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# Musical instruments in Molodovo V site (Western Ukraine, Upper Paleolithic)

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## Résumé

Musical behavior is a significant component of symbolic behavior characterizing the cultural complex of *Homo sapiens* [Mellars, 2005]. Bone flutes and whistles found at Early Aurignacian sites in Europe are evidences of permanent musical traditions about 40000 BP [Morley, 2003].

The flutes were discovered during excavations of Molodovo V site (Western Ukraine (fig. 1)), and they are similar to Upper Paleolithic musical instruments in Europe and dating ~ 17–12 ka BP. The investigations of this artifact were based on principles of morphological, technological, typological studies, use-wear analysis, experiments, spatial analysis and association with archaeological and chronological contexts. The flute is made of a corn of European reindeer, its length is 211.29 mm, distal ring diameter – 13.02, this of proximal ring – 9.09, central part diameter – 13.54 mm. Eight holes are found on the flute: five ones at one side (side A) and three ones at the other side (side B) (fig. 2, 3). At the surface accidental supposed cut marks and – at the proximal end of the item – supposed slicing marks are detected. The body cavity is pulled out with an elongated thing, and its diameter is approximately 4 mm. Two holes at the side B are made with one-sided drilling (supposedly, bow drill, with drill round more than 180°). At the side A the hole 3 is worth mentioning as a separate point, which was made presumably with well drilling. The edges of the fourth hole are destroyed, but the hole shape is an indirect evidence suggesting that it was made by pressing-through rather than drilling.

Apart from the flute, two more items have been discovered at Molodovo V. They have been described in field documentation as flutes [Logbook of Dnestrovskaya expedition trip for the 1954. P. 79] However, for the moment the items have been lost.

The evidences of the existence of musical instruments in the Paleolithic times could indicate highly developed cultural forms based on symbolic communications [Mellars, 2005]. In the studies of the Paleolithic age, four possible options for playing instruments of that type have been identified: longitudinal or transverse, block flute, and a special injection method [Morley, 2003; Knochenklang, 2000]. Most of currently detected artifacts with channel belong to a group of aerophones with holes for a finger.

**Mots-Clés:** Upper Paleolithic, musical behavior, musical instruments, flute, Molodovo V

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