Tsoy M.,

Associate Professor, PhD. Sc. Science, Kyiv National University of Construction and Architecture, Kiev, Ukraine

DESIGN AS A COMPLEX SYSTEM (MECHANISMS OF INTERACTION TOOLS)

Abstract. The system of design consideration is developed as a complex system with the appropriate linguistics and substantial addition of new categories that are useful for the further theoretical research and practical use. It is considered condition of contemporary design, its purpose is a propriety of existence, the harmony of architectural and objective environment, technical perfection election of technological feasibility and economic efficiency ergonomical comfort and environmental sustainability. Its social value is creating of provided and worthy way of life and work, artistic figurativeness of the physical world, social self-organization and humanisation of society, the formation of social identity, inspiration, purification, ennoblement of person, his spiritual rebirth and recreation, perception of work and creative motivation and therefore progressive economic development of society.

<u>Keywords:</u> design, system, purpose, theoretical support, direct information link linguistics design, methods.

Statement of the problem . The current state of the design of ergonomic design solutions in Ukraine is very difficult. Objects are rarely coherent design with elements subordinate to each other, balanced, uniform in character, systems, scale , bearing some image information . Together, they are usually eclectic , far from ansamblevosti and unique style . This restricts the spiritual revival and progressive social development. Another view of the system design will allow it to fill up a theoretical scientific basis and initiate appropriate research to address the plight of consideration .

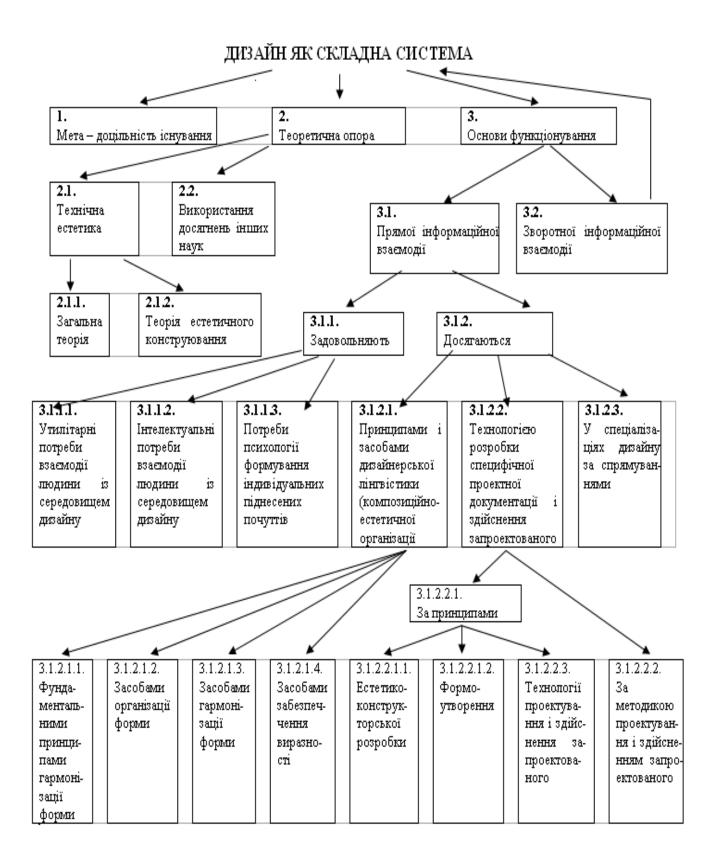
Analysis of recent research. If we consider the current state of design in Ukraine as a separate branch of science, it is clear that research in this area indicate their affiliation to art history [1,2]. Although, as is proved by practice, in most cases, still there is separation of design from other areas, in particular, is shown by some linguistic confusion in the conceptual apparatus that also hinder the successful development of this gal uzi science.

The wording of Article goals. The first step towards eliminating consideration the plight of the state of design review is to develop a scheme design

as a complex system with the appropriate linguistics and substantial completion of this new category, useful for further theoretical research and practical application.

The main part. Chart review of design and its generic characteristics.

- 1. Purpose whether the present . In addition to creating a harmonious architectural and environmental objective , technical excellence of products with the technological feasibility and economic efficiency , ergonomic comfort and environmental priority should be added importantly, social value creating a secured and dignified lifestyle, artistic imagery of the objective world , social and self- humanization of society, the formation of social identity, inspiration , purification, oshlyahetnennya man, his spiritual rebirth and recreation , heritage and creative work motivation and , consequently, progressive economic development of society.
 - 2. Theoretical support.
 - 2.1. Technical Aesthetics.
- 2.1.1. General Theory . Sociology of design conditions of , current problems and prospects of development , the relationship of art, technology and culture, aesthetics and its substantive environmental requirements for industrial products and structures , assessment and prediction of technical and aesthetic and qualimetric quality indices of industrial production and construction , formation optimal range of products .
- 2.1.2. The theory of aesthetic design. Location and typology of aesthetic design in the overall design of the structure and its automation patterns of creative thinking designer, principles, means and methods of his career, shaping laws (link shape of a product from its geometry, design, materials, production technology, function, historical patterns changes in the shape and style of the product, the psychological peculiarities of perception psychology pochuttevoho projected) design literature (theory of composition, its category, its ability to create poetic art image.



2.2. Using the achievements of others: sociology, ergonomics, semiotics, art history, architecture, psychology, cromatics, ethics, aesthetics, architectural

graphics, art, fonts, descriptive geometry, applied geometry, projective geometry, analytical geometry, differential geometry, combinatorics, engineering design, computer 'Department of Computer graphics, sestemotehnyky, economics, materials science, mechanics, resistance materialov, structural mechanics, quality control, culture, bionics, architectural designs, landscape design, etc.

- 3. The basis of operation.
- 3.1. Direct information of human interaction with the object of design. The communicative function of transmitting information about the beneficial properties of the design object as environment necessary for life, work and rest, to meet the utilitarian, intellectual. Function representation of reality in the design environment (a sense, the categories of thought and consciousness), transfer the contents of the information encoded in the design environment. Nominative function (understanding the image of the object and purpose of the design and its appropriate implementation).
- 3.1.1. Basics of operation of direct information on the subject of human interaction design meet
- 3.1.1.1.Utylitarni needs human interaction with the environment design: ergonomics, functionality, adaptability and so on.
- 3.1.1.2. Intellectual needs of human interaction with the environment design: understanding informativeness form, content of utilitarian perfection, and its operation
- 3.1.1.3. Requirements of formation of individual psychology sublime feelings: getting insight in the comprehension of technical excellence, obtaining information from an object of aesthetic design, getting a sense of comfort and satisfaction of its utilitarian and intellectual perfection, pleasure or enjoyment from using memorable characters, symbols, abstract composition to transfer specific content lofty feelings like pleasure harmonious formation.
- 3.1.2. Basics of operation of direct information exchange object design is achieved.
 - 3.1.2.1. Design principles and tools of linguistics (compositional and

aesthetic organization).

- 3.1.2.1.1 . The fundamental principles of harmonization of forms: respect for the unity of form and content (semantics), perfect form (semantics), production design morphemes.
- 3.1.2.1.2 . By means of forms, structuring and grouping form elements independent of the composition according to the law of perception.
- 3.1.2.1.3 . By means of harmonizing forms : identifying conceptual structuring of space (Semantics, Syntax , Pragmatics) dissection forms a composite geometry, form , severity composite skeleton points and lines form tektonichnosti , size perception, scale, proportionality , proportional composite scale correlations compositional plasticity of lines and surfaces form, metro-rhythmic relationships, modularity sektsiynosti , compositional contrast, compositional nuance , color- lighted ratios , composite differences , similarities , rational styling, ansamblevosti .
- 3.1.2.1.4 . Means of ensuring expression: detection volume, tectonics , balance, choice of materials with desired properties , light sources of natural and artificial lighting necessary to identify formative and psychological characteristics of the objective environment, color , tone, color, texture, texture, surface roughness r'objects of design.
- 3.1.2.2. Achieved specific technology development project documentation and the designed .
 - 3.1.2.2.1. According to the principle.
- 3.1.2.2.1.1 . Aesthetic design work : the possibilities of mechanical , active (mechanical and ethological position), design, technological , material science , informational, aesthetic and imaginative project and morphological transformation.
 - $3.1.2.2\dots 1.2.$ The shape: material and utilitarian, cultural and aesthetic.
- 3.1.2.2.1.3 . Technology design and implementation projected : identification of subject and object creation, structure- phased construction process of designing , implementing fundamental tezarusu , correction design based on feedback .
 - 3.1.2.2.2 . Methodology for the design and implementation projected .

Achieved a marketing approach to design analysis of consumer and aesthetic properties of obsolete prototype products and design objects, technical and aesthetic challenge of developing new, free from flaws design objects. By using methods and techniques of heuristic mental activities and operations of the principles and rules that discipline in such activities in the design process at different stages (preparation, design proposals, its development, completion, implementation).

- 3.1.2.3. Specialization achieved by the design focus: industrial design (engineering machinery, aircraft, vehicles, furniture, electrical appliances and fixtures, consumer goods), graphic design and more.
- 3.2. Basics of Backlink information of human interaction with the object of design. Asset decent life, work and rest, focus on the ability to overcome the difficult position, to achieve success, wealth, happiness and prosperity as programming of health, luck, hope and faith in the fulfillment of desires, a better future.

Conclusions. Consideration of the design as a complex system will enable improved his theory, pay attention to the energy fields of composite parts influence each other.

Prospects for future research aimed at getting the right content morphemes design and empower their successful practical application in terms of semantics, Syntax and Pragmatics.

Literature

- 1. *Михайленко В.С., Яковлєв М.І.* Про паспорт спеціальності 05.01.03 "Технічна естетика", затверджений Президію ВАК України (Постанова №41-08/1).
- 1. Бердинскъких С.О. До питання порівняльного аналізу змісту програм наукових спеціальностей "Технічна естетика" (05.01.03) і "Дизайн" (17.00.07) / "Технічна естетика і дизайн". Науково технічний збірник.— К..: Віпол, 2012 р. Вип. 11. С.14-18.

Анотація

Цой Н.П. Дизайн як складна система. Розроблено схему розгляду дизайну як складної системи з відповідною лінгвістикою і суттєвим поповненням системи дизайну новими категоріями, корисними для подальшого теоретичного дослідження і практичного використання. Розглядається стан сучасного дизайну, його мета доцільність існування, гармонійність архітектурно-предметного середовиша. досконалість виробів з технологічною доцільністю та економічною ефективністю, ергономічним комфортом та екологічною пріоритетністю. Його соціальне значення-створення забезпеченого і гідного способу життя і праці, художньої образності предметного світу, соціальної самоорганізації і гуманізації суспільства, формування соціальної самосвідомості, натхнення, очищення, ошляхетнення людини, її духовного відродження та оздоровлення, надбання трудової і творчої мотивації і, як наслідок, прогресивного економічного розвитку суспільства.

<u>Ключові слова</u>: дизайн, система, дизайнерська лінгвістика, принципи, засоби, мета, теоретична опора, основи функціонування.

<u>Аннотация</u>

Цой Н.П. Дизайн как сложная система. Разработана схема анализа дизайна как сложной системы с соответствующей лингвистикой и значительным пополнением системы дизайна новыми категориями, полезными для дальнейшего теоретического исследования и практического применения. Рассматривается положение современного дизайна, метацелесообразность существования, гармония архитектурнопредметной среды, техническое совершенство изделий с технологическим эффективностью. достоинством экономическою эргономическим комфортом и экологическим приоритетом. Его социальное значение обеспеченного с достойным способом жизни и труда, художественной образности окружающего мира, социальной самоорганизации и гуманности общества, формирование социального самосознания, вдохновения, очищения, облагораживание человека, его духовного возрождения и оздоровления, приобретения трудовой и творческой мотивации и, как следствие, прогрессивного экономического развития общества.

<u>Ключевые слова</u>: дизайн, система, цель, теоретическая опора, основы функционирования, дизайнерская лингвистика, методы.