

INFLUENCE OF KARSTIC CAPTURES IN THE EVOLUTION OF THE HYDROGRAPHIC NETWORK FROM THE RUCĂR-BRAN PASSAGE

TRAIAN CONSTANTINESCU

Two cases of karstic captures are presented. In the first case (Valea Arșiței) only the direction of the epigeous river changed, in the second case (Valea Cheia), a gorge was shaped. Synthesizing, the author differentiates 4 types of karstic captures.

INTRODUCTION

Situated between mountain ranges with heights over 2,000 m (the Bucegi Massive in the east, Leaota Mountains in the south-east, Piatra Craiului Ridge and Iezer Mountains in the west), the Rucăr-Bran Passage, with altitudes of 600–1,500 m, is distinguished as a well-defined geographic unity in the ensemble of the Romanian Carpathians.

The evolution of the hydrographic network from the aforementioned region, was the subject of many papers which underline especially the role of the karstic captures. As we consider the Rucăr-Bran Passage as one of the most representative regions in Romania in order to exemplify the influence of the karstic captures in the evolution of the hydrographic network, respectively the general morphological evolution of this zone, our paper will present two more examples and, in the end, we shall try to make a synthesis of this phenomenon in ensemble.

RESULTS AND DISCUSSION

The intracarpatic character of the Rucăr-Bran Passage is the result of a long evolution that started in Mesozoic. The stratigraphy argues for this affirmation. *The Kimmeridgian-Tithonic limestones, the conglomerates and the Vracu-Cenomanian sandstones* represent 95% of the surface of the passage measuring 250 km². The exposed limestones extend on 40% of the total surface of the passage, but we emphasize that they continue under the blanket of sandstones and conglomerates; thus the circulation of the underground waters, and, consequently, the karstification process, have a considerably greater extension than that of the outcropping limestones.

One of the peculiarities of the Rucăr-Bran Passage is given by its strong tectonic character. Faults and folds are its characteristic mark (PATRULIUS, 1969). Its general morphology bears the obvious stamp of the tectonic-structural and lithological features.