

# Comprehensive Application of Multidimensional Color in Graphic Design

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**Abstract:** Traditional color application in graphic design has one-sided limitations. A study of multi-dimensional color comprehensive application based on graphic design is proposed. The performance of different colors in graphic design is summarized and designed. The results show that the design has important practical value.

**Keywords:** Multidimensional; Graphic design; Application

## 1. Introduction

In graphic design, the role of computer software is very obvious. When designing, scientific application of relevant design software can enhance the effect of graphic design, style and style more diversified, and thus design more characteristic graphic design works. Therefore, in the specific process of computer graphic design, in order to meet the design requirements of different personnel, we should fully integrate the application of various software to ensure that art and computer technology can effectively integrate [1-3].

Overseas graphic design technology and creative concepts are relatively advanced. In the West, art trends continue to emerge. Various artistic styles and concepts rise and fall one after another. Especially in the developed countries of the West, the degree of industrialization is higher. The requirements of graphic design for various industries are higher and higher, which promotes the artistic water of graphic design. The continuous improvement of the level, especially the continuous production of new materials and the innovative development of technical level make the level of graphic design change with each passing day. The expression of ideas is also rich and colorful, which reflects the extraordinary creative Institute of graphic designers [4-5].

The book "Talking about Art by Western Composite Materials Artists" published by Appert, USA, summarizes 31 famous Western artists' views on the application of composite materials through interviews. Among them, Seth Appert's views on art as a mixed media artist put his artistic enthusiasm and his psychology into practice. Academic attainments blend together [6]. Another artist, Michelle Ward, is constantly inspired in the creation of his works, constantly exceeding people's visual limits with cool textures and superb color combinations. In addition, minimalism is also popular in Western graphic design, which can reflect some characteristics of contemporary foreign graphic design.

## 2. Application of Traditional Graphic Design

The dullness of traditional graphic design requires designers to reassemble materials by decomposing, reconstructing and replacing material elements, and express modern design concepts in combination with artistic language with humanistic concern and cultural characteristics, so as to convey the information of their design. Bring people a sense of visual freshness. In modern design creation, many designers agree that the use of comprehensive materials can bring a unique visual language and a new aesthetic concept. Obviously, in graphic design works, the subjectivity of material itself has been further improved. In graphic design works created by using comprehensive materials, the interestingness and richness of language have been further enhanced, and advanced concepts and language expressions have been adopted to change the creation of traditional designers. Thoughts and concepts as well as the aesthetic habits of the appreciators. The application and development of comprehensive materials have further expanded the diversity of graphic design field, which is also consistent with the development trend of "diversification" in modern society. In the process of using comprehensive materials, the designer conveys the idea of emotion to the appreciator by means of lyric borrowing materials. By creating vivid images, the combination of materials and colors can achieve a kind of rhythm and coordination, which results in a unique emotional communication between the visual form of materials and the appreciator. When materials processed by technology collide with people's emotional world through point, surface, sphere and other shapes, if emotional transmission only depends on one kind of material, it will appear thin and fragile. The earth, nature and the universe provide us with many materials that can constitute visual aesthetic elements. The subtle changes in ground color, texture and mor-

phology will bring people different emotional experience and visual experience. According to the relationship between materials and emotional ideas, we can use different forms or different forms of materials to serve graphic design works, so as to achieve innovation in design ideas and design methods.

### 3. Two-dimensional Space Plane Design

A design activity completed in two-dimensional space is graphic design, which can be illustrated in books, set fonts, and complete a series of activities in two-dimensional space. Graphic design software can be used in advertisement design and Book printing. There are many kinds of design contents in two-dimensional space. Besides the advertisement design and book printing mentioned above, poster design and photography are also included. In the development of graphic design, not only computer technology, but also multimedia technology has begun to be applied to it. This multi-faceted development will continuously improve the quality of graphic design. Since the 21st century, everything has begun to develop rapidly, which will inevitably lead to the development of information technology. Moreover, computers

have become an important equipment in people's homes and work. Computer aided technology can also be used in graphic design. With the convenience of computer technology, people create more and more advanced graphic design products, which greatly improves the development speed of graphic design.

Among the visual elements, color is the most impact and perceptual. However, color must rely on the material as a carrier. At the same time, color can also play a foil role on the texture of the material. Material color can be divided into two kinds: one is natural color, such as natural color of bark, natural texture of wood, and the other is artificial color, such as photographs and pictures. In addition, color also has inherent psychological attributes, it can make people produce different psychological feelings, such as red can bring people warm, exciting, exciting and lively psychological feelings, while green and blue bring people a sense of tranquility and stability, as shown in Figure 1. Color also has symbolic significance, such as white symbolizes sacredness. Green symbolizes peace and yellow symbolizes rights in ancient times. For the creation of graphic design, it is necessary for us to have a full understanding of these attributes of color.



Figure 1. Spatial color contrast

The advanced spiritual needs of mankind. From the perspective of emotional category, aesthetics is a unique high-level emotion of human beings, and also the highest degree of self-realization embodied in art. On this level, human spiritual feelings and aesthetics are closely linked. When we carry out an aesthetic activity, we will unconsciously reveal our emotions, such as a color, we usually prefer to choose what we like. Our choice usually depends not on rational judgment, but on the emotional impact of materials on our emotions. The influence is precisely due to the material's characteristics, and it is transmitted to the viewer, so that the viewer and design ideas can achieve a fusion and tacit understanding. The

formation of this aesthetic psychology is a variety of emotions, feelings and reflections brought about by people when they come into contact with materials, thus bringing about a kind of highest-level emotional experience. This emotional experience is embodied in real life, such as in kindergarten in order to create a happy, warm and harmonious fairy tale world, try to use some warm, lively, lively and interesting decorative design.

### 4. Color Graphic Design of Different Materials

The concept of comprehensive material was first put forward after the European Revolution in the 20th century. It refers to a way of artistic creation in the field of visual art, which generally adopts the mixed form of various materials. It has been widely used in many aspects of the art field. Compared with the traditional single form of artistic expression, the incorporation of comprehensive materials into artistic creation can make the works of art show multi-dimensional visual effects, enrich their artistic expressive power, and enable the viewers to achieve a balance in psychological and aesthetic feelings. For a long time, in art works, comprehensive materials mostly appear as a kind of expression and bearing of media, usually as a carrier of form and image. With the continuous development of art, the comprehensive material has gradually changed from the carrier of artistic expression and carrier media to the form of material centered on

self-expression, which frees it from the former carrier of form and image. It pays more attention to the aesthetic language of the inherent noumenon of material, which makes the comprehensive material more attractive. The concept of art has gained a great liberation. With the continuous development of modern art, comprehensive materials have been introduced into artistic forms for the first time, and become a mainstream through cubism's creative practice, and even become a main manifestation of collage cubism, which makes comprehensive materials an independent subject in artistic creation and the materials themselves. Some attributes and characteristics have been shown to the greatest extent, which makes art creation break through the limitations of the past, to achieve a higher degree of spatial self-expression, thus enriching people's aesthetic feelings, as shown in Figure 2.

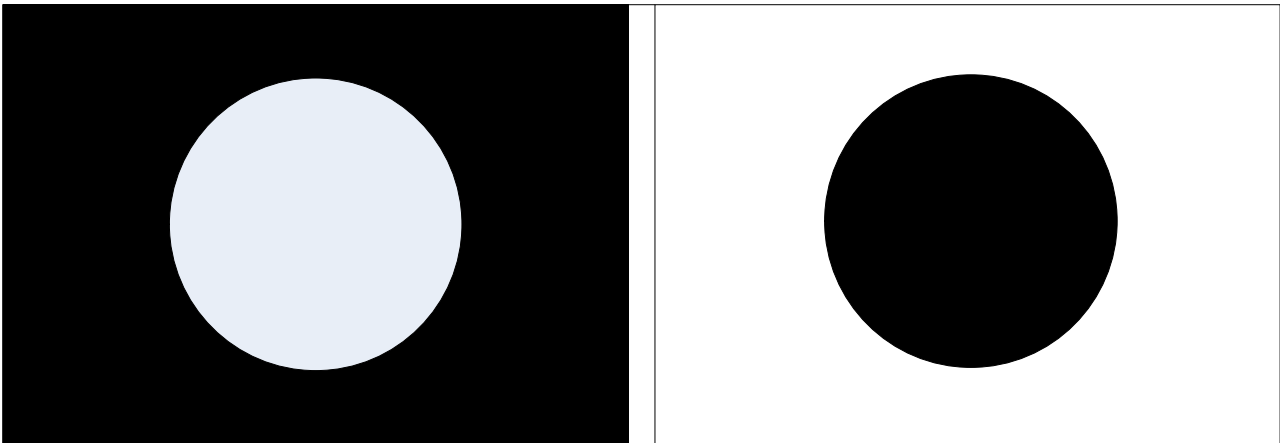


Figure 2. Color contrast

## 5. Conclusions

In the process of people's contact with graphic design works, people usually use some other factors to judge the image information in the works. For example, the quality of images downloaded through the Internet and the quality of digital film will have an impact on people's intuitive impression of graphic design works. In the acquisition of image information, because of the limitation of network speed, it is difficult to download high-definition images, and the images are not clear enough, which makes it difficult for people to effectively understand the understanding and definition of graphic designers. In graphic design, the main function of text is to convey the author's main ideas and information to people, among which the use of pictures to convey people is the most important information. Text information plays an auxiliary role more often. In the process of graphic design, besides drawing and editing figures of images, the unique ideas in other fields need

to be fully integrated in the design of graphics. It is an important use of graphic design to convey the shape of products and the image of enterprises to people.

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