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LATE HOLOCENE EVOLUTION OF LANDSLIDES IN THE FRONTAL PART OF THE MAGURA
NAPPE: HLAVATÁ RIDGE, MORAVIAN-SILESIAN BESKIDS
(CZECH REPUBLIC)

Frontal parts of nappes and overthrusts belong to the most exposed environments in the evolution of slope deformations. The frontal part of the Magura nappe creates a distinct morphotectonic and lithological boundary characterized by the occurrence of various types of slope deformations. A representative example of such a geomorphological situation can be found on the northern slopes of the Hlavatá Ridge in the Moravian-Silesian Beskids. Radiocarbon dating of peat bogs and lacustrine deposits of a fossil landslide-dammed lake enabled us to determine the chronology of a retrogressive slope landslide. The main phase of the landslide evolution took place ~1.6 ka BP; the secondary distinctly retrogressive reactivation of the landslide occurred in 0.8-0.9 ka BP. Our case study demonstrates dynamic Late Holocene geomorphic evolution in the area of the Flysch Carpathians and re-evaluates the chronology of landforms previously considered as of the Pleistocene age.

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TYPOLOGICAL DATA IN THE PROCESS OF LANDSCAPE POTENTIAL IDENTIFICATION
WITH USING GIS

Landscape potential expresses landscape suitability for a particular use, but also the level of landscape usage. This level follows from the knowledge of landscape stability. Each type of landscape has a specific spatial composition and a specific internal structure, both of them being conditioned by natural factors, processes and economic activities. Map works that serve to describe the landscape typology in the Czech Republic are maps of soil ecological units for soil rating (BPEJ), groups of forest types (SLT) and groups of geobiocoene types (STG). Analysis of relations among the typological data is one of key steps in determining the landscape potential. Thanks to their spatial character and great heterogeneity, these data are analyzed in the environment of geographical information systems. The preparation and proper analysis of the data in digital form require knowledge both in the field of geoinformatics and biology.

Data structures of typological data, possibilities of their processing and analyses in GIS environment (classical desktop or web applications) are explained in the paper. The model area is a northern part of the PLA White Carpathians.

Vít VILÍMEK
IMPORTANCE OF GEOMORPHOLOGY IN THE RESEARCH OF NATURAL HAZARDS AND
RISKS

Geomorphology plays an outstanding role in research into natural hazards and risks related directly to processes in the lithosphere (rapid mass movements, erosion, volcanic and seismic activity, etc.). In addition, geomorphology plays an important role in the research of hydro-climatic catastrophes (e.g. floods). As in other geological sciences, quantification and dating of processes, as well as prediction based on modelling and knowledge of landscape evolution, are important in geomorphology. Palaeogeomorphology is yet another science that helps in the research of large-scale natural hazard and risk events. It is also very common to compare the size and frequency of various hazardous events to be able to predict their future occurrence.

Antonín VAISHAR – Jana ZAPLETALOVÁ
SUSTAINABLE DEVELOPMENT OF RURAL MICROREGIONS IN THE CZECH BORDERLAND

Sustainability of the Czech Republic borderland microregions is studied from the demographic, economic, and social angles. The borderland countryside as a whole was pronounced sustainable; it is the individual habitations that may be endangered. Because of the physical barriers of the state boundary sustainment of economy with the aid of cross-border cooperation is only suitable for some microregions. We consider social sustainability, especially education, qualification, and the overall cultural standard of the borderland and its human capital as decisive.

Reports

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NEW RURAL SPACES: CONFLICTS, OPPORTUNITIES AND CHALLENGES