

Microforms and mesoforms play the main role in the sandstone relief. Their origin is conditioned by some processes, the main are weathering and erosion. Based on the background research, the definition, classification, diagenesis and occurrence of sandstones was described.

The second part of the bachelor thesis is focused on the mechanism of weathering and erosion. The microforms and mesoforms of the sandstone relief were divided into groups according to the guiding process of their origin. The description of the sandstone forms, the way of their origin, the stage of development and their extension were described.

In the practical part of the bachelor thesis, the microforms in the gorge Apatyka in CHKO Kokořínsko were analyzed. The practical part was focused especially on honeycombs, because their extension in the gorge is huge and they enable the complex analyse of their location in the gorge and in the rock outcrops. Using suitable methods it was found, that the honeycombs are located primarily in the eastern quadrant, their coverage decrease with the decreasing height of the rock outcrops and their presence in the lowest and the highest parts of the rock walls is limited. The second part of the fieldwork was focused on the relative dating of the parts of the gorge with honeycombs. The oldest part of the gorge is situated in the closure part of the gorge and in the second vertical step in the mouth of the gorge. The youngest part is situated in the middle part of the gorge and in the lowest vertical level in the gorge's mouth.