



CATHOLIC UNIVERSITY IN RUŽOMBEROK

—Shaping minds and hearts—

FACULTY OF EDUCATION

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Projects at the Department of Geography, Faculty of Education, CU

VEGA

Project name: Pliocene - Pleistocene denudation chronology of the Western Carpathians recorded in caves

Grant agency and project no.: VEGA 1/0146/19

Project duration: 2019-2022

Project leader for FE CU: doc. RNDr. Pavel Bella, PhD.

Annotation:

The caves are a suitable object of research for the reconstruction of the development of the relief. Cave levels, as well as river terraces, pediments or leveled surfaces, are formed due to the stable erosive base on the surface. In broken terrain, however, sediments from older developmental stages of relief have been preserved mostly only in caves. Dating of cave sediments by modern geochronological methods (cosmogenic nuclide method ^{10}Be and ^{26}Al , radioisotope methods U - series, paleomagnetic and magnetostratigraphic methods, OSL method) allows to determine the age of cave levels. As their development correlates with river terraces, pediments or leveled surfaces, cave levels are important markers of relief development. The project focuses on supplementing data on the age of cave levels and their comprehensive interpretation in relation to the geochronology of the development of the Western Carpathians relief in the Pliocene and Pleistocene (phases of relief planing and river network deepening, paleodenudation velocities, extent and intensity of valley deepening).