

**László Jeney and Dávid Karácsonyi (eds.): Minsk and Budapest, the two capital cities.** Department of Economic Geography and Futures Studies, Corvinus University of Budapest; Geographical Institute RCAES, Hungarian Academy of Sciences; Faculty of Geography, Belarusian State University; Institute for Nature Management, National Academy of Sciences of Belarus. Budapest, 2015. 194 p.

While Budapest used to be the bridge between the West and East in Central Europe, Minsk seems to be in a similar role between the Russian and the EU–Polish influence zones, or in other words, both capitals are situated on the frontiers between the Euro-Atlantic and the Euro-Asian macro regions. Besides their situations, their similarity in size renders the comparison and the cooperation obvious to proceed.

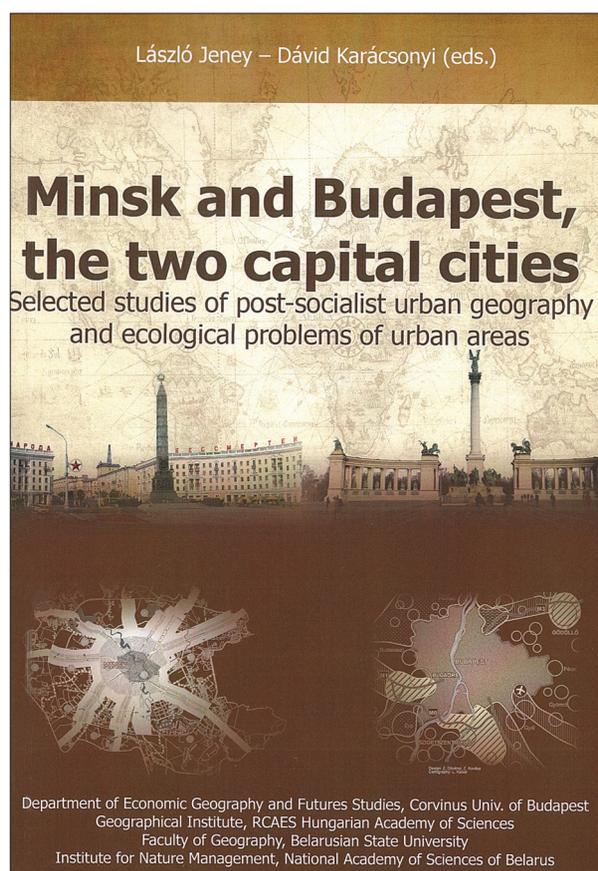
The volume is divided into two parts; the first dealing with the socio-economic development of the two cities and the second with urban climate, environment and ecology.

The first chapter written by Zoltán Kovács introduces Budapest as a Central European metropolis with its historical trajectories and the results of the post-socialist transformation. After a short introduction of the city's past development preceding 1990, the author

identifies administration, economy and housing market as the main factors influencing the post-socialist urban development in Budapest. The main socio-spatial restructuring of the metropolis taking place after 1990 includes the city centre as the result of a business function explosion; the up- and downgrading of the inner-urban residential quarters; the transitional zones of slow conversion; the dangerous heritage of the communist 'flat-factories' that acts as a time-bomb in the housing estates; the space of the newly developing garden suburb zones of the well-to-do; the residential 'villa quarter' areas of the ageing upper-middle class households; and the urban sprawl of the agglomeration zones encircling Budapest. The chapter succeeded in giving a detailed picture of the developing business hub in central Europe with its few upward trajectories and the numerous downward ones characterising it.

Ivan PIROZHNIK, Henryk OZIEM and Vladimir KOROTAYEV wrote about the major issues of spatial structure planning of Minsk in a similar context, describing the past and the present changes taking place in the spatial structure of the metropolis. The trends in the development of the city are analysed in comparison with other European capitals together with the spatial characteristics of the population of Minsk. Special attention is paid to the dynamics of the city's master plan and the evolution of its spatial structure in the post-industrial transition period. In summarising the study we can conclude that post-Soviet and post-industrial renovations in Minsk are in full swing, however the dynamics of present transformation depend on the degree of restrictions of market regulation mechanisms which is thought to 'soften' the extent of spatial differentiation of the urban environment. This is an important difference in the case of Minsk compared to Budapest.

The spatial and temporal differentiation of demographic development of Minsk is characterised by Ekaterina ANTIPOVA and Liudmila FAKEYEVA. The spatial structures of demographic development, population increase and migration factors are analysed in the chapter. Three main types of geodemographic districts are identified in the metropolis: progressive with natural increase and stationary age structure (1); stable with natural increase and regressive age structure (2); regressive with natural decrease and regressive age structure (3). Besides the intensive housing and regressive



sive industrial development of the city, a distinctive feature is manifested in the fact that Minsk has more or less preserved its role as a major industrial centre during the period of transition and post-industrial age after 1993. The study gives an example of how Eastern European metropolises experienced the demographic transformation processes of the post-socialist era.

Balázs SZABÓ and Ágnes ERŐSS wrote about the main features of large housing estates and the results of their rehabilitation in Budapest. The chapter surveys the history of the housing estates with comparison outlooks to other West and Central European cities. Then the authors explore the rehabilitation initiatives carried out in Budapest in the last decade, with special attention to their outcomes and effects. They also examine whether renovations resulted in some new socio-spatial differentiations at large housing estates. The rate of renovation is relatively high in some low status large housing estates built in the 1970's. The renovation is likely to be an instrument that could be used to prevent the declining status and position of such housing estates on the housing market. Achieving that aim could be further enhanced by the renovation efforts of residents. Completely renovated housing estates are hardly found in Budapest, while there are a great number of them without renovation. If the government financed rehabilitation support was concerned, for a longer period, the large non-renovated housing estates would be in a desperate situation, because they are not able to compete with either the smaller estates with good location or the renovated larger ones on the housing market.

The first chapter of the second part of the volume deals with the urban climate of Budapest, the trends and perspectives, written by Ferenc PROBÁLD. The author surveys the milestones of climate research of Budapest; he defines the urban heat island, and the rising heat stress in the city. The metropolitan growth and the climate change have brought about new global ecological conditions and this would require more responsibility in preparing decisions regarding the values of environment. In Budapest the ultra-liberal mayor and city council that led the city between 1990 and 2010 adopted laissez-fair attitude, thus, allowing private companies to get through their interests at the cost of the whole urban community. In order to save the environmental assets of Budapest and to achieve a turn towards a sustainable property development, better governance, comprehensive planning and appropriate regulation measures as well as their rigorous implementation are needed.

The following chapter written by Vladimir LOGINOV focuses on the estimation of the impact of urbanisation on climate and extreme weather phenomena. The chapter includes the survey of the role of urbanisation in the increasing use of South Belarussian thermal resources, the estimation of contribution of urbanisation to regional climate changes and the evaluation of the urban impact on air humidity, fog, heavy rains

and hails. While investigating the impact of anthropogenic heat sources on Belarussian cities and the countries of the world, the calculation shows that in the majority of the countries the anthropogenic fluxes exceed the geothermal flow by times. It is estimated that urbanisation plays an increasing role in the rise of thermal resources in South Belarus. The chapter sheds light on anthropogenic heat fluxes in urbanised areas, the contribution of the heat islands to the temperature changes, the differences of air humidity and temperature between cities and their vicinities.

The integrated assessment of the state of urban environment is examined on the example of Minsk by Valery KHOMICH, Sergey KAKAREKA, Tamara KUKHARCHYK and Ludmila KRAUCHUK. This chapter presents the approaches and results in measuring the condition of air quality, underground water and soil pollution as well as the state of vegetation on the territory of Minsk. The integrated assessment is based on the analysis of monitoring and statistical data, result of geochemical investigation and modelling. The obtained and spatial differentiated and integrated data of urban environment including natural and technogenic factors served as a basis for urban planning, technical, technological and organisational actions that aim at the realisation of planning decisions and ecological regulations. They are manifested in the optimisation of the environment is zones belonging to the most adverse ecological categories outlined in the General Plan of Minsk City.

The last chapter deals with the ecological frame of the environmental planning in urban agglomerations, using the case of Minsk written by Mikhail STRUK. It gives the explanation of optimal environmental planning in the metropolitan area. Due to the growing urban population and anthropogenic pressure recommendations were made to introduce environmental planning for the suburban area to carry out the functions of sanitation, water supply and recreation. It is based on a recommended spatial model of the ecological system providing specialised methods of nature management in different parts of the urban areas.

Ecological and geographical criteria were determined for outlining suburban area boundaries of the natural frame. They are based on the analysis of external matter and energy relations of the city mainly by air and water flows. On the basis of the obtained criteria the external environmental boundaries of Minsk agglomeration could be identified. They cover a more extended territory than the boundaries of suburban and green zones.

The volume serves as a good starting point of an extensive cooperation between Belarussian and Hungarian geographers dealing with social and physical urban environment, the state of which deserves extra attention especially in post-socialist Central and Eastern Europe.