Constructivism is one of the architectural movements that appeared after World War I.

Constructivism provided constructive expediency, rationality of forms in architectural constructions. In this regard, it is named "rationalism" or "functionalism" in other countries. This style is characterized by limit simplification of a form, design exposure, alternation of deaf surfaces of walls and the big glazing areas. It reached the peak of popularity in the Soviet Union in the late 20th-30th years.

It is characterized by the following features: geometrical clearness of volumes, identification of section structures, functional expediency, minimum use of a decor, "tape" windows, sharp dynamics of composition.

Hans Richter published the article "About Constructivism" in 1924 in the G magazine where he speaks: "The term "constructivism" arose in Russia. It designated art which instead of habitual material used modern constructive materials and set the constructive purposes".

Main goal of all styles is maximum efficiency at sufficient low cost. As a rule, such constructions were deprived of any decorations. Standard concrete constructions were used for buildings combined among themselves. Buildings of this architectural style differed from buildings in other styles in geometrical composition of frontages, simplicity of architectural concepts, functional logic.

It is obvious that constructivism represents reflection of the social phenomena in society. Nevertheless, it gave the chance to use new materials and decisions.

Sometimes the concept "constructivism" is identified mistakenly with the concept "functionalism". Though in Russia constructivism had essential differences in comparison with its western "analog" since the moment of its formation.

The theorist Bruno Taut wrote: "... radical difference in style of the Soviet constructivism from western is that architects in Russia gave more attention to ideological and social problems in the projects, and also to the questions of art and figurative content of architecture ".

Expansion of new style and its progress made actual the problem of careful study of its theoretical concept and the creation of a new creative group. The commonwealth of architects-constructivists arose in 1925 and subsequently was transformed to the All-Russian association of modern architects (OCA) which was headed by A.A. Vesnin. And since 1926 the OCA began to issue the Modern Architecture magazine preaching ideas of constructivism abroad and in the country.

Sverdlovsk region represents a well of numerous monuments of constructivism. The majority of them are in Yekaterinburg (about 140 objects).
Sverdlovsk constructivism was created as a result of constructive activity of representatives of three main architectural schools – Moscow, Leningrad and Tomsk. In addition the Leningrad school was presented also by two groups. The first was represented by the architects with classical architectural education. Among them the architect of the building "House of Defense" G. P. Valenkov took a special place in Yekaterinburg.

Georgy Valenkov was born on January 24, 1893 in the city of Murom in the engineer's family. He graduated from the institute of civil engineers in St. Petersburg with a gold medal. Also in 1916, Georgy came to the highest art school at Imperial academy of Arts. However, in 1917 the study stopped in view of revolutionary events.

He taught in Sverdlovsk architectural technical school. In total he executed 90 projects of residential and public buildings.

Many architectural masterpieces of his hand can be seen on streets of the Ural capital. However the most significant of them is "The house with airplane".

The serious illness was fatal for this talented person. He died before the beginning of the Great Patriotic War.

"The house with airplane" appeared as the administrative, military and sports complex of the House of defense, grandiose on scale, which was partially constructed in the 1930th. Under its construction the considerable area limited to Malyshev's streets, on March 8, Voevodina-Str. and Lenina-Str. were taken away.

Some buildings represented asymmetric volume and spatial composition of a complex, various on functions. Along the 8 Marta-Str. the four-storied administrative building had to be settled down, and along the Voevodina-Str. – the residential six-storied house. Between them, the gym was planned to be constructed.

All three buildings due to the project had to be connected by the gallery at the level of the second floor. They should be lifted over the earth on supports so that the view from the building on Malysheva Street opened to the club that was also a part of a complex being in courtyard depth. The administrative complex was connected with the club.

Therefore, the project assumed spatial combination of all four housings in a uniform construction by the crossings located at the level of the second and third floors.

As you might notice this complex is represented by "spatial designation of its numerous function, so typical of early Constructivism. It was expressed in autonomy of separate housings and spatial taxonomy of separate volumes of the building in general" [3].

The project was realized only partially: only two from four housings were built. It was planned that the complex would tower over low neighboring houses, symbolizing the powerful force of army and fleet. Now everything
appeared differently: the building is lost among numerous skyscrapers and business centers. "The house of defense" had to characterize the importance of sport through architecture of constructivism.

There are data that the church of the Great martyr Maksimilian was at this place earlier. The church was blown up, and bricks went to the construction of a new building.

The headquarters of OSOAVIAKHIM settled down there. This organization had existed long before the construction of the building and promoted its construction.

During the years of the war, the training of volunteers in military science was conducted here. It is specified in the reports that are stored in archives: "For years of the Great Patriotic War by the Sverdlovsk regional organization of OSOAVIAKHIM military shots of various specialties – 244 thousand 267 people were prepared ".

In 1951 the building was awarded the title of DOSAAF club (All-Union volunteer society of assistance of army, aircraft and to fleet). Now the regional office of DOSAAF of Russia settles down there.

After the work on "The house of defense" G. P. Valenkov was invited to work as the scientific secretary of the architectural commission at Sverdloblispolkom. He became famous.

Creative efforts of the nonresident architect who arrived in Sverdlovsk and local architects turned the capital of the Urals into one of the experimental platforms, largest in the country, for new Soviet vanguard architecture. Reflection of the ideological and social directions of development of the state found the place in a new "proletarian" esthetics of geometrical forms and designs.

Constructivism became a basis of building style in Sverdlovsk-Yekaterinburg of the next years. Simplicity and laconicism of an external image of Yekaterinburg is explained by need of construction of the large socialist city in a short time. The constructivism, adhering to the principle "nothing more", turned out to be very helpful.

**Bibliography**


The wooden architecture of houses of ancient Russia in XII-XIX century

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In Ancient Russia the most common type of wooden buildings was a house. Its constantly updated architecture gave rise to all existing constructional and compositional techniques of Russian wooden architecture. I. V. Makovetsky wrote on this subject: «Here the basic principles of constructing harmonious architectural forms were formed. Here a solid foundation evolved for carpentry art, allowing national artists freely and safely realize their building conceptions».

Let us consider the basic types of residential wooden houses that were formed on the territory of ancient Russia. These types of houses are mentioned in historical documents and survived from the second half of the XVIII century until present. (pic.1)

The simplest type of Russian peasant house was izba-chetyrehstenok. The izba consisted of residential crate orkleti and small inner porches orhorseni. Such buildings (without household premises) were typical for poor peasants families who owned horses and cattle. The izba was set on a high podkleti (basement). This basement was used for household needs in order to isolate the house from the damp soil in spring and to accumulate snowdrifts in winter. Living crate and inner porch were cut out of pine logs with the grooves stuffed with moss. From the inner side the timberlogs were smoothly hewn. The log decking served as a ceiling, was lubricated with clay and covered with soil. The floor was made from planks fitted together. The izba living space was organized in the following way. In one corner a wooden platform with a wooden box named «golbets» was mounted near the adobe oven. The golbets concealed the stairs leading to the basement. In the opposite corner (the most lit one or "red" corner) a dining table and a shrine were placed. There were benches along the walls as well. A cabinet-table was fixed opposite the mouth of the oven. It was used for cooking and storing of various household items and glassware [1]. Russian furnace was an essential part of every house due to its versatility. The high heat capacity ensured its even heating during the day. Due to furnace construction hot food and water were hot for a long time. Moreover, it was used to warm and dry clothes. In the wintertime it was the best place for sleeping. People slept on a polati that was placed near the stove.

A house from the village Vogulka (Alapayevsky rayon) can serve as a good example of the izba-chetyrehstenok (Pic. 2).