

Morphological processes in the spatial structure of the southern district of Wrocław city

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How to cite:

Miszewska, B. and Szmytkie, R., 2015: Morphological processes in the spatial structure of the southern district of Wrocław city. In: Szymańska, D. and Rogatka, K. editors, *Bulletin of Geography. Socio-economic Series*, No. 27, Toruń: Nicolaus Copernicus University, pp. 133–151. DOI: <http://dx.doi.org/10.1515/bog-2015-0009>

Abstract. The paper analyses the morphological changes in the spatial structure of the southern district of Wrocław city (Lower Silesia, Poland). The district developed from the former villages of vegetable-growers, which in the Middle Ages bordered directly with the city as set out in the charter. In the second half of the 19th century, the villages were incorporated into the city, and after a while, they started their metamorphosis. Rectangular urban blocks were formed on the basis of medieval axes in the villages. At the end of the 19th century and the beginning of the 20th century, the blocks were successively filled with typical tenement buildings. As a result of World War II, existing buildings were totally destroyed. In the 1960s, they started re-construction of the district, which led to its second metamorphosis. The new constructions resembled typical, socialist apartment projects in other Polish cities. The prestige the district enjoyed before World War II was lost together with its style and character.

Article details:

Received: 22 January 2014

Revised: 18 March 2014

Accepted: 4 December 2014

Key words:

morphological processes,
urban structure,
urban cycle,
Conzenian methods,
Wrocław city.

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1. Introduction

Wrocław as any city with a long history has a complex spatial structure. The structure was subjected to various morphological processes and phases, whose identification and re-construction is an intriguing task. In Wrocław, the task is so much more interesting because the processes were radically disturbed by the events at the end of World War II. This study analyses the urban area bordering from

the north the town of the medieval charter. The area was incorporated into the city only in 1868. It was the second phase of the city’s extending beyond its medieval limits marked by fortifications. The fortifications were dismantled in the early 19th century thus allowing the suburbs to be included in the city in the first phase (1808) (Fig. 1). Extending the boundaries of Wrocław started the process of urbanization of the annexed areas. The phase before the annexation is therefore the initial phase of morphological processes which are the subject of the paper.

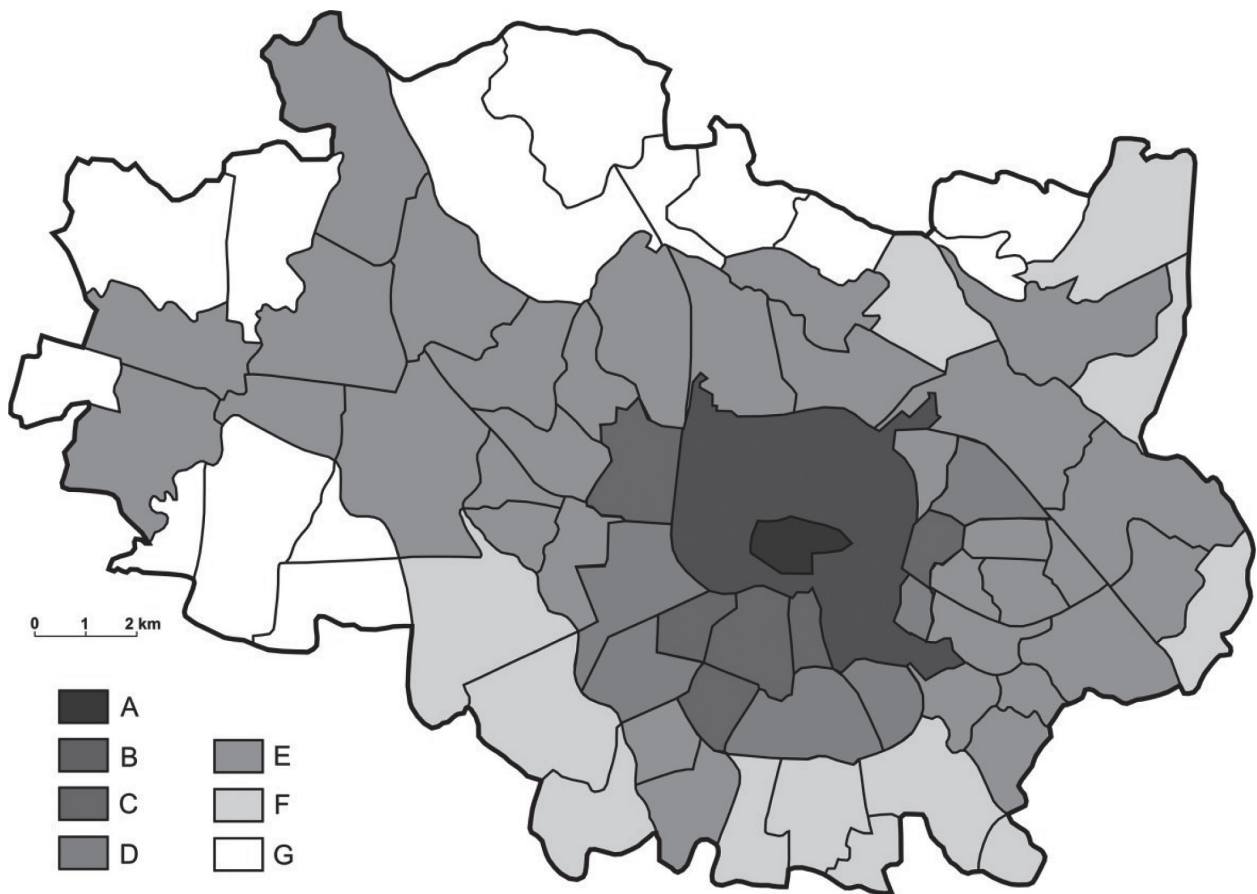


Fig. 1. The spatial development of Wrocław city

Explanation: Wrocław in: A – Middle Ages; B – 1808; C – 1897; D – 1911; E – 1928; F – 1951; G – 1973

Source: Authors’ own work

The analysis of morphological changes in this extramural area is a part of a broader study of various neighbourhoods in the centre of Wrocław. The studies have been conducted in Wrocław since the 1960s. In Poland, the Conzen method (Conzen, 1960, 1966; Whitehand, 2001; Larkham, 2006) was first used by S. Golachowski (1957) in the analysis of urban maps. He started and participated in several projects connected with the layout of the medieval towns in Silesia (Pudelko, 1959, 1964a, 1964b, 1967; Golachowski, Pudelko, 1963; Golachowski, 1969; Miszewska, 1971, 1979), and later projects (Miszewska, 2005, 2009; Miszewska, Szmytkie, 2009). In-depth analysis concentrated on the urban cycle in urban blocks of the historic city-centre (Miszewska, 1994a, 1994b; Kozieł, Miszewska, 1997), as well as urban blocks representing different morphological units of the extramural districts (Miszewska, 1995a, 1996, 2002a, 2002b; Miszewska, Sikorski, 2011). Wrocław's morphological structure is very well analysed. The studies can only be compared with the studies in Łódź by M. Koter and his students (Koter, 1970, 1979, 1994; Koter, Kulesza, 1999; Kulesza, 2001), which are considered as a model example of morphological studies in Poland (Koter, Kulesza, 2007, 2008, 2010).

2. Geographical location of Wrocław

Wrocław is located in south-western Poland, on the Silesian Lowland, which is part of the Central European lowlands. In the south, the Silesian Lowland borders Sudetenland – mountains of Hercynian origin. In the north, there is a range of moraine hills formed during the Wolstonian Stage in the middle Pleistocene (Riss glaciation in the Alps). In the west, it borders the Silesian-Lusatian Lowland. The Silesia-Cracow Upland is its eastern border. The River Odra, the second longest river in Poland, forms the central axis of the lowlands. Wrocław is located on the River Odra.

At the beginning of its history, Wrocław was just a city built in the 9th century at a convenient crossing of the River Odra. Traces of the city can be seen on the former island of Ostrów Tumski. The city was built in the first half of the 13th century in the Valley of the Odra, on the left bank of the River Odra. The analysed area is located outside the city

limits on upland with very good soils, known as black lands.

Wrocław is currently the fourth most populous city in Poland and the capital of an important region of Lower Silesia. It has over 630 thousand inhabitants. It is a thriving economic and research/educational centre.

3. Historic outline

The spatial development of the city and morphological processes played an important role in the history of the city, which includes several periods resulting from the variable political affiliation: (a) up to 1348 within the borders of Poland; (b) to 1526 within the Czech state; (c) to 1741 under the rule of the Austrian Habsburgs; (d) to 1945 in Prussia and the German Empire; (e) after World War II in the Polish state.

Each of those periods left clear traces in the tissue of the area, which can be found in architecture (Fig. 2). Different political and cultural influences are not fully reflected in the ethnic structure of Wrocław. The dominant population groups were always Poles and Germans and the German participation grew in the Prussian period. Wrocław became mostly homogeneous (Polish) after the Second World War.

Another important incentive to start extramural processes was the episodic presence of Napoleon's army in Wrocław from 1807 to 1808. The French ordered the demolition of the city's fortifications. Morphological differentiation of the city's development outside the city walls is therefore connected with the Prussian period. The development is also connected with former villages of vegetable growers. In 1945, when the Soviet Army was approaching Wrocław, the city was proclaimed 'a fortress' by its German defenders. It was the second very important event which influenced morphological changes. As the result of that decision, entire districts were systematically destroyed by German troops. Also, the destruction was the result of bombing by Soviet artillery and air force. At the end of the war, Wrocław was one of the most war-affected cities in Europe (Fig. 3). The area analysed in this study was destroyed almost entirely (Fig. 4).



Fig. 2. Wrocław's architectural objects representing different historical periods

Explanation: A - Church of the Holy Cross (12th-13th century); B - Post-Bernardine Complex (now the Museum of Architecture) in the 2nd half of the 15th century; C - University of Wrocław Main Building (formerly the Jesuit University) in the first half of the 18th century; D - National Museum (formerly the Notary of Silesia) at the end of the 19th century

Source: Authors' own work

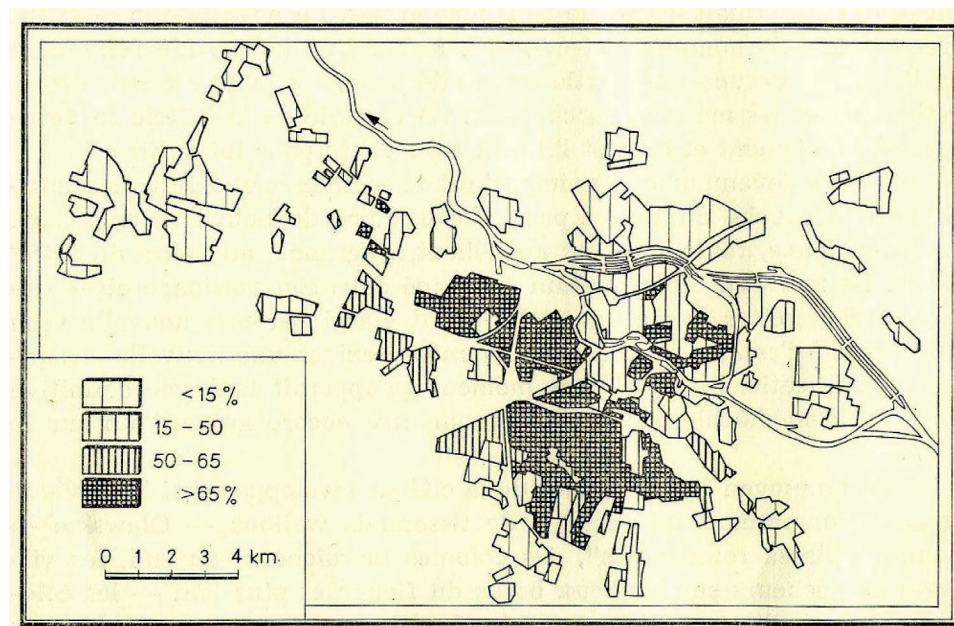


Fig. 3. War destruction in Wrocław city

Source: Miszewska 1994a



Fig. 4. The crossroads of Krucza and Powstańców Śląskich streets in the southern part of Wrocław city

Explanation: A - before WWII and B - after

Source: Eysymontt, Urban (2008), www.hydral.wroc.pl (accessed 16 January 2013)

4. The characteristics of the researched area in the pre-urban phase

The area analysed in the study is bordered to the north – as mentioned earlier – by the town located in Middle Ages. The main motive of interest in this area is connected with the fact that since the Middle Ages there were croft villages in the area that were established on fertile ‘black’ soil. The villages were inhabited by free cottagers who supplied Wrocław with vegetables. Cabbage was the most important vegetable grown here and the villagers were often considered as ‘cabbagers’. Figure 5 shows the difference between croft, farmer and grange villages. The habitat and land-layout were different in dif-

ferent villages. Habitats were extended and a village was at least 500 to 700 metres long. The land-lay-outs were perpendicular to the village axis and were located on 3-to-6 acre lots measured in Rhine acres (1) (Szulc, 1963). These villages resembled a regular system of chain-fields in mountain regions. Figure 6 shows the outline of a village with the most common habitat with N-S axis. In the following period of time, the outline was of major importance in the formation of that particular part of the city. It is worth noting that there were croft villages of vegetable growers located near other cities in Silesia, for example near Legnica, Brzeg, Nysa, and Głogów. Also, they were located near Krakow, Poznań, Warsaw, Vienna, Nuremberg and other medieval towns (Szulc, 1963).

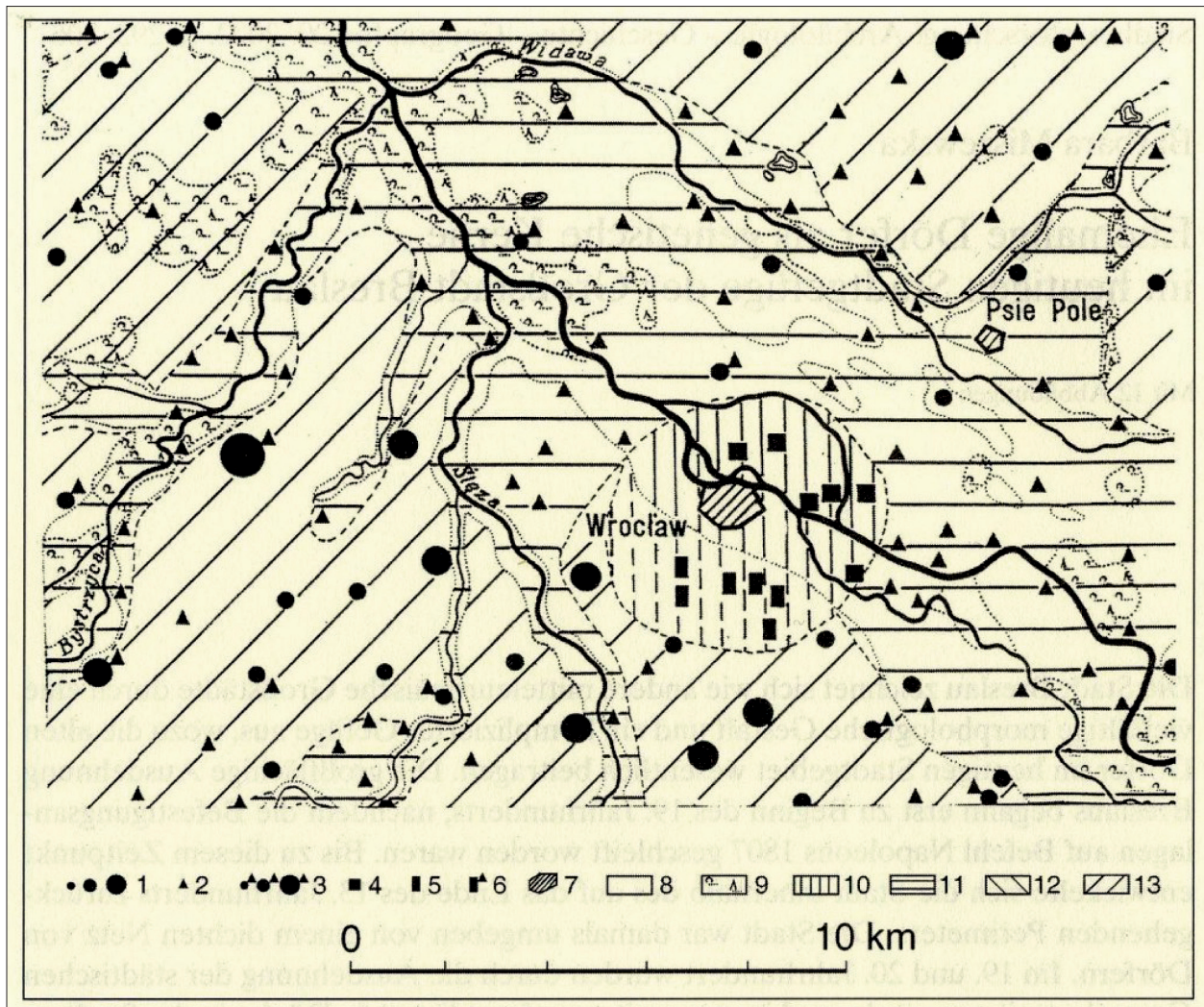


Fig. 5. Settlement areas and village-types in the vicinity of Wrocław at the beginning of the 20th century

Explanation: Villages: 1. peasant (1-9 peasants, 10-19 peasants, more than 20 peasants); 2. grange; 3. peasant with grange; 4. Croft; 5. croft-vegetable-growers; 6. croft-and-vegetable-growers with a grange; 7. city; 8. floodplains; 9. forest; 10. croft region; 11. manor village area; 12. peasant rural region; 13. rural region of mixed social structure (peasant villages, home-stead villages, peasant-with-grange villages)

Source: Szulc (1963)

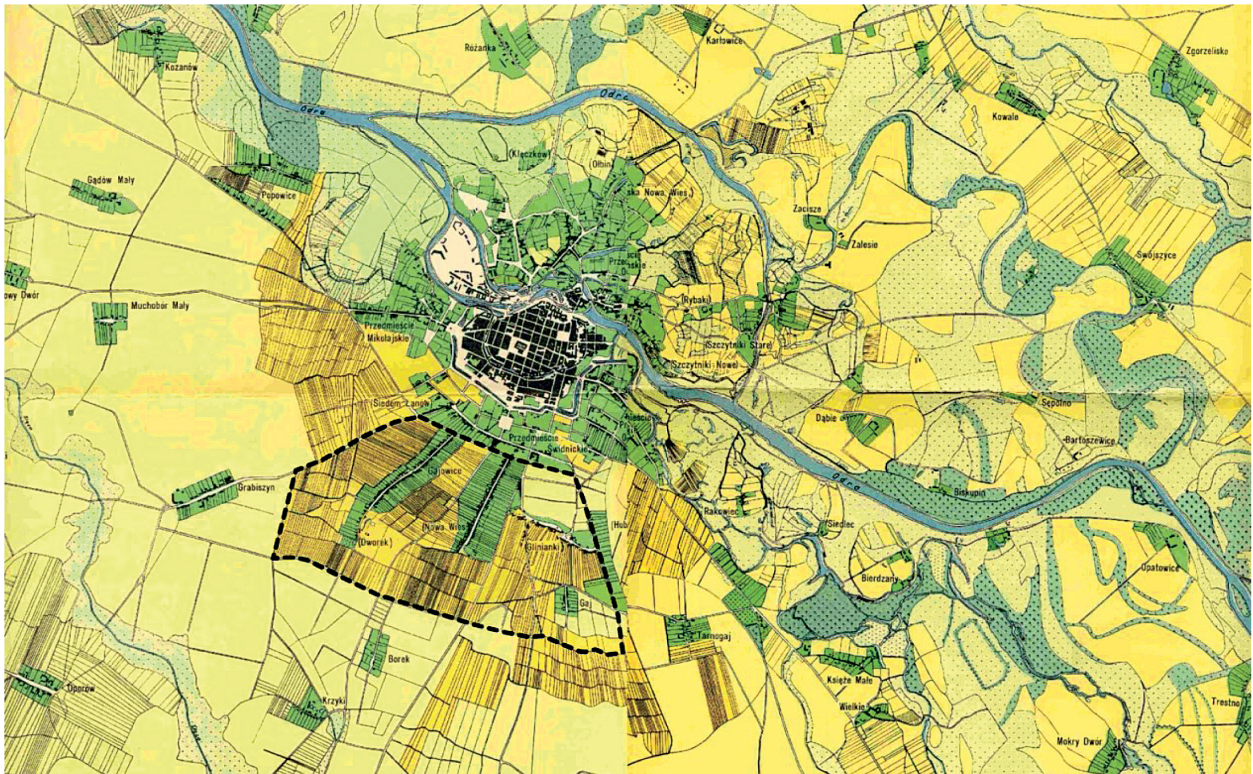


Fig. 6. 'Vegetable-growers' villages with the southern district of Wrocław marked

Source: Szulc (1963)

5. Southern district of Wrocław from 1868 to 1945

In 1868, the district was incorporated into the city limits of Wrocław. As a result of that action, the district started developing rapidly and changed its agricultural character. The area was located higher up than the city, therefore it was considered by city dwellers and newcomers as a more attractive settlement area. There were more and more new

settlers. There were no industrial plants in the district, therefore blue-collar workers did not come to the area. From the very beginning, the dwellers of the district were considered as 'people having better addresses'. There were also administrative and architectural changes (the 19th century tenements replaced croft-village-homes). The city map from the end of the 19th century perfectly illustrates the situation. Year after year, tenement houses filled the area and croft villages were only left at the outskirts of the district (Fig. 7).



Fig. 7. The expansion of tenement houses on the area of a former vegetable village

Source: A part of the O. Brunn Map from 1891 in Szykuła and Okólska (1999)

Tenement houses were built according to high standards (as for the period). The later they were built (in the 19th and 20th centuries), the higher their standard was. There were toilets in all apartments and the houses were often equipped with twin stairways and even elevators. High standards of buildings contributed to the elimination of the storey stratification effect of residents. The building blocks had peripheral housing divided into lots assigned to buildings with almost no annexes and the lots were filled with greenery (Fig. 8). Also, green belts were often kept in front of homes.

Architectural details of the houses are visible in the printed photograph (Fig. 4). While maintaining a spatial order (building line, height of buildings, similar size), the houses form a set of buildings of physiognomic difference. Differentiation is due to the effects of architectural details: cornices, pilasters, rustication, turrets, varied lines of balconies, bay windows, loggias, combining different textures and coloured plaster, bricks, sgraffiti and forged metal accents, such as balconies. The Eclectic style of the 19th century and the Secession style of the 20th century contributed to the variety of architectural

details. Modernist buildings from the years that followed have fewer decorative details.

Between the First and the Second World Wars, urban blocks in Wrocław's southern district were filled with tenement houses (residential) covering 50 to 60 percent of the area (Fig. 11). Constructions were 'closed' (a line of buildings in a single urban block usually stretches along four streets, creating a rectangular block). The areas without buildings were mainly within urban blocks and usually were filled with greenery. We can assume that before WWII the described area reached a degree of saturation and there was no need (pressure) to continue the construction. There was already a trend to live in residential (villa) neighbourhoods. The sub-urbanization started in Oporów and Ołtaszyn. Contemporary morphological and physiognomic analysis of the district in the pre-war period is only possible based on historic images, city maps (scale 1:10,000) and very few surviving buildings. This district – like the western part of the city – was destroyed by bombing, but above all as the result of the decision by commanding officers of the Wrocław Fortress. At the end of the war, the district was only a set of ruins (Fig. 4, Fig. 9).



Fig. 8. A fragment of the southern district of Wrocław from the between-the-wars period with the railway bridge marked in the vicinity of the Old Town

Source: Eysymontt, Urban (2008)



Fig. 9. Aerial view of the central part of the district with destroyed buildings in 1947

Source: Tyszkiewicz, Kaczmarek (2009)

6. Postwar morphological changes in the Southern District of Wrocław

For 20 years after the war, the area was a fallow located in the centre of the city and parts of this fallow are still there (Fig. 10). The first buildings were built in the fallow in the 1960s. The designers had to follow very strict spatial standards and rel-

atively low housing standards. Kitchens were very small and without windows, hallways were very narrow and bathrooms were connected with each other, both built as small compartments. Rooms were also small. In the 1970s and 1980s, the standards were only a little better. At the Powstańców Śląskich street, they built two-storey apartments which were considered as a substitute for detached houses.



Fig. 10. Powstańców Śląskich Square and the surrounding buildings, the view from the south

Explanation: 1 - Hotel Wrocław; 2 - multi-storey residential buildings; 3 - Poltegor - demolished, replaced by the Sky Tower; 4 - city fallow - the result of WWII

Source: Klimek, Okólska (2006)

Buildings constructed after WWII and now under construction (shown in photographs) illustrate the morphological process of saturation of urban blocks. However, the current state is yet another phase of the metamorphosis of the area. Figure 10 shows typical building blocks of the 1960s (identical buildings were constructed everywhere in Poland). Up to the 1980s, the architecture of buildings constructed of prefabricated elements followed the same pattern: loosely arranged four- and nine-storey

buildings lacking decorative details (due to the technology used). Wrocław Hotel is one of the very few buildings in the area which looks different. It was built in 1980 by the YP-Group from Finland. It is shown in the background of the photograph (Fig. 10 – 1). It is located at the crossing of Powstańców Śląskich St. Across the street, there are multi-storey residential buildings from the 1980s with retail and service shops on the lower floors (Fig. 10 – 2). The no-longer existing ‘Poltegor’ building (Fig. 10 – 3) is

shown on the left-hand-side. For a number of years, it was the tallest building in Wrocław city. In no way were the post-war buildings connected with the pre-war architecture. The area was downgraded and its character was lost. Architects abandoned housing block perimeters, thus eliminating inner-block in-

timiate space filled with greenery and gardens. Here and there, there are only lonely fruit trees blooming in spring. The chaotic location of buildings interfered sometimes with pre-war streets (Fig. 11). Some of the streets ceased to exist and tram rails leading towards buildings are their only traces (Fig. 12).

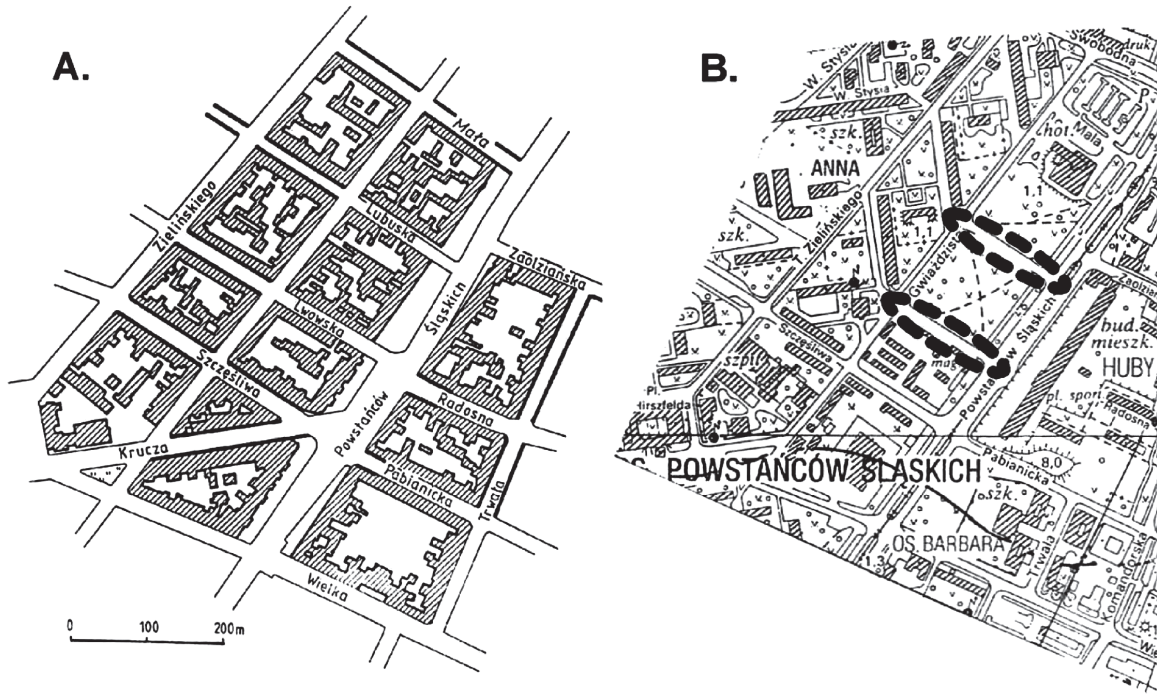


Fig. 11. The northern section of Powstańców Śląskich Street

Explanation: A - before the war, B - after the war (no-longer-existing streets shown in dotted lines)

Source: Miszewska (1995b)



Fig. 12. The Crossroads of Sanocka and Komandorska Streets in Wrocław

Source: Authors' own work

Urban block outlines did not change, but other things did change: buildings, their location, building lots (in fact, there were no building lots), the degree of architectural saturation and even the functions of buildings. Commercial pavilions, kindergartens, health clinics, kiosks, and a market (one of the very few markets in town) filled the urban blocks.

Construction saturation of building blocks is very high in the southern district of Wrocław. The degree of saturation oscillates from 30 to 40%, which is lower by about 20 to 30% from the pre-war saturation. Modern buildings are predominantly multi-character residential housing projects of concentric arrangement, and the pre-war population density of the area is similar to the post-war density. The biggest participation (about 60-70%) in today's urban blocks in the southern district in Wrocław is not of populated, but of non-developed areas; in particular, green areas and urban fallows. In comparison with the situation in the interwar period, we are dealing with a clear increase in the participation of non-developed, empty space. It is not quality but quantity development.

7. The Southern District of Wrocław in the 20th century

As part of the development plan, investors attempted to change the image of this part of the city by constructing multi-residential buildings. They built, for example, the Sky Tower, and the South-central Mall. It was a part of the city's high-rise building project designed as a business and service complex.

The Sky Tower (Fig. 13), which was built in 2007-2012 on the site of the Poltegor building, is a complex of residential, office, retail and leisure institutions. According to the original plan, the Sky Tower was designed as the tallest building in Poland, with 50 floors, 258 m high. It was to include five towers interconnected at different levels. As a result of the economic crisis, the problems of finding future tenants for the building and problems connected with designing office line, the contractor was forced to modify the project. Now, the complex consists of three buildings, the highest of which is 238 m high. Residents and employees of the Sky



Fig. 13. The Sky Tower in Wrocław city, the view from the north

Source: Authors' own work

Tower have access to a professional medical centre, a modern spa, fitness centre and gym. In addition to those facilities, there will be restaurants, a children's playroom, nursery, press reading room, DVD rental service, hairdressing salons, a photo studio, laundry, ironing facilities and many other amenities.

In the near future, the fallow between Hotel Wrocław and the Sky Tower will be developed by the Grupo PRESS (Spanish developer). They plan

to build a modern housing complex (South Centre) (Fig. 14). According to their plan, South Centre will include residential buildings, a shopping centre and a conference centre of 4.5 hectares. The height of the buildings will not exceed 200 m. They want to construct several different buildings. Construction work began in 2009, but due to the economic crisis, the future of the project is uncertain.



Fig. 14. Visualization of the South Centre in Wrocław city

Source: www.investmap.pl (accessed 10 January 2013)

8. The phases of the Conzenian urban cycle: an analysis based on the case-study of the urban blocks in the southern district of Wrocław

The changes in selected urban units reveal the process of morphological changes which over a half century formed the tissue of the southern district of contemporary Wrocław. The analysis includes two blocks located relatively close to the northern boundary of the area, i.e. the parts of the city that underwent the processes of urbanization right after absorption of former vegetable-growing villages.

The block marked in Fig. 7 as A, is directly adjacent from the north to the railway viaduct. The block marked in Fig. 7 as B, is on the next blocks' line. Both blocks are located on either side of Komandorska street, which follows the central axis of the former village of Nowa Wieś (see Fig. 6). The length of the plots (220–230 m) is the same as the length of the 19th century delimitation of the urban block. The pattern is followed by the pattern of Powstańców Śląskich Street from the west and Ślężna Street from the east. The boundaries of the northern and southern blocks were determined after the annexation of land by the city and after the land was assigned for urban development. The rec-

tangular shape of the blocks is connected with the module size used in the first phase of construction projects. The blocks are of similar size (block A ca. 25,300 m² and block B ca. 31,900 m²) and shape. The illustrations (Figs. 7) show that the blocks located more to the south are roughly twice as small. This may indirectly indicate the influence of ground rent. As mentioned earlier, the district was considered as a “good address” in the city. The dwellers in the prosperous city wanted to live in high-standard apartment units and the division of blocks contributed to the formation of two new lots considered as construction sites.

Figures 15 and 16 illustrate morphological changes in blocks in selected time intervals from the mid-19th century to the present. Contemporary borderlines were adopted as the outlines of blocks in the earliest periods. Fig. 18 shows the intensity of block-filling with buildings in the same time intervals. It illustrates the fact that before the war, the process of filling the blocks with buildings was similar in different blocks, although it was less intense and with some delay in block B in relation to block A located closer to the centre of the city. Figures 15 and 16 show the character of changes in the division of blocks and formation of building lots as well as the process of filling the lots with buildings. Buildings were initially constructed along the frontage of the blocks which followed pre-existing roads. The southern frontage was filled only in the second half of the 19th century after the demarcation of Sadowa and Nachod Strasse (now Swobodna and Skwerowa). New rental buildings (as shown in previous illustrations) were accompanied by dividing pre-existing long vegetable-grower lots into smaller rectangular lots. The surface of lots decreases as the result of the progress in constructions. Construction, which in the early 20th century already restricted all frontages, entered the blocks and filled them in the pre-war period up to a level of 60%. The saturation of the area with rental buildings was complete.

War damage reduced almost to zero the buildings in the area. For almost 20 years after the war, the area was an urban fallow. Only in the 1960s did they start filling the area with new constructions. Unlike some blocks located more to the south (Fig. 11B), the blocks in this area at least kept the boundaries of the pre-war blocks. Construction os-

cillates around 20%. As was mentioned earlier, the character of construction changes according to total organization of a block. The buildings are located freely and the design of construction does not refer to the previous peripheral housing frontage. It is therefore an example of the total metamorphosis of the character of block-filling. Very irregular lots are only connected with parts of the block. The remaining urban fallow was used as a green area. This description does not apply to block A in the recent period. At the beginning of the 21st century, most of its surface was filled by a shopping centre. The lot is the same as the block. The block of the large retail centre is comparable with the pre-war building block (Fig. 17). However, the character of construction is obviously much different from what it was before the war.

The blocks and the whole district are thus an example of the vitality of urban processes taking place in urban tissue influenced by historic changes.

9. Conclusions

The citizens of Wrocław city consider the contemporary southern district of their town as a set-back from the pre-war status. Buildings lost their character and the area lost the prestige which it enjoyed before World War II. Buildings resemble other buildings in different parts of Poland. In the district, there is nothing that ennobles its inhabitants. The apartment allocation system which was used by housing cooperatives as part of socialist ideology did not contribute to social ennoblement. However, the addresses in the area are still considered as ‘good addresses’ because the district is located not far from the city-centre and a number of tram and bus lines connect the district with the majority of other districts in Wrocław. Whoever uses public transport in order to reach the town centre does not have to change buses and trams. In the vicinity, there are many service facilities. There are trees in the area and housing authorities enjoy a good reputation because they take care of the aesthetics of building projects. The buildings are painted in different colours, there are playgrounds in spaces between buildings, and new trees and shrubs are regularly planted in the area. As a result of those

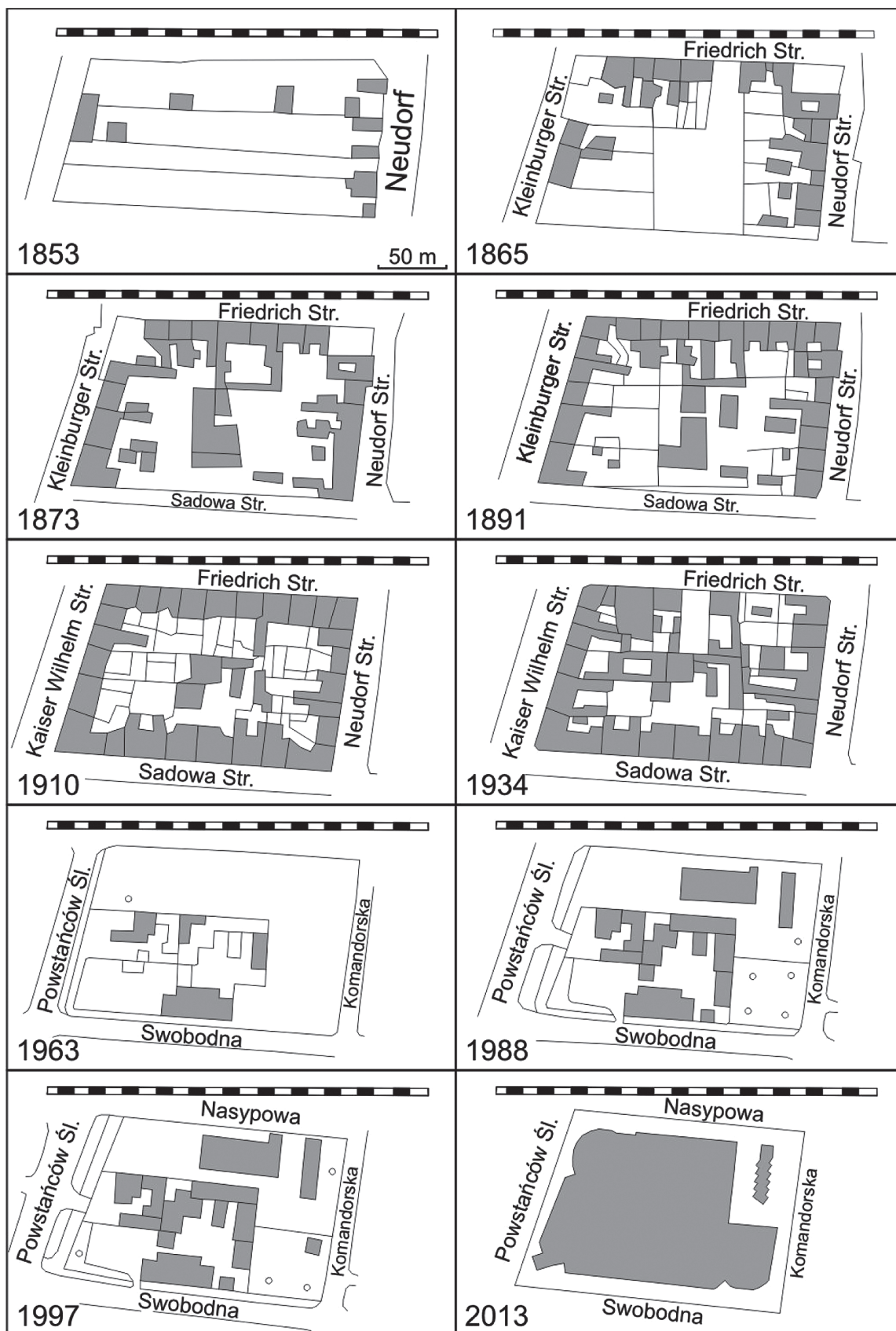


Fig. 15. Morphological changes in the case of block A (Nasypowa – Komandorska – Swobodna – Powstańców Śląskich) in the southern district of Wrocław

Source: Authors' own work

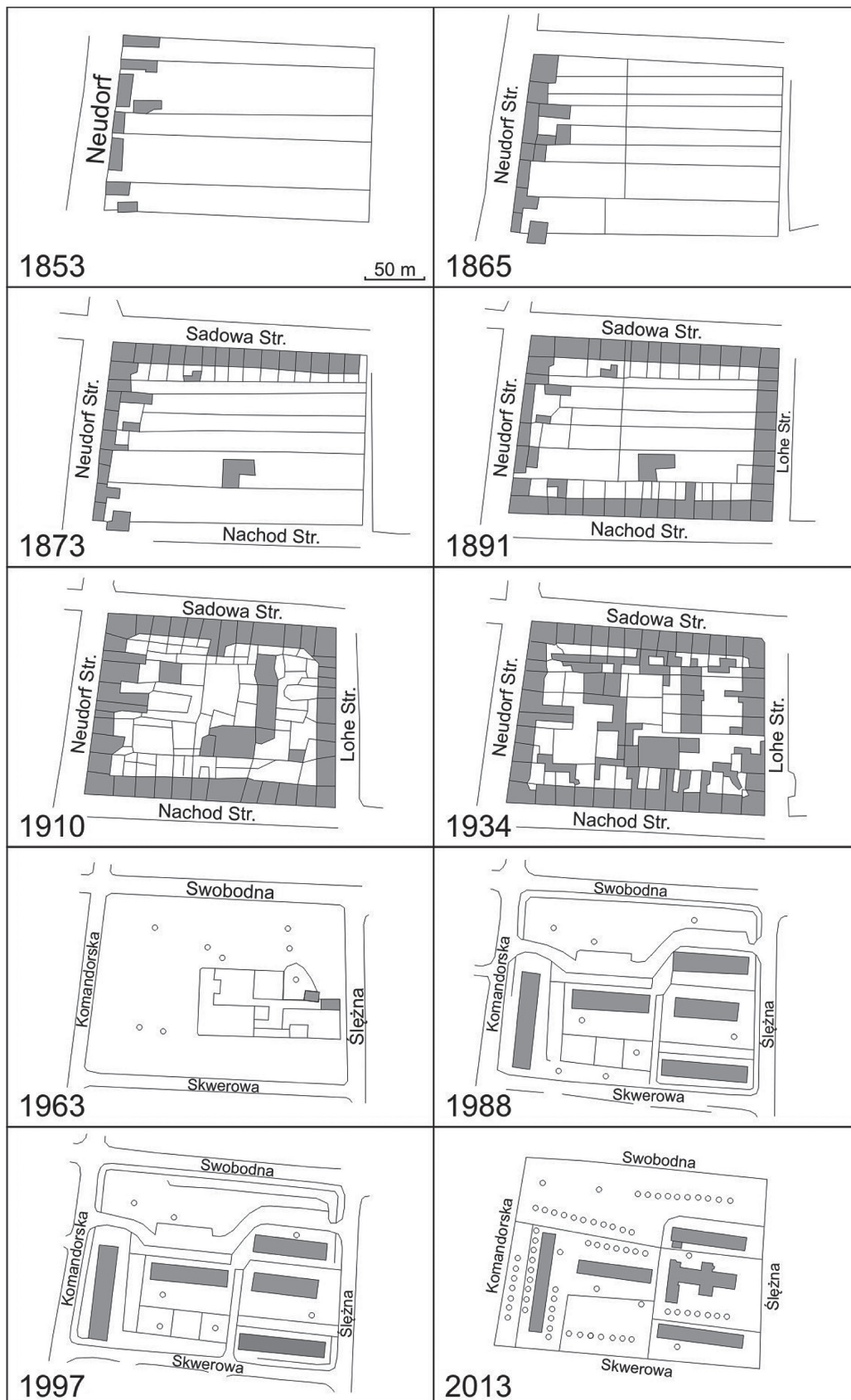


Fig. 16. Morphological changes in the case of block B (Swobodna - Ślężna - Skwerowa - Komandorska) in the southern district of Wrocław

Source: Author's own work

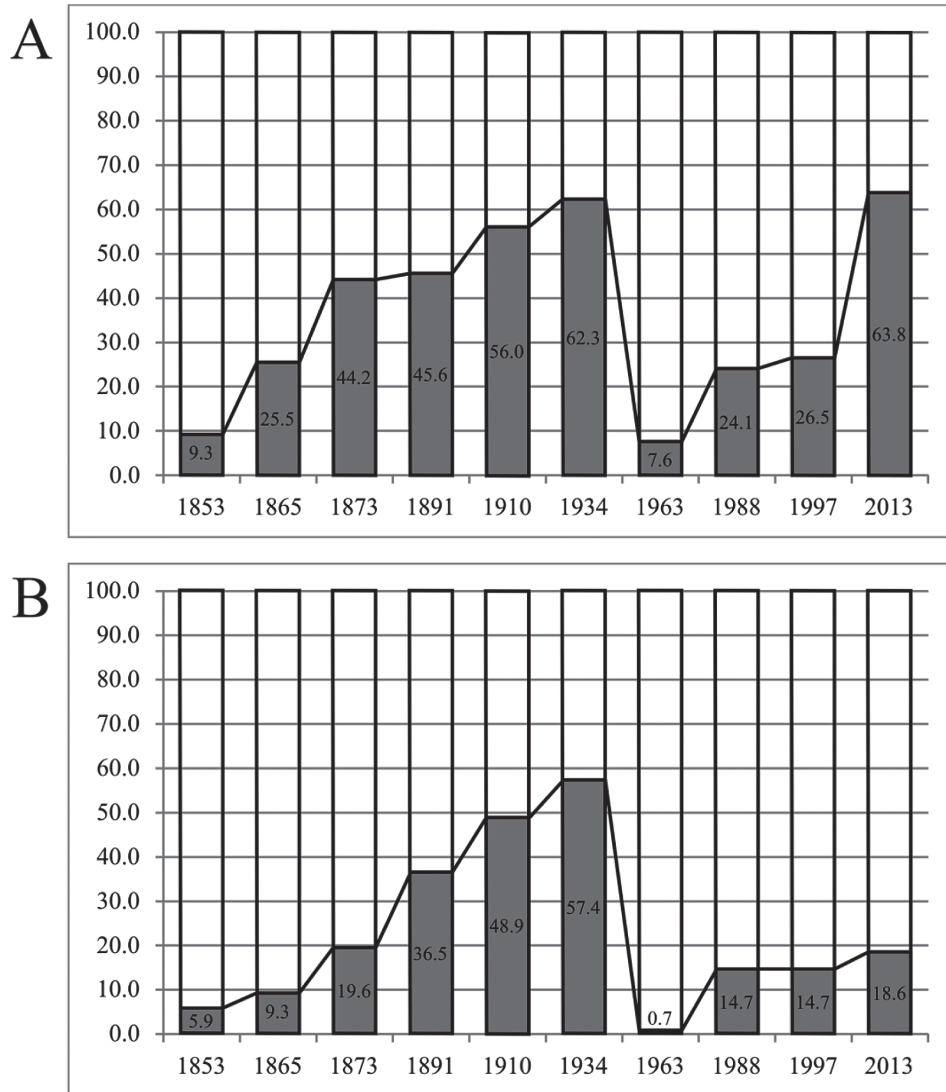


Fig. 17. The Conzenian urban cycle in the case of the urban blocks (A and B) in the southern district of Wrocław

Source: Authors' own work

factors, the mobility of the population is below average mobility in housing projects. The only exceptions are probably the urban blocks from the 1960s from which some residents moved out and which they now rent to students. The dormant good status of the district was the reason they built the prestigious Sky Tower and a luxury residential complex on the existing urban fallow.

Note

(1) Rhine acre = 25553 m.

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