

## ARTICLES

**Authors:** Kristina JANEČKOVÁ MOLNÁROVÁ, Zuzana SKŘIVANOVÁ, Ondřej KALIVODA, Petr SKLENIČKA

**Title:** Rural identity and landscape aesthetics in exurbia: Some issues to resolve from a Central European perspective.

**pp. 2-12**

**Abstract:** Although perceptions of landscape aesthetics are currently attracting great research interest, some aspects of the topic have remained almost unexamined. This review highlights some less studied areas that are of particular importance for landscape management, with special focus on rapidly growing exurban areas. While the visual quality of the environment is undoubtedly one of the drivers that has been spurring the exurban development of rural settlements, much remains unknown about the perception of the visual quality of these settlements. Another pressing issue is the need to determine general principles of consensus formation concerning visual landscape preferences. This study concludes that in order to preserve the rural character of exurban landscapes, there is an urgent need to identify the aesthetic values that define the character of rural settlements and their importance to the stakeholder groups.

**Article history:** Received 2 June 2016; Accepted 6 December 2016; Published 31 March 2017

**Authors:** Pavel RAŠKA, Jakub DUBIŠAR

**Title:** Impacts of natural hazards on an early industrial community: A case study of North Bohemia and its implications for long-term vulnerability assessment.

**pp. 13-23**

**Abstract:** Regional databases of natural hazards and their social impacts have been increasingly established from documentary data to provide a rationale for the adoption of new disaster risk reduction strategies. This approach is extended in this article by pointing out factors that may underlie the changes in social vulnerability to natural hazards and that may cause non-homogeneities in long-term vulnerability assessments. We use the newly-established historical multi-hazard database for North Bohemia, based on a thorough search in a local newspaper. Altogether 275 records reporting 599 individual hazard events were analysed with respect to their relative direct social impact. Finally, we discuss the uncertainties resulting from the use of documentary data, and illustrate how long-term changes in social vulnerability are influenced by time-dependent societal understanding of what is considered a hazard. This, in turn, accentuates the dynamics of cultural factors that should be considered when designing new risk reduction strategies.

**Article history:** Received 30 August 2016; Accepted 1 March 2017; Published 31 March 2017

**Authors:** Katarína DEMKOVÁ, Zdeněk LIPSKÝ

**Title:** Comparison of the current state of non-forest woody vegetation in two contrasted case study areas in Central Europe.

**pp. 24-33**

**Abstract:** Non-forest woody vegetation (NFWV), as a part of green infrastructure, has gained a great deal of attention in recent years. Despite its importance in many productive and non-productive functions, an inventory (quantitative and qualitative data) on a national or even on a local level is not available in many European countries. The main aim of this study is to carry out a comparison of two study areas (lowland and upland) from the perspective of the current state of NFWV. We investigate qualitative attributes of NFWV, its relation to environmental conditions and its spatial pattern. After manual vectorization of orthophotos, qualitative data were collected in the field. Using statistical and landscape-ecological methods, the relation between NFWV and environmental conditions, as well as its spatial pattern were assessed. Substantial differences in character and in the spatial pattern of NFWV were identified between the study areas. NFWV in the upland area has a higher proportion (2.6%) than in lowland study area (1.5%), and it also has a more heterogeneous spatial structure. Statistical analysis points to a significant relation between the NFWV and land cover types in both study areas. A significant relation between NFWV and soil types was identified only in the upland area, however, while an association with potential natural vegetation was found in the lowland study area.

**Article history:** Received 10 March 2016; Accepted 3 January 2017; Published 31 March 2017

**Authors:** Martina SLÁMOVÁ, Jana KRČMÁŘOVÁ, Pavel HRONČEK, Mariana KAŠTIEROVÁ

**Title:** Environmental factors influencing the distribution of agricultural terraces: Case study of Horný Tisovník, Slovakia.

**pp. 34-45**

**Abstract:** The cadastral district of Horný Tisovník represents a traditionally managed Carpathian mountain agricultural landscape with extensive terraces. It was historically governed by two counties with different feudal economic systems – agricultural and industrial. This paper aims to enrich traditional methods in environmental history. We applied geospatial statistics and multivariate data analysis for the assessment of environmental factors influencing the distribution of agricultural terraces. Using linear models, the hypothesis was tested that the terrace distribution is functionally related to selected factors (affiliation to the historic counties; average altitude and slope; distance from water, buildings and settlements; units of natural potential vegetation; and current land use). Significantly greater amounts of terraces were located in the agricultural county compared to the industrial county. A principal component analysis showed the coincidence between the current agricultural land use and higher concentrations of terraces occurring in lower altitudes, closer to settlements and buildings, and within the unit of Carpathian oak-hornbeam forests. These findings regarding the most significant factors influencing the distribution of terraces are used in proposals for incentives to improve the management of the traditional agricultural landscape.

**Article history:** Received 4 January 2016; Accepted 20 December 2016; Published 31 March 2017

**Authors:** Helena KILIANOVÁ, Vilém PECHANEC, Jan BRUS, Karel KIRCHNER, Ivo MACHAR  
**Title:** Analysis of the development of land use in the Morava river floodplain, with special emphasis on the landscape matrix.

**pp. 46-59**

**Abstract:** The results of an analysis of land use development in the Morava River floodplain (Czech Republic) using GIS from 1836 to the present, are the subject of this article. The results are based on the analysis of historical maps, using the landscape matrix assessment of the Morava River floodplain. The final analyses were processed from land use maps of the floodplain at a scale of 1: 25,000 in five time horizons. These maps were compared with the present state of landscape by GIS methods. The study area was assessed according to five geomorphological areas from the northern/higher part to the southern/lower part of floodplain. In 1836 the landscape matrix of the floodplain was composed of meadows and forests. Forest components decreased minimally but the changes are more important. The grassland area (meadows and pastures) decreased but arable land, as well as settlements, increased very significantly. In the 1950s the landscape matrix was composed of a mosaic of alluvial forests, meadows and arable land. Currently, the predominant landscape matrix consists of arable land and isolated forest complexes.

**Article history:** Received 8 March 2016; Accepted 15 February 2017; Published 31 March 2017

## REVIEW ESSAY

**Authors:** Bryn GREER-WOOTTEN

**Title:** Energy landscape research – lessons from Southern Europe?

**pp. 60-72**

**Abstract:** The Moravian Geographical Reports does not often publish Book Reviews (let alone essays), but this new book on “Renewable Energies and European Landscapes”<sup>1</sup> is a well-deserved exception to the rule! It is an edited collection of essays gathered together by Frolova (University of Granada, Spain), Prados (University of Sevilla, Spain) and Nada (Centre International de Recherche sur l’Environnement et le Développement: CIRED – CNRS, France), based on a series of Workshops organised under the auspices of several agencies (from both Spain and France) in the period from 2007 to the present. In particular, the Spanish Network on Renewable Energies and Landscape (RESERP) began in 2010, with an emphasis on wind and solar power. Published by a well-respected agency, the question can be clearly stated at the outset: Do the editors fulfil their ambitious agenda of providing case studies of value for the emerging research on landscapes of renewable energies of Europe, writ large, i.e. beyond the ‘Southern European’ environment? Or: what is the ‘added value’ of the Southern European cases?

**Article history:** Received 20 March 2017; Accepted 25 March 2017; Published 31 March 2017