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THE CONCEPT OF TRADITIONAL ARCHITECTURE IN TERMS OF PRESERVING IDENTITY OF MODERN ARCHITECTURAL SPACE IN UKRAINE

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Abstract. The article deals with the issue of preserving a traditional Ukrainian architectural environment under conditions of present-day construction. It has been found out that an ecological approach and landscape integration, traditional for Ukrainian folk architecture, which could become the basis for preserving its identity in future, in most cases coincide with the concept of modern organic architecture as well as modern understanding the relationship between society and nature. One of the ways to continue the Ukrainian environment identity is to apply the principles of organic architecture to the process of up-to-date construction.

Key words: architectural environment, identity, organic architecture, architectural traditions.

1. Introduction

In modern conditions the preservation of individual peculiarities and national identity of architectural environment is becoming a necessity. It is not by chance that in the late twentieth century the researches related to the psychology of the environment perception and a psychological comfort of living space became popular. Nowadays, architectural environment turned into a permanent state for a great number of people living in big cities. So, the functional requirements to it are much expanded. In addition to adverse climatic factors protection, provision of necessary conditions for work and rest, formation of aesthetic tastes and behaviours, a modern architectural environment performs the tasks set before the surrounding natural landscape. First and foremost it has to provide residents with opportunities to identify themselves with their place of residence, the presence of such individual features of habitat that form an image of a “small homeland”. Traditionally, this opportunity was provided by the natural surroundings of a town or a settlement – with their original topography, water spaces, trees. Given a small area of urban development, the surrounding landscape is a co-creator of the overall image of the city, thus, even the use of typical architectural structures in these conditions does not destroy the visual identity of the city. However, under the circumstances when the development, which is the place of the residents’ permanent stay, occupies large areas a visual link with the surroundings is deteriorated or even completely lost. Then a natural landscape cannot any longer provide the individuality of the urban image independently (with a few exceptions, when it has a very showy elements – lake, as in Chicago or a large river with steep banks, as in Kyiv) and this task remains with the architectural environment. One of the most common and rational ways to provide architectural identity of the environment is the preservation and purposeful formation of its local traditional features. Then the city exists not only as a functional object, but also as a conglomerate of material environment and residents united by a common historically formed cultural and ideological foundation that can evolve and create traditional principles for future generations. Constant topicality of the neo vernakular style proves it. In Ukraine there is also an acute problem of preserving traditional architectural approaches to a new construction.

For many centuries of its formation Ukrainian architecture has produced its own formative and compositional traditions. Due to historical circumstances they have most clearly and consistently manifested themselves in a folk architecture. In the early twentieth century, on the wave of national style revival in

European architecture, a successful attempt was also made within the Ukrainian modernist architecture [1] to use traditions of architectural shaping in creating the new buildings. New materials were used for new functions through the forms of roofs, window openings, porches characteristic taken from folk architecture (for wall decor they used folk ornament and traditional colours – the contrast of light walls and dark roofs). However, the use of this style, for objective reasons, stopped. And at the beginning of the XXI century the task of reproduction of Ukrainian architectural traditions in modern buildings and in modern materials is still essential.

The purpose of this article is to identify the fundamental features of traditional Ukrainian architecture, which could become the basis for maintaining its identity not only in the present but also in future construction. Therefore, we will focus not so much on architectural forms of individual parts of buildings and their decoration but on the traditional method of organizing architectural environment and a general composition of volumes, because just these characteristics can be preserved under any stylistic solution of buildings, hence, they are not dependent on “architectural fashion”.

Traditional Ukrainian architecture, especially its national construction, was the subject of many scientific papers and articles which described and recorded the construction materials, constructive solution, planning, spatial organization of plots of land, forms of structures and their details, traditional ornament motifs of different ethnographic regions of Ukraine. In different periods Ukrainian folk architecture was studied by V. Sichynsky, S. Taranushenko, V. Karmazyn-Kakovsky, V. Scherbakivsky, P. Yurchenko, V. Samoilovych, T. Kosmina. Much attention was devoted to folk sacred objects by M. Drahan, Ya. Taras. The overview is presented in fundamental works on the history of Ukrainian architecture – the two-volume “Essays on the History of Ukrainian SSR’s Architecture”, ed. by V. Zabolotny (1957) [2], and “The History of Ukrainian Architecture” ed. by V. Tymofiyenko (2003) [3]. Numerous scientific papers were devoted to traditions of Ukrainian urban planning. These studies create a sufficient scientific basis to draw conclusions about peculiarities of forming environment, traditional for Ukrainian folk architecture.

2. Basic Theory Part

The leading role of folk architecture in the formation of architectural traditions is caused by the fact that Ukrainians did not have their own statehood for a long time. The period until the early twentieth century is characterized by aspiration to meet the needs and perceptions of Ukrainians according to their idea about the relationship between architecture and landscape, the composition of a living space, the construction materials and the size of structures.

Therefore, it is advisable to make conclusions about the peculiarities of traditional Ukrainian architecture considering the analysis of just folk architecture. An additional argument is the fact that at a short period of independent development of Ukraine (e.g. late XVII – early XVIII centuries) official architecture also tried to obey folk traditions, especially in terms of spatial composition, layout and colours of the objects [3, 4].

Studying the issues of preserving the identity of modern architectural space should begin with peculiarities of traditional for Ukraine architectural environment formation.

Descriptions of a traditional Ukrainian settlement or estate, given in scientific sources, are confirmed by numerous verbal pictures of Ukrainian XI – early XX century architectural environment which is found in a fiction and imaginative interpretation of the environment in the oral folklore. Here are a few specific pieces taken from scientific papers. T. Kosmina writes: “The close fundamental relationship between architecture and a natural surrounding is one of the most significant features of relatively small settlements, such as the villages. Just this feature of spatial compositions emphasizes the specific nature of the countryside architecture. In the climatic conditions of Ukraine nature is of great importance”; and further: “Green spaces (garden, flower garden, bushes and flowers in the yard itself) as well as the landscaping of the estate become a significant artistic and emotional factor...” [5]. P. Yurchenko claims: “Ukrainian cottage is mainly oriented to its main facade and one side to the south point. Sometimes this caused disorderly-picturesque character of the development of Ukrainian village”; “... village development is notable for the absence of a coherent system: houses, drowning in greenery, are scattered in picturesque disorder on the slopes and hills” [6]. V. Karmazyn-Kakovsky highlights: “... the logic of the plan and the whole architectonics of the best examples of Ukrainian cottage, its relationship with the landscape, magnificent proportions, a pleasant transition from the building volume to the surrounding space and décor are attractive by vividness” [7]. The principles of choosing the

construction sites, traditional for Ukrainian architecture were described in an academic literature. They had irrational, sensual background, based on the laws of nature [8, 9]. The similar principles of forming the environment were applied in sacred construction as well: “Temples could be located in residential area or outside – in the natural environment, but visual connections with the settlement were considered. These public complexes became compositional focuses of traditional rural development and largely shaped the architectural appearance of the settlements “[3]. There are many similar descriptions of Ukrainian folk architecture and their authors are not only professional researchers – architects, but also writers, public figures, travelers [10]. They give the basis for the following conclusions.

1. Ukrainian folk architecture implements an extensive use of a natural landscape in architectural environment composition. At the level of general urban composition, this feature can be seen in the placement of architectural landmarks on the outstanding points of relief, using it as a kind of pedestal for the building; at the estate level – in the placement of buildings on the functionally most appropriate places, taking into account the local landscape and focus on cardinal points; in construction of fortifications – in involving the natural barriers – marshes, cliffs, rivers with steep banks.

2. Traditional Ukrainian construction is actively involving experience of nature in an architectural composition of space and shaping its individual elements. This occurs mostly in the two following ways. The first one is delegation to natural elements and these functions are usually performed by artificial objects. These natural elements can represent both inanimate and living nature. One of the examples is using trees for marking the boundaries of the area (willow fence around the yard, a church with the adjacent area (“cemetery”), surrounded by lime trees), providing trees or ground grass-covered mounds with memorial functions, using appropriate contrasting plants and flowers as informative means of social communication. The second way is interpretation of shapes and compositional concept characteristics of nature in the architectural environment. It manifests itself: a) in the choice of structure size matching the natural surroundings as well as appropriate level of its elements details (e.g., the highest churches are not higher than the surrounding trees, and parting of the construction matches the trees fragments); b) in a general artistic compliance of architectural structures forms with the forms of the landscape and its elements (e.g. slopes of roofs and the way wooden bell towers are segmented and are very similar to the structure of silver-fir tree and the steepness of the mountain slopes corresponds with angles of roofs of residential buildings), c) in using experience of nature for the formation of architectural compositions, which is manifested in the landscape approach to space planning (e.g., choice of structure location not on the basis of proportional geometric calculations, but in accordance with the conditions of the future operation, taking into account the building orientation to the cardinal points, the emotional-energetic favorableness of location, local climatic features), d) in applying to architecture characteristic color regularities of nature (contrast singling out the most important elements of the environment), e) in the predominance of curvilinear, irregular layout of settlements and traditional respect to smooth lines and shapes [11].

3. In traditional Ukrainian folk architecture internal and external spaces were very closely intertwined. At that, the connection was not only compositional, but also functional. In housing construction it is manifested in the periodic moving of some interior features toward an open space near the house: when the weather were favourable, the functions of a dining room, a living room, a workshop, or even a bedroom would be taken over by a garden and a yard. As a result, the distinct functional and emotional boundaries that separated the two spaces just disappeared. Moreover, a transitional space of the house was actively used – porches, sheds, galleries. Special attention to the transitional space was reflected in ancient folk customs associated with the home threshold.

4. Use of local natural materials – wood, clay, straw, and sometimes (for foundation wall, supports or outbuildings) stone was traditional for Ukrainian folk architecture [12]. Although any folk architecture uses local materials, Ukraine did have such peculiarity: strong preference was given to non-durable construction materials, sustainable in nature – wood, straw, clay. Use of stone as the main material for residential and sacred buildings was avoided in principle. In addition to the territory of Ukraine, similar choice of construction materials was mentioned by the researchers of folk construction of the adjacent territories in Central-Eastern Europe [13]. It is important that such buildings were environmentally friendly not only with a human being, but also with the environment because after the structures became unnecessary they could be easily returned back to the ecological system, without bringing it any harm.

5. In traditional Ukrainian architecture, like in folk construction of other countries, architectural form and constructive solution of structures match local climatic conditions. For example, there is a direct correlation between the angle and the height of roofs and the amount of precipitation in the region: in the Ukrainian mountainous and forest regions the roofs are higher than in the steppe part of Ukraine. The peculiarities of the climate are reflected in such traditional constructive elements of Ukrainian folk architecture as porches, sheds, galleries. The climatic factors influenced even the colour of facades: clay of a darker colour was often used for a north-side facade of the cottage that was more often exposed to rains and winds, and was also protected by a layer of wood or straw, whereas a southern wall was whitewashed [6].

6. A philosophical aspect Ukrainian folk architecture follows “nature knows best” principle. In the formation of architectural environment there is a marked desire to consider the regularities of natural processes, coordinate the actions, and not to resist them. The consequence of this approach is, firstly, adjustment of architecture to existing landscape situation, avoidance of its radical transformation, secondly, use of compositional principles in architectural space by which natural environment is formed, namely: irregularity, “irrationality” of the composite structure, contrast highlighting of important elements, combining aesthetics with functional expediency, etc., relative short-life of architectural structures, which, like elements of natural landscape, have their own determined period of existence and disappearance, giving place to new generations of objects, similar by their function. This last circumstance gives the opportunity to the next generations to create the architectural environment, taking into account their own needs, which are constantly changing following the development of the society, and at that to protect the environment from radical irreversible changes, caused by architectural activity of a human. Unfortunately, this approach, which was apparent already in the time of Tripoli culture proto cities (IV Millennium BC) [3], has also a downside for us: unlike, for example, Italy, now we do not have any opportunity to admire objects of folk architecture, aged more than 300 – 400.

Let us consider the traditions of Ukrainian folk architecture in the context of modern concepts of architectural environment and sustainable development. An active cooperation of architecture with the natural environment, ecological approach to design, development of organic architecture [14, 15] are considered to be the results of progressive architectural ideas of the twentieth century, when people realized their responsibility towards the environment, took interest in the principles of natural shape creation and in an attempt to solve accumulated environmental problems and to find harmony with nature, based on a new conceptual foundation of understanding biosphere processes started to apply these principles to architectural practice. This natural-ecological approach to environment formation has also become an alternative to classical, rational architectural design, which has developed in European architecture since the days of the Roman Empire, on the basis of certain stylistic, proportional and aesthetic canons. The twentieth century saw the emergence of new concepts in urban development. B. Posacky, in particular, writes: “In the second half of the twentieth century a discrete, discontinuous form of urban development was offered as a possible alternative which is generally based on the idea of “garden city”, put forward in the early twentieth century by E. Howard [16].

According to the dictionary of architectural terms, organic architecture is a philosophy in architecture of the twentieth century, linked with the idea of creating architectural forms, which, like the forms of living organisms, would follow the function of the building and its environment. The basic principles of this architectural direction are:

- individuality of each building is caused by the properties of construction materials, characteristic functions, customer requirements, construction site, and, as a result, rejection of industrial forms of construction;
- compliance of architectural forms with natural landscape and merging with it.
- creation of a unified space in the interior that flows;

Another meaning of the term “organic architecture” is architectural creativity, which is based on the principles of conditionality of the architectural form by objective factors: function, natural environment, properties of material, etc.), its construction – from the interior space up to exterior parameters and characteristics, as well as buildings, constructions and their complexes, as the results of this kind of architectural creativity orientation [17].

In the publications devoted to the analysis of modern stylistic trends in architecture, the main task of organic architecture is defined as the creation of objects, with the shape that would be caused by a particular function and specific environmental conditions, and the term “organic” is used in three different meanings: in the correspondence to the nature of its assignment and materials, is subordinated to the conditions of the natural landscape, the one that copies natural forms and samples [14]. Special attention is paid to applying principles of

“ecological semantics” philosophy in modern architectural environment, which considers nature as a specific context, and knowledge as elements which should become its continuation [14].

In practice, apart from modern principles of ecological semantics, the two methods of integrating architecture with the natural environment are used: 1) architectural structures are trying to reveal unity and even identity with nature through consistency of volumes and spaces; 2) architectural objects should be inconspicuous among the natural environment, visually “blend” in it.

A lot of analytical research articles were devoted to the principles of organic architecture. They summarize the methodology of implementing these principles in architectural practice. In all these studies the main features of structures which belong to organic direction in modern architecture are actually the same, differing mainly by the level of generalization of certain characteristics. The means used in organic architecture and defining stylistic belonging of the constructions to the given direction are in particular the following: use of natural materials, involvement of natural constituents into shaping, use of natural relief in architectural composition, compliance of architectural forms with local climatic conditions, providing connection of internal space with the environment [18].

3. Results and Discussion

Comparative analysis of the principles, methods and tools used by the modern followers of organic architecture, and traditional, functional, constructive and compositional characteristics of the Ukrainian folk architecture shows almost complete identity of architectural concepts of the environment organization, despite the fact that there exists some distance between them having formed for many thousands years (Fig.1). Also in traditional Ukrainian urban development which have always been known for its scattered buildings, surrounded by green spaces [11], it is easy to find analogies with modern concepts of “cities-gardens” created in the North of Europe. The difference primarily lies in technologies of practical implementation of these concepts, but not in their ideological component. In both cases, the architectural activity of the individual is focused on the application of the principles and patterns that operate in natural environment and on the attempt to cooperate with nature rather than to oppose it.

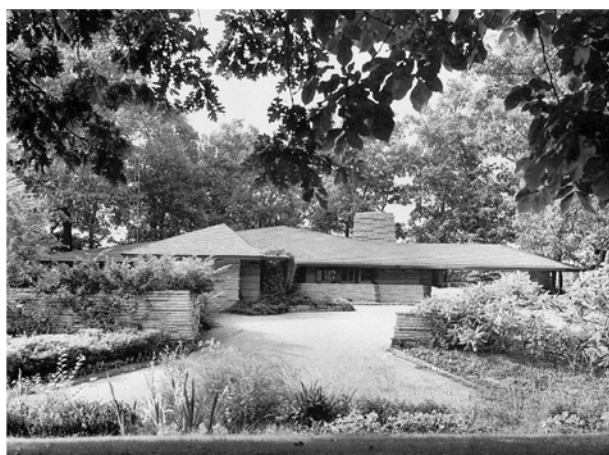
The realities of modern life have made the concept of sustainable development of cities and large territories be extremely urgent. At the UN Conference on environment and development held in 1992 in Rio de Janeiro “Rio Declaration on environment and development” was approved. The third principle in the preamble of this Declaration states: the right to development should be maintained so as to adequately meet the needs of present and future generations in the areas of development and environment” [19].

Returning back to the experience of organizing living environment, accumulated by Ukrainian folk architecture over the millennia of its formation and development, we must say that in the basis of its formation the principles identical to the modern concept of sustainable development lie as well. Abstracting from objective reasons and circumstances that contributed to this situation (for example, landscape and climatic conditions, and the like), Ukrainian folk architecture using for construction short-life construction materials of natural origin and compositionally inserting transport communication and architectural structures into the existing landscape situation, has always met the two basic requirements for sustainable development: to satisfy the living needs of its contemporaries and to preserve the resources of the natural environment for future residents. Each generation, erecting residential constructions, outbuildings or sacred buildings, had the opportunity to meet desirable functional needs. But the buildings, made of nondurable natural materials (wood, clay), had a relatively short service life, and were utilized by nature. Consequently, the following generations replacing them could create a new architectural environment which met new functional needs in better way. It is important that the practice of maximum non-interference in the existing landscape based on firm philosophy-worldview principles should state in folk beliefs and customs [20]. This contributed to the preservation of the landscape in an unaltered state for a long time. A. A. Kucheruk, analyzing the importance of the book by I. Ohienko notes: “The respectful attitude and admiration of land is reflected through centuries in the sayings given by the author: “Keep to the land, because it keeps us”, “Be rich like land and healthy like water”, and he quotes Ipatiev chronicle, where land is positioned as Mother, you have to respect, and which reflected people's philosophy of man and nature unity [21].

4. Conclusions

From the above material the following conclusions can be drawn.

1. One of the main, fundamental features traditional for Ukrainian folk architecture, is its integration with the natural environment and focus on nature as a pattern to follow in different spheres of architectural activity: in composition of space and its functional use, in shaping, in colour, in ecological approach to the environment. In the architectural-spatial compositions of settlements this feature is distinctive and evident among the other things, in dispersal and low density development, in the use of natural elements, including living ones, as equal participants in the environment organization, which can be delegated some functions (e.g., memorial, symbolic, demarcating and protective), in ensuring a permanent restoration of individual objects without radical changes in the nature of the architectural composition of the environment, in the adaptation of architectural objects to the existing conditions of a natural landscape.



a



b



c



d

Fig. 1. The similarity of approach to organization of environment in objects of modern organic architecture and of Ukrainian folk architecture:
 a – F.-L. Wright: Howard Anthony Residence [22]; b – house in Korytne village, Lviv region (water-colour drawing, O. Kulchytska); c – F.-L. Wright: Georg D Sturges Residence [22];
 d – bell-tower, XVIII century, in Yasenytsia Zamkova village (drawing, O. Kulchytska)

2. A conscious approach to the environment formation is a characteristic feature of Ukrainian traditional folk architecture. The principles and tools used by modern organic architecture and other stylistic trends developing the concept of environmental architecture, “cities-gardens”, sustainable development are, in fact, in modern conditions and with the support of modern scientific and technical facilities a return to the long-established traditions of living environment formation developed by Ukrainian folk architecture. Therefore, for preservation and development of Ukrainian architecture identity it is extremely important to apply nature-oriented, ecological architectural stylistic trends in modern architectural design and construction. For Ukrainian architecture just modern application of these concepts can play the role of neo vernikular architecture.

3. Integration of architectural objects in natural environment, as well as attraction of landscape to the solution to individual functional problems of space organization do not require necessary use of traditional architectural forms in new buildings. Compositional effect “of living in harmony with nature” can be also obtained using innovative forms and modern technologies, while maintaining the appropriate scale of structures. Therefore, this “organic” vernikular provides long-term preservation of identity of Ukrainian architectural environment which could be irrevocably lost if the other alternative architectural concepts were used.

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КОНЦЕПЦІЯ ТРАДИЦІЙНОЇ АРХІТЕКТУРИ В АСПЕКТІ ЗБЕРЕЖЕННЯ ІДЕНТИЧНОСТІ СУЧАСНОГО АРХІТЕКТУРНОГО ПРОСТОРУ В УКРАЇНІ

***Анотація.** Стаття стосується проблеми збереження традиційного для України архітектурного середовища в умовах сучасного будівництва. Виявлено, що традиційні для української народної архітектури екологічний підхід та інтеграція з ландшафтом, які могли б стати базою для збереження її ідентичності в майбутньому, в багатьох напрямках збігаються з концепцією сучасної органічної архітектури і сучасним розумінням відносин суспільства і природи. Одним із шляхів продовження української ідентичності середовища є застосування принципів органічної архітектури в процесі сучасного будівництва.*

***Ключові слова:** архітектурне середовище, ідентичність, органічна архітектура, архітектурні традиції.*

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