

## ARCHITECTURE OF INDIVIDUAL BUILDINGS IN RESIDENTIAL FORMATIONS OF WESTERN BELARUS IN THE 1930-S.

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### **Abstract**

In the 1930-s, estate development did not become widespread in the mass housing construction of Western Belarus. However, in the structure of new residential formations in Molodechno and Postavy, separate single-family houses-villas were erected. The article discusses their architectural and planning, spatial, compositional and stylistic features. The combination of these features makes it possible to attribute the described building to the architecture of rational modernity. The houses have asymmetrical compositions consisting of rectangular volumes of different sizes, flat roofs. The internal organization of houses combines techniques of axial symmetry and flowing space. The described objects have retained their original appearance and need state protection.

**Keywords:** estate development, rational Art Nouveau, Western Belarus, architectural heritage.

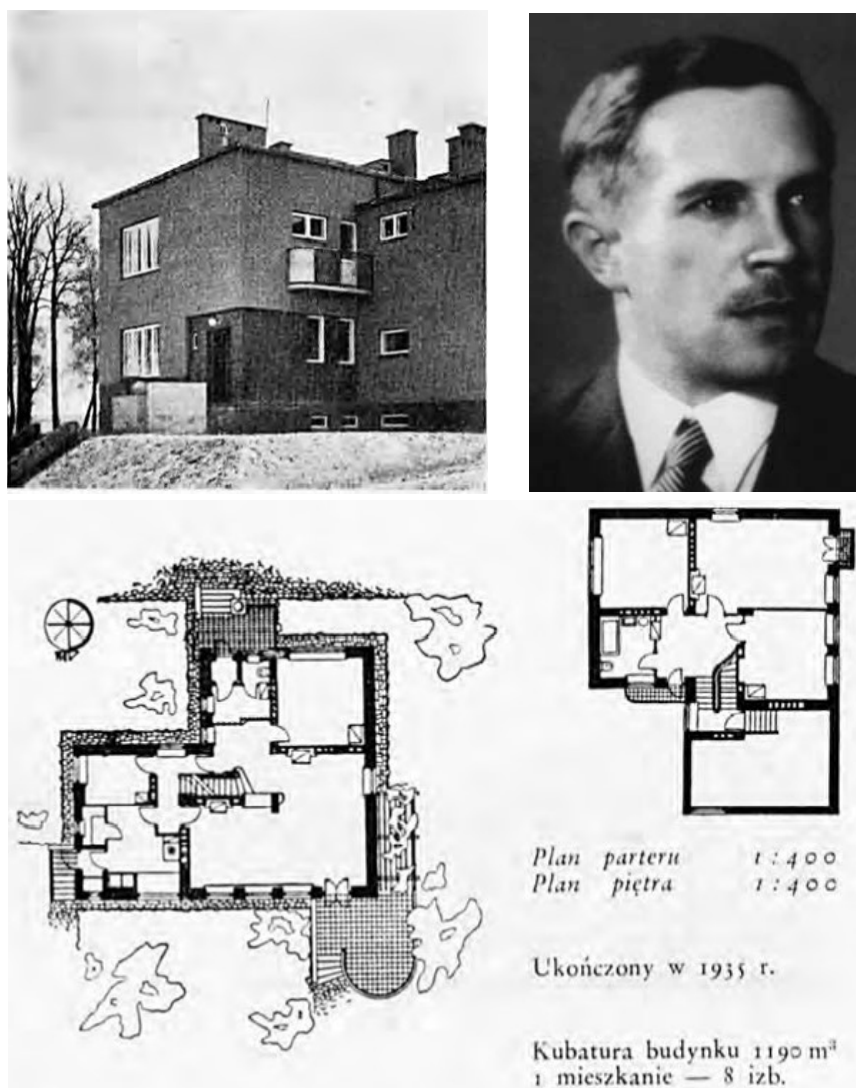
### **Introduction**

The manor architecture of Western Belarus (1921–1939) is primarily associated with projects implemented in the early 1920-s as part of the state program to provide housing for civil servants [1, pp. 119–123]. Their spatial, compositional and stylistic solutions were based on the regional traditions of Art Nouveau architecture [2, p. 6]. In the 1930-s, due to the spread of modernist ideas in Europe, the architecture of most individual residential buildings acquires rationalistic features [3]. However, during this period, estate residential development on the territory of the Western regions of the country did not receive proper distribution in mass housing construction. Multi-apartment residential buildings replaced the homestead construction of small residential formations (employee colonies) characteristic of the early 1920-s [1, p. 124]. During this period, most of the manor houses were built according to individual orders, they were located in the structure of already established settlements, on vacant lots. The design and construction were carried out by local specialists who followed the latest achievements of world practice, relying on information from periodicals [4, p. 56]. The compositional and stylistic features of such an individual residential development are largely described by domestic authors E. V. Morozov and A. S. Shamruk [2; 5].

In the structure of residential units erected in the mid-1930s, there are individual single-family houses. Their characteristic features have not been studied and described. These are, first of all, villa houses in Molodechno and Postavy [6, pp. 60–61]. Their appearance indicates the predominance of a rationalistic approach in design. The buildings were implemented by state order, the authors of the projects of which were famous Polish architects.

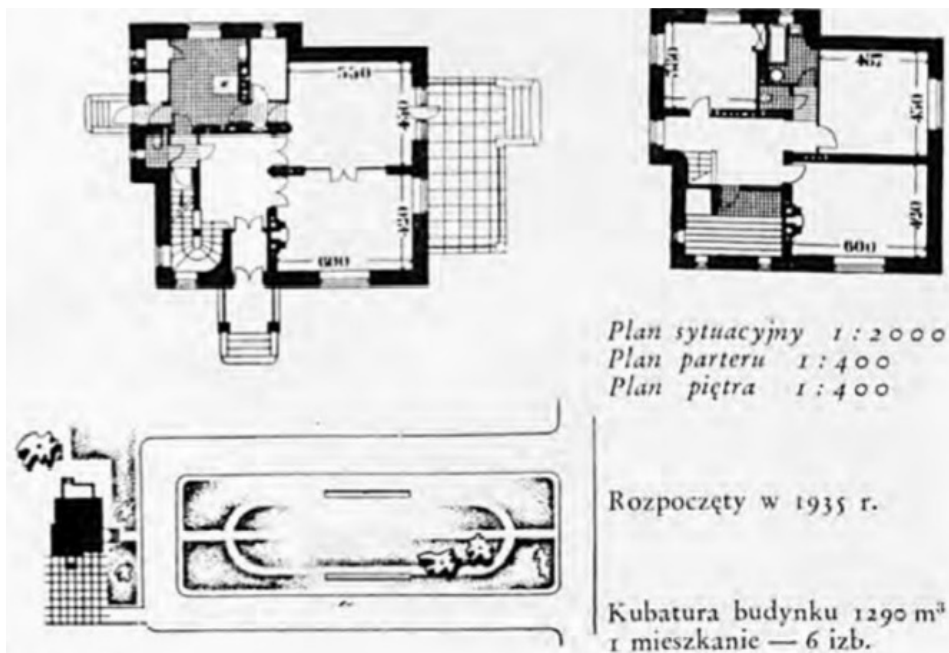
## Methods

Manor house-villa for the commander of the regiment in Molodechno was designed by Alexander Kafarsky in 1935 (paul. Alexander Julian Kafarsky, 1899 (?)-1945, Frankfurt) – Polish architect, graduate of the Architectural Faculty of Warsaw Polytechnic, Second Polish Republic (1931, engineer-architect), president of the Union of Polish Architects (SARP), until 1939 [7] (figure 1). The modern address of the building: Minsk region, Molodechno, Constantia Builo str., 1. Total area: 210 m<sup>2</sup> (235 with terrace), residential – 120 m<sup>2</sup>. The house is designed for 8 people.



1) photograph, circa 1937 [8, p. 79]; 2) A. Kafarsky; [7]; 3) floor plans [8, p. 79]  
*Figure 1 – House-villa of the regiment commander in Molodechno*

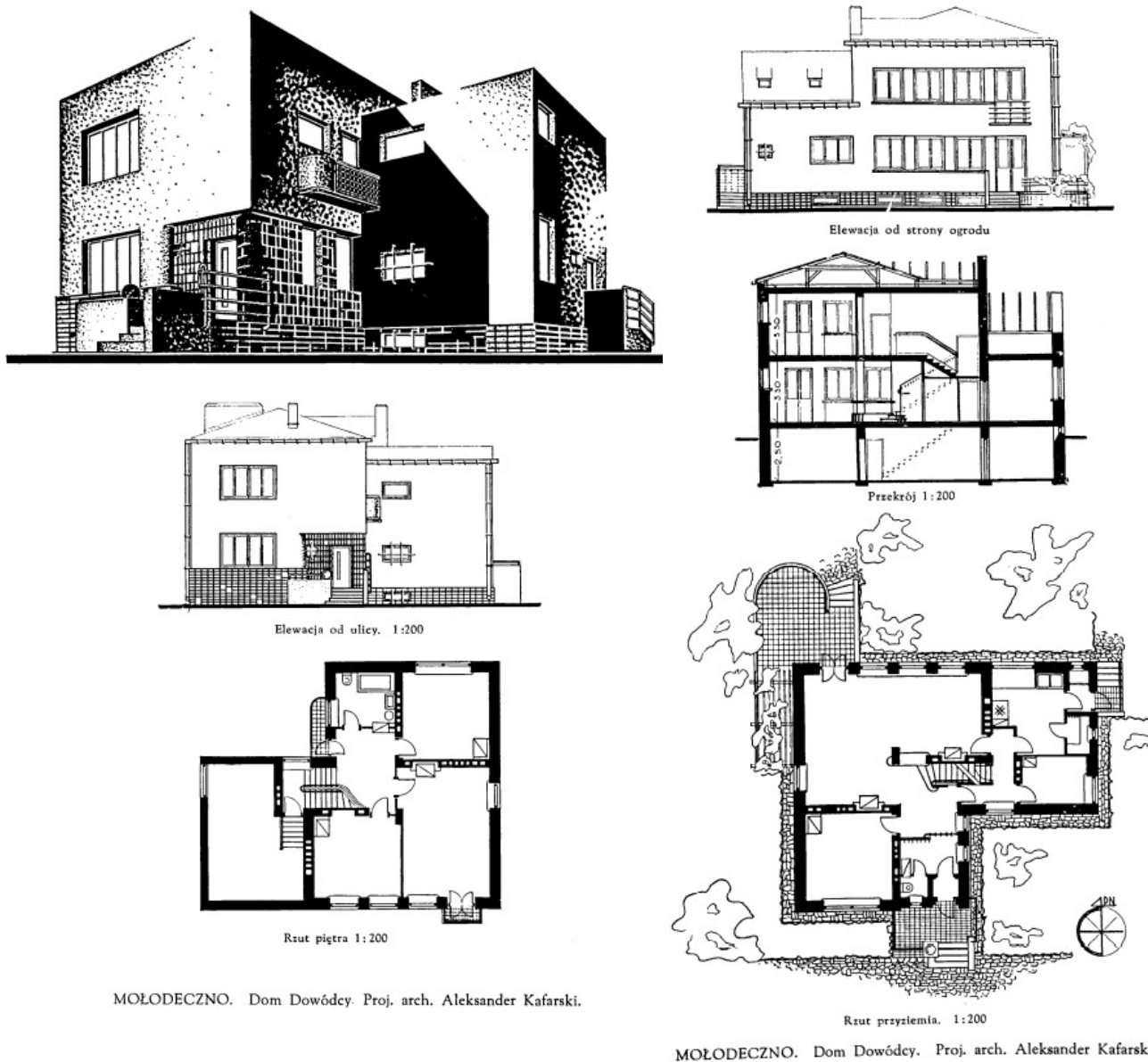
Manor house-villa for the commander of the regiment in Postavy was designed by Czesław Wolff in 1935 (Paul Czesław Wolff (Wolf), 1885 – 1953) – Polish architect and military (colonel), graduate of the Architectural Faculty of Lviv Polytechnic, Austria-Hungary (1912, engineer-architect) [7] (figure 2). The modern address of the building: Vitebsk region, Postavy, Stankevich str. Total area: 195 m<sup>2</sup> (220 with terrace), living area – 115 m<sup>2</sup>. The house is designed for 6 people.



1) photograph, circa 1937 [8, p. 86]; 2) C. Wolff [7]; 3) floor plans, general plan scheme [8, p. 86]  
*Figure 2 – The house-villa of the regiment commander in Postavy*

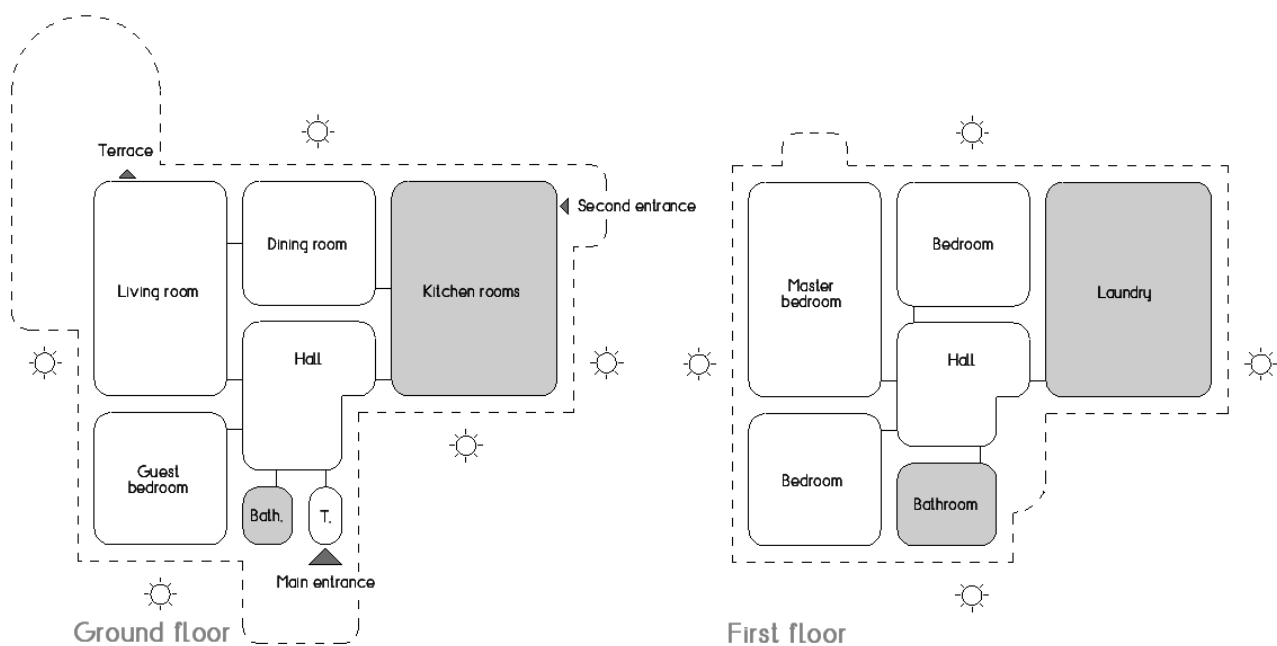
### Results and discussion

The building in Molodechno is two-storeyed with a basement, has an asymmetric spatial composition consisting of two rectangular volumes of different sizes with a low-sloping roof (figure 3). The building is located on a hill. The facade is formed by a contrasting combination of planes made of different materials (cement brick, clinker brick, rough concrete). Part of the facade plane, lined with clinker brick, distinguishes the entrance group. In different volumes, the height of the base is different. The basement is also lined with clinker brick. The composition is emphasized by different-sized windows – large four-leaf windows in living rooms and small ones in utility rooms. Above the windows are straight lintels of brick laid on an edge. The entrance porch with a high flight of stairs, without a canopy, has an open area. On the second floor there are exits to narrow balconies from the master bedroom and the hall.



*Figure 3 – House in Molodechno: general view, facades, section, floor plans.*

The composition of the plan is L-shaped. The main volume is intended for the residents of the house, the second – for the servants. Each volume has its own input. A group of rooms in the collective zone is formed by a central hall with a staircase and a dining room and a living room located around it with access to the terrace (figure 4). At the same time, the composition of these rooms is open, separated functionally only by barriers. Fireplaces are arranged in the living and dining areas. In the hall there is also a guest bedroom for two, a toilet and a place to store outerwear. The block of service rooms includes a separate entrance (black), food pantries, a spacious working kitchen (equipped with a stove, a double sink and a cutting table), a maid's room. A group of these rooms is united by a common narrow corridor-vestibule, from which exits to the dining room, descent to the basement and exit to the hall are arranged.



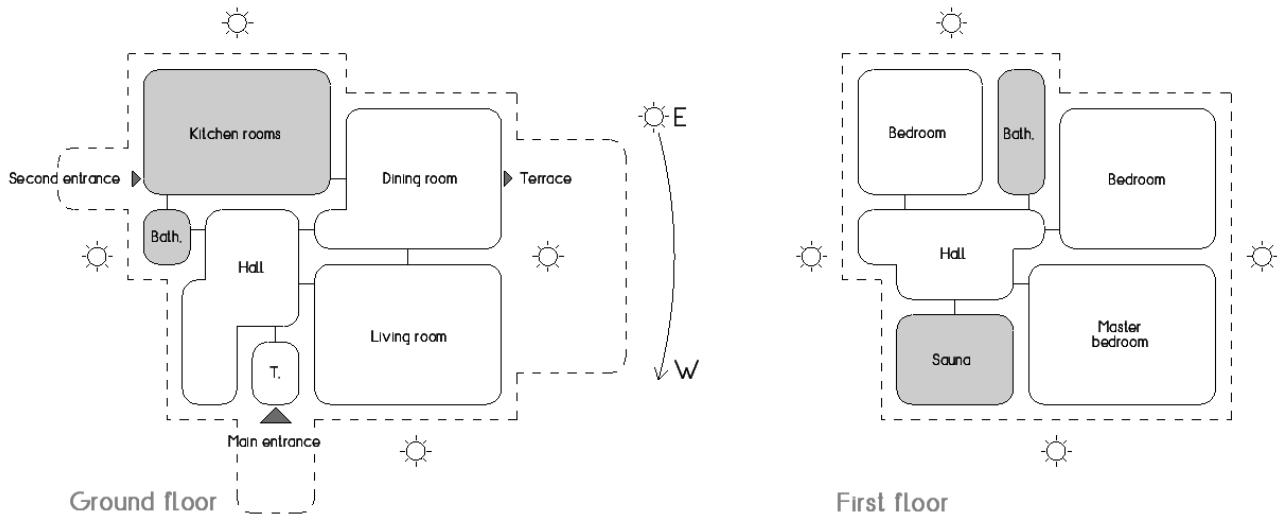
**Figure 4** – Diagram of the spatial organization of the premises of the house (by floors)

The second floor includes a group of individual zone rooms united by a common hall. From the hall there are entrances to the master bedroom, two children's rooms, a spacious bathroom located above the entrance area.

The Postavy building is two-storeyed with a basement, has an asymmetric frontal composition consisting of rectangular volumes with a flat roof (figure 5). The building is located so that the main entrance is located in the alignment of the central alley of the boulevard. The main facade is formed by a contrasting combination of planes made of different materials (light plaster, clinker brick, rough concrete). The brick part of the facade plane with small windows highlights the internal layout – the presence of a bath (sauna) on the second floor. The right part of the facade, including living quarters, is symmetrical with respect to the axes of the tricuspid windows. The entrance porch rises by 5 steps, with side walls. The flat reinforced concrete slab of the canopy is supported by rectangular columns. The basement of the building is about a meter high, lined with natural hewn stone. The facade ends with a simple cornice of a vertically stacked row of bricks. The strict asymmetrical facade with windows of different sizes and proportions, functionally emphasizing the internal organization, the design of the entrance groups and the facades plastered in light tones with inserts of stone materials indicate the direct influence of the Viennese Architectural School and, in particular, the work of Adolf Loos [10, pp. 98–113].

The composition of the plan includes two rectangles cutting into each other. The main volume is intended for the residents of the house, the second – for the servants. Each volume has its own input. The group of rooms of the collective zone is formed by a central hall with a staircase, a living room with a fireplace and a dining room with access to the terrace (figure 5). All rooms are interconnected by double doors. The block of service rooms includes a separate entrance (black), food pantries, a spacious working kitchen with a stove in the center, a maid's room. From this area, through the vestibules, there is an exit to the dining room, a descent to the basement,

a passage to the restroom and an exit to the hall. The line including the back entrance, kitchen, dining room and exit to the terrace has a clear axial structure. The kitchen premises are oriented to the north-east side, the living-dining room premises are oriented to the south-west.



**Figure 5** – Diagram of the spatial organization of the premises of the house (by floors)

The second floor includes a group of individual zone rooms united by a common hall. From the hall there are entrances to the master bedroom, two children's rooms, a restroom, a bathroom, a sauna (sauna) located above the entrance vestibule and part of the stairs.

Manor houses in Molodechno and Postavy are quite well preserved, currently used as public buildings. In order to prevent further distortion of their appearance and subsequent loss of value, the buildings must be provided with state protection by including them in the State List of Historical and Cultural Values of the Republic of Belarus.

### Conclusions

The considered objects make it possible to determine the characteristic features of the residential estate development of Western Belarus in the 1930s in the context of the development of Western European architecture of the interwar period and to establish causal relationships between the processes of formation, development and transfer of housing construction practices of the previous decades. Influenced by the rationalistic trends in design laid down by the Vienna School of Architecture in the early years of the twentieth century, the pan-European ideas of modernism of the early 1920-s, and the popularity of Art Deco in the 1930-s. The traditional residential architecture of the Art Nouveau era acquires a set of new qualities and characteristics inherent in both the Polish interwar development and its implementations on the territory of the Republic of Belarus. It is characterized by compositions consisting of simple rectangular volumes with flat roofs; the use of a certain set of stylistic techniques, high-quality finishing and building materials; the use of a single scheme of internal organization of space. The main differences between the described objects are in the variations of the facades and the inclusion of various additional rooms in the layout of the apartments.

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### **FLEXIBLE PREFABRICATED SYSTEM MORAVAMONT 2000**

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#### **Abstract**

At the end of a decade-long research work at the Moravamont plant in Gnjilane, a new completely prefabricated building system was created from reinforced concrete and prestressed precast elements on the track, which was called Moravamont 2000. Presented in paper final results demonstrates that the construction is well and rationally designed, that the construction behaviour for the maximum expected