

Research on the Application of Color Psychology in Fashion Design

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Abstract: With the continuous development of quality education and innovative education, psychology and art have organically achieved infiltration and integration. In this context, the article is based on color psychology and conducts in-depth exploration from the perspective of clothing art design. Using diverse methods and approaches, it systematically explores the main forms and value manifestations of color psychological expression. By flexibly applying colors, not only can the external manifestations of clothing be enriched, but also the diverse psychological and emotional needs of customers can be met. This to some extent enriches the knowledge framework of color psychology, and helps people have a more systematic and comprehensive understanding of clothing design, thinking about the value and function of clothing design from a new perspective. Based on this, the article first provides an overview of the development of color in both the East and the West, as well as the connotation and characteristics of color psychology. On this basis, it delves into the practical application of color psychology in clothing art design.

1. Introduction

Color is an important factor in fashion design, because color can have an unintended effect on people's emotions. Therefore, if you want to truly play the importance and value of color, you can achieve it through catharsis. For fashion designers, only by exerting the psychological influence of color in fashion design to the extreme can they fully express their design ideas and concepts.

2. Related overview of color development in China and the West

As we all know, color has always been an extremely important theoretical knowledge in the current society, and people's research based on color has also achieved remarkable results, with a long history[1]. Whether it is the western countries or our country from the basic inquiry to the construction of the theoretical system has a certain periodicity, is a long exploration process.

2.1 History of color development in Western countries

According to the relevant practical investigation and research, it can be seen that Aristotle, an excellent research scholar, was the first scholar to study color, and he put forward the ancient color

theory through systematic exploration. With the continuous development and innovation of modern social science and technology, people have carried out effective innovation and optimization on the basis of its theory and inherited some contents[2]. For example, Aristotle believes that black, white and yellow are extremely basic three colors, and all other colors can be mixed with the above three colors, which is closely related to the theory of three primary colors that we know at present to a certain extent, but most of them have been abandoned by society. Later, Newton and Goethe began to deeply explore color, based on color perception analysis of different ontology on color expression of the difference of feelings and views, put forward the modern color theory[3]. However, it is worth noting that Goethe severely criticized Newton's color theory when conducting color research, but it is precisely because of the continuous debate and certification of contradictions and conflicts that effectively promoted the sustainable development of color theory. With the rapid development of modern science and technology, researchers have derived a large number of new views and opinions based on the current situation. For example, Ostwald used hue, lightness and purity flexibly to establish a practical color system when exploring chemical knowledge[4]. American researcher Munsell created the establishment system based on the three elements of color, which continuously enriched the color theory and kept pace with The Times, which also directly marked the arrival of a new era of color to a certain extent.

2.2 China's color history development

Through thousands of years of cultural precipitation, people have experienced the practical development of production and life, and accumulated rich color experience. Based on the theory of yin-yang and five elements, relevant researchers have created a traditional five-color system on the basis of theory, which directly represents the ancient people's views on color to a certain extent, fully reflecting that people have begun to acquire aesthetic consciousness from the most primitive theoretical precipitation, and can independently explore color, with strong national characteristics[5]. During the Warring States period, "Kaogong Records" clearly put forward that "the painting of ornithfulness is mixed with five colors, the east is green, the south is red, the west is white, the north is black, the sky is dark, and the earth is yellow." It is worth noting that the mixed colors here mainly refer to the part of the color that can be operated, and clearly put forward the internal relationship between color and orientation, that is, southeast, northwest corresponds to blue, red, white and black, and the middle represents yellow. In the context of social development at that time, people believed that the above five colors were the basis and premise of all colors, and all colors in society could be reconciled through the five colors[6]. In this way, the internal emotions and aesthetic consciousness of people at that time are comprehensively and systematically reflected, and the traditional five colors are the color system of ancient China, which has a positive impact on the color theory even now, laying a solid foundation for the later innovation and development.

3. The relationship between color and psychology

3.1 Psychological information and use of red

As the longest wavelength color in visible light, red can bring a sense of pressure and expansion to people visually. Most of the time, red is most stimulating when it is near saturation. At the same time, while giving people a lively feeling, red also brings people a kind of mental unease. Red highlights a strong character color, contains a powerful force, it can intuitively convey excitement, enthusiasm, cruelty, danger and other information[7] The use of red helps people to secrete adrenaline, which can promote the speed of human blood circulation, which also explains the character of red from the side.

When red and blue are mixed together to form purple, it adds a sense of mystery and authority to the intangible. Throughout history, cardinals have become a symbol of power. If red adds yellow to orange, its brightness increases significantly, highlighting the lively character at the same time, reflecting a bit of brilliant charm. Taking the ancient dragon robe as an example, it chooses gold as the main color, highlighting the sense of grandeur[8]. This color is often used in the production and processing of modern clothing due to its bright appearance, enhancing the warmth of clothing.

3.2 Psychological information and use of yellow

In visible light, yellow has a medium wavelength, but it is the brightest color of all. Yellow has a very broad representative field, when it is in the most vivid state, highlighting a variety of psychological information such as happiness, innocence, nobility. Yellow can show a variety of expressions. Yellow on white makes people feel tired and weak; Black against yellow makes people feel positive and powerful. When yellow and blue form a contrast state, the visual effect is particularly blunt and can not achieve coordination and unity[9]. The use of yellow appears more in children's clothing, when paired with black, usually highlights the warning effect, but because yellow is too lack of weight, so in the design of clothing color, be sure to use the appropriate color to embellish.

3.3 Psychological information and use of green

Because green is a natural color, the stimulation is not strong, therefore, the psychological effect and physiological response to people are slightly peaceful and docile. As the hope of life, green symbolizes youth, peace and equality. In the 21st century, green often symbolizes environmental protection and safety. As one of the core colors of various environmental protection activities, green is also suitable for people's clothing when their hearts are up and down.

3.4 Psychological information and use of blue

Blue has a short wavelength in visible light and belongs to the inward cool color system. Because blue has a certain sense of space, it is easy to make people associate, such as the endless ocean and the vast expanse of the universe. High saturation of blue shows deep, rational, cold and conservative psychological information, can make people think of the ocean, both universal love, calm and other characteristics. When matched with other colors, it has a variety of characteristics.

4. The importance of clothing color

4.1 Aesthetic significance of clothing color

The color of clothes is similar to music in that they both reflect beauty. Clothing color, as a medium of human and nature echo, provides more choices for human clothing. The colors of clothing reflect the spirit of The Times. On the contrary, people in different times will choose different colors of clothing. Different colors of clothing will reflect a series of information such as people's personality, psychology, and even people's level of education. This also makes clothing become a symbol of individual differences, so that the wearer can build self-confidence at the same time, but also attract the attention of others, strengthen communication and exchange with others. Of course, people's choice of color is also affected by the environment and the season, and the clothing color that conforms to the occasion and the season can well highlight people's taste and mood. Therefore, color is not only an important part of clothing, but also the key to affecting the

clothing industry.

4.2 Emotional significance of clothing color

Color itself can not show a certain emotion, it only makes people carry out thought activities in the brain by mobilizing people's senses, that is, people's association and imagination, aesthetic consciousness and other factors give color feelings. In the beginning, clothing appeared as a practical tool, but with the development of society, clothing gradually became a symbol of status and even a moral symbol[10]. There is no distinction between beauty and ugliness in the colors of the world, but for most people, different colors represent specific emotions and rich connotations, which are both rich and contradictory.

5. The practical application of color psychology in fashion art design

5.1 Influence of visual psychology

The difference of psychological feeling brought by color is essentially caused by the Huaben characteristics of Tiantipa color. As we all know, the weight of different colors, cold and warm, expansion and contraction, forward and backward and other characteristic structures are different, and it is precisely because of these characteristics can effectively make up for the visual defects in clothing design. First of all, for the weight of color, people can find in daily life that even if the style and fabric are the same, they can feel different weight differences. In other words, light-colored clothing can bring people a bright and relaxed feeling; Dark clothing, on the other hand, conveys modesty and composure. The difference in feeling will transmit to the brain a signal of alienation, that is, dark clothes are heavier than light clothes, which is also the most intuitive reflection of color weight difference in color psychology.

On the other hand, the contraction and expansion of color is flexibly used in the clothing design process at this stage, especially for the production of some details and the processing of small and micro parts, which can make people feel visually thin. Specifically, the light color system has a smaller color density, so visually it can bring people a sense of expansion and extension; The dark color is dense and makes people feel contracted. For example, Paltrow once wore an Antonio Berardi dress to an event, which reflected the curves of the body through a patchwork of colors: The use of white on the front reflects the expansion, while the use of black on the side brings people the contraction texture, one big and one small, one rewind and one put, with a strong sense of rhythm and better visual effect.

5.2 Expression of color emotion

Different individuals have different associations to colors, so the expression methods also show diversified characteristics, and the different symbolic meanings of colors will also be different. The emotional expression of color is usually reflected in the process of choosing the color of clothing art. In other words, people will choose different colors of clothes on different occasions. For example, when people go on vacation, they usually feel happy and open-minded, and they will choose clothes with brighter colors. Especially at the seaside, we can see that most girls choose colorful or contrasting swimsuits to express their inner joy and set off a pleasant environment. If people attend funerals and other occasions to be very solemn, people will tend to wear some dark clothes, such as black, in order to express respect. In addition to holidays, color also plays a crucial role in everyday clothing design. Different colors will bring people different emotional experience, if you want to be more bright and active, more light, people usually choose white or blue and light green, such colors

can create a dreamlike environment and place. According to the survey, most of the international big brands in the dress design, usually use light blue to reflect the pure and elegant style, but also can reflect the female self-reliance, high cold image. For example, the character of Elsa from the frozen, she wears a blue dress, these colors can fully reflect her inner emotions, both independent and fragile, both dreamy and pure. For example, the design of female wedding dresses also has a distinctive color expression. Generally speaking, white and pink are extremely commonly used wedding colors, white represents purity, honesty, most women have a certain yearning for the wedding, and white can correspond to their fantasies, enhance emotional collision and emotional experience.

For most women in the workplace, in order to reflect their smart and capable, they usually choose black, white and gray clothes. As we all know, the three colors of black, white and gray are closely related to other colors, if we can effectively and reasonably match, we can understand it as a complete system. Specifically, black is the color obtained after the integration of all colors, reflecting calm and stable emotions, while white is the integration of all lighting colors, from the whole, showing simple and pure, while gray is almost between white and black, we usually understand it as a representative of simplicity. When designing clothes, Theory, a world brand, is very fond of using black, white and gray colors to reflect new concepts and trendy styles. It can be seen that only by understanding the symbolic meaning of color and the inner meaning of its expression in the real sense can we design different styles of clothing to meet people's diversified psychological needs.

6. Conclusion

In short, the color of clothing has become an indispensable part of people's lives in the gradual development of society, and it is a symbol that conveys the character and emotion of the wearer. The psychology contained in color is also rich and diverse, applying color in fashion design is a compulsory course for every fashion designer and the key to fashion design. Only the color of the clothing is used just right, in order to truly "add color" to the costume art design.

References

- [1] Xiangjialin L. *Research on the Application of Juvenile Psychological Development and Sports Acquisition Law System in Physical Education Teaching*[J]. *Psychology Research*, 2023, 13(5):195-201.
- [2] Zhao Y, Samuel R D J, Manickam A. *Research on the Application of Computer Image Processing Technology in Painting Creation*[J]. *Journal of Interconnection Networks*, 2022. DOI:10.1142/S0219265921470204.
- [3] Su Z, Ouyang X. *Research on the Application of Computer Embroidery Skills in Modern Chinese Fashion Design* [J]. *Journal of Physics: Conference Series*, 2021, 1992(3):032004 (5pp). DOI:10.1088/1742-6596/1992/3/032004.
- [4] Lv X G, He X F. *From the color composition to the color psychology: Soft drink packaging in warm colors, and spirits packaging in dark colors*[J]. *Color Research And Application*, 2022, 47(3):758-770. DOI:10.1002/col.22748.
- [5] Zhang L, Li M, Wang Y, et al. *Emocolor: An assistant design method for emotional color matching based on semantics and images*[J]. *Color Research and Application*, 2023. DOI:10.1002/col.22851.
- [6] Kuo L, Chang T, Lai C C. *Affective psychology and color display of interactive website design*[J]. *Displays*, 2022, 71:102-134-. DOI:10.1016/j.displa.2021.102134.
- [7] Lv, Xin Guang, and X. F. He. "From the color composition to the color psychology: Soft drink packaging in warm colors, and spirits packaging in dark colors." *Color Research And Application* 47.3(2022):758-770.
- [8] Myung-Soog, Rhee, Soon-Im, et al. *A Research on Floral Pattern Analysis and Fashion Trend Application Appearing in Fashion Collections - Focusing on the 2012 S/S ~ 2017 S/S Seasons -*[J]. *Journal of the Korea Fashion & Costume Design Association*, 2017, 19(2):129-144.
- [9] Balabanoff D. *Color, light, and birth space design: An integrative review*[J]. *Color Research & Application*, 2023. DOI:10.1002/col.22842.
- [10] Cao H, Tamas A M, Sztranyak G. *Application of environmental psychology in kindergarten architectural design* [J]. *Pollack Periodica*, 2021(3):16.