

A Paleolithic settlement was found in one of the terrace-pools belonging to the II/b terrace and numerous small tools and bone-remnant were excavated.⁸ More than 2000 tools and rich natural historical evidence was found here. The Paleolithic people (*Homo sapiens neanderthalensis*) settled in the spring-pools when the pools were temporarily dried out.⁹ The quarry which was operating since the bronze age is now out of function, but due to the former explorations and quarrying the wall is well exposed. The so-called "culture-layer" was explored horizontal approximately 15-20 m length and its thickness is around 1 m. The detailed study of the "culture-layer" was made by Végő and Viczián, Vértes, Kretzoi and Vértes and Ruszkiczay-Rüdriger.¹⁰

Description of the Porhanyó-quarry

The Porhanyó-Quarry's NE-SW section (Fig. 3) exposes the freshwater limestone in 100 m length and in 15 m thickness. The bedrock of the limestone is Pannonian sand and clay. Numerous carbonate vents, cones, tetaratas and cascades can be distinguished in the section and out of the section, next to the Öreg-lake (Fig. 4). During field investigations connections between the carbonate vents and the other morphological forms more revealed. The vents are often intergrown along the section and in some cases they are morphologically similar to the cascade forms.

Algal and other phytoclastic and phytohermal grainstone, boundstone and floatstone are considered to be the dominant microfacies of Tata travertines (Fig. 5). The 15 m thick lacustrine travertine can be divided to six units (Fig. 3). Unit 1 (14.7–12.4 m) consists of massive, thickbedded phytoclastic travertine with some gastropods, and covered by a sharp discontinuity surface, parallel to the bedding. Unit 2 (12.4–11.8 m) comprises the archaeological "culture layer" and is build up by a 30-40 cm thick palaeosol horizon at the bottom. This sandy clay is rich in bones, in Palaeolithic human tools, artefacts and show fragments of charcoal. The palaeosol horizon is covered by siliciclastic fluvial channel deposits with a N-S direction that could have deposited from a rapidly flowing water. A new discontinuity surface separates the next unit, a bedded phytoclastic and gastropods bearing travertines (Unit 3 11.8–4.5 m) from the "culture layer". Unit 3 is built up from 20-60 cm thick, layered limestone that contains bones ordered in a N-S direction together with gastropods and plants. Unit 4 is a soft, laminated, phytoclastic travertine terminated by a new discontinuity surface, which covers the vents and cones. Unit 4 is covered by a loose clastic travertine-bearing horizon of Unit 5 (2.5–1.0 m), which is imbedded in fluvial-eolian sand. Eolian sand of Unit 6 (1.0–0.0 m) terminates the section.

⁸ KORMOS 1912.; VÉRTES 1964.; DOBOSI 2003, 205–214.

⁹ DOBOSI 2003, 205–214.

¹⁰ VÉGH-VICZIÁN 1964, 129–131.; VÉRTES 1964.; KRETZOI-VÉRTES 1964, 251–256.; RUSZKICZAY-RÜDRIGER 2003.