
Introduction to color design of natural dialectics

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Abstract: Color design is closely linked with the natural dialectics, which is a new way of thinking and method to realize the color design by the viewpoint and principle of natural dialectics. In this paper, the theory and methodology of the color design are studied by using the theory of natural dialectics, which is a tentative study of the line on how to use the basic principle of natural dialectics to solve the problem of understanding and method in color design.

Key words: *Color design; Natural dialectics*

I. COLOR DESIGN AND NATURAL DIALECTICS

Color design is a new subject in China, and it is based on optics, colorimetry and color psychology. In general, From the perspective of the color to the product design, it can give users a more rational and aesthetic enjoyment to design. Generally, there are two aspects in the study of natural dialectics, on the one hand, it is the nature view, which is the study of the Nature Dialectics; on the other hand, The nature science view is also called Dialectics research of the natural science . Dialectics teaches us about the nature and methodology of science, at the same time, it has a practical significance to guide and realize the design of color with the dialectical scientific method^[1].

A Method of guiding the color design with the scientific method

The method is a behavior guidance, to analyze and solve the problem, scientific method can correctly guide us to understand and learn life practice. At the same time, it is also used on the study of color design. We should use scientific method to carry on the color design, for example ,the deductive method, the inductive method, etc, are the general scientific research method. The social political and economic give a large influence to fashion color, for example after the September 11 terrorist activities spreading to the world, violence and terrorism make the whole world get into a depressing atmosphere, and volatile international environment results in psychological anxiety and depression, so using the soldiers camouflage service as representative color , the olive green and yellow green series, is popular, which become a period of popular color the after 911 event. The reason is that the green symbolizes life, life and energy, the people who have experienced turbulence will cherish on the health of the body and the non pollution and love the desire for health and the pursuit of green color, specially, The full of life color system contains green or pink green^[2]. From the perspective method of popular color, the popular color workers make a survey about the situation of domestic and international in a period of time, and then analyze the new trend of social, ideological and ideological fields. At last, It is not hard to see developing trend of the popular color by the comprehensive application of the logical thinking method and the intuition in the next year. Take the national flag design as an example, the Chinese national flag is red, which closely related with our country's cultural history. Red, a symbol of our victory, is shed by the blood and life of numerous revolutionary martyrs in China, in addition, red is also a symbol of revolution. Simultaneously, Arab countries is located in the desert, an oasis in the desert makes them earn and cherish very much, so the flag of the Arab countries are mostly on the basis of green background^[3]. In the design, the designer needs to do a comprehensive collection and learn more about the local information, only in this way, the designer can design

the works which meet the national characteristics. At last, these successful works are derived from the scientific methodology guidance.

B Research basis of popular color

Ba P Love's senior neurology believes that any cell is impacted in the monotonous stimulus, when Irritants failure and overrun to shift to an inhibitory state, the cell will find a new stimulus^[4]. It is based on the above reasons, the popular color can appear, Different periods have different colors, because of this, ladies wardrobe handbags and accessories of the color is also updated in real time, if there is no hate to old color and people imitate the fashion color, popular color will not generate and spread^[5].By the color to produce aesthetic and the public aesthetic becoming psychological identity, it is a scientific reason of popular color. So the development of natural science has a important influence on the development of color art.

C The scientific epistemology guides people to understand the color

The study of Natural dialectics tells us that natural knowledge is infinite, there is no end, so there is no end for people to understand color. A famous scientists dedicated to the study of the worm once said: life is too short, the worm is too long. We can see from this exclamation people know little of the universe, human exploration of the unknown nature are limitless. Our confidence comes from the world is knowable, which is the inexhaustible power for us to learn and change the world. On the understanding of the color, predecessors made unremitting exploration. In 1676, Newton found red, orange, yellow, green, blue, purple by using prism. From the trichromatic of theory black forest to be color stereo to ostwald color theory to today's NCS natural color system, along with the development of history, it reflects people learn more knowledge about the color by understanding the universe and themselves deeply, the theory is correct in a period of time. But Just as the saying goes "Impermanence is fickle", the view from modern theory or some views of predecessors' theory, or on the previous theoretical results, people give out new insights and more profoundly about the origin of the color problem, so far there are different versions, perhaps, the real answer can be discovered in the future. The experts who study optical physics, anatomy and visual psychology have put forward Hypothesis theory. Johannes, the master Color design said if you want to step into the wilderness of color research field, you need the courage of pioneers. So the understanding of color, people still have a great unknown space.

II. RELATIVITY OF COLORS

In our vision, any color is in contrast to the state of existence, or is present in relatively conditions. Because any physical state can not exist in isolation, it is apparent from the whole out, and our intuition can not feel one color alone, always in the big whole to feel each part^[6]. Color does not exist in isolation, it is always through a certain size, shape, position and texture and so manifested. That is to say, a piece of color is always understood by us accompanied by the factors such as size, contour of shape and orientation, distribution of colors^[7]. In a painting, the performance of the shape and color of characteristics is simultaneous, color expression should also be mutually reinforcing, which is in line with the principles of dialectics.

III. CONTRAST DIALECTICAL OF COLORS

We have this experience, "black and white" is most clearly striking because of the difference of color attribute. Greater the difference of the attribute, the higher the possibility of attention, difference of lightness is the most important factor in the decision of visibility degree. If we tie pure red and green, yellow and purple, when the blue and orange, the red is more red, yellow is more yellow, green is more green, purple is more purple, blue is more blue, orange is more orange. As long as the contrasted colors are juxtaposed, then each will

increase their vividness, but if they are mixed, the more mixed the sharpness is weaker. Famous Impressionist master Van Gogh had a wonderful description on colors: "A painted sunflower in the deep blue foundation is like a holy stop in enclosed, which means that each matter surrounded by background, which protrude from it.....^[8]", Research of Geta psychology tells us that in human nature there is pursuit of complete mental, if the eyes watches a piece of color for a long time, complementary color of this color will produce around the color, that is visual residual phase. The human eye would not know it looking its corresponding complementary color to achieve a balance of psychological and vision. Biologists Haibabilun also received the same conclusion from the spirit physics experiments. The profound understanding and scientific understanding to the dialectical relationship of color contrast has greatly helped us to understand complementary relationship exists of color.

IV. COLOR DESIGN IS A COMBINATION OF SCIENCE AND ART

Function of colors is not only to give people bring aesthetic pleasure, but also closely linked to everyday science. Most colorful signs in airports and supermarkets are identified so that guests find the place to go as soon as possible, modern businessmen have been accustomed to add colors in the computer chart to emphasize the distinction between the different facilities they want to express, MRI can help doctors find the cancer and its development process, because the color image is more obvious than the black and white images to show subtle differences between similar things. The shocking picture from Hubble Space Telescope of the universe is proof color allows scientists to observe and analyze those invisible gas better. As nebula image, red represents sodium sulfide, green represents hydrogen, blue represents oxygen, it is the bright colors vividly unfolded blurred nebula 7000 light years away from Earth^[9,10].

V. CONCLUSION

Nature dialectics is the source of wisdom, mastered the basic principles of dialectics of nature and consciously applies to the color design study, will benefit us much.

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