Housing Complexes in Upper Silesian Cities Built in 1921-1945 against Present-day Functional Requirements

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In the cityscape of Silesian cities like Gliwice (Gleiwitz), Bytom (Beuthen O.S.) and Zabrze (Hindenburg), which belonged to Germany before WWII, housing estates built between 1921 and 1945 (i.e. between the post-WWI partition of Upper Silesia and the end of WWII) form compact, homogenous complexes. With their distinctive, standardised architecture, they are legible in urban and suburban built-up environment. They were developed in specific political, social and economic conditions, and constitute an example of a large-scale programme for constructing cheap homes, introduced in Germany in the 1920s.

After WWI, as a result of the Plebiscite, Silesian uprisings and Versailles Treaty, Upper Silesia was divided between the Weimar Republic and Poland (1921). The process of border demarcation lasted till July 1922. The German part of Silesia was subdivided into two provinces: Upper Silesia (Oberschlesien) and Lower Silesia (Niederschlesien). The Polish part became Silesian Region with Katowice as its capital. The Polish-German border, economically irrational, went across towns and cities, industrial plants, estates and farms. Therefore, both countries had to solve many problems of industry reorganisation, new transportation networks, new demographic structures and provision of new housing¹. After WWI, the Weimar Republic government embarked on a

1. After 1921, the housing shortage was particularly acute in Upper Silesia due to large-scale migrations. As a result of the resettlement operation after 1922, in two years over 100,000 people emigrated from Polish Upper Silesia, while less than 100,000 came from German Upper Silesia.

programme of housing situation improvement, in which Upper Silesia was regarded as a priority because of its economic and political importance. The government took on the responsibility of providing cheap homes in order to "guarantee every citizen a healthy affordable dwelling"². The housing policy resulted from the premises of town-planning reform movements in the early 20th century, inspired by visionary theories promoted by Camille Sitte, Ebenezer Howard and Tony Garnier³. The main objective of the

2. The law passed already by the Prussian Landtag (1918). Miller Lane Barbara, *Architecture and Politics in Germany 1918-45*, Harvard, 1985, p. 87.

3. The fact that such a movement existed can be proved by great town-planning contest: for the redevelopment of Greater Berlin (1910), Düsseldorf (1914) and Wrocław (Breslau) (1921).

1. Multi-family house in the estate in Ligonia street, Gliwice, built in the mid-1920s. Although the volume of the building has not been altered, different glazing patterns and colours of window frames spoil the original harmony of the façade. This is the most frequent example of improperly done modernisation of a historical building. Photo by the author, 2007





2. Post-Modernist remodelling (1992) of a building in the 1920s estate in Mickiewicza street, Gliwice. Photo by the author, 2008

policy was to create a rational urban structure that would provide people with appropriate living space. In practice this meant the development of housing estates in green environments, based on the idea of "garden city". With this idea in mind, avant-garde German architects right after WWI aimed at lessening the density of the urban tissue and dividing the city into functional zones.

German industry, architecture and art owed their high quality to *Deutscher Werkbund*

(1907), a modern organisation of artists, architects and manufacturers, established to promote modern industrial design and functional architecture. Schlesisches Heimstätte (1919), an organisation established in Wrocław (Breslau) by Ernst May⁴, had its great share in the development of standard housing, originating master plans for housing estates.⁵ As a result of coherent housing policy of the Weimar Republic, and later the Third Reich, settlements built after WWI are similar as far as detail and architectural and spatial layout are concerned. The housing estates are composed of low, two-storey houses - detached, semi-detached or terraced - set on sites with gardens. Cubical shapes topped with high, gable roofs, sometimes mansard ones, derive from traditional German architecture. The plain façades are only decorated with modest, repeatable detail (architraves, typical woodwork patterns, distinctive plaster structure). In the mid 1920s, simple, plain avant-garde forms in the spirit of Neue Bauen appeared in German residential architecture.

4. Ernst May was also chairman of the *Schlesische Heimstätte* society in 1919-1925.

5. Szczypka-Gwiazda Barbara, *Pomiędzy praktyką a utopią. Trójmiasto Bytom-Zabrze-Gliwice jako przykład koncepcji miasta przemysłowego czasów Republiki Weimarskiej*, Wydawnictwo Uniwersytetu Śląskiego, Katowice 2003, p. 17.

3. A modernised building in the 1920s estate in Ligonia street, Gliwice. Evidently, a lot of effort was put to harmonise new elements with the original style. New windows and fence segments copy their original forms, roof tiles are original, the porch matches the style of the building. This is an example of a growing tendency to recognise the1920s and 1930s architecture as valuable. The original form and detail are more respected now, which can be noticed in many refurbished houses. Photo by the author, 2007



Construction of new, cheap flats was sponsored by the State and by employers. The main organisations supporting house building in Upper Silesia were O. S. Wohnungfürsorgegesellschaft (Wofo), Heimstätten-Genossenschaft, Gemeinnützinge Aktiengesellschaft für Angestellten - Heimstätten (GAGFAH), Gemeinnützinge Heimstätten Aktiengesellschaft der Deutschen Arbeitsfront Gleiwitz (GEHAG)⁶. Because of modest financial resources, the forms of buildings did not vary much, thus their architecture and construction were standardized. The Schlesische Heimstätte organisation used "Schlesisches Heim" magazine to promote modern and cheap methods of building standardized houses, to help make technical designs and cost estimates. Ernst May published a series of articles Basic types of Silesian Heimstätte with a pricing table⁷, in which he described 16 types of houses (11 single-family ones). He preferred low houses, because in his opinion Favouring single-family low houses results from long-term housing policy. It must be constantly repeated that tenement houses, although cheaper than single-family ones, in fact are not economical, because they are harmful to their residents'

- 6. Schabik Karl, Gleiwitz, Dari Verlag, Berlin 1928.
- 7. May Ernst, *Die Grundtypen der Schlesischen Heimstätte mit Finanzierungstabelle* [in:] *Schlesischses Heim*, 3/1924, pp. 71-74 and 4/1924, pp. 109-115, and *Die Typen der Schlesischen Heimstätte* [in:] *Schlesisches Heim*, 4/125, pp. 137-143.



4. Gallery-access building in Kampfbahn-Allee (now Roosevelta street), erected in 1928-1929 (photograph taken in the 1930s; after: "Zabrze na starej pocztówce," Wiesław Niedworak (editor-in-chief), Wydawnictwo MS, Opole 2001 – the Zabrze City Museum)

mental well-being"8.

Three types of houses were prepared, to be built in urban, suburban or "semi-rural"⁹ areas. In each type, there was a distinct division into cooking and living spaces. Moreover, the layout made it possible to arrange three bedrooms, in-

5. Gallery-access building in Roosevelta street; stripes of avant-garde oriel windows, partly walled up in the 1960s, can be seen. Photo by the author, 2007



^{8.} May Ernst, *Die Typen der Schlesischen Heimstätte*, op. cit. p. 139.

^{9.} The term "semi-rural" is a direct translation from German. It refers to rural areas close to the city, inhabited mainly by factory workers owning small farms.



6. Gallery-access building, back view. At present, the building is administered by a number of communities. Each are planning heat insulation on their own, therefore the façade will lose its homogeneity. Photo by the author, 2005

cluding a sleeping area in the living room. There was a separate entrance from the hallway to the garret, so it could be rented out if need be. Both the layout and construction technique were standardized.

The main goal was to minimize running costs of the houses¹⁰, which was achieved by the spatial layout of the development, the form of the building and construction materials¹¹. Therefore:

 the buildings were arranged in groups, so that they screen off one another from the wind;

 semi-detached and row houses were constructed to reduce heat losses;

streets ran from north to south or from north-

10. Special commissions of the *Schlesischen Heimstätte* inspected the inhabited houses to check the effectiveness of the techniques used. May E., *Warmeschutz im Kleinhausbau (Thermal Insulation in Small-House Developments)*, "Schlesisches Heim", Breslau, 1/1924, pp.11-15. Translated from German by Stefan Magosz. 11. "Schlesisches Heim", Breslau, 1/1924, p. 15.

7. Residential building in Mikultschützerstr. (Mikulczycka street), around 1935 (After: Zabrze wczoraj, Przemysław Nadolski, Wydawnictwo Wokół Nas, 1995)



east to south-west; if they had to run from east to west, the interior was planned in a way that mitigated the unfavourable effects on northoriented rooms;

streets were winding, to reduce draughts;

 fruit trees were planted in clusters to create natural windshield.

The functional layout of the building was energy-efficient, i.e. it was designed to provide the greatest possible heat comfort at minimum energy use. Therefore, the centrally located living area was "insulated" by "protective" rooms (staircase, toilet, larder, closet, kitchenette, office) surrounding it; to make the heating more effective, vestibules or porches were added (particularly in north-oriented houses).

The type of structure and building materials used were low-cost. In consequence:

- external 30-cm cavity walls were used (halfbrick thick skins tied together with iron hooks); the cavity was filled with crushed slag or largesize Schima hollow-bricks;
- roofs were covered with tiles (clay shingles);
- attics were insulated with mats of straw and clay;
- parts of the building without a basement were insulated with dry slag;
- inner cavities of timber floors were filled with slag;
- internal walls between heated and non-heated rooms were cavity ones, filled with slag.

The way companies supporting mass house construction operated can be studied on the example of one of the earliest, *Wohnungsfürsorgegesellschaft für Oberschlesien* *G.m.b.H Oppeln* (Wofo)¹², established in Autumn 1922, soon after the allied occupation armed forces had left Silesia. The shareholders were: Prussia, Upper Silesian Province (Provinz Oberschlesien), counties and municipalities. The tasks of this public enterprise included the organisation of construction of small and medium-sized flats in Upper Silesian Province by providing technical and financial support for council investors, building cooperatives and private individuals. Its responsibilities covered site selection, preparation of plans and specifications, fund raising, contracting construction companies, supervision by project engineer and final settlement.

The Polish-German border drawn after WWI divided Upper Silesia on the line parallel to the cities of Gliwice (Gleiwitz) and Bytom (Beuthen O.S.) and the municipality of Zabrze (Hindenburg). The history of Gliwice and Bytom goes back to the Middle Ages. Before WWI they were important industrial, commercial and cultural centres. Zabrze grew between them and was chartered a city in 1922¹³. The new reality required new policies for spatial development of the three border cities. Within the general economic restoration plan of the Weimar Republic, a plan for uniform economic, administrative and social growth of the Upper Silesian Industrial Region was created (1926); its author was a highranking building official from Berlin, professor Gerlach. The plan included the establishment of an urbanized zone along the Polish-German border, consisting of the three municipalities of Bytom, Zabrze and Gliwice, all linked together organically¹⁴. Prospects for future expansion to the east changed the Third Reich policies concerning Upper Silesia, which completely thwarted the plans for creating a new conurbation. Although the concept of creating a tri-city did not go beyond a planning stage, the building offices in particular cities incorporated its tenets into their development plans.

12. Schabik Karl, Gleiwitz, Berlin: Dari Verlag, 1928, p. 84.

13. Until then, although of urban character, Zabrze had a status of rural municipality, and was called "the biggest village in Europe". It was only the new economic and political situation which required chartering Zabrze a city.

14. The conurbation of three cities was to form a denselypopulated, industrialized belt (600,000 square kilometres, population of ca. 400,000). Another concept included combining the three cities into one, with a new centre in Zabrze. Yet another idea considered was to demolish Zabrze and Bytom in order to enable the exploitation of coal deposits that were beneath them, and to create a new city near Pyskowice. Dietz d'Arma Leon, *Miasto Zabrze, jego rozwój i przeobrażenia przestrzenne*, "Kroniki Miasta Zabrze", 1974/7, p. 151.

The clear-cut spatial layout of presentday Gliwice crystallized after WWI thanks to the efforts made by chief architect (*Stadtbauraten*) and manager of the Municipal Building Inspection Karl Schabik (1919-1945). He was an architect and theorist who kept up with the latest trends in city development and cooperated with Ernst May's Schlesisches Heimstätten society. His vision of city development incorporated the idea of "garden city" and the realities of a big industrial centre. He tried to deglomerate the city, surrounding the centre with a ring of estates of single-family houses. In order to choose locations for housing complexes he had to take into account the existing buildings of historical value, industrial plants located along the railway line and the Kłodnica Canal, and transportation network. The main criterion in choosing the location of future housing estates was its ability to provide appropriate hygienic conditions (sunlight, greenery, fresh air). Functional and fairly small housing estates, designed for occupationally homogenous groups (office staff, teachers, police office staff), were built on the south-western and north-eastern outskirts of

8. Residential building in Mikulczycka street, balconies walled up in the 1960s. Photo by the author, 2007



the city¹⁵. Closer to the city centre, middleclass, prestigious houses were built; they had simple forms, high gable roofs and modernised, classical or expressionist details.

The urban-planning and architectural development of Bytom proceeded differently. The city was tightly surrounded by a ring of coal mines with their protective pillars, which made a decentralized development plan impossible. Therefore, new houses were constructed within the existing built-up areas. Finally, in 1927-28, after the Mining Office had given the city some land for development, new housing complexes were built adjacent to the 19th-century buildings. When the new border was demarcated, the railway line became redundant, so it was possible to develop the areas along it. Small elegant residential complexes for the better-off were built. Houses in the city centre were usually cubical in shape, topped with gable roofs, built in a style incorporating tradition and expressionist details. Avant-garde forms in house building were rare, both in Bytom and Gliwice. Because of the protective pillar surrounding the city, larger housing estates were constructed a dozen or so kilometres west of the city centre¹⁶.

15. In the early 1920s the first housing estate *Süd* was built in street Rybnicka (Rybnikerstr.). Then the GAGFAH building association built the housing estate in street Daszyńskiego (Kieferstädteler-Str.) designed for teachers, office staff and police office staff. At the same time, the complex of semi-detached houses in street Tarnogórska was being built. 16. In 1929, the working-class housing estate "Helenka" (*Helenenhof*, now inside Zabrze city limits) was built to Albert Stütz's design; it was situated between Rokitnica and Stolarzowice. In 1930, the estate "Osiedle Towarzyskie" (*Kameradenschafts Siedlung*) was built, and a little later – another one called "Małe Osiedle Podmiejskie" (*Kleinsiedlung*).

9. Steel-structure complex in Michaeltorplatz (square Słowiański) at the junction of Kronprinzenstr. (Wolności) and Michaelstr. (Piłsudskiego) (After: Zabrze na starej pocztówce, op. cit.).



House building in Zabrze - before it obtained city rights - was directly connected with industrial capital and based on the idea of the worker housing estate of the early 20th century. As a border city, Zabrze became an important urban centre, which brought about a house building boom. Not only did a number of new houses grow, but their character changed as well. The chief architect of the city of Zabrze, M. Wolf (from 1924 on), promoted modern Neue Bauen-style residential architecture¹⁷. Residential architecture in Zabrze at that time was diversified. Typical complexes of single-family houses surrounded by greenery were located in the outskirts. More elegant villa estates and traditional terraced houses were constructed on vacant sites within built-up areas closer to the city centre¹⁸. After 1928, traditional multi-storey buildings with high, gable roofs were replaced by modern blocks with flat roofs; the latter were erected in the south-western part of the city. An example here is a complex of four-storey buildings with small flats for workers, with its western part adjacent to sports and recreation grounds (stadium, swimming pool, tennis courts and sports fields). The buildings adjoined geometrically laid-out allotment gardens, playgrounds, sports fields and common greens.

An example of the most modern housing architecture is a settlement of small dwelling units (1928-1933), situated between streets Piłsudskiego and Damrota and constructed by DEWOG cooperative: a complex of ten big apartment buildings was built on a 18-hectare plot. Built parallel to Damrota St, the buildings, 150 m long each, constitute 4 complexes intersected by wide inner squares and roads, today streets Czarneckiego and Żółkiewskiego. The settlement included also a bathhouse and laundry¹⁹.

In 1928, he invited Gustaw Allinger, a Berlin landscape architect, and Dominikus Böhm to assist in the city development planning. They created development plans for the northern areas of the city (See: Szczypka-Gwiazda Barbara, *Pomiędzy praktyką a utopią. Trójmiasto Bytom-Zabrze-Gliwice, jako przykład koncepcji miasta przemysłowego czasów Republiki Weimarskiej*, Katowice: Wydawnictwo Uniwersytetu Śląskiego, 2003, p. 52).
An example of elegant housing is a villa estate located close to the city centre, bounded by streets de Gaulle and 3 Maja (during the Third Reich, Adolf Hitler Str. and Dorotheenstr. respectively). It consists of two- and three-storey single-family houses, each in its own garden. Similar villa settlements were built in Gliwice and Bytom.
The buildings are east- and west-oriented. They are divided by staircases into 8 segments. There are 3 apartments on each storey of individual segments: two anartments consist of one

storey of individual segments: two apartments consist of near room of 17 m², a boxroom (9.5 m²) and a living space with kitchenette (16 m²) each. According to German nomenclature, these are 1.5-room units with a kitchen, hall and WC. The third apartment is smaller: it consists of one bedroom (15 m²), a big kitchen (17.5 m²), hall and WC. Each kitchen has a balcony



10. Complex in square Słowiański. View from the inside of the complex. Different glazing patterns of new windows spoil the original harmony of the façades. Photo by the author, 2007

The longest (270 m) building in Zabrze was a modern, 4-storey gallery-access block of flats, built in Roosevelta street in 1928-1929. The building has 4 entrances (from the street) leading to long common-use galleries at the back with entrance doors to 120 flats and laundry facilities in the attic²⁰. Another example of interesting avant-garde housing architecture is a complex in square Słowiański: the buildings of steel structure and faced with red brick, are arranged in two complexes connected by an elevated walkway, enclosing a square (part of the complex has been demolished, which has spoilt its composition).

During the Third Reich, the foundations of the government's social policy aimed at making workers attached to land (economic security in case of crisis or war). A planned settlement operation became a priority in Silesian industrialised borderland. Therefore, in order to stop migration of workers from Upper Silesia to the heartland of the Reich, a concept of a worker housing estate complete with farms (ca. 1,000 m^2 in size) was devised. The body responsible for the State's housing and social policies was the German Labour Front (*Deutsche Arbeitsfront, DAF*), which set up the GEHAG (*Gemeinnützige Heimstätten Spar und Bau Aktiengesellschaft*) joint-stock company. Housing estates, designed to the pattern of "Germanic villages", were built several kilometres away from the city. The DAF originated works on designing basic types of houses for settlers. The simple, plain forms of the buildings followed the German tradition (*Heimatstil*). The first model estate was completed in Żerniki (Gröling) in 1933²¹.

For over fifty years after the end of WWII, the architecture of the housing complexes in question was purely functional, regarded as invaluable and belonging to an alien culture. Today the condition of these historical housing estates varies, depending on their location, size and type of ownership. The political and economic transition in Poland after 1989 led to changes

alcove. There are 72 apartments in one building, and 720 in the whole complex. The project was executed with funding provided by state loans. The first three buildings to be completed in street Czarneckiego were equipped with central heating, each apartment complete with its own attic and cellar. At their dwellers' request, the next buildings to be erected were heated by tiled stoves. And to reduce costs, attics were eliminated.

^{20.} Each floor consists of four 3-room flats with a kitchen, hall and WC, and twenty six 2-room flats with a small kitchen, hall and WC. The flats were heated by tile stoves and supplied with gas, running water, electricity; each had a cellar.

^{21.} Today Żerniki is a district of Gliwice. In 1933, "Deutscher Ostfront" wrote: "(...) In total, the estate will consist of 147 flats. It will be inhabited mainly by workers of "Ludwig" and "Gliwice" coal mines and the Gliwice steel industry. It will take them about half an hour to get to work by bicycle. The estate is situated in genuine rural environment, which guarantees healthy living conditions". In 1937, a housing estate in Birkenau O.S. (now Brzezinka, a district of Gliwice) was completed, and in 1941 "Glaubenstatt" (now "Wilcze Gardło", a district of Gliwice), whose construction started in 1937 (designed by Rudolf Fischer, a German-born Bytom architect). The biggest estate was built in Mikulczycka St, Zabrze, in 1936-38 (called "Glückauf", now "Szczęść Boże"; 320 houses). A typical house consisted of 2 rooms, a kitchen, vestibule and WC on the ground floor, and one room and attic upstairs; with a basement). There were also adjacent sheds.

in Polish demographic structure. The growing prosperity and realistic prospects for more of the good life brought about changes in housing preferences. There is a trend to "escape" from high-rise housing estates to historical residential districts. Pre-war districts of "garden city" type have become a fashionable address, which results in ownership changes. Originally, certain types of houses were purpose-built for particular users: office workers, teachers, police officers or factory workers. Both buildings and plots were owned by the city (their users could come into ownership after they had repaid the loan, i.e. after 20 years or so). After WWII, the estates were occupied mainly by repatriates²² and people displaced from the Polish eastern areas incorporated into the Soviet Union. In this way, the social and economic status of the inhabitants remained more or less the same.

Today, there is growing diversification of residents in terms of financial standing, functional needs and aesthetic tastes. This results in different levels of preservation of the original forms of buildings, which could be described as follows:

- the volume extended, details altered;
- small extensions added (a balcony, porch), details altered;
- renovation with no alterations;
- lack of any upgrading whatsoever.

The original characteristic features of the housing complexes built in the period in question are obscured, e.g.:

- an appropriate balance between the covered area and the size of the plot;
- the building line the same at the front and at the back;
- rhythmicity of individual types;
- roof coverings of uniform nature;
- repeatability of architectural details, window and door woodwork;
- similar types of fencing.

And because of this, harmonious homogeneity and cohesion of the housing complexes are fading.

A slump in the coal mining industry caused economic stagnation of typically industrial Upper Silesian cities²³. Inhabited by worker families mainly, the estates are often in very bad technical condition. On the other hand, they have largely preserved their original shape, which is some sort of consolation, given the saying "poverty is the best conservator". However, the inhabitants' financial situation is improving, and year by year the buildings change their looks: new windows are fitted, external heat insulation is laid, porches are added. Unfortunately, while carrying out renovation works (e.g. window replacement), the residents think in terms of their own flats rather than the whole building, neither do they take into account the complex as a whole. Similarly, members of a residents' community are often interested only in their own segment rather than the whole building. Housing complexes built in the 1920s and 1930s are losing their original style by the year, because there are no binding regulations for modernisation of historical buildings (or they are disregarded), and their users, and the authorities as well, are usually not aware of their value and a need for proper conservation.

Conclusions

A necessity for modernisation and adaptation to present-day functions is unquestionable. However, it would be appropriate to create mechanisms that would enable the investor's potential to be used for proper revitalisation of the housing complexes of historical value. In order to support dwellers in achieving this goal, some action must be taken, for example²⁴:

 development of alternative model solutions for remodelling particular types of buildings;

- preparation of working documentation for architectural elements and details (window glazing pattern, architraves) for every type of buildings;
- cooperation with other entities (e.g. universities) in preparing a strategy for particular units;
- promotion of best practices;
- education (starting with schoolchildren) in the perception of space and history of architecture.

Obviously, the functional value of these specific buildings must improve, but while doing this, we should make sure that the main characteristic features are preserved, as they are part of the heritage of the region. However, the future looks optimistic, as we notice a growing interest in Silesian architecture of the period in question, not only among researchers and experts, but the inhabitants as well. And this

^{22. &}quot;Wilcze Gardło" estate became home to repatriates from $\ensuremath{\mathsf{France}}$.

^{23.} Of the three cities discussed here, the worst situation is in Bytom, due to the restructuring of the coal mining industry and mining damage, the latter so destructive to urban buildings that they often collapse.

^{24.} Cielątkowska R., Metoda rewitalizacji osiedli socjalnych Gdańska okresu dwudziestolecia międzywojennego na przykładzie wybranych osiedli, Projekt celowy KBN, Gdańsk 2002.

gives hope that the buildings whose appearance has not been spoiled yet will preserve their original character²⁵.

25. The Gliwice district of Zatorze, separated from the city centre by a railway line, is not a prestigious one. The mid-20th-century settlement of multi-family houses located there survived almost in its original shape. The city authorities are planning to connect Zatorze with the city centre by an underground tunnel, which will certainly make it more attractive. There is a fear, then, that once the historic housing estate has become an attractive address, it will lose its homogeneous character, unless appropriate regulations are established.

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