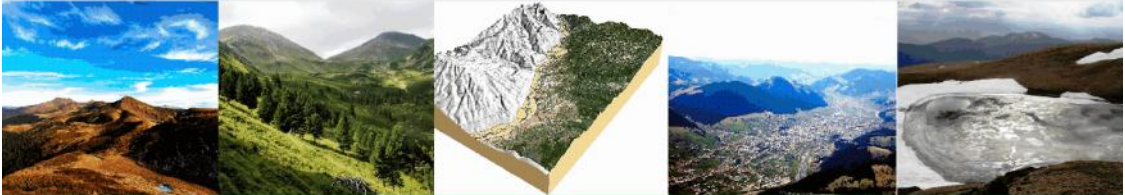




This work was supported by CNCS-UEFISCDI, Project number PNII-HDEI/WE 4-056/2012



**Abstracts volume**

## INTERDISCIPLINARITY IN GEOSCIENCE IN THE CARPATHIAN BASIN

ISSN 2343-7391 GEOREVIEW  
ISSN online 2343-7405

Editor  
**Marcel Mindrescu**



## INTERDISCIPLINARITY IN GEOSCIENCE IN THE CARPATHIAN BASIN

Suceava, 19-21 October 2012

Stefan cel Mare University Press  
<http://georeview.ro> [www.usv.ro](http://www.usv.ro) <http://uefiscdi.gov.ro>

## What can the surface of the Earth tell us about environmental changes?

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Geomorphology is a science dealing with the landforms of the Earth. Origin and development of the landforms are influenced by many factors which are dependent on climate and strongly influenced by its change. Therefore, analysis of the surface of the Earth provides relevant information about climate and environmental changes in the past.

The presentation has four main parts:

i) opening part when basic geomorphological terms are explained and defined in context of environmental change. Geomorphological mapping of elementary form is introduced as an integrating method of geomorphological research and useful tool of multidisciplinary investigation of landscape;

ii) the meaning of environmental change is defined and discussed in context of time-scale and spatial-scale variability in the second part. The mind map of the environmental changes during the Quaternary (from present to ~2.5 Myr ago) is presented,

iii) the following part introduces sedimentological, biological and geomorphological proxy data (which are connected with surface of the Earth) as well as modern methods (numerical dating, modelling in GIS and geophysical sounding) which are used in the Quaternary research. The main attention is focused on the data connected with glaciers and glaciation. Examples mainly from the High Tatras (Carpathian) and the Bohemian Forest (Bohemian Massif) are presented;

and iv) the presented outcomes are summarized and objectives for the following research are presented in the last part of the presentation.