Condition of the Landscape of Housing Estates Constructed in the Second Half of the 20th century, on the Example of the Grunwald Estate in Szczecin

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Abstract. After the period of system transformation in Poland the spatial city planning at a national, regional and local level was only marginal, and a comprehensive program for the revitalization of housing estates built in the second half of the 20th century was and still is not even considered. The results of contemporary privatization may cause not just the decomposition of the initial design of the estate, but also influence the future structure of the urban agglomeration. The objective of the present paper is to conduct an analysis of spatial changes that occurred after 1989 in the structure of housing estates constructed in the second half of the 20th century, on the example of the Grunwald Estate in Szczecin. The analysis of the process of changes will allow us to formulate a diagnosis of the present state, and valorisation of the landscape of the investigated estate. The research conducted demonstrated that the main effect of the property divisions within housing estates after 1989 is the loss of the possibility of appropriate development of these areas into recreational, sports and leisure grounds. Current state of estate landscapes leads to counterurbanization of the urban space and contradicts the spatial policy of the city of Szczecin, as set in the its study for conditions and spatial development trends of the city. In the consequence of secondary property divisions, the residential areas no longer foster the shaping of individual character of the place, which doesn’t encourage identification of the residents with their residence locations.

1. Introduction
After the period of political transformation in Poland, spatial planning of the city at the national, regional and local levels was treated only marginally, and a comprehensive program of revitalization of housing estates built in the second half of the twentieth century was not and is still not taken seriously. At the local level, the problems of development of housing estates are solved by residents of the housing estates. The current legal status after the privatization of residential areas prevents their revitalization as a coherent and integral whole of the estate structure. Such action becomes a negation of the idea of a housing estate. The effects of the current privatization of these areas may be irreversible. They can cause not only the decomposition of the original layout of the housing estate, but also affect the future structure of the urban agglomeration. „(...) In Poland, the privatization of space is carried out without any control; cities do not have spatial development plans, so location decisions seem entirely random. This situation is unique on a European scale, because even in countries of economic liberalism, the market does not decide freely about the development of space.
The current state of affairs forces us to take a closer look at the phenomenon that may become common for the future of the Polish urban landscape in the 21st century.

The objective of the work is to analyse the spatial changes that occur after 1989 in the structure of housing estates erected in the second half of the twentieth century on the example of the Grunwald Estate in Szczecin. The analysis of the change process will allow us to make a diagnosis of the estate's condition, its function and composition. This problem should be examined in terms of the possibility of countering the effects of ill-considered legal decisions and taking immediate corrective, legal and design, actions. These actions should contribute to the redevelopment of these areas for the primary purpose of recreation, sport and leisure of all users of the housing estate.

The work uses the comparative method, which consists in the compilation of historical data, archival materials with the current state of the surveyed spaces in order to determine the degree and nature of changes that the area of the studied housing has undergone.

2. General principles for the organization of the space of housing estates erected in the second half of 20th century in Poland

After 1945 and the change of the political system in Poland, the function and purpose of housing estates did not change. However, new assumptions based on Soviet experience were adopted regarding the standards and criteria for the construction of housing estates. Following the example of the "neighbourhood unit" defined at the beginning of the 20th century, the housing area was quantified on the basis of top-down development indicators. The semi-public space, which is an integral part of the area intended for the construction of the housing estate, was intended for shared use by residents, without the possibility of dividing it into separate plots.

The phased design and implementation of investments (settlement units - housing estates) in the PRL was based on regulations and resolutions on spatial planning from 1961 year [2] and the then ordinance No. 118 of the Minister of Building and Construction Materials from 15 June 1964 on the indicators of the use of urban investment areas. In addition, when establishing a general plan, there were also standards and regulations being the basis for the design and development of the area for the planned housing estates in force.

When planning housing estates by housing co-operatives, the indicators were set out in the program and design guidelines issued by the Central Union of Cooperative Building Societies [3]. These indicators were as follows:

| Indicator                                      | Value |
|-----------------------------------------------|-------|
| construction density:                         | 1.09-1.14 |
| - free area per one inhabitant                | 11.0 m² |
| - building density per 1 ha                   | 680 apartments |
| - amount of usable area left per 1 ha         | 7,880 m² |
| - weighted average number of storeys          | 6.4   |
| - number of persons per 1 room                | 1.42  |
| - general living area per one person.         | 16.4 m²-18.3 m² |
| - undeveloped area indicator                  | 0.7   |
| service areas indicators:                     |       |
| - retail                                      | 310.0 m² of usable area / 1000 people |

[1] Central Union of Cooperative Building Societies (CZSBM) - a central cooperative association authorized to interfere in the statutes and composition of the cooperative management boards, with cooperatives forcibly associated in it (Act of February 17, 1961 on cooperatives and their unions, Journal of Laws No. 12, item 61). It was established in 1961 from the transformation of the Union of Housing Cooperatives (established at the National Congress of Delegates of Housing Cooperatives in Warsaw on December 28-29, 1956). Stanisław Kukurtka was a long-time president (in the years 1972-1982). CZSBM ceased to exist under the Act on Changes in the Organization and Activity of the Cooperative Movement of 1990, which ordered the liquidation of all central cooperative associations (Act of January 20, 1990 on changes in the organization and operation of cooperatives, Journal of Laws No. 6, item 36).
3. Analysis of the condition of the existing Grunwald housing estate in Szczecin – case study

3.1. The construction history of the Grunwald estate

The area under the housing estate was planned in the very center of Szczecin. In the 1960s, on the site of the quarters of the tenement buildings destroyed during World War II, a complex of multi-family buildings was designed, without reconstructing the urban layout from before 1945 (figure 1, 2).

3.2. Design assumptions and development of the housing estate

In the housing estate project, a linear and comb system of buildings was used. The estate was built in the areas that were previously demolished. Work began in 1962, the designer was Architect Engineer H. Nardy. The estate was designed for around 20,000 residents. The area of the estate is approx. 10 ha. The boundaries are hard to read with an open layout. Inside the estate there are courtyards located between blocks, available for public transport as well as for residential streets. The land development project was prepared in accordance with the applicable guidelines and criteria (figure 3).

The project was carried out in the 1970s. It met the contemporary standards and health and safety, sanitary and fire regulations. The materials used for the construction of small architecture objects referred in their character to the elements of small architecture in public space. Split stone was the basic material for building walls and garbage dumps. Play equipment was made of steel elements, pavements made of concrete slabs, benches made of concrete and wooden elements. Implementation and execution along with the maintenance of land belonged to the administration of housing cooperatives and company cooperatives.
Figure 3. Land development plan for the Grunwald estate from 1965

Explanation of colours: brown - blocks, light brown - parking spaces, pink - services, yellow - education buildings (schools and two kindergartens), grey - sports fields, green - high greenery, squares - a place of rest, “plac zabaw” - playground, source: own elaboration on archival map from Municipal Center for Geodetic and Cartographic Documentation in Szczecin.

The designed semi-public space was common to all residents of the housing estate. Treated as a whole, the system harmonized with the public space. Pedestrian routes and public transport were connected together without conflict. Places of recreation, rest and children's play were fully available and used according to their purpose. The area development program for semi-public space fulfilled its function. The development project was implemented in the basic version with strictly defined land use function.

3.3. Spatial changes after 1989

After 1989, the change of the political system of the Polish state resulted in the reorganization of the country's economy. The process of changes in housing policy began with the 1990 act on municipalization of state property.

The transitional period lasting about 10 years did not bring positive solutions regarding the methods of maintaining already-used semi-public spaces or their revitalization. The privatization process began - an intense period of buying up apartments and creating housing communities, which were then given the chance, by Szczecin Municipality, to buy out the land under their buildings. After 2000, the next stage of land purchase concerned the areas of housing co-operatives not only under the buildings, but also open spaces. School and kindergarten buildings along with the adjacent areas were handed over by The Szczecin Municipality in perpetual lease to education department (figure 4). In this case, the permanent manager was the School Director, who has the possibility to use the site. The Municipality was the owner of the remaining areas of the estate.
The existing condition of the Grunwald estate. MODGiK, a copy of the land registry map of November 19, 2012.

Explanation of colors: thick red dotted line - planned area under the fence, thick red continuous line - area fenced with a fence, thin red line - area fenced by ZBiLK and SM, light yellow color - municipal property, blue - ownership of housing cooperatives, brown color - ownership of the housing communities, light green color - education, white color - owned by road authorities, red color - perpetual lease - "Oxygen" office building, pink color – services, source: own elaboration.

The effect of the division of the housing estate between different owners was the degradation of the existing infrastructure of the housing estate. Wishing to solve the problem of the degradation of residential areas Szczecin Municipality started to sign the "Agreement" with housing communities, in which it declared that it would not charge for the use of the area. In return, it was expected that the area subject of the "Agreement" would be kept in appropriate order. It should be noted that the designation of land belonging to a specific housing community is accidental and not regulated by surveying measurements. The community has the right to develop the area in accordance with its needs and has the possibility to fence it off, after prior written consent of Szczecin Municipality. As part of financial assistance for the implementation of individual projects commissioned by the community, the Municipality launched the "Zielone podwórka Szczecina" [Green courtyards of Szczecin] program since 2008 [6]. In the program, within the competition for land development projects of individual communities, you can receive a partial co-financing for the implementation of your own land development project. An example of such a completed project is also located within the Grunwald estate. The project covers only a part of the area that has been fenced off from the space belonging to the entire estate (figure 6-11). Similar examples were completed in other Szczecin housing estates. They form a separate space belonging only to a given housing community and are used only by its inhabitants (figure 5).
Figure 5. The existing condition of the Grunwald estate. MODGiK, a copy of the land registry map of November 19, 2012.

Explanation of colours: thick red dotted line - planned area for fencing, red coarse continuous line - fenced area, including the fencing, thin red line - area fenced by a housing cooperative, dark blue – housing association “Śródmieście”, brown – housing community, light blue – perpetual lease, red – perpetual lease “Oxygen”, source: own elaboration.

Figure 6. Entrance to the fenced community area from the north (photo by M. Kościńska).

Figure 7. Area fenced by the community from (photo by M. Kościńska).
4. Conclusions
Decisions on the purchase of urban lands by housing cooperatives and housing communities within the borders were conducted in the 1990s in an uncontrolled manner. It is a shameful mistake in the scale of the city. The more so because the city authorities allow such a procedure even against the provisions of the local land development plan [7].

Housing estates built in the last century were part of the urban planning of the entire city. Coherence of this system was dependent on the coherence of the semi-public space of the housing estate with the public space of the entire city. Currently, the semi-public space has been degraded, separated and detached from the urban fabric. This led to a complete change of the original destination of the estate's semi-public space. It has no longer a recreational, leisure and sports function for all residents of the housing estate [8].

As a result of the ownership divisions, estate areas have lost the possibility of their reasonable use for recreation, sport and leisure. Land estates took on the features of private spaces with the right to their individual development, e.g. gazebos, small ponds, small playgrounds, places of recreation and leisure only for a specific group of housing communities. In many cases, recreation areas have become separate and fenced parking lots for a specific group of residents. The current state of the landscape of many housing estates erected in the second half of the 20th century in Szczecin indicates an urgent need for corrective action. It should lead to the restoration of the primary use of the housing estate and, above all, to give it the character of a semi-public space accessible to all residents of the housing estate [9]. The current state of development of these areas leads to the counterurbanization of urban space and is a contradiction of the city's spatial policy adopted in the study of conditions and directions of spatial development of the city of Szczecin, which, in point 2, reads: "The preservation of the composition of the city, and especially the individualities of individual settlements with the emphasis
on the boundaries between urbanized space and surrounding areas is considered to be of paramount importance. Shaping the individual character of the settlement areas will be conducive to strengthening relationships and identifying citizens with their place of residence”, [10].

References
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