

Study on the Innovative Application of Zhuang Brocade Dress Patterns in Women's Products

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Abstract: As one of the highly representative national handicrafts in the Guangxi Zhuang region, Zhuang brocade is one of the famous brocade styles in China. This study integrates the Zhuang brocade pattern elements into the packaging design of modern women's products and uses a large number of Zhuang brocade pattern elements. Starting from the pattern, color, theme, and other aspects, the Zhuang brocade pattern elements are incorporated into the graphic composition for the deconstruction of the design. To establish a new approach to the development of national costume culture, this paper suggested exploring its derivatives and redesigning graphic reconstruction methods. By integrating the Zhuang brocade pattern elements with modern women's product packaging design styles, the connotation value of women's product design can be enhanced. This also facilitates the preservation of the Zhuang brocade national costume culture and provides new ideas for modern innovative design.

Keywords: Zhuang brocade; Pattern; Women's product design; National costume culture; Reconstruction design

Online publication: March 30, 2024

1. Introduction

This study takes the traditional costume culture of the Zhuang ethnic group as the entry point. Based on the extraction of Zhuang brocade pattern elements, it was redesigned according to the aesthetics of contemporary women's products and the composition law of geometric patterns. The design process and method were applied to the packaging design of female products of the self-proposed brand. In addition, the redesign of the Zhuang brocade pattern is in line with the introverted and steady cultural characteristics of Chinese people and highlights the current trend of a "non-heritage+" new era. Not only does this imbue women's products with a contemporary feature but it also reflects the unique national charm of Chinese culture.

2. Analysis of the theoretical basis of the study

2.1. Analysis of the background information of Zhuang brocade

As one of the most representative national handicrafts in the Zhuang region of Guangxi, Zhuang brocade is one

of the most famous brocades in China. It possesses unique artistic attributes and historical cultural symbols and embodies a distinctive national style and local characteristics, with a deep historical heritage and a broad mass base ^[1,2]. The cultural meanings symbolized by different patterns in Zhuang brocade are different, which are summarized in the following three aspects:

(1) Worship of nature

Zhuang ancestors have a special way of associating nature with life and believe all natural things possess a mysterious and unpredictable charisma. In the worship of nature, the Zhuang brocade decorative motifs are mostly derived from the elements of nature to be refined and generalized, such as the octagonal Pattern (sun pattern), cloud and thunder pattern, flower pattern, frog pattern, butterfly pattern, phoenix pattern and so on ^[3]. For example, the frog pattern represents the meaning of life and reproduction, the butterfly pattern represents the desire for free love, etc., which expresses the Zhuang people's feelings of reverence for nature and a better life.

(2) Worship of totems

Some of the patterns on the Zhuang brocade decoration show the spirit of Zhuang totem worship, mainly reflecting the worship of a particular animal and plant, with a special connection between psychology and behavior. This reflects the Zhuang religious beliefs and expresses strong national cultural connotations. It symbolizes good luck, peace, and abundant harvests ^[4].

(3) The expression of praying for good luck and good fortune

Zhuang brocade patterns are used to create patterns of auspiciousness, longevity and health, love and affection, and other related content. These patterns express the good wishes of the Zhuang people to pray for good luck and good fortune ^[5,6]. For instance, the chrysanthemum and crane patterns in Zhuang brocade symbolize the people's desire for longevity and health.

2.2. Domestic and international development trend of feminine products

The packaging design for feminine products in China has a delayed start, issues of blind imitation, and lacks originality. In an attempt to recreate popular packaging styles and packaging elements, a cohesive national packaging system has not been developed ^[7]. According to the questionnaire of 30 target users of relevant departments, modern female cosmetic packaging designs in red, black, and gold color combinations are increasingly popular ^[8]. From the perspective of color composition analysis, red and black are the most likely to form a contrasting effect and can produce a strong visual effect, whereas gold is favored by most people for its noble attributes. The combination of the three-color systems can constitute a variety of packaging patterns such as stripes, grids, dots, and other geometric patterns, etc., which are simple, orderly, and contemporary.

3. Ideas for the research process

Based on fully investigating the characteristics and cultural connotations of Zhuang brocade patterns, a series of research processes and analysis was constructed mainly from three aspects. Firstly, a wide range of information, including the Zhuang brocade pattern was collected for in-depth analysis to understand the geometric design style analysis techniques. Second, the pattern was extracted and the plane composition design law was used to redesign the pattern elements ^[9,10]. Third, market research and analysis for specific brands were performed by re-combining, arranging, superimposing, and piecing the symmetry techniques of pattern design elements.

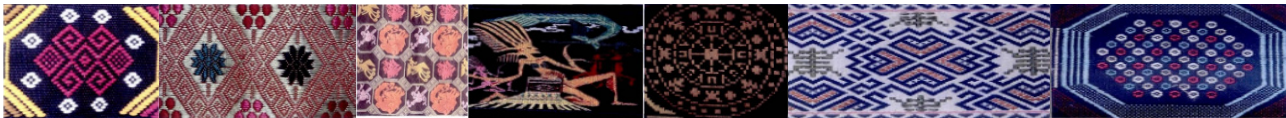














4. Characterization of Zhuang brocade pattern

The Zhuang brocade takes the geometric pattern composition as the basic form, with Wanzhi pattern, Hui pattern, and water wave pattern as the main patterns. Through the bipartite and quadripartite continuity in the traditional brocade weaving technique of the Zhuang people, the independent geometric patterns are woven into composite geometric patterns that are constantly arranged and combined. According to the Zhuang native paraphrase, it is roughly divided into seven categories: (1) circular pattern; (2) lace pattern; (3) auspicious pattern; (4) animal pattern; (5) title pattern; (6) character pattern; (7) text pattern, as shown in **Table 1** ^[11].

In the process of researching Zhuang brocade patterns, the most typical patterns among the 7 categories of patterns were extracted as the object of this study and reorganized for decomposition. The patterns include the colorful butterfly pattern, flower pattern, auspicious phoenix pattern, feather man pattern, copper drum pattern, weaving patterns for longevity, round pattern, and other classic patterns. Based on comparative analysis, the representative pattern features with national cultural elements were selected and vectorized and the 1-to-1 line vectorized draft of the restored pattern was studied ^[12]. This is also shown in **Table 1**.

By gathering feedback from the 30 selected users and identifying their perceived vocabulary, the most representative perceived vocabulary will be screened out via quantitative analysis. Then, patterns that demonstrate cognitive generalization are selected, resulting in the above cognitive attributes. The cognitive attributes include atmospheric fullness; dignified and elegant; calm and chic; and rhythmic changes. This is shown in **Table 2**.

Table 1. Characterization of Zhuang brocade pattern

Pattern classification: Animal, decorative, lucky, figure, mixed grain, textural								
Circular pattern name: Butterfly, decorative, auspicious phoenix, feathered, bronze drum, weaving patterns for longevity, circular								
Photos of Zhuang Brocade Pattern								
								
Zhuang brocade line draft pattern								
								
Local pattern								
 Nine-circle pattern	 Wheat pattern	 Chain pattern	 Flower pattern	 Flower brick	 Feather pattern	 Frog	 Swastika	 Cross
Selection of pattern cognitive attributes								
 Circular	 Luxurious	 Harmony	 Natural					











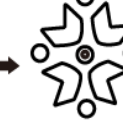





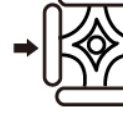







5. A new interpretation of the derivative designs of Zhuang brocade patterns

5.1. Extraction of unit patterns

The pattern is extracted according to the design logic of the law of segmentation and composition. The graphics created are rhythmic, clear, and organized, providing people with a sense of orderly beauty^[13]. By analyzing the shape and decorative characteristics of the traditional national costume pattern of the “nine-circle pattern” as an example, it is applied to the modern decomposition design with the integration of modern elements and gives it a new artistic charm. This demonstrates the development process of the pattern from the initial shape to the final pattern (Figure 3).

First, the pattern was simplified and rearranged to form a basic unit. Second, the pattern was continuously simplified to form two outer circles connected. Third, the details of the pattern were simplified under the law of minimalist decomposition. The outer circles are merged and the four inner ellipses are arranged in the direction of downward arrangement to form the shape of the stamen. The final reconstructed pattern looks like a half-open flower with a full atmosphere. The evolution of the pattern is summarized in Table 2, and the final pattern is perceived and evaluated by 30 target users to summarize the representative perceptual vocabulary and obtain more cognitive attributes.





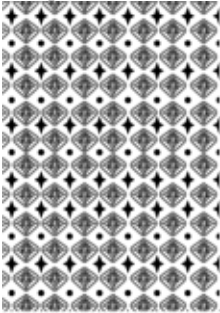


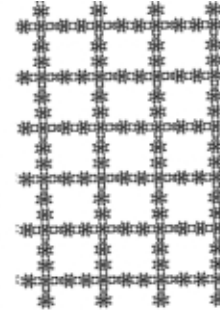
Table 2. Evolution of Zhuang brocade pattern

Pattern evolution process						Cognitive attributes
						Generous and full
						Dignified and elegant
						Calm and chic
						Rhythmic

5.2. Reconstruction of unit patterns

Simple and competent modeling is the prevailing trend in women’s cosmetic packaging design patterns and geometric graphics in the 21st century has been generally recognized as one of the most popular creative methods^[14]. Through analyzing and studying the structure of the Zhuang brocade pattern, it was found that it contained various geometrized elements. These elements have been widely used and developed in modern dress design and become an indispensable part of modern dress design^[15,16]. The pattern unit was extracted from the pattern of Zhuang brocade and the law of plane composition was applied to create the reshaping pattern of the new unit pattern. The final pattern shape is simple, beautiful, and well inherited the morphological characteristics of the national elements of Zhuang brocade. The patterns symbolize a new effect of the Zhuang people’s ideological aspirations through a new way of dissemination and interpretation, as shown in Table 3.

Table 3. Reconstruction of unit patterns

Pattern	Nine circles pattern	Flower pattern	Cross pattern	Frog pattern
Unit pattern				
Composition method				
Composition method: plane, repeat, continuous; rotation, combination, vanishing point; repeat, overlap, ordered; rotate, combine				

6. Solution for packaging design for women's products

6.1. Design requirement analysis

From the results of the questionnaire survey, it was found that as compared with complicated and expensive traditional patterns, simple geometric shapes are not only atmospheric but also simple. These include high-end brands such as Gucci, Louis Vuitton, Dior, and Chanel, whose overall design also illustrates the trend of geometric shapes. Firstly, the research targeted female college students and consumers. Secondly, the colors were selected based on the summary of data from the questionnaires. It was revealed that most users chose red, black, gold, and silver as their favorite colors, at 23.33%, 16.66%, 33.36%, and 13.33%, respectively. Not only are these colors rich and gorgeous but they also exhibit high-grade appeal that resonates with many users. We aim to gain a deeper understanding of contemporary women's love for beauty through this survey.

6.2. Presentation of design solutions

By overlapping, flipping, symmetry, and other reconstruction methods applied to the obtained unit graphics, a pattern can be synthesized. These patterns are then used in the geometric style of feminine product packaging design coupled with the color scheme preferred by the target users. The resulting pattern exudes high-end, flashy, fashionable, and elegant characteristics. Not only is this in line with the aesthetic needs of contemporary women but it also highlights the traditional elements of the Chinese nationalities. The combination of these two aspects can be seen in **Figure 1**.



Figure 1. Packaging effect diagram of female products

7. Conclusion

The Zhuang brocade is the first of the four famous brocades in China. Not only is it a testament to the wisdom of the minority people in Guangxi but it is also an important vessel for the preservation of the long history and culture of the Chinese nation. Through the study of the Zhuang brocade pattern, the basic unit in the pattern was extracted and its plane was deconstructed and altered. It was then reconstructed by using the compositional techniques of repetition, flipping, vanishing point, and even distribution so that the design scheme is endowed with the combination of traditional and innovative characteristics of the times on the packaging of women's cosmetics. The deconstructed Zhuang brocade pattern provides a practical and effective modern aesthetic design to be used by the general public. It becomes an innovative design product that combines tradition and modernity to provide the public with an effective design countermeasure infused with modern aesthetic intention. This program is also applicable to the remaining traditional patterns. By focusing on the innovative needs of the Chinese national dress culture, we can obtain more inspiration for future design, grasp the law of changes in national patterns, and further promote the artistic value of traditional culture.

Disclosure statement

The authors declare no conflict of interest.

References

- [1] Guo L, Hu S, 2021, Value Reproduction of Guangxi Traditional Culture in Contemporary Design Context. *Packaging Engineering*, 42(8): 248–254.
- [2] Zou R, 2021, Application of Traditional Ethnic Elements of Guangxi in Local Food Packaging Design. *Art Appreciation*, 2021(27): 192–194.
- [3] Dong L, 2018, Application of Guangxi Zhuang Brocade Decoration in Local Product Packaging Design. *Industrial Design*, 2018(4): 62–63.
- [4] Fang S, 2020, Research on the Redesign of Art Form of Zhuang Brocade Decoration Based on User Experience, dissertation, Guangxi Normal University, Guangxi.
- [5] Cao X, 2018, Application of Costume Pattern Elements in Packaging Design. *Packaging Engineering*, 39(14): 252–255.
- [6] Zhang Y, 2020, Research on the Application of Bai Ethnic Dress Elements in Modern Packaging Design. *China Packaging*, 40(7): 41–43.
- [7] Yao S, 2021, Inheritance Application of Traditional Costume Folk Art Elements in Packaging Design. *Cotton Textile Technology*, 49(6): 103–104.
- [8] Yang X, Wang M, Du Y, 2018, Application of Han Rule Mirror Pattern in Female Cosmetic Packaging Design. *Packaging Engineering*, 39(6): 69–73.
- [9] Li H, 2020, Application and Innovation of Yugu Costume Elements in Packaging Design. *Western Leather*, 42(11): 98–100.
- [10] Zhu H, 2021, Application and Research of Chinese Traditional Costume Elements in Modern Women's Clothing Design. *Chemical Fiber and Textile Technology*, 50(8): 127–128.
- [11] Zhao Z, 2021, The Application of Ethnic Costume Elements in Art Design. *Youth*, 2021(6): 74–75.
- [12] Qin L, 2020, Exploration of Fashionable Design of Zhuang Brocade Craftsmanship in Apparel-Taking the Example of The Research and Development Project of “Zhuangmei Brocade Art.” Decoration, 2020(12): 140–141.
- [13] Lu Q, 2017, Research on Zhuang Brocade Decoration, dissertation, Shandong University, Shandong.

- [14] Xiao H, Lin L, Yan L, et al., 2018, Tourism Souvenir Design Based on Design Semiotics of Miao Silver Jewelry Analysis and Evolution. *Packaging Engineering*, 39(14): 221–226.
- [15] Ran R, He X, 2021, Application of National Costume Pattern in Packaging Design. *Jiangsu Textile*, 40(10): 76–77.
- [16] Zhang C, Liu J, 2022, Cultural Characteristics and Inheritance Development of Zhuang Clothing. *Art Hundred*, 38(1): 170–177.

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