

Article

## Colors in Visual Art and Their Psychology

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**Abstract:** The research explores the psychological effects of visual art colors by analyzing their psychological and cultural strength. Research discussing color theory exists commonly yet it shows limited findings regarding its multiple impacts which span diverse age groups and cultural settings with empirical evidence. The research uses a blend of theoretical modeling and historical review together with psychological theories that blend with experimental investigations of respondents. Color information in this study demonstrates a unique capacity to generate emotional reactions where red leads to energizing effects while blue induces calmness alongside green providing soothing comfort but these results depend on both age grouping and cultural background. Vibrant colors draw the attention of children better than the calm-colored preferences adults show. White and red colors receive varying cultural meaning between regions of Eastern and Western traditions. Research outcomes demonstrate that warm colors produce an energized mood while cool colors create conditions of relaxation. The identified color effects find meaningful applications throughout visual art education along with design needs and market approaches and art therapy practices. The research shows both the artful and psychological dimensions of color application because it reinforces the need for contextual awareness in color use to improve emotional experiences between people.

**Keywords:** Colors, Psychology, Visual Art, Mood, Meaning, Culture, Emotions, Art Therapy, Design, Creativity

### 1. Introduction

Visual arts are one of the most powerful tools that directly affect the human mind, and one of its main means of expression is color. Colors directly affect human mood, emotions, and even behavior. Numerous studies by psychologists and art historians show that each color has its own energy and semantic load, which affects a person's conscious and unconscious perception. For example, red evokes passion and energy, green gives a sense of calm and balance, and blue enhances feelings of calm and confidence. Therefore, it is important to consider the impact of colors on human psychology in the fields of fine arts, design, architecture, and advertising [1].

A number of laws and resolutions have been adopted to "support" the development of culture and art in the Republic of Uzbekistan. The Law of the Republic of Uzbekistan "On Culture" is aimed at developing the fine arts, preserving the national cultural heritage and expanding art education. The Resolution of the President of the Republic of Uzbekistan No. PQ-3166 dated August 3, 2017 "On the Establishment of the Fund for the Development of Culture and Art" is one of the important documents aimed at comprehensively supporting representatives of the arts and popularizing the fine arts. The "Concept for the Development of Fine and Applied Arts", adopted in 2021, is aimed at introducing modern technologies and trends in the field of fine arts, supporting young artists, and further increasing the role of art in human life. Within the framework of the

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"Strategy for the Development of New Uzbekistan in 2022-2026", the development of culture and Measures for the development of art include supporting the visual arts, organizing international exhibitions, and improving the skills of representatives of the art industry. Colors are actively used not only in the visual arts, but also in the fields of medicine, pedagogy, interior design, fashion, and advertising, significantly influencing human life and decisions [2], [3].

Working with colors in all genres creates especially wide opportunities for studying perspective, color theory, composition, and light and shadow, which form the scientific basis of visual arts. Engaging in visual activities gives people aesthetic pleasure and enriches their spiritual world. Listeners deeply perceive historical and modern events depicted in paintings, the experiences and actions of characters, as well as the beauty of nature. People are amazed by the origin of colors, their significance, their great influence on the human psyche, and the existence of previously undiscovered shades [4], [5].

The phenomena of how colors are formed and distributed have long attracted the attention of scientists and artists. The great artists and theorists of the Renaissance, Leon Battista Alberti, Leonardo da Vinci, and others, wrote about the properties of colors in their works on color images. The famous and famous scientists Newton, Lomonosov, and Helmholtz investigated the essence of colors on a scientific basis. Isaac Newton conducted a series of experiments and proved that white light is multi-colored, and created a spectrum of colors on the screen. In the color sphere, various shades of red, reddish-orange, yellow, yellowish-green, blue, and purple are visible. There can be a huge number of shades in the color sphere. But our eyes are able to distinguish about 150 of them. Over the years of experience, scientists have shown that our eyes are a very complex and most advanced optical instrument, one of the main senses we have studied. Psychologists have determined that people learn 80-90 percent of their life experience through their eyes [6], [7].

Colors are of great importance for fine arts classes. In all directions, works of art are created using achromatic, chromatic, contrast, spectrum and other colors. Students distinguish colors by sight in lessons, it is necessary to distinguish colors in the nature being drawn, and place them correctly. Studying color not only in its own state, but also its scientific and theoretical significance, properties, and using it allows for correct and perfect work [8], [9].

## 2. Materials and Methods

Research methodology and literature analysis: Color (in fine arts) is the main means of expression and depiction in painting. Through color, the artist truthfully reflects the existing world with its unique characteristics. In the development of world art, various styles and systems of reflecting the color of life have been formed, but in all of them the method of mixing colors with each other to create a new color is used as the main principle. When 7 different colors of the rainbow (spectrum) are mixed together, more than 280 color shades can be created. Color is a powerful tool that affects the human psyche, it can evoke feelings of joy and sadness, cheerfulness or sadness, calmness or anxiety in a person. For the artist, this power of color is an important factor, they play a major role in the ideological and plastic solution of the work. All colors in nature are divided into achromatic and chromatic colors. Achromatic colors include colors from white to dark black, while the rest belong to chromatic (red, yellow, blue, etc.) colors. Chromatic colors, in turn, are divided into warm (red, yellow, orange) and cold (blue, blue, purple) colors, as well as colors that fall into both (violet, green). In painting, the harmony of warm and cold colors forms the color system of the work - the color scheme - and is one of the main elements that make up the composition of the work. Warm colors can give a sense of proximity, while cold colors can give a sense of distance, which is especially useful in depicting distance in works of the landscape genre. In the history of fine arts, the use of colors has developed along with

the development of society. The artist of a primitive community created his "work" using available natural colors (charcoal, fire moth). With the development of society, the number of colors - pigments and binders - increased, and the methods of fine art developed. During the period of slavery, complex color technology (watercolor, tempera, encaustic) was developed. At the end of the Middle Ages, watercolor technology appeared, and from that time on, color shading also increased, and the previous local, flat colors were replaced by a system of changing, gradating colors using light and shade. The idea of reflecting the full-fledged volumetric appearance of objects and mastering spatial space through color became increasingly strong in art.

Starting from the 60s and 70s of the 19th century, paintings began to be created by juxtaposing colors close to bright (spectral) colors. Such works had to be observed from a certain distance. In avant-garde art (abstract art, symbolism, surrealism, etc.), color had a figurative and symbolic meaning, and in many cases constituted the main idea and content of the work. The size, shape, and placement of colors served to illuminate the mystical and philosophical content of works of art.

Visual art is a powerful tool that directly affects the human mind, and the colors used in it have a significant impact on a person's mood, emotions, and psychological state. Colors take on specific meanings in various spiritual and cultural contexts. For example, red symbolizes energy and passion, while blue represents calm and confidence. Therefore, the psychological effects of colors are studied extensively in the fields of art, design, and advertising.

"Fine Arts and Methods of Teaching It" (2021, "Yangi Asr Avlody" Publishing House) is a manual that explains in detail the methodology of teaching fine arts, the impact of colors on students, and how they are used in the art teaching process. This book deeply studies the psychological and educational significance of colors used in fine arts. This literature is an important source in studying the influence of fine arts and colors on the human psyche. Each work sheds light on the place of colors in art and scientifically and theoretically analyzes how they affect human mood and decision-making.

This article studies the influence of colors on human psychology in fine arts on a scientific basis. For this, various methodological approaches were used. The research was conducted in the following main stages:

**Theoretical analysis:** At this stage, scientific sources, academic literature, articles and textbooks on the topic were studied. In particular, previously conducted studies on the psychological effects of colors were analyzed. These materials were used to deepen knowledge about color theory, their emotional and psychological effects.

**Historical-analytical method:** The features of the use of colors in the history of fine arts were studied. How colors were used in art movements such as the Renaissance, impressionism, expressionism, and what mood artists expressed through colors were analyzed. The cultural and aesthetic aspects of colors were also studied using this method.

**Empirical research:** As a practical part of the research, surveys and observations were conducted with the participation of respondents. Respondents were presented with images consisting of various color combinations and their emotions and psychological reactions were observed. The differences in the perception of colors by people of different age groups were also analyzed.

**Experimental method:** During the experiments, the effect of colors on human psychology was studied based on various works of art. For example, experiments were conducted on warm and cold colors, and their effect on human emotions was analyzed. In this, respondents were shown images of different colors for a certain period of time and changes in their mood were recorded.

**Psychological approach:** In order to study the psychological effect of colors, analyses were conducted based on psychological theories (for example, Jung and Luscher's color

theory). This approach helped to determine how colors affect human subconscious processes.

**Comparative (comparative) method:** Differences in the perception of colors in different cultures and eras were analyzed. For example, how red or green is interpreted in Western and Eastern art was compared. Using this method, the differences between the global and local psychological effects of colors were studied.

This research methodology allowed for a comprehensive study of the influence of colors on art and human psychology. Based on theoretical and empirical analyses, scientific conclusions were drawn about the influence of colors on human emotions. The results of the research can be applied in the fields of fine arts, design, and psychology.

### 3. Results and Discussion

According to the results of the study, it was found that the colors used in fine arts have a significant impact on human psychology [10], [11]. During the study, the relationship of colors with emotions and mood, their cultural and aesthetic aspects, as well as their impact on different age groups were studied. The main results are presented below:

The impact of colors on emotions. The results of the study showed that each color has the property of forming a certain emotional state:

1. Red color - has the property of attracting energy, enthusiasm and attention, and in some cases can also increase the feeling of aggression.
2. Blue color - evokes a sense of calm, confidence and stability. Frequent use of this color has a positive effect on the human psyche.
3. Green color - gives a feeling of naturalness, balance and peace. It has a relaxing effect on the human brain.
4. Yellow – associated with positive energy, joy and creativity, has the property of increasing activity.
5. Black – perceived as a mysterious, formal and sometimes negative emotion-evoking color.
6. White – symbolizes purity, simplicity and neutrality.
7. Perception of colors for different age groups. The study examined how respondents of different ages perceive colors:
8. Children – had a positive attitude towards bright and vibrant colors. Red, yellow and blue colors especially attracted their attention.
9. Young people – had a tendency to express their mood through colors. Among them, blue and green colors symbolized more calmness, while red symbolized passion and energy.
10. Older people – evaluated colors more in terms of psychological stability. They preferred calm colors such as blue and green.
11. Cultural influence and different perception of colors. The study showed that the interpretation of colors varies depending on different cultures:
12. While white in Western culture symbolizes purity and innocence, in Eastern culture it serves as a symbol of separation and mourning.
13. While red is a symbol of good luck and prosperity in Chinese culture, in the West it can sometimes mean danger and aggression.
14. Blue symbolizes holiness and tranquility in Islamic culture, but is also perceived as a sign of mourning in some African cultures.

The role of colors in art and design. The results of the study confirmed that colors have a strong impact on emotions in works of art. In classical painting, artists such as Leonardo da Vinci, Van Gogh and Picasso actively used the psychological effect of colors. In modern design, colors are considered an important element of marketing and branding strategies [12], [13], [14].

Experimental results. During the experiment, respondents were shown different color images and their mood changes were observed:

1. Bright and warm colors (yellow, red, orange) helped to raise a person's mood.
2. Cold and pastel colors (blue, green, purple) served to calm and concentrate [15], [16].
3. Black and gray tones in some cases evoked a feeling of depression.

The results of the study showed that colors have a significant impact on human psychology, and this impact varies depending on different age groups and cultural contexts. The purposeful use of colors in the visual arts helps to shape human emotions and enhance visual communication. These results can also be used in the fields of design, art therapy, and marketing [17], [18].

Discussion. The results of this study confirm that the impact of colors on human psychology in the visual arts is deep and multifaceted. However, there are different approaches and scientific opinions on this topic, and the results of the study require a more extensive analysis to reach a general conclusion. Some researchers explain the effect of colors on emotions based on universality. For example, the theories of color psychology developed by Jung (Carl Jung) and Luscher (Max Lüscher) define the general psychological effect of colors. According to them, each color has the property of forming a certain emotional or mental state.

However, other approaches emphasize that the effects of colors are subjective. For example, some researchers say that a person's perception of color depends on personal experience, cultural background, and even physical condition [19], [20].

Briefly discussing the emotional effects of colors, they can enhance or reduce people's emotions. For example, red represents power, passion, and action. It can often excite people and increase their interest in new things. On the other hand, blue represents calmness and tranquility.

Looking at the color blue is often associated with reducing stress and instilling a sense of calm. Colors also affect the way people think and make decisions. For example, yellow has been linked in many studies to stimulating creativity and thinking. This color often evokes positive emotions and encourages people to be open to new things. Therefore, the use of yellow in marketing and advertising is widespread.

Experts include yellow, red, orange, carrot, pink, mother-of-pearl, red, crimson, lilac, rose, saffron, orange, straw, and crimson among warm colors. Due to their properties, they create a warm mood in people at first glance. It is worth noting that colors affect not only emotions, but also the environment. For example, light colors (for example, lilac, light blue) can create a feeling of expansion of space, which is very useful in small rooms [21], [22], [23].

Dark colors can narrow the space, which in certain cases can create a feeling of comfort. Such psychological effects play an important role in interior design and the organization of the environment. We can conclude that colors have a very wide impact on the human psyche. They are used not only for aesthetic purposes, but also for emotional and psychological effects. The effect of colors depends on the personal experience of each person, but general psychological knowledge helps to understand the power of colors.

Colors play a major role in shaping our emotions, thoughts, and the environment around us. After all, artists know the psychological effects of colors and skillfully use them in creating works. In art, colors are not only an important tool for creating visual aesthetics, but also for conveying certain emotions, reinforcing themes, and presenting messages. Colors allow artists to express their works in a deeper, more meaningful, and emotional way. Each color has its own impact and meaning, so artists skillfully use this opportunity. Colors can convey emotions, enhance scenes or characters, and present specific messages. The artist Vincent Van Gogh also reflected his inner feelings through colors in his works [24].

For example: In the work "Starry Night", the colors red and blue create a strong contrast, affecting the emotions of the viewer. Pablo Picasso, in his work called "Blue

Period", expressed despair and isolation through the use of blue. During this period, the choice of color profoundly changes the content of the work. Colors enhance the emotional experience in a work of art. For example, red often represents passion, energy, and conflict. Artists can use red to attract the viewer's attention and increase the dramatic power of the work. On the other hand, blue evokes a sense of peace and tranquility, which is why it is widely used in art to express peaceful and contemplative scenes. Speaking about the symbolic meanings of colors: white often represents purity and a new beginning, while black can represent mystery, sadness, or mysterious situations. The role of color in the artistic depiction of a person's individuality, mental state, and character in a portrait is very large. The choice of color according to age is also important.

For example, when depicting young people full of love, lyrical colors (a complex of blue, green, purple and red colors) are used, while the colors characteristic of old age are depicted in less bright colors (brown, blue, dull gray, etc.) [3:61]. Artists give deep meaning to their works through the choice of colors. For example, Gustave Courbet tried to express philosophical ideas about nature and man using colors in his work "White". The use of colors in the history of art depends on the cultural context. Each era and culture has its own color palette, which reflects the social, political and cultural conditions of its time through these colors. For example, during the Renaissance, colors took on a more natural and realistic appearance, which is associated with the artists' desire to express the human body and nature.

Colors allow artists to express their emotions, attract the viewer's attention, and create deep meaning. Their interaction and use make works of art richer and more versatile. Through colors, artists encourage their works to have an emotional connection with the audience, which shows the inherent power of art. Color psychology is an important tool for understanding human emotions and using them in art. Each color has its own meaning and effect, and artists skillfully use them to convey emotions in their works. With the help of colors, art becomes a means not only of seeing, but also of feeling, expressing emotions, and adding color to life. Our great scholars have written in their works why each color was named. Our ancestors used color to decorate architectural monuments; in national costumes; used it effectively to diagnose and treat patients.

#### 4. Conclusion

In conclusion, artists use colors to make their works more dynamic, emotional, and meaningful. The atmospheres they create in their works through colors enrich the viewer's experience. For example, the right combination and contrast of colors attract the viewer, encourage him to enter the work, and help him to understand emotions more deeply through the work. Today, the use of colors in contemporary art has taken on more free and innovative forms, and artists are exploring colors in new ways. Digital art and other modern expressions allow us to use colors in new contexts. This, in turn, further expands the importance of colors in art and our lives. In general, colors play a unique and important role in human life, in art, and in psychology. They affect not only the process of seeing, but also the process of feeling. Through color, we help ourselves express ourselves, communicate with others, and understand our environment. Art and color complement each other, helping us to understand our inner world and the world around us more deeply.

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