Planning and Functional-Spatial Transformation of the City of Szczecin in Period from 2nd Half of 19th to 21st Century, Remedial Suggestions

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Abstract. In the last century, Szczecin underwent three major planning and urban transformations. These transformations were resulting of historical, system-political, economical-economic and social factors. The aim of the current study is to present the stages of functional and spatial changes of Szczecin during the last century, together with an indication of their causes and their effects. At the same time, guidelines will be proposed for the recovery program aimed at enabling further cohesive development of the city while maintaining its identity. This is particularly important in the context of the deepening spatial disorder in the city. The first stage of intense development of Szczecin was initiated in 1873 by the decision to liquidate the fortifications surrounding the city, which allowed for quick expansion of the city area and development of post-fortress areas according to plans established in 1874. In 1912, a new spatial development plan was approved, which was implemented successively. As a result, parts of the city were created with different functions and character: industrial, workers, residences of middle and upper class, etc. The provisions of the plan included the issues of maintaining spatial order and establishing green areas. The next stage of spatial transformations was triggered by the huge destruction of World War II. Along with the annexation of German Szczecin by Poland, a new direction in the history of the city's development was initiated. The continuation of pre-war plans was abandoned, while new guidelines were established based on Soviet experience in shaping housing developments. The space left by destroyed town houses was occupied by large-panel housing estates, the spatial layout of which did not, in most cases, continue the former building lines. The estates were designed according to the newly adopted indicators and guidelines, and their structure and management was based on the idea of a "neighbourhood unit". Decisions made in the 1950s and 1960s irrevocably damaged the historical structure and character of the city before World War II. After 1989, the city of Szczecin is undergoing another planning and urban transformation. The change in the political system of the Polish State resulted in subsequent changes to the land development plans. The slow process of adopting local zoning plans in the years 2000-2010 caused another chaos in the city space. According to the regulations, the newly created housing communities independently decided on the appearance of buildings and their surroundings, which leads to the urban space being de-urbanized. This is a contradiction of the city's spatial policy adopted in the study of the conditions and direction for spatial development of Szczecin. The action that could help in solving the problems would be to divide the city into a number of zones independent of the administrative division. These zones would cover typologically similar areas of the city, such as a residential zone with predominant pre-war buildings, a zone with dominant buildings from 1945-1989, and a zone with buildings developed after 1989, industrial and post-industrial areas, areas for investments, etc. The study
of conditions and direction of spatial development of Szczecin should contain separate guidelines for all zones, because each of them has specific conditions and priorities. It would be advisable to set up urban and architectural commissions consisting of specialists in various fields that would help in setting the guidelines.

1. Introduction
As it is well known, one of the objectives of sustainable development of the city should be such a shaping and transformation of the city that takes place with respect for cultural values and preservation of historical identity. Spatial planning is a continuous and extremely complex process, and the effects of undertaken activities and implementations are never fully predictable. Sometimes it may turn out that decisions and solutions that in a given period seemed rational and optimal from the perspective of time are assessed as incorrect or partially wrong, and their effects are very difficult to change. Unfortunately, the landscape of today's cities often shows hasty planning decisions resulting from specific cultural, economic, political or social conditions result in chaotic, inhuman spaces, deprived of genius loci or a friendly atmosphere. The total separation from the historical spatial, urban and architectural layout of the city in order to introduce completely new solutions is a great responsibility and a risky experiment on the "living organism". The effects of these actions can be both successful and problematic. An example of such far-reaching urban-architectural changes can be the city of Szczecin. The objective of this study is to present the stages of functional and spatial changes in the city of Szczecin during the last century. In addition, in the light of the already existing provisions, assumptions for the recovery program will be proposed, which will enable cohesive development of the city with the participation of its residents. These proposals are intended to preserve the historical identity of places that currently lose their quality due to the deepening spatial disorder in the city.

In the last century, Szczecin underwent three major planning and urban transformations. These transformations were the result of historical, system-political, economic and social factors. The following text will briefly discuss these changes together with an indication of their causes and effects. After first paragraph, other paragraphs are indented as you can see in this paragraph. After Introduction, divide your article into clearly defined and numbered sections.

2. The development of Szczecin from the second half of the 19th century to the Second World War
Intensive development of the city took place from the mid-nineteenth century, during the so-called second industrial revolution, which resulted in the flourishing of industry, maritime transport and rail transport. In the second half of the nineteenth century, Szczecin gained a railway connection with Berlin, as well as the basic technical infrastructure: gas, water supply, and sewage networks, and the power grid. The first stage of the intensive development of Szczecin was initiated in 1873 by the decision to demolish the fortifications surrounding the city. This allowed for a quick expansion of the city area and development of the post-fortress areas according to plans established in 1874. From the beginning of the 20th century, further surrounding villages were included in the city limits. In 1901 a new municipal cemetery was opened - the Central Cemetery (the third largest in Europe today). The expansion of the city's administrative boundaries was the basis for the creation of a new development plan, adopted in 1912 [1]. The plans included primarily the development of the shipbuilding industry and the port at the Odra River. The northern districts were designated for industrial development. As a result of the successive implementation of the plan, parts of the city were created with different functions and character: industrial, residential for the working, medium and higher classes, and others [2]. The provisions of the plan included the issues of maintaining spatial order and establishing green areas. Height was determined for buildings in various parts of the city and the issues of their aesthetic appearance [3]. In addition to the parks, new squares and wide avenues with footpaths were also designed [4]. The development of the city was implemented consistently and any changes in the development plan did not change its main assumptions. Along with the creation of the building plan, the Local Charter was created, which included issues of protection of monuments and protection of the
city landscape. The rigorously observed provisions were aimed at maintaining the spatial order of Szczecin. Pictures and postcards from the 1920s and 30s present representative parts of the city created according to the arrangements of the Szczecin development plan in force at that time, showing the ordered and aesthetic space (Figure 1-3).

![Figure 1. 1930 panorama of the city [5]](image1)
![Figure 2. A pre-war postcard showing al. Coloniego, [5]](image2)
![Figure 3. Pre-war postcard with visible pl. Żołnierza, Soldier’s sq., [5]](image3)

Until the end of the 1930s, the city competed in the port and shipbuilding industries with cities such as Hamburg and Bremen. During the Great Depression, economic stagnation delayed further development of the city; however, the original development assumptions did not change and were continued to a limited extent [6].

In 1939, the Grand City of Szczecin Großstadt Stettin was established by the resolution of the Prussian government and further neighbouring villages and the towns of Police and Dąbie included in city limits. Nevertheless, this new settlement unit was mainly administrative and ceased to exist after the end of World War II. The planning and urban development of the city until 1945 included fairly concentric development of Szczecin according to the development plan of 1912 (Figure 4).

![Figure 4. An example of spatial changes of Szczecin - aleja Wyzwolenia visible from the left: on a post card from 1930, a photograph from 1970 and now in 2017, [5]](image4)

contemporary photo by Marta Kościńska

3. Transformation of Szczecin in the years 1945-1989

The next stage of spatial changes was initiated by the huge destruction of Szczecin during World War II. Along with the annexation of the German Szczecin by Poland, a new direction in the history of the city's development was initiated. The period of the Polish People's Republic brought many new and controversial decisions in the reconstruction and expansion of the city. Tasks and objectives were subordinated to the decision of the supreme state authority, which approved the plans and deadlines. A new concept for the functional and spatial development of the city was adopted, in which, apart from preserving recreational places, it was decided to abandon continued development, as planned in the pre-war city development plans. Lack of understanding from the authorities of that time regarding respect for cultural heritage deprived the city of many historic buildings, significantly changing its original style and character [7]. Years 1945-1960 were the period of dynamic reconstruction of the city. In the first stage, the city authorities planned to rebuild the maritime economy and develop the industry. In the years 1947-1949, the planned expansion of the port began [8]. In 1956, the "Principles
and directions of the prospective development of the city of Szczecin" were approved, which assumed that the city would develop mainly as a port-industrial, cultural and scientific centre, as well as centre for economic, political and social administration on a regional (Voivodeship) scale. The pre-war concentric concept of city's development and expansion towards the west were abandoned. A new communication axis based on the north-south directions along the Odra River was established. Development started towards the east, which was explained by the fact that it would be beneficial for the spatial layout of Szczecin [9]. The reconstruction of Old Town was abandoned and the service and commercial centre of Szczecin was designated along ulica Niepodległości and aleja Wyzwolenia. It deprived the city of its original central place - the market square. In later time, this resulted in a noticeable lack of meeting space, which is so characteristic for many other European cities. In place of the market, the main meeting place for residents was the "Bar Extra" foodservice complex (Figure 5), which was built at ul. Niepodległości and the cafe gardens at the hotel or cinema complexes.

![Figure 5. The "Bar Extra" catering and service complex at al. Niepodległości, 1970, [5]](image)

The reconstruction of destroyed tenement houses in the Old Town, along the riverside boulevards, in the centre and on the outskirts of the city was abandoned. Instead of renovations, not only residential buildings were demolished, but also some public buildings such as the Konzerthaus philharmonic hall or the Stadttheater theatre. Between 1960s and 1980s in the spaces after demolished destroyed townhouses apartment blocks were built in large panel system or left unoccupied (Figure 6, 7). In most of the cases the spatial layout of the blocks did not continue the former building lines. Housing construction followed the 1961 regulations and resolutions on spatial planning [10]. On the basis of Soviet experience in shaping housing construction, new housing standards and norms were adopted. The estates were designed according to the newly adopted indicators and guidelines, and their structure and management was based on the idea of a "neighbourhood unit". In the housing estate, places for sport, rest and recreation were provided, to which the residents of the settlements had direct access, thus the inter-urban areas became semi-public spaces. In the first stage of reconstruction, residential buildings were erected in the very centre (Figure 8, 9). Individual blocks as "seals" were incorporated into the preserved historical frontage of the streets. On the other hand, housing estates received a system: linear, block, comb, nest and meandering, regardless of the initial plots of land (Figure 10, 11).

Ultimately, for economic reasons, many plans have not been implemented or have been implemented to a limited extent only. The idea of a modern city during the times of the Polish People's Republic assumed that the historical structure of the city will include large panel system buildings, built on an appropriate scale, while retaining the historic dominants and artistic values of the city. As a consequence of these activities, the style of socialist modernism was created, which differed fundamentally from the original idea of planning and urban planning. Decisions made in the 1950s and 1960s irrevocably damaged the historical structure and character of the city from before World War II. It is difficult today to agree with the accuracy of all the innovative assumptions and visions of the former rulers and planners. Certainty of their visionary decisions was interpreted liberally, emphasizing the advantages and pros of long rows of blocks introduced into the city structure [11].
Figure 6. Partially completed project of the new centre of Szczecin from 1960 around pl. Rodła and al. Wyzwolenia. Author of the drawing T. Ostrowski "Głos Szczeciński", [12]

Figure 7. Contemporary buildings of the pl. Rodła and al. Wyzwolenia area marked on the historic plan of Szczecin from 1919, [12]

Figure 8. Blocks set along the building line in the historical centre of the city at al. Wojska Polskiego 1970, [5]

Figure 9. Contemporary housing development in the place of pre-war town houses - al. Wyzwolenia 1971, [5]

Figure 10. Post-war housing estates at ul. Jana Matejki 1975, [5]

Figure 11. Housing estates at ul. J. Malczewskiego 1965, [5]
4. Planning changes after 1989

The change of the political system of the Polish State in 1989 and changes to the local land development plan resulted in further planning and urban transformations of Szczecin. In 1994 a new spatial policy was established [13] and the existing spatial development plan from before 1989 was completely amended. The slow process of establishing local spatial development plans for Szczecin resulted in another chaos in the city space. As a result, there were a number of changes to local plans covering the entire city space. The development of urban space has now been reoriented to concentric development with the predominance of residential areas, including single-family detached housing areas.

In the construction of new settlements after 1989 the parameters and guidelines of the "neighbourhood unit" were no longer applied. Since 2002, projects have been developed on the basis of "Technical conditions that should be met by buildings and their location" [14] and the local spatial development plan, in which the basic land development and building height were determined. They developers, who strive for the maximum use of purchased land for housing development, pursue their own goals. When developing the estate, the infrastructure is limited by the developers to a minimum, depriving the residents of the common areas that have been an integral part of the assumption so far.

Privatization and secondary division of urban areas, which was implemented after the adoption in 1990 of the Act regarding the takeover of national property by municipalities [15] and the Act on the acquisition of perpetual usufruct rights and the transfer of ownership of buildings to legal entities [16] led to subsequent chaotic spatial and aesthetic errors. With the rise of development companies and the privatization of premises belonging to, among others, municipalities and state enterprises the number of owners grew (sometimes to several dozen) and thus challenges related to the management of this type of properties appeared. The newly established housing communities were to maintain their property in good technical condition in accordance with the regulations. Each of them makes individual decisions as to renovations, their scope and the appearance of their buildings. As a result, the aesthetic coherence of the city's colour appearance was damaged in the modernization process of individual properties (Figure 13). Another unwanted effect of the above-mentioned laws and internal ordinances is the consent to partition community areas within housing estates (Figure 12). Lack of awareness in the assessment of the effects of current activities shows that as a result of the divisions, housing estates have lost the possibility of their sensible development for recreation, sport and leisure. In some cases, the estate areas acquired the features of no-man's space, in other ones the characteristic of fenced areas with the right to their individual use only by a specific group of communities within the existing housing estate. Thus, the current state leads to deurbanization of the city space and is a negation of the spatial policy adopted in the Study of the conditions and direction of spatial development of the city of Szczecin. This contradicts the regulation stating that the preservation of the composition of the city is the overriding principle. Shaping the individual character of the settlement areas was intended to be conducive to strengthening relationships and identifying citizens with their place of residence. Instead, it fosters ghettoization within particular parts of the divided housing estate. The current situation leads to the disintegration of housing estates, which in the years of the People's Republic of Poland became a new basis for the city structure. Semi-public spaces (residential areas) were and still are a coherent and important element in this system. The coherence of this functional system depended on the connection of the semi-public and public space, which gave the spatial and urban character to the city. Currently, due to internal divisions, the fragmentary and accidental partition of the estates, this system is lost.
Private property owners in new single-family housing estates exhibit strong individuality in shaping their surroundings. Landowners often cross the boundaries of their competences by occupying the land designated for the housing estate infrastructure. By taking advantage of legal loopholes and the lack of control of by construction authorities, they fail to respect the basic principles of shaping infrastructure and spatial order. They treat boundaries of property literally, considering only their own needs. An example could be the single-family housing estate in the Mierzyn district in Szczecin, where such undesirable activities can be seen (Figure 14).

Currently, the development of shipbuilding industry has been reduced to a minimum. Post-industrial areas are waiting for new investors, creation of revitalization projects or their implementation. Parks, squares and green areas in the city founded before World War II did not change their function and serve the inhabitants of Szczecin until today. Old town partially rebuilt in the 1990s is known unofficially as the "New Old Town" due to the fact that only a partial reconstruction of the historical appearance of town houses, whereas most of the buildings have a modern character. The dormant recreational, tourist and leisure potential for the city and residents in Gołęcin, Gocław, Stolczyn, and Skolwin remains unused. In the centre of Szczecin, new public
buildings were completed: shopping centres, office buildings at Aleja Niepodległości, Wyzwolenia or Piastów. New Philharmonic, National Museum, the Flower Avenue at the Castle Route and many more. Time will tell whether the criticism of residents will be resolved and how modern investments will be evaluated in the next half century.

5. Conclusions
In conclusion, it should be stated that the city's development policy should strive to respect the cultural identity of the city and to continue positive actions and processes. The possible effects of the changes should be well analyzed, as the consequences may be irreversible or difficult to repair. One cannot count on decisions of private persons or housing associations that would be rational, prospective and appropriate for the good development of the urban structure. In terms of activities including public and semi-public spaces, greater supervision and control over their activities is required. An example of the solution may be the need to prepare and adopt general projects for the modernization of the facade of blocks of flats. This would aim to rethink the overall visual effect on the scale of the estate or a given part of the city, so that the individual decisions of the communities do not lead to the disfigurement of the landscape and aesthetic devastation. Divisions of areas managed by housing communities should be verified and refined. It is necessary to limit the creation and demolish badly located fences between the territories of individual communities, as this leads to the ghettoisation process and contributes to the creation of spatial disorder. In addition, concepts should be developed for the overall development of the housing estate, where the costs of construction and maintenance of the area would be shared together. Appropriately qualified individuals, taking the common benefit of all residents as their main guideline, should be active both in the preparation of such projects and in accepting arrangements.

The activity that could help in solving the problems would be to divide the city into a number of zones independent of the administrative division. These zones would cover typologically similar areas of the city, such as a residential zone with various types and times of development, as well as areas with different functions and various planned destinations. Below is the proposed division into zones:

- zone I - the city space with the dominance of architecture created before the Second World War
- zone II - the city space with the dominance of architecture created between 1945 and 1989
- zone III - the area of housing estates built after 1989
- zone IV - industrial areas (with industry type distinction - a, b, c ...)
- zone V - post-industrial areas
- zone VI - public spaces
- zone VII - spaces designated for investments (with distinction of investment types - a, b, c ...)

The study of conditions and direction of spatial development of Szczecin should contain separate guidelines for all zones, because each of them has specific conditions and priorities that are important for their functioning and the spatial order of the city. It would be advisable to set up urban and architectural commissions, which would be an auxiliary body for setting the guidelines. Such a commission should consist (depending on the given zone) of: urban planners, architects, road builders, conservators, landscape architects, archaeologists, sociologists, economists and other competent persons.

Due to the current structure of the city, existing housing estates in the very centre and in the face of already existing regulations, it is necessary to set up an auxiliary body that would fulfil the role of consultations with the residents of the housing estates. Its task would be to conduct talks and negotiations on settlement arrangements for housing estate areas. The task of the negotiating office's employees would be to discuss the needs or concepts of residents for the development of a particular housing estate. Talkers should be people from the construction and sociological sectors. Then there would be a chance to regain the possibility of cohesive development of the city with the participation of residents, and thus preserve the historical identity of places that currently lose their quality.
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