

The Application of Chinese Minority Pattern in Modern Design Based on Information Visualization

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Abstract: Ethnic minority patterns in China provide a continuous stream of design inspiration for modern design. The information visualization analysis of Chinese minority patterns is an effective means to explore the internal laws of Chinese minority patterns, so as to better serve modern design, contribute to the development of modern design in the world and inject new vitality. In this paper, through the systematic characteristics of information visualization, the author makes a comprehensive comparison of Chinese minority patterns from three aspects of regional culture, color characteristics and symbolic patterns, analyzes the application of Chinese minority patterns in modern design, and explores more possibilities of Chinese minority patterns for the future development of modern design. This method is a more effective way to obtain relevant information of ethnic minority patterns, deepen the understanding of Chinese ethnic minority patterns, inject new vitality into contemporary modern design, and provide continuous inspiration for the modern world design.

Keywords: Ethnic minority, Information visualization, Modern design

1. Introduction

The long-term life and work of ethnic minorities have resulted in their yearning for a better life. Its culture has a long history and is an important part of Chinese culture. At present, cultural diversity has become a world-wide trend, with the continuous enhancement of China's comprehensive national strength, Chinese culture gradually goes abroad and becomes an important part of modern design. In the new era, carrying forward national culture, seeking development in innovation and seeking innovation in development are conducive to promoting the continuous progress of modern design industry.

The patterns of ethnic minorities in China are evolved from the life experience of different ethnic groups in different historical periods, which is a process of continuous integration, innovation and development. It is of great significance to inherit these excellent patterns by using modern technology. With the improvement of people's aesthetic consciousness, more and more designers realize the importance of minority pattern as an important research direction of pattern design, and set off a boom of minority pattern research.

Each ethnic minority has its own symbolic patterns, such as the dragon pattern of Li nationality, the Golden Peacock pattern of Dai nationality, the sheep pattern of Dongxiang nationality and so on. These symbolic patterns have a totem like worship, and are believed or used in their respective patterns to show protection. In addition, some minority patterns carry legendary fairy tales, such as the Miao mother butterfly, reposing people's yearning for a better life. Ethnic patterns have a profound cultural heritage, most of which are used in clothing or daily necessities, reflecting their outlook on life, values and society.

2. Analysis of Information Visualization Design of Chinese Minority Patterns

2.1. Visualization Design of Regional Culture Contrast Information

It is more intuitive to search the corresponding national representative pattern and its distribution position by listing the relative representative patterns of each ethnic minority and marking the distribution of ethnic minorities with the main color of each representative pattern on the map (as

shown in Figure 1). From the analysis of regional culture, the distribution of ethnic minorities in China presents the situation of large mixed living and small concentrated living. The Han nationality is distributed in the minority nationality, and the Han nationality is also mixed with the minority nationality. Furthermore, ethnic minorities are in the majority in certain regions. With the continuous development of China, ethnic minorities are being Sinologized, which leads to less understanding of their own culture. Consequently, it is of great significance to compare and analyze the regional culture of Chinese ethnic minority patterns. The information design is carried out from three aspects: the number of ethnic minorities in Chinese provinces, the distribution map and patterns of ethnic minorities, and the number of traditional villages of ethnic minorities in China.

When we make statistics on the number of ethnic minorities in China's provinces, it is found that there are more ethnic minorities in Hebei Province. If we need to study the current situation of ethnic minorities, we can study the ethnic minorities in Hebei Province. This points out the direction for us to research the current situation of ethnic minorities. As an important part of China's historical and cultural heritage, the traditional villages of ethnic minorities are an important carrier of material wealth and spiritual wealth. With distinctive characteristics and relatively complete preservation, they can provide an important source of inspiration for modern designers.

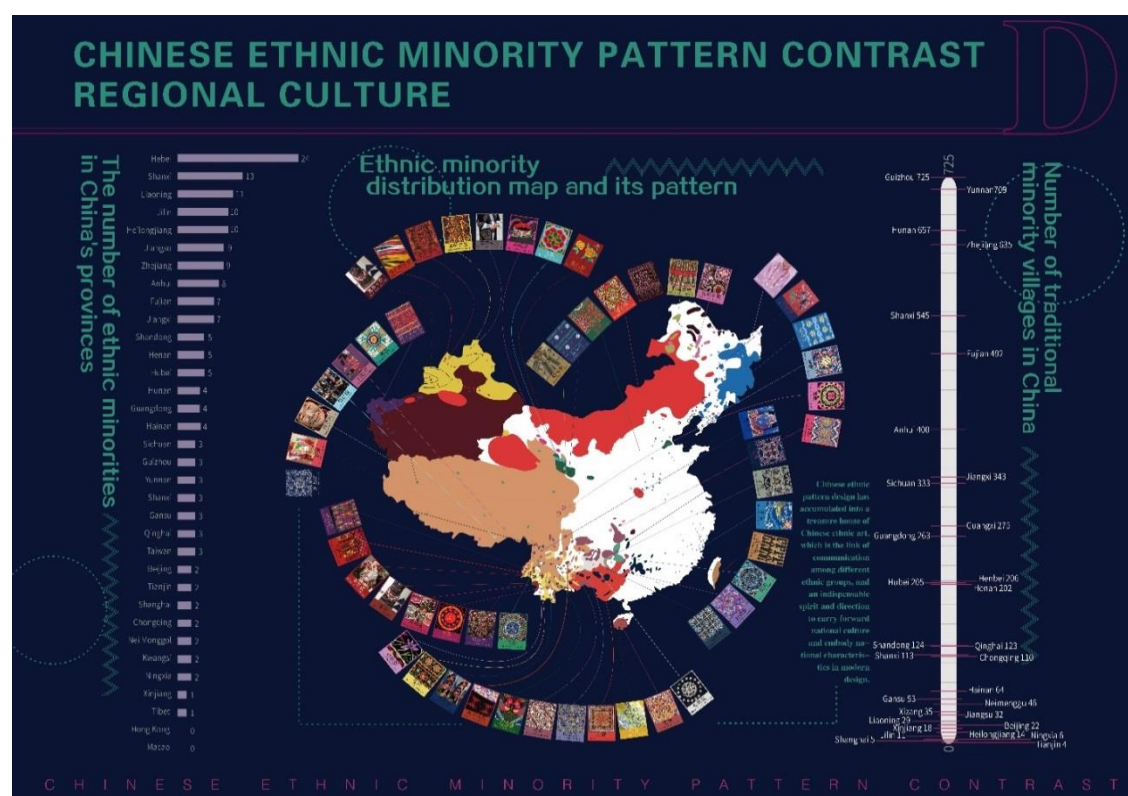


Figure 1: The regional culture of the pattern contrast of Chinese Ethnic Minorities, Image Source Self-made

2.2. Visual Design of Color Feature Contrast Information

Figure 2 shows a comparison of the color features of Chinese minority patterns. Marx wrote: "the feeling of color is the most popular form of aesthetic feeling." Color is the most representative form of expression of people's mood and characteristics. When people appreciate a modern design, their first sight is to observe its color. The role of color in modern design can be seen from this, especially the use of minority patterns as inspiration for design is inseparable from color. In this method, information visualization design is carried out from four aspects: dye color, color advocated by ethnic minorities and the number of colors they advocate, and minority clothing color (as shown in Figure 2). In the middle, the ethnic groups advocate color and use the form of continuous graphics to design. When the colors advocated by ethnic minorities are expressed in the form of continuous graphics, some ethnic groups may advocate multiple colors, which is closely related to their culture and living habits. Due to the ethnic minorities believe in or once believed in the religion of animism or ancestor myths and legends, which indirectly leads to the common decorative colors of ethnic minorities' costumes. There

are seven colors advocated by ethnic minorities, namely black, white, blue, red, yellow, green and color, it is worth noting that black and white are the most popular, these colors have a great relationship with the dye technology at that time. The information chart also shows the seven colors that could be commonly dyed at that time and the raw materials used. This information chart can provide important reference value for modern designers.

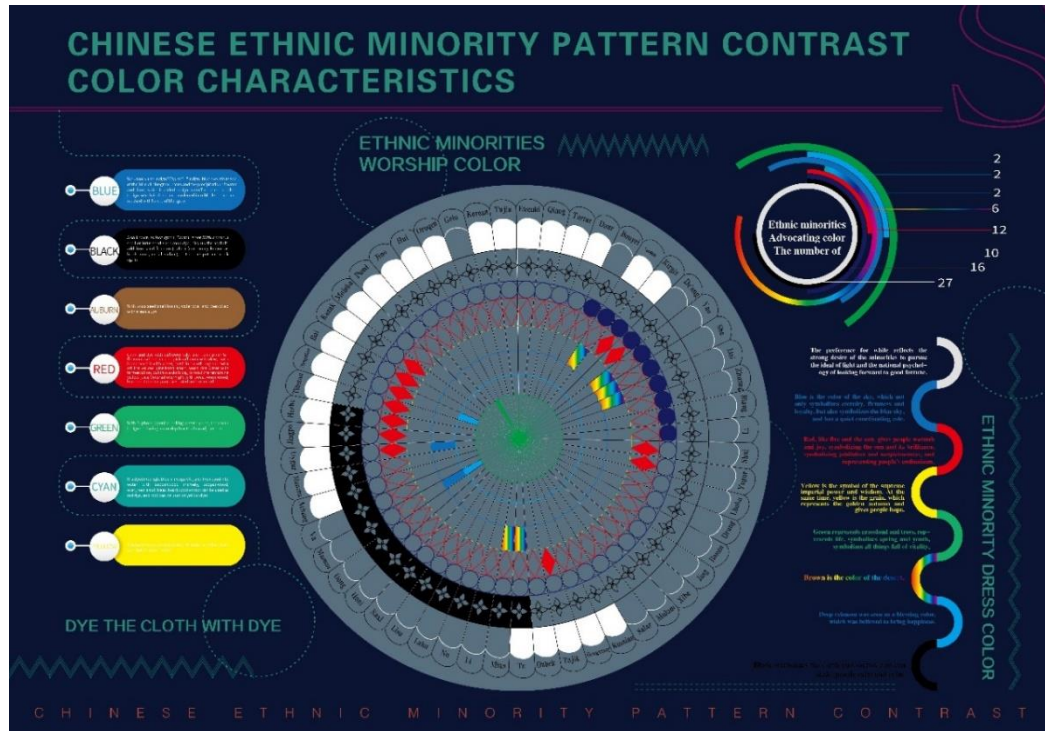


Figure 2: The color characteristics of the pattern contrast of Chinese Ethnic Minorities, Image Source Self-made

2.3. Visual Design of Symbolic Information

Most of the symbolic patterns originated from ancient totem worship, and the essence of totem is to express meaning and record events. It is a product of art and use extracted by people in the process of understanding nature and transforming nature according to their own cognition of the current situation. With the development of history, it has been constantly enriched and improved. As shown in Figure 3, the comparison of minority symbolic patterns shows that there are 4 architectural symbols, 7 musical instruments symbols, 3 plants symbols, and 20 animals symbols, in addition, there are 21 other symbols. Some of the national symbolic patterns are still from mindset of the primitive people under the chaotic consciousness, thus, there will be some supernatural works and myths in them. Some ethnic groups extract symbolic patterns which can better express the national spirit on the basis of traditional culture, so as to be preserved in the historical inheritance. Totem derived from a variety of symbolic patterns is unique, these symbolic patterns as a mark or symbol has been constantly used in the life of clothing and daily necessities, symbolic patterns have far-reaching significance for all nationalities. We can discover from the figure 3 that the symbolic patterns of various ethnic minorities are simplified, and their nationalities and names are marked, so that the information is clear at a glance, which can save time for designers and provide a more systematic impression.

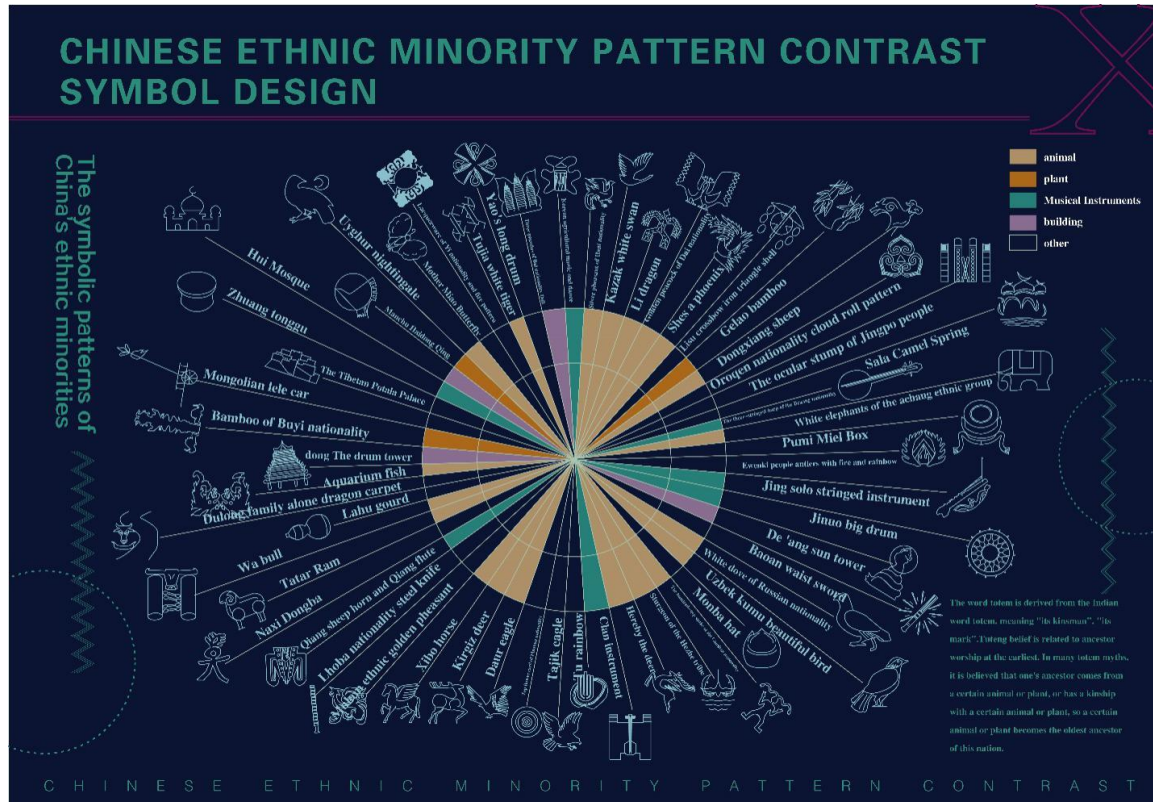


Figure 3: The symbolic pattern of the contrast of Chinese minority patterns, Image Source Self-made

3. The Application of Chinese Minority Pattern in Modern Design

3.1. The Application of Chinese Minority Pattern in Packaging Design

In modern consumption, packaging plays a crucial role in product purchase. With the diversity and richness of design styles, packaging design will produce homogenization phenomenon, and Chinese minority pattern elements provide more possibilities for design style, inject more new vitality into design, and greatly stimulate the buying desire of consumers. In addition, integrating Chinese ethnic minority patterns into packaging design will promote the appeal of consumers while spreading ethnic minority culture, thus to improve the sales of products. In the design, we can draw inspiration from the culture, color and symbol of the ethnic minority pattern, and give the packaging a new shape, color, form, etc. The goal of packaging design is to combine the pattern characteristics and cultural characteristics of ethnic minorities, and make them have a strong sense of modernity, which puts forward higher design requirements for designers. By combining the cultural characteristics of ethnic patterns with the popular trend of modern design, can we design a packaging design with ethnic characteristics in line with the modern aesthetic.

3.2. The Application of Chinese Minority Pattern in Fashion Design

Pattern is an art that combines decoration and practicality, and minority patterns are the perfect embodiment of this art, which is the crystallization of national natural culture and wisdom. They achieve a strong visual impact and artistic appeal with rich colors and unique modeling, and finally can be expressed with the help of clothing. Clothing reflects the cultural, spiritual outlook and the development level of culture, economy and art of a country and a nation. Modern fashion design not only conforms to the aesthetic habits of modern people, but also reflects its artistic and cultural expression. Structure, fabric, pattern, color and so on are the factors that need to be considered in fashion design, and therefore pattern as one of the important elements of fashion design, plays an important role in fashion design. Ethnic minorities have vivid forms of expression and rich artistic design language, which are widely used in fashion design, making clothing have strong national cultural characteristics.

3.3. The Application of Chinese Minority Pattern in Graphic Design

As a special symbol element, Chinese ethnic minority patterns are having a more extensive intersection with modern graphic design. In graphic design, the performance characteristics of Chinese minority patterns is actually to research how to convey national culture by modern means of expression. With the wide application of Chinese minority patterns in graphic design, minority patterns have become a symbol in graphic design that represents Chinese culture. New graphics is to inject a new concept and form of expression into the design of ethnic minority patterns, and design new ethnic minority patterns by breaking up, restructuring, dislocation, simplification and creation. Ethnic minority patterns express certain meanings by means of repeated elements, brilliant colors and peculiar shapes, through people's strengthened understanding of repeated patterns and their curiosity about strange shapes, specific information can be conveyed. More and more people are attracted due to the artistic charm radiated by the strong novelty of this form.

4. Conclusion

The cultural image of Chinese minority patterns reflects the distinctive characteristics of various nationalities. In the new era of rapid economic development, nationalization and internationalization are the inevitable trend of design development. Modern design with unique and distinctive style of expression must rely on the characteristics, essence and connotation of minority culture. Every ethnic minority has its own customs, cultural background and beliefs. With their gradual development, all ethnic groups have formed unique cultural characteristics. The information of colors, regions and symbolic patterns of ethnic minorities can be obtained intuitively by the design method of information visualization. In addition, this design method can better understand the psychological feelings and customs of various nationalities, which is incomparable to other design elements. Absorbing modern design concept to enrich the minority pattern culture is an effective avenue to realize the modernization of design.

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