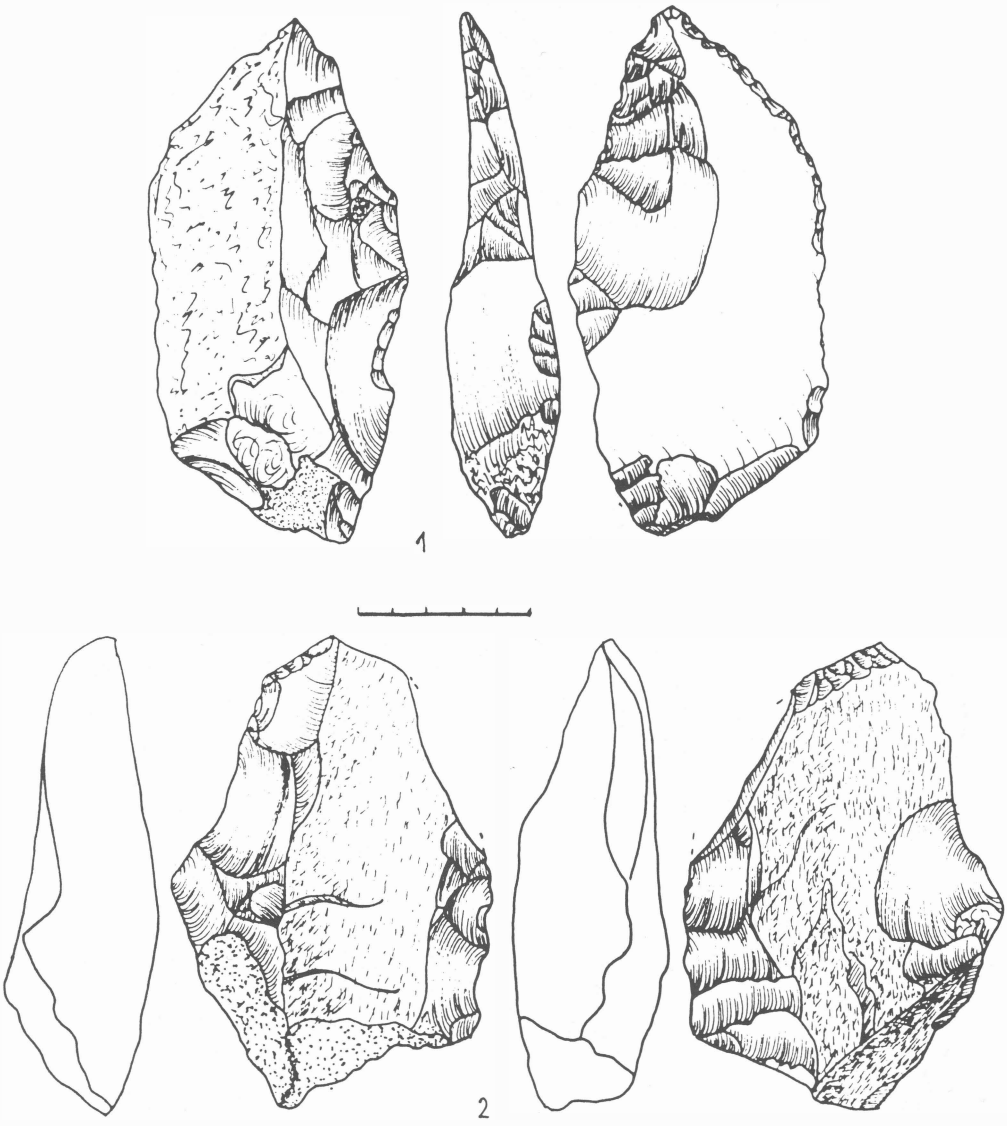

Fig. 8 - Siroka poliana, Middle Palaeolithic: 1, 2 bifacial forms.

The Middle Palaeolithic materials from Shiroka poliana are quite numerous and in terms of a technical and typological characteristic the gathered assemblages (a privat collection) are very much the same. There is a marked predominance of the discoidal core technique (Fig. 3, 1,3; Fig. 5, 2) but the levallois technique in also present (Fig. 4, 6,7). Side scrapers are the most common type and most of them are atypical (Fig. 3, 2,6,8; Fig. 6, 7), with non-continuous retouches and rather similar to the group of retouched flakes. Some scrapers are formed by retouched of demi Quina type. The group of flakes with notched and denticulated retouches is also quite numerous.

The bifacial retouch forms are of major diagnostic significance. Technically and morphologically the leafpoints are but identical to the ones from Musselievo and Samuilica (Fig. 3, 4,5,7,9; Fig. 4, 2,4). This is a good reason to assign the assemblages from Shiroka Poliana to the so-called «Eastern Balkan Mousterian with leafpoints». We think that it includes the finds from the Rhodopes, Samuilica, Musselievo and some particular finds from North Bulgaria and Serbia (Risovaĉa), but the Mousterian assemblages with leafpoints from Ripiĉeni Izvor and Kokinopilos should be left out of this group. If we postulate the evolution of this cultural tradition (50000-35000 BC, i.e. the transition from the Middle to the Upper Palaeolithic), then the Rhodopes would be the farthest point to the South of diffusion of the Eastern Balkan Mousterian with leafpoints.

An interesting problem from the cultural point of view is presented by few bifacial forms, which may be interpreted as atypical bifaces (Fig. 8, 1,2; Fig. 9, 1,2), side-scraper-knives (Fig. 4, 5; Fig. 7, 1,5) side-scrapers with bifacial retouch (Fig. 7, 4). This gives some reasons for supporting the possibility of the existence of biface tradition of the Micoquian type, unknown so far within the East Balkan Mousterian with leafpoint. This would be supported by the find of the above mentioned scraper with a Quina type retouch (Fig. 7, 1). Its stratigraphic position pertains to the beginning of the early Würm - a period which preceeds the Eastern Balkan Mousterian with leafpoints. Alternatively one has to acknowledge the existence of a version of an earlier Eastern Balkan Mousterian, which has not been identified until the present moment.

We could summarize therefore that our studies of the Rhodopes prove that the area was populated and its local raw materials were exploited from the beginning of the Würm to the beginning of the Holocene. During the last glacial period a common tendency of deeping the valleys, connected with rising of the Rhodopes' massif and rejuvenating of its central part is observed. The rhythm of climatic fluctuations reflects on the system of river terraces. The terrace sequences and the sediments covering them admit the following hypothesis:

During the Pleniglacial, and especially its last cold phase with relatively arid climate (before 30000 BC), the river valleys deepened to the base of 4-6 m terraces, while man settled on the upper terraces. Forests reached to an altitude of about 1000 m.

The next cold period during the late Würm is connected with intensive weathering. Polygonal structures are developed on flat terraces - traces of redepositing of the Middle Palaeolithic artefacts are also observed. But the Upper Palaeolithic finding are not disturbed by similar movements, which means that this period had finished before their occurrence.

The raising of the upper limit of the forests reaching an altitude of 1600 m is connected with the later period of general warming of the climate and the region is settled by human groups again (Starkel, 1984).

The archaeological materials of Western Rhodopes reflect several periods of settlement of the region during the last Glacial period:

- East Balkan Mousterian with biface tradition of the Micoque type (?), or earlier East Balkan Mousterian with leaf points with elements of Micoquian tradition;
- East Balkan Mousterian with leaf points;
- Gravette phase;
- Epigravette phase.

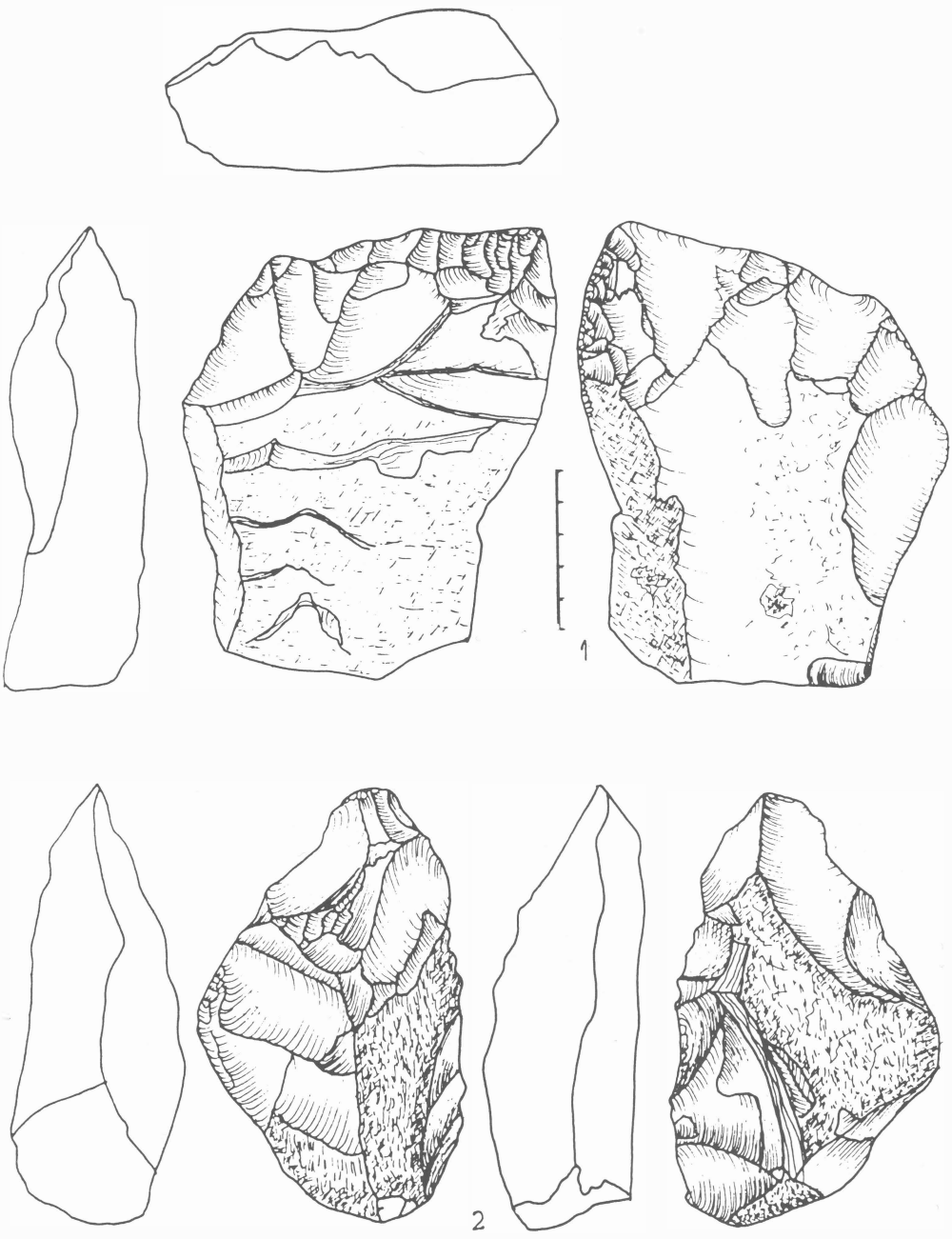

Fig. 9 - Siroka poliana, Middle Palaeolithic: 1, 2 bifacial forms.

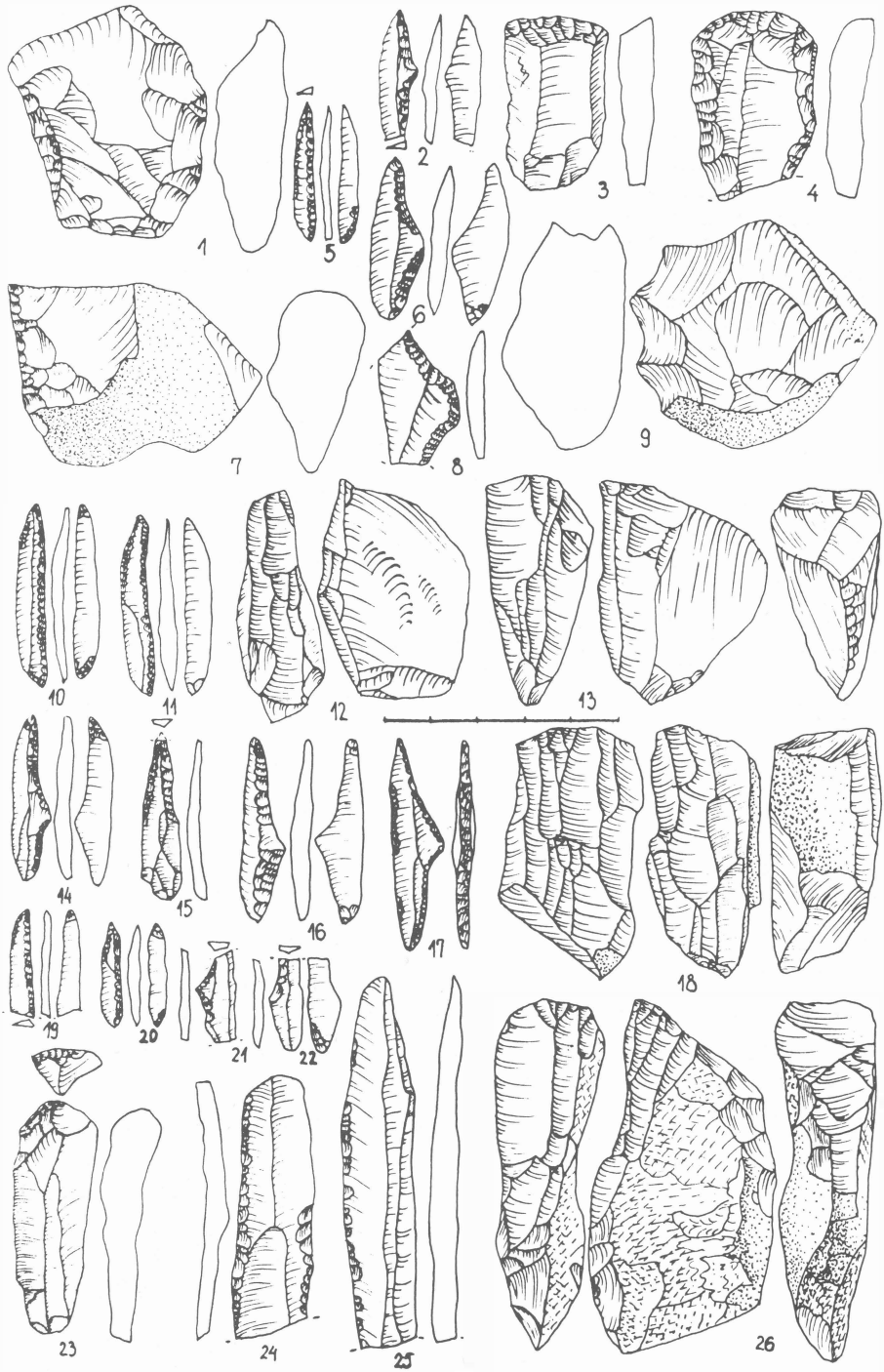

Fig. 10 - Chuchura, Upper Palaeolithic: 1, 7, 9 side -scrapers; 2, 6, 8, 14-17, 21, 22 shouldered pieces 3, 4, 23 end-scrapers; 5 gravettian point; 10, 11, 19 gravettian bladelets; 12, 13, 26 single striking platform cores; 15 perforator; 18 double striking platform core; 20 micro-gravettian point; 24, 25 retouched blades.

SUMMARY

The Author examines Middle and Upper Palaeolithic materials from more than 10 open air sites in the Rhodopes (central part of Balkan Peninsula) at high altitudes (1200-1500 m). The investigations prove that the area was populated and its local raw materials were exploited from the beginning of the Würm. The archaeological materials reflect several periods of settlement: East Balkan Mousterian with biface tradition (or earlier East Balkan Mousterian with leaf points with elements of biface tradition); East Balkan Mousterian with leaf points; Gravettian phase of Upper Palaeolithic; Epigravettian phase of Upper Palaeolithic.

RIASSUNTO

L'Autore prende in esame il materiale del Paleolitico Medio e Superiore proveniente da più di 10 siti all'aperto situati nel massiccio dei Rodopi (zona centrale della penisola balcanica) ad alte quote (1200-1500 m). Le indagini effettuate dimostrano che l'area in questione era una zona popolata e che le materie prime ivi presenti venivano sfruttate a partire dall'inizio del Würm. I materiali dei reperti archeologici rispecchiano i vari periodi di stanziamento umano nella zona: Musteriano dei Balcani orientali di tradizione bifacciale (o Musteriano dei Balcani orientali anteriore con punte a foglia con elementi di tradizione bifacciale), Musteriano dei Balcani orientali con punte a foglia; fase Gravetttiana del Paleolitico Superiore; fase Epigravettiana del Paleolitico Superiore.

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