



Environmental Design as A Modern Design Direction

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ABSTRACT

Educational articles consecrated by the research of the development of the design, its personality, principles, and also the same. A man, surrounded by a covered room, will take the peace of his house.

Keywords:

Natural environment, environmentally friendly materials, natural materials, wood, plants, product texture, processing.

The design has combined all types of project activities. At the turn of the 19th-20th centuries, at the stage of its formation and formation, attention was focused on the active introduction of industrial products in various areas of life, the rejection of decorativeness in favor of functionality. When design was introduced into culture as a fundamentally new area of creativity, it contrasted itself with traditional artistic culture. The formation of design was determined by such factors as the possibility of machine production of products, orientation to the mass consumer, rationality, scientific nature, and uniformity. Initially, humanistic ideas were put forward: the harmonization of the world saturated with machines, the humanization of technology. A designer deals with an object, but his goal is not an object, but a person, said designer and teacher L. Mohoy-Nagy (Bauhaus) [3].

The ever-increasing negative impact of human activity on the environment has stimulated society to understand the causal relationship between human activity and

environmental degradation. In recent decades, the problems of human ecology, ecological culture have come to the fore. Restrictive measures began to be supplemented by other forms of organizing the coexistence of man and the natural environment. The priority direction for solving the environmental problem has become the idea of organic inclusion of human-made products into the environment, i.e. ecological approach in design culture. The direction of "green" or ecological design, which originated in the 1970s, is an attempt to harmonize relations in the "man - nature" system and introduce responsibility on the part of man into them.

The ecological approach to design was a reaction to the scientific and technological revolution. This is one of the directions of the global environmental movement, whose tasks include the protection and restoration of the environment. The meaning of an ecological approach in design is the creation of products that are compatible with the environment, which means reducing and, if possible,

completely eliminating the negative impact on nature through the use of alternative resources and energy, as well as non-toxic, already recycled or intended for recycling materials and renewable production processes, the maximum saving of resources and materials, taking into account the durability of the product so that the ratio of the costs of materials and the lifespan of the products is optimal, the possibility of their disposal at the end of their service life.

The term "ecological design" is now widely used in everyday design practice and in scientific literature. The problem of ecological design comes into contact with various spheres of production and scientific knowledge - from architecture, industrial design and applied ecology to modern research in the field of philosophy, medicine, psychology, sociology and pedagogy. This area of design combines both artistic and design foundations and scientific, philosophical understanding of the degree of influence of human creative activity on the environment, the consequences of human interaction with the environment. Scientific and methodological tools for this new direction in design are being formed.

Philosophers under the term "ecological design" mean any design in design, aimed not at reflecting harmony, but at the very harmony of human relations with the world around him [1].

Environmental design is defined as "participation by means and methods of design in solving socially urgent problems of protecting the natural environment (and people themselves) from the consequences of its pollution by wastes of a technogenic civilization and disruption of the ecological balance in the biotechnosphere, both from the standpoint of the values of nature and culture" [2] ...

From this point of view, the tasks of environmental design include ensuring the environmental cleanliness of construction and finishing materials used for the manufacture of design objects, the environmental friendliness of production and consumption processes, taking into account the problem of waste disposal and the state of the subject-spatial

environment. This is a complex activity that takes into account the requirements of the natural environment and culture [1].

According to A. V. Uvarov: "Environmental design is a type of design activity that exists as a conscious or intuitive response to natural changes, manifested in objective and spatial creativity. The aim of ecological design is to stabilize the relationship between man and the environment [6]. The object of application of ecological design methods can be both nature, which indirectly affects a person, and a person himself, his social, cultural and psychological needs in their connection with environmental issues ... Currently, there are no clear boundaries that define this type of project activity, equally just as there are no criteria by which a product can be classified as a product of ecological design" [5].

The ecology of space is directly related to human ecology, as it affects the quality of the living environment, health, development of abilities, psychophysical comfort, etc. Living space to the greatest extent demonstrates the unity of man with the environment and corresponds to the concept of ecology as an interaction between the subject and the environment [3] ...

The activity of the designer completes and complements the project of the architect who creates the "home" (space for living), therefore it is necessary to identify the environmental aspects in these areas of design activity in unity. If the industrial design initially considered programs for the production of products from secondary raw materials or minimizing energy costs, then in architecture it was about environmentally friendly materials, about adapting a building to the natural landscape, creating the most comfortable environment for humans.

Architects distinguish two main levels of architectural and ecological formation of space: methodological and practical. The methodological level of ecological modeling of architectural space reflects the general trends in the development of the ecological approach in architecture. Its principles have been repeatedly declared by theorists and practical architects.

Basic methodological principles for the formation of ecological space:

- the principle of the integrity and unity of man and space, their organic interaction and consistency, creating psychophysiological comfort, which is achieved by improving the form of space, the symbolism of the architectural environment;
- the principle of ecocyclicity, manifested in external and internal variability, dynamism, plasticity, coordination, consistency of the leading natural rhythm and subordinate to it: human life and the rhythm of the architectural space;
- the principle of normality of space, taking into account the positive and negative qualities and limiting border states associated with the adaptive capabilities of a person. Evaluation presupposes the reflection of a number of factors of the harmonious organization of the environment, including aesthetic ones. In assessing space from an environmental standpoint, the values of health, human well-being and the environment come first. The corresponding qualities of the ecospace are humanity, eco-cyclicity, relevance, resource availability, energy-informational quality;
- the principle of the uniqueness of space, which is formed in a specific situation of place-time, presupposes taking into account the social conditions and characteristics of an individual inherent in folk culture and ethnic space.

The second practical (applied) level of ecological modeling of architectural space is determined by practical tasks and reflects the specifics of the spatial approach in ecology and its principles:

- the principle of resource availability of space corresponds to the idea of normality, economy, reasonable sufficiency;
- the principle of uniqueness, phenomenology, appropriateness of the form of space in planning, visual, socio-psychological, functional, sign-symbolic contexts;
- the principle of chronotopology, reflecting the process nature of human interaction with the environment and corresponding to the eco-cyclic approach to the formation of architectural space;

- the principle of archetypal reflects the criteria of environmental friendliness, archetypal forms and means of composition;
- the principle of energy-informational balance in creating physical and psychological balance, harmony of a person and his environment;
- the idea of alternative spatial development corresponds to the provisions of synergetics and methods of organizing a multidimensional space, involves modeling alternative options for the greening of the architectural environment.

Returning to the definition of the concept of "environmental design", we will consider it as a term that combines two spheres of scientific knowledge and practical human activity. Ecology deals with the problems of coexistence and interaction of all living things, including humans, in the environment. The term "ecology" is derived from two Greek words (oikos - home, dwelling, homeland and logos - science, teaching) and literally means "home science" or "habitat science". Design is an activity related to the artistic and technical design of an object. The word design is translated from English as concept, plan, goal, intention, and also - project, drawing, sketch, drawing, pattern, composition, calculation, construction, in addition - design, construction. The first officially recognized definition of design (Industrial Design) belongs to the famous practitioner and design theorist Thomas Maldonado.

These qualities of form relate not only to appearance, but mainly to the structural and functional relationships that transform the system into an integral unity (from the point of view of both the manufacturer and the consumer). Design seeks to cover all aspects of the human environment, which is due to industrial production "[6]. Thus, design is a creative activity, the purpose of which is to determine the form and meaning of objects produced by a person, to optimize the functional processes of human life in the environment, and to improve its aesthetic qualities.

Correctly reflecting the essence of design activity, the above definition of design does not characterize design as a type of artistic activity,

does not specify what human needs should be sought to satisfy through design, does not indicate that the object of design activity can be not only individual products, but also their complexes, systems, subject-spatial environment in various spheres of human life. Realizing these shortcomings, G.B. that formal qualities include not only the appearance of an object, but mainly structural connections that give it the necessary functional and compositional unity, which contributes to an increase in production efficiency "[5]. As the most significant in these definitions, let us single out the anthropocentric focus of design, which is expressed in the desire to take into account the capabilities of a person using a particular design product, and the whole range of his needs, requests, preferences embodied in utilitarian-technical and socio-cultural (including aesthetic) properties of design works.

Speaking about the environmental direction in modern design, we can consider it as a way to solve problems, covering all material spheres of human activity. Design responds to individual and global challenges facing a person; only if there is a problem, a project search for ways to solve it begins.

Environmental design is a design direction that pays key attention to harmonizing relations between a person and his environment, and preserving the natural environment. This is an integrated and holistic design activity that implements in the designed objects (from household items to buildings, cities and landscapes) the convergence of the requirements of the natural environment with the consumer and aesthetic requirements of a person.

Environmental design aims to create optimal conditions for satisfying human needs without disturbing the balance of the environment, when the 3R principle of ecology is observed (reduce, reuse, recycle - reduce, reuse, recycle).

Sustainable design objectives are:

- improving the current ecological situation by creating products that meet the requirements of nature, man and culture;
- finding a balance between improving the form and function of design objects and

adhering to the principles of an ecological approach;

- revision of materials and technologies in terms of environmental standards;
- formation of a new culture of consumption, structure of needs based on the reduction of excess quantities of products;
- purposeful change in the value attitudes of society through artistic images of design objects.

Today, a wide variety of design practice phenomena are involved in the field of environmental design. Environmental design takes into account the values achieved by previous generations of people in the field of relationships between man and nature, forms the ecological culture of people, strengthens health, awakens creative thoughts, sharpens artistic perception [2]. This is an attempt to recreate the natural environment in human habitats, he embodies what we see in nature: natural materials, textures and textures, shapes inspired by nature.

Based on the principles of reasonable consumption, the qualities of an ecological design product should be: versatility, modularity, transformability, durability, hygiene, non-fashionableness, reasonable economy. In order for the subject-spatial environment to be comfortable (and environmentally friendly) for a person, of course, it is necessary to fulfill ergonomic requirements.

A harmonious, natural-morphic image is relevant for an ecological design object, which will create psychological comfort for the consumer. Note that the image should be built not on formal copying of the structure, appearance and color of natural objects, but using the principles of their shaping when designing the objective environment and organizing space. The absence of even one of the listed qualities leads to an imbalance in the connection nature - object-spatial environment - man. Interdisciplinary nature, complexity and integrativity are the distinctive features of the ecological direction in design [3].

Design in the modern world is the most massive art, the impact of which cannot be avoided. It connects spiritual and material

culture, has a huge socio-cultural role. The direction of ecological design especially actualizes the educational, value-orientational (axiological), adaptive functions of design. Environmental design largely contributes to the formation of a respect for the environment: saving resources, striving for the durability of things around a person, as well as creating safe and favorable conditions for the physical and mental health of a person. Moreover, the concept of "environmentally friendly object" includes not only the absence of a negative impact on the environment, but also the psychological comfort of using it.

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