Notheime – Ergonomically Designed Crisis Houses of the Building Cooperative "Schlesische Heimstätte"

Jadwiga Urbanik

Wrocław University of Technology, Faculty of Architecture, Institute of History of Architecture, Arts and Technology jadwiga.urbanik@pwr.wroc.pl

Abstract. 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.

In Wrocław need for flats was enormous. It was much bigger than in other German cities. In June 1919 building cooperative "Schlesische 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.

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 "Schlesische Heimstätte". The company was to supply people of modest means with healthy and properly furnished flats at low prices.

In the first half of the twenties so called crises houses (*Notheime*) were proposed. The propositions of the smallest houses were introduced in 1919-1920. They were 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.

Because of the lack of building materials after WWI, building cooperatives used substitute materials. Traditional natural materials were recommended in all designs – walls built from bricks and plastered, wooden truss and roof covered with tile. 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.

A lot of attention was paid for economically and ergonomically designed layout of crises houses. They were to solve the enormous dwelling problems in Wroclaw and Silesia.

Keywords: interwar period, "Schlesische Heimstätte", dwelling houses, crisis houses, *Notheime*.

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1 Introduction

In years 1918-1923 inflation was in Germany 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.

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.

In June 1919 building cooperative "Schlesische 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 Schlesische 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

In 1919 Ernst May, was appointed as a manager of "Schlesische Heimstätte". May was under big influence of 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, 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.

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 "Schlesische Heimstätte" company's construction despite its traditional, often rural look.

In construction office of "Schlesische Heimstätte", a catalogue of one - and multi - family houses were worked out.

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.

Because of the lack of building materials after WWI, building cooperatives used substitute materials. Traditional natural materials were recommended in all designs – walls built from bricks and plastered, wooden truss and roof covered with tile. [6] 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. [7]

2 Model Houses from the 1921 and 1922 Breslau Fairs

In Germany, after the First World War, prices in the housing industry raised 40 - 50 times compared to the pre-war period. Small residential houses, self-constructed by the estate owners were seen as a solution to the housing shortage problem. Many such houses were built in the immediate post war period, especially in the countryside. It was seen as its duty by Schlesische Heimstätte to support this movement in any way necessary.

"Schlesische Heimstätte" company presented a house with centring roof covered with clay shingle at Wrocław Building Fairs in 1921. [8-9] 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. 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]

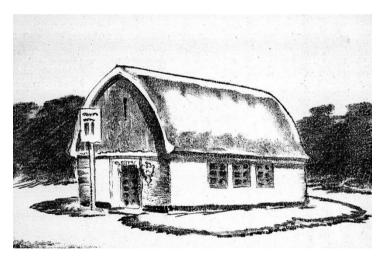


Fig. 1. Model Schlesische Heimstätte house from the 1921 Breslau Fairs (Source: Schlesisches Heim, 2, no.5, p.114)

The Schlesische Heimstätte exhibition pavilion in the 1922 Breslau Technical Fair was redesigned according to the DIY ethos. Architectural consulting was seen as the company's main field of activity. The quest for more efficient solutions was dictated by constantly raising costs of construction materials and transport. A DIY house was designed to be basic and simplistic. All the necessary construction work should have been possible to accomplish by non-specialist workers.

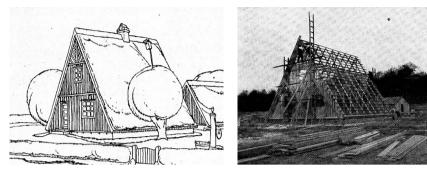
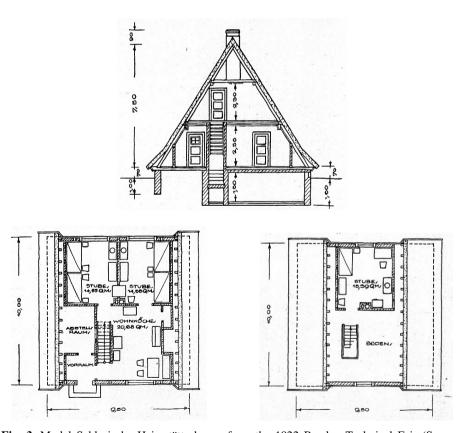


Fig. 2. Model Schlesische Heimstätte house from the 1922 Breslau Technical Fair (Source: Schlesisches Heim, 3, no.5, p.110)

The 10000% rise in the roof tiles' costs forced constructors to eliminate such expensive materials and substitute them with more readily available ones. The DIY house from the Technical Fair was erected without any outer walls – mainly as a wooden structure.



 $\textbf{Fig. 3.} \ \, \textbf{Model Schlesische Heimstätte house from the 1922 Breslau Technical Fair (Source: Schlesisches Heim, 3, no.5, p.111)}$

The beam which held the gable roof was supported on the first floor level by the low foundations made of field stone, crushed stone, bricks, concrete etc. This solution had a great advantage: it completely eliminated the need for costly materials for the outer walls. The house was painted with saturated colours. The intended roof covering was made from clay and straw thatch (clay shingles) and assembled by the owner.

The collar beams on the first and second floor level supported the rafter to prevent it from collapsing. They served as a construction holding the ceiling and propped the attic floor (under the ridge). A system of pillars and purlins made of roughly hewn logs complemented the rafter. The roof covering made of clay soaked thatch (clay shingles) was put on this structural frame. The walls between the wooden construction poles were made of straw cemented with clay (if it was available near the construction site). Such walls were pasted with straw and clay from the inside and then reinforced with reed or wood and plaster. The gables were covered with bituminous felt and wooden facing made of unplaned planks. To improve the durability of the building, wooden parts were coated with karbolineum. The roof was covered with clay shingles. The main room in the house was a traditional living room-kitchen (Wohnküche) connected with two double bedrooms. Besides, there were also stairs leading above to the attic and one additional living room. [10,11].

3 Crisis Houses – Notheime

The extreme price increase after the WWI (over 8 times for a m2) brought about the search for more economic methods of house building. The easiest way to cut the costs was size reduction. They took pattern from the small traditional cottage houses (sized 4x6 m) of the Riesengebirge (Karkonosze) region. Another source of inspiration was the social housing complex founded in the XVI century by Jacob Fugger in Augsburg. The lodgings of the Fuggerei consisted of only the most basic chambers. Architects of the time drew their ideas from the above mentioned examples to design the crisis house – Notheime. [12].

The proposals 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. [7]. However, they were never mass-produced. [4]

The VI group's 7a type building has been suggested for the country environment. It was situated further back, 10-12 m from the building line. In better economic situation, the house could have been transformed into a utility building with a proper residence built by the street. The 7a type was intended to be a temporary residence for a 5 member family.

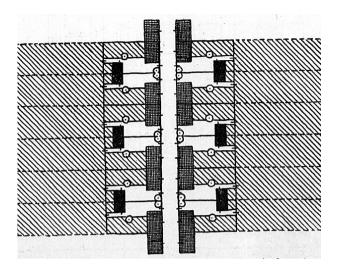


Fig. 4. The dwelling estate plan with crises houses, group VI, type 7a (Source:Schlesisches Heim, 1, no.2, p.3)

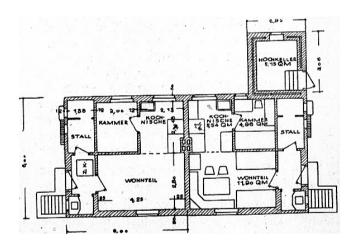


Fig. 5. Crises house, group VI, type 7a (Source: Schlesisches Heim, 1, no.2, p.2)

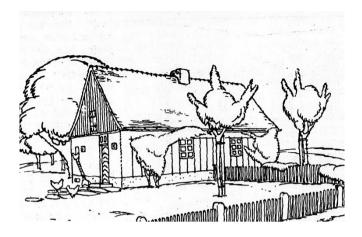


Fig. 6. Crises house, group VI, type 7a (Source: Schlesisches Heim, 1, no.2, p.3)

Tiny hall of 2m2 served as a vestibule and a passage leading to the toilet and barn (for goats, rabbits and chickens). It was also connected with the basement of 9m2. The main room was the living room-kitchen of 17m2, divided between the living room section and the kitchen niche. The living room section contained parent's bed and dining space. A furnace, kitchen stove, sink, food locker and a folding table filled in the kitchen niche.

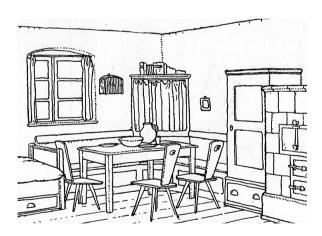


Fig. 7. Crises house, living room-kitchen (Wohnküche), group VI, type 7a (Source: Schlesisches Heim, 1, no.2, p.4)

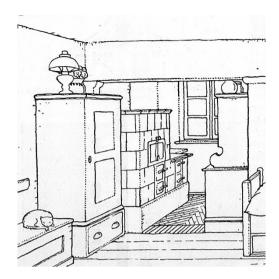


Fig. 8. Crises house, kitchen niche, group VI, type 7a (Source: Schlesisches Heim, 1, no.2, p.4)

Ship cabin and sleeping car patterned children bedroom contained two or three bunk beds, big wardrobe and a folding table. It was accessible from the kitchen niche. Such layout allowed the space to be easily warmed and illuminated. The attic, accessible by the outer staircase and the door in the gable was used for storing the crops and drying clothes. Particular furniture, specifically adapted to such small spaces has been also designed.

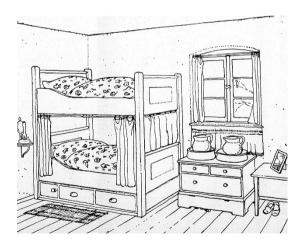


Fig. 9. Bed room in crises house (Source: Schlesisches Heim, 1, no.3, p.16)

The III group, type 4 crisis house served for residential purposes only. In this case the dimensions of the interior space were also minimized. It was primarily aimed at families with children, but could also be inhabited by young couples, singles, disabled or retired people. It was possible to join the buildings into rows to use the terrain more economically. It was specifically utilized in urban environment, on 200m2 parcels. Small vestibule was connected with habitable kitchen and tiny bedroom. There was also utility space situated in the back of the house.

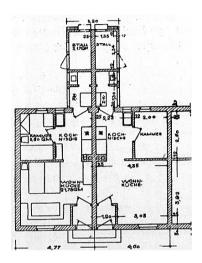


Fig. 10. Crises house, group III, type 4 (Source: Schlesisches Heim, 1, no.2, p.6)

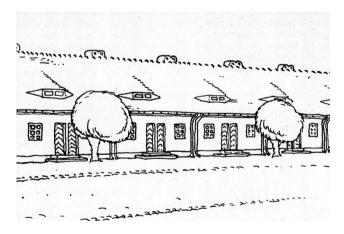


Fig. 11. Crises house, street view, group III, type 4 (Source: Schlesisches Heim, 1, no.2, p.8)

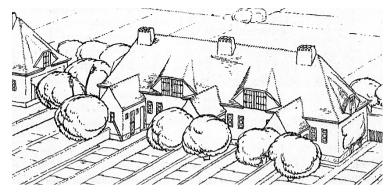


Fig. 12. Crises house, garden view, group III, type 4 (Source: Schlesisches Heim, 1, no.2, p.8)

4 Conclusions

The crisis houses project from post-war years in Breslau and Silesia province was a reaction to the, so called, tenement multi-family houses existing in the big cities. Single-family house, even reduced in size, was a good alternative for narrow and crowded tenement apartments. Designers utilized ergonomic methods in interior planning suitable for the minimal needs of future inhabitants.

References

- Kononowicz, W.: Wrocławskie dokonania urbanisty i architekta Ernsta Maya w latach 1919-1925 – etapem w drodze do funkcjonalnego Frankfurtu. Kwartalnik Architektury i Urbanistyki 55, 3–38 (2010)
- Ludwig, B.: Osiedla mieszkaniowe w krajobrazie wałbrzyskiego okręgu górniczoprzemysłowego (1850-1945). Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław (2010)
- Ludwig, B.: Ochrona wartości krajobrazowych w projektach osiedli autorstwa spółki "Schlesisches Heim" pod kierunkiem Ernsta Maya na Dolnym Śląsku. Kwartalnik Architektury i Urbanistyki 56, 3–22 (2011)
- Störtkuhl, B.: Ernst May i Schlesische Heimstätte. In: Quiring, C., Voigt, W., Cachola Schmal, P., Herrel, E., (eds. German edition), Ilkosz, J. (ed. Polish edition) Ernst May 1886-1970, pp. 23–31. Muzeum Architektury in Wrocław, Wrocław (2012)
- 5. Urbanik, J.: Schlesische Heimstätte. In: Eysymontt, R., Ilkosz, J., Tomaszewicz, A., Urbanik, J. (eds.) Leksykon Architektury Wrocławia, p. 1020. Via Nova, Wrocław (2011)
- 6. Lübbert: Eine billige Bauweise. Schlesisches Heim 1(6), 2–4 (1920)
- May, E.: Können wir noch b\u00e4uerliche Siedlungen treiben? Schlesisches Heim 1(9), 4–7 (1920)
- 8. Ausstellungshaus des Schlesischen Heimes auf der Breslauer Messe. Schlesisches Heim 2(5), 114–119 (1921)

- 9. May, E.: Der Lehmbau Brandprobe eines Lehmschindeldaches anläßlich der technischen Messe in Breslau am 5. Juni 1921. Schlesisches Heim 2(6), 168–170 (1921)
- May, E.: Das Ausstellungshaus der Schlesischen Heimstätte auf der Breslauer Technischen Messe. Schlesisches Heim 3(5), 109–112 (1922)
- 11. Schlesisches Heim 4(1) (1923)
- 12. May, E.: Notheime. Schlesisches Heim 1(2), 1–10 (1920)