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The papers describing advances in the theory and practice of Virtual Environments for Education and Training (VEL&T), Virtual Reality (VR), Virtual Laboratory (VirtLab), Information and Knowledge Processing (I&KP), as well as practical results and original applications. The education category includes both the use of Web Technologies, Computer Graphics (CG) and Virtual Reality Applications, New tools, methods, pedagogy and psychology, Case studies of Web Technologies and Streaming Multimedia Applications in Education, experience in preparation of courseware.

Thematic Areas / Sections

- **MODELS & METHODOLOGIES (M&M)**
- **TECHNOLOGIES & VIRTUAL LABORATORY (TECH)**
- **SOFTWARE SOLUTIONS (SOFT)**
- **"Intel® Education" – Innovation in Education and Research (IntelEdu)**

Objectives

2010 – Towards a Learning and Knowledge Society – 2030

Phase II - **Period 2010-2020**: e-Skills for the 21st Century
Phase III - **Period 2020-2030**: Intelligence Learning –
Knowledge Society and Learning Culture

Relevant topics include but are not restricted to:

- National Policies and Strategies on Virtual Learning
- National Projects on Virtual Universities
- International Projects and International Collaboration on Web-based Education
- Dot-com Educational Institutions and their Impact on Traditional Universities
- Educational Portals for education and training
- Reusable Learning Objects for e-Learning and e-Training
- Testing and Assessment Issues of Web-based Education
- Academia/Industry Collaboration on Web-based Training
- Faculty Development on Web-based Education
- Funding Opportunities for Projects in Web-based Education

Education in Synthesis of the Furniture and Art

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Abstract

The education in interior decoration is part of the architecture and decorative art that deals with drawing and shaping the interior of buildings that are part of the space called the interior. Its basic division is structural and decorative design. Structural design is the basis of the space with all the functional elements without which the space cannot function, while the decorative design is the part where the ambience and artistic expression of each piece of furniture is created. For the design and drawing of the furniture, the decorative design has a strong reinforcement of the ambience, i.e. the effects achieved with all the decorative parts that give the space a completely different note, which means it is not devoid of emotions and home atmosphere.

Keywords: furniture, art, design, education, interior design

1 Introduction

East of strong emotional influence on students learning (Nedeva et al., 2013) on furniture is the participation of other arts and mainly art where there is a part of painting where on flat surfaces appear painting details or a complete painting, sculpture, i.e. the presentation of a piece of furniture in a purely sculptural form and so-called decorative monumentality. Carving is one of the basic and constant impact factor on different types of furniture (Despot et al., 2019).

This one analyzes and categorizes the arts of the small defined space with a specific function and time, which characterizes the different influences and makes the markings of creative minds that leave a mark on a certain part of the art.

The grouping of art into two main groups - simple and synthetic - is justified by the fact that some of them act synthetically (together). For example, when creating a collection of furniture inspired by an author, it can be transferred to different functional pieces of furniture or simply to a piece of furniture that will be treated in the future as a work of art worthy of representation in space as a museum exhibit.

a) cupboard b) chair

Figure 1. Synthetically, that is furniture inspired by painting

Grouping art with similar specific qualities is the question of how to use and implement it on the pure function of furniture.

The design has a mandatory nature of consumption. This feature is embedded in the sculpture that stands in the open space, and also in the decorative-monumental arts that have become part of the design and at other hand affect students creativity (Despot et al., 2017; Zlatev et al., 2017).

The mode of consumption is a characteristic of the individual, which is associated with creative responsibility. This is especially typical of furniture design and where, in addition to mandatory consumption, the issue of financial and public resources related to its realization, it accompanies human life. This is exactly the definition that draws our attention to the fact that, unlike all others, furniture as an integral part of the space is subject to constant consumption.

The path of consumption as a characteristic again connects architecture with sculpture and decorative applied arts - frescoes, mosaics, graffiti, ceramics, stained glass, wooden plastics, stone sculptures and others. And it's no coincidence that the history of the interior and furniture abounds with examples of furniture synthesis with the mentioned arts. Several conditions, prerequisites, skills and experience are required to achieve a high artistic result in the field of synthesis.

Modern furniture creativity has its own specific requirements that practice imposes. The appearance of fixed artwork in the interior depends on the meaning and genre on the furniture or work depending on its purpose, but when it is in an operating room or production space, there is obviously no place for the presence of artistic accents.

Subsequently, the question arises about the choice of thematic or decorative and abstract compositions. For example, in a children's palace the thematic composition is quite logical. In contrast, in the hotel interior decoration and abstraction should be given priority and thus the choice of furniture is made. It should be noted that, in principle, artistic abstraction is much more than purely geometric shapes, because it itself deals with abstract forms that have a precisely defined function.

Regarding some compositions and professional rules, it can be emphasized that the first condition for the appearance of plastic sculpture as a piece of furniture is dictated by the size of the space and above all, by the optimal distance of perception. It is necessary to take into account the fact that the most favorable angle of perception is 45^{o}. In the horizontal direction and 27^{o}. In the vertical.

This requirement applies to the maximum perception of students in their work of art (Shivacheva et al., 2016), including furniture. In lateral perception, this requires that the distance not be missed. With an axial approach, it is desirable to develop a composition with a center. In tangential perception occurs not serious development of the composition. This setting of the furniture as a work of art develops a sense of exposure in large spaces. An important condition in development is the placement of furniture groups and other visual barriers to overall perception. The basic condition - for the emotional impact of decorative monumental works of furniture is the presence of optimal lighting. The way of lighting is also crucial for performing art synthesis, especially for shallow relief works, and lateral lighting should be required, which emphasizes the plasticity and contributes to the look and readability of the composition. In the absence of natural light, proper artificial search must be required.

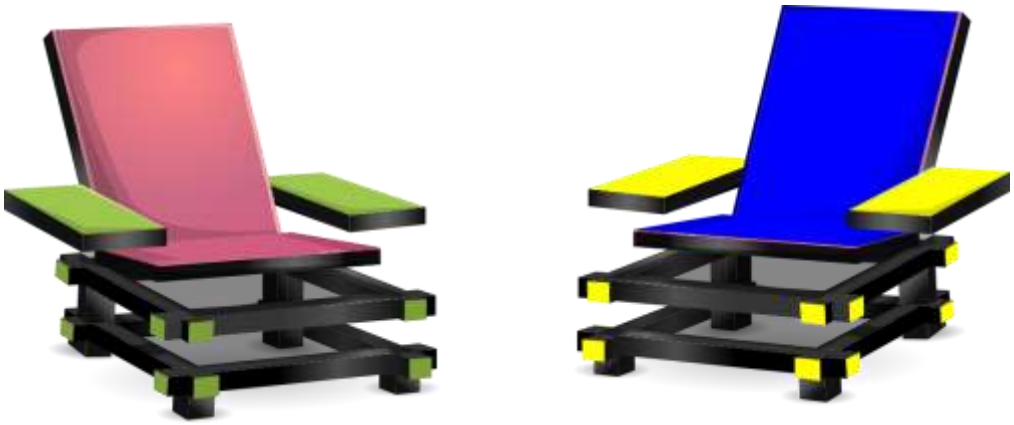

Figure 3. Geometry as a decorative element on the furniture

For the realization of synthesis it is necessary to look for kinship in the materials of the architectural environment and culture. As a first condition, it is worth noting the respect for the prestigious hierarchy arising from the nobility of the materials. At the same time, it is worth mentioning the incompatibility of some materials related to furniture and art plastic. The works of pictorial representation of the painting that occupy it completely or part of the furniture are especially successful. When it comes to free plastic or sculptural furniture in the interior, in practice this often meant the plastic design of the interior structure. It is a very delicate and debatable moment. The designer finds it difficult to require the absorption of structural pillars from their function. Perhaps the truth lies in the specific approach in each individual case. The leading point in the hierarchy in the classification of components remains reading the content and compliance with the specifics of the vital functions of the furniture. The need for a common and close professional culture should not be forgotten.

Handling skills requires talent, knowledge and experience (Sembach et al., 2002). Knowledge is absorbed, experience accumulates, and talent is quality that is possessed or not possessed.

Special consideration of furniture components that produce emotions in the perception of interior spaces is necessary given their more detailed and analytical research. In fact, they act simultaneously, they support each other, and they build the overall artifact-artistic image.

2 An artistic expression in the creation of furniture

Art has always been a central issue in aesthetics. He has his own specifics for different arts, but he also has basic positions. It should be noted that overload or playback is contraindicated and this applies to any work. Oversaturation inevitably leads to a disturbance of aesthetic integrity, of distraction, of that figurative diversity that inevitably causes doctrine and emotion. For the interior, the aesthetic measurement is crucial, because here we act on the principle of components, which have already been discussed - the shape of the interior, light, color, texture of materials and furniture.

Figure 4. Ornamentation

Where the question arises as to what is better to be in the foreground furniture as art or decorative walls to be in the foreground at the expense of the furniture to be deprived of all emotions and to stand in the background it always depends on the designer and the user. This raises the question of aesthetic precedence. At the same time, the variety of components, without which the interior space cannot, obviously the designer should carefully analyze and make a reasonable and applicable compromise, i.e. balance. Saturation with different materials on the front so-called efficiency on the furniture, which is related to the aesthetic dimension, is also determined by the genre character.

It is enough to make comparisons for their purpose, to convince the direct dependence between the aesthetic measure, the content, the color and the emotional search.

There is a determination here when we choose furniture to meet our needs we are rulers over the situation but when we start using it has a strong impact on our individual and he does not model us.

The issue of harmonious color has already been resolved, it is not a moment of discussion because such a choice is always correct and acceptable, and here it is a matter of observing the measure of the situation (Kok et al., 2016).

The furniture needs basic color and additional accents in color and texture. Errors in color selection are corrected when the material for the face is not a color carrier and the color is limited to the color only. It is not a problem of furniture articulation and plasticity saturation in the form of details, profiles or ornaments. Asked in this way, the questions themselves suggest that rich plasticity in processing can very boldly lead to a high aesthetic level. Plasticity as a design-art culmination and needs a simple background.

Excessive repetition of specific pieces of furniture very often leads to a violation of the aesthetic measure. This usually happens in the living room. People who live in their homes are gradually and imperceptibly adding furniture, especially small items, which makes the space overloaded and behind it.

Artistic elements as tools in furniture design the interpretation of the design can be seen in creating living conditions in everyday life. With the whole development of the environment, which means sociological, cultural and technological development, it is considered that buyers want the products to be a symbol of their lifestyle. Although design has the same features as art, it is different in ways it can solve problems and satisfy customers with the product.

Furniture as part of the design is subject to the creative actions of people who reflect the lifestyles, traditions, scope of development of art and technology, materials and production methods by a nation or region. Some of the structures are developed in furniture and constantly make mosaics of the correct shape. The decorative composition is rhythmically organized when similar motifs and directions of counterbalance movement are expressed in it.

Ornaments are a kind of stylization of geometric, plant or animal motifs that can be graphic, colored or sculptural. The totality of decorations, rhythm and materials are the decorations, which is a basic feature of a given style. The reasons may vary in size. The visual impression that the design leaves may be different depending on the physical, physiological and psychological characteristics.

In the broader sense of furniture design, functionality is considered a feature that can define what belongs in the field of functionality and what belongs, for example, to art. However, it has been a long time since the modernist statement that form follows function. Today, although it is still considered that the piece of furniture must have a certain function, the design of the furniture is not explained only by its functionality.

3 Artistic elements as tools in furniture design

The interpretation of the design can be seen in the creation of living conditions in everyday life. With the whole development of the environment, which means sociological, cultural and technological development, it is considered that buyers want the products to be a symbol of their lifestyle. Although design has the same features as art, it is different in ways it can solve problems and satisfy customers with the product (Zheleva et al., 2014).

Furniture as part of the design is subject to the creative actions of people who reflect lifestyles, traditions, the scope of development of art and technology, materials and the way of production by a nation or region.

Art has a lot in common with architecture, an integral part of the interior and provides comfort. Features of modern furniture are: unity of use, functionality and aesthetic performance. Some of the structures develop in the furniture and constantly make mosaics of the correct shape. The decorative composition is rhythmically organized when similar motifs and directions of counterbalance movement are expressed in it. Ornaments are a kind of stylization of geometric, plant or animal motifs that can be graphic, colored or sculptural. The totality of decorations, rhythm and materials are the decorations, which is a basic feature of a given style. As a landmark of a given style, decorativeness can be found in architecture, painting, engraving, but primarily in decorative applied art.

Various types of geometric shapes, forms, and rhythms are involved in simple compositions, resulting from a variety of motifs. The reasons may vary in size. The visual impression that the design leaves may be different depending on the physical, physiological and psychological characteristics.

Design motif in modern design with symmetry and asymmetry are analyzed different decorative forms (Tambini, 1999; Kok et al., 2016). When nature meets full symmetry, even the smallest deviations give individual characteristics to the form. All types of symmetry are a great base for creating furniture, first from a functional point of view and then on symmetrical furniture art gets its own specific expression and together they make a whole for a special exhibition.

As a rule, repeated motifs can be defined as the construction of furniture, which at regular intervals shows a repetition of the motif or motifs. Motifs can be symmetrical or asymmetrical. A symmetrical motif is an image that consists of two or more parts of the same size, shape and content. Each part is called the basic unit, a term that is also used for the smallest repeating unit or area of the overall pattern. In model synthesis, repetition can be defined as a process that allows the motive to expand at a certain distance, moving from one position to another in the plane, which at the same time allows its initial state to be retained, but very often abandoning the motif in certain parts can to emphasize the viewer, i.e. a visual gap that requires an answer, and then the goal is achieved from an artistic point of view.

There is a determination here when we choose furniture to meet our needs we are rulers over the situation but when we start using it has a strong impact on our individual and he does not model us.

4 Conclusion

Creating is an integral part of design. It has the task of determining the shape and line of a particular part, even before it starts working on a particular product. It is a transfer of an idea on paper. The meaning of creation is to follow the fashion trend that should be used at the right time.

Furniture is the subject of creative human activities that reflect the conditions of life, customs, tastes and people who created them, the level of development of art and techniques, materials and the way of production of a nation or region. The meaning of creation is to follow the fashion trend and use it at the right time. The idea that the designer has is presented with his work. The result depends on the experience of using the techniques, the available technology to develop.

Artistic design to be practical and easily sustainable; it is also necessary to know the techniques that will facilitate the permanent application of decorative elements. When the designer experiments with the techniques then the variations are endless. It all depends on the idea that the designer has and how he visually represents it.

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