Dwelling Houses of Building Cooperative Schlesische Heimstätte in Wrocław (Former Breslau) and in Silesia in 1919-1941 as a Precursor of Modern Ergonomics in Architecture

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Abstract. Wrocław should be regarded as the most important amongst German cities in developing and promoting modern domestic architecture in interwar period. The influx of refugees fleeing the territories of Germany had lost as a result of the war and massive migration to other cities exacerbated the housing shortages. With its economy ruined by the war and burdened with huge reparations imposed on Germany, the country undertook considerable efforts to develop and present model solutions. New building cooperatives and societies were established to develop modern housing estates. In Wroclaw, with the financial back up of the state, a housing cooperative – "Schlesiche Heimstätte" was founded in 1919. Between 1919-1925 it was managed by Ernst May and it specialized in building cheap and functional houses for the people of modest means. It worked out the catalogue of ready - made designs and published a magazine called "Schlesisches Heim". It built housing estates with small flats and functional gardens in sub -Wroclaw districts and towns in Lower Silesia. It existed till 1941. In new housing estates not only a new form but also or may be first of all, new construction solutions, new, promoted at that time, materials, new colors, new layouts of flats, new interior arrangement, new way of living in modern houses and new urban planning were presented.

Keywords: interwar period, "Schlesiche Heimstätte", dwelling houses.

1 Introduction

In Germany after World War I in years 1918-1923 inflation was a decisive negative economic factor. Since 1923 the inflation process started to increase suddenly. Since July 1923 German currency lost its function of means of payment. Cash was changed into valuables as quickly as possible. Economic development was totally crippled. Unemployment had increased till 1923. Thanks to introduction of Retenmark in October 1923 and stabilization of money as well as Charlsa Gatesa Dawes' scheme regulating reparations claims and loan connected with it, an upturn in economy in unknown, up till that time, degree started in Germany in 1924. Since 1924 a lot of credits, mainly from American investors, came in to Germany. They had long-term

impact on German economy. Between 1924-1929 German economy was relatively stable. Introduction of a tenement house tax in spring 1924 even improved it and made development of mass housing construction with the smallest two and three room flats in 1925-1930 possible.

In Wrocław need for flats was enormous. It was much bigger than in other German cities. Although a number of flats built here was as large as in, for example, Berlin, it was still not enough. Wrocław municipality gave an account of the worst housing conditions.

This enormous lack of flats was caused by division of Upper Silesia between Germany and Poland in 1922. It led to a great number of refugees. In 1919-1928 13.206 new flats were built with state money, where about 70 million marks came from city funds. Taking into consideration shortage of flats, minimal year demand for them was three thousand.

The 1920's and early 1930's were an exceptional period in the Wroclaw development stimulated by a fruitful collaboration between the local group of innovative architects and municipal authorities. The first master plan was prepared in 1924, new planning regulations were implemented in 1926 and the city's administrative area was greatly extended in 1928 through the incorporation of suburban communes. The city was perceived as a unique place on the map of Europe, a hub for new solutions to the housing problem.

In June 1919 building cooperative "Schlesiche Heimstätte", provinzielle Wohnungsfürsorgegesellschaft m.b.H (Silesian Homestead, provincial company supporting housing construction, Ltd.), was founded in Wrocław as part of Prussian housing act. It acted under the aegis of Ministry of Social Care. [1-5] It existed till 1941.

The partners of this company were: Prussian state, Silesian province, almost all country second levels of local government administration, a lot of districts and building cooperatives as well as Schlesiche Landgesellschaft. In 1925 construction office employed about 40 people and had its branches in Jelenia Góra (former Hirschberg), Legnica (former Liegnitz) and Wałbrzych (former Waldenburg).

It specialized in building small and functional houses for people of modest means and worked out a catalogue of ready designs. It built estates with small flats and functional gardens in sub-Wrocław districts and towns in Silesia. The company dealt with organizational, financial, technical issues as well as making out estate plans and building designs. It also helped to supply with building materials.

In 1920-1930 the company published, together with Oberschlesische Siedlungs- u. Wohnungsfürsorgegesellschaft m.b.H. (Upper Silesian Company supporting housing estates and flats construction Ltd.) "Schlesisches Heim" magazine in which it propagated new- cheap building materials, constructions, house shapes and gardens as well as interior fittings and colours.

2 Types of Houses, Constructions and Materials

In the first years after WWI, at the time of great postwar crisis, Ernst May - a young architect beginning his career, was appointed as a manager of "Schlesiche Heimstätte". May was under big influence of work of Theodor Fischer and Raymond

Unwin as well as movement for protection of native lands (Heimatschutzbewegung). He simply paid attention to traditional architecture. [4] The company was to supply people of modest means with healthy and properly furnished flats at low prices. Own house with a garden, often with an outbuilding for small livestock, was the long-awaited ideal and was connected with a possibility of growing own food. In hard economic times occupants - to - be quite often helped to build their future houses.

Ernst May's motto for construction design office concerned craft tradition, accuracy in outer shaping of a building block and architecture adjustment to a given surrounding. [4]

Architectural and urban planning concepts were to draw inspirations on Silesian countryside buildings. The buildings were to remind old houses and agricultural homestead.

After 1918, in order to lower construction costs, standardization and streamlining of construction processes were propagated. Standardization turned out to be a superior feature of "Schlesiche Heimstätte" company's construction despite its traditional, often rural look.



Fig. 1. "Schlesiche Heimstätte" detached house, Dahn type (Source: Schlesisches Heim, 5, no.3, p.74)

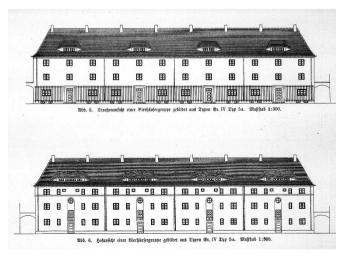


Fig. 2. "Schlesiche Heimstätte" multi family house, group IV, type 5a (Source: Schlesisches Heim, 1, no.4, p.10)

In construction office of "Schlesiche Heimstätte", a catalogue of 16 types of one and multi - family houses were worked out. First they were numbered but later on they were named after important personages of Silesian culture – reformers, architects, writers, poets, industrialists, philosophers, painters (e.g. Opitz, Schleiermacher, Gerhart Hauptmann, Karl Hauptmann, Damaschke, Langhans ojciec, Langhans syn, Freitag, Borsig, Boehme, Menzel, Ulitz, Dahn, Willmann, Logau, Neisser itd. [1], [4], [6 - 12] While standardizing window and door forms, "Schlesiche Heimstätte" cooperated with German industry committee for standardization. [4] Flats with a floor area from 52 m2 to 76 m2 were offered. Only "Menzel" terraced house as well as "Felix Dahn" detached house for moderately rich with a floor area of 144 m2 were larger. The propositions of the smallest houses were introduced in 1919-1920. They were crisis houses (dwelling summer houses) with a room, small barn and toilet. They were to be enlarged or replaced with new buildings after the economic situation would have improved. However, they were never mass-produced. [4]

May put emphasis on rational, functional and economic lay out of a flat where kitchen consisting of a dwelling part and cooking niche, was a central place. This type of flat was very common in Silesia.

Houses designed by "Schlesiche Heimstätte" were inspired by native style propagated earlier by Heinrich Tessenow. Traditional gable roofs, among the others centring roof, for example, in 1921-1922 in Ołtaszyn (former Oltaschin) estate for agricultural workers in Wrocław. Sloping roof of this construction not only let use the attic area better but also lowered the construction cost of the house.



Fig. 3. Dwelling house with centring roof in Ołtaszyn (former Oltaschin) (Source: Schlesisches Heim, 5, no.12)

Because of the lack of building materials after WWI, building cooperatives used substitute materials. "Schlesische Heimstätte" company presented a house with centring roof covered with clay shingle at Wrocław building fairs in 1921. [15 - 16] Three walls of the house were erected in "Schima" construction from fired airbrick which, because of larger size and smaller weight, allowed to build faster than from traditional brick. [4] The fourth wall was made from clay hollow bricks produced by "Schlesische Heimstätte" company. The company constructed a machine to produce such bricks. With its help it was possible to make use of the clay being on side. [4]

Traditional natural materials were recommended in all designs – walls built from bricks and plastered, wooden truss and roof covered with tile. [17] In order to find cheap solutions old local building materials were used. Walls could be built from dried clay blocks, limestone, calcareous slag or wood. Shingled or even thatched roof houses were suggested. [18]

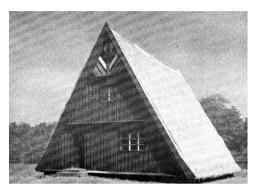


Fig. 4. Model House presented at Wrocław building fairs in 1922 (Source: Schlesisches Heim, 4, no.1)

"Schlesiche Heimstätte" from the very beginning of its activity based on massproduction, used standardized building elements of houses – beams, rafters, windows, doors, stairs, stoves etc.

3 Interior Fittings and Colours

Ernst May took advantage of colour as an important artistic means. Colour was to decrease the monotony of complexes of average houses. The use of colour by "Schlesiche Heimstätte" became part of all - German trend concerning colourful construction of interwar period.

Architects aspired to preserve originality of their works. Colour had become an excellent means to achieve individual character of the particular estates. It was used on house elevations and interiors.

In pages of "Schlesisches Heim" articles propagating the use of colour as well as those showing carried out examples and technical problems were published. [19 - 20] It was written that no other means adds, at such a little cost, peculiar character to rooms. "Schlesiche Heimstätte" designs were accompanied by colour cards showing designed colours of separate building parts both outside and inside. Paul Baumann's, from Aue in Sachsen, pattern book of 1350 different shades of colours was used. [21] Attention was paid to the impact of colour on men and possibility of the intensification of light and the sun in rooms. [20] Colours were chosen in accordance with the purpose of the rooms. Colours of the furnishings - furniture, stoves, lamps etc., were also taken into consideration. Two ways of obtaining elevation colour were pointed out – plaster coloured in a mass and plaster painted in paint. The first way gave small

possibilities to get diverse colours. In "Schlesiche Heimstätte" only 5-6 distinctive colours were obtained. The other way gave much bigger possibilities. "Keim" mineral paints were promoted. [21]

"Movement for colour" had its peak between 1926-1929. It revived thanks to the growth in economy. Colour was used in mass - housing construction not only by radical, avant-garde Neues Bauen architects (Bruno Taut, Otto Haesler) but also members of "Bund zur Forderung Farbe im Stadtbild e.V." (BFFS) founded in 1926. That second ternd was supported by craftsmen and industry producing paints. [22]

Bruno Taut was a pioneer of "movement for colour" (Farbenbewengung) in Germany. His love for colour was already noticeable in early garden estates built before WW I. Since 1913 together with Paul Scheerbart, he developed an idea of architecture and fine arts synthesis (Gesamtkunstwerk), placing colour equally with a building shape. His constructions inspired, among the others, Ernst May and encouraged to "fight for colour". "Farbiges Magdeburg" campaign ran since 1921 stimulated "movement for colour" in Germany in the next few years. They used bright colours such as: red, orange, blue, green, ochre, brown, purple, pink, grey and black. They also used vivid value and colour contrasts.

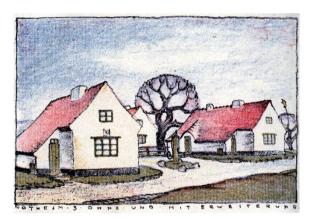


Fig. 5. Dwelling houses, Wrocław Złotniki (former Goldschmieden) (Source: Schlesisches Heim, 2, no.2)

After his visit to Magdeburg, Ernst May became convinced that the use of colour in architecture was a must. [23] In 1922 he published in "Schlesisches Heim" an article entitled "Fear of colour" (Angst vor der Farbe), in which he enthused about Magdeburg experiment and called for using colour. In 1919-1925 he built in Wrocław and its vicinity a lot of colourful estates (Klecina, Ołtaszyn, Prudnik, Bolesławiec – former Klettendorf, Oltaschin, Neustadt, Bunzlau). He designed buildings in the form of barracks where colour (red, blue, green) was the only decoration. May used, as he claimed himself, the cheapest and most decorative means to add life to simple architecture.

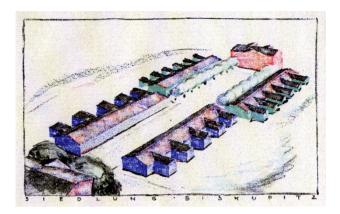


Fig. 6. "Schlesiche Heimstätte" estate, Zabrze – Biskupice (former Hindenburg – Biskupitz) (Source: Schlesisches Heim, 4, no.5)

In new housing estates, colour had an important task to do. It was to create an impression of secure estate space. Involvement of city building authorities who supported "movement for colour", played an important role in shaping colours of German cities of the time. Two methods were used - "colour dictatorship" according to Ernst May's concept which he initiated in Frankfurt on the Main (municipal officials who supervised painting works done according to designs made earlier were appointed) and consultancy based on freedom which was introduced in Wrocław. An independent organization enabling arrangement of colour designing according to identical criteria was founded here. Municipal Council for Visual Arts and "Colourful City" society were founded. A function of local visual artists who worked under four department managers: Theo Effenberger, Moritz Hadda, Hans Scharoun and Hermann Wahlich, was introduced. [24]

Interior fittings were also standardized. The dimensions of furniture designed by "Schlesiche Heimstätte" was adjusted to small flats. [25 - 26]

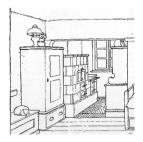




Fig. 7. Standardized furniture in small houses (Source: Schlesisches Heim, 1, no.2, p.4)

4 Gardens

Interest in landscaping was connected with cooperation with Leberecht Migge that started in 1922. The manifestation of it was Niederschlesische Gartenfürsorgegesellschaft m.b.H. (Lower Silesia Company for Supporting Gardening, Ltd.) founded in 1923 in Wrocław by "Schlesiche Heimstätte" and landscaping architect Leberecht Migge from Worpswede. The company signed a contract for an unlimited period and its aim was to make gardens as well as to support intensification of agriculture, especially small home gardens. Garden appliances were sold. The company was to realize its tasks in very close cooperation with "Schlesiche Heimstätte" and institutions called to support laying small gardens. Information on company's activities was published in "Siedlungs-Wirtschaft", a magazine edited by Leberecht Migge and Max Schemmel, since 1923 as a supplement of "Schlesisches Heim". The magazine popularized knowledge about agriculture, especially in small, functional home gardens and showed model gardens and estates. [27 - 28]

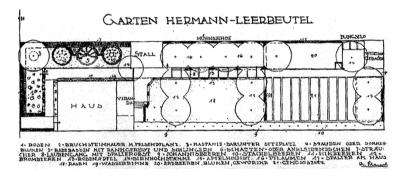


Fig. 8. Garden of "Schlesisches Heim" dwelling house in Wrocław, Zalesie (Former Leerbeutel) (Source: Siedlung – Wirtschaft, 3, no.12, p.437)

Allotments were also propagated. For example, in western part of Wrocław, in the vicinity of the road to Leśnica (former Deutsch lissa), on the Ługowina stream (former Schöngartener Flossgraben) in 1931, 300 modern common gardens "Am Flossgraben" were made by "Schlesiche Heimstätte". Gardens of area of 500 m², 600 m², 750 m² and 1000 m² were, first of all, to supply food. A lot of roads, playgrounds for children and numerous wells were built in that area. Garden owners had to build summer house in precisely marked places and according to types allowed by "Schlesiche Heimstätte". All the gardens had trees and fruit plants. Small Garden Union (Kleingartenverein) made out a decision that let people raise small animals in their gardens. The results of growing and raising were to support home budgets in hard times of crisis.

5 Conclusions

Activity of "Schlesische Heimstätte" shows the changes concerning shaping of social housing estates after the First World War according to the social situation in Germany.

The main task of "Schlesische Heimstätte", in compliance with its status was building of rural and suburban estates, that's why most of typical houses was of rural character what was very well accepted by future dwellers. Building form, interior' size, ergonomic furniture became a success of "Schlesische Heimstätte" activity in Silesia.

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