

Hnatiuk L.R., *candidate architecture professor,*
Dragha M.L.
National Aviation University, Kyiv, Ukraine

FEATURES OF FORMATION MODULAR FURNITURE - TRANSFORMERS

Abstract: The article deals with determination of the formation and scope furniture - transformers. The survey was conducted on modern examples of modular furniture. Submitted authoring transformed modular furniture for dormitory.

Keywords: transformation module, ergonomics, space and place.

Statement of the problem. Question saving space and space is a major twenty-first century. To date, the furniture industry is experiencing an unprecedented boom in new directions, original ideas and trends. Practical furniture , ergonomics and ease of use - these are the criteria upon which modern designers make the main focus when developing new projects. Replaced hard the furniture designs come standard completely new modular kits. Current collections include a wide range of diverse functional purpose objects (modules), each of which can be presented in several different sizes. Thus all elements within a single collection made in the same style that allows you to select the appropriate size room furniture when taking into account the characteristics of the room features its geometry.

Analysis of recent research. PD Bobykov in his book "Konstruyrovanye joinery mebelnyh izdelij " [1] results in the classification of furniture, sets out the requirements for size and quality. Describes methods of connection details and construction of modular units.

M. Kanyeva in here book "Transforming Furniture: historical prototypes of interactive furniture of the future" [2], the first in the Soviet literature book on Convertible furniture, examines the historical process which goes back to the mists of time and tends to the wide spread in different historical periods with various purposes like portability, compact transportation and storage, the target multifunctional , high comfort.

The content of research includes a description of the above authors ideas of furniture -transformer and provides the basic requirements for the design, but does not show the characteristic features of formation of furniture - transformers.

The wording of Article goals. Based on the analysis of international experience of design to reveal the characteristic features of formation of furniture transformers and propose a design concept furnishing residential sections dormitory.

The main part. Creating favorable conditions for human presence in space today is extremely important. It is important to free the environment as much as possible of unnecessary items and nonetheless have a place to store things. The basis of morphogenesis furniture Transforming the principle of modularity.

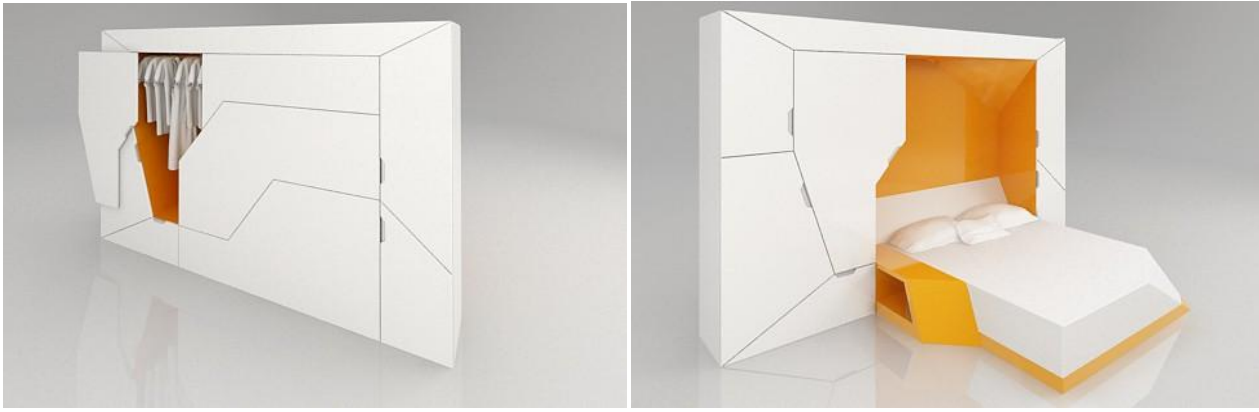
Collection Boxetti determined by three basic design principles - functionality, advanced technologies and contemporary aesthetics of minimalism. Every module Boxetti designed for different requirements. The ability to compact modules converted into units is essential for the development of the concept to gain free access to every corner. Quality materials, skupnosti with structural and technological solutions , made by hand , give the collection Boxetti exclusivity (Figure1)

Boxetti Private contains a set of basic functions Bedroom: double bed, bedside table and wardrobe (ill.2). The kit is equipped with accessories of stainless steel and embedded lighting that create a cozy atmosphere. Platform complicated bed rises automatically with the remote control. Integrated wardrobe consists of six modules that include shelves, drawers and rod hangers.



Ill. 1. Collection Boxetti

Boxetti Practice contains a set of integrated furniture features working - table consisting of a block in the top drawers, bookshelves and system soft chill-out niches for more creative work. (Fig. 3). The kit is equipped with accessories of stainless steel, chill out a niche containing a panel with built-in lighting.



Ill.2. Boxetti Private



Ill.3. Boxetti Practice

Boxetti Lounge contains a set of integrated furniture for living space - a triple with three-piece sofa with removable block tables (*Ill.4*). Nested module can be used as a table surface. The device has a sophisticated side panels that extend the upper surface. Sofa upholstered. The complex features a little extra working space consisting of a composite table and the upper supporting surface for the sofa.



Ill.4. Boxetti Lounge

Boxetti Thrill is the most difficult part of the collection Boxetti - TV set with built-in No-Fi audio system (*Ill. 5*). The remote control automatically turns the unit packed in a design that delivers high quality sound and vision. Boxetti Thrill has a built-in sound system and automatic system recovery HAFELE for flat screens up to 46 inches higher standard 7.1-channel receiver and a standard player Blu-Ray. This product contains a closed compartment Collection DVD.



Ill. 5. Boxetti Thrill

Boxetti Lunch is a multi- block kitchen island that contains all the necessary kitchen equipment. The device has an automatic sliding surface, the disclosure shows built-in with the tap (*Ill.6*). Operating surface equipped with a safety sensor to stop closing automatically. The working surface has a closed space for dishes along with a standard set of knives for the kitchen. Some of the top panel hides oak kitchen cutting board , cover complex has a built LED spotlight. The device is powered by two barney places also have space for built-in refrigerator with a standard set of shelves and drawers.



Ill.6. Boxetti Lunch

This modular kitchen is created by German designers Kristin Laass and Norman Ebeltom (*Ill.7*). His prototypes were presented at the International Design Festival 2010. The idea behind this kitchen is to install a kitchen in a very small space with all the necessary accessories. The kitchen occupies only one square meter when closed

and can serve as a dining table. Starting work in the kitchen, you can find induction cooker, refrigerator, oven and storage space for different kitchen tools and tableware.



Ill. 7. Kitchen was created by Kristin Laas and Norman Ebeltom

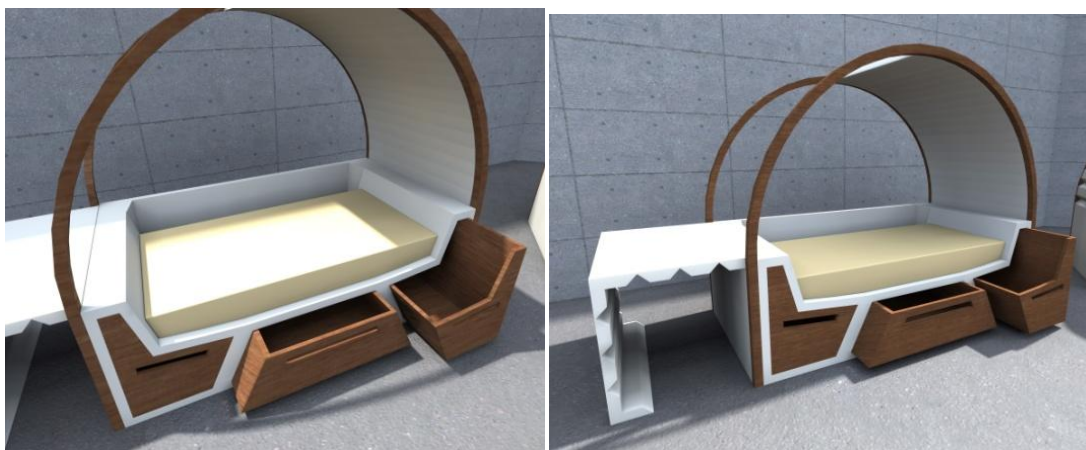
After analyzing the above listed counterparts and prototypes of furniture-transformer was proposed design concept furnishing residential sections dormitories.



Ill. 8. Bed convertible assembled and disassembled state

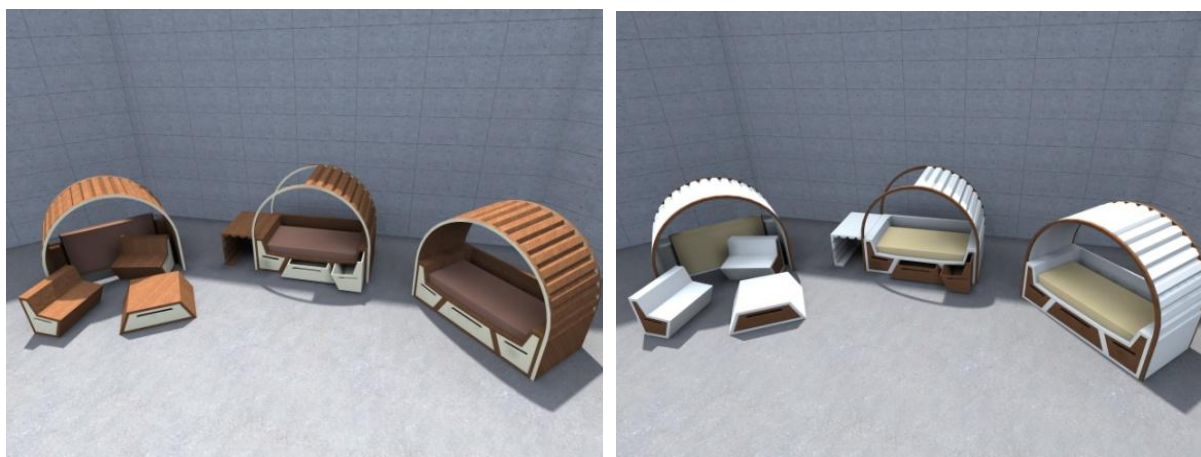
In the development of the facility design included ergonomic requirements of space to relax and work. Bed has three mobile units (two chairs and a table , dressers chest of drawers) , top of the mattress and that translates into a table (Ill.8).

The general design is a niche for a mattress . The top cover (canopy) bed supported on an arched base on which it rests in the assembled state, and the transformation transforming the workplace. Invalid dressers and desk -dresser with drawers for storage (Ill.9). Since lack of space for personal effects is a significant problem in dorms, this proposal solves the critical issue of storage. In the box adequate space for clothing, bedding , books and more.



Ill. 9. Bed convertible with drawers

This bed-transformer, can also serve as an area for entertaining, thanks for modules, which are easily separated, transformed into two armchairs and a coffee table (Ill.9).



Ill.10. Variations of colors bed-transformer

Conclusions. Finding shaping features furniture-transformers, namely, modularity, compactness, ergonomics, ease of use, it can be said that this trend is the trend of the future, as creating and solving problems of space from unnecessary things is one of the main problems of today.

Prospects for further research. It remains necessary to examine the development of furniture transformers, as well as materials from which they are produced for later use in mass production.

Literature

1. Бобиков П. Д. «Конструирование столярно–мебельных изделий» – Высшая школа, 1980. – 174 с.
2. Канева М.И. «Мебель – трансформер: исторические прототипы интерактивной мебели будущего» – Ноосфера, 2007. – 128с.

Аннотация

Гнатюк Л.Р., Драга М.Л., Особенности формообразования модульной трансформерирующейся мебели. Статья посвящена особенностям формообразования и применению трансформируемой мебели. Исследование проведено на современных примерах модульной мебели. Предложена авторская разработка трансформируемой модульной мебели.

Ключевые слова: трансформация, модуль, эргономичность, пространство, место.

Анотація

Гнатюк Л.Р., Драга М.Л., Особливості формоутворення модульної трансформермірующейся меблів. Стаття присвячена особливостям формообразования і застосуванню трансформованою меблів. Дослідження проведено на сучасних прикладах модульних меблів. Запропоновано авторська розробка трансформованою модульних меблів.

Ключові слова: трансформація, модуль, ергономічність, простір, місце.