ANTLER REMAINS FROM THE PREHISTORIC FLINT MINE OF DENEVÉR STREET (FARKASRÉT, BUDAPEST)

István VÖRÖS*

* Hungarian National Museum, H-1088 Budapest, Múzeum krt. 14-16., Hungary

The Denevér street is a narrow deep valley oriented N-S on the Western side of the Márton hill, at Farkasrét (XIIth district) on the Buda side of Budapest. The flanks of the Eastern slope are constantly eroded over the past decades in a more than 70 m long phase. The site was first reported on in the sixties. Excavations were started here by Vera Gábori-Csánk and Miklós Gábori in 1984-85, later in 1987. The site (mining field) is located at an elevation of 266-272 m a.s.l., a cleft of tectonical origin, the level of mining in the activity area ("side valley") lying 6-7 m above the current walking level of the street. The wide V-form filling is 7-8 m wide at its maximal width, the vertical dimensions are 6-7 m. The complicated layer sequence, geomorphology and finds were published in the preliminary report of Vera Gábori-Csánk (GÁBORI-CSÁNK 1989).

There are 262 pieces of animal bone remains known from the flint mine:

	antler	bone
Red-deer	250	
(Cervus elaphus L.)		
Roe-deer	10	
(Capreolus capreolus L.)		
Sheep		1
(Ovis aries L.)		
Frag. indet.		1
altogether	260	2

Red deer antler finds

Antler finds were assigned, independent of the layers of the activity area into three levels, better to say, "zones":

- Level A 240-280 cm
- Level B 310-380 cm
- Level C 390/400-480 cm

The distribution of antler finds registered on the documentation drawings are shown on Fig. 1.

All antler finds found in the flint mine were cut, there were no complete items found in the whole assemblage. The dissection of the antlers were determined by the function of the implement made of the piece and the build-up of the available antler pieces.

The antler finds of the Denevér street flint mine were cut into the following parts, i.e., regions (Fig. 2, 3):

	region	pieces
tines (separate)	F5	8
crown tine	F4.,1-4.	75
crown fork - crown	E	4
beam - crown fork -	D1-2.	36
crown		
beam	C1-4.	27
trez tine (separate)	F3	20
bez tine (separate)	F2	12
brow tine (separate)	F1	30
antler beam	A1.,3.	6
beam base	В.	1
cortex fragm.	G1-2.	31
altogether		250

The distribution of the antler remains according to regions is asymmetrical. It can be observed from the number of separate

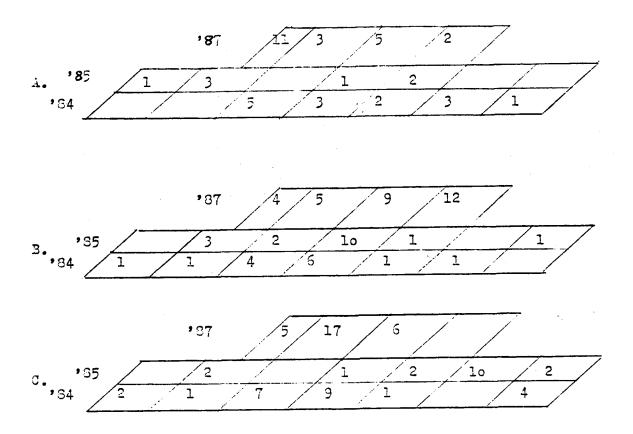
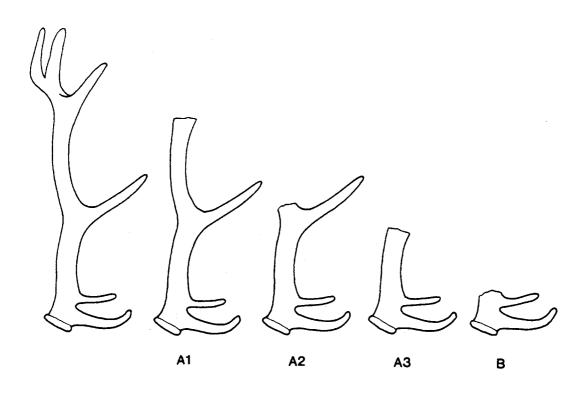


Fig. 1. Denevér street 1984-1987. Distribution of red deer antler finds according to layers and surfaces (pieces)

brow tines (F1) and trez tines (F3) that about 30 beam bases (B.)/ antler beam (A.) and 20 beams (C.), of which the more frequently occurring parts have been cut, were missing from the assemblage. The differences in the occurrence of different antler regions indicate that the primary dissection of the complete antlers took place not on the spot, i.e., the mining field, and the finds of the mining area already represent a "selected" assemblage. Supposing that the cutting of the antlers took place in the mine activity area excavated, we can postulate that the real mining tools were used elsewhere, as the typical mining implements mauls, wedges, adzes - are missing from this assemblage. The complete antlers were cut in this place and only the mining tools antler implements - were taken away.

The minimal number of antler pair found in the Denevér street flint mine can be estimated to 40. The most striking feature that among the 66 crowned beam (D., E.) and beam (C.) found are without the lower (beam base) part!

According to the age distribution calculated on the basis of the antler beam / crown / region (71 pcs), the ratio of young stags is very high (60,5 % - 43 pcs). The cutting of the antlers, the detachment of the tines were made by two methods, known in prehistorical times: by carving and "cordcutting". For carving (Fig. 4: 1) the use of sharp and hard stone tools were probably used. Cutting with cord involved a string made of animal guts and sinew or plant tissues (Fig. 4: 2), typical of prehistoric bone cutting technique. It is characterised by a thin, some 1 mm thick cutting scar hardly exceeding half of the perimeter of the bone / antler. After transsecting the wall of the bone or the antler cortex the rest is broken off. On the opposite side of the bone, in almost all cases we find crumbs of bonecortex. Breaking the antler the cortex is torn apart with a wedge-form cleavage sur-



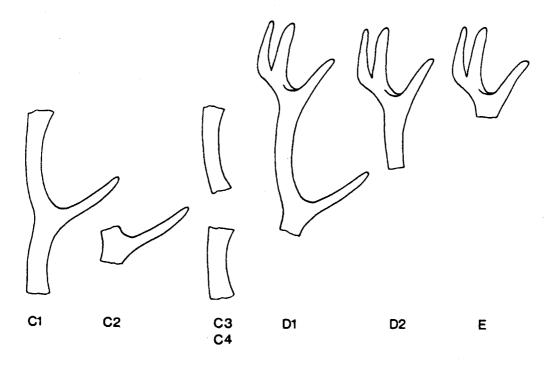


Fig. 2. Denevér street 1984-1987. Antler regions. Cutting the beam.

face in a "wolf-teeth-like" pattern. Surface working was observed only on three artefacts from the Denevér street assemblage: the surface of a trez tine was polished smooth, on one beam and a middle-tine the groovy surface was carved off by "draw-knife" technique.

While the morphological features of the antler part (region) determine the form, the traces of utilisation on its surface indi-

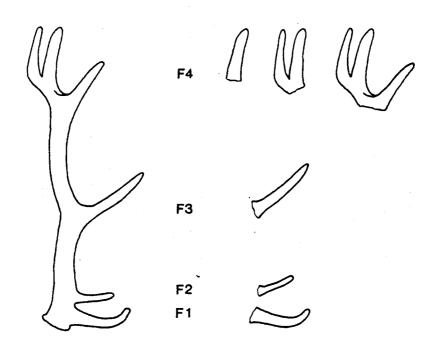


Fig. 3. Denevér street 1984-1987. Antler regions. Independent main and crown tines.

cate the function of the artefact. Among the 250 pieces of antler finds we can consider as real tools, on the basis of traces of use due to utilisation, only 19 pieces made of antler beam and 10 pieces made of antler tine. These are percussion tools: *mauls* 3 antler beam pieces, 4 middle- and upper beam, 1 upper beam, 7 pieces of upper beam and crown tine; *hammers* 3 items made of middle beam; and "*chisels*" (tines).

Other finds

There were 10 roe-deer antler pieces found in the flint mine, among them, 2 with skull remains and 4 cast antlers.

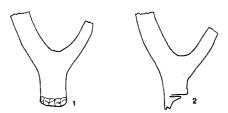


Fig. 4. Denevér street 1984-1987. Antler dissection techniques. 1. Carving; 2. Cord-cutting.

Period of use

For the determination of the period of use of the flint mine we can use the published radiocarbon dates and the analyses of the finds in the activity area.

C-14 dates (GÁBORI-CSÁNK 1989: 21):

GrN 15567 $40,350 \pm 950$ BP on charcoal B 4709 3,470 + 80 BP on antler

Finds:

- "Mousterian" type broken scraper
- poor quality chert raw material
- Árpád-period (Medieval, 12-13th c.) sherds
- Late Holocene Mollusca fauna
- Vertebrate fauna

The red deer antler finds of the Denevér street flint mine agree in dimensions and morphology with the Neolithic/Copper Age flint mine of Sümeg-Mogyorósdomb. The vertebrate fauna of the flint mine is prehistorical and can be dated after the Late Neolithic period (VÖRÖS 1998).

BIBLIOGRAPHY

- GÁBORI-CSÁNK, V. 1989. Európa legrégebbi bányászati emléke Farkasréten. *Magyar Tudomány*, 34, p. 13-21.
- VÖRÖS, I. 1998. Antler tools from the prehistoric flint mine of Denevér street (Farkasrét-Budapest). Manuscript.