THE SHAPE OF THE GREEN AREAS OF THE WUWA MODEL URBAN HOUSING ESTATE IN WROCLAW

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Abstract

The WuWA urban estate in Wroclaw is one of six model housing estates which were built in Europe in the late '20s and '30s of the twentieth century. They were the result of a search for new architectural solutions and an attempt to solve the problem of functional and economical housing, which post-war Europe was experiencing.

The Wroclaw housing estate, compared to others, is distinguished by a variety of types of houses designated for different social groups, and the importance which was given to the art of gardening. The architecture of this housing estate is well known and a lot of studies have been written about it. There is however, a lack of extensive knowledge about the design of the residential green areas which were an integral part of the original model concept and only traces of them remain to this day.

The article presents the results of conducted historical research regarding this issue. The way of designing the green areas of the model housing estate, both common and adjacent gardens, against the contemporary trends of the German art of gardening have been discussed. The publication contributes to the deepening of knowledge about one of the most famous modernist housing estates in Europe, and thus extends the knowledge about the development of urban green areas in the first decades of the twentieth century.

Key words

Garden art; urban green areas; Werkbund; Wroclaw; WuWA model urban estate

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1 INTRODUCTION

The model housing estste was built in 1929 in Wroclaw for the purpose of the "Workplace and house" exhibition (originally "Wohnung und Werkraum" Ausstellung, in shortcut WuWA), organized by the Silesian Commitee of Werkbund (originally Schlesischer Landesverband des Deutschen Werkbundes). Eleven well-known architects of Wroclaw were invited to do this realization, among which were: Paul Heim, Albert Kempter, Theodor Effenberger, Ludwig Moshamer, Hans Scharoun, and also Adolf Rading and Heinrich Lauterbach, who were also the authors of the overall concept of the estate (Figure 1).



Figure 1: A plan of the WuWA model estste dated from the year 1929. For the purpose of this publication the authentic numbering of buildings was aplied:
1-multi-family gallery-access block of flats; 2 - kindergarten; 3-6- terraced house for eight families; 7- multi-family high apartment building; 8 - garages (not done); 9 - multi-family block of flats; 10-22 - single-family terraced houses; 23-25 - terraced house (not done); 26-27 - semi-detached house with garages; 28 - single-family house with a garage; 29-30 - semi-detached house; 31 - hostel for single people and childless couples; 32-33 - semi-detached house; 34 - single-family house (not done); 35-37 - single-family houses

An objective for the creators of this concept was to present new types of low-cost, small and medium-sized flats which had considerable contemporary social importance, as in the interwar period Wroclaw was one of the most overcrowded German cities. Technologies and building materials, modern for those times, were used for the construction of the housing estate, such as: framing, prefabricated and panel constructions. Their usage enabled houses to be given, typical for modernism, new forms of simple cubic solids with flat roofs and large glass areas which opened their interiors to the surrounding greenery.

The plan of the housing estate was arranged in accordance with the current 20th century trends in urban planning, which assumed the need to provide access of air, sunshine and greenery for houses. These assumptions were consistent with the housing policy conducted in Wroclaw, which promoted modern housing which would meet hygiene requirements [1]. Therefore, in the area of the model estate, common green areas and adjacent gardens were developed, and in the process of their formation the designers of individual houses and landscape architects were involved.

The WuWA model housing estate was not a separate phenomenon. The Wroclaw architect environment maintained close contacts with European avant-garde artists in other cities. As a result of this cooperation, in the years 1927-1932, six housing estates associated with exhibitions were built. In addition to the WuWA housing estate there were also: Weissenhof in Stuttgart (1927), Nový Dům in Brno (1928), Neubühl in Zurich (1931), Lainz in Vienna (1932) and the famous Prague Baba (1932). However, in comparison to them the Wroclaw realization was distinguished by the diversity of types of houses for different social groups and the importance which was given to the art of gardening, as everywhere else the greenery was not such an important part of the exposure [2].

The purpose of this article is to collect and systematize knowledge related to ways of forming the green areas of the model housing estate which were an integral part of the model concept and only traces of them remain to this day.

2 LITERATURE REVIEW

There are a lot of publications on the WuWA model housing estate. These are mainly the studies of Polish and German authors, the first of which appeared in the late '70s of the twentieth century. They are mainly about the architecture of the unique concept, marginalizing other aspects related to it such as adjacent house gardens.

The entire WuWA housing estate or some of its buildings were repeatedly mentioned in studies regarding the architecture of the twenty-year interwar period [among others: 3, 4, 5, 6] and it is also present in almost all publications on the German Werkbund. In addition to this, its topic appears in publications on Wroclaw architecture and urban planning of the first decades of the twentieth century, for example in Ernest Niemczyk publications [7, 8]. A publication by Lubomír Šlapeta and Vladimír Šlapeta [9] published in the journal "Bauwelt" on the fiftieth anniversary of the housing estate deserves particular attention. It is a collection of articles selected by authors from the pre-war press and can be safely treated as source material.

Jadwiga Urbanik carried out detailed research regarding the WuWA housing exhibition and the housing estate which was built in association with it. As a result of studies conducted by her in the last decade of the twentieth century, numerous publications, including two books [2,10] were developed. The author mentions in these publications about the modern adjacent house gardens in which the greenery and landscape architecture were associated with the style of adjacent buildings. All this information, however, is of a very general nature.

The most recent publication which is dedicated to the WuWA urban estate appeared in 2014 [11]. Issues related to the way of forming the green areas of the housing estate were also omitted in it. However, the publication is worth mentioning because it is a part of a project carried out in Wroclaw, co-financed by the European Union in cooperation with the European Regional Development Fund and under the Regional Operational Programme for the Province of Lower Silesia for the period 2007-2013. The project is called "Programme of promotional activities to strengthen the recognition of the WuWA housing estate in Wroclaw as a tourist destination". The main objective of the project is to implement actions that will result in the existence of the WuWA housing estate on the tourist attraction map of Wroclaw.

3 METODOLOGY

This publication, regarding the used methodology, is based both on research conducted in the field, and also on traditional research methods which are practiced and verified in the area of historical research.

As a result of conducted field research it was found that in contrast to the architectural objects which remain almost unaltered, the gardens created in the area of the WuWA model housing estate have not survived. Some of their concepts have left only a few traces in the form of fragments of stone retaining walls or garden stairs made of clinker brick. Therefore, in order to obtain information on how the green areas of the housing estate were designed, it was necessary to conduct a survey of the source materials in the archives and libraries of Wroclaw and Berlin. Bibliographic materials such as e.g. articles in the daily and trade press and also iconographic sources in the form of architectural projects, photographs and drawings included in publications from the '30s of the twentieth century which were saved to a different degree, were of interest.

There is a relatively large number of such remaining materials. At the time of construction the housing estate which was assosiated with the WuWA exhibition caused great interest in the contemporary press which included a lot of information about it.

4 **RESULTS AND DISCUSSION**

Conducted archival research showed that the green areas of the WuWA Wroclaw model housing estate, built in 1929, were shaped in an innovative way for those times, and their composition was associated with the architecture of adjacent houses. This was consistent with trends in the area of shaping greenery which occurred in the late '20s and '30s and according to which the basis of designing gardens was the synthesis of architectural and landscape style. The architecture of buildings and the surrounding greenery was linked compositionally and functionally, among others, through the introduction of regular, geometrically planed concepts of plant systems, water and other compositional elements. The biggest geometrization was visible in small gardens which were increasing in number in the rapidly developing cities [12].

The green areas of the WuWA model housing estate consisted of two zones: common greenery and private adjacent gardens. Common green areas were planned in the direct vicinity of multi-family buildings. They were given the form of extensive lawns with benches located nearby in the niches of surrounding hedges. In addition to this, an immersed courtyard with a simple geometric form designed by Erich Vergin was erected at the rear of the multi-staircase apartment house designed by Gustav Wolf (No. 3-6), near the multi-family gallery-access flats designed by Paul Heim and Albert Kempter (No. 1) and the tenement house designed by Adolf Rading (No. 7). Stairs located at several places on a slope which was covered with plants led to it and numerous landscaping elements, designed to serve the residents were placed in the sunny immersed part of the courtyard (Figure 2).

Similar solutions were used in many other German housing estates from the interwar period, and their promoter was, among others, one of the best German landscape architects, designer of green areas of many German housing estates and also the author of publications regarding the modern urban gardens, Leberecht Migge. In the Hufeisen housing estate in Berlin, in addition to individual gardens located in the direct vicinity of houses, he proposed a central green area with a pond in the middle surrounded by beech hedges and planted with flowering bushes. In the Siemensstadt housing estate he reduced individual gardens to a minimum and instead designed a central meadow, giving the green area park characteristics [12].



Fig.2: Photograph published in the "Moderner Wohnbau" journal in 1929. In the foreground is the common recreational area of the housing estate in the form of an immersed courtyard designed by Erich Vergin. In the background is model house No. 7 seen from the west and on the right side is multi-staircase tenement house No. 3-6

The private gardens of the housing estate which were located next to single-family houses were also designed according to the above-mentioned guidelines. Their authors were the designers of individual model houses and also landscape architects including Erich Vergin – the author of the garden next to multi-family house No. 9, Kurt Schütze – the designer of the garden next to single-family house No. 28, Julius Schütze – the author of the garden concept by semi-detached house No. 29-30 and Fritz Hanisch – the author of the garden next to semi-detached house No. 32-33.

The front gardens were given minimalist forms reduced only to lawns surrounded by hedges which emphasized the geometric composition and marked the boundaries of parcels. The gardens at the back of the houses had more varied compositions. They were characterized by sunny terraces which join the houses with their gardens and also by geometric divisions of the landscape where the straight lines of paths and lawn edges were highlighted by plants in the form of low hedges.

Differences in ground levels, when occurring, were overcome with the help of steps, which were mainly made of clinker in the case of gardens designed by known German landscape architect Paul Hatt. Concepts designed by Paul Hatt (such as: gardens next to terraced houses No. 10-12 and 21-22, and a garden next to semi-detached house No. 26-27) were distinguished by rock plant-clad retaining walls made of Silesian limestone using the drylaid method (Figure 3).



Fig. 3: A fragment of the garden by Paul Hatt next to single-family terraced houses No. 10-12, photo published in the "Moderner Wohnbau" journal in 1929. In the foreground is a terrace which ends with a retaining wall made of Silesian limestone using the drylaid method

Gardens located next to houses with organic architecture characteristics had a slightly different form and their conception was first presented in 1925 in the "Die Form" journal. These were: a hostel for single people and childless couples (No. 31) designed by Hans Scharoun and single-family houses No. 35, 36 and 37, designed respectively by Heinrich Lauterbach, Moritz Hadda and Ludwig Moshamer. These houses, when compared to other building objects of the model housing estate, were distinguished by sophisticated shapes and large glass areas which enabled the interpenetration of the interior space with the environment. A characteristic feature of the adjacent gardens were plant beds located along the bulding walls, including flower beds whose role was to emphasize the unusual curved facades (Figure 4).



Fig. 4: Photo from 1929 presenting a fragment of the garden by Julius Schütze at singlefamily house No. 35 with characteristic flower beds along the building walls which emphasize curved facades.

This mutual interpenetration of interiors and the external environment was particularly visible in the case of the hostel designed by Hans Scharoun, which certainly happend due to the fact that the whole design - both the house and adjacent compositions of greenery - came from the hand of one designer.

At the front of the building, in order to highlight the difference in ground levels, Scharoun designed a retaining wall made of drylaid stones, along which, were colorful flower beds highlighting the curvilinear shape of the construction. Similar flower beds were located in the area of the large garden spreading out at the back of the building. They were distinguished by irregular shapes and were situated along the path leading into the garden and surrounded by low walls. Moreover, multi-species compositions were diversified by boulders derived from local stone pits from which also came the material used to execute the path across the lawn. On the roof above the left wing of the building, Scharoun designed a leasure terrace with seven huge concrete flower pots with geraniums and climbing plants under which was designed a special metal construction supported on reinforced concrete columns (Figure 5).

One of the model building objects was also a Kindergarten (No. 2) – a ground-floor building with a flat roof and a skylight which transmited light into the interior. The adjacent garden by Erich Vergin was divided into a tree-shaded entrance area which was located in the south: a terrace and a sunny playground area equipped with a paddling pool, sandpits, benches and also a small pre-school didactic garden (Figure 6).



Fig. 5: Photo published in the "Innen-Decoration" journal in 1929 presenting the terrace on the roof of the hotel designed by Hans Scharoun



Fig. 6: Photo on a postcard from the '30s of the twentieth century presenting pre-school garden planning (model house No. 2) by Erich Vergin.
Visible, among others: a covered terrace, a playground area equipped with a paddling pool, sandpits, benches and a small pre-school didactic garden

5 CONCLUSION

The plan of the WuWA modern urban housing estate in Wroclaw which is one of the six model modernist housing estates in Europe was arranged in accordance with the current 20th century trends in urban planning which assumed the need to provide houses an access to air, sun and above all greenery.

The conducted research showed that the green areas of the described model housing estate – both communal greenery and adjacent gardens - were shaped in an innovative way for those times and their composition was associated with the architecture of the adjacent houses.

Most of the gardens were given simple and unsophisticated forms. They were characterized by sunny terraces which join the houses with their gardens and also by geometric divisions of the landscape where the straight lines of paths and lawn edges were highlighted by nearby plants. A slightly different form received the designed adjacent house gardens which presented characteristics of organic architecture. The plants were shaped in a way to accentuate the most unusual curved facades of the buildings.

All the forms of gardens which were proposed by the authors of the WuWA model urban housing estate were assosiated with the current late '20s and '30s German trends for shaping green areas. The Wroclaw concept, however, was distinguished by a regional element. All architects designing gardens for this housing estate were connected to the capital of Silesia, and were therefore using well-known materials of local origin which gave the gardens individual character.

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