Ts. Tsonev and E. Montagnari Kokelj (eds.) The Humanized Mineral World: Towards social and symbolic evaluation of prehistoric technologies in South Eastern Europe
Proceedings of the ESF workshop, Sofia - 3-6 September 2003.
ERAUL 103, 2003, p. 17-23.

MIDDLE PALAEOLITHIC INDUSTRIES IN THE CAVE SAMUILITSA II: CORE REDUCTION STRATEGIES

Ivo KRUMOV*

Archaeological research in the Iskar gorge was started in 1920 by the eminent Bulgarian paleontologist and prehistorian R. Popov (Popov 1920). In 1924 he dug several trenches in the Temnata Dupka cave near the village of Karlukovo. The finds (bones and stone tools) were published in 1931 (Popov 1931).

In 1957 the Archaeological Institute and Museum of Bulgarian Academy of Sciences (AIM-BAS) resumed the research in the Iskar gorge. N. Dzhambazov conducted a systematic survey with trenches in a number of caves, the most known of which are Pesht - near the village of Staro selo (Djambazov 1957) and Samuilitsa I and II (Djambazov 1959) near the village of Kunino. In Samuilitsa II (Fig. 1) a num-

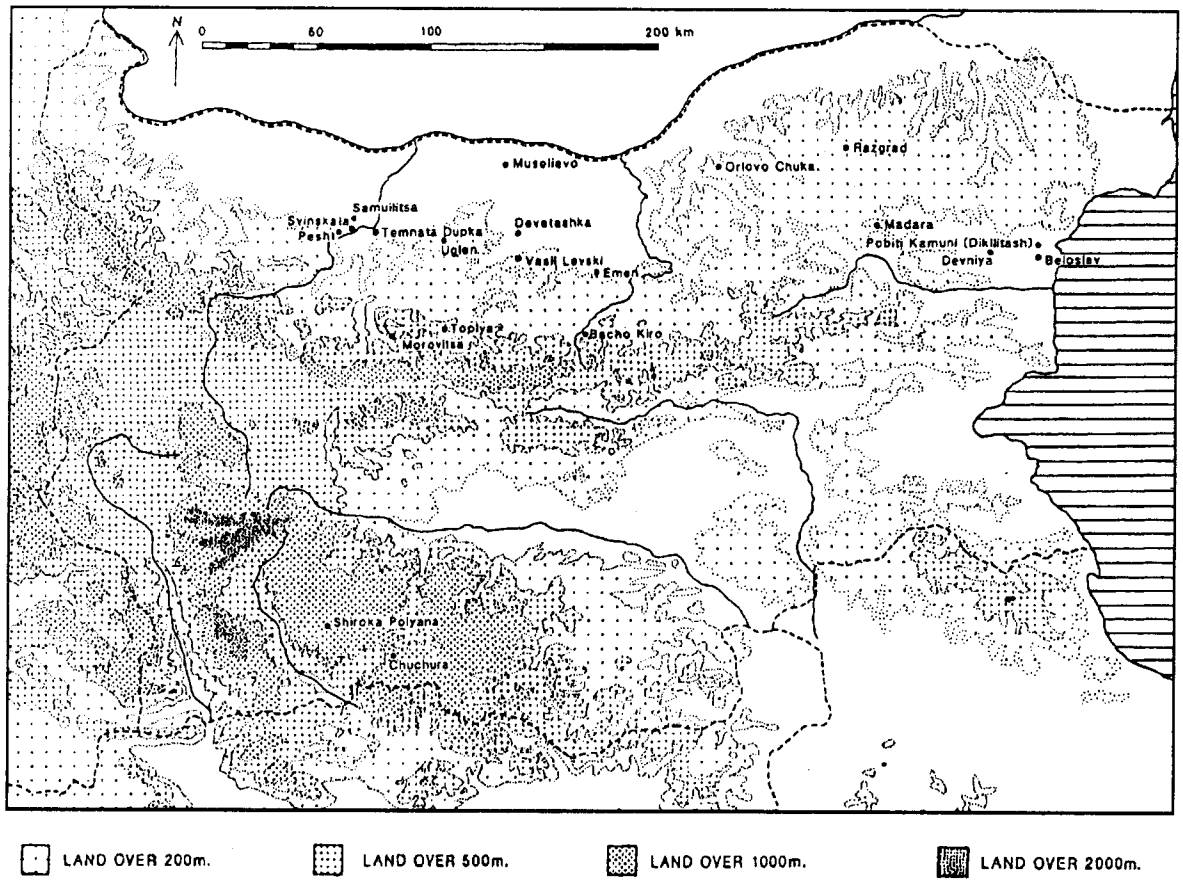

Figure 1. Middle and Upper Palaeolithic sites in Bulgaria.

* Institute of Archaeology and Museum - 2 Saborna Street, BG-1000 Sofia. krumes@abv.bg

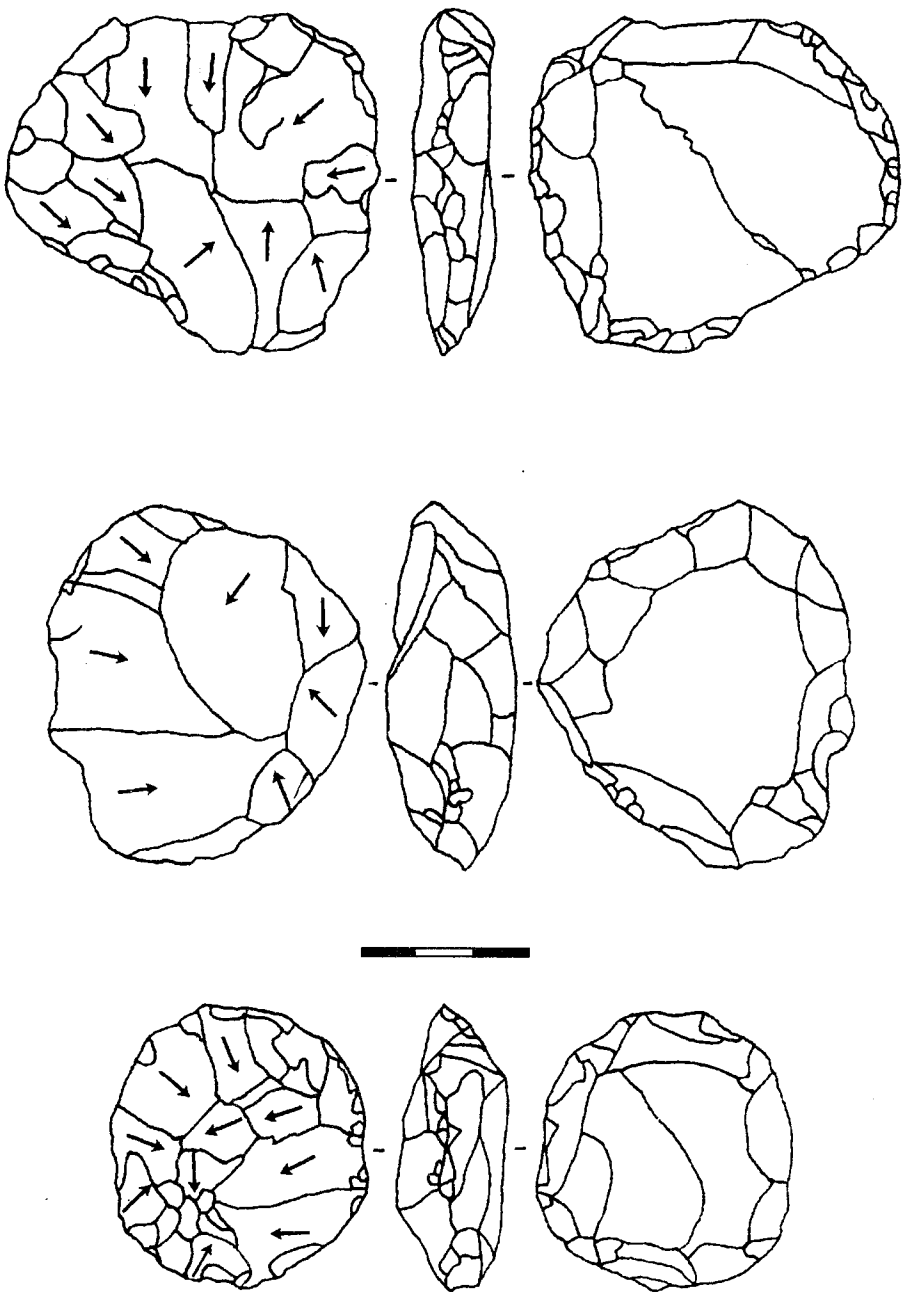

Figure 2. Levallois cores - Centripetal method.

ber of lithic assemblages from the Middle and Upper Palaeolithic were found. Because of the lack of well-controlled stratigraphy of the excavations a more detailed study of the Palaeolithic sequences was impracticable.

In 1980 N. Dzhambazov (Djambazov 1981) published a more detailed study of the stone and bone material found in Samuilitsa II. Cores (Levallois, discoidal, unidirectional cores, be-directional cores etc.), tools which are typical for the Middle and Upper Palaeolithic, as well as debitage (flakes and blades) were described. Unfortunately, after his publication

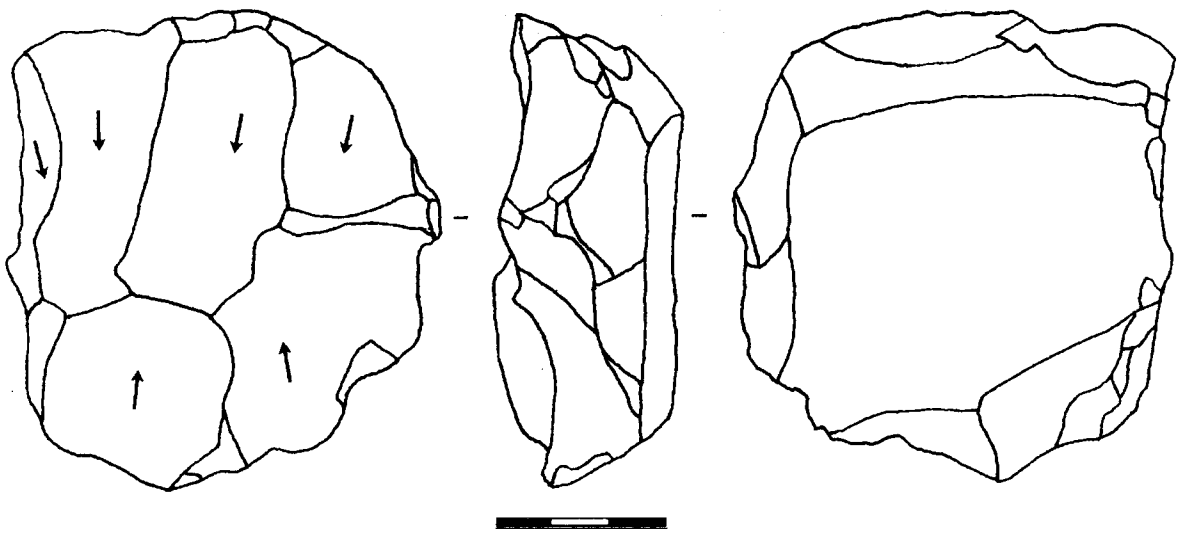

Figure 3. Levallois cores - Method unipolar.

the cores remained inaccessible for a long time. Only a few years ago the latter were recovered from the depot of AIM - BAS. At the beginning of 1980's N. Sirakov (Sirakov 1983) analyzed and published only part of the collection (the cores were not accessible) excavated by N. Dzhambazov, consisting of Middle Palaeolithic tools and debitage. Ts. Tsonev prepared his PhD dissertation on the morphology of Middle Palaeolithic side-scrapers and verified the side-scraper reduction model (Dibble 1987, 1995) on materials from Samuilitsa II cave and from Okiennik and Ciemna caves in Poland (Tsonev 1990; Tsonev 2001). From 1984 to 1994 a research team from Bulgaria (AIM - BAS), Poland (Yagiellonian University - Cracow) and France (Bordeaux University I) began archaeological excavations in the Temnata Dupka cave

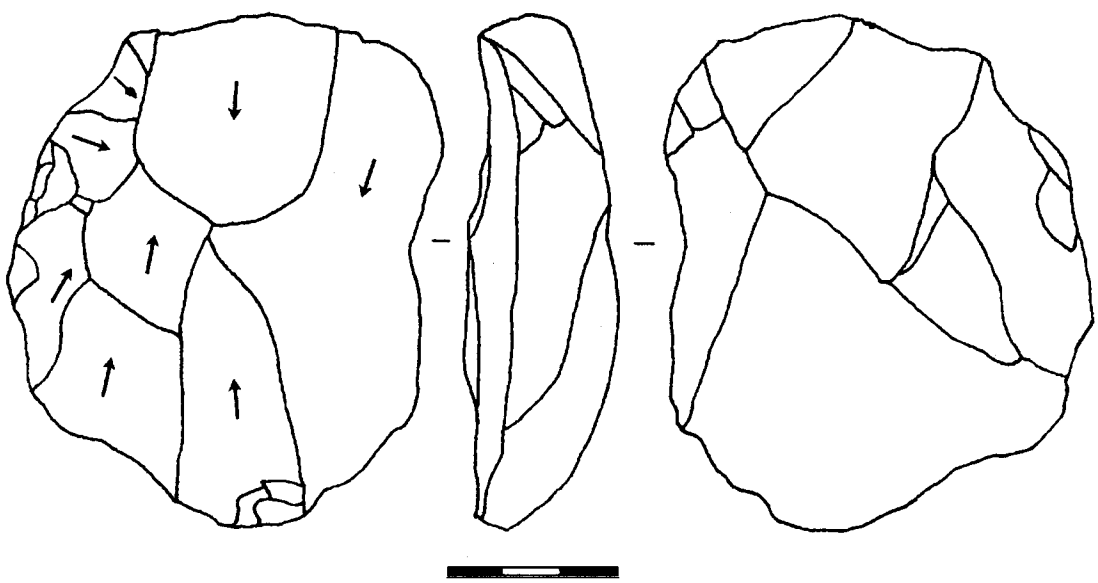

Figure 4. Levallois cores - Method unipolar.

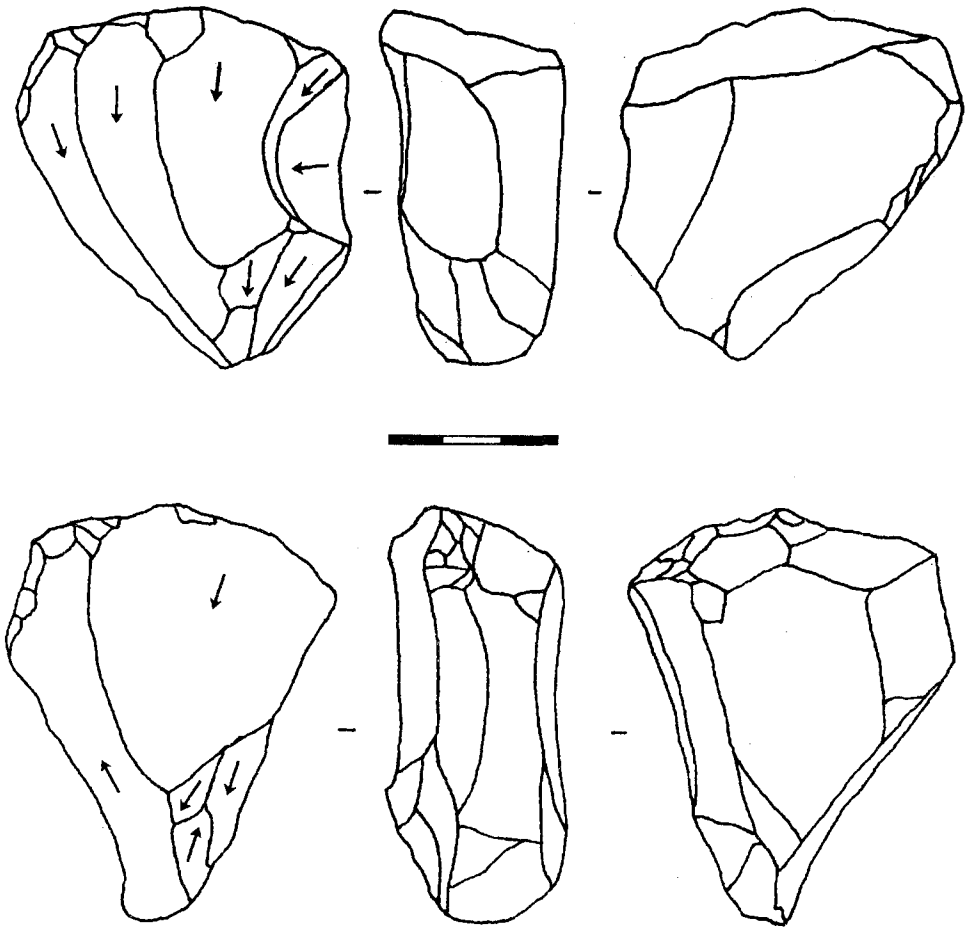

Figure 5. A-C. Levallois cores - Method unipolar.

and the Prohodna karst tunnel. The aim was to expand the already existing knowledge and apply an interdisciplinary approach to the interpretation of the new results. This led to a reconstruction of the paleoenvironment in the Karlukovo karst (Sirakov 1992). Since 1998 some research was conducted by S. Ivanova (Ivanova *et al.* 2000) in the Skandalna cave and by Ts. Tsonev in the Samuilitsa I cave. In the Samuilitsa I cave sediments had been extensively disturbed by human activities in the past and archaeological finds had no clear *in situ* context.

Samuilitsa II cave had been formed in the Maastrichtian limestone. The petrographic analyses in the region of the cave made by Pawlikowski (Pawlikowski 1992) showed a presence of three layers in the Senonian horizon rich with flint nodules. The first horizon is 4-5 m thick and contains grey flint concretions (type C). A layer, which is thick 1-2 m follows. It is characterized by dark-grey flint concretions (type B). The last third layer is 2-3 m thick and contains flint concretions (type A). It could thus be established that the area around the cave was the main source of the raw material used by the inhabitants of the Temnata Dupka cave. During the archaeological research at the Samuilitsa II cave N. Dzhambazov registered a concentration of archaeological material. N. Sirakov (1983) studied the tools and debitage and I studied the cores in my MA thesis (Krumov 1999). As a result the following corrections of the stratigraphy of the assemblages could be made. Two stone artefact assemblages were differentiated: a lower and an upper part. In the lower part Middle Palaeolithic cores predominated, whereas in the upper part a tendency towards an increase the Upper Palaeolithic cores was observed. Another reason for differentiating these two complexes was the dating from the Groeningen laboratory of 42 000 BC. The dating was on was on charcoal, taken from a section, which was preserved from

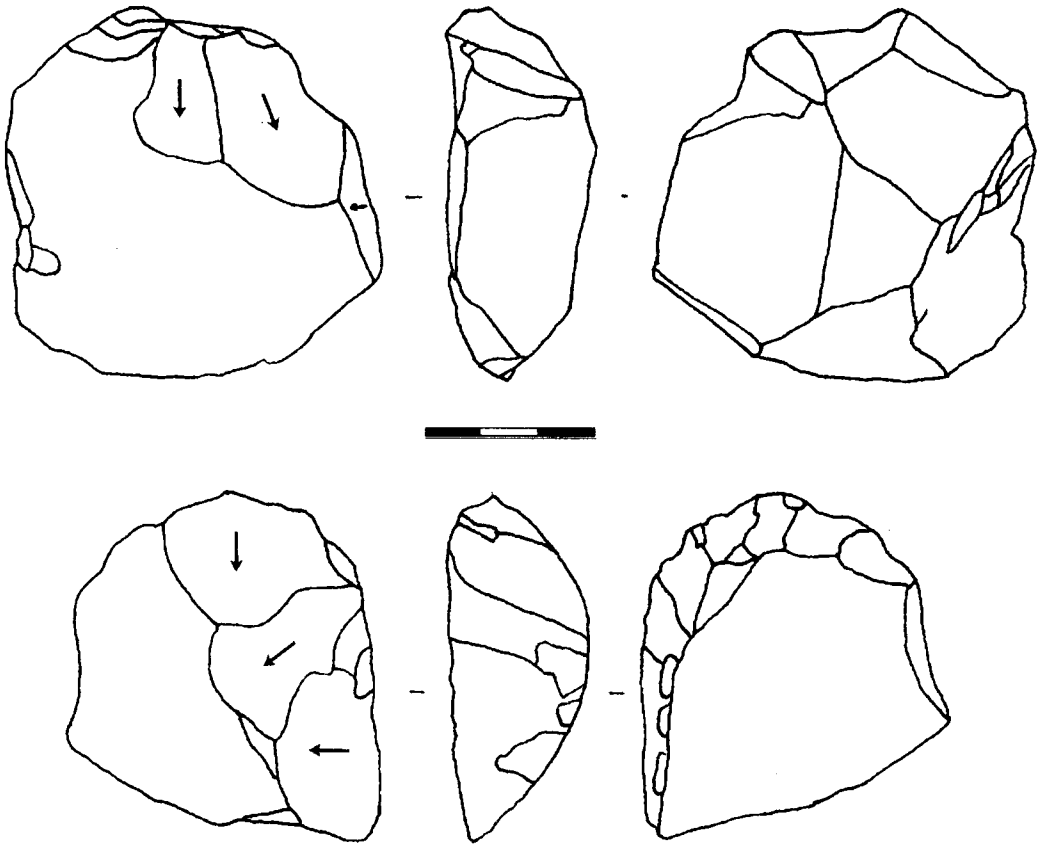

Figure 6. Pre-Levallois cores.

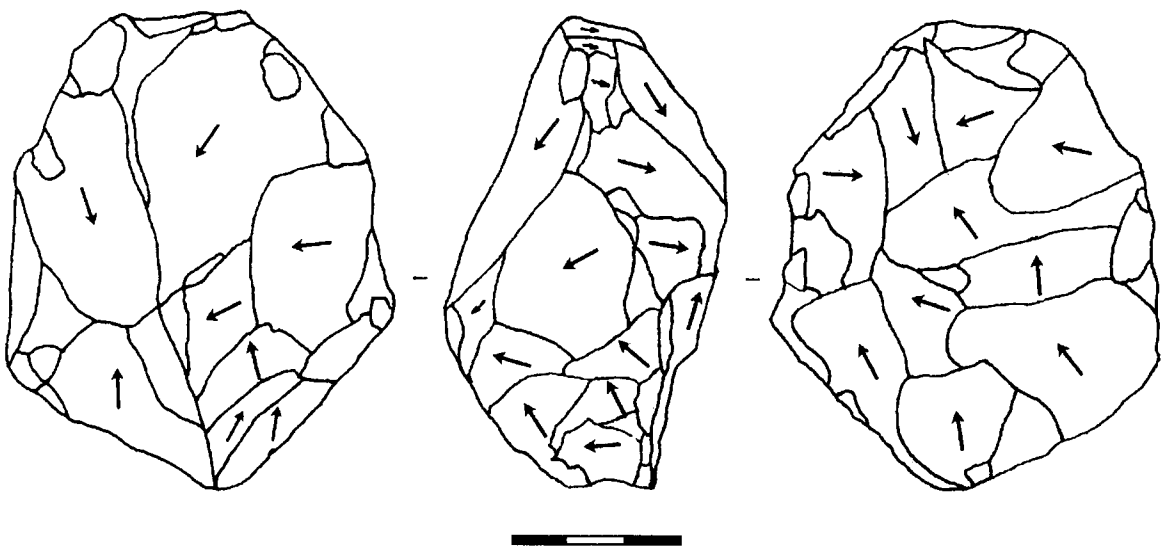

Figure 7. Discoidal core.

Dzhambazov's excavations and the date approximately marked the border between the two complexes and thus the main division between Middle and Upper Palaeolithic. In the chipped-stone complexes mentioned above six groups of cores were distinguished: Levallois cores (Fig. 2-5), proto-Levallois cores, pre-Levallois cores (Fig. 6), micro-Levallois cores, discoidal cores (Fig. 7) and semi-discoidal cores. The Levallois technique predominated. The use of different methods of exploitation: centripetal, unipolar, bipolar techniques is a feature of the Levallois cores. The Levallois cores were prepared mostly for flakes and more rarely for blades and points. The Levallois nodules were made by the use of a hard hammer.

The stone assemblages from the Samuilitsa II cave are without a clear stratigraphic context and because of this a comparison of the artefacts with other assemblages in of Bulgaria (and other regions) is more general. From a techno-typological point of view this collection has analogies with Middle Palaeolithic material from the Temnata Dupka cave (Kozłowski *et al.* 1989), the Bacho Kiro cave (Drobniewicz *et al.* 1982), and with the open-air Palaeolithic sites of Muselievo (Sirakova & Ivanova 1988) and Shiroka Polyana (Ivanova 1992). In the complete stone assemblage (including the debitage and tools) three industries can be distinguished:

-typical Mousterian (until 50 000 BP)
-typical Mousterian with a Levallois phase, which includes leaf-point forms (between 50 000 and 45 000 BP)
-developed Mousterian with a Levallois phase but without leaf-point forms (44 000 - 40 000 BP; probably the transition Middle-Upper Palaeolithic).

Bibliography

DIBBLE, H. L. 1987. The interpretation of Middle Palaeolithic Scraper morphology, *American Antiquity* 52(1): 109-117.

DIBBLE, H. L. 1995. Middle Palaeolithic Scraper Reduction: background, clarification, and review of the evidence to date, *Journal of Archaeological Method and Theory* 2(4): 299-368.

DJAMBAZOV, N. 1957. Peshterata Pesht do Staroselo, vrachansko, *Izvestiya na Archeologiczeskija muzei* 2: 1-40.

DJAMBAZOV, N. 1959. Razkopki v peshterata Samuilitsa II, *Arkheologiya* 1(1-2):47-53.

DJAMBAZOV, N. 1981. Cultures préhistoriques en Bulgarie. La Grotte Samuilitsa II, *Izvestiya na Archeologiczeskija Institut* 36: 36-62.

DROBNIEWICZ, B., GINTER, B., IVANOVA, S. & SIRAKOV, N. 1982. Middle Palaeolithic Finds, in J. K. Kozłowski (ed.), *Excavations in the Bacho Kiro Cave (Bulgaria). Final Report.* Warszawa: Panstwowe Wydawnictwo Naukowe.

IVANOVA, S. SIRAKOV, N., LAVILLES, A., POPOV, V., ANASTASOVA, E. & TSANOVA, Ts. 2000. Novi danni za sredniya i kasniya paleolit v Karlukovskija karst, *Godishnik na Nov Balgarski Universitet* 4/5: 7-29.

IVANOVA, S. 1992. Palaeolithic Sites Raw Materials Sources in the Western Rhodopes (Bulgaria), *Preistoria Alpina* 28: 149-163.

KOZŁOWSKI J. K., LAVILLE J.-H. & SIRAKOV, N. 1989. Une nouvelle séquence géologique et archéologique dans les Balkans: la grotte Temnata à Karlukovo (Bulgarie du Nord), *L'Antropologie* 93: 159-172.

KRUMOV, I. 1999. *Razvitie na levaluazkata tehnika v balgarskite zemi v prehoda sreden-kasen paleolit (tehniko-tipologicheski analiz na jadrata ot Samuilitsa II).* Unpublished Master degree thesis, Veliko Turnovo University.

POPOV, R. 1920. Materiali za predistorijata na Balgaria. *Godishnik na Narodnija Muzej,* kn 1: 54.

POPOV, R. 1931. *Peshterata Temnata dupka.* Novo nahodishte ot paleolita v Balgaria 148. Sofia.

PAWLIKOWSKI, M. 1992. The Origin of the Lithic Raw Materials in Temnata cave, in J. K. Kozłowski *et al.* (ed.), *Temnata Cave. Excavations in Karlukovo Karst Area, Bulgaria* I (1). Krakow: Jagiellonian University Press: 241-243.

SIRAKOV, N. 1983. Reconstruction of the Middle Palaeolithic flint assemblages from the cave Samuilitsa II (Northern Bulgaria) and their taxonomical position seen against the Palaeolithic of Southeastern Europe, *Folia Quaternaria* 55: 238.

SIRAKOV, N. 1992. Introduction, in J. K. Kozlowski *et al.* (ed.), *Temnata Cave. Excavations in Karlukovo Karst Area, Bulgaria* I(1). Krakow: Jagiellonian University Press: 13-31.

SIRAKOVA, S. & IVANOVA, S. 1988. Le site paléolitique près du village Mousselievo, département de

Pleven, *Studia Praehistorica* 9: 5-15.

TSONEV, Ts. 1990. *Dynamic approach to the notion of type in archaeology on the example of Middle Palaeolithic side-scraper morphology from Polish and Bulgarian Middle Palaeolithic.* Unpublished dissertation, Jagiellonian University, Krakow.

TSONEV, Ts. 2001. Reduction hypothesis and side-scraper morphology of Polish and Bulgarian Middle Palaeolithic, in B. Ginter *et al.* (ed.), *Problems of the Stone Age in the old World.* Jubilee Book Dedicated to Professor Janusz K. Kozłowski. Krakow: Jagellonian University Press: 43-65.