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Gnatyuk LR,
PhD. arch., Associate professor,
Osadcha KM
National Aviation University, Ukraine

AESTHETIC THEORY FORMATION INDUSTRIAL PRODUCTS

Abstract: This article investigates the theoretical aspects of aesthetic shaping of industrial products. P ozkryto ties shape of a product from its design, materials, manufacturing technology and function revealed principles of optimal and harmonious shaping.

Keywords: shaping, aesthetic perception, construction material, three-dimensional structure, industrial design.

Statement of the problem. Process of creation and development of industrial products in recent years has undergone a sea change. Ever since the scientific and technological revolution moved on conveyor design production, there is massive production of industrial products, often without regard to the relationship of imagery and sound technical design, logic design and harmony of forms.

Problem formation - One of the key design. Unfortunately, today there is a tendency harmonic integrity violation form. To assess the benefits of aesthetic shaping of industrial products must analyze structural and technological, functional and ergonomic basics items that affect the creation of three-dimensional structures in the design of industrial products. There is a need to form a new system of values, which would contribute to the harmonious relationship of man and the subject, recognizing the advantage of quality and aesthetics of the number of consumer goods.

Analysis of recent research and publications. Analysis of the literature, which are somehow considered the problem of formation shows that it mainly attracts the attention of experts in the fields of artistic activity that relates to the utilitarian needs of man - the architecture, design, arts and crafts. In short Dictionary of Engineering Graphics, design and architecture [1] shall define such terms as *"form", "design form", "technological form", "visual form", "shape perception", "formation",* etc. .

Martynov FT in the "basic laws and principles of aesthetic formation and their manifestation in architecture and design" [3] reveals the essence of the aesthetic process, defining its place in the structure of human existence. Examines the basic principles of aesthetic formation and manifestation in architecture and design.

Martynov FT writes: *"Thanks to the unstable form of education that break down are converted into stable, organized, chaos arises from order, that certain content."* This applies to the aesthetics. Everything that happens in life *"is in some form and in form."* Aesthetic shaping, in turn - a reflection and creation of truth "[3, 23].

This paper Shumeha SS "The history of the origin and development of design" [5] wide open main objectives and basic requirements for the design, focus on the main factors shaping industrial products, technology and design methodology.

The wording of Article goals. In yyavlennya aesthetic qualities shaping their role in the creation of three-dimensional structures in the design of industrial products.

The main part. Today industrial design acts as a strategic business tool. The items of industrial design include kitchenware, household and industrial appliances, furniture, equipment, and even high-tech products. By industrial design options include the popular car today and transport design. Thus, the industrial design is not only an art combining design with technology, but also a marketing tool. The world is changing and the need to make the man-made environment is not just suitable for human life, but also as favorable for human being awakened to life design. Often, instead of the term *"design"* is used as a synonym for the term *"technical aesthetics."* Technical Aesthetics examines the socio-cultural technical and aesthetic problems of formation of industrial production objective of harmonious living environment and human activities [5, 18].

Laws of formation reveal relationships shape of a product from its design, materials, manufacturing technology, function, showing historical trends in the form and style of the product. There are no mandatory rules on the use of patterns and tools morphogenesis. However, knowledge of the different techniques that are the basis of generally accepted concepts, allowing in each case to achieve artistic expression product which is designed.

The aesthetic concept formation can be expressed as follows: formation - a theoretical discipline that studies the laws of creation forms, principles and methods of artistic design, aimed at creating optimal form of industrial products that meet the functional, technical, economic, compositional and aesthetic requirements [3, 26].

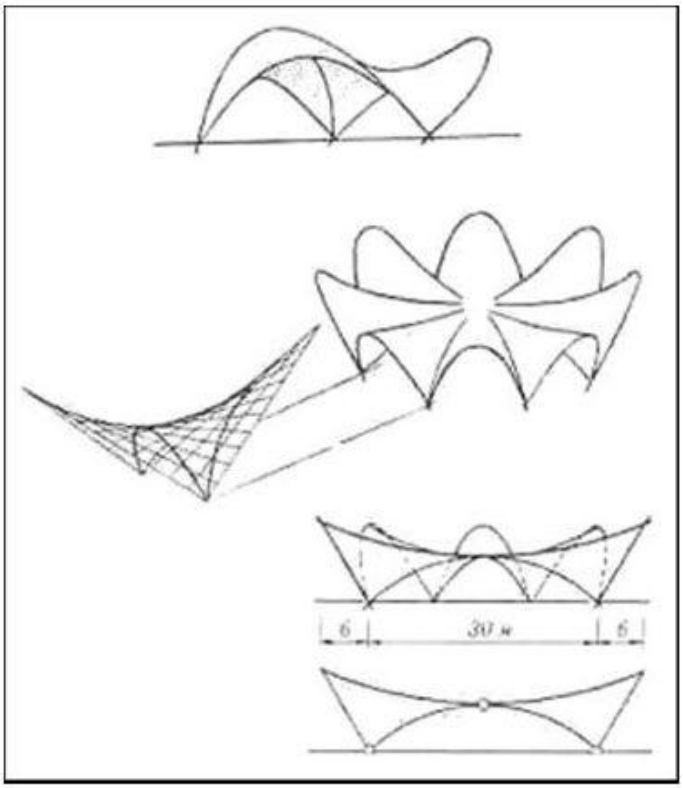
The specificity of various industrial items and products is that their form consistent with its mission and meet the material from which they are made, and the constructive scheme, which determines their structure. On the composition of products significantly affects the ratio of functional, aesthetic, technical and economic requirements. Convenience and beauty of form - important criteria for the optimal composition and household equipment designed to meet the material and spiritual needs.

An important factor is the scientific process of formation in nature, art and technology. Study of the principles of formation in nature allowing the person to move to a higher degree of art. Using the created nature of living organisms, the designers created a widely used technique in dynamic streamlined shape for different vehicles. Streamlining has become an objective law in the formation of high-speed machines (Fig. 1.).

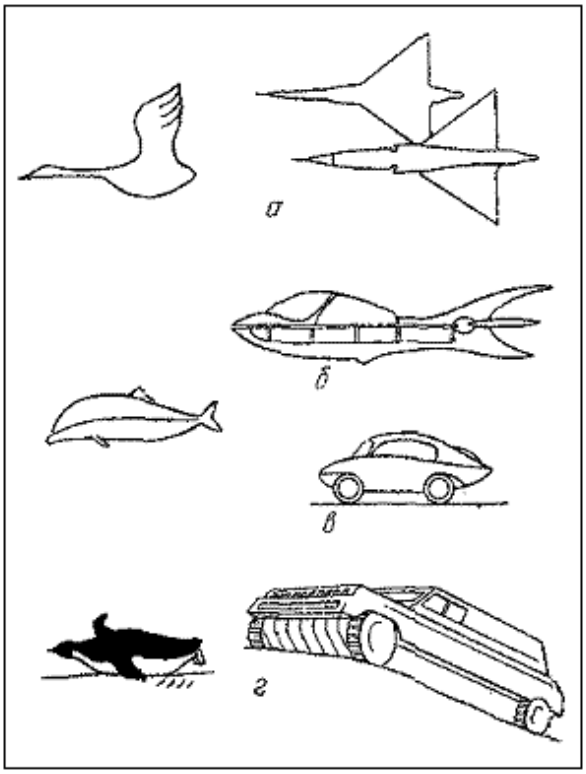
The major categories of composition, laying the foundation forms are three-dimensional structure and tectonics in shaping the form. Tectonics - specific means of artistic expression, connected with constructive three-dimensional structure of the product and its objective laws (strength, stability and balance). [1]

Creating a three-dimensional object, the artist-designer is not operating lines and planes, such as the artist, and the volume, weight and space. This design requires knowledge of various compositional techniques and the ability to use mechanical, physical and chemical properties of materials. If for centuries in the creation of forms

of industrial products were taken into account materials, working mainly on compression and partly bending now, thanks to the emergence of new durable materials and new technologies, are born with a variety of complex shapes and whimsical curved shape (Fig. 2). During work on the shape of an industrial product designer should remember its required quality.



Ri c. 1. Streamlining and dynamic forms: and - in the air, b - in water, c, d - on the ground



Ri c. 2. Shell with curved shape

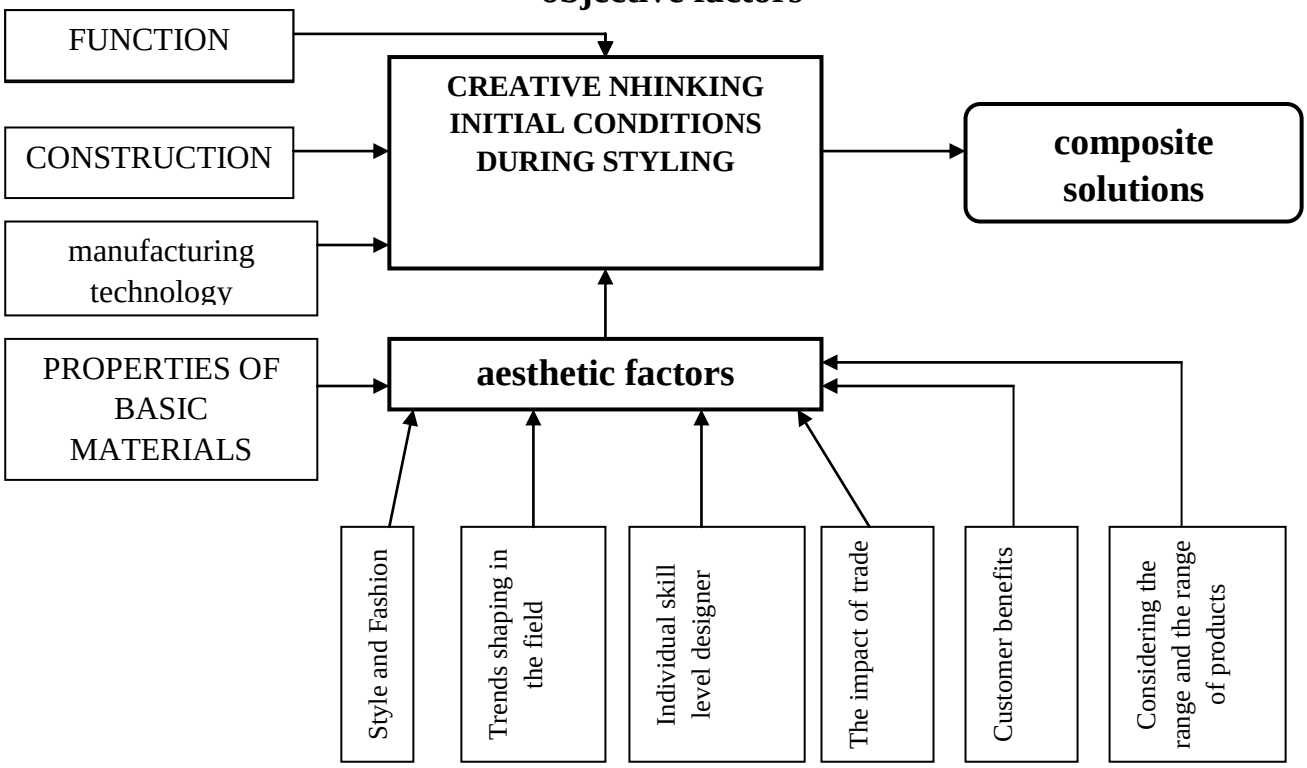
Compositional decisions in shaping occurs in a sequential creative design process, starting from the function, design, manufacturing technology and properties of basic materials, taking into account aesthetic factors [4, 7].

Thanks to the knowledge and use of the principle of forming practical designer can achieve the best results in their work, mentally check relate, rethink the form, because the shape is a basic aspect of emotional perception of things in general.

Form is the first step in the development of things only after perception of shape person pays attention to color, texture and so on. The form has a great emotional impact on people, and if the color in different cultures can symbolize radically opposite sense, or that form carries a full emotion. Featuring online form, knowing its features and components, including objective aesthetic factors that affect the final composite product solutions for industrial design (Table 1), a designer will meet human needs in the harmonization of the world.

Table 1

The dependence of the final composite solutions Industrial Design from objective factors



Conclusions. Perfection shape is largely determined by technological rationality decision logic design, progressive technologies - only on this basis, the designer can create a real harmonious form, but that he should participate in the work of not only the form but also on the product as a whole. In the process of forming creative thinking comes to decision-making at all stages of construction. In the mind of a designer in some way change the aesthetic concept of society - its culture, tastes, and so on. The final composition solution, imagery products are thus a kind of durable alloy of many elements.

Prospects for further research. Besides basic properties - tektonichnosti and organization forms, it is important three-dimensional structure - namely, proportionality, scale, compositional balance, unity of character shapes all elements coloristic and tonal unity. It is this group of qualities is the basis of optimal and harmonious shaping and ensures the integrity of the form. The absence of even one of them can lead to serious violations of their organization.

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Аннотация

Гнатюк Л.Р., Осадчая К.М.Теория эстетического формообразования промышленных изделий

Статья посвящена исследованию теоретических аспектов эстетичного формообразования промышленных изделий. Раскрыты связи формы изделия с его конструкцией, материалом, технологией изготовления и функцией, выявлены базовые аспекты оптимального и гармоничного формообразования.

Ключевые слова: формообразование, эстетичное восприятие, конструкция, объемно–пространственная структура, промышленный дизайн.

Анотація

Гнатюк Л.Р., Осадча К.М.Теорія естетичного формоутворення промислових виробів

Стаття присвячена дослідженню теоретичних аспектів естетичного формоутворення промислових виробів. Розкрито зв'язку форми виробу з його конструкцією, матеріалом, технологією виготовлення і функцією, виявлені базові аспекти оптимального і гармонійного формоутворення.

Ключові слова: формоутворення, естетичне сприйняття, конструкція, об'ємно-просторова структура, промисловий дизайн.