Sandstone rock formations in the vicinity of Krzeszów (Middle Sudetes)

The surroundings of Krzeszów in the Middle Sudetes, in the northwestern part of the Intrasudetic Trough, are known for the occurrence of interesting rock formations built of Upper Cretaceous sandstones (Fig. 1, 2). The largest assemblage of rock outcrops, supported by feldspathic sandstone of Middle Turonian age, is located within the steep front slope of a cuesta-like ridge, south of the village of Gorzeszów, and is legally protected as the 'Dwarfs' Boulders' nature reserve (Fig. 3). Rock formations within the reserve include rectangular spurs, outlined by NW-SE and SW-NE trending fractures and bounded by rock faces up to 15-17 m high, and frequent hoodoo rocks ('rock mushrooms' or pedestal rocks). The latter are 3-6 m high and have a wide cap built of a more massive sandstone supported by a narrow pillar of thinly bedded sandstone (Fig. 4). Sandstone outcrops are typified by a variety of selective weathering features such as footslope niches, honeycombs and ferruginised rims. The entire group extends over a few hundred meters.

Other sandstone outcrops in the area include an isolated, 7.5 m high pillar in the village of Gorzeszów, built of Middle Turonian sandstone and known as 'Devil's Club'. It has a status of an inanimate nature monument. In the upper slope of the Zawory escarpment there occur continuous lines of sandstone precipice up to 10 m high, locally intersected by deep, fracture-aligned clefts. The clefts likely indicate gravitational spreading within the sandstone caprock, promoted by deformation of weak Triassic clayey sandstone beneath.