The implementation of a representative approach to the analysis of architectural space

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Abstract. The position taken by the author of a representative approach to the analysis of the architectural space is based on the selection, on the one hand, of the sensually perceived, “experienced” human properties of this space, on the other hand - the conceptual, abstract, mental constructions of his spatial world view. The paper attempts to substantiate the fundamental nature of the question of representativeness, as one of the approaches to the analysis of the architectural space within the framework of the phenomenological method.

Introduction
Two components stand out as basic components that determine the structural content of the representation of the spatial-objective environment: first, the sensual level, which is determined by the laws of perceptual organization and is universal, secondly, the level of meanings, when "... the sensual image becomes conscious, value component of perception, moral and ethical and aesthetic moments arise" [1, p.61]. This causes a representative approach, understood as the sensual experience of the “ideological” space. A representative approach is supposed to be sufficient to judge the properties of the general total combination of all the studied processes in the analysis of the architectural space from a phenomenological position.

The study of the representation of the real spatial-objective environment of vital activity in the human mind is traditionally carried out within the framework of the psychology of perception [2]. Modern analyses of psychology of perception indicate the existence of an ontological and epistemological paradigm and emphasize that the overwhelming majority of studies of perception are carried out in the wake of the epistemological paradigm, which is connected with the idea of reflecting or transforming the properties of reality into the subject’s inner property - a sensual image. This indicates the perception of space, time, movement, energy and object features of the environment, attempts to establish the “mechanisms” of the corresponding representations [3, 4].

The architectural space is the subject of psychological analysis in the context of many scientific areas, which is reflected in various aspects of the study of this construct. The holistic description of the spatial-subject environment is possible on the basis of the integration of the epistemological and ontological paradigms and the implementation of a representative approach to its analysis. Such an approach to the study of the spatial-objective environment makes it possible to construct a theoretical model of its representation, which is characterized by sensual and value-semantic levels. The
specificity of the representation of the spatial-objective environment in the consciousness of an individual is reflected in the ratio of various components and parameters.

The scientific significance of the issue with a brief review of the literature
The phenomenological method of studying the architectural space is based on sensory perception, as a resource of a representative approach, most of all identical with reality. Perception is a reflex due to a deposit of our own cultural means. “Here begins the boundless field of reflexive conventions of individuation” [5], which in the framework of this work are reduced to the cognition of ideas of space by means of the theoretical concept of A. Nekrasov.

The analysis of the literature can be divided into four groups of problems. The first group is limited to the analysis of the fundamental representative category of the architecture – space. The basic category of “architectural space” contains spatial concepts of such masters of architecture and theorists of art as A.G. Rappaport, A.G. Gabrichevsky, K. Norberg-Schulz, V.L. Glazychev, A. Ikonnikov, G.F. Gorskova, Z. Gidion, C. Dey, C. Djenks, F.L. Wright, M.V. Dutsev, M.V. Shubenkov, D.L. Melodinsky, Yu.I. Karmazin, I.G. Lezhava, K. Linch, P. Eisenman, A.E. Brinkman, A.G. Bolshakov, Yu.S. Yankovskaya and others.

Following the analysis of the space, the implementing component of the representation is considered. The study of the fundamental laws of the formation of the architectural space is carried out in the work of A.G. Gabrichevsky, E.G. Lapshina (“The Dynamics of Architectural Space” [6]). The third group reveals the substantive essence of the representation and identifies the components and indicators that allow to build its theoretical model. The concept of the system-structural organization of the representation of a spatial-objective environment was developed by Yu.G. Panyukova in the work “Psychological representation of the spatial-objective environment” [7]. M.Vartofsky offers his concept of representation, which develops it within the framework of historical epistemology.

The fourth group is associated with the inclusion in the subject field of the study of emotive architectural space, provoking emotions, as a result of perception. The commonality of the emotional experience of all mankind is determined by such thinkers as: Aristotle, C. Shardr, P. Ekman, R. Plutchik. The subject field of the phenomena interpreted by the psychology of emotions is examined by the authors: E.S. Ivanova, D.V. Lyusin, E.P. Ilyin and others. Interpretation of the psychology of perception can be found in the works of V.A. Barabanschikov, V.N. Nosulenko.

Formulation of the problem
The objective of this study is to identify the role of sensual representation, leading to the problems of architectural communication, which is beyond the scope of visualization. The solution of the problem posed is related to the search for answers to the questions: what role does “empathy” play in architectural space? What is the perceived quality of the architectural space? How does it change and what determinants obey?

Putting the factor of sensory perception at the head of semantic ordering, the author turns to the analysis of the theory of A.I. Nekrasov: “Created architectural images, like some worldview models, can cause the viewer, depending on the associativity of his perception, greater or less depth of aesthetic experience, as well as different content capacity " [8]. The interrelation of the properties of space “experienced” by man, as well as the conceptual, abstract, mental constructions of spatial world perception, is still the least developed problem in architectural theory.

Theoretical part
Among the domestic theorists of architecture, A.G. Gabrichevsky has an integral concept for constructing a theoretical model and structure for the study of spatial constructions. He operates with the category of “space” in the presentation of architectural shaping at the level of higher abstraction. The works of A.I. Nekrasov that are identical to A.G. Gabrichevsky, have the plot which is the
absolutization of the architectural space, the statement that the condition for the birth of the architectural form and image is the synthesis of mass and space. “There is a constant antagonism between mass and space, but it is their relationship that makes an architectural form. Space resolves itself by organizing the mass, which gives rise to an architectural form. And the interrelation of space, mass and architectural form by means of empathy makes the image” [8]. In this thesis, the notion of “empathy”, which in its essence carries an assessment of the subjective complex of human psychophysical sensations, is quite important. It is at this level that art is born. Some "ideas of space" and experiences of its specific realities are called by A.I.Nekrasov "sense of space". At the same time, he sees the six main stages of the cognition of the idea of space by mankind. The first stage: the awareness of fragmented space. The perception of a particular fragment of space causes in a person not spatial, but object associations, i.e. at this stage the space is not yet structured, it is amorphous.

“We can speak about the development of the idea of space only in connection with the development of its plastic type at the time of ancient civilizations, i.e. from the directional movement on the object (plastic body). At this stage, space is already recognized as a certain extent. A glance at an object comes back to a person, and he will know the converted (reversible) properties of such a space, its elasticity. The movement inside it seems to have already been eradicated, it is of course indifferent to the spatial environment extending behind it. With the sensation of such a space we encounter in the architecture of the ancient world ”[9]. The whole ancient world operated with the type of holistic space, then the countries embraced by the Renaissance, as well as subsequent eras oriented to the classical heritage.

The second stage: a homogeneous, not divided into cells holistic space in which there is an idea of the construction of directional movement and proportionality to the person himself. “But this is nothing but a concrete sensual manifestation of a plastic type of space, the main feature of which remains directed movement to the bulk dominant with a conversion effect, i.e. such a space is always finite. ”

The third stage: differentiated space. “The division here is stronger than the addiction to addition, although at the same time there is both. The eccentric of each cell is still insufficient to create a coherent structure - hence, the process of divisibility of space gives the effect of its “reproduction” with the prevalence of the system of rational relations. ”The perception of differential space is described by Nekrasov on the example of Romanesque temples.

The fourth stage: the analytical space of the Gothic. “The eccentric strivings of the system are stronger than the self-closures of individual elements, as a result of which a special type of integrity is formed in the form of a dynamic clot of space in the center of the system. Irrational relations prevail in such a space. ”

Fifth stage: awareness of the idea of space in the light of a combination of its previously known properties. “So, finite (plastic) space can be matched with infinite. A similar combination first appeared in the Renaissance architecture, and then in Baroque. But in the Renaissance, two types of space only touched each other, the final plastic space limited the dynamics from the outside and from the core, turning it towards the center and giving a feeling of static. In the Baroque, the dynamics of internal and external space leads to their conflict and resolves in favor of the latter — it penetrates inside the building and tears its mass. The final plastic space here is subject to the desire to infinity, which is expressed sensually ”[9].

Sixth stage: integral space. A.Nekrasov calls baroque space by this term and characterizes it as “a special case of analytical space in which the whole system and its elements are eccentric and have the ability to interpenetrate, accompanied by the effect of exciting sensuality. The basis of this system is not Euclidean geometry, but curves of complex order. ”

A.Nekrasov introduces the formulation “synthetic space”, which designates combinations of spaces of homogeneous nature, when, for example, the classical type of space can be combined with Romanesque, and the space of baroque type with Gothic, etc.
Finally, A.Nekrasov allocates a special (orthodox) type of space, as if seen from one point of view and associated with the whole picture space and therefore called pictorial.

The final stage: space as a kind of homogeneous environment, without an active dynamic center and opposition of external and internal.

A.Nekrasov does not absolutize any stage: “... although each of them carries new sensations, this does not always mean lifting to the next higher quality level of the space itself, the development of which goes not only along the ascending line, but also may be accompanied by downturns and quality losses.”

In all the above stages of cognition of the "idea of space", the content of the sensory level of representation is revealed. It manifests itself in all the properties of the space-subject environment and is expressed in categories that reveal the semantic givenness of space [10]. The level of meanings in the representation of the spatial-subject environment is determined by the needs of the subject and the possibilities that the spatial-objective environment provides for their satisfaction. Yu.G.Panyukova [7] identifies three components of the value-semantic component of representation. The first is a pragmatic parameter determined by the following environmental characteristics: developed, useful, controlled, resource, productive, etc. The second component is an aesthetic parameter, which is explicated in such characteristics of the environment as soothing, beautiful, comfortable, etc. The third component is designated by Yu.G.Panyukova as moral and ethical and is qualified by such characteristics of the environment as native, preferred, beloved, etc.

The content of the formal component of the model is reflected in parameters such as structure, strength, dynamics and size. The content component of representation is revealed through the pragmatic (development, resource, demand) and aesthetic and ethical (beauty, safety, tranquility, closeness) parameters. The operational unit of analysis of the representation of the spatial-objective environment (location-situation) is considered as a unit of content of consciousness and as a definite mental construction, which is the minimum unit of reflection in the consciousness of a picture of the world at a particular point in time, where a place characterizes a certain part of space, and the situation is temporary aspects of its existence.

The representation of the substantive essence of geospecific spaces [11–14], “constructed” with regard to geofactors [15–17], may bear the imprint of an energy-information impact, depending on geographic location; on the presence of regulatory synthesis [18, 19], which is a method of articulating the sound space [20, 21]; on the use of geomimesis [22, 23], as a special architectural genesis.

The main findings of the study
The relationship of a person with the spatial-objective world is not limited only to the utilitarian and functional character. A representative approach to the analysis of the architectural space is based on the selection, on the one hand, of sensually perceived, “experienced” by human properties of this space, on the other hand - the conceptual, abstract, mental constructions of his spatial world view. Such mental constructions at a certain stage of representation can transform perception, because “they change the way of seeing reality and the principles of its interpretation” [24]. Perceived quality of the architectural space is limited to the inner world of man. Representations act as mediating realities, perceptual artifacts, through which space is perceived [25]. The inclusion of perception as a component in the process of analyzing historical changes in spatial constructions characterizes the representative approach as something invariant and universal in the cognition of the idea of space by mankind.

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