ลักษณะทางสายตาของลวดลายผ้าไหมม้วนของชาวไทในเต๋หง จีน

Visual Characteristics of Brocade Patterns of the Dai People in Dehong, China

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บทคัดย่อ

ผ้าทอกำมะหยี่เป็นงานหัตถกรรมการทอด้วยมือโบราณของกลุ่มชาติพันธุ์ส่วนน้อยในจีน โดยผ้าไทมีความโดดเด่นจากประวัติศาสตร์อันยาวนาน วัฒนธรรมที่สมบูรณ์ และคุณลักษณะทางศิลปะที่เป็นเอกลักษณ์ งานวิจัยก่อนหน้ามุ่งเน้นการศึกษาผ้าไทจากเขตสิบสองปันนาเป็นหลัก ทว่าเขตเต๋หงก็เป็นแหล่งกำเนิดหลักแห่งหนึ่งของผ้าไทในจีน ซึ่งได้รับการยอมรับจากลวดลายและคุณสมบัติทางทัศนศิลป์ที่โดดเด่น งานวิจัยนี้ประยุกต์ใช้ระเบียบวิธีวิจัยภาคสนาม โดยผู้วิจัยดำเนินการสำรวจในเมืองมางซื่อ เมืองรุ่ยลี่ และอำเภอหลงชวน พร้อมทั้งทบทวนวรรณกรรมและพิพิธภัณฑสถานอย่างเป็นระบบ การศึกษาจำแนกประเภทลวดลายผ้าไทเขตเต๋หงตามหัวเรื่องหลัก จากนั้นนำทฤษฎีนี้มาวิเคราะห์องค์ประกอบและวิเคราะห์องค์ประกอบและโครงสร้างตามทฤษฎีลวดลายของเฉินจือฝอผ่านกระบวนการตัดต่อลายและเปรียบเทียบแบบแผน ซึ่งค้นพบลวดลายโดดเด่น 75 แบบ

ผลการศึกษาพบว่า ผ้าไทเต๋หงมีลวดลาย 5 หมวดหมู่ตามหัวเรื่อง โดยการจัดองค์ประกอบลายแบ่งเป็น 2 รูปแบบหลัก ได้แก่ ลายเดี่ยว (แบ่งย่อยเป็นลายฮวา แบบเหมาะสม และแบบโครงร่าง โดยมีโครงร่างหลักเป็นระเบียบและสมดุล) และลายต่อเนื่อง (มีเพียงแบบกระจายตัวเท่านั้น โดยกฎการจัดวางลายต่อเนื่องสองมิติเป็นแบบกระจัดกระจาย) ลวดลายเหล่านี้สะท้อนทั้งความนิยมเชิงสุนทรียศาสตร์ของชาวไทต่อความเป็นระเบียบ ความสมมาตร และความมั่นคง ตลอดจนค่านิยมทางวัฒนธรรม ความเชื่อทางศาสนา และความสัมพันธ์กับธรรมชาติ งานวิจัยนี้มีส่วนในการบันทึกมรดกทางวัฒนธรรมที่จับต้องไม่ได้ ช่วยการประยุกต์ใช้ในการออกแบบร่วมสมัย และส่งเสริมศักยภาพการพัฒนาตลาดหัตถกรรมดั้งเดิม

คำสำคัญ: การอนุรักษ์ทางวัฒนธรรม, การออกแบบสิ่งทอ, กลุ่มชาติพันธุ์ไทในเขตเต๋หง, งานหัตถกรรมทอผ้าแบบดั้งเดิม, ผ้าทอไทแห่งประเทศจีน

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Abstract

Brocade is an ancient hand-woven craft practiced by Chinese ethnic minorities. Among these, Dai brocade stands out due to its long history, rich culture, and unique artistic characteristics. Previous research has primarily focused on Dai brocade from the Xishuangbanna region. However, the Dehong area is also a key birthplace of Dai brocade in China, known for its distinctive patterns and visual qualities. This study employs field research methods. The researchers conducted surveys in Mang City, Ruili City, and Longchuan County within Dehong Prefecture. Additionally, a thorough review of existing literature and museum collections was performed. This study classifies the patterns of Dai brocade in Dehong Prefecture by subject matter Subsequently, their composition and structural framework were analyzed using Chen Zhifo's pattern theory. Through pattern cropping and comparison, this study identified 75 distinct patterns.

Key findings reveal five thematic categories in Dehong Dai brocade. Pattern compositions fall into two forms: separate patterns and continuous patterns. Specifically, the separate patterns include Hua patterns, suitable style and outline style. The structural framework exhibits regular and balanced forms. Continuous patterns exclusively follow a dispersed configuration style. The rules for the configuration of the two-way continuous pattern are scattered style. Overall, these patterns reflect both the Dai people's aesthetic preferences for order, symmetry, and stability, and their cultural values, religious beliefs, and relationship with nature. This research contributes to documenting intangible cultural heritage, enabling contemporary design applications, and supporting the commercial development potential of traditional crafts.

Keywords: Cultural Preservation, Textile Design, Dai Ethnic in Dehong Area, Traditional Textile Craft, Dai Brocade of China

Introduction

The Dai is one of the 56 ethnic minorities in China, mainly distributed in the Dai Autonomous Prefectures and Autonomous Counties in Yunnan Province. Dai brocade is a cultural treasure handed down from generation to generation and is the crystallization of the hard-working wisdom of the Dai ancestors. This ancient art form, with its unique patterns and bright colors, has been an indispensable part of the Dai society for centuries, symbolizing their deep cultural heritage and aesthetic value. Brocade is mainly produced in Xishuangbanna Dai Autonomous Prefecture and Dehong Dai Jingpo Autonomous Prefecture. The Dai brocade produced in the two places is influenced by history, geography, humanities and other factors, and has certain differences, showing a unique style. According to Dao & Cai (2014) Dehong Dai brocade is spun with kapok and operated by hand using wooden looms to form different patterns by weaving warp and weft threads. Dehong Dai brocade is often used to make quilt tops, women's dresses, leg wrappers and so on. The materials are often silk thread, gold thread and cotton thread, and the colors are mostly red, green, yellow, purple and black.

Since its inscription on the national intangible cultural heritage list in 2008, Dai brocade has garnered significant academic interest, as evidenced by field investigations into its weaving techniques, pattern composition and cultural importance.

Under the guidance of theories and research methods in design and anthropology, many scholars in the past have conducted studies on its patterns. Cheng et al. (2020) classified the themes of the patterns of Dai ethnic group's brocade. Although the study mentioned the geometric patterns of Dehong brocade, the examples of figures, animals, plants, buildings, and comprehensive motifs were all from the patterns of Xishuangbanna. Gao (2012) conducted research on the pattern themes and composition forms of Dai brocade. The study mentioned the wire-wrap board motifs in the Dehong region, and the case analyses of other types of patterns only mentioned the patterns of Xishuangbanna. In the case analysis of composition forms, the patterns were also all photographed in Xishuangbanna. Tang et al. (2021) analyzed the artistic characteristics of Dai brocade in terms of pattern organization, thematic motifs, color characteristics, and cultural attributes. However, in the part of themes and features, the patterns of Dai brocade were all photographed in Xishuangbanna. Thus, it can be seen that the previous research mostly focused on the brocade of Dai ethnic group in Xishuangbanna, and there was a lack of attention to the pattern themes and composition of it from Dehong.

The Objectives of The Study

This study is divided into the following three objectives.

1. To collect Dehong Dai brocade patterns.
2. To categorize the thematic elements found in Dehong Dai ethnic brocades.
3. To explain and analyze the composition using Chen Zhifo's pattern theory.

Literature Review

Previous pattern studies of Dehong Dai brocade mainly focused on the collection of patterns, such as Atlas of Dehong Ethnic Minority Brocade (Feng, 2007), Dehong Ethnic Minority Brocade craft (Dehong Folk Literature and Artists Association, 2012), and Dehong Dai Brocade Craft (Yunnan Provincial Folk Literature and Art Association & Dehong Prefecture Folk Literature and Art Association, 2016). These publications did not visually analyze the collected patterns.

After 2000, some researchers began to focus on its subject matter types, visual features and colors. The Dai ethnic group's brocade patterns mainly include geometric, animal, plant, figure and architectural motifs (Luo, 2013). Previous studies have also identified religiously associated motifs, particularly Buddhist architecture and symbolic motifs, as important elements in Dai brocade (Cheng et al., 2020; Tang et al., 2021). The colors of the Dai ethnic group's brocade patterns in the Dehong area are mainly distributed in the 0 - 60° and 330 - 360° ranges, it shows a natural and classical feeling (Liu, 2021). Although these research subjects mentioned the brocade patterns of Dehong region, the research was mainly focused on the weaving patterns in the Xishuangbanna area.

There have been previous studies that employed comparative methods. For instance, Liu (2021) a comparative study of the Dai ethnic group's brocade patterns in China (Xishuangbanna and Dehong Prefecture) and those of the Thai ethnic group's brocade patterns in Thailand and Myanmar. The study found that due to the influence of the craftsmanship, there were differences in the appearance effects of the brocade. Specifically, it was manifested in the smoothness of the patterns on the fabric surface. Tang (2021) compared Dai brocade from Xishuangbanna and Dehong and identified regional differences in pattern styles and weaving techniques, suggesting that geographical environment, lifestyle, and aesthetic preferences contribute to the distinctive characteristics of brocade produced in the two regions.

Dehong is an important place to produce Dai brocade, and the study of Dehong Dai brocade can make an important contribution to the preservation of this intangible cultural heritage. First of all, it can provide creative nourishment to contemporary Chinese designers and bring positive impacts on design applications. Secondly, the brocade of this region is also constantly developing and changing with the market demand, facing the need for innovation, and this study can also

stimulate the commercial development potential of the Dehong brocade, which has a certain commercial value.

Theoretical Framework

Chen Zhifo is a famous modern Chinese arts and crafts scholar and pattern scholar and is the founder of Chinese pattern studies. The ABC of Patterns was published in the 1930s, during the peak period of Chen Zhifo's research. It is one of three influential works. In-depth and concise, this is a beginner-friendly theoretical book focusing on graphic patterns (Li, 2021). Unlike the work on patterning by Lei Guiyuan, another founder of Chinese patterning, Chen Zhifo's ABC of Patterns presents a degree of localized exploration with the addition of traditional artifact design specific to China (Qin, 2023).

Many scholars in China have highly praised Chen Zhifo's research. Chen Zhifo was one of the most representative figures in modern China's research on patterns and pattern education (Li, 2025). Chen Zhifo's research results have significant practical significance for contemporary pattern design education in China (Li, 2021). The theoretical framework of this study is based on Chen Zhifo's pattern theory. The research first classified the themes of the collected Dehong Dai ethnic brocade patterns. Then, according to Chen Zhifo's pattern theory, it analyzed its composition and structural framework. After expert review, this research determined its cultural value and commercial value. This study proposed a conceptual framework, demonstrating the design system of this theory (Figure 1).

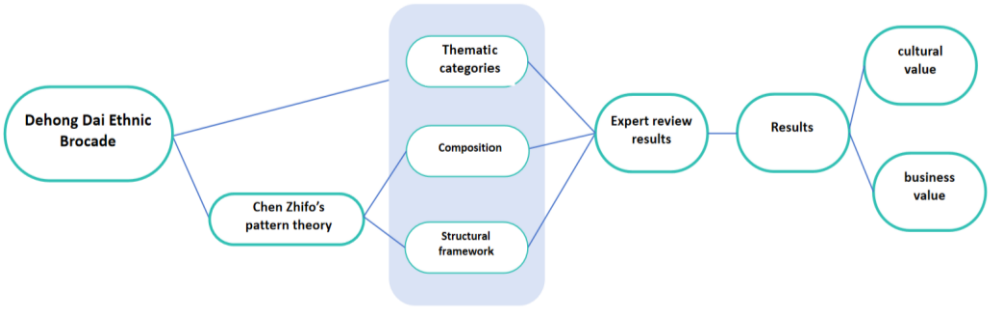


Figure 1: The Theoretical Framework of This Study (Source: Constructed by The Researcher)

Methodology

This study is a mixed methods study. It represents an alternative methodological approach, combining qualitative and quantitative research approaches, which enables nurse researchers to explore complex phenomena in detail (Halcomb & Hickman, 2015). The study employed qualitative

research methods through field investigations and literature review to collect patterns. Quantitative analysis involved coding the samples and detailing the frequency values of the data. Qualitative analysis utilized expert interviews to ensure the trustworthiness of the pattern sources. Using qualitative content analysis, the composition and structure of the patterns were analyzed through Chen Zhi fo's pattern theory.

1. Data Collection Process

The sources of Dai brocade pattern data for this research: field survey, literature and museum collections. The study determines the credibility of the sources of the data by comparing the patterns of the tapestries obtained through three different channels, forming a triangular mutual verification. The research site of brocade patterns is the main production area of Dai brocade in Dehong Prefecture, which includes Mang City, Ruili City, and Longchuan County. Among them, the brocade produced in Manghe Village and Dai Ancient Town in Mang City is the main one.

The research used the documentary method to collect data from existing literature and museum collections. Pattern information is mainly from Dehong Ethnic brocade, edited by Dehong Folk Literature and Artists Association (2012), published by Dehong Ethnic Publishing House. Dehong Ethnic brocade craft, edited by Yunnan Provincial Folk Literature and Art Association and Dehong Prefecture Folk Literature and Art Association (2016), published by Dehong Ethnic Publishing House. Museum collections from the Dehong State Museum and the Jiang Yingliang Dai Museum of the Dehong Higher Teacher Training College. Digital photography and digital scanning were used for data collection. The data collection period for the study was from January to May 2025.

2. Data Analysis

After collecting the data, it needs to be organized. Researchers will compare the firsthand primary data with secondary data from previous studies, and remove any duplicate patterns. Through expert interviews, specialists will be asked to select typical examples of Dehong Dai brocade patterns as samples. Next, Adobe Photoshop will be used to appropriately crop the images.

The collected patterns will be counted and coded to form a quantitative data table. The patterns will be categorized by type, and the percentage of each type within the total will be calculated to demonstrate the frequency of occurrence of each pattern. The pattern analysis method used is Chen Zhifo pattern analysis method. In 2019, Nanjing Normal University re-published Chen Zhifo's " The ABC of Patterns". This study will analyze the composition and structure of Dai ethnic brocade patterns based on the rules for flat patterns outlined in Chen Zhi fo's pattern theory, as presented in Chapter 7 of the book.

Through data analysis, researchers identified a total of 75 patterns and compiled a coding table for these patterns (Table 1).

Table 1 Dehong Brocade Pattern Coding

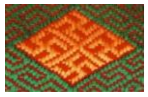
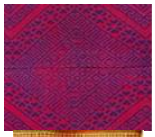
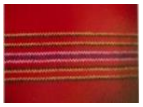
No.	Pattern	No.	Pattern	No.	Pattern	No.	Pattern
1		2		3		4	
5		6		7		8	
9		10		11		12	
13		14		15		16	
17		18		19		20	
21		22		23		24	
25		26		27		28	
29		30		31		32	
33		34		35		36	
37		38		39		40	
41		42		43		44	
45		46		47		48	
49		50		51		52	

Table 1 Dehong Brocade Pattern Coding (Continued)

No.	Pattern	No.	Pattern	No.	Pattern	No.	Pattern
53		54		55		56	
57		58		59		60	
61		62		63		64	
65		66		67		68	
69		70		71		72	
73		74		75			

Source: Constructed by The Researcher

2.1 Type of Pattern

This study found that the patterns of Dai brocade can be classified by subject matter into character patterns, geometric patterns, plant patterns, animal patterns and other patterns. Among them, there are 18 types of character patterns, accounting for 24% of the total. There are 25 types of geometric patterns, accounting for 33% of the total. There are 16 types of plant patterns, accounting for 21% of the total. There are 8 types of animal patterns, accounting for 11% of the total. There are 8 other types of patterns, accounting for 11% of the total. From this, it can be seen that there are the most geometric patterns, followed by character patterns (Figure 2).

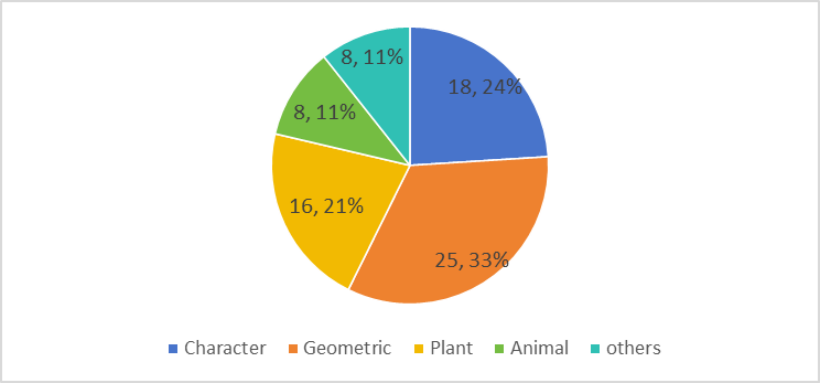


Figure 2: The Quantity and Proportion of Pattern Themes (Source: Constructed by The Researcher)

2.2 The Composition of Patterns

According to Chen Zhifo's pattern theory in the plane pattern nature, Dai brocade has separate patterns and continuous patterns.

According to Chen Zhifo's pattern theory, separate patterns can be classified into Hua patterns, suitable style patterns and outline style patterns. Hua patterns are free-form patterns without external contour lines. They are very common in Dehong Dai brocade, especially with plants as decorative (No. 42 - 49).

Suitable style patterns have obvious outline lines. Chen Zhifo pattern theory mentioned that the outline has two forms of natural shape and geometric shape, however, in the Dehong Dai brocade, the outline is basically a regular geometric pattern. The common ones include octagonal (No. 23), hexagonal (No. 25) and rhombus (No. 51). The patterns in the outline are mostly left-right symmetrical patterns.

Outline style patterns are patterns that decorate the outer contour of the plane, usually used as the edge decoration of the central pattern. The outline patterns of Dehong Dai brocade are found only on the top or bottom of the brocade. Chen Zhifo mentioned that another type of decoration that is placed at the four corners of the pattern has not yet been discovered. The outline patterns of Dehong Dai brocade does not appear frequently, and it is usually found on brocade-made costumes, used for the decoration of the edge lines of the costumes (No. 66).

Continuous patterns refer to the rhythmic repetition of one or more patterns. The pattern appears continuously in the up and down or left and right directions as Two - dimensional continuous pattern, and the pattern appears continuously in the up and down and left and right directions as four-way continuous pattern. The Two - dimensional continuous pattern of Dehong Dai brocade is the horizontal continuous pattern in the left and right directions. Bird pattern is a common two-way continuous pattern in Dehong brocade (No.26).

four-way continuous pattern appear very frequently in Dehong Dai brocade, which is usually a regular pattern configured in a certain form. The unit pattern of Dehong Dai brocade is regularly scattered on the plane and continuous, so it is a regular scattered pattern. The brocade made of this pattern is often made into garments for them to wear. Octagonal flower brocade is a common four-way continuous pattern of Dehong Dai brocade, it is a 90-degree intersection of straight lines for the division line, the center of the intertwined line is equipped with the same size of the octagonal flower pattern, Chen Zhifo pattern theory calls this pattern “Fei bai” (Figure 3).

Figure 3: Octagonal Flower Brocade (Source: by The Researcher)

2.3 The Structural Framework of The Pattern

To implement the core concept, Chen Zhifo put forward the “structural framework”, which is the most basic element of pattern composition. He believed that the pattern is structurally arranged and organized according to the structural framework, which determines the method of composition of the individual pattern itself, and also determines the form of continuity of the unit pattern in the bipartite and quadripartite continuous patterns. It reflects the formal language structure of the pattern in its entirety and contains the way in which the units of the pattern are systematically related. According to Chen Zhifo's research, he categorized bone patterns into structural framework of individual motifs, two-way continuous pattern and four-way continuous pattern.

The individual patterns of Dehong Dai brocade have two types of designs: the regular and the balanced type. The researchers found that the regular structural framework of Dai brocade is divided into two types, upright and rotary style.

Upright style extends from the center point in both directions, and the motifs are symmetrical. The radiating structural framework of Dehong Dai brocade motifs is almost always dispersed in all directions from the center, such as the wire-wrap board motifs, which are radiating up and down and to the left and right. The rotary style is rotating outward or inward from the center, such as the swastika motifs, which is rotating outward from the center in the form of left and right rotation (Table 2).

Table 2 The Regular Structural Framework

NAME/NUMBER	PATTERN	EXTRACT	STRUCTURAL FRAMEWORK
WIRE-WRAP BOARD MOTIFS (No. 32)			Upright style
SWASTIKA MOTIFS (NO. 1)			Rotary style

Source: Constructed by The Researcher

The balanced type is not as symmetrical as the regular type but presents a balanced state where the volume of the left and right shapes are about the same. This structural framework is mostly seen in plant motifs, where flower petals are attached to the curved structural framework, creating a beautiful sense of balance (Table 3).

Table 3 The balanced structural framework

NUMBER	PATTERN	EXTRACT	STRUCTURAL FRAMEWORK
NO. 43			
NO. 44			

Source: Constructed by The Researcher

2.4 Configuration Rules for Continuous Patterns

Dehong Dai brocade of two-way continuous follow a rule, Chen Zhifo pattern method called scattered style, is a unit pattern arranged in equal parts of the area, sparsely consistent in the horizontal continuation of the infinite extension. Some motifs have the pattern upwards, while others are repeated continuously up and down. The following diagram shows the way the pattern is configured (Figure 4).

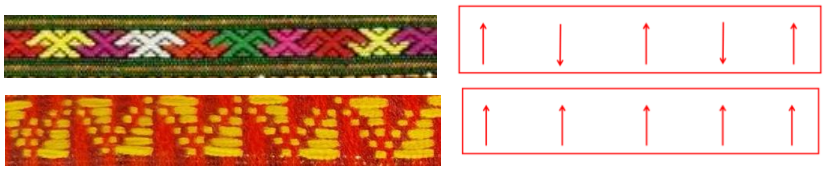


Figure 4: Configuration Rules for two-way Continuous Patterns

There is only one rule for the four-way continuous pattern of Dehong Dai brocade, they are all regular scattered style, in other words, there is only one unit pattern within the planned wireframe, and the whole pattern seems to be continuously and evenly configured on the whole surface. The following figure shows the method of pattern configuration (Figure 5)

Figure 5: Configuration Rules for Four - Sided Continuous Pattern

Result

Dai brocade is a nationally recognized intangible cultural heritage in China and constitutes a vital component of Dai ethnic culture. Focusing on Dai brocade from the Dehong region, conducting research on its visual characteristics has become a significant issue requiring urgent attention. This study demonstrates that Dehong Dai brocade features diverse thematic motifs, predominantly abstract patterns, and design methods that predominantly employ simplification techniques. Experts have evaluated the trustworthiness of this paper.

1. The Themes.

The Dehong Dai brocade patterns mostly originated from some scenes of their daily life, and it often depicts some things closely related to life, such as animals, plants, festival scenes and so on, reflecting the living environment, living scenes and living habits of Dehong Dai people. Some themes reflect the Dai people's expectation of a better life, such as the character pattern, which reflects the simple view of life of the Dai people in Dehong, who love their hometown. There are also some themes reflecting the religious beliefs of the Dai people in Dehong area, such as Buddhist temples, Buddha and other patterns related to Southern Buddhism.

2. Design Methods

The ancestors of the Dehong Dai drew design inspiration from nature and daily life. They frequently employed simplified design techniques to abstractly generalize objects while preserving their symbolic characteristics. For instance, octagonal flower motifs retain the eight-petaled structure of anise and are depicted through geometric abstraction.

Dehong Dai brocade patterns frequently achieve a visually stable center of gravity through symmetry and balance. Symmetrical patterns are typically structured around a central

axis or focal point, with identical motifs arranged in the left-right and up-down directions, thereby reflecting formal aesthetic qualities such as rigor, order, and neatness. Balanced patterns, on the other hand, arrange motifs in an evenly distributed manner along both sides of the central line to maintain equilibrium between the left and right directions while introducing visual diversity. These two distinct compositional techniques collectively contribute to the overall smooth, rigorous, and stable visual effect of Dehong Dai Brocade.

3. Expert Review Results

To ensure the trustworthiness of the study, the researcher invited three experts to evaluate the content and results of the study. The experts were experts in Dehong brocade weaving and expert in patterning.

Ms. Lei Anzuo, the intangible cultural heritage inheritor of Dai brocade in Dehong and the head of Dai brocade workshop brocade studio in Dai town, checked the 75 patterns collated in this research. The experts believed that these patterns all belong to the traditional Dai brocade patterns in Dehong Prefecture, and more typical, pattern classification is more reasonable. The experts proposed that the study of pattern names should be included in the future research.

Associate Professor Yao Lihua, an expert in patterning at Baoshan College of Art, Design and Jewelry, examined the research results of Chen Zhifo pattern theory in the article. The expert believes that the research collection method is reasonable, and the data collection is comprehensive. The theory of Chen Zhifo's pattern theory is also suitable for analyzing Chinese folk craft patterns and for finding the design law of patterns. In addition, the experts suggested that color is a more important part of pattern, and the related research of pattern color can be added in future research.

On April 11, 2025, the researcher attended the third academic exchange conference on Dai ethnic culture and history organized by the Dai Ethnic Society of Dehong Prefecture. During the conference, an interview was conducted with Professor Jiang Xiaolin, an expert on Dai ethnic culture history. The expert believed that the relevant content of Dai ethnic culture and history mentioned in this article was relatively accurate.

Discussion

This research identifies additional thematic categories within Dehong Dai brocade. These include: character motifs, geometric motifs, plant motifs, animal motifs, and other motifs.

Past related studies predominantly employed qualitative research methods. This study utilizes a mixed-methods approach to discuss the thematic classification and visual characteristics of Dehong Dai brocade.

Previous studies on visual characteristics primarily examined Dai brocades from the Xishuangbanna region. While researchers categorized their compositions, they did not specify the theoretical frameworks employed. This study applied Chen Zhifo's pattern theory to analyze Dehong Dai brocades. The results indicate that Dehong Dai brocade can be categorized into five main types. The composition of Dehong Dai brocade is composed of separate patterns and continuous patterns. Specifically, the separate patterns include Hua patterns, suitable style and outline style. Continuous patterns have two-way continuous pattern and four-way continuous patterns. Structural analysis reveals two structural frameworks: the regular and balanced. Geometric motifs are mostly regular structural framework, including upright and rotary style. Plant motifs are mostly balanced structural framework, they are regular. The rules for the configuration of the two-way continuous us pattern are scattered style, with the unit pattern either standing on its own upwards or repeating continuously up and down. The rules for the four-square continuous pattern are also scattered style.

As an important part of the Dai artistic heritage, the pattern analysis and study of the Dehong brocade pattern has a multifaceted significance. This study not only deciphers the Dai's traditional aesthetic philosophy through pattern analysis but also contributes to intangible cultural heritage preservation through systematic documentation. Moreover, the established pattern taxonomy offers referential value for contemporary design practices, thereby enhancing the commercial viability of Dehong brocade cultural products.

This research result has broken through the following three points: First, it has enriched the sample of the pattern. Second, new subject matter classifications were proposed. Thirdly, the theory of Chen Zhifo's pattern theory was used for the first time to analyze the visual features of patterns.

Suggestions

The Research Limitations of This Research are Mainly in Three Aspects:

According to the interview results of Dai brocade experts, it can be learned that the data collected by the researchers are mainly traditional Dai brocade patterns in Dehong. In recent years, craftsmen have improved and innovated the brocade patterns and added many new patterns. The researcher is limited by the factors of geography and information, which affects the comprehensiveness of the data.

In the process of pattern data collection, the pictures were taken under natural light environment due to financial constraints. Therefore, affected by chromatic aberration, the researcher was unable to visually analyze the color of the brocade.

The number of relevant studies is limited, which has restricted the comparison and verification of the research.

Future Research Directions Should Focus on Three Dimensions:

Conduct a longitudinal analysis of both historical and contemporary pattern evolution. Perform cross-ethnic comparisons with other brocade traditions. Systematically document weaving techniques through ethnographic fieldwork.

Practically, This Research Provides:

Provides a reference direction for contemporary designers to engage in cultural and creative products and pattern design.

Provides suggestions on the protection of intangible cultural heritage for governmental organizations engaged in the protection of intangible cultural heritage.

Provide resources for the research of national textile art and intangible cultural heritage inheritance.

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