

## **Perception of quality of life in Brno housing estates**

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### **Abstract**

The main goal of this paper is to introduce and discuss the ways of perceiving the quality of life on selected housing estates of Brno City. At a general level we focus on the significance of this kind of research and the factors influencing the way housing estates and living there are perceived in the Czech Republic. The results of our research on three Brno housing estates imply that the "external" image of quality of life on a housing estate can be rather different from the feelings and opinions of inhabitants living there. That contradiction is a result of a quite wide spectrum of factors such as adaptation processes, local patriotism or media influence.

**Keywords:** housing estate, place image, quality of life, neighbourhood comparison, Brno

### **Introduction**

The residential complexes consisting of mainly houses built by means of pre-fabricated, pre-stressed concrete panel technology became not only a symbol of the socialist architecture but also homes for millions of people during the four decades when they were built. The pre-fabricated-panel housing estates (further referred to as housing estates) have left indelible traces in the lives of these people. This paper primarily focuses on issues related to the quality of life and the image of housing estates. We briefly discuss the significance of such research and also the factors influencing the perception of living on Czech housing estates. Then we focus on the selected housing estates located in Brno and on the way they are perceived regarding the quality of life aspect. Our research is based on the concept of "external" and "internal" image introduced

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by ANDRÁŠKO, I. (2006). Considering the acquired knowledge, our research is part of the housing estate studies incorporated into the theoretical-methodological framework of the quality of life concept.

### **Housing estate research and the quality of life concept**

When considering housing estates as a more or less solid component of urban research (see e.g. BERÉNYI, B.E. and SZABÓ, B. 2009; MATLOVIČ, R. and NESTOROVÁ-DICKÁ, J. 2009; ŠUŠKA, P. 2012), it is quite logical to ask a fundamental question: "Why should we study housing estates"?

The simplest answer to the question is related to the number of people living there. The construction of housing estates in the Czech Republic started in the 1960s and it ended in the 1990s. The share of panel houses in the housing stock increased to one-third and the share of people living on housing estates increased to 30% (KALLABOVÁ, E. 2004), meaning over 3 million people in absolute numbers. In the CEE countries 11–14 million apartments were built by means of panel technology during the period of 1950–1990. Those apartments were the homes for 15 to 45% of the inhabitants of those countries at the beginning of the 21<sup>st</sup> century. When taking into account the trends of future development (see KALLABOVÁ, E. 2002; TEMELOVÁ, J. *et al.* 2011 we can assume that those rates will not significantly change in the coming years.

Several papers dealing with the housing estates in the CEE countries (e.g. EGEDY, T. 2000; MLÁDEK, J. 2000; TEMELOVÁ, J. *et al.* 2011; WARCHALSKA-TROLL, A. 2012) stress that scientists should reveal information that could be used in improving the lives of the people living there. In this context, we consider the placement of studies in the framework of the quality of life concept exceptionally valuable. The scope of such research usually exceeds the possibilities of case-studies and more likely belongs to the sphere of larger research projects. Nevertheless, even studies focusing on the local aspects of quality of life may be beneficial. S. CUTTER (1985) specified that approach as an evaluation of the total quality of life in a specific territory through studying individual perceptions. That approach will be used in the following part of our paper.

### **Perception and shaping of the quality of life image in Czech housing estates**

The perception and evaluation of the environment by humans is an inseparable part of the geographical research (see e.g. IRA, V. 2004; ANDRÁŠKO, I. 2009). The image of housing estates cannot be considered very positive over time. It

is partially a result of the way these housing estates were built; planners frequently failed to take into account not only the basic needs resulting from the concentration of a large number of people in a relatively small area but also the more specific requirements connected to the socio-demographic structure of their inhabitants. That problem has become more pronounced since the 1970s. According to ŠEVČÍK (2009, in DIVINA, M. 2010), the reasons were connected with the strong advancement of standardization, the increasing number of building directives and the context of quantitative expansion.

The significance of housing estates in the former Czechoslovakia also appears in artistic works. Let us mention just some examples, a movie by Věra Chytilová "Panelstory aneb Jak se rodí sídliště" (Panelstory or the birth of a housing estate) (1979) or the song "Po schodech" (Up the Stairs) by Patejdl and Mikletič, played by Banket (1986).

In both cases living on housing estates acquires a satiric or a tragicomic dimension drawing the attention of people to problems such as the paradoxical anonymity of people in an environment where everybody knows what his/her neighbour is doing just now or the "rationally irrational" way of spatial arrangement resulting in spatial disorientation. It cannot be surprising that housing estates were called "concrete jungles" or "rabbit hutches" – the latter expression was used in one of the first speeches of the former Czech(oslovak) president, Václav Havel.

Still, we believe that this negative image of housing estates should not be overestimated. Many people having grown up in the former Czechoslovakia usually do not have a word against "their" housing estates because they grew up there and they managed to identify with it. It should not be forgotten either that housing estates improved significantly the spatial and sanitary standards of households at the time of their constructions (KALLABOVÁ, E. 2004).

The events of the "Velvet Revolution" in 1989 brought about many significant changes in the former Czechoslovakia and they had an effect on housing estates as well. The changes in the housing ownership structure, the introduction of market mechanism or the re-establishment of local governments represent just partial couple of aspects contributing to the "humanization" of the residential environment of housing estates. In this respect, terms such as "regeneration", "revitalisation", "renovation" and "rehabilitation" have been used since the mid-1990s.

In general, they are associated with technical, environmental and social changes, spatially related to the apartments (e.g. reconstruction), whole buildings (façade insulation) or to the housing estates' environment in a wider social context (public areas). Market forces relatively quickly saturated many of the formerly poorly fulfilled needs of inhabitants. Developments in services and retailing even changed the images of the housing estates which were perceived negatively before (ANDRÁŠKO, I. 2007).

## Brno's housing estates and the way they are perceived by local people

Brno with its 380,000 inhabitants is the second largest city in the Czech Republic. Approximately 40% of the city's inhabitants reside on housing estates. The first panel house in Brno was built in 1957. The number of apartments built by means of panel technology was 247 in Brno in 1960, and this number increased to 1216 by 1963. The first housing estate construction started in 1960 (finished in 1965) and the last housing estate was built between 1987 and 1994. As many as twenty housing estates were built by pre-fabricated technology in Brno (LESOVÁ, P. 2011).

The following section our study focuses on the evaluation of the image of three selected housing estates regarding the quality of life context. Our study is based on a questionnaire survey performed in Brno in 2011. Brno inhabitants were systematically surveyed and the basic data set covers the answers of 2500 respondents. Significant attention was paid to the proportional-territorial character of the sample. Therefore, the city was divided into 75 boroughs. The data set also contains information about the age, the educational and the gender aspects of the population.

The questionnaire focused on a wide spectrum of information about the inhabitants' quality of life. The wording of the individual questions was adopted from previous surveys of ANDRÁŠKO, I. (2007) influenced, besides others, by PACIONE, M. (1986). It is impossible to evaluate all the results of the complex research within a single paper; therefore, we focus here on the image of the selected housing estates.

The evaluation of that image was based on the replies of respondents to the questions where they were asked to specify up to 5 locations in Brno which they considered the best and the worst from the quality of life aspect. On the basis of the answers, we established and quantitatively assessed two types of images.

– A general, "city-wide" image that was processed for all 75 city boroughs and it was based on the answers of respondents who indicated a specific neighbourhood to be among the best ones or the worst ones. The result made it possible to establish a ranking of the city boroughs according to the perception of their quality of life. Focusing on the housing estates, we found that within Brno the housing estate Lesná had the best image and the housing estate Bohunice had the worst. Therefore, we selected these two estates for a more detailed investigation. The third selected housing estate was Bystrc. The attitude of people towards that housing estate can be described as "ambivalent" – a relatively large share of respondents classified it both in the best and the worst borough categories.

– We have designed the second concept as an "internal" image. In this case, we focused only on respondents' view of the three above-mentioned

housing estates. The internal (or own) image expresses how the inhabitants of a housing estate perceive the quality of life in their own neighbourhood. In this case, we also took into account the satisfaction of the inhabitants with their places of residence. The degree of satisfaction was expressed on a 5-degree scale (5 = great satisfaction and 1 = great dissatisfaction).

The following section provides a description of the three selected housing estates in order to help the understanding of factors shaping their images.

### Lesná housing estate

Lesná maintains the status of "good address" in Brno. It was built in the 1960s, during a period which was more convenient for housing estates from many viewpoints (aesthetic-architectonic, functional, etc.). The housing estate was built at the northern edge of the city (*Figure 1*), on a rugged south-facing slope. The architectonic design was inspired by the Scandinavian cities. The

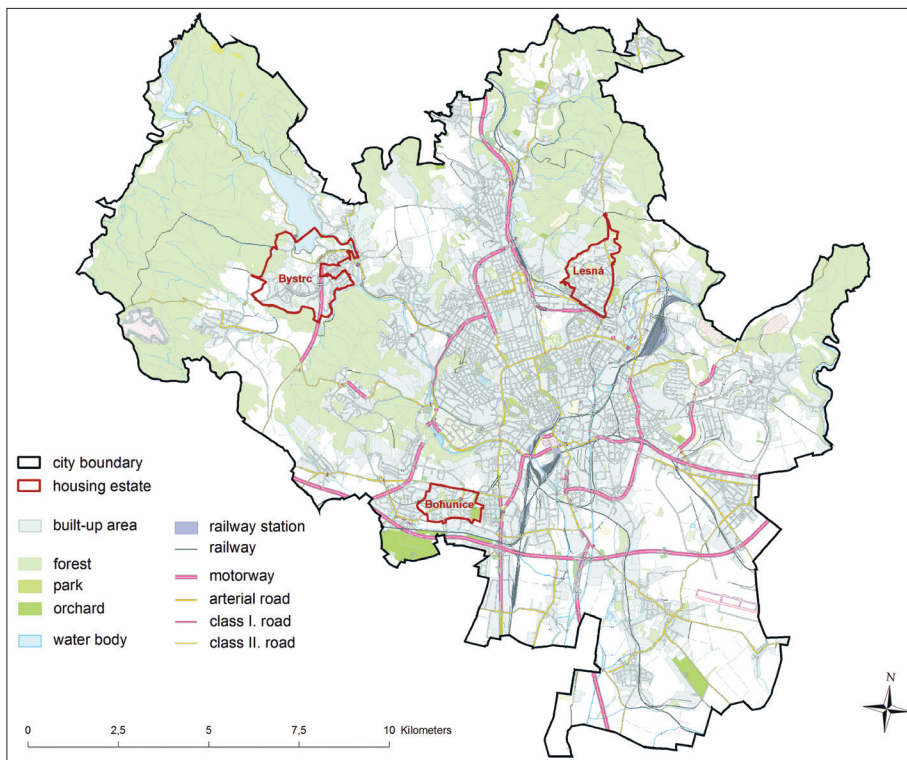


Fig. 1. Localisation of the selected housing estates within the city of Brno



term "Lesná" itself evokes a connection to the nature (the word "lesná" is an adjective of the word "les" which means "forest") and it quite precisely describes the place. The neighbourhood adjoins large forests which are used as a recreational area. The housing estate is also intersected by a depression (Čertova rokle) which is mostly covered with greenery as well and since the main roads are located at the outer circumference of the housing estate, no heavy transport disturbs that area.

The built-up area in Lesná is characterised by nine-storey houses with length of up to 200 m (*Photo 1*). This structure made it possible to establish large green areas among the buildings with sports facilities.

The attitude of Brno's inhabitants towards Lesná, expressed by means of the "general" image concept, is rather clear. The evaluation of the "first option" (the first choice of preferred borough) implies that Lesná is generally perceived as the best city borough within the limits of Brno.

Lesná inhabitants are mostly satisfied with their place of residence. The internal image quite corresponds to the general image. 24.5 % of Lesná's inhabitants consider "their own" borough as the best one regarding the quality of life; it was not ranked as the worst borough in any single case.



*Photo 1.* Characteristic high-rise building at Lesná. The balconies are new "components" appeared only after 1990. (Photo by ANDRÁŠKO, I.)

## Bohunice housing estate

This residential complex is perceived as the worst example of the socialist housing policy in Brno. Its construction started in 1972 under the name of Housing Estate of the Czechoslovak–Soviet Friendship (Kuča, K. 2000). The housing estate is located at the south-eastern edge of Brno, close to the busy D1 motorway to Prague. This fact played an important part in shaping the "external" image of the housing estate. From the D1 motorway the typical skyline of the housing estate located on a hill can be seen. Up to now the negative image of Bohunice was enhanced by the uniformity of the "colour" of facades, the so-called "concrete panel grey".

The last 20 years brought about many changes in Bohunice that can be evaluated rather positively. Revitalisation measures were, besides others, connected with the re-painting of facades and the significant expansion of green areas, both improving the aesthetic value of the residential environment (*Photo 2*). The investments of the public sector were focused on the development of public



*Photo 2.* The new colour of facades changed the aesthetic image of the residential environment in Bohunice. (Photo by ANDRÁŠKO, I.)

areas often with a clear and rational emphasis on their functional utilisation (sport areas, playgrounds, park benches etc.). As mentioned above, the "general" image of Bohunice within Brno has not been very favourable. Yet we must remember that from the viewpoint of that image, Bohunice is "only" the worst housing estate, and not the worst neighbourhood in the city.

The results of the internal image evaluation imply that Bohunice inhabitants do not share the "majority's" opinion. Over 28% of respondents from Bohunice specified the borough as the best one in Brno. That rate is even higher than the rate for the "generally" preferred Lesná estate. That finding is corroborated by the average rate of satisfaction with the estate as a place of residence where Bohunice reached the same value as Lesná, i.e. 3.9 (prevailing satisfaction).

### **Bystrc housing estate**

This housing estate is located in the western part of Brno and its relative location can be assessed from different viewpoints. On the one hand, it is located at the greatest distance from Brno city-centre and, on the other hand, it is located next to a largest forest and recreation areas.

Bystrc just like Bohunice used to be an independent village. The construction of this rather large housing estate started in 1971 and it was implemented in several stages. After the construction, Bystrc had insufficient facilities (shops, schools). The infrastructure (e.g. sidewalks, roads) was not developed sufficiently, either. Similarly to other places, the situation also changed here, i.e. improved after 1989. The greater distance from the city centre is compensated by relatively good public transport services (LESOVÁ, P. 2011). Nevertheless, a trip to the city centre is 7–8 minutes longer in comparison to Lesná or Bohunice.

Considering the housing estate's general image, Bystrc is assessed in a rather specific way. It appears both among the "top 15" best-evaluated boroughs and among the 15 worst-evaluated boroughs. As implied by ANDRÁŠKO, I. (2006), that "ambivalent" attitude of city inhabitants towards large housing estates is not as surprising as it might seem. Large residential complexes can be perceived very negatively (e.g. because they represent a "dehumanized" environment) and at the same time (for some specific living conditions) their images can be very positive.

The evaluation of the internal image shows that Bystrc inhabitants like their housing estate the most. More than half of them consider Bystrc as the best borough in Brno, an opposite opinion was not expressed in any single case. The value of 4.1 showed even higher satisfaction with the place of residence among local inhabitants than in the case of Lesná or Bohunice.



## Comparison of housing estates by selected quality of life aspects

The results of the study revealed significant differences in the perception of quality of life on the housing estates regarding the "external" and "internal" images. It is an important finding, especially in the case of the housing estates with "poor reputation". It can be an important factor, for example, in the decision making process connected with real-estate purchases. Data listed (Table 1) show that apartment prices are rather different among the housing estates under study. The most expensive apartments are located on the "popular" Lesná housing estate. Also the least number of free apartments for sale and the largest number of apartments for rent are offered here. On the contrary, the largest number of free apartments for sale is in Bohunice.

Figure 2 demonstrates the level of inhabitants' satisfaction with selected aspects of life. The average values calculated from the replies of all respondents of the three housing estates show that they were most satisfied with the quality and availability of greenery. On the contrary, the lowest satisfaction is connected with cultural activities and parking availability (a typical contemporary problem of housing estates).

Table 1. Average prices of apartments in 2012

Apartment size*	Housing estate and apartment price in thousands of CZK		
	Lesná	Bohunice	Bystrc
2-room apartment	1,912	1,585	1,787
3-room apartment	2,520	2,124	2,109

\*2 and 3-room apartments - apartment average price in a panel house (2 and 3 rooms + a kitchen, respectively)

## Conclusion

The comparison of "external" and "internal" images of housing estates may provide interesting results for urban planning. It is obvious that factors shaping of that image are part of long-term and complicated processes and that a wider spectrum of factors should be considered here. From the external perspective, mediated information which is, to a certain extent, identical with the "reputation" of the housing estate is especially important. Lesná housing estate was much more promoted in the media than other Brno housing estates, which was certainly beneficial for the popularity of Lesná (DIVINA, M. 2010). However, mediated information does not need to be either objective or complete, as it reflects only the external image of the location.

The internal image is made up by perceptions of inhabitants whose everyday lives are strongly connected with that particular housing estate.

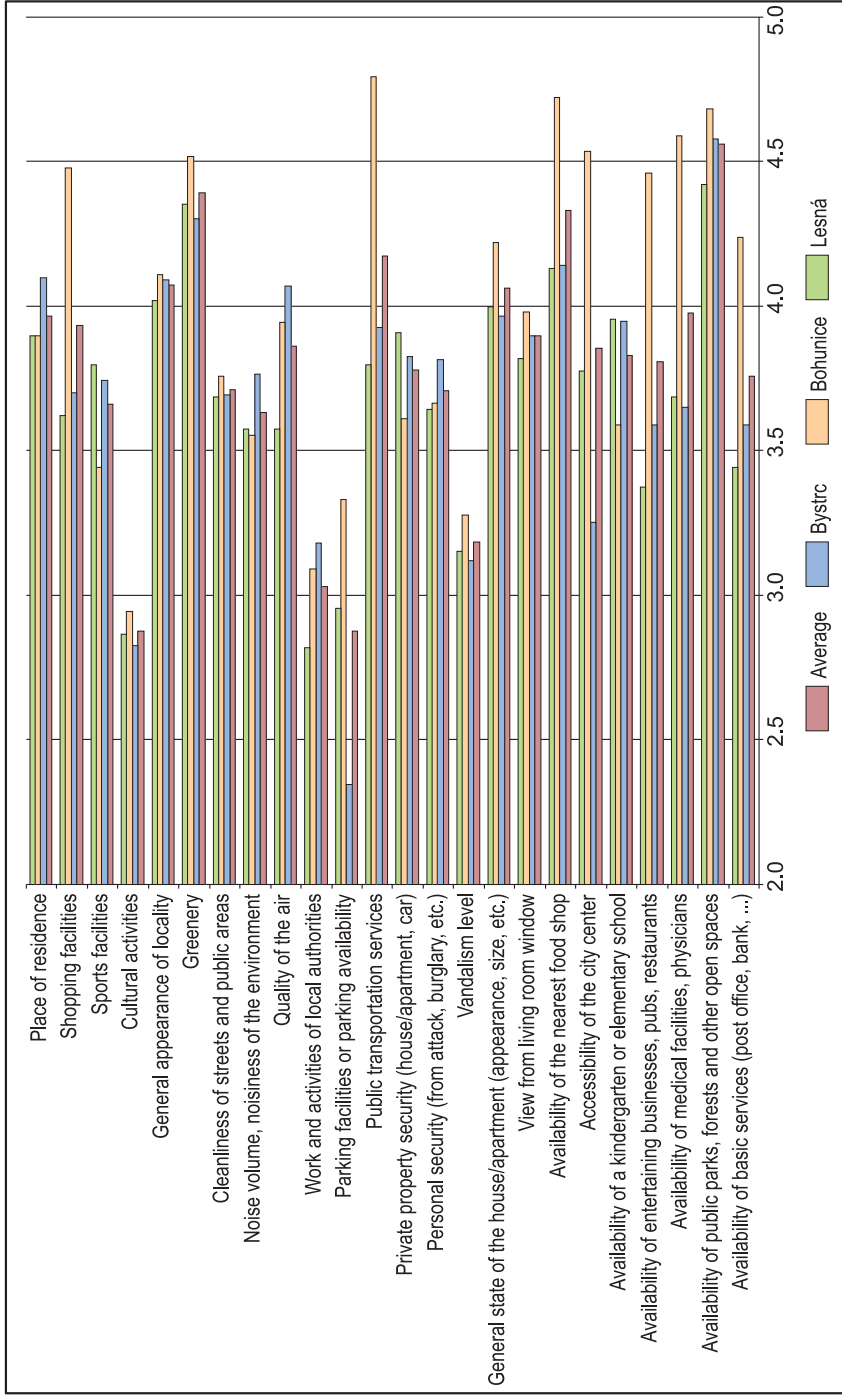


Fig. 2. Degree of satisfaction with selected aspects of life (higher value stands for higher degree of satisfaction)

Predominantly, the positive perception of residents may be a consequence of their familiarity with local conditions and it is certainly a result of their adaptation to that environment. "Local patriotism" related to the shaping of territorial identity is a rather frequent phenomenon. That phenomenon can even be reinforced when the "external" image of the housing estate is negative. This is true for large e.g. Petržalka housing estate in Bratislava (see ANDRÁŠKO, I. 2006) and maybe in the case of Bohunice in Brno. However, that phenomenon must not be universal.

The results of our research and also other studies (TEMELOVÁ, J. *et al.* 2011; WARCHALSKA-TROLL, A. 2012) underline that the future of housing estates will depend on three "connected vessels": physical environment, the ways they are perceived and the social structure of the population. The deterioration in parameters of any of those components will reflect in the other two upon the feedback mechanisms. There are many impacts that could cause both negative and positive changes and their characteristics can be both exogenous and endogenous. On the side of internal factors, we have to emphasize especially the role of local governments and the participation of the public in controlling and decision-making processes. The future of housing estates is, thus, mostly in the hands of their inhabitants and it also depends on them how they will treat their opportunities.

#### REFERENCES

- ANDRÁŠKO, I. 2006. Percepcia kvality života v mestských štvrtiach Bratislavy (The perception of the quality of life in Bratislava city wards). *Geografická revue* 2. (2): 227–240.
- ANDRÁŠKO, I. 2007. *Vnúťorná štruktúra mesta z hľadiska kvality života* (Intra-urban structure from the quality of life point of view). Dissertation thesis. Bratislava, Geografický ústav SAV.
- ANDRÁŠKO, I. 2009. The role and status of geography in the quality of life research. In *GEODNY LIBEREC 2008: sborník príspevků*. Eds. POŠTOLKA, V., LIPSKÝ, Z., POPKOVÁ, K. and ŠMÍDA, J. Liberec, Technická univerzita, 210–215.
- BERÉNYI, B.E. and SZABÓ, B. 2009. Housing preferences and the image of inner city neighbourhoods in Budapest. *Hungarian Geographical Bulletin* 58. (3): 201–214.
- CUTTER, S.L. 1985. *Rating Places: A Geographer's View on Quality of Life*. Washington DC, Association of American Geographers, Library of Congress.
- DIVINA, M. 2010. *Podoby brněnských panelových sídlišť* (The image of the pre-fabricated housing estates in Brno). Diploma thesis. Brno, Masarykova univerzita.
- EGEDY, T. 2000. The situation of high-rise housing estates in Hungary. In *Hungary towards the 21<sup>st</sup> century: the human geography of transition*. Studies in Geography in Hungary 31. Ed. KOVÁCS, Z. Budapest, Hungarian Academy of Sciences, 169–185.
- IRA, V. 2004. "City in the mind": behaviorálno-geografické hodnotenie kvality života v meste ("City in the mind": behavioral-geographic assessment of the quality of life in the

- city). In *Geografické štúdie 12: reflexie geografických výskumov v strednej Európe s dôrazom na ich využitie v praxi*. Ed. ČUKA, P. Banská Bystrica, Univerzita Mateja Bela, 46–52.
- KALLABOVÁ, E. 2002. Trends in the issue of pre-fabricated housing estates with emphasis on their recovery (with examples from the Czech Republic). *Moravian Geographical Reports* 10. (1): 26–31.
- KALLABOVÁ, E. 2004. *Sociálně geografické souvislosti panelových sídlišť a problémy jejich vývoje v České republice* (Socio-geographic relations of pre-fabricated housing estates and problems of their development in the Czech Republic). Dissertation thesis. Brno, Masarykova univerzita.
- KUČA, K. 2000. *Brno: vývoj města, předměstí a připojených vesnic* (Brno: development of the city, suburbs and annexed villages). Praha, Baset.
- LESOVÁ, P. 2011. *Brněnská sídliště* (Brno housing estates). Diploma thesis. Brno, Masarykova univerzita.
- MATLOVIČ, R. and NESTOROVÁ-DICKÁ, J. 2009. The city of Košice in the context of post-socialist transformation. *Quaestiones Geographicae* 28B. (2): 45–55.
- MLÁDEK, J. 2000. Mladé velké obytné súbory (sídliská) – osobitné prvky urbánnych štruktúr Slovenska (Large residential complexes [estates] – specific elements of urban structures in Slovakia). In *Urbánne a krajinné štúdie* č. 3. Ed. MATLOVIČ, R. Prešov, Prešovská univerzita, 82–89.
- PACIONE, M. 1986. Quality of life in Glasgow: an applied geographical analysis. *Environment and Planning A* 18. (11): 1499–1520.
- ŠUŠKA, P. 2012. Produkcia vybudovaného prostredia v postsocialistickej Bratislave: podmienky, dynamika a územný prejav (Production of the built environment in the post-socialist city of Bratislava: conditions, dynamics, and spatial manifestation). *Geografický časopis* 64. (2): 155–179.
- TEMELOVÁ, J., NOVÁK, J., OUŘEDNÍČEK, M. and PULDOVÁ, P. 2011. Housing Estates in the Czech Republic after Socialism: Various Trajectories and Inner Differentiation. *Urban Studies* 48. (9): 1811–1834.
- WARCHALSKA-TROLL, A. 2012. How to measure susceptibility to degradation in large post-socialist housing estates? *Prace Geograficzne* 130. 55–71.