

Jan Havrlant

CHANGES IN THE USE OF SECOND HOUSING FACILITIES IN THE MORAVIAN-SILESIA BESKIDS MTS.

One of the phenomena occurring in the Beskids Mountains (Moravskoslezské Beskydy Mountains) in the hinterland of the Ostrava agglomeration, namely a specific form of tourism and recreation developed in the second half of the last century – second housing facilities in individual recreation: cottages and summer houses - is analyzed in this article. This phenomenon significantly influenced some natural landscape elements, as well as the settlement structure in the territory of the Beskid Mts. The paper studies specificity of the development and other potential changes in utilizing numerous properties for second housing, against the background of political-social and socioeconomic transformation in the years 1948 and 1989.

Petr Klusáček

DOWNSIZING OF BITUMINOUS COAL MINING AND THE RESTRUCTURING OF STEEL WORKS AND HEAVY MACHINE ENGINEERING IN THE OSTRAVA REGION

Relations between the downsizing of bituminous coal mining and the restructuring of steel works and heavy machine engineering in the Ostrava region in the period after 1989, are at issue in this paper. The complexity of the transitional processes is documented by the development of three major corporations in the region of interest: OKD, Corp. (Ostrava-Karviná Coal Mines), Vítkovice, Corp., and Mittal Steel Ostrava, Corp. (formerly Nová huť, Corp.). Attention is also paid to the impacts of transitional change, primarily with respect to the increased unemployment rate and the improvement in environmental conditions. The study is based not only on secondary sources but also on extensive detailed fieldwork data, obtained from the project of targeted research: "Downsizing deep coal mining and its impacts on processes in lithosphere and environment".

Petr Martinec, Božena Schejbalová, Karel Hortvík, Jiří Maníček

THE EFFECTS OF COAL MINING ON THE LANDSCAPES OF THE OSTRAVA REGION

The geological history of the Carboniferous era, surface deposits, including the Quaternary, and surface changes brought about by anthropogenic activities, have influenced the formation of landscapes in the Ostrava region in a direct manner. The deep mining of coal seams resulted in terrain subsidence and in the creation of mine overburden tailings and settling pits, which are new morphological formations in the landscape, often having the effect of a long-term ecological burden. In this paper, attention is given to methane emissions at ground surface levels, to changes in the hydrological system of the region, and to some situations of pumped and discharged mine waters.

Stanislav Ondráček

DOWNSIZING OF DEEP COAL MINING IN THE OSTRAVA-KARVINA COALFIELD, THE DRAINING OF MINE AND WASTE WATERS, AND WATER QUALITY IN WATERCOURSES

An assessment of the impacts of deep coal mining downsizing in the Ostrava-Karviná Coal Mining District (OKR), from the perspective of mine water discharge, is presented in this paper. The amount of mine water and waste water discharged from the coal mines into water streams was gradually decreasing, as a result of the closing-down of mine operations and with the end of coal mining, in a number of OKR localities. This brought about a decrease in dissolved anorganic salts, which were introduced into watercourses along with the mine water. The changes were reflected in the water quality of the streams. In the second half of the 1990s, the content of chlorides exhibited a marked decrease in the Ostravice River (Ostrava-Muglinov), in the Odra River (Bohumín), and in the Lučina River (Slezská Ostrava). In order to protect the still-active coal mines from flooding, however, it was necessary to start pumping the mine water from the enclosed coal mines again. The water is discharged into the Ostravice R. in Ostrava. Hence, an increase was observed in the content of chlorides once again in the Ostravice and Odra Rivers after 2000. In comparison, the changes in the content of sulphates in water streams are different. After 1993, the content of sulphates began to gradually decrease to one half of the values recorded at the beginning of the 1990s.

Jan Lacina, Tomáš Koutecký

BIOGEOGRAPHICAL AND GEOBIOCOENOLOGICAL ASPECTS OF DEEP COAL MINING AND ITS IMPACTS ON NATURE AND LANDSCAPE IN THE OSTRAVA REGION

The biota and primarily the vegetation of areas affected by deep coal mining have specific features. Due to relief changes (waste heaps and subsidence), the conditions of an abiotic environment in flat

basins and hilly lands have been changed to such an extent that one must incorporate other types of natural potential vegetation than in the past. The actual vegetation typically exhibits numerous synanthropic species, including invasive neophytes. Newly developed relief forms exhibit a spontaneous natural succession, which is in some places influenced and disrupted by forest and agricultural remediation. A comparison between the vegetation cover for surfaces of the anthropogenic relief several tens of years ago and at the present time, showed that the number of species is increasing. Even in this devastated landscape, one can observe a range of localities with high biodiversity, including the occurrence of rare animal and plant species. These localities were demarcated as segments in the skeleton of landscape ecological stability. Based on a comparison of biocoenoses resulting from succession and biocoenoses conditioned by re-cultivation, the authors recommend an interconnection of the two processes, with an emphasis on controlled succession.

Barbara Vojvodíková

COLLIERY BROWNFIELDS AND THE MASTER PLAN OF OSTRAVA

Former industrial cities deal among many other things with problems related to abandoned areas of former factories. As much as 148 ha of such areas were left after former collieries (colliery brownfields) in the city of Ostrava territory. One of significant factors for a successful regional development is the master plan. This article describes a proposal of the approach and decision-making criteria (a model) that will help to evaluate and to choose the best future function for such areas. The approach is aimed at brownfields in cities' urban areas. The proposed model was applied on areas selected from the master plan of Ostrava and results are mentioned and discussed in this article.

István Fodor

DOWNSIZING OF MINING IN PÉCS

Coal mining in the Mecsek Mts. reshaped the face of Pécs several times. Coal mining activities were observed to culminate during the era of Socialism in the second half of the past century when the city and the region became a citadel of mining. The last decade has been recording a downsizing of coal extraction and the mining industry is losing its significance. A new strategy is seen in the effort focused on the creation of an ecological city and an eco-region.