

Book Review

Landform dynamics and evolution in Romania **Rădoane, Maria, Vespremeanu-Stroe, Alfred – Editors (2016)** **Springer International Publishing Switzerland**

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The book *Landform dynamics and evolution in Romania* has appeared in September 2016 and is part of Springer Geography Series. The volume was coordinated by Maria Rădoane, professor and researcher affiliated to the Department of Geography of Ștefan cel Mare University of Suceava, president of the Romanian Association of Geomorphologists (AGR) and by Alfred Vespremeanu-Stroe, reader and researcher at the Faculty of Geography, University of Bucharest (vice-president of AGR).

In the 34 chapters, totaling a number of 867 pages, this book represents the contributions of 52 authors, experienced researchers and young researchers in the domain of geomorphology, geology, pedology, palaeoclimatology and palaeoecology, the majority being affiliated at the

most important universities and research institutions in the country.

The aim of this work is to present the progress achieved in the knowledge of landforms from Romanian territory in a manner synchronized with international geomorphology evolution. The validity of the results presented in this volume lies in the material and methods used; many of them were based on direct measurements, large databases, on statistical or automatic modelling and absolute dating to establish the age of certain landforms, modelling processes or climatic events which impact them.

The volume is structured in 8 parts, and 7 correspond to the main types of relief that occupy the Romanian geographical space. In the first part were traced the main landmarks which delineate relief study in the present volume, respectively, defining the time frame (namely, the last 15,000 years) and spatial area of interest. There were presented the latest results and interpretations on the formation of Romanian Carpathians and an overview on climates and vegetation post Glacial evolution.

The second part of the paper contains recent studies from the domain of mountainous geomorphology, including the problem of mountain massifs deglaciation, the distribution and characteristics of forms specific to glacial and periglacial landforms and recent evolution of mountain permafrost. The third part discusses the problem of mass movement processes, with special attention on landslides from the Moldavian Plateau and Curvature Sub-Carpathians area, and debris

flows on mountain hillslopes. Fourth part treats the soil erosion processes from sheet erosion to gully erosion, and consequences they generate in land degradation on the territory of the Moldavian Plateau. Fifth section of the volume presents studies from the domain of fluvial geomorphology where the evolutionary trends of rivers and channels are discussed at different time scales, closely related to climatic modifications and also, with human disturbances. Sixth part is dedicated to the evolution and present dynamics of Danube Delta and Romanian coast of the Black Sea, by presenting a new vision on the formation of the Danube Delta, the shoreline evolution in the last 150 years and coastal landforms behavior derived from continuous monitoring in the past 20 years. Seventh part considers the sediment transfer in different geomorphic systems, with applications in the present sediment transport for river channels and palaeo-environmental reconstructions of conditions

for forming the sedimentary deposits. The last part of the volume addresses the geomorphological hazards (avalanches, landslides, floods, coastal storms) in terms of generating processes and associated risks, and the impact on human communities, respectively.

We believe that the appearance of this work represents an event for the Romanian geomorphology evolution, mainly because the dynamics of Romanian landforms is seen in the wider context of knowledge evolution on the European continent, subject to conjugated actions of climate changes and unprecedented human interventions. We are convinced that both academic geoscientists and specialists in other fields will find concrete information, checked and of wide diversity regarding the dynamics and evolution of landforms, also necessary for future prediction of landscape changes.