

# **ANALELE UNIVERSITĂȚII DE VEST, SERIA GEOGRAFIE**

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Manuscript preparation – general guidelines

- The articles should not extend 25 pages (about 5000 – 6000 words maximum).
- Papers are accepted only in English.
- Manuscripts may be submitted in any standard format, including Word, and PDF. These files will be automatically converted into a PDF file for the review process. This journal does not accept Microsoft Word 2007 documents. Please use Word' "Save As" option to save your document as an older (.doc) file type.
- Please use Times New Roman font.
- Manuscripts should be compiled in the following order: title page; abstract; keywords; main text; acknowledgments; appendices (as appropriate); references; table(s) with caption(s) (on individual pages); figure caption(s) (as a list).
- The title page should include the title of the manuscript and the names and affiliations of all contributors, including full address, telephone number, fax number and e-mail, One author should be identified as the corresponding author.
- Abstracts of up to 500 words are required for all papers submitted.
- Each paper should have three to six keywords.
- Font size for main text will be 11 with Line Spacing (1) and Page Setup (4 cm) for left and right margins and 5.7 cm for top and 5 cm for bottom margins.
- Section headings should be concise and numbered sequentially, using a decimal system for subsections.
- For all manuscripts non-discriminatory language is mandatory. Sexist or racist terms should not be used.

References are cited in the text by giving the surname(s) of the author(s) followed by the date of publication, e.g. (Urdea, 2000) or (Ianos & Zisu, 2009). The page numbers of all quotations should be included with the reference, e.g. (Voiculescu, 2004, p.113). Multiple references should be separated by semi-colons and arranged in chronological order, e.g. (Popa, 1994; Cretan, 2000; Olaru et al., 2008). If two or

more works are cited for the same author in the same year, the years of publication should be distinguished by the letters a, b, c, etc., e.g. (Popescu, 2005a, 2005b). The details of all references should be listed in alphabetical surname order at the end of the contribution, in the following form:

Urdea, P. (1992), Rock glaciers and periglacial phenomena in the Romanian Carpathians, *Permafrost and Periglacial Processes*, 3, 267-273. – for articles

Urdea, P. (2005), *Ghetarii si relieful*, Edit. Universitatii de Vest, Timisoara, 380 p. – for books

Tables should be presented in finished form with dimensions no larger than an A4 page (or equivalent). Tables should be numbered consecutively by Arabic numerals (1, 2, 3, etc.), and their approximate position should be indicated in the manuscript.

Illustrations, including maps, diagrams, charts, cartoons, screen captures, and (black and white) photographs, should all be referred to as Figures, and should be numbered in consecutive order using Arabic numerals (1, 2, 3, etc.). Figures must be saved individually and separate to text. Please do not embed figures in the paper file. Avoid the use of color and tints for purely aesthetic reasons. Figures should be produced as near to the finished size as possible. Files should be saved as one of the following formats: TIFF (tagged image file format), JPEG (Joint Photographic Experts Group) PostScript or EPS (encapsulated PostScript), and should contain all the necessary font information and the source file of the application.

Reviews: Book and multimedia reviews, including software, that are of particular interest to geography. Anyone interested in reviewing may contact the journal review editor (urdea@cbg.uvt.ro) or the technical editor (onacaalex@cbg.uvt.ro).

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## **Arhivă: 2009:**

***Edited by Sorina Voiculescu and Robyn Longhurst***

***English language editor Margareta Amy Lelea***

***Special issue dedicated to: Post-Socialism, Neo-Liberalism – Old And New Gendered Societies And Policies Szeged (Hungary) – Timisoara (Romania), 22-23.05.2009***

**Editorial – (Re)Thinking gender, post-socialism and neo-liberalism: an introduction by Sorina Voiculescu and Robyn Longhurst**

On 22 May 2009 approximately 50 delegates from 13 countries were welcomed to the International Geographical Union Gender and Geography Commission conference “Post-socialism, neo-liberalism – old and new gendered societies and policies” in Szeged, Hungary and Timisoara, Romania. The conference, organized by Júdit Timár (Centre for Regional Studies, Hungarian Academy of Sciences) and Sorina Voiculescu (West University of Timisoara), aimed to evaluate post-socialism and neo-liberalism from a feminist geographical perspective and was held to mark the 20th anniversary of the East Central European political changes of 1989.

The conference began with a presentation from sociologist Dr Júlia Szalai on ‘the domestication of neo-liberalism’ which was followed by sessions on ‘gendered understandings’, ‘representing gender’, and the ‘production/use of gendered space’ in relation to post-socialism and neo-liberalism. On the second day sessions were devoted to ‘geographies of women’s and men’s participation in labour markets’, ‘political-economic processes’, ‘socio-economic changes’, and ‘policy participation and social networks’ under neo-liberalism and post-socialism. On the third day delegates were taken in a bus across the Hungary-Romania border to Timisoara. En route an opportunity was provided to visit and speak with the Association for the Promotion of Women in Romania (APoWeR). This was followed by a panel session and audience discussion at West University of Timisoara on teaching and publishing

on gender in different regions of the neo-liberal academic world.

The articles in this collection “(Re)thinking gender, post-socialism and neo-liberalism” have resulted from various engagements – papers presented and discussions – that took place at this conference. All of them speak to the current theme of the IGU Commission on Gender and Geography – ‘gendered perspectives: connecting across difference’. The aim of this collection of articles is to prompt thinking about some of the gendered differences and similarities across a range of spaces from the body to the globe in relation to post-socialism and neo-liberalism.

The first three articles in this special issue address the theme of ‘Gender, neo-liberalism and rural space’. Antònia Casellas, Marta Pallares-Blanch and Antoni F. Tulla focus on women in rural space in Spain. They examine women’s participation in the administrations in six high mountain countries in the Pyreness. The authors conclude that there is a need for policies that empower women in these areas to help women achieve equal representation in the public sphere. Éva Fekete also offers insights on women in rural areas but this time readers are taken to post-socialist Hungary. Fekete identifies the ideological legacy of the socialist era on contemporary rural development for women. Still continuing with the theme of gender and rural space, Madhushree Das and Harendra Nath Sharma examine eight tribal communities, especially tribal women, who are currently experiencing both continuity and change in Assam, India. The study is based on both primary and secondary data which includes the Census of India publications for the period 1991-2001 and a field survey.

These three articles all illustrate that rural geography is a diverse and dynamic sub-discipline that has rich possibilities for considering gender not just by way of gender roles but also by way of gender being a fluid and shifting performance of masculinity and femininity within different rural spaces. Together the articles illustrate that rural populations and places are in a state of flux and diversely constituted in relation to gender.

The second theme addressed in this special issue is ‘Institutional politics of gender’. Institutions can be both formal organizations such as government agencies,

workplaces, and corporations and more informal organizations such as voluntary bodies. The institutions addressed in this section are Northern Atlantic Treaty Organisation or NATO, universities, the publishing industry, and a range of workplaces and households. The first article by Lajos Olasz focuses on women soldiers of NATO countries who are involved in combat duty. Olasz argues that while few would deny that women, like men, have a place in the armed forces there is still a division of opinion as to whether they ought to engage with the enemy in the line of fire. Maria Dolors Garcia-Ramon, Anna Ortiz and Hermínia Pujol examine the gendered participation of women and men in the geographical academe of Catalonia, Spain. Neo-liberalism, they argue, is decreasing the relative numbers of women in Spanish Geography departments. Drawing on in-depth interviews they provide insights on women's strategies and practices for reconciling work and family life. In the third article Ilona Szóró shows how gender issues and gender studies in the publishing industry in Hungary evolved slowly over time in part in response to Western discourses about gender (in)equalities and women's right. Szóró analyses specific institutions such as printing houses, universities, ministries and public libraries. Parijat Borgohain and Harendra Nath Sharma focus on married women in the paid workforce in Guwahati City, India. They explain how married working women from a range of different socio-economic groups in Guwahati City manage their homes and careers, and discuss the share of labour their husbands perform.

In all four of these articles it can be seen that institutions such as workplaces play a vital role in shaping social life including its gendered dimensions. The way institutions are structured and managed in a sense genders the organization of space at a range of spatial scales. Institutions are an important focus for geographers. It is a focus that allows for sensitivity to difference, including gendered difference, and agency as well as to the broader structural arrangements give rise to particular spaces and places.

The third group of articles focuses on 'Gender, households and traditionalism in Eastern Europe'. Margareta Lelea investigates some of the gendered dimensions of people's experiences of making a living (entrepreneurs, factory workers, migrant

workers, farmers, day laborers and home makers) along Romania's western borderlands. She uses in-depth interviews from 1999, ten years after the fall of communism, until 2005, just two years before Romania's accession to the European Union. The change from a socialist centralized supply-driven economy to a neoliberal capitalist demand-driven economy has, she argues, impacted on gendered subjectivities. Shifting the emphasis from adults to children, Matej Blazek and Fiona Smith explore the everyday gendered lives and networks of care of children in a deprived neighborhood in Bratislava, Slovakia. Drawing on in-depth ethnographic research they argue that children, including younger children, in this neighbourhood have remained marginalized post socialism although this is not necessarily typical of other housing estates in Slovakia, or in Central Europe in general. The third article in this section on 'Gender, households and traditionalism in Eastern Europe' is by Ioan Sebastian Jucu who focuses on women's experiences in the municipality of Lugoj, Romania. He explains that since the 1960s there has been a discourse circulating that Lugoj has seven women for every man. The town has a large textile industry, however, in the 1980s this gender imbalance began to change when more men began to be attracted, through heavy industry, to Lugoj. Jucu explains how this gender (im)balance has affected gender relations in Lugoj.

It is our hope that the articles in this special issue on (re)thinking gender, post-socialism and neo-liberalism will prompt readers to think about some of the gendered differences and similarities across a range of spatial scales. It is useful to consider the complex gendered, spatial, social, economic and political relations that exist in a range of post-socialist and neo-liberal spaces.

# 2009-Volume XVIII

## ***Chapter 1. Gender, neo-liberalism and rural space***

**Antònia CASELLAS, Marta PALLARÈS-BLANCH, Antoni F. TULLA** – Women's Political Participation in Parliamentary Democracy in Rural Catalonia (1970s – 2000s)

**Éva G. FEKETE** – The Role of Women in the Development of Rural Areas in a Post-Socialist Hungary

**Madhushree DAS, Harendra Nath SHARMA** – Cultural Continuities and Social Change among Tribal Women in Assam, India

## ***Chapter 2. Institutional politics of gender***

**Lajos OLASZ** – Women Soldiers of NATO Countries in combat duty

**Maria Dolors GARCIA-RAMON, Anna ORTIZ, Hermínia PUJOL** – Negotiating Personal and Professional Lives: Women and Men Faculty in Spanish Geography

**Ilona SZÓRÓ** – Gender studies in Hungarian Publishing

**Parijat BORGOHAIN, H. N. SHARMA** – Married Women's Careers and Household Chores: A Case Study of Guwahaty City, India

## ***Chapter 3. Gender, households and traditionalism in Eastern Europe***

**Margareta Amy LELEA** – Gender intertwined: neoliberal subjectivities and livelihood strategies along Romania's western border, 1999 – 2005

**Matej BLAZEK, Fiona M. SMITH** – Children's Place in Networks of Childcare in Slovakia: what Childhood and Gender tell us about Post -Socialism

**Ioan Sebastian JUCU** – Lugoj, the Municipality of "Seven Women for a Man" – from Myth to Post-Socialist Reality



## 2008-Volume XVII

### **Petru URDEA, Mircea ARDELEAN, Alexandru ONACA, Florina ARDELEAN – An Outlook on Periglacial of the Romanian Carpathians**

**Abstract:** The periglacial from Romanian Carpathians is a less discussed problem although this was accepted by all researchers. Even if the first scientific references related to periglacial morphology dates from the late 19th – early 20th century, progress was not recorded enthusiasm, with a more descriptive boarding. This synthetic paper reminds all important contributions, emphasizing the results made in the last two decades, when the new approach has been stimulated, based on the specific methodology and new techniques have been applied by authors. Some of these are discussed in the article, but the original approach captures issues that were not mentioned before. Since periglacial environment is sensitive to climatic conditions also conducted a short presentation of specific data from the most important mountainous meteorological stations. The permafrost issue has not been avoided, as repeated several assumptions discussed in the past, but this time much better scientific arguments presented. With the use of geophysical methods and especially of electrical resistivity tomography by Urdea et al., the understanding of periglacial structures obviously progressed. We believe that this work is a good help to those who made deals with the study of high-Carpathian areas, bringing the main tasks that need to be investigated carefully in future.

### **Alina SATMARI – Water Pollution in the Karstic System of the Anina Coal Field (Anina Mountains). Preliminary study**

### **Sanda Adina ȘERBAN – The Assessment of Groundwater in Doljchim Chemical Plant Area**

**Abstract:** In Romania, about 83% of the water used for population comes from underground, and for this reason it is very important to keep the groundwater unpolluted. The development of different industries and urban expansion (without

sewage network and waste water treatment plant), the intense agriculture led to a damaged environment. The water pollution is a process that modifies its specific physicochemical and biological properties, which led to restriction or special measures of decontamination so the water may be used for different activities. The purpose of this paper is to assess the harmful effects on the environment, especially on groundwater of the pollution made by Doljchim Chemical Plant, which affects, so far, only the phreatic sheet. In the Doljchim Chemical Plant area the groundwater physicochemical parameters were analysed. The obtained values have shown big concentration at the nitrogen compounds. Although, over the years, the treatment of the waste water from the chemical plant was improved, the pollution of phreatic sheet remains and all because of the diffuse pollution that is very hard to control.

**Ioan Sebastian JUCU – The Green Spaces from Lugoj: Some considerations on their Structure, Image and Functionality on the Urban Space**

**Claudia MUȚULESCU – Urban Green Areas in the City of Timișoara**

**Abstract:** Urban green areas as “essential elements of the human habitat that make the most of biologic and esthetical potential of the vegetation, harmonizes urban architectural ensembles, hygienize and improve urban environment, thus reducing the city’s aggression over its citizens” (Muja S., 1994, p.54). Timisoara, the city of parks or the city of gardens as it is well known from a long time in history, has a mix system of green areas due to the general form of the town and the way in which the green areas were created. These green areas increase constantly in time so that today the total urban green area of Timisoara is 429.14 ha., structured in parks (87.59 ha), squares (12,97 ha) and green areas along circulation arteries and linear tree plantations (328.58 ha). There are 15 parks and numerous squares and the city officials take great effort to improve them and for their maintenance..

**Adrian BASARABĂ – The Migration and the Evolution of the Labour Market in the Old Industrial Regions of Western Romania**

## **Elena CIOROGARIU – Tourism – Alternative of Settlements Development in Cerna Valley of Hunedoara**

**Abstract:** The Cerna Valley of Hunedoara represents an unknown areal from the tourism point of view. The desindustrialisation issue in Hunedoara areas went to migration rural population out of the area, which is known under the ethnographic name as “Tinutul Padurenilor”. Can be the tourism an alternative for settlement development? Is there any possibility to preserve the existing cultural patrimony for tourism development? The current script tries to take out of the tourism anonymous the mentioned area and to identify results that can be achieved through tourism development.

## **Florian BENTE – Current and Prospective Geographic Problems of the Transport Infrastructure in the Bihor County**

**Abstract:** An efficient transport infrastructure, connected to the European transport network, can contribute to the development of new activities on the internal market, facilitating the integration in the European economy, and at the same time increasing the economical competitiveness. Also, the development of the transport infrastructure plays an important role in the integration of the internal market and supports the valorification of the geographical position of Bihor county, at Romania's western border. At present, the road transportation network of Bihor county has various deficiencies. For the development of the transportation sector, a development plan for the 2007-2013 period has been created, which aims for: increasing the level of accessibility for the county, by assuring the internal (inside the county and with the neighboring counties) and external links (Hungary), building access and avoidance (for crowded urban areas) road infrastructure and developing a high quality urban road transport system.

## **Review – Ioan Sebastian JUCU, The optional subjects with geographical profile and the quality learning of Geography, by Ana IANAS**

The optional subjects with geographical profile and the quality learning of Geography (Disciplinele optionale cu profil geografic si învatarea de calitate a geografiei),

Mirton Publishing House, 2008, Timisoara, 342 pages, 35 figures, 146 references titles, 8 anexes, ISBN: 978-973-52-0346-7

The work elaborated by Ioan Sebastian Jucu represents a new approach in the field of the geography didactic through the analyzed theme and, more of that, by the original perspective viewing the study of the scholar curriculum. By its functional characteristics the book represents a complex instrument with great utility for all the interested actors by the curriculum elaborated in school materialized through optional subjects. These last ones are in a tight connection with the educational reform from Romania and with all the methodological norms and legislative documents that aim the quality instruction of the students in the school.

The book is structured in three parts. The first one referring to the necessity of the study on the optional subjects comprises also, the theme motivation, the actuality of this kind of didactic and scientific approach and the theoretical and methodological basis of the research. Also, it is aiming the contents presence of the optional subjects in the specialized literature from Romania.

The second part, generally a theoretic one, illustrates the main general and particular context of this curricular segment viewing a better understanding of it. Thus, the 4th chapter expresses aspects concerning the optional subjects as an integrative part of the scholar curriculum while the 5th chapter is focused on the optional disciplines status and regime in the educational field from Romania. It illustrates the conceptual clarification, the functions of these subjects, the normative framework of the didactical principles, the typology of these disciplines and some concretely examples of the optional subjects. The 6th chapter is focused on the teaching, learning and evaluation activities, in this case being exposed the problems regarding the projection mode of the optional subjects in its whole with all its particular details. At the same time in connection with the previous theme, the programs structure of the subjects are in detail presented for a proper understanding of the projective activities and more of that for the realization of a functional program. In the last part of this chapter the author states in connection within the optional subjects the instructive methodology and the characteristics of the evaluating of the learning results in the

frame of the curriculum elaborated in the scholar institution.

The 7th chapter is based on the own author research and reflects the optional subjects impact on the students, to their parents, on the geography teachers, on the schools managers, on the schools and local communities and also, on the quality of the students education.

The third part of the book is focused on the applied didactic problems comprising proposals of programs for the optional subjects with geographical profile. All these can be used in the proposed form, or they can be adapted to the own specific of typical particularities of the schools. For instance we can present the following programs: Universe and the Solar System, The capitals of the World, Local Geography, Cultural Geography, Urban Geography, The relief of the World, Risks and natural hazards etc. Each program, for an immediate application, comprises a presentation note or motivation, the references objectives, the learning activities types in relation with the proposed objectives, the study themes or contents, the evaluation modalities, a minimal bibliography and methodological suggestions.

All these structures are in relation with the legal norms that are available in the contemporary period in Romania. The annexes from the end of the book are helpful for all the teachers interested by the application of these types of courses in the context of the unfurling of the educational quality activities. This volume is based on the on the complex bibliographic study but more of that its assertions occurs by the own didactical experiences of the author in school, in his concretely work with the students during the last 10 years.

This book of didactic geography is an important tool for all that are interested by the quality learning and teaching of the geographical contents in the pre-university educational system from contemporary Romania.

## 2007-Volume XVII

### **etru URDEA, Alexandru ONACA, Florina ARDELEAN – Application of DC Resistivity Tomography on Glacial Deposits in the Bâlea-Valea Doamnei Area, Fagaras Mountains**

**Abstract:** This paper is focused on the results of the application of 2D electrical resistivity tomography (ERT) on glacial deposits from Bâlea-Valea Doamnei area (Fagaras Mts.). In the application of ERT techniques different design, dipole-dipole, Wenner and Wenner-Schlumberger was used. Starting of this designs we can know and interpret the structure of glacial and post-glacial deposits from postglacial in-filled glacial depressions and, very important thing, the depth and configuration of the surface contact with bedrock. In all cases, the mottled aspect of all apparent resistivity profiles is a expression of heterogeneity of deposits and, on the other hand, reveals typical structures, some of them connected with glacial tectonic processes and deformations. The obtained results offer a set of informations about internal architecture of glacial deposits and a better understanding of the morainic formation processes. Also, the geophysical information can be base for a realistic models of latero-frontal moraine formation.

### **Ion STANOIU – Aspects of the Quaternary Geology and Geomorphology in the Wallachian Depression**

**Abstract:** The paper makes some assessments on the geology and geomorphology of the Quaternary in the Wallachian Depression (an area situated in the Mehedinți Bend of the Carpathian-Balkan Chain). The author shows geology to control geomorphology, with emphasis on the palaeogeography, morphography and evolution of the river network (inclusive of the Danube). The paper describes the Quaternary lithostratigraphic units from the Wallachian Depression (in Muntenia and Oltenia) and gives an assessment of lithology, age and palaeo-environments. An analysis is made of the region's Quaternary water network and of the geological and

geomorphological evolution. A sketch of the Romanian Plain's palaeogeographical evolution during the Quaternary is also attached.

**Andreea DOMASNEANU – GIS Utilisation in Investigation of Karst Relief from Prisacina Valley (Cernei Mountains)**

Abstract: The usage of GIS in the study of karst relief of Cernei Mountains from Meridionali Carpathians proved to be highly useful through the possibility of making correlations of great complexity and through the visualization of some information materialized in different types of maps. Spatial analysis corroborated with GIS technique proved the powerful relation between the development of karst relief and the variety of the parameters which lead to the forming operation of the calcareous rocks.

**Peter BAJMOCY, Klara JOSZA – Rural Tourism in Hungary (General Processes and the Case Study of Szatmar-Bereg Region)**

Abstract: In contrast of the mass-tourism, the prosperity of the rural tourism is a relatively new phenomena in Hungary. It is not easy to define rural areas of Hungary, so it is not easy to define rural tourism as well. By our opinion rural tourism is the tourism of not the towns and not the areas of the mass-tourism (Lake Balaton, spas, etc.). By this definition only 9% of the guest nights in Hungary spent in rural areas in 2004. Mainly the Hungarians take part in the rural tourism (17% of the guest nights of the Hungarians and only 3% of the foreigners were in rural areas). There are only a few regions in Hungary, which are absolutely suitable for rural tourism in larger scale (some hilly areas: Mátra, Bükk, Zemplén, Balaton-Highland, Orseg, some rivers and lakes: Tisza, Szamos, Rába, some of the natural protected areas and cultural heritages: Hollóko, castles, churches and some wine-regions: Villány, Tokaj, Somló). Finally we show the main processes and problems of the rural tourism in Hungary by the case-study of a rural area of Eastern-Hungary, the nice Szatmár-Bereg Region and a touristic village of the Bükk Hills, Szilvásszék.

## **Ana-Neli IANAS – The Regional System of Almajului Land – Typical Elements of the Habitat**

**Abstract:** The habitat represents the material structure of the mental and ethnographic spaces (Cocean, 1997, 2005), from which Tara Almajului is part of. Analysing the specificity of the habitat from this regional system, we shall find that it is entirely rural and includes 31 human settlements, classified by various criteria and distributed relatively uniform in this regional system, due to some favorable and restrictive factors from this point of view. This study aims at putting into evidence a typology of the rural settlements as part of the system, using a few criteria such as: geographical position depending on the relief, the morphological aspects conditioned by the natural elements, the number of inhabitants and economic functionality. Identifying these specific elements will be put in evidence the two features of the system (the hierarchy and centrality) and also that the system has a relatively slow evolution.

## **Simona MALAESCU – The Dinamic Relationship between the Demographical Changes and the Space Structure of Inequalities Sustainable Social and Economic Distribution in the Subcarpathians between Olt and Jiu Rivers**

**Abstract:** The dynamic attributes of the human resources from a certain region continuously reconfigure the unequal spatial structuring of the development dimension. For instance, the experience of international migration for work is one of the turning elements that give new directions to the dynamics of a settlement. In time, due to the labor market and the perception of the personal development context the spatial discrepancies of economical and social development determine a certain demographic configuration and interrelated a certain emigrational behavior for work. After a certain period of time the emigrational behavior may in its turn change the initial spatial configuration leading to the demographic reconfiguration, to “fixing” the demographic resources and stimulating the durable process of development. Knowing the present configuration of the dynamic element and of all



the mechanisms would allow the implementation of certain interventions so that to avoid demographic and social risks on one hand and to understand the phenomenon of development stagnation as a temporally limited phenomenon on the other hand. The geodemographic analysis enlightens that in the area of the Subcarpathians between the Olt and Jiu rivers there are identified diverse spatial structural configurations, found in different such “stages” of the mentioned factors – mainly , incipient stages.

**Tamara SIMION, Madalina ANDREI – Regional Differences in the Tourism within the Romanian Mountainous Area**

Abstract: The evaluation of the main aspects characteristic of the mountainous tourism is shown through the mountainous resorts. They had a better positive evolution than the spas or the seaside resorts within the Romanian tourism. Another approach can be done by analysing the general and specific indicators for the touristy industry in the areas characterized by a high economic development and in the counties situated in the Carpathian area. The result of the analysis is that in spite of a relative balanced allotment of the mountainous areas, some of them seem to have a dominant position in the touristic structures as well as for the tourist flows registered in last few years.

**Madalina ANDREI – The Evaluation of the Accomodation Structures on the Danube Valley between Giurgiu and Braila**

Abstract: The touristic reception structures which have accommodation functions show the way in which the process of touristic resources capitalization takes place as well as the quality of the touristic services there is in these units. In the analyzed localities, especially in towns, the diversity of the accommodation structures is very low. Thus, the hostels, the inns, the urban and rural touristic pensions, the halts, accommodation on ships are missing. The rural localities do not subscribe in the accommodation touristic structures because they are not crossed by European highways, although they are considered to be touristic stops in the transit tourism. In

the future, in order to attract more tourists, it is necessary to modernize the current touristic structures and to build more touristic units.

### **Tamara SIMION – The Direct Influence of the Transport Network on the Romanian Transport**

**Abstract:** Within the development of the Romania tourism the infrastructure concerning the communication means is considered to be a great issue. On the basis of a general evaluation we can notice that the transportations are medium developed and they need serious investments. Among other European states which had socialist economies, Romania is still behind. In many touristic places, the development of the tourism is blocked by the lack of access and the poor transportation. Making a SWOT analysis over all types of transportation in Romania offers a complete view about the problems the tourism faces on a regional and local level.

### **Sebastian JUCU, Remus CRETAN, Ana-Neli IANAS – A Real Estate Approach on the Tourist Development Models from the Rural Space of the Bran Platform**

**Abstract:** Integrated on the Brasov – Bucegi – Prahova Valley tourist region and occupying from the tourist potential point of view the third position in the Romania's tourist regions hierarchy, Bran Area attracts every year a considerable number of tourists from our country and abroad. This fact is generated by the tourist resources that are specific for this space, but at the same time, by the cultural legacy of this geographic region. This paper tries to present aspects concerning the tourist development of the Bran Area that can constitute real models which should be followed and adapted for the specific conditions of the other rural settlements, where there is generally aimed the development of the agro-tourism and mountain tourism, through the perspective of the sustainable development. The strengths of this place are represented by the tourist infrastructure and resources that are varied as structure, volume and dimensions, by the tourist value of this area as well as by its specific and the quantitative-qualitative values that generate the tourist functions of the rural space analyzed in this paper. The investments from the tourist field have an

important role in the economical development of a region, in this way the presence of the investors is very important. Because the mountain tourism implies a central objective of the Romanian tourist development strategy, these investments are favorable, creating the optimal frame for collaboration between the local authorities, businessmen, investors and general planners. In a particular way, this study presents, together with the general problems (the local peculiarities, the specific of resources and tourist potential, the local offers), two projects of tourist development that determine a close collaboration between the authorities, investors and the real estate companies. A good cooperation between the all actors that are involved in the promotion of the sustainable development can lead to aviable model that should be successfully applied to others regions. The first one is represented by the Mountain Village Project and the second one by the Râsnov-Glajarie Holyday Houses Development Project. Both of them are situated in the Bran Area and reflect the space development in the spirit of sustainability on a surface over 160,000 sq. m. It is aiming the construction of two districts composed by wooden houses and other endowments that will satisfy the all requirements for tourists that are visiting this part of Romania. At the same time, this study wants to present the importance that the real estate companies have in the local and regional development from the tourist point of view. These are real vectors in providing the spatial and socio-economical progress of the Romania's regions.

**Review** – RADOANE, MARIA, DUMITRIU DAN, ICHIM IONITA, *Geomorfologie* (2006), by Petru URDEA

**Editura Universitatii Suceava, Suceava, 2006, editia a II-a, Vol. I, 250 pag., 115 figuri, 18 tabele, glosar cu 180 termeni; Vol. II, 394 pag., 205 figuri, 29 tabele, glosar cu 167 termeni, bibliografie la fiecare capitol.**

La o analiza atenta a productiei de carte geografica stiintifica din tara noastra, avem ocazia sa constatam, cu destula usurinta, productivitatea sporita în ultimul deceniu, mai ales pe palierul asociat unor teme si subiecte la moda, ca de pilda, globalizarea, geopolitica, colaborarea transfrontaliera, fenomenele de risc etc. Pe fondul acestei

situatii, aparitia unor tratate de marca dedicate domeniilor clasice ale geografiei, ca de pilda geomorfologia, este una de-a dreptul salutara, mai ales ca este nevoie de o reala primenire a viziunii si practicilor specifice acestei stiinte si în tara noastra, de o racordare reala la fluxul si spiritul international contemporan în materie.

Având ca autori pe împatimiti într-ale geomorfologiei – din pacate seniorul grupului a trecut la ceruri – acest tratat de geomorfologie este, suntem convinsi de acest lucru, rezultatul îmbinarii firesti a viziunii geomorfologului practician – geomorfologia „se masoara cu pasul”, nu-i asa! -, cu a teoreticianului riguros, totul pe fondul dorintei exprimate ades de catre autori, aceea de a se situa foarte aproape de reperele mondiale în materie.

Fiind vorba de editia a II-a – pentru noi este un semn clar al modului cum a fost primita prima editie si a disponibilitatii autorilor de a se osteni pentru o noua editie – calitativ superioara precedentei, chemarea spre lectura, treptat, treptat tot mai captivanta, desigur pentru cei cu adevarat chemati spre geomorfologie, fiind facuta de catre motto-urile atent alese. În aceasta privinta, chiar daca poate sa fie vorba doar de o satisfactie personala, a deschide un tratat de geomorfologie cu cuvintele lui Emm. De Martonne, cel caruia noi, geomorfologii români, îi vom ramâne pe veci îndatorati, este o forma eleganta prin care autorii își exprima prinosul de pretuire si respect pe care îl datoram înaintasilor.

Dupa ce în primul capitol autorii se ocupa în mod firesc de denumirea, definitia, obiectul de studiu si scopul geomorfologiei, de raporturile acesteia cu alte stiinte geonimice si de structura stiintei noastre, în capitolul urmator, avem ocazia sa aflam care au fost treptele ce au fost cladite pe scara vârstei acestei stiinte, pentru ca apoi, prin capitolul de metageomorfologie, prezent pentru prima data într-un tratat românesc de gen, sa înțelegem care sunt temeiurile ontologice si gnoseologice ce stau la baza stiintei geomorfologice, stiinta complexa, de granita.

Dedicând capitolul 4 bazelor generale ale morfogenezei, autorii se opresc mai întâi asupra suportului energetic al morfogenezei si a cascadei de materie, pentru ca mai apoi sa ne poarte în maniera explicita prin teoriile care stau, fie la baza geomorfologiei clasice, ca cele ale modelelor ciclice, fie a celei contemporane,

gândindu-ne desigur la modelele neoevolutioniste.

Pentru a sublinia cu foarte multa determinare complexitatea stiintei noastre, pe o baza teoretica foarte solida, se trece apoi la problematica geomorfologiei planetare, făcându-se necesare diferentiere între morfologia cosmica si morfologia tectonica planetara, cu fireasca ancorare în teoria ce a revolutionat geostiintele, teoria tectonicii globale si tot ce se subsumeaza acesteia. Este într-un fel si o pregatire a terenului pentru capitolele ce urmeaza, cele în care este prezentat vulcanismul si relieful vulcanic (cap. 6), morfotectonica si relieful structural (cap. 7), relieful litologic (cap. 8), expozeul logic, asociat unui stil concis si foarte clar, carora li se alatura o ilustratie foarte adecvata, dând valoare acestor capitole cu care se încheie volumul I.

Volumul al II-lea debuteaza cu capitolul dedicat meteorizatiei, privita ca sistem morfogenetic ubicuu si de mare complexitate, cu efecte geomorfologice distincte, dependente direct de conditiile de mediu, abordarea fiind una suficient de meticuloasa pentru a convinge asupra particularitatilor si specificului meteorizatiei prin toate formele sale de exprimare.

Data fiind marea extensiune spatiala si potentialul morfogenetic considerabil, versantii se bucura, alaturi de sistemul geomorfologic fluvial, de o atentie deosebita din partea autorilor, fiind vadita predilectia autorilor pentru aceasta problematica pe care o stapânesc cu mult profesionalism, construit cu daruire de-a lungul anilor si în diverse regiuni ale tarii. Deoarece în tratatele autohtone de geomorfologie versantii, priviti ca suprafete distincte, nu se bucura deo prea mare atentie teoretica, definirea versantilor si elementele de forma ale acestora este cât se poate de potrivita, usurând astfel înțelegerea mecanismelor de evolutie a acestora, ca si vasta gama de procese de versant. Cu reala satisfactie avem ocazia sa constatam ca abordarea în maniera pronuntat tehnica a problemelor specifice bazinului hidrografic, privit ca unitate morfogenetica fundamentala, a variabilelor operationale, ca si a elementelor conceptuale asociate geometriei hidraulice, dinamicii patului albiei etc., subliniaza importanta pragmatica a cunoasterii aprofundate a sistemului fluvial, stilul coprehensiv, asociat cu concizia, sprijinind din plin înțelegerea complexelor procese

morfogenetice fluviale.

În următoarele două capitole, chiar dacă s-au bazat mai ales pe o asimilare profundă a literaturii de specialitate, autorii reușesc să prezinte în tuse clare și pline de conținut, într-o succesiune logică firească, specificitatea morfogenezei glaciare și periglaciare, având grija să clarifice mai întâi particularitățile mediului glaciare și periglaciare de modelare, a proceselor ce operează, și abia apoi să vină rândul formelor rezultate. Este de apreciat faptul că nu sunt omise activitatea fluvială și cea eoliană din mediul periglaciare, ca și faptul că se face o diferențiere între formele periglaciare asociate permafrostului și celelalte, chiar dacă ghetarii de pietre sunt asociați proceselor de versant, ei fiind însă, în fapt, indicatori ai permafrostului. Data fiind marea extensiune a ariilor ce poartă amprenta morfogenezei glaciare și periglaciare, autorii încheie capitolele amintite cu prezentarea, în esență, a cauzelor glaciatiilor și, respectiv, a climatelor periglaciare și limitele acestora.

Capitolul 14 este dedicat sistemului morfogenetic eolian, prin aceasta autorii dorind, probabil, doar să dea niște tuse de contur, e drept, cele mai reprezentative, ale 156 modelării din mediul desertic, acesta trebuind însă să fie privită, desigur, ca fiind mult mai complexă.

Cu foarte multă bunăvoință și generozitate s-au aplecat însă autorii asupra sistemului morfogenetic marin, pe mai bine de 50 de pagini fiind abordate toate problemele specifice morfogenezei litorale, de la delimitarea zonei la agenții și procesele zonei costiere, la relieful specific, de abraziune, de acumulare, la tipurile de tarmuri, fiecare entitate ideatică fiind îmbrăcată într-un discurs direct, clar și curgător.

Penultimul capitol vine să întregască solidul esafodaj al științei geo- morfologice, construit cu prezentarea fiecăruia din capitolele precedente, sistemele morfoclimatice fiind cele care sunt o realitate a manifestării acelor legități generale ale geosistemului și care, se rasfrâng, fără nici o tagadă, și asupra morfosistemului. Pentru a demonstra, credem noi, că geomorfologia trebuie să fie mereu alături de prefacerile ce au loc în mediul terestru, autorii dedica un subcapitol schimbărilor climatice pleistocene și holocene și unul efectelor geomorfologice ale schimbării

climei, demers foarte util poziționării geomorfologiei în contemporaneitatea științifică.

Conturarea mai pregnantă a unei atitudini utilitariste a geomorfologiei, a celor ce se dedică acesteia, are loc în ultimul capitol al lucrării, cel în care, printr-o viziune analitico-sintetică ne sunt prezentate efectele impactului antropic asupra morfogenezei actuale, ușurând astfel, operațiunea prin care omul, societatea omenească trebuie să-și asume rolul de agent morfogenetic, cu dorința de responsabilizare obiectivă, mai ales că prezentarea unor studii de caz dintre cele mai expresive este la îndemână cititorilor.

Suntem convinși că cei ce citează acest op. științific, consideră fără rezerve că se află în fața celui mai bun tratat de geomorfologie publicat în țara noastră și care, de acum încolo, reprezintă, incontestabil, un reper în materie, fapt pentru care autorii merită sinceră apreciere a tuturor celor ce doresc să înțeleagă fața Pământului.

„Res severa verum gaudium”

# 2006-Volume XVI

*Special issue dedicated to: The International Workshop on Alpine Geomorphology & Mountain Hazards Bâlea Cascada – Fagaras Masiff (Southern Carpathians) – Romania, 14-17 september 2006*

**Daniel GERMAIN, Louise FILION, Bernard HÉTU – Snow Avalanche Frequency Inferred from Tree-ring in a Changing Climate, Chic-Choc Range, Eastern Canada**

Abstract: Snow avalanches are usually related to specific storm and weather factors. Because they occur at altitudes close to the 0°C isotherm in mountain environments, avalanches should respond quickly to climatic variations. This study provides tree-ring-based medium sized avalanche chronologies for 12 subalpine avalanche paths in the Chic-Choc Range of Québec (Canada). For the period covered by the chronologies, i.e. between 1895 and 1999, medium sized avalanches occurred with an average return interval of 5.3 yrs, which represents an average annual probability of 21% for all paths. A regional avalanche activity index (RAAI) was developed to help differentiate widespread regional avalanche activity from avalanche events resulting from local factors. Nineteen yrs of high-magnitude avalanche occurrence were identified (1898, 1936, 1939, 1941, 1965, 1969, 1970, 1971, 1977, 1981, 1984, 1987, 1988, 1989, 1990, 1991, 1992, 1994 and 1995). Of these, 15 occurred after 1950 and 10 after 1980. Five weather scenarios were identified to account for widespread regional avalanche activity: 1) above-average total snowfall, 2) high-frequency of snowstorms, 3) major rain events and facet-crust development, 4) sequences of freezing rain and strong winds, and 5) early-season weak layers of faceted crystals and depth hoar. The number of days with air temperature above 0°C has strong implications on the internal structure and stratigraphy of the snowpack, and consequently on avalanche release. Accordingly, land managers should more closely consider the impact of climate warming on avalanche activity.



## **Zoltán KERN, Balázs NAGY, Balázs KOHÁN, Èva BUGYA – Glaciological Characterization of Small Paleoglaciers from Calimani Mountains**

**Abstract:** We mapped moraines and headwalls in two cirques situated below Pietrosu Peak and Rachitis Peak. The preserved landforms suggest at least two subsequent stages of glaciations during the Late Quaternary history at both sites, correspondingly. We outlined the supposed palaeoglacier margins considering the marginal landforms (moraine, headwall) and the present terrain. Glacioclimatological characterization of the realized glaciers was assessed by estimating the corresponding palaeo-equilibrium-line altitude (pELA) applying size specific accumulation-area ratio. The estimated elevation of pELA is 1840 m and 1915 m during the older while 1850 m and 1925 m during the younger glacial stage for Rachitis and Pietrosu cirques, respectively. The significant elevation difference between the pELAs for the two cirques could be due to their different exposure.

## **Petru URDEA – Absolute Ages, Relative Ages and Weathering in Glaciated Landscape of Retezat Mountains (Romania). Preliminary Results**

**Abstract:** The surface exposure dating with  $^{10}\text{Be}$  and  $^{26}\text{Al}$  radionuclides opens new opportunities for the interpretation of the evolution of the geomorphologic landscape of mountains areas during Quaternary. The ages of some glacial landforms from Retezat Mountains – especially erratics – resulted from cosmogenic dating are correlated with the results obtained by Schmidt hammer testing. This method allows appreciating the weathering degree and the relative ages of the constitutive rocks of erratics, in the situation in which the degree of weathering is an indicator of the surface ages. We take into consideration the fact that the rock surface weathering is reflected by rock surface hardness, expressed by R values or rebound number related to the elastic properties of the surface and, therefore, its compressive strength. Our results prove a strong relation between absolute ages and relative ages, expressed by a preliminary linear calibration-age dating curve, basis on Schmidt hammer testing.

## **Smaranda SIMONI, Cristian FLUERARU – Leaota and Zârna-Ludisor Glacial Complexes (Fagaras Massif)**

**Abstract:** Located on the eastern half of the southern slope of the Fagaras Massif, below its main ridge, these two glacial complexes are well preserved and have certain distinct characteristics: various types of glacial cirques; the most numerous glacial lakes and overdeepenings in the Fagaras Massif; well preserved parts of the superior leveled surface where small plateau glaciers may have functioned, so that this is a transition area between the Fagaras glacial landscape (alpine landscape) to the Borascu glacial landscape. The preglacial topography, orientation and geology strongly influenced the location, development and size of the glacial landforms. The studied area is representative for the leveled and glaciated high areas of Meridional Carpathians. Also it is difficult to access and consequently less studied by geomorphologists and geologists. Therefore this study presents a detailed geomorphologic map of the glacial and periglacial landforms, a typological and morphometric analysis of the glacial landforms, and other geomorphologic conclusions. For its unique landscape and other rare elements, the alpine area of Doamnei River basin (including the studied area) was officially declared protected (under the name of the Alpine Area Valea Rea – Zârna, natural reservation category IV UICN), based on a project made by Smaranda Simoni.

## **Emil GACHEV – Geomorphological Researches in the Periglacial Areas of Bulgaria**

**Abstract:** The periglacial zone of Bulgaria comprises the high parts of the two highest Bulgarian mountains – Rila (2925 m a.s.l.) and Pirin (2914 m a.s.l.) – especially areas which stand above the present upper forest limit, at altitudes of 2200 – 2300 m. This paper aims to present the new programme for complex geomorphological research in these areas that was started at the beginning of this year. Shortly called Bulgarian Periglacial Programme, it aims to perform monitoring and observation of periglacial sediment transfer processes in order to execute quantitative analyses, spatial modeling and risk assessment of environmental hazards.

## **Alexandru ONACA – Morphoclimatic Aspects of the Periglacial Belt from Capătânii Mountains**

**Abstract:** The present article broaches the problem of a periglacial morphoclimatic belt from the Căpătânii Mountains, based on the harsh climatic conditions characteristic for the high Carpathians, underlined by the vegetal component as well, but also by the irrefutable morphologic evidence observed during terrain work. The periglacial belt is entirely comprised in the solifluction layer, fact proven by the maximal altitudes below 2150 m, by the local climatic conditions and by the particular morphology of this unit. For a precise delineation of the two existent belts from this area – the fluvio-denudational belt and the periglacial – some GIS methods have been used which are of great use in such matters. Even though the present intensity of the periglacial processes from the subalpine domain of these mountains is considerably lower than in the Pleistocene, fact confirmed by the high number of fossil periglacial forms, the present dynamic of the landforms cannot under any circumstance exclude the cryonival of shaping the relief.

## **Maria Dana MOTOIU – Avalanches in the Bucegi Mountains – Zoning, Return Period, Local Characteristics**

**Abstract:** The article treats avalanches particularities in the Bucegi Mountains. The main objectives were to classify the gathered data, map avalanche risk areas and establish periodicity of avalanche events on the avalanche paths.

## **Anca MUNTEANU, Maria Dana MOTOIU – The Avalanches' Impact into the Anthropogenic Activities on the Piatra Craiului Eastern Slope**

**Abstract:** This article intends to estimate the frequent avalanches' impact on the environment, especially on the anthropic activities from the Eastern slope of the Piatra Craiului Massif. The avalanches are ubiquitous phenomena which manifest on the whole slope surface. Avalanches' after-effects can be emphasized through the presence of more than 35 couloirs, which preserve year after year easily identifiable track effects, which can be compared to the data offered by spatial analyses. The

monoclinal structural predisposition of the Western flank of the Piatra Craiului synclinal, which give the morphometric and morphographic characteristics to the whole slope, contributed to the formation of a network gully erosion extremely fully torrent, speculated by the snow which fulfills the flowing conditions. The antropic activities which are carried on these areas that are vulnerable to avalanches are: the tourists activities, grazing and forest exploitation. Over the years, there have been registered in this area, the complete damage of two huts, the partial damage of a refuge cabin and a victim. The tourist paths which have areas exposed to avalanches are in a total number of 7, respectively 4 for the refuge cabins. The grazing has an interfacing function and is unfolded on the whole area. Annually, the forests are affected by avalanches on tens of hectares. This study has an interdisciplinary approach on the avalanches, both as a natural phenomenon, and as risk phenomenon. The conclusions of our study have an immediate practicability, being the base for the map on avalanches' hazards and directing lines for the improvement of the Piatra Craiului National Park Management.

**Narcisa MILIAN, Maria Dana MOTOIU, Mihaela STANDESCU – Snow Avalanche Monitoring Pilot Network in Romania. Results from a 3 Winter Seasons Work**

**Abstract:** The National Meteorological Administration (NMA) has developped a snow and avalanche monitoring network starting in Bucegi, Fagaras and Postavarul Mountains. The program runs in cooperation with Centre d'Etude de la Neige, Meteo France, Grenoble. From february 2004 this program was put into practice as a team work of different departments of NMA. The results are: predictions and diagnosis of snow layer charachteristics, snow stability and avalanche risk, and were presented as daily bulletins, data bases, statitics and yearly reports. The daily snow and avalanche bulletin was published in the winter 2005-2006 on 3 internet sites.

**Dana MICU, Mihai MICU – Winter Temperature Trends in the Romanian Carpathians**

**Abstract:** The paper deals with frequency changes in winter temperatures in terms of specific thresholds and trends by using average, minimum and maximum daily temperature data registered at 15 weather stations situated at over 1,000 m altitude in the Romanian Carpathians. The multiannual mean temperature during the winter season and standard deviation values were determined in order to group wintertime into severity classes over 43 years of meteorological observations (1961-2003). Winters were characterized not only by temperature regime, but also by other climatic parameters in order to better reflect the local climatic conditions (e.g. number of days with certain negative temperature thresholds, snow cover onset/melting dates, snow cover duration). The main results show that winters became milder where there was a general increase of temperature, a trend showing some regional differences due to altitude and slope aspect against the circulation of the main air masses.

#### **IN MEMORIAM – Gheorghe NICULESCU (1929-2006)**

Son of a distinguished family from Ploiesti, Gheorghe Niculescu spent his childhood in his native town to which he will be deeply connected as well as to the whole Prahova area. He became a student at the Army College Nicolae Filipescu from Dealu Monastery (which was moved to Predeal after the 1940 earthquake) but the beginning of his adolescence was marked by the death of his father in the first weeks of the Second World War during the fights for the liberation of Bassarabia province, being the commandment of Regiment 12 Infantry „Dimitrie Cantemir”. There came the years of war with many bombardments on Ploiesti which had had a strong influence on him as for the whole unhappy population there.

The high-school years were with very good results and the family climate and the ordered military high-school life made him gathering a superior training and education, expressed by his calm and honesty in the relationship with his colleagues. In 1951 he graduated the Faculty of Geology and Geography from the University of Bucharest, section geography as a chief of promotion. As a result of his training in his large geographical knowledge he was named preparatory and then assistant at the

course of geomorphology.

But in that interwar period of decentralisation the Romanian society– mainly a moral one – when the intellectual quality and capacity were totally servient to other criteria, the young assistant Gheorghe Niculescu was incorporated for the military stage. As he did not have all the merits as being a military in the army of the country, „as son of an Antonescian officer who had fought against USSR”, he was incorporated in working army. He had one advantage: as not being sent to the numerous working groups of that time and remained in Bucharest fact which gave him the possibility as in his free time to come to the faculty – in his grey suit of the working army – in order to make some department obligation.

His first published works belong to those years and in spite of his incompetence in those unfavorable conditions these did not count in front of the persons leading an absurd ideology. His father patriotic sacrifice had been stigmatized as following forever. In 1957 he was thrown out of the faculty – this not meaning he stopped his geographical work – as becoming a member of the Institute of Geography where he carried on his highlight activity till the end of his life. It is difficult to appreciate if such a change was viewed as a personal prejudice with great consequences but it is certain that the new atmosphere from the Institute of Geography offered him the possibility of putting into value of his capacity as researcher and in equal measure of his talent of geographical representations, mainly the relief. Because he was interdicted to have a university career, as one of his colleagues said at his 70 years anniversary, for the geomorphologist and cartographer Niculescu the Institute became the department from which he learned the principles and techniques of representation for the geographical phenomena. But this was done not through speeches but through his own work, most of them being as personal works published by the Institute of Geography, beginning with The Geographic Monograph of Popular Republic of Romania and ending with the Historical-Geographical Atlas, but passing through the Geography of the Romanian Delta and the greatest Romanian geographical-cartographical study, the National Geographic Atlas.

In order to have a greater role and to offer a more consistent help, larger and more

directly to the cartographical works, besides the participation as a member at the technical collectives or committees of editing, he led the sector of cartography, replacing the originals of editing with the originals of authors. It was a very responsible role, especially in the cartography of geographic phenomena, solving problems for the whole thematic geographic cartography.

Besides the work of organizing and leading, he is author or co-author in the annex of the maps from the Geographic Monograph of RPR (1958) and the Geography of the Romanian Danube Valley (1969), in the Historical-Geographical Atlas (1996) and especially in the National Geographical Atlas (1972-1979), for which he elaborated wither individually or in collaboration 17 maps at scale 1 : 1 000 000 and other smaller scales (1 : 3 000 000).

What he realized in cartography represents an important part of his scientific activity but not the dominant one as he was first of all a good and attentive researcher of the relief.

The field researches began even during his student years, attracted by the interesting phenomena from the area with which he was connected since childhood. This region – particularly its hill, the Subcarpathian space from Dâmbovită to Slănicul Buzăului – was to remain and remember till his end of life.

From the hill and plain area of Prahova he studied the western Southern Carpathians and insisted on the Godeanu Mountains till he elaborate a regional geomorphological study under this unity, published in Editura Academiei (1965) under the title Godeanu Mountains (geomorphological study). In this work there are concentrated the results of researches of many years and there are followed till details the forms and processes from alpine layer. The rich and varied illustration, including a coloured-detailed geomorphological map, as well as those artistic ones representing the relief from the mountain space are made in a very suggestive way on the line of the new geomorphological cartography.

With this study Gh. Niculescu obtained in the same year (1967), in a unique way for us, the title of doctor in geography and the award „Gh. Munteanu-Murgoci” given by the Romanian Academy.

As well as before the appearing of the study on the Godeanu Mountains, his preoccupations on geomorphology of the Southern Carpathians carried on with the following of some representative aspects, extending even to the Curvature Carpathians. Without neglecting is the research between Prahova and Buzau Subcarpathians as well as the national importance activity at the programmes them had been treated less formally and he devoted to each of them through his scientific capacity.

His preoccupation included the research and geomorphological knowledge of the mountain space, the problems of evolution and formation of the leveling surfaces, the effects of glacial modeling in different litological and structural conditions and the aspects on the present modeling. The mountains attracted him to fascination and he devoted to them scientifically and artistically. Some studies included touristic aspects as guides (Retezat Massif, Godeanu-Tarcu-Muntele Mic) and some articles in geographical reviews. Sometimes he had into attention not only the mountain units but also the works with touristic and general information content for the whole Prahova area (Prahova – tourist guide, Teleajen Valley, Prahova County) to which he was mainly connected.

Besides of the thematic volumes and the contributions to the large collective works of the Institute of Geography as very important being the over 100 articles published in speciality reviews referring to the mountain space of Prahova-Buzau Subcarpathians with a slight accent on the Subcarpathian region, the one which offered to study diverse problems.

His efforts for spreading his knowledge about the Romanian Carpathians are reflected also by his translations from French language and the reediting in the Romanian language (with notes and commentaries) of the studies made by Emm. de Martonne for the geographic information about Romania. The two volumes appeared in the Academy Printing House under the title „Geographic works about Romania” comprising „researches on the morphological evolution of the Transylvanian Alps (vol I, 1981) and a series of articles referring to different geographic aspects of the Carpathians, including the three geographic excursions of the Institute of Geography from Cluj (vol. II, 1985) (translated by Gh. Niculescu and S. Dragomirescu, notes,



comments, forward, chronological tables, editors V. Tufescu, Gh, Niculescu, S. Dragomirescu).

The published works and the assembly of collaborations on different plans over 5 decades are showing his varied preoccupations and the way in which he understood to be implied, helping the efforts of consolidation of the Romanian geography through works of national importance, very appreciated on international level.

With the occasion of his anniversary at 70 years there were shown his contributions to the fields of geomorphology and cartography in which he put into value equally his talent and scientific capacity to clearly represent phenomena, fact for which he was called the passionate geo-grapher and artist (*Revista Geografica*, VI, 1999). The power of work brought him to obtain high scientific results and his calm and equilibrium was seen in his cartographic works. In the last years he came back to his native region – the Prahova Subcarpathians – that which half a century ago opened him the way to professional career. It was his last coming back as a cruel illness stopped him from working even when he was almost ready to finish a geo-morphological synthesis on the Subcarpathians between Prahova and Buzau.

We are looking forward to finding solutions this last work of him to be published so that to make his last wish come true, for a whole life dedicated to the assertion of the Romanian geography.

**Lucian BADEA**

## 2005-Volume XV

### **François JEANNERET – The rhythm of seasonality – a phenological season diagram**

Abstract: Le rythme de la saisonnalité – un diagramme saisonnier phénologique. La phénologie concerne les types et l'évolution de la saisonnalité de l'environnement biotique et abiotique par des observations sur le terrain et des données dérivées d'images, de photographies, de documents historiques. Cette méthode de biodétection est pratiquée dans le cadre de nombreux programmes d'observation et permet de définir le rythme annuel des saisons. A l'instar de diagrammes climatiques, mais aussi de calendriers et horloges phénologiques, un diagramme phénologique normalisé permettrait de représenter, à l'aide de données biotiques et abiotiques, le déroulement des saisons. Des exemples de deux stations en Suisse démontrent le potentiel de ce type de diagramme proposé comme référence normalisée permettant d'ouvrir le chemin à une typologie de la saisonnalité.

### **Sandu BOENGIU – On the Villafranchian from the Balacita Piedmont**

Abstract: Many geological and geographical papers still use different limits between Pliocene and Pleistocene, the term Villafranchian having different meanings. Such inadvertences make us feel that is compulsory to clarify the subject, debating upon the Pliocene-Pleistocene limit and the term Villafranchian. The Villafranchian morphological evolution of the Getic Piedmont was the result of the general configuration of this particular territory and, subsequently, it is highly recommended to maintain this term, but only as a time sequence during the morphogenesis of a region and not as a chrono-stratigraphical unit.

### **Alina COCOS, Octavian COCOS – Cartographic analysis of the relief in the Călnistea catchment**

Abstract: The Călnistea catchment develops entirely in the plain area. Consequently, the relief is generally monotonous, consisting of large and quasi-horizontal

interfluves, separated by narrow and sometimes deep valleys, cut in the loessoid deposits belonging to Upper and Middle Pleistocene. The extremely low slopes in the long profile and the temperate-continental climate, with high temperature variations from summer to winter and insufficient rainfall (500 – 600 mm), make the runoff acquire a temporary or semi-permanent character. Therefore, excepting the Călnistea and the Glavacioc, river network is less developed, linear erosion succeeding only in a few cases to intercept the underground water, which comes out as low discharge springs. In spite of all these, the valleys are the most favorable places for the settlements.

### **Alexandru ONACA – Considerations on the main potential morpho-dynamic processes in the Capatanii Mountains**

**Abstract:** This study was determined by the identification of some potentially hazardous morphodynamic processes within Capatâni Mountains which aimed to identify the areas that show optimal conditions for the occurrence of these processes. The analysis, conducted by means of G.I.S. methods, took into consideration the geologic, climatic, pedologic, hydrological, biotical and, of course, the landform characteristics of the researched area. At a first stage some initial maps were produced, on the grounds of which afterwards analytical maps were made by means of mathematical operations on the initial maps. These analytical maps show exactly the areas which are most exposed to geomorphologic processes considered a potential geomorphologic hazard. These hazardous areas are situated mainly at altitudes over 1700 m, in the sub-alpine area, deprived of the protective layer of the forest and with high declivity values and with a thick layer of weathered rocks and under the influence of a cold and wet climate during the whole year.

### **Adina-Eliza CROITORU, Florin MOLDOVAN – Vulnerability of Romanian territory to climatic hazards**

**Abstract:** The main purpose of the work is to identify and establish a hierarchy for climatic hazards over Romanian territory. We used the complex hierarchy method of Edward Bryant with 9 criteria – characteristics and impacts (Severity, Duration,

Total Affected Area, Total Human Loss, Total Economic Loss, Long Term Impact, Suddenness, Occurrence of Associated Phenomena and Frequency of Occurrence of the analysed phenomenon) -, grading the characteristics and impacts and giving an 1 to 5 score to each climatic phenomenon. 1 is given for the most severe situations and 5 is for the less severe situations. Finally, a hierarchy is made for each ethnic and historical region of the country (except mountain areas).

### **Eugenia STANCIU, Valeriu MISA, Cristian NICHITA – The storm, a risk phenomenon in Banat**

Abstract: The research of the storm phenomenon (vijelie) was motivated mainly by the fact that it is a dangerous meteorological phenomenon which determines material loss but is not very researched. In Romania the regions most affected by storms are the Western Planes, the Western Hills and the Romanian Planes. Consequently of utmost importance was considered to be the detailed analysis of the frequency of the storm phenomena in Banat at 14 meteorological stations for a 25 year period (1979-2003). A very frequent phenomenon in southern Banat, we established a correlation between these and wind circulation.

### **Razvan-Horatiu BATINAS – Oxygen regime of the rivers from Aries watershed**

Abstract: The oxygen regime of river waters is influenced by it's relation with the air, photosynthesis processes of green algae, and by the type of river sources, the slope of river profile, geological, soil and human factors. In this paper were analyzed the following indicators: dissolved oxygen, biochemical oxygen demand (BOD), chemical oxygen demand (COD). Thus, it has been monitored the evolution of this indicators along the main river, but also on the main tributaries, at the water quality control sections. The results have generated the following conclusions: the concentration of dissolved oxygen is high for the entire length of the rivers, fact that improves the development of aqua flora and fauna. The groundwater river sources, the steep slope of river bed, favored that on the upper section of the river to record the highest

values. Concerning the yearly profile, we have notice a generalized down tendency on all water section.

**Gheorghe SERBAN, Mircea ALEXE – The contribution of salt distribution in the appearance of the heliothermic stratification in the salt lakes of Sovata and Ocna Sibiului**

**Abstract:** The oversalted waters of the lakes from the studied area, associated with the reduced capacities of the lakes and of a change of water usually inexistent is characterized by a special space-time variation of the chemical and physical parameters. In this study it has been made a selective analyses of the most representative parameters (salinity and temperature) which gave a distinctive form towards other genetic categories of lakes. Without doubt the variation of salinity induces varied forms of anomaly for all physical and chemical parameters, determined chances as: helioterma, the transition from an acid pH to a basic one, the drastic lowering of the dissolved oxygene with depth associated to the quantities of sulphurate hydrogen etc. The stimulation of an intensed dynamics of water in superficial water horizons or the existence of sweet water supply complicates more and more the time and space distribution of salinity and temperature.

**Ana IANAS – The geographical risk phenomena in Moneasa and its surrounding area**

**Abstract:** This study tries to show the geographical risk phenomena met in Moneasa commune and its surrounding area, because these should be taken into consideration in case of some future proposals of planning the commune's territory. The evaluation and classification of the geographical risk phenomena after the: origin, way of manifestation (rhythm), release speed or the season when they take place, gives us permission to identify the measures which can be taken in order to improve their negative consequences in a good strategy of microregional development of Moneasa commune.

## **Remus CRETAN, Sebastian JUCU – The geographical and historical evolution of roma population from Banat and Crisana regions**

**Abstract:** This work is part of the results of a CNCSIS contract, type AT (for young researchers) made in the period 2003-2004. Most of the social studies on gypsies reveal a magnitude of social and spatial disparities at the level of life standard and the causes which give birth to some unequal issues in the local and regional development. The gypsies in the west part of Romania suffered from some great social-economic inflections of the last century, the Second World War and the somehow freedom of the population in Eastern Europe after the decay of the Iron Curtain. In the context of a social-economic integration the gypsies from Banat and Crisana areas still cope with the following problems: lack of identity cards without which they could not work and take part at voting, problems of going to school (education problems), preventing thief activities and criminality and their integration in labour. Marginality is a special condition of disadvantage that people can experience from some vulnerabilities which arise from unequal environmental, ethnic, cultural, social, political and economical factors. The gypsies from Banat and Crisana could be included in two kinds of marginality with one derivative form. The main forms are contingent and systemic marginality, while the derivative one is collateral marginality. The first form is a condition which results from competitive activities in which gypsies are put as a disadvantage because of the dynamics of the free market and of the low incomes they have in a certain area of study. Systemic marginality is a socioeconomic condition of disadvantage constructed by incorrect non-market forces. Collateral marginality is experienced by gypsies who are marginalized only on the basis of their social or geographical proximity to people who are either in a contingent or systemic marginality. In this way, it is a study of unequal development in society and space. Most of the people living in such areas are under the threat of alternative and cheap labour. As a conclusion it could be noticed that the Roma from Banat and Crisana regions must be socially and economically integrated and it is needed some good social, economical and political programmes of development for the gypsies. A special case is that of the gypsies from Maguri, the

only one settlement in Banat with a gypsy majority, where a lot of social-economic problems of gypsies has appeared.

**Marina TODOROVIC, Radmila MILETIC – Eco-tourism in the funktion of diversification of rural economy**

**Calin-Cornel POP – The menthal-conceptual geography or the right away geography. Theoretical analysis**

Abstract: In general but also in particular the science concepts gather the laws and the basis, the foundations. The foundations are on the one hand, the material reality and on the other hand the human activity. Reality seen as the obiectiv content of the certain science and activity demonstrating the thruth of the theories. The structure of the these foundations also has in it's basis the things that are outside the limits of the certain system along with the things that enter it's science system. The laws feelfill the science's foundations, being concepts that reflect, totally or partialy, the goal of the given science, having an universally character. The laws initially function as principles that are the base of the science building, at the same to time, the theoretical construction base. In exchange to that, discovering new laws is a very difficult task, but very necessary in every domain of a scientifical research.

**Margareta Amy LELEA – Case-study: women entrepreneurs along the Hungarian (E.U.) border in Arad county, Romania**

Abstract: In the border area women are also active participants at the development of the region. Such an example is given by the entreprenorial women who begun with small firms from textile industry to mixed shops. The sustainable development needs the participation of both genders in society. This article is based on researches made in 1999 and on literature for 2003 in the Arad county, Romania. Initial fieldwork was conducted in seven locales from mid-July until mid-September 1999 with a brief revisit in mid-September 2003. Most of the entrepreneurs in this study are involved in micro-entrepreneurship with less than five employees and sometimes no employees. To be considered an entrepreneur in this study, an individual must have

a registered business, unless it is an agricultural activity. The names of registered businesses were provided by the Chamber of Commerce in Arad. lack of available capital, financial instability, taxes, bureaucracy and interest rates are problems challenging almost all entrepreneurs in Romania, but some women survive as entrepreneurs despite these odds. Although entrepreneurship is still a minority activity for women, it represents an opportunity for empowerment.



# 2004-Volume XIV

*Special issue dedicated to: The International Workshop on Alpine Geomorphology & Mountain Hazards Bâlea Cascada – Fagaras Masiff (Southern Carpathians) – Romania, 23-26 september 2004*

## **Foreword (Dan BALTEANU)**

The present volume includes some of the papers delivered at the international workshop held at Bâlea Cascada (Fagaras Mountains) Romania, September 23-26, 2004 under the aegis of the Carpatho-Balkan Geomorphology Commission (organisers: the West University of Timisoara, the Bucharest Institute of Geography and the Association of Romanian Geomorphologists). The organisation of this workshop was proposed at the Carpatho-Balkan Conference, Bratislava, 2003 and reflects the activity developed by one of the working groups for the study of alpine areas.

## **Introduction (Petru URDEA)**

The adjective alpine is used, in most cases, with reference to a specific feature of a mountain area characterised by a geomorphological landscape mostly modelled by glacial morphogenesis. Nevertheless when reference is made to the alpine region it is necessary to mention that this region extends between the upper limit of the forest area and the lower limit of permanent snow.

If we take into consideration the etymology of the toponym Alps, starting either from the Indo-European linguistic root by which the term alp was used with the meaning of mountain, or considering the Celtic etymology of the term, according to which alp had the meaning tall, we have two distinct landmarks which allow us to make a picture which illustrates in some way a mountain area of this type.

**Anne REUTHER, Christian GEIGER, Petru URDEA, Hans-Peter NILLER, Klaus HEINE – Determining the glacial equilibrium line altitude (ELA)**

## **for the Northern Retezat Mountains, Southern Carpathians and resulting paleoclimatic implications for the last glacial cycle**

Abstract: The Carpathians are one of the dominating mountain ranges in Europe. Their transitional climatic situation between maritime (west) and continental (east) air masses arouses special interest with respect to the timing of the glaciations. In reconstructing the past history of the Pietrele-Nucsoara glacier complex on the northern slope of the Retezat mountains, Southern Carpathians, a combined geomorphological, pedological and geochronological (surface exposure dating) study was carried out. A detailed GPS survey assisted in reconstructing the paleoequilibrium line altitude (pELA) in a Geographical Information System (GIS). Two glacial stages were identified. Using exposure ages, the younger (Capra-Judele, M2) advance dates back to about 16.1 kyr, delayed in comparison to the onset of deglaciation in other mountain ranges like the Alps. The respective pELA-depression was determined to about 1050 m (present-day snowline, approx. 2900 m asl as reference level). Due to the absence of datable boulders, it was not possible to date the older (Lolaia, M1) advance. Hence, pedological investigations assisted in estimating the age of the Lolaia advance. Our results indicate that the maximum advance of the Pietrele-Nucsoara glacier complex corresponds to the early Wuermian (MIS 4?). The pELA-depression of the Lolaia advance during the early Wuermian was estimated to be approx. 1100 m (present-day snowline as reference level). Further investigations in other mountain ranges in the Southern Carpathians are required to confirm our preliminary interpretations.

## **Zofia RACZKOWSKA – Considerations on periglacial landforms and slope morphodynamic in periglacial zone of Tatra Mountains**

Abstract: Slope morphodynamic in periglacial zone of the Tatra Mts. is discussed based on periglacial landforms characteristics and distribution. Special attention is given to distinct periglacial environments where permafrost is expected as the Medena valley.

**Marek KRÍŽEK, Václav TREML, Zbynek ENGEL – Periglacial landforms in the High Sudetes (The Czech Republic)**

Abstract: This article treats with periglacial landforms in the High Sudetes, exactly the recent periglacial phenomena above the alpine timberline. Spatial displacement, development of periglacial landforms and recent activity of someone of them are presented.

**Sorin CHEVAL, Madalina BACIU, Traian BREZA – The variability of climatic extreme events in the Romanian Carpathians**

Abstract: The paper analyses the variability of some temperature and precipitation extremes in the Romanian Carpathians during 1961-2003. The analyze uses the ClimDex software, the Mann-Kendall statistics and the Pettitt test, and the graphic visualization of the data. The results are often valid for the whole region, even if some regional differences emerge. Providing the present trends continue, the future will turn the Carpathians into a warmer and a drier environment than it is today.

**Bogdan MIHAI, Ionut SANDRIC, Maria MOTOIU, Radu IRIMIA – Assessing relief suitability for a sustainable skiing area development. Case study: The Azuga-Sorica Area (Baiu Mts., Curvature Carpathians)**

Abstract: Azuga mountain area is developing in terms of alpine skiing since 1984. During the last decade skiing area started to appear on a mostly afforested ground on a leese of the mountain. The first FIS homologated ski slope in Romania was built here and this is was a successful investment. It is good protected and popular. After the year 2000 new and ambitious project appears. They focus on cutting new slopes after slope deforestation. A funding shortage used to appear since 2002 when the big Cazacu ski slopes building ceased in a critical moment. Gully erosion and ravination started to attack the fully exposed new track where timber was not totally removed. There is an increasing risk for skiers that are using since 2003 the future ski slope track although it was not finished. Avalanches control the upper part of the proposed

skiing area. This case study compares the projected tracks to the land suitability areas for ski slopes through a GIS approach.

**Anca MUNTEANU – The morphological aspects of the avalanche couloirs on the east part of Piatra Craiului Ridge between Turnu and Ascutit Peaks**

Abstract: The East part of Piatra Craiului Ridge presents morphological characteristics in posed by a thick stack of limestones and conglomerates in a simple versant structure (Piatra Craiului Synclinal). On the West of the massif limestones almost vertical, give a hogback relief. In the superior part there are many turreted valleys that are favorable to avalanches. The avalanche couloirs are up to 50 meters breadth and presents 4 distinct sectors: a) the superior part, which is an accumulation basin; b) the tectonic contact between limestones and conglomerates with slide rocks accumulations; c) the valley couloir with material transport function, material from the superior part and from versants; d) couloir base, with important slide rocks accumulations, most of them being fixed. The combination mode between these sectors, the forms and dimensions allow couloirs grouping in two types that can be seen between Turnu Peak and Ascutit Peak: these are couloirs with partial development and with complete development. The studied sector is crossed by 4 touristic routes which are closed for tourists during the winter time.

**Balázs NAGY, Zoltán KERN, Éva BUGYA, Balázs KOHÁN – Investigation of postglacial surface – evolution in the alpine region of the Calimani Mountains – with an outlook to the cirque region of the Rodnei Mountains**

Abstract: The upper region (over 1800m) of the Carpathians' highest volcanic massif is dominated by gentle alpine landforms. But following the glacial evolution of this zone typical alpine postglacial landforming processes became dominant in the Calimani Mountains. Within the moderate macroforms a diverse and characteristic periglacial surface also appears. Most of the typical forms are situated in the cirque region and on the caldera rims situated at an elevation of 1900-2000m a.s.l. The last

glaciation of this region supposedly took place during the LGM, a period when only cirque glaciers were formed. Following this phase the periglacial environment came to rule and among its processes gravitational mass-movements have become dominant in the alpine zone. This zone's principal landforms were the rock glaciers and solifluction lobes. Although rock glaciers appear only as fossil forms today (but because of their huge mass of material they still can be dominant landforms in cirques), solifluction lobes prove to be quite fresh landforms. The investigation of the larger thus dominant landforms of mass-movements showed no measurable movements in the region around 1950m, which is otherwise the zone of active mass-moving processes. Newly launched dendrochronological and lichenometric investigations also show that the larger solifluction forms should be dated primarily to the LIA. Powerful gravitational mass-movements, which are responsible for the origination of larger periglacial landforms have already become inactive or they are in the phase of inactivation.

**Zoltán KERN, Dániel BALOGH, Balázs NAGY – Investigations for the actual elevation of the mountain permafrost zone on postglacial landforms in the head of Lapusnicu Mare Valley, and the history of deglaciation of Ana Lake-Judele Peak Region, Retezat Mountains, Romania**

Abstract: After microclimate, BTS, spring temperature measurements at two fossil rock glaciers in the upper part of the Lapusnicu Mare Valley it was possible to decide that permafrost do not exist at the Ana Lake up to the elevation 2100m a.s.l. Further results imply that the lower boundary of sporadic permafrost appearance is situated at the elevation of 2200 metres a.s.l. under the Judele Peak. This position (in the E-NE facing cirque in the southward opened valley) is higher by 200 metres than in the N facing cirques of northward opened valley (Pietrele valley, Urdea 1993a). Since changes in permafrost conditions are significant markers of environmental change at the periglacial zone it is important to monitor the changes in the area of

permafrost-zone, and investigating the contemporary situation is a vital step of further comparisons.

**Cristian FLUERARU , Gheorghe STANCALIE, Elena SAVIN, Simona CATANA – Snow cover measurements in the Carpathians Mountains using satellite imagery**

Abstract: Mapping of snowcover and estimation of snow characteristics requires the discrimination of the snow from other surface covers or clouds and the compensation of the disturbing effects due to the atmosphere and rugged terrain. In this study LANDSAT-ETM+ ETM+ imagery was used, as well as a SRTM 90m digital elevation model. Field-measured data from the meteorological station network was used for validation of the results. Large surface grain sizes can be distinguished from areas where the grain size is finer at the snow surface using LANDSAT-ETM+ Enhanced Thematic Mapper bands 2 (green), 4 (near-infrared) and 5 (short-wave infrared). Because of saturation in band 1 (blue), estimation of the degree of contamination by absorbing aerosols is not feasible. LANDSAT-ETM+ data were combined with regional digital elevation data to classify and map the snowcover surfaces in the test areas. The best results were obtained by utilizing the Principal Components Transform method, combined with 4/5 bands ratio and NDSI (normalized difference snow index) images as input for the maximum likelihood classification (Sidjak, RW and Wheate, R. D. 1999). Supervised classification of high- and mid-resolution satellite imagery in the mapping of snowcover extent in Carpathians Mountains appears to be a reasonable expectation, and through time for change detection studies and risk assessment.

**Dana DRAGNE, Sorin CHEVAL, Mihai MICU – The snow cover in the Romanian Carpathians and the influencing factors**

Abstract: The presence and extension of the snow cover largely depend on relief characteristics and on the climatic elements featuring a certain area. The altitude, the slope exposition against the air masses, the temperature, or the number of snowfall days can determine the depth, and the extension of the snow cover. This paper aims

at finding out the statistical significance of the climate and relief influence on the snow cover in the Romanian Carpathians. Data are provided by weather stations situated at altitudes over 1,000 m high, from 1961 to 2003.

**Costica BRÂNDUS, Ionut CRISTEA – Anthropic impact in the Calimani's caldera**

Abstract: The Calimani Massiff, a representative volcanic system in the Eastern Carpathians, with a very attractive natural geographic landscape, has undergone in the last five decades one of the most brutal human intervention, motivated by the sulfur ore exploitation and processing. As an effect the quality of air, water, soil and vegetation in the area have been seriously damaged, the detail morphology inside the caldera has been modified, bringing about a quarry in Negoiul Românesc Peak, spoil banks, terracing and chamfers, dams and other hydrotechnical works. The present paper analyses the impact of the mining activities on the landforms, soils, water and air quality, the main polluting sources and their effect on the biosphere.

**Jaroslav BARANOWSKI, Stanislaw KEDZIA, Zofia RACZKOWSKA – Soil freezing and its relation to slow soil movements on alpine slopes (of The Tatra Mountains, Poland)**

**Cosmin ANCUTA – Gully erosion in the high area of the Lotrului Mountains**

Abstract: In the Lotrului Mountains gully processes are mainly found in the high altitude area. Gullies are found at the head of major valleys and are embedded in the slope deposits that border the Borascu erosion surface, but have frequently recached the bedrock. The largest ones are found in the east part of the massif, where they can exceed 6 m in depth, can be over 100 m long and 20 m wide. They are more active in the upper sector, where they extend greatly in width through surface erosion. The lower sector is well deepened and partially covered by vegetation (*Pinus mugo*, *Juniperus communis*). Most of the "horsti", the local name for gullies, can retain

snow until the second half of July. This favours erosion through melt water, stimulates solifluxion and freeze-thaw process.

**Marcel TÖRÖK-OANCE – Mapping snow-avalanche paths using remotely-sensed data. A case study in the Godeanu Mountains (Southern Carpathians, Romania)**

**Mircea VOICULESCU – About the morphometrical characteristics of culoir avalanches on Bâlea-Capra Area**

Abstract: Avalanches present an incontestable geomorphologic reality of the Fagaras Massif. Although their presence and their role in the present shaping of the relief were mentioned in Romania in different articles and even in books, up to day a detailed analysis technique is missing on the couloirs and slope surfaces along which these are manifesting. Our analysis was done on three characteristic areals in the massif, all placed in the central glacial sector – in Fundu Caprei, placed on the southern slope, under Caprei Saddle and Bâlea Saddle, on the northern slope – where in time those avalanches have caused most casualties recorded in all Romanian Carpathians. This analysis paid attention to highlighting the morphometrical values of the culoir avalanches relying on the facilities offered by G.I.S. In a first stage we obtained the digital model of the relief (scale 1:25000) that was very important in highlighting the detailed geomorphology of the analyzed sectors. After some profiles along the culoir avalanches were made, we highlighted altitudinally the departure area, the sectors of maximum labor but also the area where the avalanches stop, all these being marked by the so called critical points of occurrence. Our analysis is highlighting the fact that the morphometrical parameters or the topographical ones, although not always determined are still extremely important in triggering and manifestation of the avalanches.



## 2003-Volume XIII

### **François JEANNERET – Global alpinity index – a concept of landscape rating in mountain areas / Indicele global de alpinitate – un concept al evaluarii peisajelor din arealele montane**

Abstract: Qu'est-ce qu'une montagne? La méthode proposée par HAMELIN (1968) pour la nordicité peut inspirer une démarche analogue en montagne. C'est donc le terme d'alpinité qu'il faut appliquer, en se basant sur des critères physiques. Le classement par critère aboutira aux dix indices partiels (d'une valeur maximale de 100 points chacun), dont la somme constituera l'indice global. En appliquant cette méthode à une coupe à travers les Alpes suisses, la démarche et la révision proposée seront mises à l'épreuve et soumises à une discussion permettant d'en prévoir l'application aux régions de montagne de la Terre entière.

### **Marcel MÎNDRESCU – Analiza si clasificarea geomorfometrica a Muntilor Maramuresului / Analysis and clasification of the Maramuresh Mountains based on their geomorphometry**

Abstract: Mountain ordering is a quantitative expression of various morphological parameters of ordering Maramuresh mountain forms in the Eastern Carpathians. Mountain order has been defined in terms of the closed contour lines in a topographic map. A set of closed concentric lines defines a first-order mountain. The geomorphometry of a mountain classified according to this definition permits an identification of systematic relations between various morphological parameters. The relation between mountain order and these morphological parameters follow a form similar to that of Horton's laws, thus permitting the calculation of the ratios of number, area and height; these are sufficient to express the magnitude of a mountain's dissection. Furthermore, this method allows to classify the Maramuresh mountains on the basis of their morphometry.

**Aurel PERSOIU – Dinamica stalagmitelor de gheata din Pestera Ghetarul de la Scarisoara în relatie cu conditiile meteorologice extreme (Mt. Bihor) / The ice stalagmites dynamics of Scarisoara Ice Cave in relation with the extreme weather conditions (Bihor Mts.)**

Abstract: The present study aims to discuss the correlation between external meteorological controllers and ice stalagmite dynamics in Scarisoara Ice Cave between May 2001 – December 2002. We highlight the role played by the amount of precipitation on the development and melting of the ice stalagmites and also the indirect role played by the external air temperature.

**Sandu BOENGIU, Gheorghe CURCAN, Emil MARINESCU – Relief aspects within the hydrological basin of the Drincea River / Aspecte ale reliefului din bazinul râului Drincea**

Abstract: This paper aims at rendering certain general aspects of physical geography within the hydrographical basin of the Drincea. We underlined especially the issues linked to the dynamics of the relief, namely the morpho-dynamic potential represented by the two main categories of factors that coordinate the present modelling of the relief. The passive factors condition the type and rhythm of the processes, especially the paleo-geographical and litho-stratigraphical peculiarities, morphometrical and morphographical characteristics, edaphic conditions. The active factors are mainly represented by rainfalls regime, hydro-geological and hydrological conditions and human activity. In order to analyze the dynamics of the relief we all the sectors with intense dynamics and drew the geomorphologic map, as well as cross sections and we made the slopes analyses.

**Gheorghe IANOS – The protection and preservation of soils fertility in Banat; the quality form of agricultural soils / Protectia si conservarea fertilitatii solurilor din Banat; starea de calitate a solurilor utilizate în agricultura**

**Abstract:** In the context of preserving and increasing the land fertilities of Banat, it has been made a detailed analysis of the risk factors of agricultural production, generating factors of limitations because of relief, climate, drainage conditions, of the chemical and physical characteristics as well as because the degrading interventions and the polluting ones made by men, in parallel being proposed solutions and have been dimensioned a number of ameliorative interventions at different levels of complexity. The evaluation of the capacity of the agricultural terrain's of supporting the production for a certain type of usage as well as the different possibilities of support of the different agricultural terrain's for different traditional cultures has been realised by a detailed analysis of, the elements of the environment and soil, finalised by actions of quantification and parameterisation of the mentioned factors and their processing on the bases of typical work methodology. The researched area is of 1 198 264 ha, representing the total agricultural surface of the Romanian Banat. The global (medium) possibility of the terrain's with agricultural destination (divided in 10 classes) is placed around the sixth class for the arable utilities, orchards and vineyard, of the fifth class for hay utility and of the fourth class for pasture utility. The grouping concerning the sustainability of the arable terrain's (also divided on 10 classes) is specifying an enriched favorability for the culture of wheat and corn (class. IV), followed by the culture of rice, sun flower, soya etc). The possibility of the Banat terrain's of supporting enriched agricultural productions is dwindling from the east to the west and from north to south.

**Elena PREDA, Gheorghe IANOS – Present considerations regarding the environmental quality in Zlatna Valley / Consideratii asupra calitatii mediului în Depresiunea Zlatna**

**Abstract:** Although the polluting industrial activities had been ceased, the Zlatna Valley and its surroundings continued to be one of the most affected areas from Romania. Even if the air is more and more pure, water and soil are still intensely polluted. The concentrations of heavy metals found in the silt that covers the bottom of rivers' minor bed and the nitrates from subsoil waters are still restrictive for the

aquatic life. Soil cover is strongly influenced by the proton's adsorption, while non-ferrous metals of industrial source can be plenty found in ionic structure, as a part of the colloidal complex of salts.

**Eugenia STANCIU – Grindina – fenomen de risc în Banat / The hail – risk phenomenon in Banat**

Abstract: The hail represents a risk phenomenon wich produces in short time, great natural desasters. The most cases registered in the mountains and the greatest damages in the plains. This phenomenon was analysed at the Banat meteorological stations during 1965-1999 years, praising the frequency, lenght, dimensions and some distinct situations challenged by hail.

**Eugenia STANCIU, Niculae Iulian TEODORESCU – O modificare a vremii la microscara? / A change of weather at microscale?**

Abstract: The paper presents this network founded in 1986, the participant countries and the types of information included in the data bank of this network; the last part of the paper includes a general presentation of the 5 representative basins in Romania which are part of this network.

**Niculae Iulian TEODORESCU – E. R. B. – reteaua europeana de bazine experimentale si reprezentative / E. R. B. – european network of experimental and representative basins**

Abstract: The paper presents this network founded in 1986, the participant countries and the types of information included in the data bank of this network; the last part of the paper includes a general presentation of the 5 representative basins in Romania which are part of this network.

**David TURNOCK – Settlement and sustainability in the Carpathians: pre-modern settlement history with particular reference to the role of pastoralism in Romania / Asezari omenesti si dezvoltare durabila in Carpati: istoria asezarilor omenesti premoderne, cu referinta speciala la rolul pastoritului în România**

Abstract: The paper presents this network founded in 1986, the participant countries and the types of information included in the data bank of this network; the last part of the paper includes a general presentation of the 5 representative basins in Romania which are part of this network.

**Anne C. BELLOWS – Urban allotment gardening in Poland questions of authority and scale in land use, ownership and management / Gradinaritul urban în Polonia, probleme de autoritate si scara în utilizare, proprietatea si managementul terenurilor**

Abstract: Aceasta lucrare pune câteva probleme fundamentale referitoare la provocarile legale majore legate de legile nationale si locale în ceea ce priveste drepturile angajatilor referitoare la gradinit, la felul în care a evoluat organizarea nationala a gradinilor începând din anii 1989 precum si optiunea pentru vreo afiliere politica ori aliniera la miscarea vest europeana a gradinaritului si riscurile ori placerile care duc la cresterea cererii în favoarea gradinaritului urban.

**Sorina VOICULESCU, Margareta Amy LELEA – A review of gender and geography and its development in Romania / O privire asupra disciplinei „Gen si geografie” si dezvoltarea sa în România**

Abstract: Geografia genurilor este o disciplina relativ noua care a aparut în anii 1970, ca reactie la felul în care lumea era interpretata doar din perspectiva masculina. S.U.A. iar apoi Marea Britanie sunt tarile în care s-au manifestat primele preocupari de geografie feminista. De aici aceasta modalitate de abordare a realitatilor geografice a gasit astazi adepti în peste 60 de tari. În Romania disciplina este predata doar la Universitatea de Vest din Timisoara.

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### **Petru URDEA, Marcel TÖRÖK-OANCE, Mircea ARDELEAN, Florin VUIA – GIS application in investigation of sporadic permafrost from Detunata Goala (Apuseni Mountains)**

Abstract: The identification of the permafrost in the scree masses situated at the bottom of Detunata Goala's scarps was confirmed by BTS method and monitoring the temperature of the water from a spring situated at the front of scree masses during the summer. Spatial analysis with GIS technique demonstrate the strong connection between the sporadic permafrost from Detunata Goala and the local ecological factors constraint especially by relief.

### **Marcel TÖRÖK – OANCE – GIS and Geomorphology (I). Digital Terrain Model generation and some morphometric analysis**

Abstract: Using of GIS in geomorphology is based on the digital terrain model (DTM) analysis. At present, the most powerful method of representing relief is to construct a mathematical model of the earth's surface: a digital terrain model (DTM) or digital elevation model (DEM). The choice of data sources, terrain sampling techniques and interpolation method used in model construction are critical for the quality of the resulting DTM. The accuracy of the DTM is essential in further geomorphological analysis with GIS.

### **Florin VUIA – Differentiations morphométriques et morphographiques entre les cirques du bassin du Jiet (le Massif du Parang)**

Abstract: L'analyse morphométrique et morphographique des cirques glaciaires du bassin du Jiet, appuyée sur l'étude des cartes topographiques et géologiques, de même que sur celui des matériaux photographiques, met en évidence les différenciations qui surgissent entr'eux, ainsi que leurs causes. De cette façon, les cirques de cette région peuvent être classés de la manière suivante: cirques glaciaires embryonnaires au volume bas et à l'altitude moyenne basse, cirques glaciaires

quasicirculaires au volume moyen et à l'altitude moyenne élevée, cirques glaciaires quasicirculaires au volume élevé et à l'altitude moyenne basse et cirques glaciaires allongés au volume élevé ou moyen et à l'altitude basse.

**Mircea ARDELEAN – Aspects du relief karstique des Monts Piule-Iorgovanu**

Abstract: Le massif calcaire Piule-Iorgovanu fait ici l'objet d'une étude karstique. Dès qu'on commence on présente les limites claires avec les unités voisines. Le karst est celui de type autigène sur structure monoclinale. Les principales formes de surface sont les lapiés, les dolines, les gorges et les karstoplènes qui peuvent être raccordées avec les surfaces d'aplanissement sur les massifs cristallins. Comme formes de profondeur, on trouve des gouffres et des grottes. Bien que le bassin de drainage de surface appartienne au système de Jiu de Vest, il y a une perte souterraine qui transfère l'eau dans le bassin de Cerna. Il est possible qu'il existe un système souterrain de grandes dimensions, en longueur de 13 km et dépassant 800 m de profondeur.

**Sorin Lory BULIGA – L'analyse morphologique des démembrements des couches de charbon du complexe charbonneau de Motru (le bassin Motru-Rovinari)**

Abstract: Les démembrements des couches de charbon sont: a ) définitives et restrictives et b) digitations, des démembrements majeurs (bifurcations), des démembrements mineurs (séparations) dans le lit et dans le toit des couches de charbon, démembrements locaux (insulaires) et démembrements avec jonctions (en Z). On a étudié trois secteurs morphologiques de chacune de ces couches: secteur A (avec des couches compactes et grossières), secteur B (les couches sont digitées et disparaissent vers nord) et le secteur C (le plus étendu – et donc caractéristique – dans lequel les couches se divisent d'une façon complexe vers sud). Dans le secteur C se sont créées cycliquement – et progressivement vers sud – des conditions de formation et accumulation des tourbes.

### **Mihaela CONSTANTIN – Opinions concerning medium and short-time prediction of landslides**

Abstract: The paper presents the fundamentals and methods of landslide prediction. A first step would be to make a distinction between place prediction and time prediction. Place prediction includes three categories: regional, zonal and local and is based upon the analyses of landslide occurrence conditions. Two methods are detailed out: overlay mapping of factors controlling landslides and the comprehensive index method. Time prediction is based on Saito equation.

### **Fritz GASSMANN – Seven clues to the reality of the greenhouse-effect**

Abstract: In spite of the myriad of facts adding to a more and more convincing holistic picture of the global climate system, most people, including a lot of scientists, still believe in a climate system that, due to its enormous size, cannot be influenced by mankind. Seven results from global climate research are presented, which the author considers the most convincing ones to prove the reality of the greenhouse-effect and its anthropogenic amplification. To translate the global results into more easily understandable local and regional effects, some of them are illustrated with observations in Switzerland.

### **Octavia BOGDAN, Catalina MARCULET – Distinctive geographical distribution of climate risks in Romania with special reference to high winds**

Abstract: Romania's territory lies in the area of temperate climate over which masses of polar or arctic air from the north interfere with tropical southern advections. Therefore, there is a wide range of climate risks in the cold season (frost, hoar, glazed frost, deposition of ice on pipes, blizzards, heavy snowfalls, etc.) as well as in the warm one (torrential rains, hailstorms, dry, hot winds, intense evaporation processes, etc.). Specific phenomena like drought and dryness occur throughout the year. Their territorial distribution depends on the particularities of the active surface, the most important one by its altitude and orientation, being the Carpathian



orographic barrage. The present paper discusses high winds (greater than 11m/s) in terms of genesis, spread, annual frequency and vulnerability.

**Felicia VASENCIUC, Carmen DRAGOTA – Some thermal and pluviometric anomalies produced in Romania in years 1998-1999**

Abstract: The summer of 1998, characterized from the thermal stand point through large pulsing anomalies calls the attention of those responsible in the social-economic field. The paper aims at revealing the area affected by the positive anomalies induced by the sultry temperatures. The investigation is made with respect to expansion in the territory and extreme thermal anomalies. The spring of 1999 began within thermal and rain normality. April characterized, given its market atmospheric instability, through precipitation amounts in excess, which, a country level, exceeded two or three times the multiannual means. The paper reveals these meteorological aspects and their impact on the hydrometric characteristics in the Banat county area.

**Vasile BUDUI – Le secteur Stavnici-Siret du Plateau Centrale Moldavique aspects pluviométriques**

Abstract: Le Plateau Centrale Moldavique, situé dans l'est de la Roumanie, est caractérisé par un climat de nature tempérée continentale de type Dfbk, après la classification Köppen. L'analyse des quantités de précipitations moyennes multiannuelles met en évidence une légère augmentation vers le nord, en temps que les périodes de circulation atmosphérique prédominante occidentale sont caractérisées par des précipitations beaucoup plus consistantes que cette moyenne. Le régime pluviométrique multiannuel donne un maximum pendant le mois de juin et un minimum en janvier. La moyenne des jours avec précipitations par année varie entre 137.4 (St. Bârnova) et 118.7 (St. Negrești).

**Stanciu EUGENIA – Regards on acid rains registered in Banat plain in time interval of 1990-1999 years**

Abstract: Acid rains, too little studied till now though they represents ones of the most important pollution agents of environment, are the analysed subject of the present paper. It has been processed acid rains informations from Banloc, Jimbolia, Lugoj, Sânnicolau Mare and Timisoara meteorological stations in 1990-1999 years. Maximum number of acid rains (13 cases) in Banat plain is registered in 1998, after a year (1997) when it was not recorded even a single case. In Timisoara city were pointed out the most cases (15 acid rains) during the analysed lapse of time, this meaning an increased air pollution.

**Maria BÂLA, Nicolae Iulian TEODORESCU – The dynamics of the ice phenomena in the last decade of the second millenium in the representative Basin Sebes**

Abstract: The analysis of the evolution of the ice phenomena in the past 10 years compared with the period 1975- 1990 shows a lowering tendency of the main ice phenomena-ice from bank,ice flows and ice bridge. We consider these as direct reflections of the evolution of average values of the air temperatures which are a direct manifestation of the increase in air temperatures at a local level.

**Elena NICULESCU – Freezing characteristics in the Dobrogea Plateau**

Abstract: The local geographical characteristics of freezing relate to two distructively different environments: the plateau-like slightly undulated land (average alt. 200-300 m) with autochthonous or alochthonous valleys, and the Black Sea basin which influences the land up to a distance of 25-30 km, moderating quantitative indices of the whole climate picture. This is the background which the mass of air comes into contact with. Here air and soil temperatures did not fall below 0°C. The freezing phenomenon on the Dobrogea Plateau was studied in the air and on the soil by means of its main variables: averages and extremes of the first and the last frost, average and extreme duration of the frost period and the risk interval.

**Rodica MUNTEANU, Carmen, HARABAGIU – Les changements de la  
reseau hydrographique à cause de l'action anthropique dans le Banat du  
20-ième siècle**

Abstract: Le Banat est la région dans laquelle les travaux d'aménagement du réseau hydrographique se sont imposé dès le XVIII-e siècle. Au début du XX-e siècle a commencé l'aménagement de la rivière de Bârzava, puis, dans la deuxième moitié de ce siècle, s'est l'aménagement de la Cerna et des rivières du bassin de Bistra. Les changements induites par suite aux interventions humaines ont déterminé toute une série de transformations de l'aspect du réseau hydrographique et du régime hydrologique.

**Zlatibor MACRIDIN, Carmen HARABAGIU – Flood from april 5 – 11st  
april 2000 in hydrographic basins Timis and Bega**

Abstract: The sinoptic situation create good conditions for precipitatin falls. Positive temperatures and precipitation falled favorised the melt of the existed snow layer. The result of all these hydro-meteorological processes was the flood from April 5-11st. The hydrotechnical construction modified the flow regime of rivers Bega and Timis. Due to this reason, the natural maximum flow was reconstituted. For the reconstitute of flood wave Muskingum method have been used. The present paper present meteorological factors which generate the flood, the evolution and propagation of the flood.

**Niculae Iulian TEODORESCU – The representative basin – a model of the  
run-off analysis**

Abstract: The sinoptic situation create good conditions for precipitatin falls. Positive temperatures and precipitation falled favorised the melt of the existed snow layer. The result of all these hydro-meteorological processes was the flood from April 5-11st. The hydrotechnical construction modified the flow regime of rivers Bega and Timis. Due to this reason, the natural maximum flow was reconstituted. For the reconstitute of flood wave Muskingum method have been used. The present paper

present meteorological factors which generate the flood, the evolution and propagation of the flood.

### **Nicolae FLOREA – Landscape and soilscape**

Abstract: After a definition and characterisation of the general term of landscape, the term soilscape – more and more utilized in soil geography – is defined. The soilscape is considered a territory more or less heterogeneous consisting of soil combinations of which distribution is correlated with a certain assemblage of landforms, lithology and climatic conditions. It represents a distinct entity in the environment, both physiographical and functional. A systematization of different categories of soilscares is presented.

### **Nicolae FLOREA, Gheorghe IANOS – Some aspects concerning the territory regionalization with particular considerations on pedogeographical regionalization**

Abstract: The geographical regionalization can be typological or ramifying (dendritic). The typological regionalization assumes the grouping of similar spatial units; it can be materialized by concrete geographical units and acquires geographical denominations, becoming typological-nominal. The ramifying regionalization is achieved by division of the territory in subunits on the model of “genealogical tree”; it is, generally, nominativ. There are proposed the terms of syster and unisyster for the notions of territorial system and unit of territorial system and respectively the terms of pedosyster and pedounisyster for the pedological correspondent notions. It is presented a hierarchy of units (taxa) of pedogeographical regionalization based on soil criteria. This system consist of following taxa: pedothermal zone, pedohydrothermal subzone, soil domain, soil region (macro, mezo, micro) differentiated according to pedogeographical assamblage (flat, shoping, steep) and elementary soilscape (formed of pedosocios and polipedons as elementary units of soil cover. The delimitation of regionalization unit is achieved either by descendent method or by ascendent method or by the two.

**Stela URUIOC, Claudia CODARCEA – Mineral composition of the heavy fraction of same reddish brown soils of Murani Bencecu de Jos area, Timis County**

Abstract: The minerals from the heavy fraction participating in the composition of reddish brown soils were investigated mainly by polarizing microscopy. They appear as grains with various roundness degrees, from subangular to subrounded. Heavy minerals are excellent “maturity indicators”, owing to their chemical and mechanical stability. The morphologic and dimensional study of the clasts, as well as the changes suffered were “indicators for the place of provenience”. The presence of angular and subangular clasts, but mostly that of idiomorphous crystals points to the fact that the source area was relatively close. The observations on the shapes of heavy minerals allowed establishing the conditions of transport and accumulation. Thus, the reduced degree of roundness of the arenitic material is due to transport in suspension, on a relatively short distance. The sediment evolution comprises three phases: torrential, deltaic and pedogenetic.

**Gheorghe IACOB – Le pays de Maramures 1199-1999 (Huit siècles depuis la première attestation documentaire)**

Abstract: Huit siècles après la première attestation documentaire du Maramures, étant donnée sa contribution à l'histoire, à la culture et à la spiritualité du peuple roumain, les facteurs de décisions doivent maintenant réfléchir profondément et s'impliquer sans réserves, prendre les mesures les plus sages, le plus tôt possible, pour la sauvegarde et la conservation de ce que nos ancêtres nous ont laissé: une terre à nous-même, merveilleuse et sacrée, mouillée de leur sang, une terre pour laquelle on ne doit rien épargner en essayant de la conserver, de la valorifier et de l'embellir.

**Csaba KOVÁCS – Gipsy children in the hungarian educational system**

Abstract: Numarul populatiei maghiare de origine roma este de cca. 500 mii de locuitori, ceea ce reprezinta cca. 5% din populatia tarii. Astazi cei mai multi traiesc în

familii în care nici unul dintre adulti nu are un loc de munca. Scopul acestei lucrari este acela de a prezenta educatia copiilor romi foarte dezavantajati

### **Ionel MUNTELE – Ethnie et confession dans la dynamique naturelle de la population en Roumanie, après 1966**

Abstract: L'étude géographique de la population part de plusieurs facteurs qui interviennent dans la différenciation de l'espace. Parmi ceux-ci, l'ethnie et la confession ont souvent une grande importance, notamment dans les aires hétérogènes. En Roumanie on peut affirmer l'existence d'un différentiel démographique qui distingue les minorités confinées dans les aires rurales refoulées (ucrainiens, turco-tatars) aussi que certaines confessions chrétiennes plus traditionalistes (catholiques et surtout néoprotestants), par rapport à la majorité roumaine ou orthodoxe. De l'autre côté, il y a des minorités dont leur comportement démographique est plus évolué, tels les hongrois ou les serbo-croates. Le cas le plus incitant est celui des tsiganes, peu atteints par la transition démographique et dont l'évolution, depuis 1966, confirme dans une moindre mesure la supposition d'une conformité générale aux tendances moyennes, telle que l'on observe dans les autres cas. A long terme, ce différentiel peut conduire à une modification sensible de la structure ethno-confessionnelle de la population roumaine sans pour autant mettre en cause la majorité roumaine du pays.

### **Vasile MARCULET, Ioan MARCULET – Des aspects de la dynamique de la population gréco-catholique de la ville de Medias et des environs entre les années 1900-2000**

Abstract: Organisée dans le District de l'archidiocèse de Medias (1827), la population gréco-catholique de la ville homonyme et des villages limitrophes a enregistré dans l'intervalle 1900-2000 une dynamique flottante causée par les modifications d'organisation du district, de l'annulation (1948) et, respectivement, de la refondation de l'Église Roumaine Unifiée avec Rome (1990). À travers le XXème siècle, dans la dynamique de la population gréco-catholique de la région on distingue deux étapes séparées par l'intervalle 1948-1989, de l'interdiction de l'Église

Roumaine Unifiée avec Rome: a) 1900-1948, quand cette dynamique enregistre, un maximum de, 10834 croyants en 1932; b) 1990-2000, la période de la refondation, quand le nombre des croyants se développe de 3130 personnes en 1989 aux 3950 personnes en 2000.

### **Raularian RUSU – Educational polarisation in the Timis county**

Abstract: As in the case of a recent paper concerning the same issue applied to the neighbouring Arad county, the author tries to identify the areas of attraction of different schools, ranging from primary level to the high school level. There are only 29 settlements in the Timis county with no school at all, 19 of them lying in the Lipova Hills. The number of settlements having a 8-year compulsory school is quite high and several such schools suffer because of the low numbers of pupils (even below 25). On the whole, there are 56 high schools or technical schools in the county, 34 of them in Timisoara, the county seat, five in Lugoj, two in Sânnicolau Mare and Ciacova and one in Deta, Jimbolia, Buzias and Faget towns and in many villages, such as Recas, Gataia, Lovrin, Nadrag, Peciu Nou, Dudestii Vechi, Ortisoara, Biled and Periam. The high schools from Timisoara and Lugoj dominate almost the entire county, dividing it into two; other important high schools are in Sânnicolau Mare, Faget, Ciacova or Deta, while the others are attracting mainly their administrative territory.

### **Branka TOSIC, Jasmina DJORDJEVIC, Dragana MATIJEVIC – Processes in settlements and centres: the case of Carpathian Serbia**

Abstract: Cet article traite les caractéristiques des agglomérations de Serbie Carpatique (Serbie d' Est). Après La Deuxième Guerre Mondiale, dans ces agglomérations les changements ont été intensifiées sous l' influence du procès de l'industrialisation et celui de l'urbanisation. Le résultat était le problème de depopulation très sérieux, le plus grand en Serbie. Les changements dans les villages autour de villes ont été plus léger, et les agglomérations et centres sont a la stade de développement plus bas eu comparaison de la reste de Serbie.

## **Nicolae POPA – L'application de la géo-économie agraire et l'organisation de l'espace rural en Roumanie**

Abstract: L'espace paysager, social et économique de la Roumanie continue être profondément marqué par sa dimension rurale. Le processus d'intégration européenne suppose une transformation globale de la société, mais surtout de son milieu rural, qui a accumulé d'importants retards par rapport à l'Union européenne. Maintenant, toute action de développement suppose d'amples études de faisabilité, pour obtenir le financement. L'organisation de l'espace et l'aménagement du territoire sont devenus ainsi des préoccupations majeures et très pratiques, en vue d'induire une géo-économie rurale la plus équilibrée et la plus dynamique possible. Pour le cas roumain, la mise en valeur de son grand potentiel touristique est une opportunité, mais pas la seule et pas capable de résoudre partout les problèmes complexes du monde rural. Une triade est à évoquer pour aboutir à la réussite: initiative, infrastructures, formation. Le résultat: le développement économique et social.

## **Marina TODOROVIC, Miladin SEVARLIC – Geographical research on the typology of agriculture in the Carpathian-Danube space of Serbia**

Abstract: The purpose of this article is to discuss diversity of the agricultural types characteristics of agriculture and the furthermore possible directions of development of the Carpathian-Danube geospace in Serbia, presents the most important specific.

## **Adela MARIA – TIMISOARA – An European Turistic Centre of the Future?**

Abstract: In the Western part of Romania, close to the border lies the city of Timisoara, a developing city. If the geographical landscape is not especially attractive, the economic landscape is proper for the development of tourism for business. The tourism for business is one of the chances Timisoara can take in order to become a powerful economic centre where plans for sustainable development can be a reality, not just a possibility.



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