

*Marek Nowak*¹, *Anna Bernaciak*², *Anna Wieczorek*³

¹ Adam Mickiewicz University, Poznań, Poland
marek.nowak@amu.edu.pl,  <https://orcid.org/0000-0003-1749-7669>

² Poznan University of Economics and Business, Poland
anna.bernaciak@ue.poznan.pl,  <https://orcid.org/0000-0001-8603-1323>

³ Luboń City Hall, Poland
anna.wieczorek@umlubon.pl

The evolution of a post-socialist satellite city in Central Europe. A historical and socio-spatial case study of Luboń near Poznań (Poland)

Abstract: The aim of the article: The evolution of a post-socialist satellite city in Central Europe. A historical and socio-spatial case study of Luboń near Poznań (Poland) is a socio-economic and spatial analysis of the development process of a satellite city with an industrial and agricultural core located in Central Europe.

Luboń is a city founded in 1954, which allows to trace the entire process of its development, based on the research methods used, including statistical data on changes in, among others, population numbers, as well as spatial data based on georeferencing of photographic images of archival maps of the City of Luboń. The methods used as the way of describing and analyzing the history of the city were inscribed in the philosophy of the evolutionary approach referring to the dynamics of change and the complexity of development processes and their imbalance.

The authors of the article formulate answers of three research questions: (1) how did the industrialization origins and socio-spatial alterations shape satellite city contemporary form? (2) how was its spatial form affected by the de-industrialization process of the first decade after 1989? (3) how has the city changed under the demographic and suburbanization pressure of its larger neighbour over the years?

The article also contains elements of historical analysis, reconstructing urban dynamics. It also includes elements of conceptualisation based both on genetic studies of the concept of “new cities”, but also on assumptions present in Soviet urban planning thought, which was a direct inspiration for the solutions of the 1950s.

The generalizations, after answering the research questions, proposed in the conclusion indicate the existence of the state of crisis and invite to discuss the dynamics of the phenomena of metropolisation from the point of view of peripheral participants of the process.

Key words: satellite city, post-socialist city, urban space, evolution, Luboń

Introduction

The topic of new towns and satellite cities is marking a comeback in contemporary planners' minds, especially where it accompanies the emergence and growth of the middle class (as a "driving force" for the modernization of societies) (van Leynseele, Bontje 2019). One can mention several cities with this status emerging nowadays in the countries of South-East Asia or, to a lesser extent, Africa (Harrison, Todes 2012, Percival, Waley 2012).

Building cities from scratch in the vicinity of large centers thus opens the hope of starting an urban process without all the disadvantages of contemporary metropolitan areas, creating a unique environmental (Song 2011), spatial (Muniz et al. 2003), informational (Eremia et al. 2017), or social quality (Anttiroiko, de Jong 2020).

However, a number of such units are systematically dissolved (by including them in the spatial structures of the central city or by their gradual degradation) in Western European countries or in the United States, and the very idea of satellite cities is sometimes criticized (Cirola 2014).

From a historical perspective, the idea of creating satellite cities is not a new one and is inscribed in the origins of capitalism and in the Enlightenment thinking process, while the very use of the concept, by planners from the Anglo-American social sciences' community (Lewis 2006), occurred on a wider scale relatively late in the second decade of the 20th century (1915). The presence of this perspective led the authors to take a closer look at the exogenous and follow endogenous context in the historical analysis of the case study.

The authors of this paper take a look at one example of a satellite city that emerged in Poland, confronting the questions about role of industrialization in shaping the characteristics of a modern satellite city, the specifics of the changes associated with systemic change at the beginning of the 1990s and the specifics of the impact of the phenomena of suburbanization and metropolisation on the contemporary "autonomy" of the satellites.

Satellite cities projects in Central Europe

The emergence of several distinct concepts of the satellite city almost at the same time is symptomatic. Two of them stand out in particular: on the one hand, plans for garden cities based on Howard's postulates (Ward 2005, Geertse 2016); on the other hand, plans for "new cities" designed after the Second World War and based on the ideas of Le Corbusier and, more broadly, the CIAM (Wakeman 2016). The intention of the planners was to relieve the pressure on the central city, which entailed complementary spatial and social role of satellites¹. It was an idea that grew out of a critical approach towards existing urban centers, an

¹ Garden cities, apart from the UK, where they were officially planned (albeit only initially in accordance with Howard's model assumptions), have been particularly well received in Germany. Some isolated examples can also be found in Central and Eastern European countries (Mantey, Sudra 2019).

approach based on the principles of ownership and cooperatives, rather than a specific project. Its triad: housing-work-recreation, combined with efficient traffic, was based on strong anti-capitalist and egalitarian foundations. Moreover, there is much doubt about the extent to which the foundations of “new cities” shaped “social and architectural ideas which were fused in parallel but separate trajectories in Soviet Countries and Western Europe” (Mumford 2009, Monclús, Díez Medina 2016). Whatever the resolution at the level of planners’ intentions was, in the case of satellite cities as we know them in Central and Eastern European history, they tended to be built on the basis of the dialectics of intensive industrialization and subordinated to Castells’ scheme of the dominance of classical productivity (Clayton, Richardson 1989, Mumford 2009). Oddly enough, this also applies to the earlier period associated with operational industrialization policies pursued by hegemonic states at the end of the 19th century, such as Prussia and Russia. In this sense, their ideas of “supplementing” central cities by new towns can be situated, despite the parallels, in opposition to the concept of garden cities. It appears that this was also the approach undertaken by most projects implemented in Poland in the 1950s under the influence of the Soviet vision of industrialization and urbanization.

The Communist regime underlined the social need to build a counterweight to the domination of cities, perceived as the carrier of conservative (*bourgeoisie*) culture. The first and the most prestigious industrial cities for “new people” in “new” Europe were: Dimitrovgrad in Bulgaria, Eisenhüttenstadt in Germany, Dunaújváros in Hungary, city district Ostrava-Poruba (Sumorok 2015) and in the Polish case: Nowa Huta near Kraków or Tychy. These cities and towns were located both in the old and the new industrial regions (Wakeman 2014). On the one hand, they were accessory to existing planning rules (Clayton, Richardson 1989), on the other, they were supposed to reflect a new social quality, designed mainly for the working class. The universal aspiration for these cities was their continuous operation as synchronized instruments of economic production and social transformation in physical space (Zarecor 2018). While searching for the adjective that has become so trendy nowadays in order to describe these cities in the perspective of the last 70 years, one should probably refer to a “socialist city”. In this case, “socialist” means oriented towards productivity² in connection with a model of centralized, governmental power and not, e.g., community based on forms of self-governance of the working class. It is also worth realizing the socio-economic conditions in which these cities were established, which means extremely frugal post-war times (Diener, Hagen 2013).

The new investment effort, financed and administered by the state, followed the period of reconstruction of industrial and residential infrastructure after the Second World War, which reshaped the borders of Central European countries and demolished the social and ethnic structure of urban communities. Nowa Huta in Poland can be mentioned here as a sufficiently described example of such a context (Sumorok 2015, Kępa 2018).

² To a large extent in terms of the means of production (Staniszczak 2006).

It is worth looking at this phenomenon more broadly though to the perspective closer to *longue durée*, noticing its more extensive historical conditions and basing our research on another example. We are looking here at processes that can be traced back to the evolution of the manufacturing sphere, overlaid with social processes linked to the phenomenon of the decolonisation of Central Europe. Therefore, in this article we focused on the city of Luboń near Poznań, regarding it as a better example due to specificity of historical trajectory of *Mitteleuropa* (Eberhardt 2005) and the connection between two waves of externally inspired modernization: the events of the late 19th century and the beginning of 20th century and the prospect of the 1950s. These conditions will be described in more detail later in this article.

Post-socialist satellite city in Poland? Contemporary research questions

As a consequence of the evolution of cities, one should probably continue to use the notion of “post-socialist satellite city” (Hirt 2013). It means a social process that is extremely radical in its essence, related to re-marketisation and privatization. While also being directly related to the events of 1989 and 1990 when the democratic opposition came to power and decentralized the previously centralized system of local government in Poland. This has significantly changed the position of local administrations, including cities administration, which have gained the tools of self-government and gained the potential for autonomous development over time.

The satellite cities built in the 1940s and 1950s in Poland have now reached adulthood, their streets have been walked by at least two generations of inhabitants and have undergone numerous historical and political upheavals. Among these upheavals, two have been subject to particular reflection: the process of introducing market rules and commodifying the space of the 1990s and the contemporary period (2000–2022) of intensive suburbanization, which has shaped the dynamics of the spatial and social evolution of cities (Spórna, Krzysztofik 2020).

The authors of this paper take a look at one example of a satellite city that emerged in Poland, attempting to answer three main questions:

1. How did the industrialization origins and socio-spatial alterations shape satellite city contemporary form?
2. How was its spatial form affected by the de-industrialization process of the first decade after 1989?
3. How has the city changed under the demographic and suburbanization pressure of its larger neighbor over the years?

The subject of the analysis will be the case study of Luboń, a city of 33 thousand inhabitants located on the south-western outskirts of Poznań, a city of about 550 thousand in western Poland – the center of a metropolitan area with about 1

million inhabitants³. The interest in the issue of satellite cities is justified by the return of this issue after years of less interest (Skrzypiński 2017, Świątkiewicz et al. 2021). In this particular case, we want to look at the satellite city from a longer time perspective and by making more use of urban sociology in addition to social geography studies. The context for the analysis and formulation of conclusions will be a historical works and analysis of historical local spatial development plans. Contemporary interpretations will be based on field research done in 2020–2022, including expert interviews and focus group interviews proceeded by authors.

From the conceptual perspective, the questions formulated above about the tendencies in the evolution of the satellite city in the form of a continuum (or pattern of the evolution process), starting from the completion of “self-existence” in the form of the development of the remaining functions and the attainment of a distinctive separateness, to the dominance of a single function (complementing certain purposes of the central city), seem to be important⁴. The contrast between autonomy and “satellitism” or, in the extreme case, its disappearance would constitute the conceptual framework here.

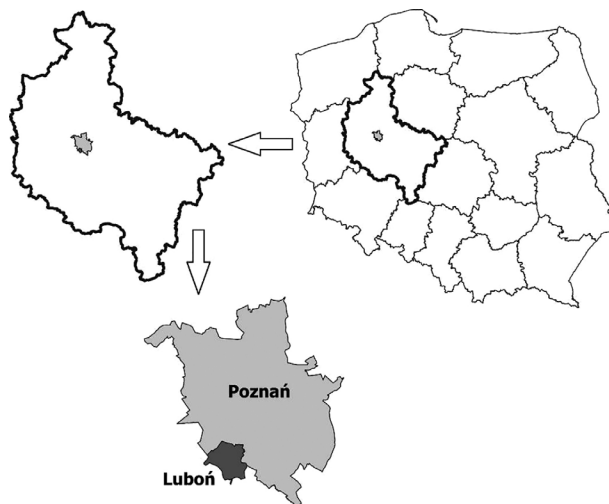


Fig. 1. The illustration of Luboń’s geographical location in the context of Poland, Wielkopolska (region) and Poznań
Source: authors’ own study.

³ According to the data from the Statistical Office it is 32 922 inhabitants in Luboń and 981 546 in Poznań and neighboring municipalities included in the district at 31.12.2021 (bdl.stat.gov.pl).

⁴ In the extreme case, therefore, “satellite” would also disappear. Which would mean full subordination of development potential, possibly the emergence of a series of secondary dependencies.

Conceptualizing the satellite city in Central Europe and methodological background

The settlement process is, or rather was, organized around large industrial plants, the links between the central city and the satellite may be aspectual and not as deep in practice as one might expect. This raises some conceptual issues. It should be noted that there is no coherent definition behind the concept of a satellite city, nor a broader conceptualization. The use of the concept is determined by its practical usefulness, which is implicit rather than referential to an idea of urban development. It is interesting to note that its presence is inscribed in the post-colonial context and associated with the European or even the British tradition (van Leynseele, Bontje 2019). Based on the Oxford Reference definition, a satellite city is defined as a type of city that is “self-contained” and limited in size, built in the vicinity of a large town or city to house and employ those who would otherwise create a demand for expansion of the existing settlement, but dependent on the parent-city to a certain extent for population and major services (Oxford Reference, overview: satellite city). A key element of the definition is therefore spatial proximity to another functionally more important centre on the one hand, and a certain level of “self-existence” on the other. The issue of the boundaries of autonomy and dependency is relatively blurred and subject to debate. This makes it difficult to discuss what is still and what is no longer a satellite city. The perspective of the 1960s in relation to the description of this urban phenomenon is not accidental, as it reflects the way of thinking that accompanied the processes of founding cities, which may be associated with a vision of a planned development, typical of the ideas present in post-war Eastern European urbanism.

Nevertheless, the very concept of the satellite city requires a further reflection. Its origins can be traced back to the phenomenon known as the New Town Movement (Wakeman 2016) that encompasses a variety of city-building concepts. Against the background of this diversity of “new town” concepts, the idea of the satellite city seems definitely more based on an effort to rationalize or deal with the process of industrialization, which in certain institutional and systemic conditions is, or rather, happens to be planned.

The definition of a satellite city, according to a 1960s Soviet text, does not focus on the issue of relative autonomy, but refers to the concept of “satellite places”. Such satellite places “...should include common features in the population’s life, joint paths of development, close relationships between satellite places and the central city, and strong gravitation of the satellites toward the central city” (Davidovich 1962). References to Soviet literature included in the paper result from the conviction that we are referring here to a concept implemented in Central Europe, not to foundations designed for entirely different political and ideological conditions. It is clear at the same time that, whatever the beliefs of the Soviet planners were, they were reinterpreting foundations established several

decades earlier, more than they were creating their own⁵. The important aspect of this concept is that the satellite nature of a city can be differentiated both in terms of the specificity of the links (it is not necessarily the distance from the main city, it is about economic, administrative, cultural links etc.), but also in terms of their intensity.

What appears to be crucial here is the existence of diverse connections and relationships that the satellite produces, which at the same time affects the daily lives of the inhabitants. The question can be asked how to describe the relations of the satellite city to the central city from the perspective of the mid-1950s, but also how they looked in the 1970s, when we can speak of the flourishing of socialist modernism with its typical form of development and spatial distribution subordinated to Le Corbusier's concept of zoning. One can also ask questions about their appearance in the 1990s, where this model of urban development was in crisis until the collapse of traditional industry, which in Central European conditions coincided with the process of systemic transformation towards neoliberalism. Oddly enough, in terms of conceptualization, the satellite relationship is not unambiguous either in the sphere of manufacturing – when taken separately – or only in the sphere of administrative management, which adds to the problems of interpretation when we become aware of the far-reaching changes regarding the conditions under which satellite cities operated. By this, we mean two phenomena, (i) the diversity of satellite relationships conditioned by different planning assumptions (areas of residence versus areas serving as hinterland for workplaces) and the (ii) phenomena of industrial evolution, or outright de-industrialization, which have been observed in Western Europe since the end of the 1950s and in the east of the continent since the second half of the 1980s (Kandžija 2017).

We assume that, at a theoretical level and in line with evolutionary and systems approaches, it is the individual endogenous potential that determines the wider processes of technological or social change occurring in the real city space (Essletzbichler, Winther 1999). A satellite city would be understood by its relative autonomy in terms of certain key functions, such as forms of self-government, spatial policy or sources of financing growth, and the existence of a certain area of negotiated dependencies that concern the realization of certain functions falling within the scope of metropolitan policy e.g., communication, water supply, sewage disposal, waste management, etc. For the purpose of this paper, we will focus on two elements which describe self-reliance of a satellite city: the issue of real autonomy in terms of the realized spatial policy and the existence of endogenous development potential.

In the following part of the article, the case of a specific satellite city will be analyzed.

⁵ In subject literature one can find cross-references from studies carried out in the 1920s and 1930s, e.g. Wakeman (2016).

Case study of Luboń near Poznań, in context of the colonization processes and the decolonization

The emergence of Luboń near Poznań, originally around the 7th century AD in the northern bend of the Warta River (Szczepaniak 2018), then as a complex of rural settlements, a space of industrial activity, and finally as a city, is part of a series of trends and phenomena dominating the history of urban planning and industrialization in the 19th and 20th century Europe.

Settlement continuity and a long history based on relative ethnic homogeneity and agrarian culture conceived a significant context for rural identity. The communities inhabiting the area of the present Luboń were subject to the processes of capitalist transformation in the 19th century with some resistance and delay in relation to the processes in Western Europe. The aforementioned aspects involved a transition from agriculture based on manorial economy and serfdom typical for the 1st Polish Republic, through an economy based on independent peasant farms and manors, towards the development of modern agriculture, using hired farmworkers' labor and mass production for the needs of the nearby metropolis. The industrialization processes, in relation to local conditions, can be linked directly to the colonization policy (policy of subsidized settlement) concerning the areas annexed to Prussia as a consequence of the partitions of the 1st Polish Republic, at the end of the 18th century⁶. Colonialism is understood here as "a form for domination-the control by individuals or groups over the territory and/or behaviour of other individual or groups (Horvath 1972, p. 46)" in the context of a policy aimed at transforming the ethnic structure without taking into account the cultural and economic interests of the dominant majority. The colonial genesis seems to be an important interpretative motif of industrialization in the region, which suggests the exogenous character of changes that can be traced from the very beginning of the process.

19th-century colonial heritage

Settlement actions in Wielkopolska were followed by investment acts aimed at increasing the links between the colonized areas and Prussia. These activities were most numerous and prolific during several decades of rapid industrialization at the end of the 19th and beginning of the 20th century. At that time, two powerful factories producing yeast and potato preserves were established in the areas southwest of Poznań (Szczepaniak 2018). A chemical factory for superphosphate has also moved to the area, from nearby Poznań (becoming one of the most modern enterprises of its kind in Central and Eastern Europe). The location of these plants, apart from nationalistic arguments (supporting Prussian capital in peripheral areas dominated by the Poles), was also dictated by economic rea-

⁶ The term *Kulturkampf* (culture war) is frequently used to describe the doctrine of the so-called Prussian Colonization Commission, which was the implementation of the policy of the Chancellor of the German Reich, Otto von Bismarck (1815–1898).

sons – the Warta River bend (access to technological water) was an attractive area for industrial activity, and the vicinity of railway sidings enabled effective and cheap transport of products. This fits in with the traditional theories of industrial location, *nota bene* originated in German science at the time, which raised the issue of cost minimization under the influence of changes in location factors, among which transport, labor, and agglomeration were prominent (A. Weber, the author of this theory, based it on observations of the rapid industrialization of Germany in the years 1870–1900) (Weber 1909).

The cartographic materials indicate that its settlement development in the initial phase was typical for rural areas (Szczepaniak 2018) (Fig. 2). In the earliest period, buildings were concentrated on the border of Dębiec (currently a



Fig. 2. Fragment of a Prussian topographic map of Poznań – Posen Süd, 1919 (original scale 1:25 000)

Source: Archiwum Map Zachodniej Polski [Archive of Maps of Western Poland], available on the website: mapy.amzp.pl, spring 2022.

district of Poznań) and Luboń, later on the territory of three settlements: Luboń, Żabikowo, and Lasek. The settlements also underwent a formal process of location under German law. From 1902, the spatial structure of the area of today's Luboń was formed by a deliberate break-up of agricultural holdings based on the designs of imperial architects. A rectangular market square was designed in the village; a school, an Evangelical church (Catholics dominated around), a monastery with a hospital and a poorhouse were located in its vicinity.

After the First World War, the area of the present town underwent a strong spatial and functional transformation (Fig. 2). Single-family housing dominated, concentrated to the west of the railway line. At the same time, the boundary between the three separate settlements (in terms of housing density) was slowly disappearing, but strong functional differences remained. Żabikowo, which had previously performed urban functions, was the only one to take over the functions of the centre naturally.

A significant caesura was the political consequence of separating the Wielkopolska area from Germany, which completed the area of the 2nd Polish Republic. This set in motion the process of decolonization. The factories in Luboń survived undamaged The First World War and were subsequently bought up by Polish investors.

After the Second World War, the area of the present town still consisted of three settlements and the dominant industrial activity was carried out in the nationalized Chemical Factory as well as the Potato Factory and the Yeast Factory.

In 1954, the Prime Minister issued a decree granting Luboń the status of a city to the villages adjacent to the factories. From that moment, Luboń is considered an urban unit with the formal status of a city.

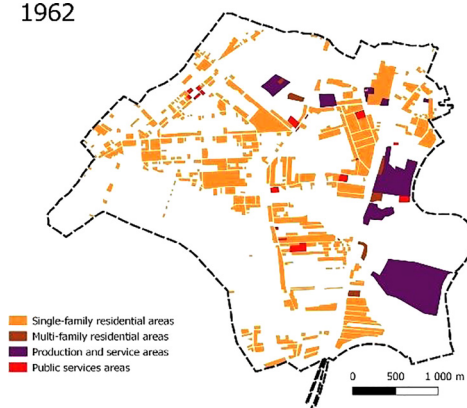
In a certain way, Luboń's urbanity was founded on planned Prussian industrialization. Its urbanization was a consequence of social constructivism and planning in the spirit of real socialism in the mid-1950s.

Socialist satellite city

The real urban development of Luboń started almost 5 years after the city was granted municipal charter when the Inter-factory Housing Cooperative "Lubonianka", established in 1959, started building blocks of flats in the first and for a long time, the only prefabricated concrete housing estate in the city. As a result, the first social housing estate took shape in the city, which was a characteristic form of housing organization for Central Europe at the time. It is probably possible to suggest that only these investments constituted the symbolic closure of the second colonization sequence, the essence of which was also the change of the class character of the space from rural to urban, in a form of mass housing specific for Central and Eastern Europe (Basic ecophysiological study... 2008).

The newly formed Luboń developed quite dynamically for the next 35 years (until the breakthrough associated with the collapse of real socialism in Poland). Along with a growing demand for labor, the significance of the chemical industry was increasing and at the same time it constituted a growing environmental

1962



1987

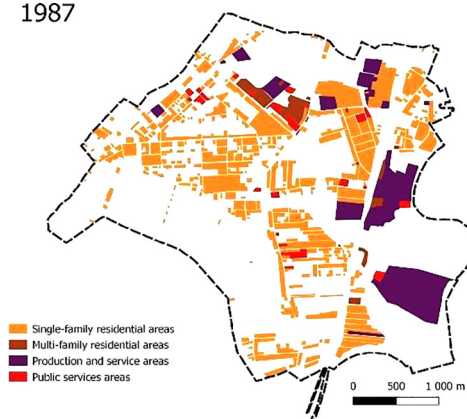


Fig. 3. Spatial distribution of housing types: Luboń, around 1962

The results were obtained on the basis of 1) georeferencing of photographic images of archive maps of the City of Luboń – including annexes to general plans and the study of conditions and directions of spatial development, the content of which presented the current development of Luboń. The calibrated map rasters obtained were subjected to vectorisation in terms of functions in relation to the current cadastral map. In order to make the depictions more legible, the functions were generalized by classifying the results into 4 groups of development: single-family housing, multi-family housing, production and services and public services.

Source: authors' own study.

Fig. 4. Spatial distribution of housing types: Luboń, around 1987

Source: authors' own study.

burden. It is worth adding that an important factor determining the evolution of the city were also the consequences of the decisions of the neoliberal oriented authorities of the 1990s. As a result, the city did not become a shareholder in the ownership of the privatized local plants. This can be seen as a *signum temporis* of the policy of the 1990s, which left investment decisions to private investors, who took over the assets of enterprises in deep crisis (Havel 2022).

Neoliberal satellite city

Significant densification of development began with the change of political system, i.e., in the early 1990s. Initially, new single family housing areas appeared, but at the turn of the 1990s and 2000s intensive suburbanization began, also associated with multifamily housing, typical for suburban areas of large agglomerations. In Poland this process, due to the political transformation, changing ownership relations and introduction of free market economy, was delayed as

compared to Western European countries (Niedziałkowski, Beunen 2019, Gorzym-Wilkowski, Trykacz 2022).

A few years were enough for there to be, for example, a 10% increase in the area of residential development (cf. Fig. 5 and 6). At the same time, control over the form and quality of the resulting developments reached only as far as permitted by the regulations, which were very general in this case. Theoretically speaking, decisions on land development conditions were to provide information on the possibility of implementing investments. In practice, they were one of the few requirements in the construction process that could influence, only to a limited extent, the spatial order of the nearest neighborhood by shaping the building lines, the height of the buildings or roof geometry. It was these parameters that negatively affected the first impression of architectural and spatial order.

1998

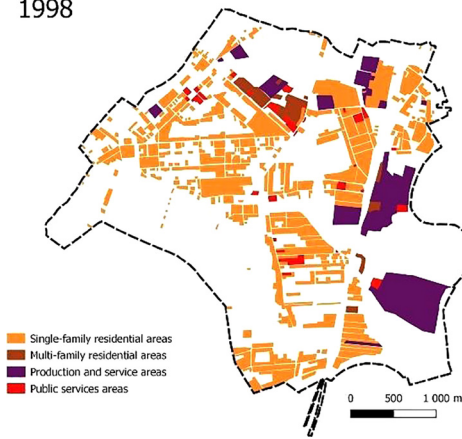


Fig. 5. Spatial distribution of housing types: Luboń, around 1998
Source: authors' own study.

2008

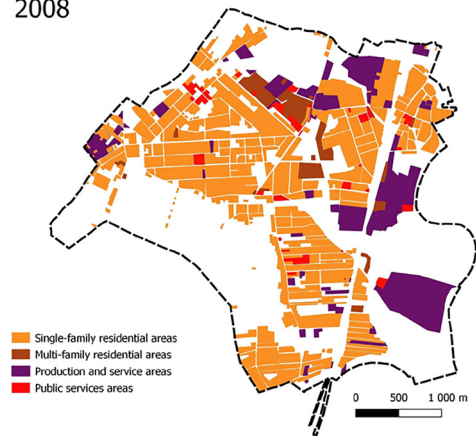


Fig. 6. Spatial distribution of housing types: Luboń, around 2008
Source: authors' own study.

After the first decade of the 21st century, the processes of intensive urbanization did not stop. The city was subject to further urbanization pressure (suburbanization within the neighboring metropolis) and reached a population density comparable to that of Poznań of over 2000 people/km² (currently it is over 2300 people/km²) (Fig. 7). It is worth mentioning that Luboń has doubled its population since 1960. From a level of about 14,500 inhabitants in 1960 it reaches 32,900 at the beginning of 2022 (cf. Fig. 8).

It is worth noting a slight decrease in population between 1985 and 1990. It can be attributed to the consequences of the deepening economic crisis, which forced mobility. On the other hand, a significant increase in population in the period 2000–2005 constitutes the beginning of the development of multifamily buildings in the center of Luboń, connected with the development of central, previously undeveloped areas (cf. Fig. 7). Most of the buildings constructed in the city at that time were (and still are) the result of the intensified activities

of developers. Although they operate within and on the basis of the provisions of local spatial development plans, the quality of the constructed facilities, their architecture and the accompanying green, recreation and social infrastructure are of low quality (which is a common problem in most cities in Poland).

Intensive residential development in the last decade required the development of technical infrastructure (mainly roads) and services, which led to increasing pressure from new residents on the local authorities, who are obliged to take care of the sustainable development of the city (cf. Fig. 8.).

At the same time, after 1990, as a result of deindustrialization, Luboń lost its original city-forming functions related to the operation of large industrial plants in its area. Socio-economic changes, privatization and unprofitability of some of the plants located near the bend of the Warta River led to their closure. Extensive post-industrial areas remained private property, with no real possibilities for their comprehensive development. There have been no actions aimed at restoring the original function of these areas or giving them a new function. Private owners were not interested in large-scale revitalization activities (they remain the

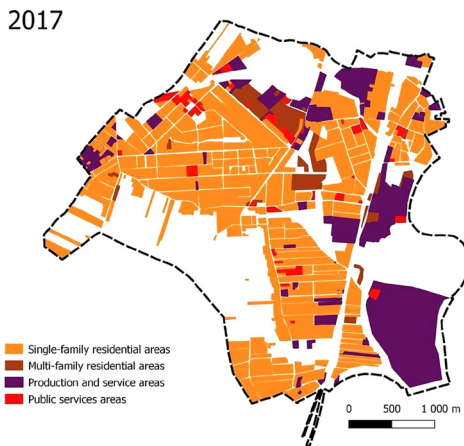


Fig. 7. Spatial distribution of housing types: Luboń, around 2017
Source: authors' own study.

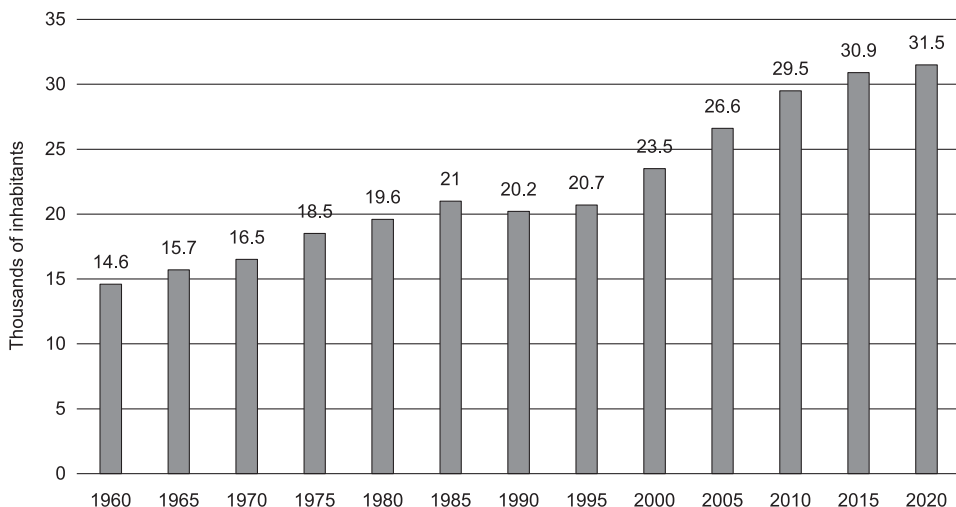


Fig. 8. Population growth in Luboń (1957–2021)
Source: prepared on the basis of data from the Lubon Municipal Office.

domain of public entities in Poland, and their intervention in the area in Luboń is prevented by ownership relations), nor in the renewal of post-industrial infrastructure, nor in new directions of development. Currently, in some of these areas, the decapitalization of the historical architectural fabric is progressing, in some of them, low-quality quasi-residential development has been built, in the remaining areas, economic activity is carried out on various scales by individual entities renting space for their business.

Luboń itself, due to the lack of land, was not a competitive place for the settlement of numerous production, service or logistics companies, including those with foreign capital. Thus, the city was inferior to other suburban rivals, becoming one of the communes with the lowest income per capita in the entire Poznań Agglomeration⁷.

Discussion and conclusions

Initially, the spatial and natural potential of Wielkopolska associated with the development of modern agriculture and e.g., the demand for fertilizers or the need for a processing base should be identified as a development factor. Both the Prussian settlement and the location of industry were linked to the availability of land for agricultural use and the presence of a bend in the Warta River as a reservoir of technological water resources for industrial activities (turn of the XX century until the II World War).

Further demographic development (after 1945) took place based on – on the one hand – exogenous political factors and, on the other hand, endogenous factors resulting from the already existing infrastructure. Political factors were related to the specifics of settlement during the centrally planned economy in Poland, in conjunction with mythologized class manifesto (Żróbek-Rożańska et al. 2017). In a manner typical of socialist urbanization, large-scale planning in the form of prefabricated housing estates were implemented, complemented by accessible social services in the form of schools, kindergartens, or health centers, co-financed in various forms from the central budget (Urban 2020).

Closing the historical analysis of the penultimate period of the city's development, it may be concluded that after 1989, during the transformation period, the endogenous potential was intensified by relatively low land prices (what is characteristic for a suburban area of a metropolis), good communication accessibility (in relation to the metropolis) and developing tendencies of population outflow from the agglomeration's core (typical for suburbanisation processes in Poland in

⁷ It is also worth noting that in 2015, the idea of the Mayor of Poznań was publicly announced to include, among others, the city of Luboń within the administrative borders of Poznań. The Luboń authorities then issued an official appointment in which it was indicated that the preferred integration model involves the evolutionary development of organizational solutions that systematically meet the needs of residents, while including Luboń within the borders of Poznań is not a desirable action. It is difficult to indicate how the interests of Luboń as a potential district of Poznań would be formally secured, as well as directing financial transfers there or undertaking desired investment activities.

the early 21st century, which was reflected in the dynamics of population growth in the city).

The very establishment of Luboń as a city was conditioned by a political decision underlying objective economic and ideological factor, as a rule – in line with the classical theory of the economic base (Andrews 1953, Hoyt 1954). At the same time, in the late 1980s and early 1990s, the model of multiplier reduction, derived from the theory of the economic base, according to which the regression of the urban economy in the period of systemic transformation could have been associated with the regression of the manufacturing sector (Richardson 1985), was no longer applicable. It would have been associated with the outflow of population, due to the loss of economic potential of the city, reflected in the reduction in the number of jobs, reduced accessibility to public services, falling real estate prices etc. Such phenomena have not occurred. During the transformation, it was even difficult to observe a significant slump in demographic development (see Fig. 8). The explanation of Luboń's perseverance and further development should be sought in the exogenous context, in the urban satellite and the remaining industrial potential of the city, persisting outside the sphere of developmental decisions of the city authorities.

We assume that, according to the evolutionary approach in socio-economic geography and spatial economy, it is the individual endogenous potential that determines more extensive processes of technological or social changes taking place in the real city space (Essletzbichler, Winther 1999, Domański 2012). The systemic approach allows us to describe Luboń as an element of a larger spatial and social system, which in this case is an agglomeration area with a core in the form of a central city – Poznań (Eliason 1987, Capra 2002, Hys, Hawrysz 2014).

Demographic development and progressive urbanization were thus gaining momentum, although not in a city-forming form – which we describe in terms of spontaneity in terms of selected functions, but rather in terms of suburbanization, or the densification of still available land between the metropolis and Luboń.

Single-family residential areas (SFRA), multi-family residential areas (MFRA), production and service areas (P&SA), public services areas (PSA)

The losing importance of resource factors was gradually replaced by quality factors. In the case of Luboń, it is difficult to state that these include the diversity of the economic structure, the quality and efficiency of the technical infrastructure, or the quality of life or value of space – these elements were not deeply analyzed mostly because of the lack of reliable and complete data sources (Gralak 2006). The main development determinant of the latter period seems to be the immediate vicinity of the agglomeration and economic factors associated with tempting prices of available building plots. Additionally, Luboń as a spatial unit rather urban in its morphology, intensively developed multifamily housing, which was not common in other suburban areas of Poznań (see Fig. 9). One of the first large multifamily housing estates (*Lubonianka*) was established in the area, followed by another one in the center of the area New Center of Luboń (NCL), which was dynamically settled despite its poor provision of technical in-

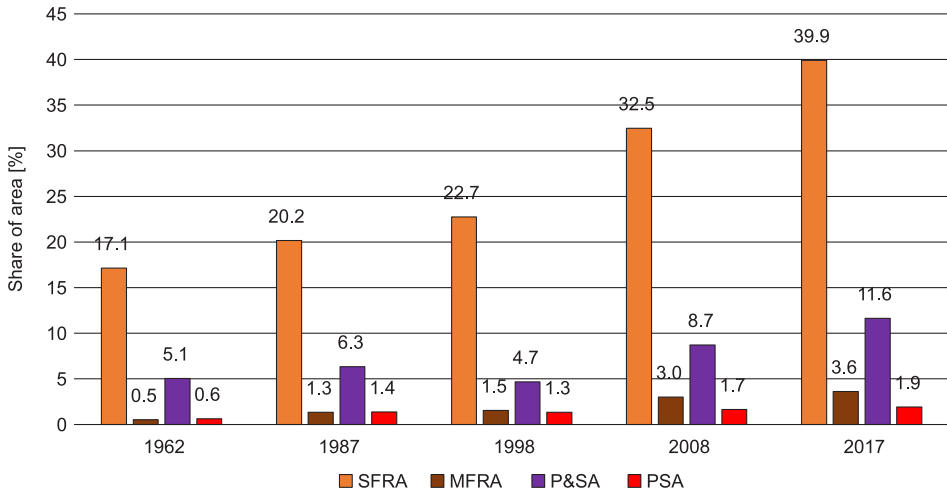


Fig. 9. Share of built-up area by function in the area of Luboń between 1962–2017 [%]
Source: authors' own study.

frastructure. There is much to suggest that nowadays, with the resources of space running out, Luboń is faced with the necessity of identifying anew its endogenous potential.

The picture is complemented by the most recent tendencies: the suburbanization phenomena and the growing demographic potential of the city, in the existing, less attractive spatial, economic and social form, triggered the effect of pushing out to the Luboń area the less wealthy residents of the agglomeration looking for relatively cheap and accessible housing (a conclusion frequently drawn in the in-depth interviews and the social survey).

In answering the questions posed in the article, it is worth emphasizing that the industrialization genesis was essential for the contemporary urban form and the socio-spatial vicissitudes that shaped the spatial form of the city. It was not possible to overcome the historical space zoning, even if industry ceased to be a vehicle for development. The source of the barriers turned out to be the processes of privatization of industry in the 1990s and, paradoxically, its ability to survive at a markedly reduced scale.

Post-industrial sites, already in the hands of private investors, needed to become an effective resource for city development. At the same time, it should be noted that in less than 15 years the city increased its population by 1/3, which had numerous socio-economic implications. One of these was the limited availability of financial resources. The area and structure of the development, with dominant housing, limited the income from participation in business taxes⁸. The current level of income of the local government, the strong dependence of the cities' efficiency on subsidies, makes the development situation difficult (Mer-

⁸ In Poland, taxation is based on an area system, not a value system. As a result, taxes on residential land are significantly lower than taxes on business land.

riles et al. 2013). For this reason, a discussion about including Luboń in the spatial and administrative structures of the central city of Poznań resurfaces from time to time. The development policy pursued by local authorities in the context of the satellite city was, on the one hand, “tailor-made”, and on the other, was characterized by subordination to social issues and the inhabitants’ quality of life, which is understandable in the context of the democratic functioning of local communities. However, reconciling the different expectations of the inhabitants in the absence of an endogenous economic potential, which until the 1990s had been industry, proved difficult and in a sense unfeasible. The answer to the question posed in the article about the condition of the satellite city in Central Europe is therefore moderately feeble.

Further directions of research on this issue should be twofold. On the one hand, it is necessary to conduct social research on issues such as local identity and provide an answer to the question to what extent the idea of functioning of a center such as Luboń is justified in this area. Have the past 70 years of history allowed for the development of a strong local identity, not only among the indigenous inhabitants, but also among the people rapidly settling in the city since the beginning of the 21st century? The second line of research involves comparative studies of other cases of satellite cities in Poland and the countries of Central and Eastern Europe in order to attempt to identify their development paths, trends and directions of evolution, as well as the local identity of their inhabitants.

References

- Andrews R.B. 1953. Mechanics of the urban economic base: historical development of the base concept. *Land Economics*, 29(2): 161–167.
- Anttiroiko A.-V., de Jong M. 2020. *The Inclusive City: the Theory and Practice of Creating Shared Urban Prosperity*. Springer Nature.
- Basic ecophysiological study for the commune area of Luboń. 2008.
- Capra F. 2002. *The Hidden Connections: Integrating The Biological, Cognitive, And Social Dimensions Of Life Into A Science Of Sustainability*. Doubleday, New York.
- Cirolia L.R. 2014. Escaping the challenges of the city: A critique of Cape Town’s proposed satellite town. *Urban Forum*, 25: 295–312. <https://doi.org/10.1007/s12132-013-9212-2>
- Clayton E., Richardson T. 1989. Soviet control of city size. *Economic Development and Cultural Change*, 38: 155–165.
- Davidovich V.G. 1962. Satellite Cities and Towns of the USSR. *Soviet Geography*, 3(3): 3–35. <https://doi.org/10.1080/00385417.1962.10769913>
- Diener A.C., Hagen J. 2013. From socialist to post-socialist cities: narrating the nation through urban space. *Nationalities Papers*, 41: 487–514.
- Domański R. 2012. *Ewolucyjna gospodarka przestrzenna*. Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu, Poznań.
- Eberhardt P. 2005. Geneza niemieckiej koncepcji „Mitteleuropy”. *Przegląd Geograficzny*, 77(4): 463–483.
- Eliason A. 1987. *Systems Development. Analysis, Design, and Implementation*. Little, Brown and Company, Boston–Toronto.
- Eremia M., Tom L., Sandulea M. 2017. The smart city concept in the 21st century. *Procedia Engineering*, 181: 12–19.
- Essletzbichler J., Winther L. 1999. Regional technological change and path dependency in the Danish food processing industry. *Geografiska Annaler*, B, 81: 179–195.

- Geertse M. 2016. The International Garden City campaign: transnational negotiations on town planning methods 1913–1926. *Journal of Urban History*, 42(4): 733–752. <https://doi.org/10.1177/0096144214566974>
- Gorzym-Wilkowski W.A., Trykacz K. 2022. Public Interest in Spatial Planning Systems in Poland and Portugal. *Land Use Policy*, 11: 73. <https://doi.org/10.3390/land11010073>
- Gralak A. 2006. *Rozwój regionalny – zagadnienia ogólne*. Szkoła Główna Gospodarstwa Wiejskiego, Warszawa.
- Harrison P., Todes A. 2017. Satellite settlement on the spatial periphery: Lessons from international and Gauteng experience. *Transformation: Critical Perspectives on Southern Africa*, 95: 32–62. <https://doi.org/10.1353/trn.2017.0021>
- Havel M.B. 2022. Neoliberalization of urban policy-making and planning in post-socialist Poland – A distinctive path from the perspective of varieties of capitalism. *Cities*, 127, 103766. <https://doi.org/10.1016/j.cities.2022.103766>
- Hirt S. 2013. Whatever happened to the (post) socialist city? *Cities*, 32: 29–38. <https://doi.org/10.1016/j.cities.2013.04.010>
- Hoyt H. 1954. Homer Hoyt on development of economic base concept. *Land Economics*, 30: 182–186.
- Hys K., Hawrysz L. 2014. *System – Interdisciplinary Understanding*. Organization and Management, 18: 95–115.
- Kandžija V., Tomljanović M., Hudek I. 2018. Deindustrialization as a process in the EU. *Ekonomski Vjestnik*, 30(2): 399–414.
- Kępa M. 2018. *Nowa Huta: The story of the ideal socialist-realist city* ([Culture.pl](https://culture.pl/en/article/nowa-huta-the-story-of-the-ideal-socialist-realist-city); <https://culture.pl/en/article/nowa-huta-the-story-of-the-ideal-socialist-realist-city>).
- Lewis R. 2006. *Satellite City*. [W:] D. Goldfield (ed.), *Encyclopedia of American Urban History*. Sage, Thousand Oaks, CA, p. 705–706.
- Mantey D., Sudra P. 2019. Types of suburbs in post-socialist Poland and their potential for creating public spaces. *Cities*, 88: 209–221.
- Merrilees B., Miller D., Herington C. 2013. City branding: A facilitating framework for stressed satellite cities. *Journal of Business Research*, 66: 37–44. <https://doi.org/10.1016/j.jbusres.2011.07.021>
- Monclús J., Díez Medina C. 2016. Modernist housing estates in European cities of the Western and Eastern Blocs. *Planning Perspectives*, 31(4): 533–562.
- Mumford E. 2009. CIAM and the Communist Bloc, 1928–59. *The Journal of Architecture*, 14: 237–254.
- Muniz I., Galindo A., García M.A. 2003. Cubic spline population density functions and satellite city delimitation: The case of Barcelona. *Urban Studies*, 40(7): 1303–1321.
- Niedziałkowski K., Beunen R. 2019. The risky business of planning reform – The evolution of local spatial planning in Poland. *Land Use Policy*, 85: 11–20. <https://doi.org/10.1016/j.landuse-pol.2019.03.041>
- Percival T., Waley P. 2012. Articulating intra-Asian urbanism: The production of satellite cities in Phnom Penh. *Urban Studies*, 49(13): 2873–2888. <https://doi.org/10.1177/0042098012452461>
- Prime Ministerial Decree of 7 October 1954. W sprawie zaliczenia niektórych gromad w poczet miast. *Dziennik Urzędowy Wojewódzkiej Rady Narodowej w Poznaniu*, 20/102, 254.
- Richardson H.W. 1985. Input-output and economic base multipliers: Looking backward and forward. *Journal of Regional Science*, 25(4): 607–661.
- Skrzypczyński R. 2017. *Czytanie miasta satelickiego*. Funkcjonowanie społeczności lokalnej. [W:] K. Kamińska (red.), *Czytanie miasta: badania i animacja w przestrzeni*. Instytut Wydawniczy Książka i Prasa, Warszawa.
- Song Y. 2011. Ecological city and urban sustainable development. *Procedia Engineering*, 21: 142–146.
- Staniszek J. 2006. *Ontologia socjalizmu*. Ośrodek Myśli Politycznej, Kraków.
- Sumorok A. 2015. The idea of socialist city, the case of Nowa Huta. *Technical Transaction*, 12-A: 303–339. <https://doi.org/10.4467/2353737XCT.15.384.5003>
- Szczepaniak I. 2018. *Dzieje Ziemi Lubońskiej*. Historia Lasku, Lubonia i Żabikowa od czasów najdawniejszych do utworzenia Miasta. Ośrodek Kultury w Luboniu, Luboń.
- Świątkiewicz A., Połom M., Puzdrakiewicz K. 2021. Changes in the Spatial Development of a Satellite Town under the Impact of a Metropolitan City – Evidence from Pruszcz Gdański (Poland). *Land*, 10, 800. <https://doi.org/10.3390/land10080800>

- Urban F. 2020. Postmodernism and socialist mass housing in Poland. *Planning Perspectives*, 35: 27–60.
- van Leynseele Y., Bontje M. 2019. Visionary cities or spaces of uncertainty? Satellite cities and new towns in emerging economies. *International Planning Studies*, 24(3–4): 207–217. <https://doi.org/10.1080/13563475.2019.1665270>
- Wakeman R. 2014. Was there an ideal socialist city? Socialist new towns as modern dreamscapes. [W:] J.M. Diefendorf, J. Ward (red.), *Transnationalism and the German City*. Palgrave Macmillan, New York, p. 105–124.
- Wakeman R. 2016. *Practicing Utopia: an Intellectual History of the New Town Movement*. University of Chicago Press.
- Ward S. 2005. *The Garden City: Past, Present and Future*. Routledge.
- Weber A. 1909. *Theory of the Location of Industries*. Center for Spatially Integrated Social Science (<http://www.csiss.org/classics/content/51>; accessed: 25 February 2022).
- Węclawowicz G. 2016. Urban Development in Poland, from the Socialist City to the Post-Socialist and Neoliberal City. [W:] V. Szirmai (red.), “Artificial towns” in the 21st Century. Social polarisation in the new town regions of East-Central Europe. Institute for Sociology. Centre for Social Sciences Hungarian Academy of Sciences, Budapest, p. 65–82.
- Zarecor K.E. 2018. What was so socialist about the socialist city? Second world urbanity in Europe. *Journal of Urban History*, 44(1): 95–117. <https://doi.org/10.1177/0096144217710229>
- Żróbek-Róžańska A., Zysk E., Żróbek R. 2017. Through The Decades – Changes in Social, Economic, Legal and Planning Determinants of Residential Development across Decades – Evidence from Suburban Areas in Poland. *IOP Conference Series: Materials Science and Engineering*, 245(4): 042005.

Ewolucja postsocjalistycznego miasta satelickiego w Europie Środkowej. Historyczne i społeczno-przestrzenne studium przypadku Lubonia pod Poznaniem (Polska)

Zarys treści: Celem artykułu jest społeczno-ekonomiczna i przestrzenna analiza procesu rozwoju miasta satelitarnego z rdzeniem przemysłowym i rolniczym, położonego w Europie Środkowej, jakim jest Luboń koło Poznania. Luboń został założony w 1954 r., a zatem stosunkowo niedawno, co pozwala analitycznie prześledzić cały proces rozwoju, w oparciu o zastosowane metody badawcze, w tym dane dotyczące zmian liczby ludności, liczby mieszkań, a także dane przestrzenne oparte na georeferencji zdjęć archiwalnych map miasta Lubonia i rodzajów jego zabudowy. Wykorzystane dane zostały wpisane w filozofię podejścia ewolucyjnego odwołującego się do dynamiki zmian i złożoności procesów rozwojowych oraz ich nierównowagi.

Artykuł zawiera elementy analizy historycznej, rekonstruuje dynamikę zmian miasta, oraz elementy konceptualizacji oparte zarówno na badaniach genetycznych koncepcji „nowych miast”, jak i na założeniach obecnych w radzieckiej myśli urbanistycznej, która była bezpośrednią inspiracją dla rozwiązań z lat 50.

Zaproponowane w zakończeniu uogólnienia wskazują na istnienie stanu kryzysu i zapraszają do dyskusji nad dynamiką zjawisk metropolizacji z punktu widzenia peryferyjnych uczestników tego procesu.

Słowa kluczowe: miasto satelitarne, miasto postsocjalistyczne, przestrzeń miejska, ewolucja, Luboń