АРХИТЕКТУРА

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Mimesis as a Universal Principle of the Form Making

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The stylistic method of revealing regularities, formed by the 19th century and dominating up until recently, proves to be ever less relevant to architectural and artistic processes of the Contemporary (Newest) times. To systemize the entire historical experience of architecture as a whole, more profound generalizations are required. An essential prerequisite for such generalizations appears to be the philosophical context of the paradigm shift: tradition — modernity —postmodernity. Without a clear understanding of all the differences between these paradigms, it is impossible to talk about the processes taking place in the architecture of the Contemporary times. The fundamental rejection of semantic binary oppositions (good/bad, beautiful/ugly, high/low, sacred/secular, etc.), typical for postmodernism, has entailed the issue of criteria for the value of art works, and consequently the criteria for art at large. The aim of this work is to demonstrate that the mimetic principle underlies the totality of the valuable qualities inherent in traditional architecture. And that, on the contrary, a gradual departure and subsequent factual rejection of this principle became one of the main reasons for both the emergence of the modern architecture phenomenon and its present crisis. The panoramic, holistic view of architectural development combined with the philosophical context of paradigmatic shift, allows not only to see the logic in the tortuous paths of the form making, but also gives the basis to build a system of universal criteria for architectural analysis.

Keywords: mimesis, architectural form making, system of criteria, tradition, modernism, postmodernism, contemporary architecture, evaluation method.

The beginning of the third millennium is a milestone that encourages people to look at the path that was passed by architecture, to summarize given results and to

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try modeling its further development, taking into account the accumulated, both positive and negative, experience. To achieve this goal, it is necessary to focus on the most essential things, having eliminated others, individual and minor. The stylistic method of identifying patterns, which was developed by the XIX century and dominated until recently, turns out to be less consistent with the architectural and artistic processes of Contemporary time. In-depth generalizations that could help to systematize the entire architecture's historical experience as a whole concept, to clarify the logic of the thorny paths of architectural shaping and to establish the causes of the nowadays crisis are required. The following fundamental factors, changing throughout time, appear to be the necessary basis for such an analysis:

- philosophical and ideological foundations of architectural oeuvre (creativity) as a "spirit that creates a form from itself";
 - methodological foundations of the architectural form making.

In the first case, there is an idea of philosophical disposition "tradition — modernity — postmodernity". The constant of tradition, hidden maturation of "modernity" ideas throughout the Modern age and then, the drastic shift, or the castling and the struggle of paradigms in the Contemporary history — is a defining context for any humanitarian knowledge of the late XX — early XXI century.

The second point regards the form-making approach itself, which corresponds to each of these paradigms. Mimesis corresponds to the tradition as a principle or method of shaping based on imitation of the laws of nature (creation). Modernity and postmodernity as specifically "modern" paradigms are characterized by a radical revision or a complete rejection of the mimetic principle.

Based on the general starting points of my analysis, I use other methods of generalization, such as:

- the concept of two superstyles by S. O. Khan-Magomedov;
- the conventional periodization, commonly used throughout the Western world in relation to the history of painting: "old art" (from antiquity to the impressionists), "modern art" (from the impressionist to the 1970s), "contemporary art" (from 1970s to our time), which emphasized modernist and postmodernist crisis and may be applied to the history of architecture.

The sequential overlap of the "calques" indicated above gives the most important points of coincidence in the end, highlighting the most essential things, which allow us to talk about the patterns of the architectural form making.

Before proceeding to the main topic of this work — mimesis and its historical transformations — I will focus on the above mentioned starting grounds of my analysis that are least developed and therefore remain without attention from the professional community. Those are the methods of generalization and systematization of architectural material which go beyond the "ordinary" styles and reflect the turning points of architectural history at the same time.

The first method is the "close-up" periodization which is default today by default in the West in relation to the history of painting: "old art" (from antiquity to the impressionists), "modern art" (from the impressionist to the 1970s), "contemporary art" (from 1970s to our time) [1, p. 211]. Indeed, the confines between these periods are largely conditional and blurred but one way or another the first ridge marks the onset of modernism and the second marks the onset of postmodernism and other particular new tendencies [2].

(I have never met any specific explanations for such a division; it seems to have arisen "spontaneously", from the clarity of the material, which testifies in favor of its objectivity in itself.) From my point of view, these stages also "fit" well for the history of architecture, highlighting the modernist and postmodernist turning points not articulated by the "history of styles".

Therefore, the "close-up" periodization gives a highly important formal classification of "superstyles" for our analysis: "traditional architecture", "modernist architecture" and "contemporary (newest) architecture".

Another generalizing method, or prerequisite for it in the form of a brief thesis, was proposed by S. O. Khan-Magomedov. In his latest book "Ivan Zholtovky" (2010), the scholar talks about the confrontation of two superstyles in the XX century — classicism and modernism. "It was", he writes, "about creation a king of global style, or rather, a superstyle standing above the conventional styles and comparable with the classical antique order" [3, p.8].

In contrast to the classical style method, as well as from the "close-up" periodization, the thesis connected to the superstyles contains a "qualitative" moment; superstyles do not simply replace each other, like conventional styles or periods, but "struggle", confront among themselves. Khan-Magomedov does not reveal the reasons for this antagonism but emphasizes the fact that the second superstyle is a fundamentally new phenomenon in the development of architecture, which factually marks the end of its linear model. The evolution of styles was replaced by its revolution. This point is extremely important for our analysis.

Another important point is the struggle of classicism and modernism in the XX century. It seems to be a particular expression of a more global confrontation of traditional architecture (in all diversity of its phenomenon) and modern architecture (in all its diversity). Thus, in my interpretation the meaning of the term "first superstyle" expands to the meaning of "superstyle of tradition" and the term "second superstyle" expands to the meaning of "superstyle of modernity".

Each superstyle has its own approach to the form making which makes it almost impossible to apply general aesthetic criteria to them and thereby confirms the validity of my interpretation of Khan-Magomedov's thesis. The main indicator of genetic heterogeneity is mimesis, or rather, the time-changing attitude of architects to this fundamental principle of shaping. In the philosophical context of the paradigm shift (tradition — modernity — postmodernity), these ideas acquire even greater reliability.

Mimesis as the basis of the form making in the first super-style

The fundamental basis of shaping of the first superstyle is the mimetic principle. During the course of art history, mimesis is usually characterized as an imitation (following) of nature. However, the very general and superficial interpretation needs clarification. For instance, unlike modern biomorphic architecture imitating particular natural forms and structures, mimesis is aimed at comprihanding the principles. It is based on the fact that the created world is united, genuine and beautiful ("cosmos" / universal /= beauty, order, harmony). The beauty of the universe is an axiom reflected in ancient Oriental, antique, medieval and classical philosophy. This indicated a fundamental related understanding of the world order in various traditional cultures. For instance, the Chinese scientist Gi-Ming Shien compares the Tao with Parmenides's the "One" or with Plato's "Absolute Goodness",

or with Aristotle's "Unmoved Mover". "We may say, therefore, that the Tao or the One, is alike with the Supreme Substance or God believed by the ancient Greek philosophers to be the basis of foundations" [4, p. 19].

The perception of beauty as an integral principle of the universe's structure is confirmed by the conclusions of modern scholars. "Indeed, it is worth paying attention to the fact that chaos and disorganization cannot evoke a positive sense of aesthetic. Hence, beauty is associated with entropy by some kind of inverse relation: a beautiful object has less entropy than an ugly one. The last one contains more 'noise'. Therefore, the concepts of order and beauty as assessments of natural phenomena or scientific theories and works of art go hand in hand. Their close interrelations are confirmed by psychological experiments. Presenting the subject with ordered and geometric figures devoid of this quality, the scientists saw that a sense of aesthetic satisfaction appears precisely when the internal organization of forms is captured" [5].

Christopher Alexander, an architect, believes that the reason for the beauty of truly attractive buildings is that it, like the universe as a whole concept, they have a complex and at the same time ordered *living* structure. "Their similarity to natural forms is not due to external imitation, it is much deeper. <...> We find that we react to a *living* structure intuitively, not intellectually" [6]. On the contrary, the mechanistic model established in science and education contributes to the creation of dead structures that are apriori deprived of the possibility of being beautiful [6]. A physicist and mathematician N. Salingaros confirm Alexander's conclusions [7].

The interpretation of imitation as "recognition" of an invisible ideal entity (opposed to copying the external, changeable and random) goes back to Plato [8]. The philosopher expels from his State a poet who imitates all the countless phenomena of fast-flowing life, since human nature cannot imitate many things at once, remaining itself unchanged. However, when the poet speaks of the important things, he imitates the truth and the goodness, and such imitation is justified and necessary.

We find the idea of the essence of imitation as the comprehension of principles in Plotinus's works: "Tho those who despises the arts, due to the nature imitation, we may answer, in the first place, that all the things which art imitate are themselves images of higher primordial essences — eidos; and in the next place, that arts do not simply imitate that which is perceived by the eyes, but recurs to those reasons on which their nature is based" [9, p. 212].

In this general perception of beauty as a transcendent phenomenon, the differences that take place in certain philosophical systems and author's constructions recede into the background. Thus, Erwin Panofsky rightly notes that the related concepts of "mimesis" and "eidos" are interpreted differently by different authors and in different epochs [10, p. 25–30]. At the same time, René Guénon, comparing the teachings of Plato and Aristotle about essences, speaks of the relationship of the Aristotelian "form" with Plato's "eidos": the first "specially emphasizes their transcendent aspect" and the second emphasizes their immanent aspect [11, p. 10].

The essence of the mimetic approach was expressed with ingenious power and simplicity by Dante (*Inferno XI*):

That this your art as far as possible Follows, as the disciple doth the master; So that your art is, as it were, God's grandchild [12].

Indeed, if nature "follows" the Creator, and art "follows" nature, then it is in relation to God in the second degree of "kinship". The metaphor "God's grandchild" reveals the purpose of mimesis as an indirect comprehension of God through His creation. "The whole world is the great and glorious book of God, in which he, preached, is revealed by silence itself", writes Gregory of Nazianzus [13].

Thus, the difference in the interpretations of "following" do not remove the tradition's fundamental perception of beauty, as an objective ideal category, which one way or another manifests itself in the perceptive world, transforming it.

It should be noted, that the mimetic principle was at the same time an important condition for protecting from "slavery" imposed by canon, the absolutization of any material form. Nature is infinitely diverse in its beauty, and the divine source of beauty cannot be discovered to a full degree. From the visible to invisible, from the image to prototype, from the transitory to the eternal. This orientation defined the perception of beauty as "the radiation of spiritual light into the perceptible environment" [14], as "the transformation of matter through the embodiment of another supermaterial principle in it" [15].

It also should be noted that such an understanding of beauty in the tradition was not in contradiction with "usefulness and durability", and this once again suggests that the role of beauty is not reduced to "aesthetic", that beauty expresses a fundamental and immutable law of being. "When a physicist relied on the properties of beauty", writes P. Dirac in his book "Electrons and the Vacuum", "it gives him a "powerful method guiding his actions" [5]. And if a scientist sees ugly parts in his theory, he has the right to suspect that these parts are wrong and he concentrates his efforts on it, correcting or replacing unreliable points altogether [5].

In turn, the visual dominance of matter, the symbolism of the earthly life is what deprives beauty. According to V. S. Solovyov, ugliness in nature is reduced to the following signs:

- 1. An excessive development of material animality.
- 2. A return to formlessness.
- 3. A caricatured preface of the highest form.

Under these criteria, "all the manifestations of brute ugliness in its countless specific modifications and shades can be summed up. And even these three reasons can be essentially be reduced to one, to the resistance that the material basis of life at different stages of the zoogenic process offers to the organizing power of the ideal cosmic principle" [15].

Vladimir Solovyov's aesthetic criteria fully correspond to the nature-oriented mimetic approach, and therefore are quite applicable to architecture.

Let us try to consider what exactly the mimetic nature of traditional architecture manifests itself in. What natural patterns does it imitate? Let us try to name only the main ones.

The principle of hierarchy

In nature, the sky is higher than the sensory world which can be considered as a visible matter. Any earthly form is manifested thanks to the solar skylight. The Earth is fed by the rain pouring from the sky. In unison with this natural order in the traditional hierar-

¹ As an example of absolute ugliness from the point of view of the first characteristics, Solovyov cites a worm whose body is a "bag" with reproductive organs, absorbing food with its entire surface.

chy, the spiritual things have absolute priority over the material ones, being the cause and source of beauty. The peaks of mountains and hills are directed towards the sky, trees and other plants are drawn to it as a source of light. The principle corresponds to the "vertical orientation" of traditional architecture (domes, spires, etc., up to the usual gable roof), and it meets the natural laws of tectonics.

Harmony

Harmony in nature is achieved by many properties, and among them there are proportionality, balance of parts and the whole, elegance of forms and lines. Abstract geometric shapes, straight lines and angles are absent in nature. Even the sea horizon is not quite straight die to the spherical shape of the Earth; moreover, it is always softened by the atmospheric fog. The same applies to the "melting" semicircle of the rainbow and to the solar disk itself. Due to the law of gravity, natural forms are visually stable, although not devoid of contrasts, while being in dynamic equilibrium.

Traditional architecture also lacks absolutely straight lines and angles. Firstly, this is due to the manual method of construction, which implied some natural irregularity. Secondly, with the natural tectonicity of arched, vaulted and other structures. Thirdly, with the obligatory presence of decor, which ensured smooth transitions and liveliness of lines in the drawing of the building.

Order, rhythm, symmetry

Everything in nature has its own repeating rhythms and cycles: the times of day and year, ebb and flow, human, animals, plants life cycles, etc.

In unison with these principles, the old architecture is rhythmic and cyclical in its volumetric, decorative and urban planning approaches.

All these natural principles are in indissoluble unity. The structure of human body, the "crown of creation", is also responsible for them, even most fully. A human body is proportionate, smoothly outlined and symmetrical. In its hierarchy, for instance, head and heart (receptacles of mind and feelings) are located above the womb as the focus of the animal nature; its attractiveness is not limited to the proportional ratio of the main volumes but is necessarily conditioned by the decor (hair, eyebrows, eyelashes, etc.). Therefore, one of the natural manifestations of mimesis becomes the anthropomorphism of traditional architecture. The foundation as the base, the "body" of the building, the "neck" of the cylinder, the "forehead" of the pediment, the "head" of the dome, the "eyes" of the windows, the "wing-arms" of the risalites. These and other parts of buildings, as well as the ancient measures of length itself, based on the proportions of the human body (inch, sazhen, foot, etc.) are characteristic manifestations of mimesis. As well as the obligatory presence of decor, the sophistication and elegance of which increase from tier to tier. In the philosophical context of tradition as a paradigm, architecture based on the mimetic principle is the architecture of a religious man (and it does not matter — a pagan, a Judaist, a Christian, a Muslim, etc.). According to M. Heidegger — "praising human" [16].

Changing of the criteria in Modern age

The basic principles, listed above, conditioned by the mimetic approach, are inherent in all traditional architecture as a whole concept, with all its infinite variety. However, in Modern age (the period of historicism), it underwent a significant transformation which eventually led to the decline of the first superstyle. This transformation seems to be largely related to the revision of the principle of imitation. The common cause of these changes were tectonic paradigm shifts, which marked the beginning of the establishment of a new paradigm of modernity. In this paradigm, theism gives way to deism. God is perceived as an abstract, conceptual root origin of the world, which has an objective ordered structure similar to a clockwork mechanism, and is fully cognizable with the help of our empirical experience [17]. The only way to get true knowledge is a rational, scientific approach.

Since the Renaissance, imitation as an expression of an invisible ideal essens (eidos, idea) has given way to imitation of particular material forms. Erwin Panofsky writes about the radical change of the very concept of "idea", which now acquires its modern meaning. "As much as the idea of selection was familiar to antiquity, it was just as far from identifying a paradigm with the 'idea', a pattern achieved by selecting the most beautiful things. Antiquity interpreted the concept of the idea not in the sense of balancing the spirit and nature but in the sense of its independence from it. The Renaissance interpreted the concept of an idea (although the final formulation of this thesis was given only by classicism of the XVII century) in the spirit of a specifically new-European view of art, the essence of which is precisely that it identifies the world of *ideas* with the world of *sublime reality*, by turning the concept of an idea into the concept of an 'ideal'" [10, p. 60].

If Plato describes of art as "imitation of imitation", implying that art imitates nature, and nature imitates eidos, then in this case we can talk about "imitation of imitation of imitation", i. e. about the third degree of distance from the truth. Or, to paraphrase Dante, that the art of Modern age has become "God's great-grandchild".

In the philosophical context of the emerging paradigm of modernity, the architecture of Modern age is the architecture of a rational Cartesian, according to Heidegger — a "Man of Moral" [16].

But even with the described revision of the mimetic principle, the architecture of historicism inherited from previous centuries such fundamental features as harmonic balance, the presence of a unifying center, tectonics, hierarchical subordination of parts and the whole, rhythmical recurrence, strictly defined orientation in space, as well as conservatism based on imitation of models. The transfer of attention from an invisible source of beauty to a particular material form led to the absolutization of the classical canon and to an arbitrary appeal to styles of the past ("historicism", "smart choice") instead of the living generation of new forms. This certainly meant a departure from the ancient and, more broadly, traditional understanding of creativity as a living participation in Existence.

In Modern age, architecture is gradually losing its tectonic "truthfulness", the inseparable connection of function, artistic form and design. Since the Renaissance, facades have become decorative. Was not this a symptom of the divergence of the concepts of "beauty" and "truth", which were inseparable until then?

(Anti-)criteria of the second superstyle

Let us see how the second superstyle consistently rejects the mimetic principles outlined above. Its beginning coincided with the "official" approval of the modern paradigm (modernity and postmodernity). There is no God in the modern paradigm but there is a truth. It is no longer commensurate with eternity but in any case it goes beyond the scope of a separate human life. Man is mortal but "humanity" theoretically can exist endlessly [17].

The first stage of the second superstyle (modernist, 1920s–1970s) already demonstrates a decisive rejection of the hierarchical principle. Architecture re-composes images from simple primary elements of the destroyed old world. It is not an imitation of the Creator but "by his own hand". The place of verticalism and gravitation to the center was taken by flatness to the ground, emphasized by ribbon windows and flat roofs. This general rapid horizontal movements, reinforced by semicircular projections of the excedr, acts as a visual symbol of the path drawn by progress to a bright earthly future.

Modernist architecture is dominated by straight lines and simple rectangular volumes. Firstly, this is a consequence of industrial construction methods. Secondly, it is connected with the invention of reinforced concrete which eliminated the fundamental property of tectonicity in modern architecture. Thirdly, with a declarative rejection of decor and as a result of it — the sharpness of mechanical contours was radically exposed.

Classical orderliness does not just disappear from architecture. Avant-garde architecture strives to visually "blow up" old ideas about composition, tectonics, harmony, etc. Its asymmetric compositions with a downed pulsating rhythm are sometimes provocatively atectonic (for instance, Lissitzky's horizontal skyscrapers). As the avant-garde "blast wave" decreases, a new functionalist order with its dull monotony and dogmatism is established in architecture. In both cases, *the ordered complexity* that is an integral feature of the structure of the universe as a living structure is lost (Ch. Alexander) [6].

According to Vladimir Solovyov's criteria, utilitarian functional buildings designed on the principle of "from the inside out" and fenced off from the sky with flat roofs look like a demonstrative "self-presentation" of matter [18; 19], and therefore falls under the first criterion of ugliness — an excessive development of material animality. In the philosophical context of modernity as an established paradigm, this is the architecture of a God-fighting man (avant-garde) and a victorious materialist (functionalism). According to M. Heidegger, "a man producing and trading" [16].

The newest stage of the second superstyle ("contemporary architecture" in all its diversity of externally dissimilar but internally related directions) artistically shaped the onset of postmodernism; the paradigm of a decentralized, random world that cannot be structured and generally comprehended. Architectural compositions demonstrate persistent overcoming of the systematicity (it does not matter whether traditional or modernist) in principle. This is clearly manifested in deconstructivist and postmodernist trends which, contrary to popular belief, have not lost their relevance to this day, although often in a blurry form. They correspond to the second and third criteria of V. Solovyov's "ugliness": a return to formlessness (deconstructivism) and a caricatured preface of the 'highest form' (ironic postmodernism). In contrast to the traditional approach, they do not just lack imitation of models but declare an attitude to create something absolutely original. The demand for originality and, on the one hand, inherited the programmatic outrage of the avant-garde [20, p. 267–8]. On the other hand, it has replaced the previous attitude of

tradition to beauty. But almost the main motive in the era of the market has become PR and advertising consideration.

In the philosophical context of postmodernism, this is also the architecture of a materialist human, however, along with the militant and victorious materialist and "a man producing and trading", a disappointed cynical *homo ludens* appeared.

Alongside with hierarchy and symmetry, the architecture of the second superstyle loses its anthropomorphism. It seems that the "naked" modernist parallelepipeds with a monotonous rhythm of windows as well as the deliberately disordered newest compositions, are unconsciously perceived by most "ordinary people" as monstrous precisely because of the violation of anthropomorphism, due to associations with a distorted human body. Thus, a building devoid of the most elementary crowning (even an expanded wall plane above the upper low of windows) is perceived as lacking a "forehead" etc. In addition to such associations, the resemblance to a person which was based on the contrast of the external (the protective-representative) and internal (intimate and mysterious) has disappeared from architecture. It is enough to compare any traditional house with a strict hierarchy of rooms, in the core of which there was an icon corner or an altar, with the Farnsworth House of Mies van der Rohe where there is no fundamental boundar between external and internal, since there is no qualitative difference between the two.

The anthropomorphism of traditional architecture was countered by the second super-style's machine-like approach. Machine architecture as a philosophical phenomenon deserves special research, so I will touch on it only briefly.

Machine architecture

In a philosophical sense, a machine is something that is not subject to the spirit and acts only mechanically, blindly. Movement without life is scary and gives rise to hellish images in the mind. It is impossible to visualize a machine in a pristine paradise [21]. Man had to cultivate Eden on his own but this work was a joy.

I don't remember which of the Russian philosophers wrote, the first elements of "mechanization" can be called that natural necrosis (teeth, horns, shells, etc.) that living beings got after the expulsion of man from paradise and the establishment of death on Earth. But even after lapse from virtue labor by the sweat on his brow retained elements of the joy of creativity and likeness to the Creator. Until the Industrial Revolution, nature, growing "thorns and thistles" to man, simultaneously nourished and helped him with the power of wind, water and animals [21].

A qualitative leap occurred in Modern age. The mind, previously striving to comprehend divine perfection, redirected its work into a purely earthly, material channel. The rationale for this reorientation is found in particular in Francis Bacon's works. "The building of this world of our", writes Bacon, "and its structure represent a kind of labyrinth for the human mind contemplating it which meets here everywhere so many intricate roads, such deceptive similarities of things and signs, such winding and complex loops and knots of nature <...> We need to guide our steps with a guiding thread and, according to a certain rule, secure the whole road, starting from the first perceptions of senses <...> but before it is possible to approach the more remote and intimate in nature, it is necessary to introduce a better and perfect usage of the human spirit and mind <...> the way to this was opened to us not by any other means but only by a *legitimate belittling of the human spirit*" [22, p.68–9].

Nature ceased to be perceived as a divine gift filled with reflections of heavenly beauty and began to be thought of as a bottomless reservoir of useful resources. The idea of building an earthly kingdom of universal well-being which is more understandable for the "degraded human spirit" than the kingdom of heaven is asserted. The goal of cognition was the subjugation of nature, the overthrow of the burden of dependence on it and on its Creator, the opportunity to protect oneself "with his own hand" from unrest and unforeseen accidents [21].

The immediate origins of machine-like paradigm lies in the new mechanical Cartesian model of the universe which reflected the transition from theism to deism. In this new model, the world is like a clockwork mechanism, and God is needed only as an abstract conceptual reason that once set the mechanism in motion. The laws of this mechanism are absolutely rational and knowable, accordingly armed with them, a person ceases to need God and becomes an "architect of one's own fortunes".

The consequence of the new paradigm was the Industrial Revolution, followed by industrial architecture. The realities of market capitalism quickly showed that accelerated machine production had nothing to do with the saturation of the poor and hungry people (as some utopians first assumed), that the true motives of progress are the thirst for profit and the desire to escape from the late of "eating your bread by the sweat of your brow".

In parallel with the transition to new industrial materials and construction methods, schools and following patterns were preserved in architecture "by inertia" for a long time, and conveyor things were masqueraded as craft one.

The avant-garde revolution in architecture not only legalized mechanization as a method but also gave rise to a new machine aesthetics and machine ideology ("a house is a machine for living"). And although modern materials and methods make it possible to imitate almost any style, the stamp of mechanism enters into an insoluble or almost insoluble contradiction with the mimetic principle as an integral phenomenon based on the perception of the Universe as a spiritualized living structure.

Has mimesis disappeared?

In the traditional sense, as it was said, the mimetic principle began to become obsolete already in Modern age when imitation of the creation principles and the search for transcendent eidos were replaced by imitation of particular forms and the search for a universal canon (which became the classical canon). It can be said that the avant-garde revolution in architecture was one of the results of a long way from Plato's devine "eidos" to "idea" as a kind of subjective human idea, which had taken possession of the mind, was of a radically different materialistic nature. The linguistic revolution of the avant-garde meant only that this subjective concept was of a radically different, materialist nature. Instead of imitation the natural order, it asserted a new (anti-)order, including the subordination and reorganization of nature. However, the very approach to the perception of the "idea" remained humanistic and educational.

Organic architecture can be considered as a kind of "collateral" heir of traditional mimesis in Contemporary times. Indeed, the latter arose as a reaction to the "machine" architecture as a search for a compromise between the fundamental laws of the natural order and the new modern paradigm. In fact, the ideas of organic architecture were new only in the context of international style but not in the context of tradition since all architecture

was described as organic. The very emergence of the concept of "organic architecture" and then its subsequent fragmentation on particular grounds (bionic, landscape, passive, sustainable architecture, etc.) became a symptom of the loss of this natural organicity.

For out topic, bionic architecture, imitating particular natural forms and structures, including microstructures, deserves special attention; a direction that closely interacts with bionic science, engineering achievements and computer technologies (parametricism). Formally focusing on nature, the organization does not inherit the holistic view of the inherent in the tradition and actually splits the picture of the universe into parts. Mechanically reproducing certain natural forms, it ignores the general principles that ensure the harmony of the whole concept. For instance, repeating soap bubbles on a gigantic scale or the tubular structure of a mushroom, or a worm or a slug, etc., the organization does not imitate but distort the natural order, eliminating the most important principle of hierarchical subordination of the parts and the whole: what is good as a small detail, but is ugly when zoomed in a thousand times. And finally, by adopting ready-made external forms or computer-designed micro-forms, the architect, in fact, confesses to his disability in comprehension of the invisible, in performing inner, spiritual work, which is the essence of the mimesis. In the philosophical context of the postmodern paradigm, this is the architecture of the "post human-technique" (M. Heidegger) [16].

Bionic architecture can be considered the finale of the path that the mimetic method has taken from the recognition of transcendental regularities and the speculation on ideal 'eidos' in the tradition: through the imitation of material samples established by selection in the Modern age (transition to the modernist paradigm) to haphazard reproduction of fragments and declarative rejection of the imitation principle (the two characteristic extremes of postmodernism) in the Contemporary times.

Conclusions

Consideration of architectural processes in a philosophical context opens up a broad prospect of identifying new large patterns of architecture development. The most important starting points on this path are the paradigms that replace each other — tradition — modernity — postmodernity, each of which sets its own criteria for shaping. If the architecture of tradition was formed on the basis of mimesis as a method of achieving beauty by imitating the laws of nature (creation), then the Modern age as the beginning of the modernity paradigm reduced mimesis to imitation of material samples and the expression of ideas in a new humanistic and educational sense. Contemporary times (established modernity and postmodernity) proclaimed a new (anti-)order, which formed the new architectural language. In the contemporary architecture of the postmodernism era, mimesis as an imitation of principles has broken up into separate unrelated components or has degenerated into the haphazard reproduction of fragments and industrial replication.

Radical transformation of the mimetic principle in the Modern age and then the actual rejection of it in Contemporary times prove that the formation of traditional and modern architecture have fundamentally different genesis and confirm my interpretation of Khan-Magomedov's thesis. It is the mimetic approach that underlines the totality of valuable qualities that are inherent in traditional architecture or the first superstyle in all its diversity and then the actual rejection of it has become one of the main reasons for the present crisis of architecture.

As a universal principle that is not directly related to specific styles and canons and defining only basic guidelines and algorithms, mimesis can be applied in modern architectural practice. Actualization of the mimetic approach is a chance to get out of the crisis of modern architecture, a way to renew and improve modern architecture without copying old forms in a living act of personal creativity. This is a return to the very essence of architecture which is almost lost today and is preserved only in fragmentary marginal manifestations. In fact, Ch. Alexander calls for such a revision, not only identifying traditional patterns but also revealing the natural laws of the world order on the basis of which they were formed. His book "Order of Nature" which has not been translated into Russian yet is dedicated to this issue.

However, in order to return to the mimetic principle people essentially need to change themselves, to return to the state of "a man producing and trading" to the state of a "shunting person". Thus, the problem goes far beyond architecture, manifesting itself as a "human problem". In this situation, as N. Salingaros rightly notes, "simplicity works against complexity", the will to have power is against the need for self-restraint, the thirst for self-expression is against humble discipleship, permissiveness is against discipline, etc. [23]. More broadly, the mimetic principle radically contradicts the established modern paradigm. Nevertheless, it gives an alternative chance to move away from the false confrontation of "classicism" and "modernism" as a set of formal techniques, outlines the possibility of breaking the deadlock, reviving the profession and creating a new, lively and beautiful contemporary architecture in line with a continuous tradition.

References

- 1. Bembel', Irina. *Architect Marek Budzinsky. The Problem of Tradition in Modern Architecture.* St Petersburg: Pol'skii institut v Sankt-Peterburge Publ., 2020. (In Russian)
- 2. Bembel', Irina. "Superstyles' and Problem of Periodization in Architecture". *Academia. Arkhitektura i stroitel'stvo*, no. 4 (2018): 29–34. (In Russian)
- 3. Khan-Magomedov, Selim. *Ivan Zholtovskii*. Moscow: S. E. Gordeev Publ., 2010. (In Russian)
- 4. Gi-Ming, Shien. "Being and Nothingness in Greek and Ancient Chinese Philosophy". *Philosophy East and West* 1, no. 2 (1951): 16–24.
- 5. Sukhotin, Anatolii. "Beauty is the Radiance of Truth". *Biblioteka iunogo issledovatelia*. Accessed March 17, 2020. http://nplit.ru/books/item/f00/s00/z0000093/st028.shtml. (In Russian)
- 6. Salingaros, Nikos. "Beauty and the Nature of Matter: The Legacy of Christopher Alexander". *New English Review* (May 2019). Accessed July 12, 2021. https://www.newenglishreview.org/articles/beauty-and-the-nature-of-matter-the-legacy-of-christopher-alexander/.
- 7. Salingaros, Nikos. *Anti-Architecture and Deconstruction. The Triumph of Nihilism.* Rus. ed. Transl. by Tat'iana Bystrova and Elena Duilovskaia. 4th ed. Moscow; Yekaterinburg: Kabinetnyi uchenyi Publ.; Fedor Eremeev Publ., 2017. (In Russian)
- 8. Losev, Aleksei. Essays on Ancient Symbolism and Mythology. Moscow: Mysl' Publ., 1993. (In Russian)
- 9. Plōtînos. *Enneads*. Rus. ed. Transl. by Taras Sidash. 7 books. St Petersburg: Oleg Abyshko Publ., 2005, bk 5: Piataia enneada. (Plotiniana). (In Russian)
- Panofsky, Erwin. Idea. On the History of the Concept in the Theories of Art from Antiquity to Classicism. Rus. ed. Transl. by Yu. Popov. 2nd ed. Moscow: A. Naslednikov Publ., 2002. (Klassika iskusstvoznaniia). (In Russian)
- 11. Guénon, René. *The Reign of Quantity and the Signs of the Times*. Rus. ed. Transl. by Tatiana Liubimova. Moscow: Belovod'e Publ., 2011. (Izbrannye proizvedeniia). (In Russian)
- 12. Alighieri, Dante. *Divine Comedy*. Rus. ed. Transl. and notes by Mikhail Lozinskii, introd. article by K. Derzhavin. Moscow: Pravda Publ., 1982. (In Russian)
- 13. Gregory of Nazianzus. "Word 6. About the World, Spoken in the Presence of the Father, After the Previous Silence, on the Occasion of the Reunion of the Monastics". Rus. ed. In Grigorii Bogoslov. *Sobra-*

- nie tvorenii. 2 vols. Moscow: AST Publ.; Minsk: Kharvest Publ., 2000, vol. 1: 175–91. (Klassicheskaia filosofskaia mysl'). (In Russian)
- 14. Dvořák, Max. *History of Art as Intellectual History*. Rus. ed. Transl. by Alexandr Sidorov, ed. by Aleksei Lepork. St Petersburg: Akademicheskii proekt Publ., 2001. (In Russian)
- 15. Solov'ey, Vladimir. "Beauty in Nature". *Pravmir.ru*. Accessed March 17, 2020. https://lib.pravmir.ru/library/readbook/1918. (In Russian)
- 16. "Alexandr Dugin: 'Heidegger'. Lection 1". 2009. *YouTube Video*, 1:55:23. Posted by "Alexandr Dugin", July 2015. https://www.youtube.com/watch?v=ETiFrJOD9Pg. (In Russian)
- 17. Bembel, Irina. "In Search of Method. On the Crisis of Architecture Studies". *Vestnik of Saint Petersburg University. Arts* 10, no. 2 (2020): 323–39. https://doi.org/10.21638/spbu15.2020.208 (In Russian)
- 18. Bembel, Irina. "Universal Aesthetic Criteria in Architecture". Builder Science 280, no. 11 (2020): 15-9.
- 19. Bembel, Irina. "Beauty as an Ethical Concept". New Design Ideas 4, no. 1 (2020): 61-4.
- 20. Slavina, Tat'iana. "Classics and Avant-garde". Arkhitekturnoe nasledstvo, iss. 70 (2019): 260-72. (In Russian)
- 21. Bembel, Irina. "The Culture of Modern Architecture". *Arkhitektura i stroitel'stvo Rossii*, no. 3/227 (2018): 26–31. (In Russian)
- 22. Bacon, Francis. *Essays*. Rus. ed. Transl., comp., general ed., introd. artice by Aleksandr Subbotin. 2 vols. Moscow: Mysl' Publ., 1971, vol. 1. (In Russian)
- 23. Salingaros, N., D.Brain, A.M.Duany, M.W.Mehaffy, and E.Philibert-Petit. "Socially-Organized Housing: Biophilia, Connectivity, and Spirituality". Transl. by Fabian Dejtiar. *ArchDaily*. Accessed March 17, 2020. https://www.archdaily.com/922149/socially-organized-housing-biophilia-connectivity-and-spirituality/.

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