

Mousterian artifacts from the unique Vistulian loess-palaeosol sequence at Kolodiiv (East Carpathian Foreland, Ukraine)

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The remains of a Mousterian cultural layer were found on the solifluction horizon at kolodiiv, Ukraine, separating two Early Vistulian palaeosols. The geological position of the finds and the typological characteristics of the assemblage allow us to refer this site to the bifacial techniques of the “East-Micoquian Route of Development”.

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The Kolodiiv site is situated on the right side of the Sivka River (a small right tributary of the Dniester River), not far from its mouth on the Dniester River, in the western part of the village of Kolodiiv in the Halyč Prydnistrov’ja region (Fig. 1). Mousterian finds were discovered on a steep slope rising above 20 m over the valley bottom. From a geomorphological aspect it is a Pleistocene second terrace covered by a thick mantle of loess.

The stratigraphy of the Quaternary deposits near Kolodiiv was described for the first time by Demedyuk and Khrystoforova (1975). The Pleistocene deposits were later investigated by A. Boguckyj, M. Łanczont and others (Madeyska, 2002). During exploratory study of profile 3 (see Łanczont and Boguckyj, 2002) three flint artifacts and some pieces of charcoal from a fireplace were found at a depth of 12.5–12.9 m, in the solifluction horizon separating two Early Vistulian palaeosols (Kolodiiv 3 and Kolodiiv 2). All the indications are that these finds are remains of a Mousterian cultural layer (Sytnyk, 2000; Cyrek and Sytnyk, 2002). These Middle Palaeolithic materials were found in 1991. However, the large-scale excavations made in 1999 (Fig. 2, profile 4), 2000 (profile 4/5) and 2003 (profile 5) turned out to be fruitless (Łanczont and Boguckyj, 2002). The location of the profiles investigated is shown in Figure 1.

The flint artifacts are made from good-quality flint from Turonian (Upper Cretaceous) strata. Deposits with gray and

black Turonian flints occur in the Upper Dniester Region (Polanskyj, 1935). Artifacts look “fresh”, without mechanical damages or traces of weathering.

The first object (Fig. 3) is a partial bifacial bi-longitudinal-convex knife made from a massive flake of shortened proportions. The working edge is smoothed out by easy removal and flat resharpens dorsal retouch which comes to the back of the object. The second flint object (Fig. 4) is also a partial bifacial product. It is a longitudinal dorsal knife with a large ventral retouch. The third object is a usual marginal flake of three-cornered shape with a natural (concretion) platform. It is a by-product.

The nearest analogies are the assemblages of the Ripičeni-Izvor stratigraphic successions on the Prut River. In the monograph by Păunescu (1993) devoted to this multilayer site we can retrace the development of the stone production in the region between the Prut and Dniester rivers, beginning from the Riss–Würm (Premousterian) and ending with the interstadial of Lasceaux–Würm III (Gravettian). It is a unique chronicle of the development of the Middle and Upper Palaeolithic, which can be correlated with the stratigraphical column of the cultural layers of the Molodovo V site.

The Mousterian layers (I–VI) of the Ripičeni-Izvor lie on clayey soil at depth in the interval 6–10 m and are dated to the Amersfoort–Hengelo (Podgradem) interval. However, only

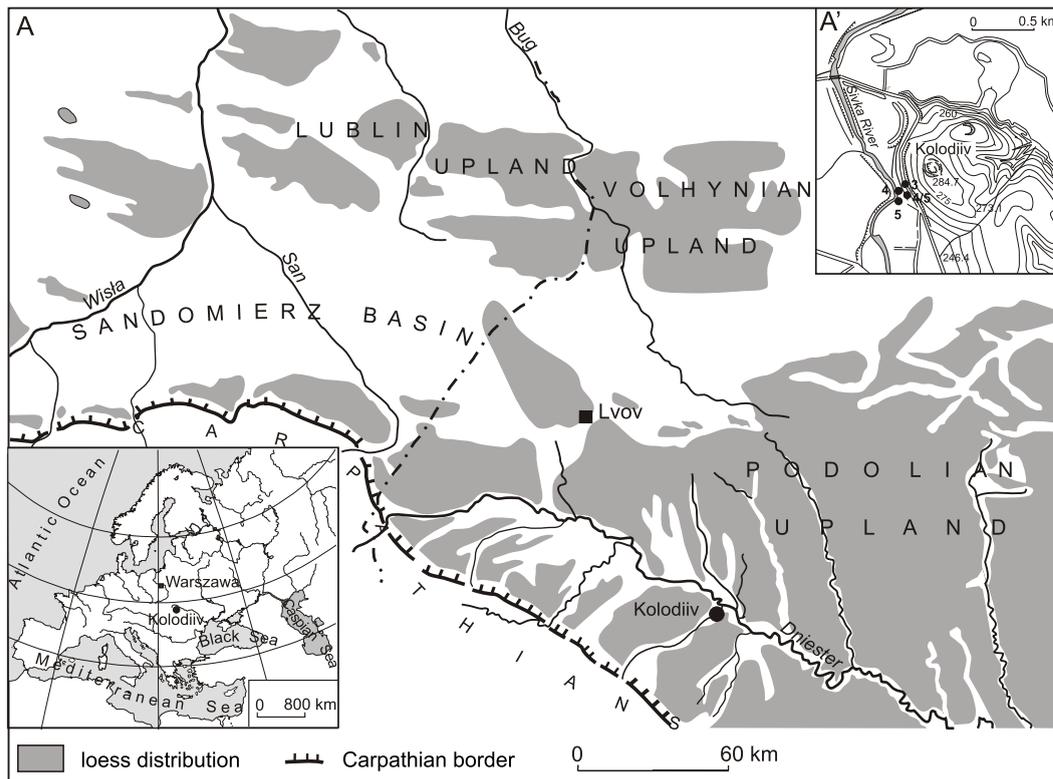


Fig. 1. A — location of profiles investigated at Kolodiiv; A' — sketch map of loess regional distribution (after Łanczont and Boguckij, 2007)

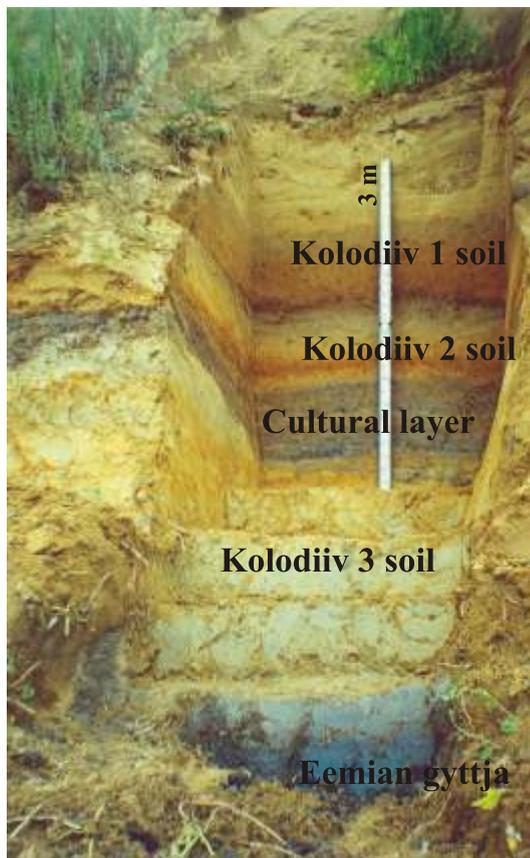


Fig. 2. Situation of the Mousterian cultural layer in the loess-palaesol sequence of the Kolodiiv 4 profile

layers V–VI of the Ripičeni-Izvor are characterized by explicit Micoquian traditions of bifacial processing and broad using of Levallois techniques. The Levallois technology begins from the “Premousterian” materials which were found not far from the limestone bedrock. It is interesting that the “Premousterian” and Mousterian layers I–III do not have not bifacial shapes (Păunescu, 1993). This means that bifacial technologies of Micoquian character appeared here only after Moershoofd, in the period before Hengelo (nearly 40 thousand years ago).

The richest Micoquian cultural layer IV of the Ripičeni-Izvor has a Levallois index of 38.8 and 16.59% for blades. The bifacial technique is represented by the Micoquian knives and scrapers of partly bifacial character. It seems that the Mousterian assemblages of bifacial tradition in the Dniester and Prut regions (Yezupil, layer II; Kolodiiv; Ripičeni-Izvor, Mousterian levels) are characterized by Micoquian elements of bifacial products, segment-like knives and scrapers with lengthened proportions, and three-cornered shaped points.

Marked analogues of the bifacial tools of the Dniester Region occur in Eastern Germany, Mousterian (Riss–Würm, Eem) sites with bifacial Micoquian tools. The sites of the Ilm valley are well known, especially the travertine complexes of Weimar, Taubach and Ehringsdorf, which contain special cultural groups (Mania and Toepfer, 1973). Among important sites of this period may be included the materials of Rabutz situated between Leipzig and Halle.

Analogues to the partly-bifacial products (with basal-ventral large retouch) from Kolodiiv were found among the materials from Saalfeld in East Germany (Mania and Toepfer, 1973, taf. 71.1). For example, there was found a blade-flake with

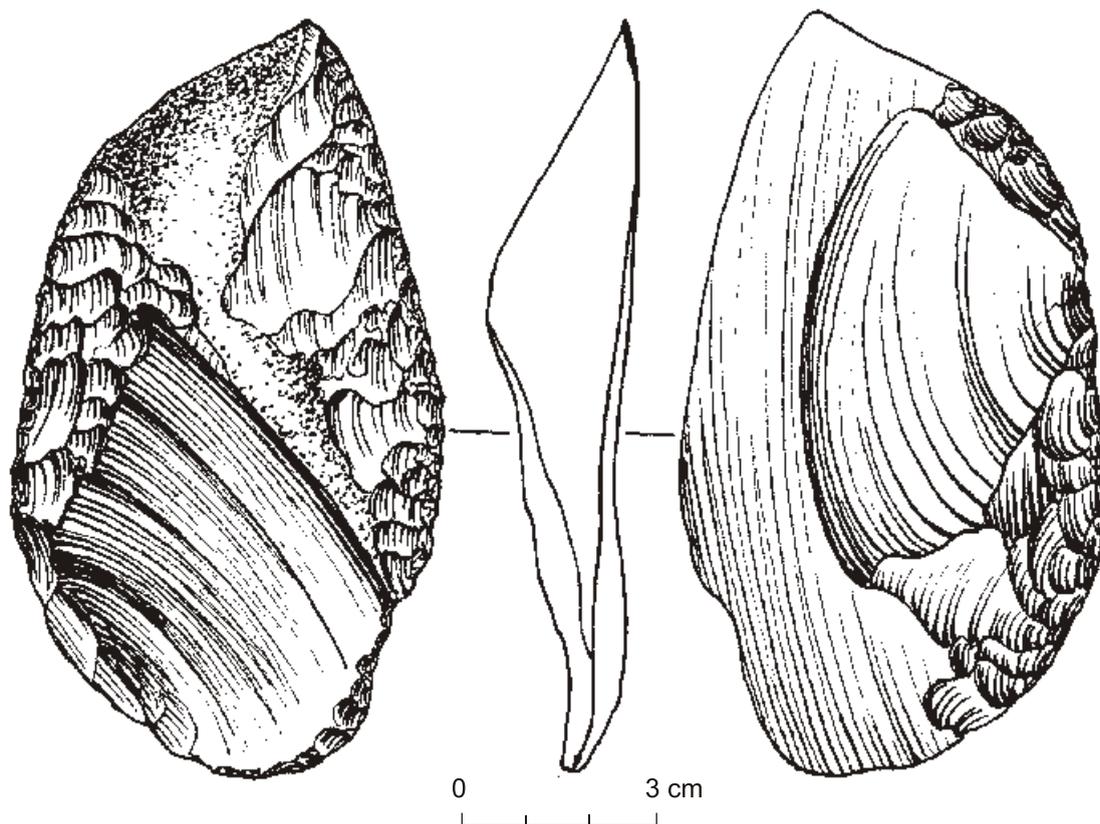


Fig. 3. Flint artifact form Kolodiiv, the partial bifacial bi-longitudinal-convex knife

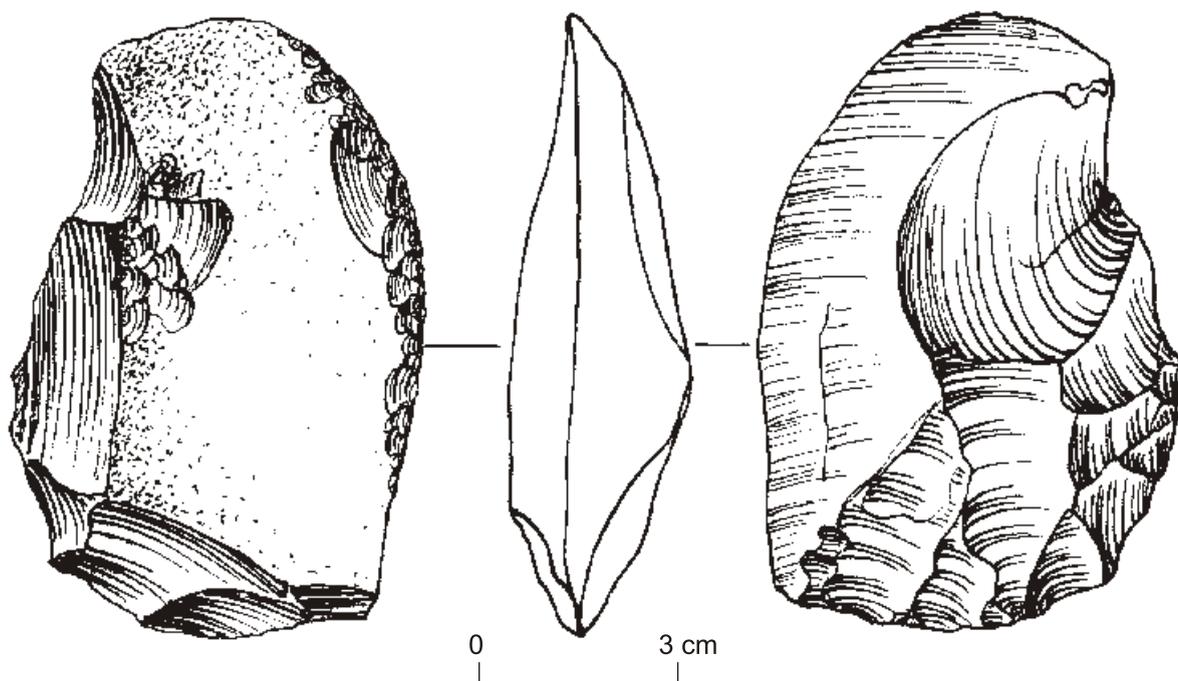


Fig. 4. Flint artifact form Kolodiiv, the longitudinal dorsal knife with ventral large retouch

broad facets and shapeforming retouch alongsides. On the ventral surface we can observe a large removal scar and small scars of retouch of the striking platform. The nearest analogues occur in the Prądnik valley caves near Ojców in Poland (Kozłowski and Kozłowski, 1996).

Similar tools were found at the site of Döbris-Pirkau (Mania and Toepfer, 1973, taf. 69.2). These authors pointed out the similarity of these tools to the Prądnik type knives from the Wylotne Cave at Ojców (Chmielewski, 1969; Kozłowski and Kozłowski, 1996). The materials from the "A"-layer of Königsau are the nearest morphological analogues. The likeness of these objects could be found in the shapes, scales and techniques of lateral surface formation and the techniques of the edge preparing.

There are many other well-known sites in Germany with original Micoquian tool shapes: Hyänenhöhle in Gera-Lindentaler, Gera-Pfortener, Zwickau, Wolfnitz and

elsewhere (Mania and Toepfer, 1973, taf. 69–71), Fontmaure (Velleches, Vienne), Lichtenberg, Lkr. Lüchow-Dannenberg, Boxgrove (G.-B.), West Sussex.

Thus, the evidence of typologically clear bifacial tools in a geologically clear position (the solifluction horizon separating two Early Vistulian palaeosols which overlie Eemian gyttja) provides a basis for referring this site to the bifacial techniques "East-Micoquian Route of Development". Analogues finds in respect of chronology, geology, and technical typology occur in layer II of the nearby Yezupil site (Boguckyj *et al.*, 2001). At present, genetic unity of these sites seems clear.

Sites with typical East-Micoquian elements have been discovered and partly investigated in the Dniester Region only during the last decade. They are represented by small collections but in spite of the paucity of found artifacts they are typologically determined products, which undoubtedly belong to the "cultural rate".

REFERENCES

- BOGUCKYJ A., CYREK K., KONECKA-BETLEY K., ŁANCZONT M., MADEYSKA T., NAWROCKI J. and SYTNYK O. (2001) — Palaeolithic loess-site Yezupil on Dniester (Ukraine) — stratigraphy, environment and cultures. *Stud. Quatern.*, **18**: 25–47.
- CHMIELEWSKI W. (1969) — Ensembles Micoquo-Prondniciens en Europe centrale. *Geogr. Pol.*, **17**: 371–386.
- CYREK K. and SYTNYK O. (2002) — Palaeolithic of the Halyč Prydnistrov'ja region (in Polish with English summary). *Stud. Geol. Pol.*, **119**: 291–314.
- DEMEDIYUK N. S. and KHRYSSTOFOROVA T. F. (1975) — On the first finding of buried peat of the Mikulin period in the Forecarpathian area. *Dopovidi AN URSSR, ser. B*, **8**: 678–682.
- KOZŁOWSKI J. K. and KOZŁOWSKI S. K. (1996) — Le Paléolithique en Pologne. Série "Préhistoire d'Europe", **2**.
- ŁANCZONT M. and BOGUCKYJ A. (2002) — The examined loess sites in the Halyč Prydnistrov'ja region (in Polish with English summary). *Stud. Geol. Pol.*, **119**: 33–181.
- ŁANCZONT M. and BOGUCKYJ A. (2007) — High-resolution terrestrial archive of the climatic oscillation during Oxygen Isotope Stages 5–2 into loess-palaeosol sequence at Kolodiiiv (East Carpathian Foreland, Ukraine). *Geol. Quart.*, **51** (2): 105–126.
- MADEYSKA T. (ed.). (2002) — Loess and palaeolithic of the Dniester River Basin, Halyč Region (Ukraine) (in Polish with English summary). *Stud. Geol. Pol.*, **119**.
- MANIA D. and TOEPFER V. (1973) — Königsau. Berlin.
- PĂUNESCU A. (1993) — Ripičeni-Izvor palaeolithic și mezolitic. *Studiu monografic*. Editura Academiei Române. București.
- POLANSKYJ G. (1935) — Rekonstruktion der geographischen Verhältnisse des Jungpaläolithikums der podolisch — besarabischen Provinz (in Ukrainian with German Summary). *Praci geografického komisii NTŠ*, **1**. Lvov.
- SYTNYK O. (2000) — Middle Palaeolithic of Podolia (in Ukrainian with English summary). *Nat. Ukrainian Acad. Sc.*, **1**. Lvov.