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TRANSFORMATIONS OF LARGE HOUSING ESTATES IN CENTRAL AND EASTERN EUROPE AFTER THE COLLAPSE OF COMMUNISM

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Abstract

The main purpose of this paper has been to identify ongoing changes in post-socialist large housing estates and to clarify the main factors underpinning them. The transformations in question were analysed in two dimensions: a social dimension encompassing structural socio-demographic and socio-economic changes among inhabitants, and a spatial dimension relating to socio-spatial, functional and physical (morphological and physiognomic) changes. The main question concerned the ways in which large housing estates built during the communist era have changed under the new socio-demographic, political and economic conditions emerging following the collapse of communism. The study was thus based on a review of the available literature.

Key words

large housing estates • CEECs • post-socialist city • collapse of communism

Introduction

The large block housing estates built after the Second World War are present in the urban landscapes of nearly all European countries. The idea according to which these estates were built, i.e., that of improvement in the living conditions of the working class through the construction of modern housing estates, emerged in the early 20th century. However, the principal period of construction of the large housing estates followed on from the

devastation wrought by the Second World War. Then, a severe shortage of dwellings combined with the rapid post-War growth in population and increasing pace of urbanisation to leave housing estates a viable and widespread solution that could offer homes to a very large of people in need, for a relatively cheap price (Dekker et al. 2005: 2). The main assumptions underpinning this urban form are as formulated in the Athens Charter – a document published in 1943 as the result of the Fourth International

Congress on Modern Architecture (CIAM), convened in 1933. The most important points of that document can be summarised simply, by reference to the words: the Sun, greenery and open space. The result was the construction of large apartment blocks separated by extensive, landscaped green areas, as well as a separation of functions (Musterd & van Kempen 2007). The design and construction model suggested in the Athens Charter, combined with the idea to provide all inhabitants with decent living conditions, regardless of their financial status, became the ideological foundation of multi-family housing estates. However, while the ideas offset out in the document were noble, they were also unrealistic. Not only did their realisation fail to bring the expected effects, but, by distorting the original concept, they also led to the building of huge, dehumanised housing mono-structures, spatially separated from the historical urban tissue (Jałowiecki & Szczepański 2006). Nowadays, these estates are recognised as problem areas in many European cities (Turkington et al. 2004; Dekker et al. 2005; Wassenberg 2013).

Large post-War housing estates were erected all over Europe, on both sides of the so-called Iron Curtain. However, systemic and political factors conspired to ensure that they developed on the largest scale in the communist countries of the Eastern Bloc. The idea of collective and uniform housing fitted perfectly with state-communist politics, and made possible the achievement of the ideological goal of mixing different social groups, in accordance with the idea of egalitarianism (Kovács & Herfert 2012). Hence the era of the construction of large housing estates in the CEECs lasted through to the late 1980s, i.e., up until the time communism collapsed. In contrast, most Western European countries had brought that phase to an end almost two decades previously. Today housing estates of this kind continue to constitute a major part of the housing market in formerly communist countries.

Unfortunately, the estates in question were built hastily and negligently, in that the growing residential needs caused by accelerating urbanisation might be satisfied. The designers of these residential complexes, whose architectural form was determined only by functional requirements, did not think of any particular group of users, and nor did they consider their housing needs or aspirations. The only group whose needs were taken into consideration were families with children (Temelova et al. 2011). Despite the numerous drawbacks of these estates, such as monotonous architecture, poor quality of construction and relatively small dwelling areas, to say nothing of the insufficient social infrastructure and shortage of basic services, a move to such a block of flats in a new housing estate was usually the only chance available in the communist era for a person or family to improve their living conditions (Węcławowicz 2007). A structural deficit on the housing market resulting from dynamic urbanisation, the progressing degradation of pre-War housing resources, limitations imposed on private construction, and a combination of low incomes and relatively modest residential aspirations, created a reality in which residing in a block of flats was a dream for the majority of city-dwellers of the communist era, regardless of their social status (Lewicka 2004: 311).

The collapse of communism brought significant socio-economic changes, and consequently an alteration in the position of large housing estates on the local housing market. In line with the political and economic transformation from communism to post-communism, housing supply and demand changed substantially. The appearance of new forms of housing, such as gated communities and residential parks, as well as the processes of suburbanisation and revitalisation of the inner city created a great challenge for large housing estates, and started to endanger their position (Borén & Gentile 2007; Kovács & Herfert 2012). As a result of an increase in socio-economic disparities and the changes in the housing aspirations of many inhab-

itants along with growth in their purchasing power, the residential prestige of such estates rapidly decreased. In the 1990s some authors predicted that prefabricated communist housing estates, by the same token as in West European countries, would soon become problem areas and turn into postsocialist slums (see Jałowiecki 1995; Szelény 1996; Enyedi 1998; Czepczyński 1999; Rykiel 1999). As suggested by Enyedi (1998: 33) "the rapid decline of housing estates into slums represents the 'time bomb' of urban development, a possible source of a grave urban crisis". Recently the discussion of physical decay and the outflow of better-off inhabitants has slowed down (Wiest 2011), but the future development of large housing estates still remain a great challenge in many former communist countries, primarily due to the fact that they constitute the dominant form of urban residential environment.

Previous studies on the transformations of large housing estates after the collapse of communism come in two groups. Those in the first group represent attempts at model approaches whereby large housing estates are analysed as one of the specific forms of residential space or one of the zones present in post-socialist cities (see Knorr-Siedow 1996, 1997; Enyedi 1998; Czepczyński 1999; Gaczek & Rykiel 1999; Sagan 1997, 2000; Coudroy de Lille 2000; Rykiel 2000; Zborowski 2000, 2005; Liszewski 2001; Matlovič et al. 2001; Ruopila & Kährik 2003; Wassenberg et al. 2004; Tosics 2005; Matlovič & Sedlakova 2007; Constantin 2007; Stanilov 2007; Węcławowicz 2007; Gorczyca 2009; Marcińczak 2009; Stenning et al. 2010; Eross 2013; Szafrańska 2012b, 2013; Węcławowicz 2013; Górczyńska 2014). Those in the second group in turn represent empirical approaches that focus on detailed analyses of the transformations taking place in individual housing estates. The geographical scope of these studies is limited by insufficient data availability and an inadequate opportunity to conduct field studies, with the result that case studies relating to single housing estates are most often involved (Masica & Milewska 2003; Szafrańska 2009, 2012a; Ciesiółka 2010; Rodzoś & Flaga 2010; Gorczyca 2010; Radwańska 2010; Kabisch & Grossmann 2013), or else to several selected estates located in a single city (Borowik 2003; Węcławowicz et al. 2003, 2005; Wojtkun 2004; Kozłowski 2005, 2010; Szafrańska 2010, 2011, 2014; Kährik & Tammaru 2010; Rzyski & Mędrzycka 2010, Warchalska-Troll 2012). Also, certain comparative studies have investigated the transformations of large estates in several cities of a single country (Egedy 2000; Kallabova 2000; Dimitrovska Andrews & Černič Mali 2004; Knorr-Siedow 2004; Kovács & Douglas 2004, Černič Mali et al. 2005; Temelová et al. 2011; Gorczyca 2013; Szafrańska 2013), or even in the cities of several countries (Chmielewski & Mirecka 2001, van Kempen et al. 2005; Dekker et al. 2011; Turkington et al. 2004; Jażdżewska 2010; Wiest 2011; Kovács & Herfert 2012).

The present study discusses the transformations¹ of large housing estates in selected CEECs (Central and Eastern European countries)² following the collapse of communism, on the basis of the existing literature. The main aim has been to analyze ongoing changes, and to clarify the main factors underpinning them. The transformations of large housing estates were analysed in their social dimension (as regards structural socio-demographic change among inhabitants and in terms of their socioeconomic status), as well as in physical terms (as regards changes in the spatial and functional structure of large housing estates, as well as their morphology and physiognomy). The main question concerned the way in which the large housing estates built during the communist period have changed in the new

¹ For the purposes of this study the term 'transformation' is used as a synonym for 'change'.

² According to Hamilton et al. (2005: 6), the collapse of communism was followed by the re-emergence of Central and Eastern Europe (more precisely Central-East Europe) as a distinctive sub-region embracing the Czech Republic, Hungary, Poland, Slovakia, Slovenia and the former East Germany.

socio-demographic, political and economic conditions emerging following the collapse of communism. A further aim of this paper has been to join in with the current debate on the future of the large post-War housing estates present in post-socialist cities.

Large housing estates in the CEECs as the heritage of the communist past: a general overview

There is no single definition of large housing estates³ (Turkington et al. 2004), but numerous authors (e.g. Węcławowicz et al. 2005; van Kempen et al. 2005; Musterd & van Kempen 2005; Górczyńska 2008; Gorczyca 2010) use the definition formulated for the purposes of the RESTATE4 project. According to this definition, large housing estates constitute spatially isolated groups of buildings, comprising over 2000 flats, built in the second half of the 20th century, planned and fully or partly financed by the state (Musterd & van Kempen 2005). According to other authors, large housing estates are defined as residential complexes constructed using prefabricated technology with over 2500 housing units (Knorr-Siedow 1996) or over 6000 (Wiest 2011: Kovács & Herfert 2012).

Despite their similar physiognomy, the large housing estates built in communist countries were different from those found

in Western Europe. They differed primarily in terms of the urban planning scale and the role played on the local housing market, the time of construction, and the socio-economic profile of inhabitants – and consequently their position in the ecological structure of the city in which they were located (Coudroy de Lille 2000; Turkington et al. 2004; Musterd & van Kempen 2005; Dekker et al. 2005, 2007; Sykora 2009; Kovács & Herfert 2012).

The first and most fundamental difference concerns the 'weight' of large housing estates on the housing market. According to data obtained by the IRS (Institute for Regional Development and Structural Planning), as of the 1990's, post-War prefabricated estates with over 2500 flats built in countries between the Elbe River and Vladivostok, constituted 29% of all housing resources (i.e. some 53 million flats). These were resided in by about 170 million people, and contained nearly half of all households (Knorr-Siedow 1996). Where the post-communist bloc away from the countries of the former USSR is concerned, large estates were inhabited by about 34 million people living in 11 million flats (Knorr-Siedow 1996), while the total number for the remaining European countries (away from the former USSR) was 41 million (Węcławowicz 2007). The number of flats in large housing estates compared with the number of all flats built in 1960-1990, as well as with the overall number. was high in formerly-communist countries, reaching the highest values of all in the former Czechoslovakia and Poland (Tab. 1). As of the mid-1990s, in the eastern German lands the large housing estates were inhabited by every fourth citizen - as compared with every sixtieth in the western lands (Rembarz 2010). In Poland, as of the 1990s, the different estimates have it that more than 8 million people were resident in large housing estates (Węcławowicz 2007), with these thereby accounting for over 50% of the urban population (Rębowska 2006), and about 56% of urban households (Rembarz 2010). Today, they continue to provide some 20-40% of the housing stock in Central and Eastern Europe,

³ In several European countries, the definition of a large housing estate is a specific legal category introduced in order to facilitate the pursuit of a spatial policy oriented towards transforming these areas and preventing the large housing estate "syndrome". In Germany, the legal category of *Großsiedlung* takes in estates with at least 2500 flats (Wassenberg et al. 2004), while in France, *Grand Ensemble* status is assigned to housing areas with over 2000 flats within Greater Paris, or else over 1000 flats where the outskirts of are concerned(Coudroy de Lille 2000; Rembarz 2010).

⁴ RESTATE – the acronym of the international research project 'Restructuring Large-scale Housing Estates in European Cities: Good Practices and New Visions for Sustainable Neighbourhoods and Cities'. This cross-national research project took place in 29 estates in 10 EU Member States (France, Germany, Hungary, Italy, The Netherlands, Poland, Slovenia, Spain, Sweden and the UK), between 2002 and 2005.

as compared with the situation in Western European countries, where the percentage share of all housing resources accounted for by these estates is an estimated 3-7% (Kovács & Herfert 2012).

Table 1. The percentage of flats in large housing estates, in selected communist countries

Country	(%) – in relation to the number of flats built 1960-1990	% of the overall number of flats in 1990	
Bulgaria	55	27	
CSFR*	66	36	
GDR **	48	18	
Poland	61	35	
Romania	49	26	
Hungary	52	29	

^{*} Czech and Slovak Federative Republic or Czechoslovakia

Differences between Western and East-Central Europe also affected the construction periods where the large housing estates are concerned. Thus, the peak of the development of this particular urban form in the majority of communist countries was recorded in the 1970s (only in Hungary and Slovenia in the 1980s), and lasted through until the end of the 1980s (in certain countries until the early 1990s). In the Western European countries, in contrast, the idea of building large estates was abandoned in the 1970s⁵, following the recognition of these estates as problem areas (Wassenberg et al. 2004).

Another essential difference reflects social composition among inhabitants. In the CEECs, the flats in large housing estates were meant for an anonymous group of people, representing medium-level needs (mainly families with

children), but they were not the social housing type addressed to the low-income groups. They were built for a large segment of the population belonging to a variety of social strata and used as political signs of progress in society, in line with the communist vision of a homogeneous housing condition (Kabisch & Grossmann 2013). Therefore, the communist large-block estates were inhabited, not only by blue-collar workers, but also by middleclass families, or even representatives of the communist elite (Szelényi 1983; Węcławowicz et al. 2003; Zborowski 2005). This resulted in the specific ecological position of the large housing estates within the socio-spatial structure of cities in communist countries (Szelényi 1983 - Fig. 1). Unlike in Western European cities, the social status first dropped sharply in certain parts of the densely built-up innercities, and then increased again in the zone of housing estates, due to the larger shares of younger and better-educated people (Kovács & Herfert 2012)

As noted by numerous authors (Czepczyński 1999; Rykiel 1999; Kiciński 2004; Turkington et al. 2004; Węcławowicz 2007), most of the large-block housing estates originating in the communist period (especially those built in the 1970s, i.e., during the era of their fullest development), were characterised by:

- a large urban-planning and demographic scale, frequently exceeding the threshold of 2000 dwellings acknowledged in the literature as the defining criterion;
- construction in the industrial prefabricated (large-panel) technology;
- monotonous architecture and a uniform appearance of buildings;
- a peripheral location in urban space,
- an illegible spatial configuration and spatial anonymity;
- an absence of functional diversification the housing function was prevalent, while other urban functions were underdeveloped, especially the service function and social infrastructure;
- low workmanship standards and progressing physical (technical) degradation;
- small sizes of dwellings;

^{**} German Democratic Republic or East Germany Source: Knorr-Siedow, 1996

⁵ The symbolic date of the fall of the modernist philosophy behind the idea of block estates is 1972, when the Pruitt-Igoe Estate in the USA, consisting of a complex of 14-storey buildings, was demolished, after it had turned into a crime nest thanks to a lack of people willing to settle there (Jencks 1987).

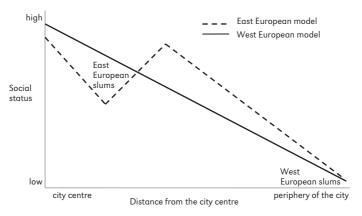


Figure 1. Social status and distance from the city centre (after Szelényi 1983:148)

• a heterogeneous, mixed community, with a predominance of families with children. Nevertheless, as has been stated already, the estates were seen as an attractive place to live in communist cities nonetheless.

The transformation of residential patterns in the post-socialist city

The collapse of communism sent shockwaves throughout the economies of the CEECs. The rapid withdrawal of state involvement in the housing sector, through the drastic reduction in state subsidies and the cutting down of direct supply, resulted in an escalation of the housing crisis built-up over the decades of communist rule (Stanilov 2007: 173). In the first decade after the change in the political system, not only did the situation not improve, but it even in fact deteriorated (Tsenkova 1996; Stanilov 2007). The collapse of housing construction was accompanied by a relatively young age structure characterizing post-socialist cities and the maturing of the generation of the second wave of post-War population growth. Secondly, despite the falling number of city inhabitants, the number of households did not decrease because the percentage of one-person households increased dramatically. Thirdly, in the communist period, many people shared their flats with others (mostly parents or other relatives), with the result that there was considerable deprivation of seemingly satisfied housing needs (Tsenkova 1996). The shortage of dwellings in many post-socialist cities was enhanced by the poor condition of a large part of the old, non-renovated housing resources (Węcławowicz 2007). This is so because, throughout the communist era, the modern large housing estates in cities continued to enjoy relatively high social status, while most of the pre-WWII housing stock deteriorated in both social and physical terms (Kährik & Tmmaru 2010).

In the 21st century, the situation as regards housing construction started to improve gradually, first in Hungary, the Czech Republic and Poland, i.e. in the countries where political reforms had been implemented earliest⁶ (Tsenkova 1996). One of the factors behind the revival of housing construction in postcommunist countries was the possibility to take out a mortgage loan, which appeared in 1990, albeit in very much limited form in the early stages of the transformation⁷.

⁶e.g. in Warsaw in the period 1990-2012, dynamic growth in new housing was recorded, with almost 240,000 new dwellings completed within present city limits. As a consequence, by 2012 approximately 29% of the entire housing stock of the capital city consisted of dwellings built after 1989. No other city in Central and Eastern Europe experienced the production of more housing units in the period post-1990 than Warsaw (Stępniak & Mendel: 2013: 281).

 $^{^{7}\,}$ e.g. in the Czech Republic in the late 1990s, mortgage loans were available to households whose mean

One of the most important ways by which the housing sector changed during the period of political and economic transformation was via privatisation. This process took place at different rates in different countries. What is more, even during the communist period, significant differences characterised the ownership structure where housing resources were concerned⁸. The privatisation policy was based on two mechanisms: the sale of flats to their tenants at the given time, and the restitution of property to former owners. In some countries, restitution of property prevailed, while in others it was the privatisation of public resources. It is clear that the process of restitution did not influence the inhabitants of the large housing estates, where apartments were transferred to the sitting tenants. In most Balkan countries, plus Lithuania and Hungary, the privatisation process ended in the mid-1990s. However, in East Germany. the Czech Republic, Slovakia and Poland, this proceeded more slowly, with emphasis put on property restitution. The Czech Republic and East Germany, where an extensive reprivatisation programs delayed the privatisation of the remaining resources and enjoyed relatively large public resources in the late 1990s (Stanilov 2007). In other countries, the percentage of flat owners increased sharply, and in some, e.g. the Baltic states and Bulgaria, it reached values of over 90% (Tsenkova 2003). In Estonia, for instance, the public housing stock declined from 61 per cent in 1992 to 4 per cent in 2000 (Kährik & Tammaru 2010). In some countries, in order to accelerate this process, very favourable terms accompanying the buying-out of flats were offered. In Hungary, the flats were sold for less than 10% of their market value. As a result, between 1990 and 2006, the proportion of all housing accounted for by public housing decreased in Budapest from 51 to 8% (Kovács & Herfert 2012).

income was at least three times the national mean (Stanilov 2007).

The re-introduction of market rules governing the real-estate sector and the restoration of land rent both changed the criterion of spatial allocation, from the political to the economic (Węcławowicz 2007). The main criterion underpinning the competition on the housing market was the economic condition of households. On the one hand, it liberalised the situation in the strongly-controlled and centralised housing sector, but on the other, in a free-market economy, it increased the area of housing deprivation, and many groups had very limited access to flats.

An important feature of the newly-forming housing market was the transformation of the social structure, accompanied by considerable economic differentiation. A result of the political and economic transformation. a process of the pauperisation of a large part of society took place, as observed in the 1990s in all the countries undergoing system transformation (Szelényi 2001; Czismady 2003; Zborowski 2005). According to Czismady (2003), the process was less severe in the countries which completed neo-liberal reforms relatively fast (e.g. Poland or Hungary), and much more painful in countries (e.g. Bulgaria and Romania)9, in which the system could be described as neo-patrimonial.

An increase in socio-economic disparities and growth in the housing aspirations among the groups benefiting from the systemic transformation combined with growth in their purchasing power to bring about a significant diversification of the offer on the housing market (Kovács & Herfert 2012). There appeared new residential areas in cities and, as a consequence, residential mobility increased. The affluent population started to concentrate in spatially isolated, high-standard enclaves, and the poor population in areas of old decapitalised buildings (Wecławowicz

⁸ In 1989, nearly 70% of flats in Hungary and Slovenia and about 40% of those in Czechoslovakia and Poland were private property (Stanilov 2007: 176).

⁹ According to Czismady (2003), on the basis of comparative studies entitled *Ethnicity, Poverty and Gender in Transitional Society* conducted in 2000, in seven post-socialist countries, the percentages of people pointing to a decrease in their living standards in 1988-2000 was: in Bulgaria – 86.6%, Russia – 77.7%, Romania – 77.3%, Slovakia – 60.2%, Poland – 52.6% and Hungary – 51.5%.

2007) Those processes contributed to an increased socio-spatial segregation, and also related to the processes of separation in the post-socialist city, i.e. a spatial partitioning of groups of higher-status inhabitants (Matlovič et al. 2001). As a result of such increased economic inequalities, the need for safety feeling of security also increased. This was the cause of the construction of many new flats on closed and guarded estates (gated communities), with this leading to the further fragmentation of urban space (Matlovič et al. 2001).

The transformation of large housing estates as neighbourhood change: the theoretical framework

A number of theories and models for neighbourhood change are present in the subject literature. Only some of these can be used to explain the current changes in post-WWII housing estates and, particularly, processes occur on these estates in post-communist countries. As pointed out by van Beckhoven and colleagues (2009) the concept of neighbourhood change has been investigated from three different perspectives, using three different approaches:

- 1. The human ecology approach, which focuses on economic competition for urban locations among various social groups;
- 2. The subcultural approach, which provides explanations for neighbourhood stability despite the working of economic forces;
- 3. The political economy approach, by which the impact of larger economic and social transformations on neighbourhoods is explained.

Nevertheless, as pointed out by other authors (Somerville et al. 2009) the theories of neighbourhood change can be classified in different way, using ecological, behavioural and structural approaches.

The first of the attempts to understand neighbourhood change that have been developed over the years was the 'human ecology' approach developed by the Chicago School, by way of the identification of succession, invasion and filtering processes resulting from an ageing housing supply. These processes, according to which higher-income households have tended to move out and been replaced by lower-income households, have been found in numerous neighbourhoods throughout the world, particularly in the public housing sector (Murie et al. 2003).

Critics of the ecological approach have recommended a focus on a more behavioural approach, in which neighbourhood decline (and neighbourhood change generally) is not seen as an inevitable process, but can be offset by people's conscious actions, and specifically also by the strength of social networks within neighbourhoods (Somerville et al. 2009). The most comprehensive example of behavioural approach is Prak and Priemus's model developed in The Netherlands in 1986. These authors are seen as the first researchers to focused on the situation in post-WWII social housing estates in Europe. Their model was based on the idea that the deterioration of such neighbourhoods was the result of three fortifying spirals of decline, i.e. social decline, economic decline, and technical decline. The first spiral of decline, 'social decline', concerns the inhabitants and changes that take place within the makeup of the population. When the attraction of an estate decreases and mobility increases, the number of low-income households in these particular areas will rise. In some cases, this may lead to the departure of high-income households. As a result social control may weaken, vandalism and crime may appear and the attractiveness of the area may decrease further. The increasing mobility of residents causes faster turnover rates, which in turn can lead to vacancies, vandalism, pollution and low tenant participation. These developments may result in 'technical decline', which can again lead to further mobility. Both social and technical decay may result in decreasing rent income (because of increasing mobility and the influx of low-income households). At the same time, higher turnover rates, problems with tenants and increasing costs of maintenance can lead to higher running costs and 'economic decline' (Prak & Premius 1986; van Beckhoven et al. 2009; Somerville et al. 2009). According to Murie et al. (2003) the 'spiral of decline' may be increased, because more stable and affluent households move away, or because there are no opportunities for deprived households to move away. This phenomenon, referred also as 'large housing estate syndrome' (Rembarz 2010), was recognised in the 1980s on many large post-War housing estates in almost all Western European countries (Turkington et al. 2004; Wassenberg 2013).

As pointed out by Somerville et al. (2009), the behavioural approach is useful, but limited, in that it does not explain how factors of different types might interact so as to produce given kinds of neighbourhood change - or what might be responsible for them. According to Ahlbrandt (1984), neighbourhood change can be understood using the structural approach, in three different ways: economically, in terms of household incomes or property values (e.g. Grigsby and colleagues' theory from 1987); socially, in terms of the character of its residential population (e.g. the model developed in 1996 by Temkin and Rohe); or spatial - which especially focuses on type of housing (e.g. Power's theory from 1997). According to Grigsby et al. (1987), the situation within a neighbourhood is influenced mainly by the external factors, such as demographic changes, economic changes, and governmental interventions. Specifically, the authors underlined the importance of changes in socio-economic variables, causing households to change their behaviour on the housing market, with the result that both dwelling and neighbourhood characteristics changed. As these authors point out, the concentration of poverty in a neighbourhood, associated with a critical mass of residents with behavioural problems, results in the unravelling of the neighbourhood's social fabric (Grigsby et al. 1987; Somerville et al. 2009). Temkin and Rohe (1996) in their model of neighbourhood change

likewise highlighted the importance of social fabric within an area. The social fabric concept is understood very similarly to that of social capital, as a combination of intimate bonds (e.g. strong friendship) and neighbourly ties between local residents. According to these authors, the social fabric within an area is necessary to combat or enforce changes. However, this depends on residents' attitudes, and on their collective political power, as residents need to be willing and able to influence higher political, financial and other institutional actors, whose decisions may cause changes. Consequently, neighbourhoods with a strong social fabric are better able to resist changes than areas with a weak social fabric (Temkin & Rohe 1996; Ahlbrandt 1984; van Beckhoven et al. 2009; Somerville et al. 2009). According to Power (1997), one of the most important researchers to study large housing estates, the influence of the physical design and layout of these neighbourhoods is strongly related to the unfavourable situation that has arisen in many of these areas (van Beckhoven et al. 2009). Like Newman, with his theory of defensible space (1972), Power analyses neighbourhood decline primarily in terms of a loss of territorial control. As she points out, territorial control has to be regained, through the introduction of new forms of neighbourhood management, with the support of the residents themselves; and this may be seen as a possible form of neighbourhood governance (Power 1997; Somerville et al. 2009).

Many of the theories and models of neighbourhood change discussed above are focused especially on housing estates with an over-representation of social rented dwellings. However the situation in post-socialist cities differs considerably from that in Western Europe, given that the estates in formerly-communist countries do not represent rented social housing, but are usually owner-occupied. Moreover, while home-ownership is normally associated with higher-income groups, home-owners in post-communist countries do not generally fall within the more prosperous part of the population (Wiest

2011). In these circumstances, it is clear that the processes of socio-spatial transformation of large housing estates in the CEECs require separate analysis that focuses on their specificity.

As pointed out by Wassenberg et al. (2004), who focused on changes in post-War housing estates in Europe, on both sides of the former 'Iron Curtain', the factors influencing the position of large housing estates on housing markets operate on both macro and micro levels. At the macro level, they identified public policies and global megatrends, such as technological, economic, political, demographic, socio-cultural and environmental changes. At the micro level, the position of a single estate on the housing market will be determined in line with the inter-relationship between supply and demand. The key factors operating on the supply side are the dimensions and nature of the housing-stock environment, the quality of dwellings and whole estates and the use and development of dwellings and whole estates, while on the demand side there is the number and differentiation of households, as well as their resources, constraints and preferences. According to other authors (Musterd & van Kempen 2007), an important factor influencing the future of large housing estates is the position they hold in the 'housing career' of households. This notion, also referred to as the 'housing trajectory' or 'housing pathway', is defined as the sequence of dwellings that a household occupies during its history. Investigating the residential mobility of households on 29 estates in different European countries, these authors pointed out that a certain segment of the population on the housing estates in post-communist countries can be classified as 'unsatisfied trapped', in that, while substantial discontent is expressed, there is either no willingness or no ability to move (Musterd & van Kempen 2007: 312). In the opinion of these authors, the relatively high proportion accounted for by the "unsatisfied trapped" in the CEECs is probably the result of a general difficulty with finding satisfactory and available housing alternatives in post-socialist cities. According to these authors, this is because opportunities are a key determinant of residential mobility. When opportunities are available, households may accept or reject them. However, in comparison with many Western European countries, these are in fact strongly limited in post-socialist cities.

Investigating the different development trajectories taken by large housing estates in the Czech Republic (with these being seen to differ between cities, and even within city space), Temelová and colleagues (2011) identified three distinct development scenarios for housing estates in post-socialist cities:

- estates with positive prospects for future development, thanks to the mixed socioeconomic composition of the population and the improving physical condition of the residential environment.
- estates at the crossroads between regeneration and degradation, and
- estates with a concentration of social problems and little chance of improvement.

Transformations of large housing estates in empirical studies to date

Socio-demographic transformations

One of the most essential processes within the social structure of large housing estates in post-socialist cities is the ageing of their inhabitants (Zborowski 2000; Kabisch & Grossmann 2013). Characteristically, this process, observed in all housing estates built in the communist era, is synchronised with the time when they were built. This results from the fact that housing estates were specifically occupied by a population that was homogeneous in terms of family status (mainly families with children) and age (most frequently the generation of 30-year-olds at the time). The factors that have enhanced this process over the last 25 years have been, first, the marked residential stability of the original occupants, and, second, a gradual outflow of young inhabitants caused as many households enter the stage of the family life cycle called the 'empty nest' phase, which

starts as adult children leave home (Matlovič et al. 2001; Zborowski 2005; Kovács & Herfert 2012; Temelova et al. 2011). Demographic ageing of large housing estates is accompanied by other processes, not specific to this form of urban development and observed in all large European cities, such as a decrease in the birth rate, reduction in ise household sise and increase in the number of 1-person households, as related to the second demographic transition (Zborowski 2000; Węcławowicz et al. 2003; Kabisch & Grossmann 2013).

A closer analysis of selected large estates in different post-socialist cities (Budapest, Leipzig, Prague, Warsaw, Kraków and Łódź) demonstrates that their ageing process, fast as it progressed in the 1990s and early 21st century, began to slow down with the onset of the 2010s (Węcławowicz et al. 2003; Gerohazi & Szemzo 2005: Musterd & van Kempen 2005; Zborowski 2005; Bernt 2007; Temelova et al. 2011; Szafrańska 2011, 2014). This ensues from an inflow into the said estates of people in younger age categories (in their 20s and 30s). This is first the outcome of the inheritance of dwellings, which are being occupied by the generation of grandchildren of the original occupants, and, second a reflection of the relatively high rate of sales of these flats on the secondary property market. The research in question demonstrates that, in many post-socialist cities, the occupation of a flat in a prefabricated housing estate represents a frequent first stage in the housing biography of young people only just entering the labour market. This is thus particularly true of cities in a better economic condition, which is to say large cities and capitals first and foremost (Wecławowicz et al. 2003; Kovacs & Douglas 2004; Musterd & van Kempen 2007; Temelova et al. 2011; Kovács & Herfert 2012). Young people find these flats attractive as a 'starting point' in their housing career, due to the favourable priceto-quality relationship. This is so because housing estates offer relatively good housing conditions and technical infrastructure and services. Moreover, they are often located favourably within urban space, are thus easily accessible by public transport, and come at prices lower than those present on the primary property market (Temelova et al. 2011; Szafrańska 2010, 2014). This phenomenon causes age structure on some estates to polarise, as the proportions of senior citizens and young people up to 35 years of age increase, while that of middle-aged residents (in their 40s and 50s) decreases (Kabisch & Grossmann 2013; Rodzoś & Flaga 2010).

The slowdown in the rapid pace at which housing estate populations were ageing also reflects an inflow of students, who, for the time of their studies, rent and sometimes even buy such flats. This process, referred to as 'studentification' (Smith 2002), primarily spreads through academic cities, and within them the housing estates with favourable locations in relation to the given university. Where the Polish cities are concerned, the phenomenon has so far been observed in Kraków (Zborowski 2005; Jerschina et al. 2012), Warsaw (Węcławowicz et al. 2003), Lublin (Rodzoś & Flaga 2010), Poznań (Kotus 2007; Ciesiółka 2010) and Łódź (Jakóbczyk-Gryszkiewicz et al. 2014; Szafrańska 2014). While this process has no permanent impact on population structure, as it involves temporary occupancy, not infrequently going unreqistered ('unregistered tenancy'), it does produce tangible change in the social landscape of housing estates.

The foregoing processes, triggered by the sale or rental of flats within large housing estates, and causing an inflow of younger groups of residents, are in particular observed in the countries largely privatising such housing units, i.e. Poland, Hungary, the Czech Republic, Slovakia, and Bulgaria (Stanilov 2007; Temelova et al. 2011; Kovács & Herfert 2012). This stands in complete contrast to the demographic situation of housing estates in the former GDR, where after 1990 mass migrations to the West German states caused rapid depopulation of the East German cities. An extreme example of this phenomenon concerns one of the largest housing estates in the former GDR (Leipzig's

Grünau), where the population came close to halving in a period of just 20 years (from 85,000 in 1989 to less than 44,000 in 2009) – a result unprecedented and unseen elsewhere in the post-communist countries. However, mass emigration is not indicative of the degradation of a single large housing estate, as it pertains equally well to Leipzig as a whole (as indeed to many other cities in the former GDR). Due to population loss, the rate of vacancy on Leipzig's Grünau estate reached 20% in 2005 (Kovács & Herfert 2012: 8).

Changes in social status of inhabitants

An important issue when it comes to the social changes taking place on large housing estates concerns change in the socioeconomic status of residents in the aftermath of the collapse of communism. In the 1990s and early 21st century, the expectation was that the large housing estates in formerly communist countries would follow the pattern of Western European countries and experience rapid social decline, to the point where they became problem areas (see Jałowiecki 1995; Szelény 1996; Enyedi 1998; Czepczyński 1999; Rykiel 1999). However, the findings of many empirical studies fail to confirm this conviction, notwithstanding its presence in both scientific and public (media) discourse. More specifically, the experience of more than two decades of systemic transformation only points to something far less than the "mass escape" of better-off residents from block housing estates to more attractive residential areas that had been anticipated very widely in the initial period of transformation.

In their majority, authors who deal with transformations in social structure on housing estates in the cities of post-communist states do so by presenting such estates as 'normal' urban areas of sound social structure not undergoing any extraordinary processes requiring them to be distinguished from other areas (Kovács & Herfert 2012). Moreover, many researchers conclude that

the social status of large housing estates has not declined, given that they remain an attractive option for middle- and lowermiddle class people. Knorr-Siedow (2004) observed that these classes find housing estates attractive, e.g. in the cities of the former GDR, especially Berlin and other large cities of good economic standing. Today's occupants of these estates are primarily well-settled and ageing original occupants, and young urban professionals (Yuppies) who seek good locations and well-maintained housing environments within urban spaces, with a view to their anonymity being assured (ibid.). Studies carried out in another city of the former GDR, i.e. Leipzig, showed that the average social status of the populations of the large housing estates was still above the average for the city as a whole (Kabisch & Grossmann 2013). Similar results were obtained by Kährik and Tammaru (2010), who investigated the housing estates of Tallinn, to find that the estates under study kept up their relatively good image and diverse social structure post-1990, with no clear indications of a decline in social status being manifested. In Prague, too, the social status of housing-estate populations is not declining, as such decline is prevented by the relatively high prices paid for housing units within those estates, this being informed by the city's good economic condition and consequent high pressures on the property market (Temelova et al. 2011). A study of the migration processes characterising Prague's housing estates between 1995 and 2003 confirms that new occupants here are basically the young and well-educated, meaning that a varied but still relatively good social status on these housing estates will prevail in the years to come (Temelova et al. 2011). Likewise in Budapest, where fast and almost complete privatisation of housing units (encompassing more than 90% of all housing resources on estates of prefabricated buildings) in the early 1990s diversified the various housing estates in terms of their attractiveness and prestige. High maintenance costs of privatised dwellings in fact caused

less well-off households to move from large housing estates to lower-standard flats, usually located on the city outskirts (Gerohazi & Szemzo 2005; Csaba 2006).

A study of Slovak housing estates (Divinský 2004) also indicates that they remain heterogeneous socially, this therefore precluding the existence of any particularly intensive social issues linked up with this form of urban development. This author reports that people already at the top of the social ladder during the communist era lived in one-family houses rather than on housing estates, with the result that no mass outflow of this population category was observable after 1990 (Divinský 2004). Things look similar in Poland, where empirical studies of the large housing estates in many cities, like Warsaw (Węcławowicz et al. 2003), Lublin (Rodzoś & Flaga, 2010), Poznań (Ciesiółka 2010), Łódź (Szafrańska 2010, 2014) and Kraków (Zborowski 2005; Jerschina et al. 2012) show that, despite certain symptoms of housing filtration and outflow of the most affluent people with the most far-reaching housing aspirations, housing estates in those cities have not degraded socially. On the contrary, in many of the cities, large housing estates are still occupied by the middle class, in this way rating highly within the socio-spatial structure of cities (Zborowski 2005; Marcińczak 2009). Some housing estates, in particular those purported to be prevalently occupied by the intelligentsia under the previous political system (e.g. Prądnik Czerwony in Kraków, or Warsaw's Ursynów), boast a good position within the urban residential structure (Jerschina et al. 2012; Węcławowicz et al. 2003, 2005). This favourable social structure of Polish housing estates is also attested to by measures describing population social structure other than educational background, such as the rate of unemployment or share of residents that are social aid beneficiaries - a proportion that relevant studies have found to be much lower on housing estates than in other urban areas defined as problem areas, and even lower than the average in those cities

(e.g. the studies in Łódź – Szafrańska 2008, Lublin – Rodzoś Flaga 2010 and Poznań – Ciesiółka 2010).

The studies conducted in Polish, Czech, and Hungarian cities (Temelova et al. 2012; Szafrańska 2014; Kovács & Douglas 2004) demonstrate that the social status of large housing estates is frequently related to the time at which they were built. As a rule, where a population's social status is concerned, the newer housing estates compare favourably with the older ones. What is more, this has been found not to derive exclusively from the age structure of housing-estate populations, but rather from the communistera rules governing housing allocation, which in certain decades gave preference to certain social categories. The relatively high social status of housing-estate populations in the early 21st century, even higher than in previous decades, and the impact of the period in which those housing estates were built on the position within the ecological structure of the city are confirmed in the studies by Zborowski (2005) - (Fig. 2).

However, the foregoing favourable examples by no means attest to a more general rule that there are no downturns whatever on any of the post-socialist housing estates. Nevertheless, those analysing the issue of the potential social degradation of housing estates conclude that, with a few exceptions, this only looms over small fragments, or enclaves, of housing estates (Temelova et al. 2011; Kovács & Douglas 2004). This is so because in the communist era, the various categories of low-social status population (e.g. Roma people, as well as the poorer classes within the communist society) were concentrated in single buildings or in small ensembles which tended to form 'quasislums' even in the communist era. Today, in the wake of the systemic transformation, certain housing estates with a relatively good and diversified social structure have begun to experience this problem, with enclaves of poverty and exclusion in this way facilitated (Węcławowicz et al. 2003; Musterd & van Kempen 2004; Wojtkun 2004; Temelova

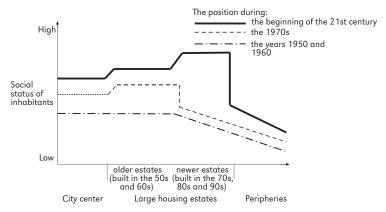


Figure 2. Changes in social status, and its dependence on distance from the centres of Polish cities, from the 1950s up to the beginning of the 21st century (as exemplified by Kraków).

Source: after Zborowski (2005: 425)

et al. 2011)10. In the cases of Hungary, the Czech Republic and Slovakia, i.e. countries with a relatively high proportion of Roma population, the distribution of such enclaves is insular in nature, with each island comprising several to more than ten buildings, and representing less than a few percent of the housing estate's population (Czismady 2003). These examples demonstrate that social and ethnic segregation on the large housing estates in post-socialist cities is only present on a microscale, and within sub-housing estate areas. By extension, social and ethnic segregation of entire housing estates is unusual and rather pertains to the small examples present in smaller towns and cities. Another conclusion that can be formulated by reference to research reports on examples of housing estates (or enclaves thereof) that do degrade is that the primary cause of the current processes within them is the paradigm of communist housing allocation and underclass concentration already present during the communist era itself, and only to a far lesser extent reflecting recent transformations that have only deepened and, apparently, preserved this phenomenon.

It is worth adding that comparative study of the social structures of large housing estate populations carried out as part of the RESTATE research project (Musterd & van Kempen 2005) shows that residents of housing estates in formerly-communist countries are much better-educated, younger, notably more active professionally, and earners of higher incomes than their counterparts living on the large housing estates in Western European countries. These differences are also confirmed by other international comparative studies (Turkington et al. 2004).

Spatial and physical transformations

The transformations of social structure of the large post-socialist housing estates, as discussed herein above, are also informed by other processes that change the morphological structure of large housing estates. One such process that has been taking place since 1990 is the intensification of housing development (Matlovič et al. 2001). In housing estates this process involves two types of development. The first one leads to an increase in the density of existing original housing resources built before 1990, through the development

This phenomenon is present, e.g. in the Hungarian Josavaros housing estate, built in the 1970s (Musterd van Kempen 2004: 112), the Książąt Pomorskich housing estate in Szczecin, Poland, also built in the 1970s (Wojtkun 2004: 124), Warsaw's Ursynów (Węcławowicz et al. 2003) and Kročehlavy in the Czech city of Kladno near Praque (Temelova et al. 2011)

of greenfield sites. Most of these sites were designed originally to accommodate social and commercial infrastructure that was never built as an effect of economies and the speedy pace at which housing estates were built. Some of these areas (often quite extensive) were intentionally left undeveloped as 'open spaces between blocks of flats', in accordance with the requirements of the Athens Charter. The second type involves the building-up of areas on the outskirts of existing developments, which causes housing estates to spread. The massive scale of this process is stimulated by the opportunity to utilise existing utilities and infrastructure, which markedly reduces the costs of investment projects and makes these areas more attractive to developers (Stanilov 2007). This process is specific to post-socialist cities, as it changes the morphological structure of housing estates in the opposite direction to the measures taken in Western European countries, mainly in France and The Netherlands, as well as in the former GDR, with the aim of reducing urban density through the pulling-down of some housing (Wassenberg 2013; Kabisch & Grossmann 2013). On some housing estates in these countries, high-rise buildings are being replaced with lower-level development, while elsewhere such areas are left empty or given over to other functions (mainly recreational and commercial).

New housing developments are typically single, multi-family buildings, rather than whole ensembles. They are characterised by a higher standard, and a different physiognomy that stands out from the surrounding buildings (architectural details, richer colours, and diversified masses of buildings). New buildings frequently boast underground car parks, while their ground floors are occupied by shops and commercial services (Wecławowicz et al. 2003). Since the way in which new developments are perched within the space of housing estates depends on the free land available, their sites are quite often random. However, in exceptional cases they do help create attractive new public spaces, e.g. by utilising peripheral development, unseen on those housing estates so far, and creating multifunctional shopping (commercial) communications passageways. This solution has been applied successfully in, for example, Warsaw's Ursynów housing estate (Kozłowski 2010).

One social impact of the new developments appearing within existing housing estates is an inflow of people whose socio-economic status is higher than that of existing residents, hence the emergence within such estates of developments that represent enclaves of better social status and higher housing prestige (Węcławowicz 2007; Szafrańska 2014). It follows that the high prices of flats in new buildings located within housing estates can constitute a barrier to their purchase. Studies conducted in Warsaw's Ursynów housing estate demonstrate that the cost of 1 m² of a new flat built within this housing estate is equal to a double average monthly income in that city (Węcławowicz et al. 2003), and in Łódź even more than a double (Szafrańska 2013).

Some of the new residential buildings are built as 'gated communities' within existing housing estates. Although not all new buildings are enclosed, the process of separation, i.e. surrounding such buildings with fences to separate them from the other local residents, is not infrequent on the housing estates in formerly-communist countries, though its scale is largely varied (Matlovič et al. 2001). In Poland, the overall number of 'gated communities', including those within existing housing estates, is highest in Warsaw (Jałowiecki & Łukowski 2007). Interestingly, their locations within housing estates are not greatly affected by the current reputation of those housing estates (Wecławowicz et al. 2003). Research conducted in Warsaw demonstrates that life in a gated enclave is as attractive in reputable Ursynów as in the less-reputable working-class housing estate of Wrzeciono. Thus the paradox of 'gated communities' being built within existing housing estates in post-socialist cities lies in the fact that such housing estates are generally safe, meaning that there is no good reason

for their residents to separate themselves from the surroundings (Gadecki 2007; Czapska 2011). The negative consequences of the construction of enclosed housing enclaves within housing estates include the appropriation of public spaces and disruption of their continuity, in both the physical dimension (the erection of barriers that prevent free movement) and the cultural (symbolic) dimension. This entails the processes of social segregation and separation within housing estates. Questionnaire surveys conducted among residents of one of the largest housing estates in Poland (in Łódź) (Szafrańska 2012) indicate that the presence of new housing enclaves in an existing neighbourhood engenders frustration and a sense of inferiority among residents living outside such enclaves. Nevertheless, it is doubtless that the new housing - whether fenced or open - built within housing estates brings about an inflow of a younger, better-educated population of higher economic status and consequently helps to improve the social structure. This denotes that the phenomenon shares characteristics with another process traditionally identified with the central areas of cities, i.e. gentrification; and may also be defined as the 'gentrification of large housing estates' (Szafrańska 2012).

Another process making over the spatial structure of housing estates is commercialisation - a process primarily manifesting itself within the functional structure of cities (Matlovič et al. 2001), but also entailing changes to their morphological structure (Liszewski 2001). In the housing estates of post-socialist cities this is above all exemplified by existing layouts being filled with new commercial and shopping developments as well as, to a lesser degree, by alterations to the functions of existing buildings, e.g. the conversions of ground floors into commercial and shopping functions (Ouředniček & Temelová 2009; Ciesiółka 2010). Since 1990, this process has produced many new commercial and shopping facilities within the spaces of housing estates, the latter being mainly large stores (supermarkets or hypermarkets) owned

by large international and national retail chains (Liszewski 2001; Wecławowicz et al. 2003). Housing estates have also become the venues for a large number of gastronomic establishments (restaurants, pubs, cafes) and other commercial facilities offering leisure-time activities (fitness clubs, gyms, dance schools, cinemas, swimming pools, etc.) (Węcławowicz et al. 2003; Ouředniček & Temelová 2009; Szafrańska 2010, 2011). As a result, what were previously functionally meagre, and in many cases almost mono-functional spaces on housing estates (especially the largest ones, located on the peripheries, and built most speedily) are gaining new functions, including those of a higher order (Węcławowicz et al. 2003). Such significant improvements to the shopping and commercial infrastructure of housing estates increases their spatial accessibility and markedly upgrades living conditions, both objectively and subjectively, as confirmed by the findings of numerous questionnaire surveys amona their residents (Szafrańska 2009: Andráško et al. 2013).

Another manifestation of the spatial transformations ongoing within large housing estates, partly as a result of the commercialisation of their space, is the construction of new car parks. This is a very important issue, given a history of gross neglect of parking lots that dates back to the times when the housing estates in question were first built. Even though this problem does not apply to housing estates in all countries, including Western countries (Chmielewski & Mirecka 2001), in East-Central Europe it is particularly sensitive, because a rapid increase in car ownership was not considered an option for political reasons also. In egalitarian communist societies the opportunity to buy a car was limited by the authorities, and was thus the privilege of a very few people. In Poland, for instance, in the 1970s the applicable norms in this respect did not exceed 50 parking spaces per 1000 occupants (Chmielewski & Mirecka 2001), as compared with 100-150 in the 1980s (Wojtkun 2004). Both figures compare with the more than 550 registered

vehicles per 1000 people to be noted today in many Polish cities. The problem is most serious on housing estates with a high intensity of development and a prevalence of high-rise buildings. Consequently, on nearly all housing estates, and especially on their outskirts and on sites between blocks of flats, many new car parks are being built, though still in numbers insufficient to satisfy existing needs. Car parks occupy extensive areas, because the option of building underground or multistorey car parks, which would have solved the problem, is hardly ever chosen in view of the high costs (Chmielewski & Mirecka 2001). As many new (quarded) car parks are commercial projects, the result is the further appropriation and commercialisation of public space. Other unfavourable outcomes of this process include sparse recreation areas, new spatial barriers, and increased internal traffic (Bierzyński & Kozłowska 2005) of the kind whose retention on the outside was foreseen by the original layouts of the housing environments in question.

The morphological transformations of housing estates discussed in this part of the study and related to the intensification of their development, both in terms of housing, commercial and shopping facilities, and commercialisation have brought undesired effects, too. In Polish cities, as Rembarz (2010) reported, the issues of land ownership have not been resolved fully, hence some areas are not administered properly (being in part administered by cities, in part by housing cooperatives, and in part by residents). This has helped the governing bodies of housing cooperatives (still in charge of many housing estates, despite ownership transformations) to implement quite discretionary spatial policies limited only by very general urban planning documents. The practice of selling land to commercial investors, whose designs for new developments not infrequently present aesthetic qualities and architecture of their own choosing without regard to the local specificity of the place (existing developments, residents' preferences) at times leads to spatial chaos that

further impairs the aesthetic appearance of the housing estates in question and gives rise to excessive density of development. Similar unfavourable aspects of the transformations are also observed by Bierzyński and Kozłowska (2005), who draw attention to the way in which the presence of wholecity functions (e.g. hypermarkets, large offices, high schools etc.) has a negative impact on estates' living quality, because it increases road traffic, noise level, and constricts public space, as well as worsening trading conditions for local shops. Unfavourable effects of the presence of large retail networks on housing estates have also been observed by Wojtkun (2004) and Rodzoś and Flaga (2010), who report that it largely constrains and even eliminates local retailers, who were able to achieve an intensive development of local trade on housing estates in the first years after the fall of communism.

Another non-commercial dimension to the functional transformation of large estates in transition is the filling-in of space between existing buildings by new sacred architecture, with the literature referring to this process as the sacralisation of space (Matlovič 2000; Matlovič & Sedlakova 2007). In communist countries, the construction of churches and other religious facilities was regulated by anti-religious legislation (Jażdżewska 2010), ensuring that their presence within the new-built housing estates that were to be the embodiment of communist principles was restricted a very great extent. In Poland, the sacralisation of space within housing estates did take place (under pressure from residents and local clergy) as early as in the 1960s, when the party authorities granted permissions to build a very few churches¹¹. However, in the other communist countries this process was repressed more strongly

¹¹ Subsequently, a few permits were also granted in the 1970s (including those for the Teofilów housing estate in Łódź, and the Rataje and Winogrady estates in Poznan), but in the wake of the workers' strikes of 1980 and Pope John Paul II's visits to Poland this process gained such a significant momentum that the year 1981 is deemed to mark "the end of the struggles for churches" (Jażdżewska 2010).

only therefore becoming visible after 1990 (Matlovič et al. 2001; Jażdżewska 2010). Contemporarily, the sacralisation of space within the housing estates of post-socialist cities is proceeding at a varied pace, as it is informed by the level of religiousness of the population in each country and region (Matlovič et al. 2001).

By the same token as commercialisation, sacralisation is a process taking place within the functional structure of housing estates (Matlovič et al. 2001). Nevertheless its course again entails changes in morphological structure, as new plots are delimited and developed, and changes in the physiognomy of housing estates take place, given that the architecture of religious facilities differs markedly from that of surrounding buildings. This process enriches the cityscape of housing estates by introducing new symbols and dominant features into their space (Jażdżewska 2010). The presence of new churches on housing estates, and the development of the surrounding land, also helps to create new public spaces with more individualised forms and functions (Chmielewski & Mirecka 2001).

Thus the morphological and functional transformations on large housing estates have entailed changes to their physiognomy. This is true of the physiognomy of housing and commercial developments, as much as the physiognomy of other components of the cityscape, e.g. greenery, recreation areas, communications, and shopping and commercial sites (e.g. local marketplaces and fairs). The most essential changes in the physiognomy of large housing estates identified in the studies conducted to date in Warsaw (Chmielewski & Mirecka 2001; Wecławowicz et al. 2003; Bierzyński & Kozłowska 2005; Kozłowski 2005), Łódź (Adamus 2010; Szafrańska 2010, 2011, 2012), Kraków (Rebowska 2000, 2006), Poznań (Ciesiółka 2010); Szczecin (Wojtkun 2004), Katowice (Warchalska-Troll 2012), Prague (Temelova et al. 2011), Berlin (Łoziński 2009), Budapest (Czado 2012), Leipzig (Kabisch & Grossmann 2013) and Brno (Andrasko et al, 2013), include:

- makeovers of housing buildings' facades¹²
 with the application of richer colours
 and end put to the 'greyness of concrete
 deserts';
- diversification of the monotonous landscape of the estates and the uniform appearances of buildings, thanks to the construction of new residential and commercial buildings, and the introduction of mini-architectural elements and architectural details;
- improvements to the technical condition of buildings (e.g. replacements of windows and doors, refurbishments of stairwell entrances):
- improvement in the maintenance of local greenery, but also concurrent reductions in area in favour of parking lots (car parks):
- introduction of elements that facilitate better spatial orientation (building markings).

The morphological and physiognomic changes on large housing estates also follow transformations of hitherto-undeveloped areas into areas with different functions typical of public spaces within housing estates. During the communist period these areas were undeveloped mainly due to the incomplete implementation of the primary architectural and urban-planning assumptions, which included provisioning in social infrastructure and services. The presence within housing estates of these areas, frequently named 'noman's lands', was a serious drawback of this form of residential environment (Racoń-Leja 2010). Studies by researchers into transformations taking place on the housing estates of the many cities listed above demonstrate that, since the 1990s, these areas have been replaced by parks, sports fields, safe and modern playgrounds, skate parks, green squares, recreational areas and other meeting places. Also, these areas now accommodate new place-shaping elements and objects, such as fountains, urban furniture, and other fixed elements of mini-architecture. New walkways

¹² In Poland this was achieved primarily by modernising external thermal insulation on a very large scale, as provided for in the Thermomodernisation Act 1998.

and biking routes are being built. All newly-designed walkways are adjusted to the needs of senior and disabled citizens. Safety improvements include calmed-traffic zones, traffic lights and sound signals, better streetlights in public places and, on some housing estates, CCTV monitoring systems.

Importantly, transformations of the morphology and physiognomy of large housing estates are being largely determined by modernisation measures. The farthest-reaching physiognomic changes through modernisation have not unnaturally been achieved on the large housing estates in East Germany. Given the opportunity to mobilise substantial funds transferred from the central budget, it was also there that the most costly projects were implemented, e.g. to reduce urban density by demolishing high-rise housing buildings, to reduce the heights of 10-12-storey buildings by removing storeys above the 5th floor, to build outer lift shafts and install passenger lifts on 5-storey buildings which previously did not have this convenience, to redevelop existing (and build new) terraces and balconies, or to create illusory wall paintings which essentially changed the physiognomy of building elevations (Łoziński 2009; Czado 2012; Kabisch & Grossmann 2013). These transformations are broadly described in the literature as, on the one hand, an example of the most advanced modernisation measures in post-communist Europe, and on the other, as an example of modernisation measures whose results did not fully meet expectations (Hanneman 2004; Łoziński 2009; Rembarz 2010). The latter case stems from the fact that the aforementioned population outflow from German housing estates, down as it has been since 2000, is still in progress. This is related to the characteristics of the reunited state and the transformation path very specific to the former GDR and not found elsewhere in the region.

The aforementioned transformations, if well-coordinated and planned by a single investor (e.g. housing cooperative, borough authority, or other institution managing housing resource) cane improve the appearance

of large housing estates, turn them into friend-lier housing environments and thus improve public perception and strengthen residents' attachment to their place of their residence. Unfortunately, there are also cases of changes of this type being chaotic and random, with a multiplicity of investors enhancing spatial and architectural chaos, and this being conducive to neither an improved appearance, nor strengthened place attachment among residents. At times, a result can be excessive density of development, with housing estates in this way deprived of the abundant presence of green areas which have undoubtedly been their principal advantage.

Conclusions

The social and spatial transformations that have been taking place on large housing estates since 1990, as discussed in this study, are found to have been developing at paces varying from one state to another, as well as between cities and even individual housing estates. They also differ in terms of frequency of occurrence, with some found to have occurred universally, others frequently, but not on all housing estates, and yet others incidentally, in relation to the specific characteristics of individual housing estates and the cities in which they are located (Tab. 2).

Set against predictions concerning the future of large housing estates in post-socialist cities, as formulated in the early 1990s, the most important impacts of the past and ongoing changes are as detailed under the following points.

1. A relatively high social status of inhabitants had been maintained, because – after several years of transformation, and despite the fact that the better-off population with higher expectations as regards place of residence are leaving – the large housing estates still enjoy a relatively high social status, mainly as a result of the inflow of new residents. The latter purchase flats on the secondary market and settle down in the flats in new buildings, bought on the primary market. This stands in contrast to the social degradation of these

Table 2. The main transformation processes ongoing as regards the social and spatial structure of large housing estates in post-socialist cities, as well as their frequencies of occurrence

	Processes in particular intra-urban structures				
Frequency of occurrence	socio-demographic and socio-economic structure of inhabitants	spatial structure and physical layout			
		socio-spatial structure	functional structure	morphology and physiognomy	
Common processes	ageing of population, increased disparities as regards economic status among inhabitants (between and within estates), reduced share accounted for by the working population		commercialisation, increased functional diversity, spatial deconcentration of trade and services, emergence of new public spaces for consumption and leisure, appearance of large areas of car parking	increased diversity of building forms, improved visual state of buildings, introduction of new colour to existing building facades, emergence of new public spaces, improved development of existing public spaces (reduced areas of wasteland)	
Processes occurring frequently/taking place on a majority of housing estates	depopulation, maintenance of relatively high social status residents,	• separation, • segregation		• intensification of existing building,	
Processes occur- ring on a minority of housing estates	polarisation of age structure, studentification, status regression		• sacralisation	• sacralisation	
Processes occurring incidentally or in small parts of estates (into individual neighbourhoods)	• improved socio- economic status		• deterioration of public spaces	demolition of resi- dential buildings	

estates predicted in the 1990s – a very important fact when we consider their futures.

- 2. The mono-functional character of the large housing estates, described by other authors as a state of urban-function underdevelopment and representing one of the main drawbacks of this particular urban form, has undergone far-reaching transformation. As a result, the large housing estates have become areas in which inhabitants' basic (or even their higher-order) needs can be satisfied, to the extent that inhabitants from other parts of the given city may also be attracted.
- 3. An aestheticizing of buildings and an improvement in the state of development

of public and half-public spaces among blocks of flats has taken place, thanks to the introduction of colour, architectural detail and elements of small architecture. The process has imparted a distinctiveness and significance to the (hitherto-anonymous) space of block housing estates, i.e. imbued them with qualities necessary for the creation of place advantages. This process is not advanced enough, but, as numerous empirical studies conducted among the inhabitants of estates have made clear, it is acknowledged by them and, due to the changed social perception of this housing environment, inhabitants identify themselves with it more strongly, with the level of residential attractiveness increasing in consequence, to the point where an outflow of residents may be prevented.

Referencing the findings of the present study to the concepts of transformations in the housing environment described in world literature and used to investigate the way in which the large housing estates in Western European cities have been transformed, it can be stated that the housing estates in the cities of post-communist countries yield no or very few observations (in very few housing estates or their fragments) as regards the phenomenon referred to as the 'spiral of decline' or 'large housing estate syndrome', i.e. the processes of strong and multifaceted social, physical, and economic degradation typical of large housing estates in Western Europe.

Also, unlike in many Western European cities, the scale of filtration processes resultina from the outflow of high-status residents is much smaller. Actually, migrations out of housing estates are informed, not so much by the degradation of large housing estates, as by the appearance of new and more attractive residential areas that were not present in communist cities, as well as the opportunity to satisfy individual housing needs outside the housing construction system subsidised by the state, as mortgage credits only became available after the systemic transformation. Hence, an important role in this process was played by a growth of housing aspirations, given the situation of the previous regime's strong suppression, as well as by the natural technical and moral wear and tear of housing estate housing facilities resulting from their life cycle. Therefore, filtration processes within large housing estates are evolutionary in nature, and fully governed by the natural process of certain housing resources becoming wornout and obsolete, as opposed to by any mass exodus of residents, as had been predicted.

Additionally, the analysis did not confirmed certain deterministic theories which claimed that a poor urban plan and faulty development layout were at the heart of potential problems likely to be observed in large housing estates (Newman 1972;

Power 1997). These theories have been proved wrong mainly for the reason that, as architects and urban planners are finding contemporarily (Wojtkun 2004), the spatial layout of housing estates in and of itself generates neither negative nor positive social behaviours (or does so negligibly, if at all), the nature and background of social ills to be observed in large housing estates being shown to vary from case to case. As reported by Dekker et al. (2011: 480), social problems that have appeared in large housing estates in such countries as France. The Netherlands. Sweden or Denmark have their source not in the form of development, but in the spatial concentration of cheap council flats affordable to the low-income population, as well as a high rotation of residents, which is to say factors that did not exist in the cities in the formerly-communist countries, and do not exist there now either.

The processes of transformation of large housing estates in post-socialist cities are genuine, but different from those taking place in many Western European countries. The fact that housing estates in the CEECs do not degrade as much as their counterparts in Western Europe results above all results from:

- the enormous scale of the housing estates in question, and the share they account for within all housing resources in the cities of formerly-communist countries (i.e. 30-40%) – which leaves them as common and considered to be the 'typical housing standard',
- the housing deficiency carried over from the times of the old political system and preserved after 1990, albeit less structural in nature today (unlike under the previous regime), and more economic in nature,
- far-reaching privatisation of housing resources within housing estates, in some countries embracing in excess of 90% of housing units, with this factor reducing migration mobility and increasing attachment to both flat and housing estate, with the results that public perceptions improve and residential stability is enhanced,

- the structure of the incomes of city-dwellers in formerly-communist countries, and
 the unfavourable ratio of the prices of new
 flats to the average income, which still prevents most average-income households
 from fulfilling their housing aspirations,
 in as much as it increases their residential
 stability,
- the still relatively good living conditions offered by this residential form, especially in comparison with the old, low-standard housing substance found in many cities (mainly as a result of underinvestment and a lack of renovation works in the central areas of cities during the communist period),
- relatively good and continuously improving furnishing of estates with shopping, service and social infrastructure; a large amount of greenery, especially in comparison with densely built-up areas that are often devoid of it, as well as the favourable transport accessibility of many estates.
- relatively weak spatial mobility, established in the previous political system; a considerable lack of migration and a tendency to become accustomed to a given place, with the result that there is considerable residential stabilisation,
- in comparison with both other countries' inhabitants and international standards.

- aspirations of the residents of cities in post-communist countries that remain modest (having been strongly limited before), as regards the place of living,
- a sense of the lack of choice, caused by the socio-economic situation of post-socialist cities' inhabitants, the situation on the real-estate market and the unfavourable relationship between salaries and the prices of flats, which creates a financial barrier, making it impossible for many households to satisfy their housing needs. It appears, therefore, that the conditions

It appears, therefore, that the conditions prevailing under the previous political and economic system (which shaped a totally different social composition of housing estate residents within the same urban form) have combined with the transformation process itself (of fast pace and overlapping with global processes) to represent a unique legacy that determines the transformations taking place on the large housing estates of cities in formerly-communist countries, and thus distinguishes these from the processes that have been ongoing in Western European cities.

Editors' note:

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