

SILESIA CONURBATION AS A POLYCENTRIC STRUCTURE OF URBAN DISTRICTS

Michał STANGEL ^a, Agnieszka CIELIŃSKA ^b, Łukasz HARAT ^c

^aDSc PhD Eng. Arch.; Faculty of Architecture, Silesian University of Technology, ul. Akademicka 7, 44-100 Gliwice, Poland
E-mail address: *michal.stangel@polsl.pl*

^bEng. Arch.; Student at the Faculty of Architecture, Silesian University of Technology, ul. Akademicka 7, 44-100 Gliwice, Poland
E-mail address: *lukasz.harat@outlook.com*

^cEng. Arch.; Student at the Faculty of Architecture, Silesian University of Technology, ul. Akademicka 7, 44-100 Gliwice, Poland
E-mail address: *agnielinska@gmail.com*

Received: 10.02.2017; Revised: 10.03.2017; Accepted: 12.05.2017

Abstract

The Silesian conurbation consists of cities, which in many aspects function as one metropolitan organism. This paper is an attempt to characterise the structure of the Silesian conurbation not as composed of cities, but as a system of districts, in the context of the theory of polycentric systems and the importance of quarters for modern urban areas. The authors present a model of the Silesian Conurbation as a set of quarters of various characteristics: housing estates, local centres, industrial districts, etc. The transition from the conurbation into quarters is discussed and the search for elements that combine and bind the quarters space with external elements in view of social and spatial structures. Within such structures, a description of a typical urban quarter – Rokitnica in Zabrze is given, together with a concept of the revitalization of a local quarter centre. The elaborations were prepared within the study subjects “Urban Revitalization and Regeneration” and “Regional Planning” at the Faculty of Architecture, Silesian University of Technology (course coordinator: Professor Krzysztof Gasidło, teacher: Michał Stangel).

Streszczenie

Konurbacja Górnośląska składa się z miast, które w wielu aspektach funkcjonują jak jeden miejski organizm. Artykuł przedstawia próbę charakterystyki struktury przestrzennej Konurbacji Górnośląskiej nie jako układu miast, ale jako układu dzielnic; w kontekście teorii układów policentrycznych i znaczenia dzielnicy dla współczesnych obszarów miejskich. Autorzy prezentują przejście od konurbacji po dzielnice o różnej charakterystyce: osiedli mieszkaniowych, centrów lokalnych, dzielnic przemysłowych itd., poszukując elementów łączących i spajających obszar dzielnicy w wymiarze struktury społecznej i przestrzennej z obszarami zewnętrznymi. W kontekście takiej struktury autorzy przedstawiają charakterystykę przykładowej dzielnicy – Rokitnica w Zabrzu wraz z koncepcją rewitalizacji lokalnego centrum dzielnicowego. Przedstawione opracowania powstały w ramach zajęć na przedmiotach „Rewitalizacja i rewolucja urbanistyczna” oraz „Planowanie regionalne” na Wydziale Architektury Politechniki Śląskiej (prowadzący przedmiot prof. Krzysztof Gasidło, prowadzący zajęcia dr hab. Michał Stangel).

Keywords: Silesian conurbation; Silesia Metropolis; Silesian Metropolitan Area; Silesian Agglomeration; Urban quarter; Urban regeneration; Polycentric urban structure.

1. INTRODUCTION

The Silesian Conurbation in Southern Poland is formed by adjoining municipalities in south-central Poland. While the delimitation of the conurbation has varied in different approaches, its current legal entity is The Upper Silesian Metropolitan Association, composed of 14 cities with almost 2 million inhabitants in total (Fig. 1, 2). Such was the view on the conurbation defined in the previous Spatial Development Plan of the Silesian Voivodeship (2004). However, the new edition of the plan (2016) describes the Upper Silesian Metropolis as composed of 23 cities – 9 more, with another 300 thousand inhabitants. Furthermore, some scholars suggest an even broader delimitation of the area, with nearly 3 million, or even up to 4 million inhabitants.

As with the clear delimitation, the problem of identity also concerns the very name. The common name, used broadly in official documents and media – “Silesian Agglomeration” – is burdened with two mis-truths. Firstly, with no main center, it is a “conurbation”. Secondly, it is not just “Silesian”, as parts of it belong to a different historical region of “Dąbrowa Basin” (pol. “Zagłębie”). Krzysztofik and Runge (2011) [12] who discussed the geographical delimitation use both the terms: “The Upper Silesian Dąbrowa Basin Metropolis «Silesia»” and “Katowice Conurbation”. However, undoubtedly, the main city of the area still brands itself on the official website: “Katowice the City – The Capital of the Silesian Agglomeration”. The most recent (2016) edition of the Spatial Development Plan of the Silesian Voivodeship [19] uses the term “Upper Silesian Metropolis”, which is close to a simple branding term “Silesia Metropolis”, promoted by the formal entity, a self-government unit formed by 14 cities and the association of municipalities: “Metropolitan Association of Upper Silesia”, with the acronym: “MAUS”.

Regardless of those discussions, the conurbation is undoubtedly one of the main urban areas in Poland and Eastern Europe. Its identity is linked mainly to the industrial heritage, as heavy industry was the key factor in the growth in 19th and 20th century [18, 20]. Numerous coal, lead and zinc mines, iron and steel foundries, coking plants, power stations and chemical factories are found there. The collapse of heavy industry in the 1990s resulted in an economic decline, but at present the area is reviving, with relatively good economic development, new investments and industry. The main recent development factors have been: European Union funding, improved trans-

portation links, new commercial areas and regeneration of brownfields.

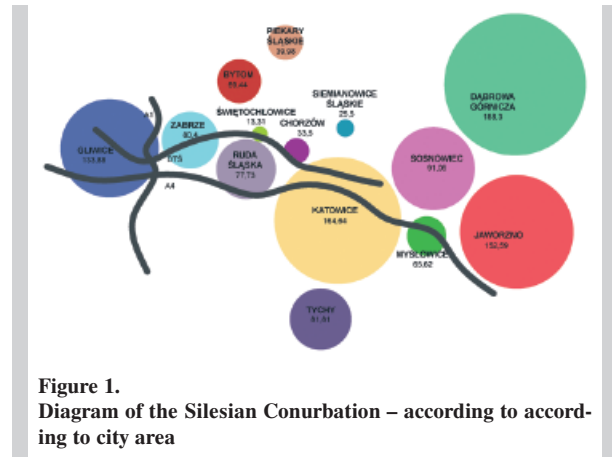


Figure 1.
Diagram of the Silesian Conurbation – according to according to city area

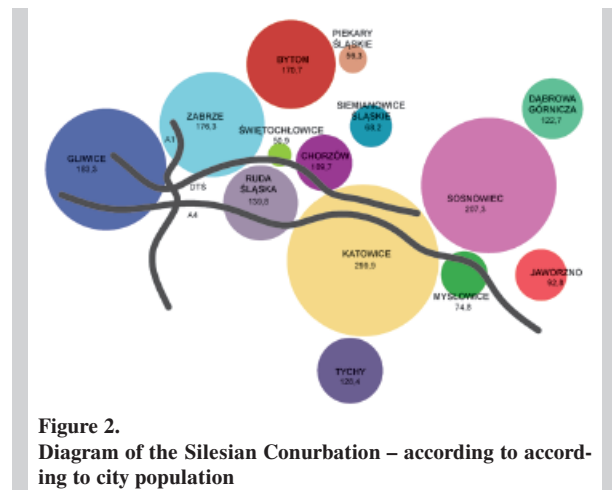


Figure 2.
Diagram of the Silesian Conurbation – according to according to city population

The conurbation has been subject to several studies, plans and visions. Recently, improvements in transportation (two highways and the spinal road) have been functionally shrinking the distances in the region to operate as a single city. The model of a conurbation as a city reminds the renowned European “region-cities” concepts, such as the RuhrRein City in Germany, Randstad in the Netherlands or the “ManSheffLeedsPool” Super-City [1] in the north of England. In Silesia, there have been some far reaching visions of the conurbation in the theoretical debate, such as “Great Katowice” [7] or “Silesiapolis”. Visions of Silesian Megapolis such as those of national architecture students workshop (OSSA) in Gliwice in 2007 (Fig. 4), or the artistic impressions of the conurbation as a system of post-industrial spaces and nature – “Indunature” (Fig. 5).

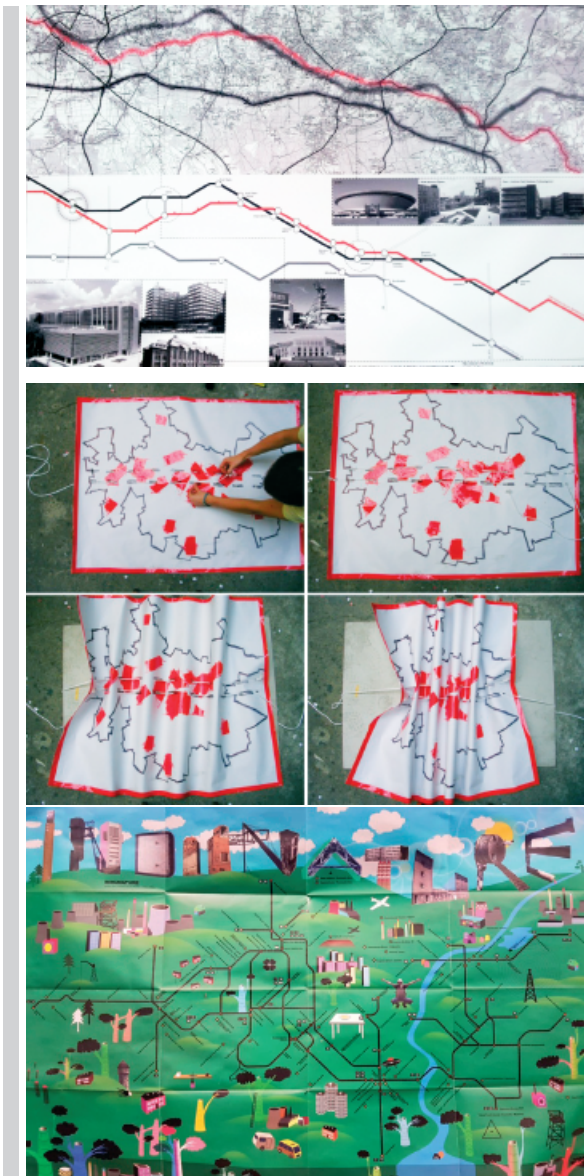


Figure 3, 4, 5.

Examples of conceptual, alternative visualizations of the Silesian Conurbation.

3. Main transportation spine (students A. Stachańczyk, A. Gmerek; tutor: M. Stangel, 2010);

4. Subjective shrinking due to improved transportation (OSSA 2007 Student Workshop. Group 4/10: D. Szarafin, M. Wytrykusz, A. Majcher, A. Gancewska, B. Marchwicka, A. Stachańczyk, A. Gmerek, J. Socha, K. Radwan; tutor: M. Stangel);

5. Indunature – Conurbation as a system of postindustrial spaces and nature; Marcin Doś, 2009

Some of these ideas were presented in interesting diagrams or sketches expressing a new perspective in the structure and spatial relations of the conurbation [3]. However, the present, official debate on the conurbation seems to concentrate on administrative issues, improving transportation links and dealing with the post industrial heritage, and seems to lack new, far reaching conceptual approaches and visions.

Currently, the development of the cities is being achieved by the revitalization of their existing form. Gradually, the cities are not growing “externally”, instead, a process of the “internal” transformation of their structure is taking place [13]. The cities in the Silesian Conurbation do not have a homogeneous development history – in consideration of different time and economic conditions. Currently, the administrative borders between local communities are blurring. At the same time, the quarters of every city are characterized by internal contradictions – due to the absence of connections between them and the external areas. Accordingly, they are not uniform in terms of the social and spatial structure.

This paper is attempt to look at Silesian conurbation in a different way, to characterize its structure as a system of urban districts and neighborhoods, rather than a structure formed by individual municipalities. Along with the passing of the “Metropolitan Associations Act” in the Polish parliament in March 2017, several municipal competences will be given to the metropolitan association. We may presume that the importance of the individual cities may begin to decrease. However, in the context of the theory of polycentric systems and growing local identity and awareness, this may result in a growth of importance of districts and neighborhoods, as elements of the conurbation.

2. POLYCENTRIC URBAN STRUCTURE AND THE DISTRICTS

As far as the development of urbanized space is concerned, the concept of a compact city postulates a polycentric development of the structure of dense settlement areas with separable characteristics. A quarter, or *neighborhood* is a basic structural component in many cultures, deeply rooted in the awareness of its inhabitants. One neighbourhood delimited in the landscape makes up a village; several neighbourhoods grouped around a small centre makes up a town; such town may consist of many neighbourhoods with distinguishable qualities, specific local features and identity [6, 11], each of them inhabited by a definite community. Big metropolises constitute a mosaic of dozens and hundreds of neighbourhoods, where the local specific qualities are: ethnic groups, material status of the inhabitants, local cultures, local industries and services, etc. The division into quarters – both official and the one embedded in the awareness of the inhabitants – is a durable cultural element of the city.

Polycentric urban regions are often associated with synergy, when distinct but proximally located cities make the whole network of cities “more than the sum of its parts” [14]. A polycentric model of the urban structure with local service centers and gradual density of settlement related to the availability of transportation junctions, is offered by numerous urban concepts, e.g. multiple nuclei model of Harris and Ullman (1945), Abercrombie 1943 London Plan, or the Sustainable Corridor concept [6].

Nowadays, the popularity of telecommuting and social contacts based on distant communication, all contribute to the renaissance of *the neighbourhood* as a component of the city and a place of life that combines the attributes of global connections with local attractions and values. Such *restructuring of life and work* in the quarter may lead to the reconstruction of the role of *social bonds*. According to Mitchell [15], although a sense of local community has been largely lost in modern cities divided into functional zones, the advantages of mixed functions in the quarters and information technologies used to strengthen the cooperation among the inhabitants, may lead to the *revival of a neighborhood* unit as a component of the city. The neighborhood is focused around such local functions as: schools, kindergartens, business centers, launderettes, sports clubs, cafes and restaurants – serving the people who shall work in a more flexible manner and spend more time at home. The changes

in the lifestyle lead to a new functionality of people on two levels: local and on-line. Because modern life is characterized by faster and faster rate, time-efficiency has become a commodity in securing basic functions that are offered locally.

The elements that have a positive impact on the internal structure of spatial units define the entire development of urban structures. This phenomenon may also be observed in the Silesian Conurbation, where cities have heterogeneous spatial and social structures. The scope of this paper is to focus the attention on possibilities of the improvement of the internal structure by creating quarter centres. The importance of the flows of daily contacts among the members of smaller communities should be emphasised, as well as the potentials derived from such exchanges. Thus, another objective of the paper is the indication of the possibilities of improving the spatial structure and organization of such instances of social life in the quarter that contributed to positive changes. The Authors put forward the thesis that external transformations in urban quarters contribute to the improvement of the standard of living of the inhabitants of the conurbation.

3. METHODOLOGY OF THE ELABORATION

The discussed elaborations were prepared within the frames of the study subject: “Urban Revitalization” and “Regional Planning” at the Faculty of Architecture, Silesian University of Technology (course coordinator: Professor Krzysztof Gasidło, lead teacher: Michał Stangel, DSc Arch. Eng.).

“Urban Revitalization” is an advanced, realistic design studio run in the second year of graduate studies. It is set and coordinated by Professor Krzysztof Gasidło. The scope of work goes from identifying the potential and problems in a district (neighborhood) scale, through formulating a regeneration strategy, to solving specific design issues, which are derived from the strategy. Whenever possible, students are given the opportunity to work directly and to confront their early ideas with representatives of the client (city, commune), local community, as well as with external experts. The studio has often been published and exhibited as an input in the debate on local urban development. The method of work entailed activities undertaken to identify the conditions and potential of the sites, i.e. research by design [16]. Due to the revitalization nature of the elaboration, the method of work was equivalent to specific successive stages,

which, according to Krzysztof Gasidło [8] are: diagnosis of the existing condition, delimitation of the area, urban evaluation, designation of the objectives, indication of the means and methods of revaluation, revaluation project.

In 2016 the studio was organized in cooperation with the city of Zabrze and concerned the regeneration of six districts of Zabrze: Mikulczyce, Rokitnica, Helenka, Makoszowy, Zaborze, Kończyce, Pawłów. The project under the name of “Zabrze very locally” (“Zabrze bardzo lokalnie”), included analyses, site visits, consultations, planning strategy and design competition, in which the participants were awarded. All the designs were presented at the exhibition held in Zabrze in October 2016.

The analyses and conclusions gave grounds for illustrating a local quarter centre as an element that contributes to the construction of the urban tissue of interdependencies in the context of the entire Silesian Conurbation. A more detailed look at one quarter of the city of Zabrze, compelled the Authors to continue the theme of urban quarters within the frames of another study subject, on a regional scale. On the bases of the characteristics of local quarter centers in the Silesian Conurbation, an analysis of the dependencies of the zones and their internal flows was made. Districts were selected by analyzing geoportal maps and strategic documents of conurba-

tion's cities. The elaboration includes the description of the Silesian Conurbation and its selected cities, together with maps. The results are expressed in a form of a diagram depicting the Silesian Conurbation as a set of its quarters.

4. SILESIAN CONURBATION AS A POLYCENTRIC STRUCTURE OF URBAN QUARTERS

The Conurbation that combines a system of equally important social and economic functions of the cities is a form of settlement continuously striving to achieve priority. According to Liszewski [13], the conurbation is a subject of continuous transformations and is a transitional form towards an agglomeration. In the course of the development processes, a natural rivalry for the dominant position takes place in the entire aspect of the settlement system. This is essential for the creation of centers, or for one center offering mainly services. In reference to the dynamics of the changes and dependencies in the Silesian Conurbation, the Spatial Management Plan for the Silesian Voivodeship should be mentioned [18], as it depicts the conurbation as a set of fourteen big cities which have the status of a district (see the Table). In addition, it envisages ten cities that function as downtown areas.

Table 1.
Cities of the Upper Silesian Conurbation and the delimited quarters

	City	area [sq km]	population (2015)	Districts (as determined by authors)
1	Katowice	164.64	299910	Śródmieście; Os. Paderewskiego – Muchowiec; Koszutka; Bogucice; Załęże; Os. Witosza; Osiedle Tysiąclecia; Dąb; Wełnowiec-Józefowiec; Załęska Hałda-Brynów; Brynów-Osiedle Zgrzebnika; Ligota-Panewniki; Zawodzie; Dąbrówka Mała; Szopienice-Burowiec; Janów-Nikiszowiec; Giszowiec; Murcki; Piotrowice-Ochojec; Zarzecz; Kostuchna; Podlesie
2	Sosnowiec	91.06	207381	Śródmieście; Miłowice; Pogoń; Stary Sosnowiec; Sielec; Dębowa Góra; Zagórze; Śródula; Dańdówka; Niwka; Modrzejów; Bór; Jęzor; Klimontów; Porąbka; Kazimierz Górniczy; Ostrowy Górnicze; Maczki
3	Gliwice	133.88	183392	Czechowice; Łabędy; Obrońców Pokoju; Kopernik; Żerniki; Szobiszowice; Zatorze; Stare Gliwice; Brzezinka; Wojska Polskiego; Śródmieście; Politechnika; Sońnica; Ligota Zabrska; Trynek; Sikornik; Bojków; Wójtowa Wieś; Ostropa; Wilcze Gardło
4	Zabrze	80.4	176327	Helenka; Grzybowice; Rokitnica; Mikulczyce; Osiedle Młodego Górnika; Osiedle Mikołaja Kopernika; Biskupice; Maciejów; Osiedle Tadeusza Kotarbińskiego; Centrum Północ; Centrum Południe; Guido; Zaborze Północ Zaborze Południe; Pawłów; Kończyce; Makoszowy; Zandka
5	Bytom	69.44	170761	Bobrek; Górniki; Karb; Łagiewniki; Miechowice; Osiedle gen. Jerzego Ziętka; Rozbark; Stolarzowice; Stroszek; Sucha Góra; Szombierki; Śródmieście
6	Ruda Śląska	77.73	139844	Orzegów; Godula; Ruda; Chebzie; Nowy Bytom; Bielszowice; Bykowina; Wirek; Halemba; Kochłowice; Czarny Las

7	Tychy	81.81	128444	Cielmice; Czulów; Glinka; Jaroszwice; Mąkołowice; Paprocany; Radziejówka; Stare Tychy; Suble; Śródmieście; Urbanowice; Wartogłowice; Wilkowyje; Wygorzele; Zawiesz; Zwierzyniec; Żwaków
8	Dąbrowa Górnicza	188.73	122712	Dąbrowa Górnicza; Błędów; Strzemieszyce Wielkie; Ujejsce; Ząbkowice; Łęka; Trzebiesławice; Okradzionów; Łosień; Strzemieszyce Małe; Tucznawa; Sikorka; Łazy; Kuźniczka Nowa; Ratanice; Marianki; Trzebyczka; Bugaj
9	Chorzów	33.5	109757	Chorzów Stary, Chorzów II, WPKIW, Chorzów Batory, Chorzów I
10	Jaworzno	152.59	92847	Bory; Góra Piasku; Byczyna; Cezarówka; Ciężkowice; Dąbrowa Narodowa; Długoszyn; Dobra; Jeleń; Jeziorki; Koźmin; Niedzieliska; Pieczyska; Stara Huta; Stare Miasto; Szczakowa; Śródmieście; Wilkoszyn;
11	Mysłowice	65.62	74851	Bończyk-Tuwima; Brzezinka; Brzęczkowice i Słupna; Dzieckowice; Janów Miejski-Ćmok; Kosztowy; Krasowy; Larysz-Hajdowizna; Ławki; Morgi; Mysłowice Centrum; Piasek; Stare Miasto; Szopena-Wielka Skotnica (Śródmieście); Wesola
12	Siemianowice Śląskie	25.5	68231	Centrum; Michałowice; Bańgów; Przelajka; Bytków
13	Piekary Śląskie	39.98	56374	Kozłowa Góra; Centrum; Szarlej; Brzozowice; Kamień; Brzeziny Śląskie; Dąbrówka Wielka
14	Świętochłowice	13.31	50970	Centrum; Chropaczów; Lipiny; Piaśniki; Zgoda
	Total	1218	1881801	

Source: GUS data, Authors compilation and elaboration

The division of the city into districts will be described on the examples of three distinct cities of the conurbation. The city of Katowice is a heartland of the Silesian Voivodeship, the seat of the Voivodeship local parliament and of general state administration. It is inhabited by nearly 300 thousand people (2015), which constitutes approx. 7% of the entire population of the region. The square area of the city is 164.5 km², i.e. 1.3% of the entire Voivodeship area (12 333 km²). On the NUTS3 level, the capital of the Voivodeship, together with Chorzów, Mysłowice, Ruda Śląska, Siemianowice Śląskie and Świętochłowice, makes up the so called Katowice sub-region inhabited by 758 thousand people, that is: 16.5% of the entire population potential of the Silesian Voivodeship. There are 82.2 thousand economic entities operating in this area, i.e. 18% of the entire Katowice Voivodeship economic entities. Katowice is the core city of the urban complex that makes up the Upper Silesian Conurbation.

The other pole of the conurbation is the city of Gliwice – situated in its western part, at the crossroads of international transport routes on the eastern axis – at the junction of A4 and A1 motorways, with approx. 180 thousand inhabitants (2015). Gliwice is an important regional and national center specializing in: science and tertiary education (Silesian University of Technology, research institutes), culture, healthcare (Cancer Research and Clinical Centre), industry (a sub-area of Katowice Special

Economic Zone) and new technologies (so called “Nowe Gliwice” area).

Zabrze is one of the biggest cities of the Silesian Voivodeship, its square area is 80.5 km², with the inhabitants of 170 thousand (2015). The city is also an economic and administrative center, especially as far as hard coal mining is concerned (Makoszowy, Bielszowice coal mines, Siltech Mining Company). There are many forms of land management and use in Zabrze, but as much as 56% of the city square area is occupied by arable land, forests and parks. Housing areas are situated in the central part of the city (old settlements zone) and at estates located outside the centre. In recent years the city of Zabrze has made its urban brand by a strong emphasis on the revitalization of its industrial heritage.

Presenting the abovementioned cities, as well as other cities in the conurbation as a structure of distinct districts resulted in an overall diagram of the polycentric structure of urban nuclei (Fig. 9). The diagram distinguishes the basic characteristics of: high intensity housing estates, low intensity housing estates, city centers and the specific function of the Voivodeship Park of Culture and Recreation. However, more profound analysis could distinguish specific districts typical for the conurbation such as historic industrial areas, mining worker estates [20], new industrial zones, new neighborhoods, as well as a range of derelict, brown-field areas transformed for new functions: from industry and retail, to culture and housing [19].

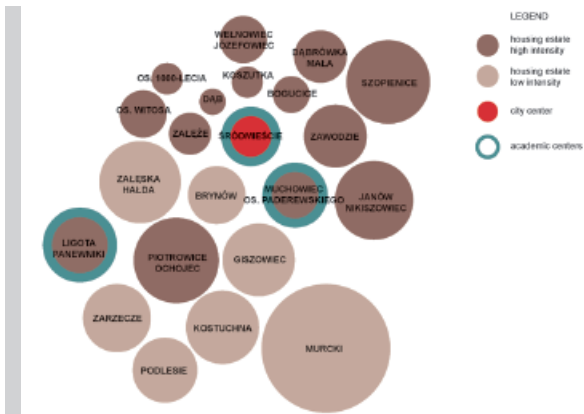


Figure 6.
Structure of districts in the city of Katowice

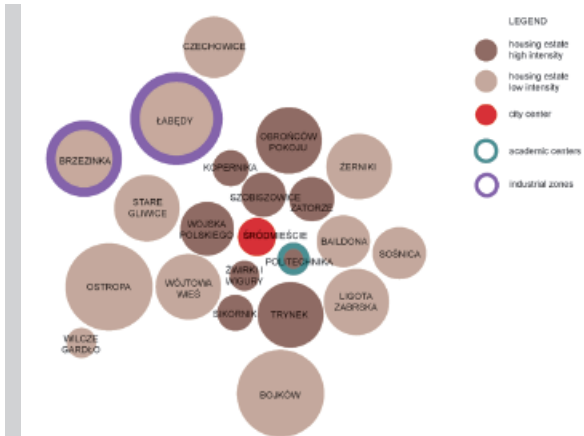


Figure 7.
Structure of districts in the city of Gliwice



Figure 8.
Structure of districts in the city of Zabrze

5. ROKITNICA QUARTER IN ZABRZE – CHARACTERISTICS AND A CONCEPT OF A LOCAL CENTRE

Set against the background of the Conurbation, Rokitnica is a typical urban settlement, which, after World War Two, was incorporated within the administrative boundaries of the city of Zabrze. As many other Silesian quarters, in the course of the past, it developed as a separate settlement unit. Thus, it contains a number of functions that enable its self-sufficiency: the central zone, park, services located on the ground floors of buildings, big shops, recreation facility with a swimming pool, housing settlements and education facilities. An interesting urban complex is Ballestrem's estate erected in 1907–1912 for the workers of Castelleng's mine. The quarter is well looked after as far as its order of space is concerned, and activities have been undertaken to preserve the greenery, for example: the Park Complex often referred to as "Rokitnica Switzerland".

In terms of functions, the quarter is differentiated. There are: detached and multi-family houses (independent households and collective blocks of flats), education facilities, student dormitories. The area has good transportation links to the national DK94 and DK78 roads. One of the most significant industrial establishments is ELZAB SA Computer Equipment Factory, which, for the last forty years, has been a leader of fiscal equipment on the Polish market. Recently, new sites of the Katowice Special Economic Zone have been commissioned, with Italian company Centro Servizi Metalli as the first investor. In the centre of the quarter there is a bus traffic junction, offering transport connections with the neighboring cities. In addition, there is also a PKS (Polish Automotive Transport) stop, from which regional coaches may be taken. A local centre at the junction is very poorly developed.

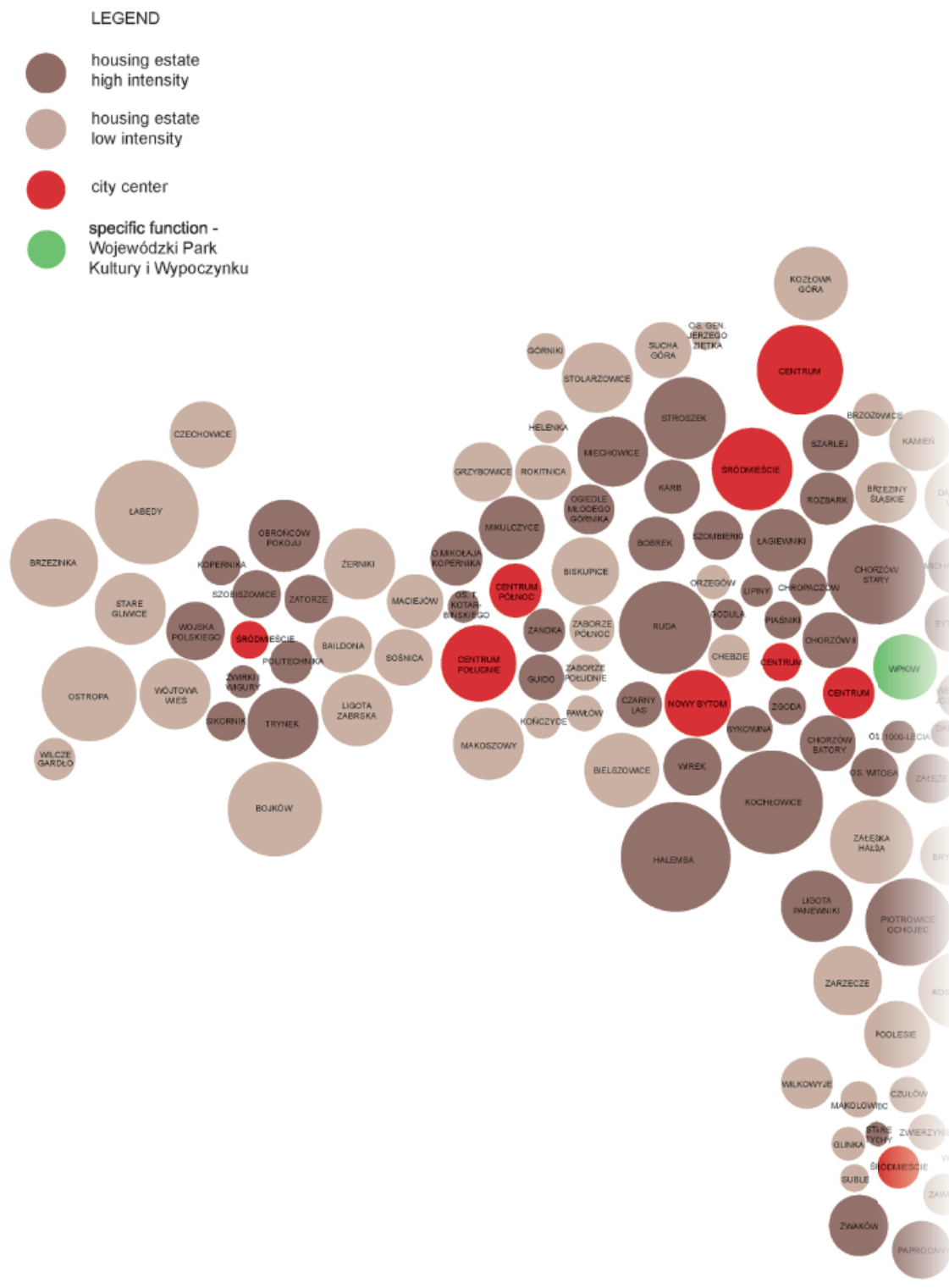


Figure 9.
Silesian conurbation as a polycentric structure of urban quarters

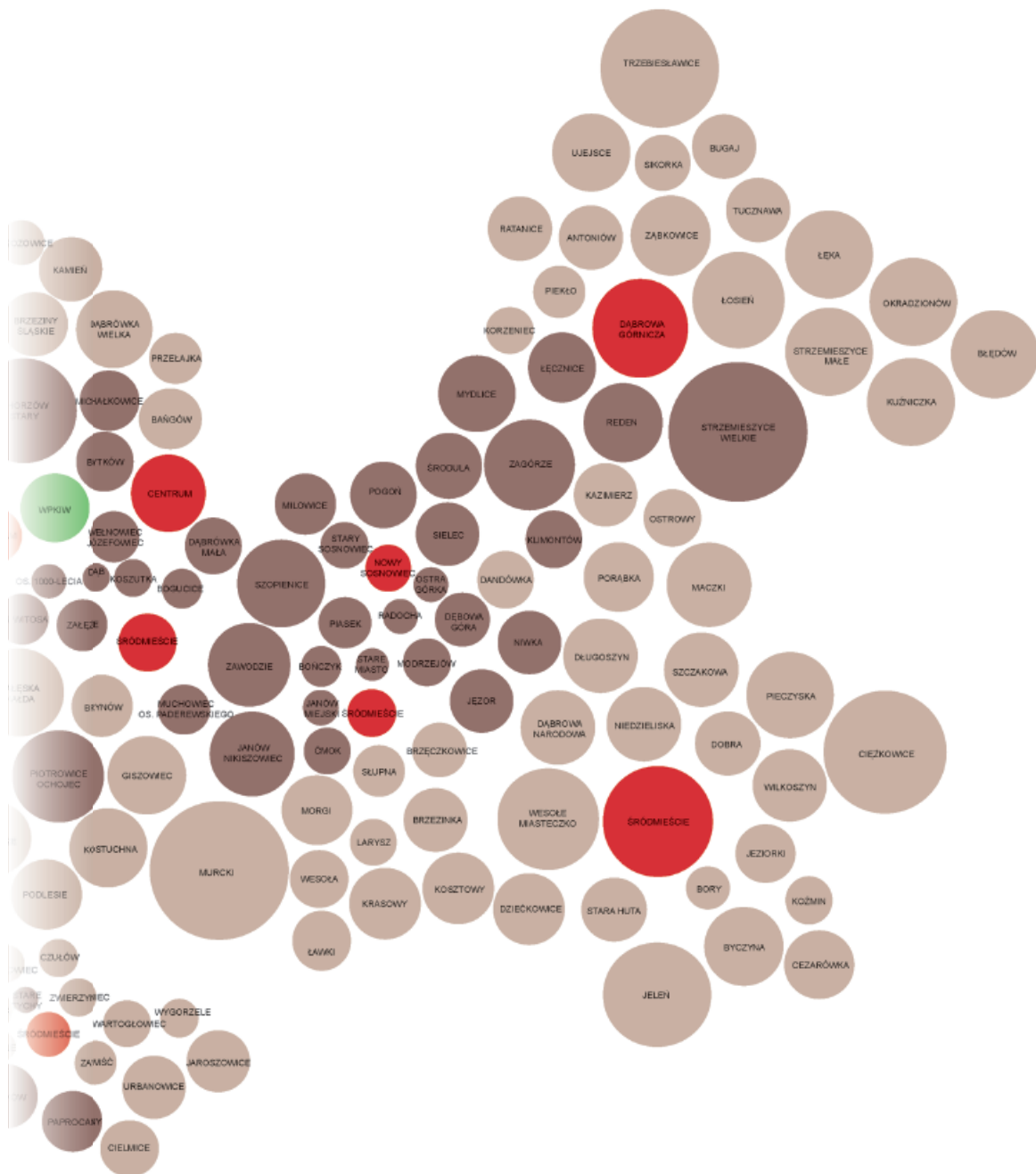




Figure 10.
Rokitnica district in Zabrze

Concept of revitalizing the quarter and the local centre

Transformations of urban structures should entail both strict city centers and local centers, as they constitute bases for the inhabitants and opportunities for day-to-day use of their amenities by local inhabitants. In comparison with big city centers, they are places that are closer to the local community [13]. Properly selected services plan and spatial management are very important in the process of creating a local urban center. Thanks to such approach, the natural qualities of the quarter may be enhanced, focusing on its potentials and, at the same time, enabling the formation of the network of social spaces as junction zones. Therefore, it is essential that the improvement of the quality of life should embrace not only the entire Silesian Conurbation, but also local zones, translating into day-to-day functioning of the inhabitants.

While pondering over the concept of a local center, Warsaw Local Centers Project (implemented since 2016) is worth mentioning [5]. Under the project, the experts and inhabitants defined the following elements that characterize a local center:

- it should offer commonly accessible social space;
- it should be multi-functional (with options of functions alteration, depending on the time of the day and season of the year);
- it should be located not far from residential zones (10-15 minutes of walking distance);
- it should promote commercial, intellectual and social exchange;
- it should have a program/offer targeted at different age and social groups;
- it should unite people and build up the local community;
- it should offer an attractive urban form;
- it should have a unique character, enhancing local identity.

In respect of the spatial aspect of the local centre, it should be located in a place that would provide access to a considerable number of the inhabitants, preferably within the housing zone. Public transport should support a good functioning of the local centre, as it can be open to a bigger number of users. The elements of the centre should be combined to

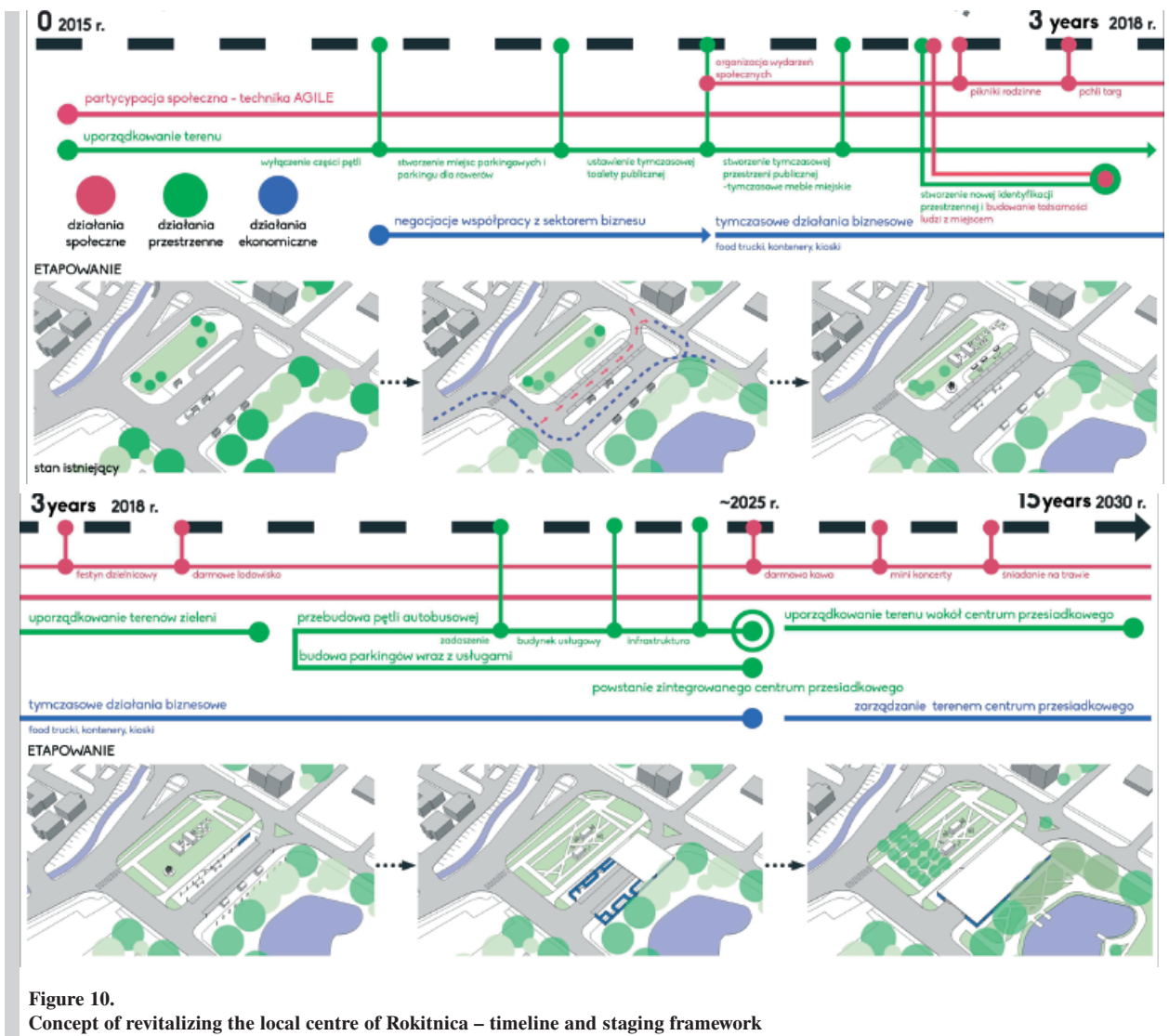


Figure 10.
Concept of revitalizing the local centre of Rokitnica – timeline and staging framework

address different groups of users, irrespective of their age, sex, family or material status, offering friendly and easily accessible space. The condition of openness is a fundamental feature of the local centre.

The concept of revitalizing Rokitnica quarter in the Authors' design project is focused on transforming a local centre into an attractive space: socially, visually and economically. The Project was divided into six revitalization stages spread over time (three stages in three years and three stages in up to fifteen years). References were made to agile methodology and scenarios planning, enabling flexible long-term planning and adjustment of the solutions to changing circumstances.

One of the proposals was to change the existing single-function bus junction into a multi-functional space of high social and serviceable values. A number of activities and events was envisaged to animate and involve the local community in the transformation process. The time axis, which is a dominant component of the project, shows the manner of the site management by prototyping, minor actions, happenings and financial benefits for entrepreneurs, leading up to the final concept. The Authors consider one of many possible development scenarios for the site. The stage lasting the first three years is very important, as it should constitute an impulse for further development of not only the local centre as such, but also the Rokitnica quarter, Zabrze and, in consequence, the Silesian Conurbation.

6. CONCLUSIONS

Over the years, Silesian Conurbation has integrated and for many inhabitants it functions as one city. Along with the passing of the “Metropolitan Associations Act” in the Polish parliament in March 2017, the unification will have a new formal basis and financing, and may result in synergic development of the metropolitan area as a whole. However, the integration of the Silesian Conurbation, while decreasing the significance of particular cities, may provide conditions for an enhanced attention on particular districts. The quarters and neighborhoods exert the biggest impact on local communities. The flows of people, capital and information take place in specific urban quarters, thus, the extension of their infrastructure should play a special role in strengthening the network of interconnections. The conurbation may become an area consisting of strong connections of the junctions – local centers, and, thus, secure a bottom up growth. It is evident that integrated measures for the cities and urban quarters are required. Thanks to system – oriented projects based on the participation of local, regional and national environments, local sites may be activated and development trends triggered in the Silesian Conurbation, such as: social projects (Pobudka Koszutka), pilot regeneration projects (URBACT Załęże), transforming brownfields into new neighborhoods and commercial districts, etc.

The paper presented an early attempt of imaging Silesian Conurbation as a structure of districts. In the face of an increasing importance of neighborhoods in the lifestyle and functionality of the inhabitants of the agglomeration, and rising interest of various economic entities in urban quarters, their relations in the conurbation should be explored in further, more detailed research. Further, more profound analyses could distinguish specific districts typical for the conurbation, including the preservation and transformation of post-industrial areas, mining worker estates, as well as new industrial zones, new neighborhoods and cultural zones. Further research is also required to describe the relations, interactions and flows between the districts.

REFERENCES

- [1] Alsop, W., Burnham, S. (2004). Supercity. Urbis, Manchester.
- [2] Bank Danych Lokalnych (Local Data Bank – Poland's largest database of the economy, society and the environment), <https://bdl.stat.gov.pl/BDL/start> (accessed: January 2017).
- [3] Bradecki T., Stangel M. (2014). Freehand drawing for understanding and imagining urban space in design education. *Architecture Civil Engineering Environment* 7(2), 5–14.
- [4] Bradecki T., Twardoch A. (2016). Quantitative and Qualitative Research in Housing Areas: Contemporary Housing Developments in Silesian Metropolitan Area, Poland. *Architecture Civil Engineering Environment* 9(2), 5–12.
- [5] Domaradzka, A., Sadowy, K. (2015). Studium koncepcyjne dotyczące centrów lokalnych w Warszawie (Conceptual study of local center In Warsaw), SARP, Warsaw.
- [6] Farr D. (2008). Sustainable Urbanism – Urban Design With Nature. New Jersey.
- [7] Gasidło K., (2007). “Wielkie Katowice”. Koncepcja organizacji przestrzennej centralnego obszaru aglomeracji górnośląskiej (“Great Katowice”. Spatial organization concept for the central area of Upper-Silesian Agglomeration), *Zeszyty Naukowe Politechniki Śląskiej, Architektura*, 46.
- [8] Gasidło K. (2014). Urban regeneration and revalorization curriculum and lecture series, 15. Politechnika Śląska, Gliwice.
- [9] Główny Urząd Statystyczny 2016. (Central Statistical Office of Poland): Statistical Image of the Upper Silesian Metropolitan Union in 2015, Katowice.
- [10] Gorzelak G. Dynamics and Factors of Local Success in Poland, CASE, Warsaw.
- [11] Haas T., (2012). Sustainable Urbanism and Beyond. Rethinking Cities for the Future. New York: Rizzoti.
- [12] Krzysztofik R., Runge J., Spórna T. (2011). The Uppersilesian Dąbrowa Basin Metropolis „SILE-SIA”. Spatial Functional Delimitation of Region. Silesian University, Sosnowiec.
- [13] Liszewski S. (2000). Współczesne formy osadnictwa miejskiego [in:] Wielka encyklopedia geografii świata, (Modern forms of urban settlements [in] Great Encyclopedia of World Geography), XIX, Poznań: Wydawnictwo Kurpisz, 249–278.
- [14] Meijers E. (2005). Polycentric Urban Regions and the Quest for Synergy: Is a Network of Cities More than the Sum of the Parts?, *Urban Studies*, 42(4), 765–782.
- [15] Mitchell, W. (1999). E-topia Urban Life, Jim – But not as we know it. MIT Press.

- [16] Niezabitowska E. (2014). *Metody i techniki badawcze w architekturze* (Research methods and techniques in architecture), Gliwice: Wydawnictwo Politechniki Śląskiej.
- [17] Opania, S. (2012). *Tożsamość a wizerunek obszarów przemysłowych. Przykład aglomeracji górnośląskiej* (Identity and the image of post-industrial regions. Example of the Upper Silesian agglomeration), Gliwice: Wydawnictwo Politechniki Śląskiej.
- [18] *Plan Zagospodarowania Przestrzennego Województwa Śląskiego 2020+ (Spatial Development Plan of the Silesian Voivodeship 2020+)*, Silesian Voivodeship, Katowice 2016.
- [19] Stangel, M. (2011). Transformation of Derelict Areas into Mixed-Use Urban Neighbourhoods – Case Studies in the Polish Cities. In: Schrenk, M., Popovich, V., Zeilie, P. [eds.]: *Change for stability – lifecycles of cities and regions. Proceedings REAL CORP 2011*, Essen.
- [20] Sulimowska-Ociepka, A. (2013). Industrial Heritage in the Landscape of the Upper Silesian Agglomeration. Proceedings of conference “Central Europe towards Sustainable Building: Sustainable Building and Refurbishment for Next Generations”. http://www.cesb.cz/cesb13/2_industrial.html