

TRANSFORMING OBJECTS IN THE DESIGN

***Abstract:** series feature shaping transforming objects in interior design through the use of combinatorics as the main reception of the various combinations (combinations), permutations and ordered placement of these elements.*

***Keywords:** Transforming objects, configuration, modularity, constructive, combinatorics, unification.*

Statement of the problem. XXI century. described as post-industrial era, globalization and information technology. In the foreground the problem of rationalism and functionalism of design objects, their individuality and ease of use. There is a growing trend to save floor space, including housing, through the use of design objects, which provide a different view of their shape by modifying internal elements while maintaining a constant total size transformations. At present, the relevance of transforming design objects proves that XXI century. opens up new design possibilities and needs of developing so-called "Transformers", providing economical and efficient use of floor space, because the modern consumer needs innovative ideas and design solutions conceptually new design. Methods of forming the subject of a design show that the design process inherent focus on social and cultural rights claims, on its spiritual values relevant to the objective environment are reflected in particular aesthetics and sense of harmony. Questions about the use of "Transformers" is under solution able kulturogeneza and requires further study.

Analysis of recent research and publications. This problem investigated by such scholars as Henysaretskyi OI, Saprykyna NA Hrashyn AA Volkotrub Y.T. [1, 2, 3]. From their statements, it follows that in the design of each new object, it is not profitable to solve in isolation, but in a certain population - parametric number using combinatorial principles. In this case, the number of combined products of the same design and purpose gradation parameters. Updated task of harmonizing structural relationships between humans and industrial products, included in the process of human socio domestic sphere. For this purpose, the prevailing practice in the design tools and techniques morphogenesis.

The wording of Article goals. Aim of work is an analysis to identify features forming transforming objects in design through the use of combinatorics.

The main part. Term "transformation" refers to changes in the structure and form design object design. The basis of forming the object of transforming the principle of modularity and the application of combinatorics. For this purpose, it is reasonable to search for combinatorial decorative element, which is part of the designed object design [4]. It can be based on the basis of geometric shapes and natural analogues. The method is a combination of geometric shapes is their division into separate parts in order to obtain a multiple combinatorial decorative element. In this case solved two major problems: uniqueness of various compositional techniques and its ornamental and aesthetic value.

Designing transforming the object to be observed that all its components are technically rational, technological, economic, and meet high aesthetic cultural organization. By transforming the object's shape is achieved not only successful decorative and aesthetic quality of the material, but also improves its structural and mechanical properties. Quite often transforming surfaces provide stability and endurance of the subject. Any object of design activity, depending on its shape has an emotional impact on people. The more complex its formation, the emotional to read.

Today as in the design of transforming objects designer should apply unification. There are two main areas of implementation of unification in design practice: typical, carried out by the creation and production of standardized series homogeneous products, with the base model and modifications, and using their size series; mizhtypova achieved through the development and use of diverse products of the same uniform components (assemblies, parts and components). The method of aggregation can be regarded as "designer". In design - the concept of this principle is considered as one of the most important principles of morphological transformation of formation of complex objects. This kind of transformed morphological structure, which consists of some basic constructs. The method of aggregation can provide all variety of designers only three forms, dimension-like (dimensionally-shaped) constructor Basic - Modification designer and modular (modular) constructor, where all of the elements, constructs in composition and nomenclature and represent a unique minimal sets (Fig. 1). Modular design provides for the creation and use of its components, the size of which involve only the dimensional module as a sort of initial "building" design modules.

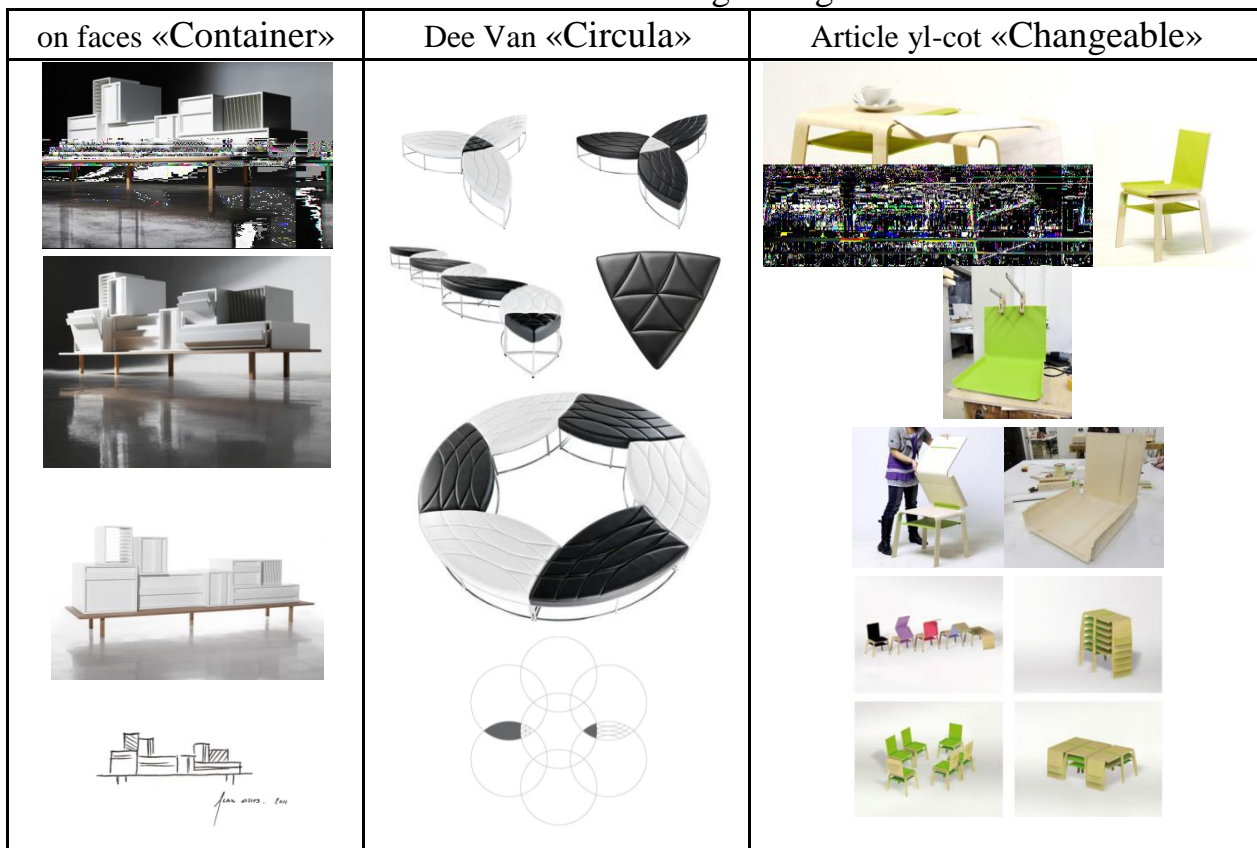


Figure 1 Transforming furniture with elements of constructs that apply

Shelves «Container», developed by designer Alain Zhylem serves as a model of transforming an object of design elements constructs. Due to its complex system quite easily change shape, thus acquiring different configurations. This allows you to arrange the interior space room is not adjusting to his planning decision.

Sofa «Circula», this soft seating system that are in a circle and form a single composition. Two equal-sized circles asking common form and are its foundation. Each combination consists of a stalemate thorns different forms. In terms of the sofa now looks like a set of circles that are held on the basis of framing. This facility provides a variety of configurations.

Table-cot «Changeable». From a small stool with internal shelf is able to transform into a table or a chair with a back. It demonstrates the practicality and rationality of use. Thanks elements constructs it easy to change shape and are easy to use. In the constructor, which does not unifikatsiynoho connection elements, each of which is designed to form the only source of their products, in fact cease to be a designer as such, because its elements are not output attribute-potential organizations flexible and dynamic, transforming morphological structure that are able to change their instrumental function. Important role in transforming the functionality of furniture and design objects generally plays modularity (Fig. 2).


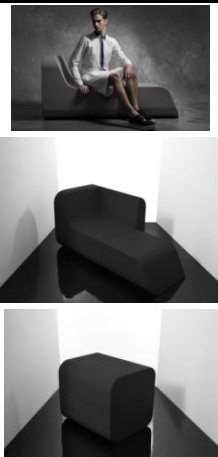


Van di «Come To Gather»	di-seat van «Dual Cut»	ment honnyy a 'Sarré "	cr islo Switch
			

Fig.2 Furniture transformers using modularity

Modular - usually variable, which takes as a basis for determining the amounts of any object and its parts, elements that is always selected module. This entry module system facilitates the tasks related to the forming of the object. The basis of the formation of this type of construction is the idea of so-called "cross-section" of the object into different parts, which can be used as individual items or as a band. This allows you to easily change not only their configuration, but also the location. In the internal space, which has a complex arrangement inconvenient form (square), through the use of transforming objects: furniture, other items filling the interior easily fix this shortcoming, by changing shape, different variations and combinations [Figure 3] .

Concise simple lines, shapes create a sense of rhythm, symmetry or asymmetry. This method makes it possible to achieve the effect of space in the

interior, a feeling not nahromadzhennosti such designs are also used in order to save space, or break it into separate zones, subzones.

Sofa «Come To Gather» includes a system of armchairs. All elements of the object can be easily transformed and change the location. Outline one chair repeats the form of the other, thus allowing them to form an ergonomically join together, forming a coherent form. With additional armrests and pillows used as a unifying element, all parts of the sofa are interconnected.

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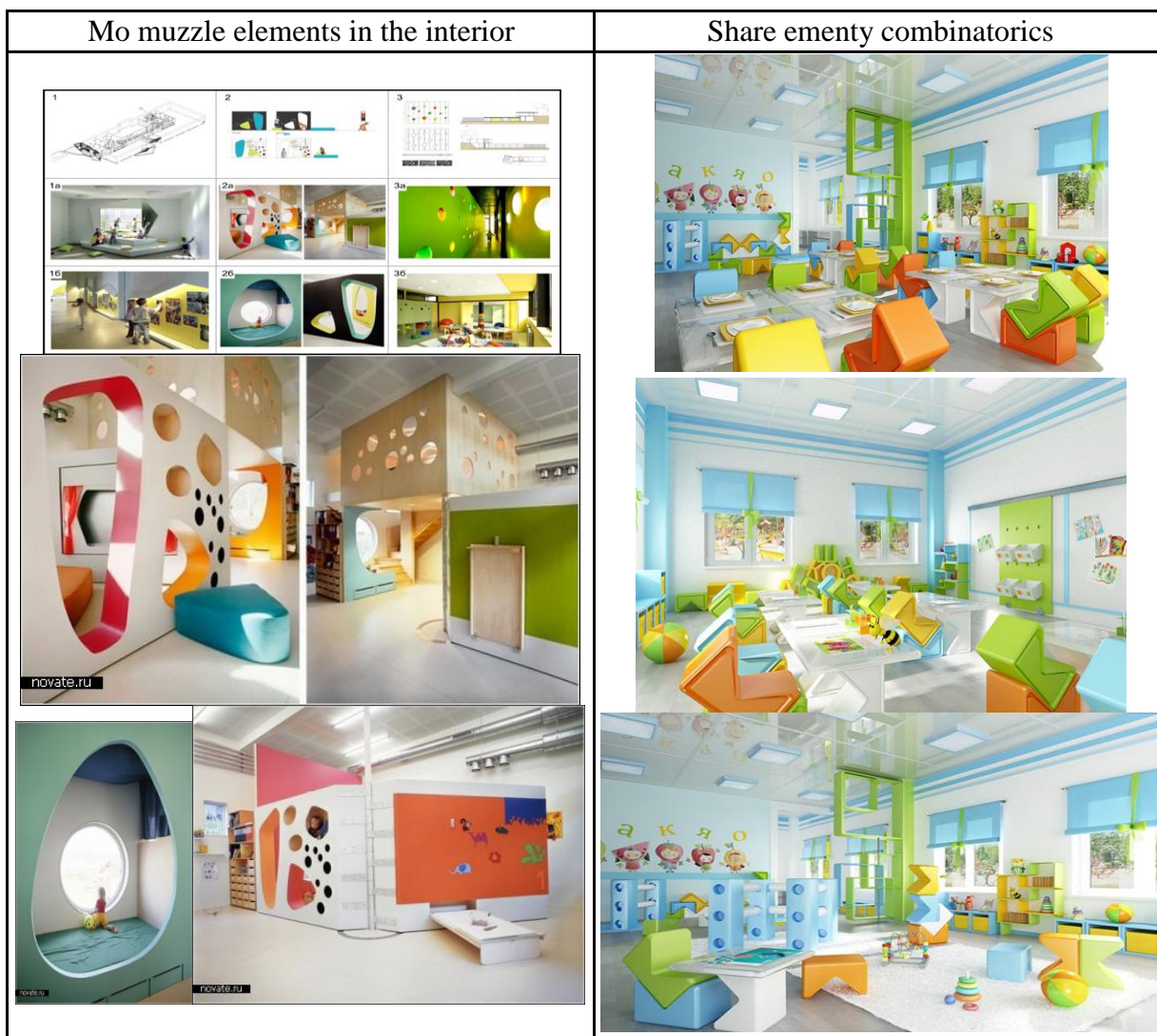


Figure 3. Using the modularity in combinatorics and transforming objects of interior design.

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Folding chair «Dual Cut» - is a transformer using a modular system. The name itself says that it is "cut" with two L-shaped lines - and turns into several separate valuable items. Data backs of seats cut at an angle for easy seat.

Kitchen set "Sarré." This concept of kitchen furniture designed for small area, which is 1m². Through her transformovanosti quite easily change the configuration and shape. Object "Sarré" consists of two modules: (static), the module includes several elements - gas stove, sink and work surface. The complex structure of the kit can be used also as a place to sit.

Armchair Switch - This transformer, which consists of a ball covered with leather with solid wooden cube stolishnytskyu and cut in the form of an arch in the middle. The ball is used as a sitting area, and a cube used in the variable order. Upside down using the ball, he serves as a backrest.

Conclusions. It has been found that very popular in today's society is the use of design objects that are transformed. They allow you to save space inside the interior due to the compactness or malohabarytnosti, fill it in such a way that at any moment you can change its location. Due to the variability of different forms of transforming any object easily compile or disassemble as "Designer". This configuration objects using combinatorics and modular system provides comfort and rationality, a kind of space in December. So is ease of use allows this type of furniture and other items fill a significant advantage.

Prospects for further research. Use transforming objects design further allows you to change the internal space, adapt to the spatial solution so that no alterations to change its appearance. Different variation of objects which is obtained by applying transformovanosti and modularity helps to find different ways of filling the interior. The method of "Transformers" has a wide range of applications can be used in different types of buildings and their purpose. This is especially true in the interior of a small area.

Literature

1. Генисаретский О.И. Проектная культура и концептуализм. – М.: Союз дизайнеров России, 2004. – Т.1. – 296 с.
2. Сапрыкина Н.А. Основы динамического формообразования в архитектуре. – М.: Архитектура – С, 2005.– с. 27;
3. Грашин А.А. Методология дизайн–проектирования элементов предметной среды. Учеб. пос. М.: Архитектура – С, 2004. – 232 с.
4. Волкотруб И. Т. Основы комбинаторики в художественном проектировании. К.: Вища школа, 1986. – 192 с;
5. Периодическое издание «Domus design» № 12 –1

Аннотация

Шиманская Т.А., Трансформируемые объекты в дизайне. Раскрыто

особенности формообразования трансформируемых объектов в дизайне интерьера на основе использования комбинаторики как основного приёма нахождения разных сочетаний (комбинаций), перестановок и упорядоченных размещений из данных элементов.

Ключевые слова: трансформируемые объекты, конфигурация, модульность, конструктив, унификация.

Анотація

Шиманська Т.А., Трансформовані об'єкти в дизайні. Розкрито особливості формоутворення трансформованих об'єктів в дизайні інтер'єру на основі використання комбінаторики як основного прийому знаходження різних поєднань (комбінацій), перестановок і впорядкованих розміщень з даних елементів.

Ключові слова: трансформовані об'єкти, конфігурація, модульність, конструктив, уніфікація.