

Formation of Creative Abilities of Design Artists in the Design of Colour Schemes of Fine Art Objects in the Interior

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ABSTRACT

This work explored the formation of creative abilities in the training of design artists to design a comfortable human settings using colour schemes in fine art objects. In this context, this study used the following methods: 1) structural analysis, 2) comparative analysis using expert elicitation, and 3) compositional methods. Meanwhile, a group of respondents were employed to analyse the world-famous works of art. Accordingly, the main compositional methods of colour schemes of fine art objects were identified to create a given emotional and associative effect when perceiving in the interior. Consequently, a training method consisting of sequential logical steps was proposed and developed. Based on the methods, the students completed a practical task of developing a colour scheme of an abstract composition placed in the interior, thus forming a given emotional state and association corresponding to the creative idea. Regarding the example of student works performed, the effectiveness of using the research results was obtained. The proposed practical methods of conscious choice of the colour scheme of fine art objects in the interior to create a comfortable human settings are urgent directions for the development of environmental thinking in the training of design artists for their future professional activities.

Keywords: *education in design and fine art; talent training; design, colour; fine art objects; comfortable human environment*

1. INTRODUCTION

There is a growing awareness of an imminent global ecological crisis, which negatively impacts not only the economy and the environment but also has a clearly defined human dimension. As a result, the current green-home policies include not only clean energy standards but also have a variety of other environmental requirements, which determine the quality of living space. For example, the WELL certification standard is one of the first leading tools for advancing health and well-being in buildings globally. One of the seven WELL standard concepts, which aim to improve human health includes optimising the emotional well-being of occupants through architectural design. The WELL standard promotes the introduction of works of art and the application of “aesthetically appealing design” to reduce stress levels and promote the overall health of occupants in buildings [1]. We must not forget that the urgent need to improve the environmental friendliness and comfort of the interior is also caused by the COVID-19 pandemic. Quarantine and restrictive measures to prevent infecting people have even

more isolated them from the environment. Isolation requirements for physiological safety negatively affect the psychological state of people. The mental state of a person can be harmonized by using means to increase the aesthetics of the human environment [2, 3]. It is well known that the effective use of artworks within an interior helps expand and enhance the concept ideas at its base [4-6]. The general colour scheme applied within the interior in co-ordination with decorative and visual artworks helps create compositional harmony and balance, which at the subconscious level positively affects the human psyche and improves mental health [7-9]. As a result, the co-ordination between interior design and visual art objects can impact emotions and remains one of the most important components in creating harmony and balance within a living space. In this respect, colour should be viewed as a practical tool, which could be used to affect human emotions and mental state via the means of interior design, which includes works of art.

Accordingly, identifying modern methods to create a comfortable human environment is a necessary component in the educational process of training design artists and further independent creative work in project implementation. One of the innovative areas is the

development of a logical method to choose a colour scheme in fine art for interior design.

2. PROBLEMS AND METHODOLOGY

2.1. Structural Analysis

Harmonious, visually comfortable conditions for the viewer to perceive various fine art objects in the interior are created by a combination and holistic organisation of all its structural components. The main criterion for the optimal combination is the conformity of artworks with the content and artistic imagery [2, 10]. The main features when perceiving fine art in the interior are as follows: basic idea, expressiveness, purpose, function, decorative effect, visibility, size (height and width), symmetry, scale, proportion, geometric shape, appropriateness, aesthetics, colour scheme, texture, associative effect, imaginative solution, etc. [5, 11-14]. We must not forget that artworks themselves have an emotional impact, and can cause various reactions – from positive to negative emotions [7, 10, 15, 16].

Structural analysis based on the review of references, as well as implemented creative projects, showed that emotional reaction to the viewer's perception of an artwork in the interior is determined by associative perception and depends on the following factors:

- 1) aesthetic, psychological, physiological needs, individual features of the recipient [9, 17, 18];
- 2) functional content of fine art, its expediency, interaction with the interior, degree of visual comfort [3-5, 19];
- 3) general solution of fine art objects: decorative effect, artistic and aesthetic properties (style, genre, composition, colouring), as well as originality and novelty [10, 13].

2.2. Comparative Analysis Using Expert Elicitation

The issues associated with the process of subjective perception of colour within the study were solved via application of a comparative methodology, which was used as a means of evaluation and emotional assessment supplied by the experts and documented as a means of forecast.

During the study, a group of respondents analyzed outstanding works of art (picturesque images of paintings made in various genres, styles and techniques). The group consisted of expert architects, designers, professional artists and art experts, as well as graduate students of the Faculty of Architecture, Departments of Design and Fine Arts, Kyiv National University of Construction and Architecture (Ukraine). The number of respondents totalled 621, including 355 graduate students of the Kyiv National University of Construction and Architecture (Ukraine), and

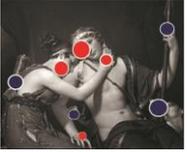
art professionals, which include artists and art critics, interior designers, and architects. The survey was conducted from 2014 to 2021. Images of famous works of world art were analysed by:

- 1) emotional state at the time of perception (e.g., positive, negative, neutral);
- 2) level of engagement and aesthetic appreciation at the time of perception;
- 3) colour associations;
- 4) compositional element.

The processed and analyzed compositions of works of art were used to achieve the study objectives.

By the results of the analysis, the main means of achieving relevant associations in order to express the desired emotional state from artwork perception (positive, negative, neutral) were determined. In total, 11 key descriptive situations were identified and placed in illustrative descriptive diagrams. A fragment of the illustrative table is presented in Tab. 1.

Table 1. Means of achieving the desired emotional state from artwork perception (Fragment)

Emotional state, association	Expression in colour compositions	Artwork perception process
 <p>Jacques-Louis David. The Farewell of Telemachus and Eucharis, 1818. Oil on canvas [20]</p> <p>Positive emotional state (love, affection, pleasure)</p>	 <p>Harmonious relations of shape in space, symbols, light-tone transitions. Colour combinations: blue, gold and red-purple scale combined with shades of white</p>	 <p>●●●● – degree of priority perception, ●●●● – degree of secondary perception</p>

2.3. Compositional Methods

Compositional methods were applied to enhance the artistic impact of the general colour composition within an interior space and achieving the artwork's artistic and aesthetic objectives, e.g., combining objects based on association, contrast and visualisation, as well as their artistic expression.

As a result, the following methods were proposed to implement the creative idea of the design artist. They are aimed at creating a general figurative-associative composition of the fine art object in the interior, guided by theoretical and practical knowledge:

- 1) artistic – formation of integrity, visual organisation of fine art objects and interior, based on an artistic synthesis of organisation, properties and functionality;
- 2) symbolic – formation of an image with the maximum level of generalisation based on a comparison of various phenomena, objects, properties in the creative imagination;
- 3) abstract and formal – formation of distraction from non-essential aspects and properties of the object in the process of creative work, based on a set of colour spots or conventional images that carry no meaning and are designed for a certain emotional state;
- 4) stylisation – formation of artistic generalisation based on symbolic expressiveness, conventionality, systematisation, generalisation, comparison of the structure of content-formal elements with the possibility of using modern and new technologies.

3. RESULTS

The results made it possible to develop a practical method for the formation of creative abilities and implementation of creative tasks, which consists of sequential logical steps. Step I. Analysis of the inner space, creation of its colour scheme corresponding to the creative idea and considering its typological characteristics.

Step II. Creation or selection of an artwork in accordance with the desired emotional state and associative impact of the perception of a general colour scheme.

Step III. Creation and analysis of the relationship between the colour scheme of the interior and the abstract composition placed in it.

Step IV. Adjustment of the desired degree of visual comfort by compositional colour means and associative methods.

To confirm the use of the practical method developed in the study, based on compositional means in achieving the appropriate emotional state and associations from the perception of fine art objects located in the interior, graduate students of the Faculty of Architecture, Departments of Design and Fine Arts, Kyiv National University of Construction and Architecture (Ukraine) completed a practical task on the subject “Coloristics in the interior”.

The students were asked to create an associative composition and then place it in the existing interior, as well as to create a harmony between the colour scheme of the artistic composition and the interior. When performing this task, the student had to analyze his composition

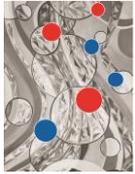
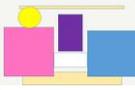
according to the process of image perception, namely the ratio of contrast, brightness and the general colour scheme. When developing the colour scheme of the interior, the students took into account:

- 1) the shape of the object and the spots that carry a given colour, which are one of the most important factors of emotional perception. The impression evoked by the colour is closely related to the overall structure of the composition, so it depends on all its properties. Therefore, the size and shape, rhythm and direction of each colour spot used should correspond to the idea and intent of the entire composition. Avoiding the figurative nature of the image requires compensation and understanding of a certain task, that is, you need to form the idea and meaning of the upcoming work in advance.
- 2) the possibilities of colour compositions, which are characterized by the parameters of lightness, colour tones, saturation of chromatic and achromatic colours.
- 3) the possibilities of a limited colour palette to achieve a harmonious and holistic effect, where a colour combination is created on the basis of two, three or four colours.
- 4) effect of lighting colour on the overall colour scheme of the interior.
- 5) colour is a strong means of influencing a person to achieve the desired degree of visual comfort. The information obtained during its perception is projected into the subconscious. Ultimately, the colour in the interior should provide optimal psychological state of a person to achieve the desired emotions.

The effectiveness of the implementation was manifested in the acquaintance of students with the practical method when designing and using colour schemes in visual arts as a way to create a comfortable, harmonious interior space for various purposes.

Table 2 shows the implementation of the developed method in the educational process of training design artists, using examples of educational tasks.

Table 2. Examples of student works

Emotional state, association	1. Perception process. 2. Colours used	1. Relationship of general colour schemes. 2. Effect of lighting colour
 <p>Positive emotional state. "Joy"</p>	 <p>1</p>  <p>2</p>	 <p>1. Children's room</p>  <p>2. Warm lighting shade</p>
 <p>Neutral emotional state. "Calm Indifference"</p>	 <p>1</p>  <p>2</p>	 <p>1. Living room</p>  <p>2. Warm lighting shade</p>

4. DISCUSSION

The problems of the environmental state in the world, sustainable development, formation of a healthy human environment form the basis of the philosophy of transformation of modern fine art and design. The interest in developing an educational ecosystem for future specialists in this field is increasing [21, 22]. Aspects of artistic education in relation to compositional analysis of the subject environment and visual art are studied, which do not exclude but complement each other [23]. The problems of developing creative abilities in terms of originality and creativity in improvisation when achieving the desired creative task are considered [24-26]. Research of emotional and associative components of art and creative processes from the standpoint of psychology is relevant [15, 16, 26, 27]. The problems related to the study of interior colour schemes in higher education are examined from the perspective of colour harmony laws, general composition of architectural forms and interior space, influence of colour on the emotional and psychological state of a person [28-31]. The problems of distance learning in the creative education of artists and

designers due to the COVID-19 pandemic are being updated. Realizing that artistic education has always been in close direct contact between teachers and students, there is a lack of the function of art and design lessons. The problem of the need to transform the methods of training future specialists is raised [32].

Given the current realities caused by the transition to compulsory distance education, the proposed practical method based on logical steps with recommended methods and techniques for practical implementation can also be successfully applied in distance learning.

The presented research is promising for the formation of a methodology of pedagogical education of design artists, their creative development in future professional activities.

5. CONCLUSION

Thus, the formation of a common colour scheme is one of the means of aesthetic impact of the environment, which can be a source of beauty, admiration, inspiration, and can obey the laws of "beauty" in design. The possibilities of colour schemes, consisting of various colour effects and the ability to control them, are the basis for design artists in solving creative tasks to achieve the desired emotional perception and the overall completeness of the work. At the same time, a positive, negative or neutral emotional reaction to interior perception can be enhanced by the inclusion of fine art objects, which help to balance and harmonize the overall composition.

Knowledge of the laws and possibilities of colour schemes, the expediency of using a colour scheme is especially important for training future design artists when studying methods and techniques of human environment design.

The developed and proposed modern method of creating a comfortable interior using colour schemes in fine art objects will help to solve creative tasks of artistic design even at the initial compositional stage. By consistently adhering to all steps, you can achieve the desired comfortable psychological and emotional state by the realised space.

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