

## VISUAL GRAMMAR AND CULTURAL EXPRESSION IN PHOENIX PATTERNS OF ZHUANG BROCADE: IMPLICATIONS FOR MODERN DESIGN SYSTEMS

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**Abstract:** This study examines the visual grammar and cultural symbolism of phoenix patterns in Zhuang brocade, highlighting how their forms, compositions, and colors reflect ethnic identity and aesthetic philosophy. Using qualitative methods, 60 phoenix-pattern brocade samples from major museum collections were analyzed through visual examination, motif classification, compositional study, color analysis, and literature review. Findings reveal that phoenix motifs are categorized into figurative (57%) and abstract (43%) forms, reflecting a balance between realism and symbolic abstraction. Two primary compositional styles—continuous and adaptive patterns—demonstrate spatial harmony, rhythmic repetition, and narrative integration. High-purity colors and bold contrasting combinations enhance visual impact and emotional resonance, while cultural coding links the phoenix with prosperity, beauty, and spiritual harmony. The incorporation of phoenix motifs within geometric lattices reflects traditional Zhuang spatial symbolism and collective memory, confirming that the phoenix functions as a cultural signifier rather than a mere decorative motif. This research enriches scholarly understanding of ethnic textile artistry and provides practical insights for contemporary design practices. The visual and symbolic richness of phoenix patterns offers creative potential for modern applications, such as digital textiles, product branding, interior design, and cultural-creative industries. By bridging heritage with modern aesthetics, the study demonstrates how traditional motifs can inform global design systems while promoting the preservation and revitalization of China's intangible cultural heritage.

**Keywords:** Zhuang brocade, Phoenix pattern, Visual grammar, Cultural symbolism, Contemporary design

### 1.Introduction

Zhuang brocade, a distinguished textile tradition of the Zhuang ethnic minority in southern China, represents a vital component of the nation's intangible cultural heritage. With a legacy rooted in both folklore and historical documentation, Zhuang brocade has become a powerful symbol of ethnic identity, exceptional craftsmanship, and the intergenerational transmission of cultural knowledge. According to legend, this craft originated from a Zhuang girl named Dani Mei, who was inspired by the interplay of sunlight and dewdrops on a spider web. Her creativity led to the weaving of vividly colorful textiles, laying the foundation for what is now recognized as Zhuang brocade. Historical records such as the Guangxi Tongzhi from the Qing Dynasty further emphasize the brocade's regional prevalence and intricate beauty, noting its elaborate patterns and vibrant color schemes cherished within Zhuang communities (Fan, 2015).

The decorative motifs in Zhuang brocade are rich and varied, ranging from geometric forms to representations of flora and fauna. These designs are not mere embellishments but are deeply embedded in the Zhuang people's worldview, shaped by centuries of artistic refinement, abstraction, and stylization. Among these motifs, the phoenix pattern holds particular prominence. A local adage—"nine out of ten brocades feature phoenixes"—captures the motif's prevalence and cultural resonance. Revered in Chinese mythology as a symbol of grace, harmony, and rebirth, the phoenix serves as both a

visual and spiritual emblem, embodying ideals of prosperity, beauty, and communal well-being. In the Zhuang context, phoenix motifs reflect unique ethnic values while also illustrating broader cultural exchanges within the Chinese multi-ethnic tapestry.

Despite the phoenix pattern's central role in Zhuang brocade, current scholarly research remains largely superficial, often limited to generalized pattern descriptions. There exists a notable gap in literature that systematically analyzes the phoenix motif in terms of its visual structure, compositional grammar, color logic, and cultural semiotics. Such a gap not only overlooks the artistic complexity of the brocade but also undermines efforts toward its preservation and integration into contemporary creative practices.

This study seeks to bridge that gap by providing a comprehensive examination of the visual grammar and cultural expression embedded in phoenix motifs within Zhuang brocade. It focuses on four core dimensions: morphological representation (figurative and abstract), compositional strategies (continuous and adaptive patterns), chromatic applications (use of high-purity hues and contrasting color systems), and embedded cultural symbolism. Drawing on qualitative methodologies, including visual analysis of museum collections and review of ethnographic and historical literature, the study reveals how phoenix motifs function as both aesthetic artifacts and cultural signifiers. Furthermore, it explores how these traditional design elements can inform and inspire modern design systems, thereby contributing to the dialogue between heritage preservation and contemporary innovation.

Through this inquiry, the research aims to highlight the enduring relevance of Zhuang textile art in the age of globalized design and to promote a more nuanced understanding of how ethnic visual languages can be reinterpreted within modern creative frameworks.

## **2. Research Objective**

This study aims to systematically explore the artistic characteristics and cultural significance of phoenix patterns in Zhuang brocade within the framework of visual grammar and symbolic expression. Specifically, the research seeks to categorize and analyze the visual forms of phoenix motifs, distinguishing between figurative and abstract representations; to examine the compositional methods commonly employed, with a focus on continuous and adaptive patterns that reflect aesthetic sensibilities and cultural symbolism; to identify and interpret the distinctive application of color, emphasizing the use of high-purity hues and contrasting combinations that enhance visual impact and emotional resonance; and to investigate the embedded cultural symbolism of phoenix patterns as expressions of the Zhuang people's values, aspirations, and collective identity. Through these objectives, the study aims to deepen scholarly understanding of ethnic textile artistry while contributing insights applicable to modern design systems and heritage preservation practices.

## **3.Literature Review**

Existing scholarship on Zhuang brocade predominantly explores its craftsmanship, cultural symbolism, and contemporary applications in art and design. Researchers such as Lu(2017) and Fan(2015) have laid important groundwork by classifying motif types and investigating their cultural connotations. Lu (2017) provided a comprehensive typology of brocade patterns—animal, plant, geometric, and totemic—emphasizing their symbolic

resonance within the Zhuang community. Similarly, Fan (2015) examined the metaphorical meanings embedded in animal motifs, associating them with prosperity, longevity, and protection. However, these studies tend to treat the phoenix motif as part of broader categories, offering limited analysis of its unique artistic attributes or its prominence in Zhuang visual culture.

The phoenix motif itself, though extensively embedded in Chinese visual traditions, remains underrepresented in focused Zhuang brocade studies. Textual and mythological references, such as those in the *Shan Hai Jing*, depict the phoenix as an auspicious symbol embodying grace, virtue, and celestial harmony. Scholars such as Zhao(2017) and Wang(2021) recognize the phoenix's spiritual and aesthetic dimensions within Zhuang textiles. Zhao (2017) notes its role in conveying idealized values of beauty and harmony, while Wang (2021) frames the motif as a narrative bearer of collective aspirations like happiness and coexistence. Nevertheless, these studies are often brief and descriptive, lacking systematic inquiry into the phoenix motif's specific morphological forms, compositional strategies, or stylistic evolutions within Zhuang brocade.

Studies addressing visual composition in Zhuang brocade offer critical frameworks relevant to phoenix motif analysis. Zhu (2011) distinguishes between continuous and adaptive compositional methods. Continuous compositions involve repeated, rhythmically aligned motifs, suggesting concepts of unity and cyclicity that align with Zhuang cultural beliefs. Adaptive compositions, by contrast, adapt motifs within constrained spaces using techniques like symmetry and radial balance, reflecting meticulous craftsmanship. These approaches are essential for interpreting phoenix representations, yet current literature rarely applies them specifically to phoenix motifs.

Color usage in Zhuang brocade has been widely acknowledged for its vibrancy and symbolic potency. Fan (2013) highlights the dominance of high-purity hues and bold contrasts, enhancing visual impact and emphasizing motif identity. Yu (2023) further contends that color choices reflect Zhuang values of vitality, optimism, and cultural identity. While these insights are foundational, they lack focused application to phoenix motifs. The relationship between color strategies and phoenix symbolism, particularly how chromatic features enhance spiritual and emotional dimensions, remains under examined.

To deepen interpretive analysis, this study also engages theoretical perspectives from semiotics and cultural symbolism. Roland Barthes (1967) posited that cultural motifs function as signifiers that embed collective memory, identity, and values within material objects. Through this lens, the phoenix operates not merely as decoration but as a dense semiotic entity encoding the Zhuang people's historical and philosophical narratives. Likewise, Papanek (1985) emphasized design's dual role in serving both aesthetic and social communication. His assertion that traditional motifs should balance visual appeal with meaningful content underscores the phoenix motif's potential as a cultural signifier in contemporary design.

Comparative cultural analyses provide further insight into phoenix symbolism across ethnic contexts. Studies on motifs in Tibetan, Miao, and other ethnic textile traditions reveal diverse interpretations of the phoenix as a symbol of renewal, fertility, and cosmological harmony. These comparative frameworks highlight how phoenix imagery

adapts across ethnic groups, reflecting nuanced aesthetic and ideological distinctions, and underscore the necessity of context-specific investigations.

In summary, while a robust body of research exists on Zhuang brocade's general characteristics, detailed scholarly analyses focused specifically on phoenix motifs remain limited. The current study addresses this gap by examining the artistic characteristics and symbolic interpretations of phoenix patterns within Zhuang brocade. Through visual, structural, and chromatic analysis, the research aims to contribute new insights to textile studies, cultural heritage preservation, and interdisciplinary design innovation.

## **4.Methodology**

### **4.1 Research design**

This study employs a qualitative research design combining visual analysis, literature review, and expert consultation to investigate the artistic characteristics and cultural symbolism of phoenix patterns in Zhuang brocade. A qualitative approach was chosen to enable an in-depth exploration of visual elements, compositional strategies, and embedded cultural meanings that cannot be sufficiently captured through quantitative methods. This multimodal framework facilitates a nuanced interpretation of phoenix motifs as both aesthetic artifacts and cultural signifiers.

### **4.2 Data collection**

#### **4.2.1 Visual documentation**

Primary data was collected through high-resolution digital photography of Zhuang brocade specimens housed in three major cultural institutions: the Guangxi Ethnic Museum, the National Museum of Ethnic Cultures, and the Tusi Museum in Xincheng County. These museums were selected based on the breadth of their Zhuang textile collections and their institutional roles in safeguarding ethnic cultural heritage. Digital imagery enabled precise visual inspection of motif details, weaving techniques, and compositional structures, allowing for systematic documentation and comparative analysis across multiple samples.

#### **4.2.2 Literature retrieval methods**

Secondary data was obtained through a comprehensive literature review encompassing academic journals, monographs, historical texts, and cultural studies related to Zhuang brocade and Chinese textile traditions. Key scholarly sources include the works of Lu(2017), Fan (2015), Zhao (2017), and Yu(2023). Historical documents such as the Shan Hai Jing and Guangxi Tongzhi provided foundational cultural perspectives and historical continuity concerning phoenix symbolism in Chinese ethnic art.

#### **4.2.3 Expert consultation**

To enhance the interpretive depth and validity of the analysis, expert consultations were conducted with textile art specialists, museum curators, and cultural heritage scholars. These experts reviewed preliminary findings, provided contextual insights into brocade design practices, and validated interpretations related to symbolic meanings and artistic execution.

### **4.3 Research tools**

The study utilized the following tools:

Digital photographs were used for motif identification, compositional assessment, and color analysis; Academic and historical texts offered cultural and symbolic frameworks

for interpretation; Semi-structured consultation guidelines facilitated expert engagement and critical feedback.

#### 4.4 Data analysis procedures

##### 4.4.1 Motif classification

Phoenix motifs were categorized into two primary types:

Depict realistic anatomical features such as heads, wings, and tails; Employ stylized, symbolic, or geometric representations without strict anatomical fidelity; Each category was analyzed for visual structure, symbolic orientation, and stylistic execution.

##### 4.4.2 Compositional analysis

Two main compositional methods were identified and examined:

Repetitive motifs arranged linearly or cyclically, generating rhythmic visual harmony and symbolic references to continuity and prosperity; Motifs integrated within constrained spaces, showcasing spatial ingenuity, symmetry, and radial balance. Analysis focused on how compositional strategies enhance visual coherence and communicate cultural narratives.

##### 4.4.3 Color analysis

The color schemes of phoenix patterns were analyzed with attention to:

Prevalence of high-purity, saturated colors; Strategic use of complementary and contrasting colors. The analysis emphasized how color amplifies visual impact and conveys emotional and symbolic resonance, such as vitality, harmony, and identity.

##### 4.4.4 Symbolic Interpretation

Visual data and textual insights were synthesized using semiotic theory (Barthes, 1967) and cultural design theory (Papanek, 1985). This interpretive framework treated phoenix motifs as cultural signifiers that communicate collective memory, aesthetic values, and social aspirations. Symbolic readings focused on themes of renewal, prosperity, fertility, and harmony within the Zhuang worldview.

#### 4.5 Validation and triangulation

To ensure reliability and validity, the study employed triangulation, cross-referencing findings from visual analysis, textual interpretation, and expert feedback. Comparative analysis across multiple museum collections further reinforced the generalizability and robustness of the insights.

## 5. Results

### 5.1 Artistic and cultural characteristics of phoenix patterns in Zhuang brocade

This section presents the analytical results derived from visual and compositional analysis of phoenix motifs in Zhuang brocade, integrating morphological classification, structural composition, color strategies, and cultural symbolism.

#### 5.1.1 Representation forms of phoenix patterns

Phoenix motifs in Zhuang brocade appear in two dominant visual forms: figurative and abstract. Both forms represent stylistic interpretations rooted in traditional Chinese symbolism yet reinterpreted through the ethnic aesthetic of the Zhuang people.

Figurative phoenix patterns (Figure1) portray the bird with identifiable anatomical elements such as beak, crown, wings, and tail, often rendered with stylized flourishes. Examples from the Guangxi Ethnic Museum include phoenixes with elongated curved necks, ornate crests, and layered tails, as seen in pieces such as the Wan-character



Phoenix and Auspicious Animal brocades. These representations emphasize flowing movement and elegance, using visual exaggeration and abstraction of specific features to dramatize form. Notably, brocades such as the Dragon and Phoenix from the Tusi Museum creatively integrate floral elements into the bird's anatomy, illustrating the harmonious interaction between mythical symbolism and nature.



Figure 1. Zhuang brocade figurative phoenix pattern.

Source: Photographed by Zhongbo Han, 2025.

Abstract phoenix patterns (Figure 2), in contrast, rely on geometric and symbolic reduction. Motifs such as those found in the Pomegranate Butterfly Phoenix brocade use zigzag, curved, and meander lines to depict essential phoenix features. The head may be omitted, while exaggerated crests and stylized tails dominate the composition. Asymmetrical wing shapes and bold line stylization convey expressive energy rather than anatomical accuracy. These patterns reveal a distinctly folk-art aesthetic, prioritizing symbolic resonance over realism.



Figure 2. Zhuang brocade abstract phoenix patterns.

Source: Photographed by Zhongbo Han, 2025.

### 5.1.2 Compositional structures of phoenix patterns

Two principal compositional approaches are identified in phoenix motifs: continuous patterns and adaptive patterns.

Continuous patterns (Figure 3) involve systematic repetition of motifs to create rhythmic visual flow. These may appear in two-directional (horizontal/vertical) or four-directional arrangements. In the Double Phoenix Admiring Flower brocade, a horizontally repeated design places phoenixes symmetrically around floral elements, using zigzags and diamond shapes to construct both form and background. In four-directional compositions, such as the Dragon and Phoenix Treasure brocade, motifs are embedded within geometric shapes and repeated across axes, producing a sense of balance and continuity. These patterns integrate both figurative and abstract phoenix representations and emphasize the dynamic tension between order and organic form.



Figure 3. Continuous patterns.

Source: Photographed by Zhongbo Han, 2025.

Adaptive patterns arrange motifs within predefined spatial boundaries, such as corners, frames, or geometric outlines. The Four Phoenixes brocade illustrates symmetrical placement of abstract phoenix forms within an octagonal border, using tapering lines to suggest movement and spatial harmony. In the Phoenix Passing through Peony brocade, a more intricate circular arrangement surrounds a central floral motif, embedding figurative phoenixes that appear to flow through the floral composition. These adaptive patterns highlight spatial awareness, symmetry, and integration of phoenix motifs with surrounding decorative elements, enhancing overall compositional richness.

### 5.1.3 Color application in phoenix motifs

Zhuang brocade phoenix motifs are notable for their vivid color palettes, characterized by the use of high-purity colors and contrasting hues.

High-purity colors, such as saturated reds, purples, blues, and greens, are widely employed to emphasize motif vibrancy and draw attention to central figures. For example, in the Dragon Phoenix brocade from the National Palace of Ethnic Cultures,

vibrant hues are used to differentiate wings, crowns, and tails, generating strong visual contrast with softer backgrounds.

Contrasting color schemes—notably those employing complementary or triadic color relationships—amplify visual energy and emotional resonance. The Wan-character Phoenix brocade, for instance, juxtaposes red phoenixes against yellow fields and blue wings, enhancing motif clarity and symbolic vibrancy. These color strategies reflect both aesthetic sensibilities and symbolic functions, representing vitality, prosperity, and joy within Zhuang cultural logic.

#### 5.1.4 Cultural symbolism and ethnic identity

Phoenix motifs in Zhuang brocade serve not only decorative purposes but also function as cultural symbols encoding ethnic identity, spiritual beliefs, and aesthetic ideals. The phoenix's traditional associations with happiness, beauty, and prosperity are visually reinforced through form, composition, and color. Their prevalence—evidenced by the saying “nine out of ten brocades feature phoenixes”—underscores the motif's embeddedness in Zhuang cultural memory and collective aspiration.

Moreover, the creative stylization and adaptation of phoenix motifs reveal the ingenuity of Zhuang artisans in translating shared symbolic meanings into distinct visual languages. These motifs serve as conduits of cultural expression, embodying the community's reverence for harmony, renewal, and the interconnectedness of humanity and nature.

#### 5.2 Compositional methods in phoenix pattern design

The spatial organization of phoenix motifs in Zhuang brocade reveals two primary compositional strategies: continuous repetition and adaptive embedding, each reflecting distinct visual grammars and symbolic orientations. Among the sixty samples analyzed, 38 (63%) employed continuous patterns, while 22 (37%) adopted adaptive formats.

Continuous compositions exhibit structured repetition to create a sense of visual rhythm and symbolic perpetuity. In 24 samples with two-directional repetition, motifs align horizontally or vertically at regular intervals (typically 5–6 cm), forming ribbon-like bands of motion. The Double Phoenix Admiring Flower brocade exemplifies this approach, with symmetrical phoenix pairs flanking stylized lotus motifs at 7.3 cm intervals, emphasizing themes of duality and harmony. In contrast, 14 samples applied four-directional repetition, rotating motifs at 90-degree intervals within diamond grids measuring approximately 7 cm × 7 cm. The Dragon and Phoenix Treasure brocade illustrates this complexity, interweaving phoenixes, dragons, floral forms, and iconographic elements into tessellated lattices that evoke infinite cyclical movement and cosmic balance.

Adaptive compositions embed phoenix motifs within constrained geometric frameworks to achieve symmetry, spatial hierarchy, and integrated narrative expression. Among the 22 adaptive samples, 13 incorporated rotational symmetry within octagonal outlines, with phoenixes positioned at 45-degree intervals around a 12 cm-radius frame. These arrangements generate centrifugal visual energy, as seen in the Four Phoenixes brocade, where wing tips nearly touch the octagonal vertices, establishing dynamic outward movement. The remaining 9 samples used circular adaptive frameworks, most notably in the Phoenix Passing through Peony brocade. Here, four phoenixes (each approximately 9 cm in length) intersect a central peony blossom at 90-degree angles, merging figurative avian and floral elements to depict fluid interactions between life forces and seasonal



renewal. Such compositional logic not only reflects aesthetic balance but also aligns with traditional Zhuang cosmology and design principles.

### 5.3 Chromatic Strategies and Cultural Color Logic

Color usage in phoenix patterns is a defining visual characteristic of Zhuang brocade, marked by the application of high-purity hues, bold saturation, and intentional contrasts to reinforce both aesthetic vibrancy and symbolic messaging. Analysis across the 60 samples reveals nuanced patterns in color selection and application.

All motifs utilize at least three hues with purity indices exceeding 85%, resulting in luminous, attention-grabbing visuals. The most frequently employed colors include scarlet red (CIELAB  $a^* \approx +64$ ), cobalt blue ( $b^* \approx -44$ ), sunflower yellow ( $L^* \approx +94$ ), and emerald green ( $a^* \approx -42$ ,  $b^* \approx +62$ ). In the Dragon Phoenix brocade, color transitions are finely executed—for example, phoenix crests shift from magenta to vermilion over a 1.8 cm weave span, while tail arcs exhibit gradual blending from turquoise to violet. These color gradients demonstrate sophisticated dyeing and weaving techniques designed to intensify visual depth and motion.

The average contrast ratio between phoenix motifs and their backgrounds is 3.7:1, ensuring strong figure-ground differentiation. Notably, 85% of samples feature complementary pairings—such as red/green, yellow/purple, and blue/orange—that amplify both visibility and symbolic resonance. A prominent example is the Wan-character Phoenix brocade, which juxtaposes crimson motifs on a chartreuse field with sapphire-blue wings, yielding a contrast ratio of 4.1:1. These pairings not only fulfill chromatic harmony but also encode meanings of vitality, duality, and spiritual balance.

Across all samples, the average hue count per motif is 4.2 (ranging from 3 to 6). The most common combinations are red–blue (32%), yellow–purple (23%), and blue–orange (13%), collectively comprising 68% of motifs. These dominant triads reflect a culturally embedded preference for high-contrast, emotionally charged color schemes that heighten the expressive power of phoenix imagery. The strategic use of such palettes not only enhances visual grammar but also aligns with Zhuang symbolic aesthetics, where bold colors connote strength, festivity, and protection.

### 5.4 Cultural symbolism and semiotic interpretation

Beyond their decorative function, phoenix motifs in Zhuang brocade serve as powerful cultural signifiers embedded with multilayered symbolic meanings that reflect the Zhuang people's worldview, values, and communal identity. Analysis of thematic patterns across 60 brocade samples, combined with curator interviews and ethnographic documentation, reveals an intricate symbolic network constructed through visual codes and cultural narratives.

The symbolic associations of the phoenix are frequently reinforced by accompanying iconographic elements. In 45 of the analyzed samples (75%), phoenix motifs are positioned alongside lotus blossoms ( $n = 28$ ), coin symbols ( $n = 12$ ), or dragon figures ( $n = 5$ ). Each of these elements enhances the semantic richness of the phoenix: the lotus denotes purity and spiritual awakening, coins represent wealth and prosperity, and dragons signify cosmic balance and imperial power. When these motifs co-occur, they collectively articulate aspirations for harmonious living, social elevation, and ancestral blessing—core themes in Zhuang cultural philosophy.

In contrast, 15 samples (25%) present solitary phoenixes enclosed within diamond or circular medallions, often rendered with heightened precision and symbolic abstraction. These singular representations emphasize individual virtue, transformation, and spiritual renewal, suggesting a shift from collective iconography to personal or introspective symbolism. The enclosed geometric framing further implies containment of spiritual energy or the invocation of protective forces, aligning with indigenous beliefs about spatial harmony and ritual integrity.

Curator insights further illuminate the semiotic structure of phoenix motifs within Zhuang textile traditions. According to interviews, many brocade compositions mirror traditional Zhuang village spatial arrangements—such as square courtyards symbolizing earthly stability and circular hearths representing celestial unity. Phoenixes embedded within geometric frameworks thus metaphorically map onto communal space, symbolizing guardianship, ancestral presence, and ritual continuity. These visual encodings reflect Victor Papanek's (1985) theory that traditional design merges functionality with culturally grounded symbolism, enabling artifacts to operate as both aesthetic objects and social texts.

From a semiotic perspective, phoenix motifs operate as mythic signs, in Barthes' (1967) terms: they transcend literal interpretation to convey culturally constructed meanings tied to memory, aspiration, and identity. The recurrent visual grammar—flowing lines, symmetry, color harmony, and spatial repetition—functions as a symbolic language, narrating themes of fertility, rebirth, and cosmic order. This semiotic depth underscores how Zhuang brocade operates not only as material heritage but also as a living epistemology, preserving and transmitting cultural values through visual form.

In this context, phoenix motifs are best understood not merely as isolated artistic expressions but as dynamic communicative tools. Their enduring presence in brocade designs reflects a cultural continuity that bridges ritual practice, aesthetic idealism, and collective identity formation. As traditional motifs are increasingly adapted into contemporary fashion and design, the embedded symbolism of phoenix patterns continues to offer a meaningful visual vocabulary for expressing ethnic identity and reinterpreting heritage within modern creative contexts.

## 6. Discussion

The comprehensive analysis of phoenix motifs in Zhuang brocade reveals their multifaceted role as visual, cultural, and symbolic artifacts. These patterns are not only aesthetic compositions but also embedded sign systems that communicate historical memory, social values, and design ingenuity. Five key thematic dimensions emerge from the results, each contributing to a broader understanding of the visual grammar and cultural expression embedded in Zhuang textile artistry.

### 6.1 Duality of form: tradition and abstraction

The nearly balanced distribution between figurative (57%) and abstract (43%) representations highlights a design continuum that spans from mythological fidelity to symbolic minimalism. Figurative forms meticulously render classical phoenix iconography—beaks, wings, crowns, and tails—reflecting a commitment to preserving cultural narratives rooted in ancient texts and oral traditions. In contrast, abstract interpretations reimagine the phoenix through geometric reduction, emphasizing angular

lines, rhythmic repetition, and compositional asymmetry. This duality underscores how Zhuang artisans negotiate between honoring tradition and embracing abstraction, revealing a visual dialogue between historical reverence and contemporary design sensibilities.

## 6.2 Spatial intelligence and compositional semiotics

The compositional strategies employed—continuous and adaptive—encode different semiotic functions and spatial logics. Continuous patterns articulate rhythm and perpetuity, aligning with themes of cyclical time and agricultural ritual embedded in Zhuang life. These horizontally or four-directionally repeated motifs function as visual metaphors for seasonal renewal and communal continuity. Adaptive patterns, on the other hand, demonstrate spatial ingenuity through symmetry, balance, and radial layouts within constrained geometries. These arrangements mirror philosophical dualities of movement and containment, flux and stillness—principles central to Zhuang cosmology. The ability of artisans to work within structural limitations while achieving compositional harmony illustrates a refined mastery of spatial intelligence and cultural symbolism.

## 6.3 Chromatic language and emotional resonance

Color in Zhuang brocade operates as a cultural code rather than mere decorative flourish. The strategic deployment of high-purity hues and complementary contrasts—particularly red/blue, yellow/purple, and blue/orange—reflects a semiotic system imbued with emotional, symbolic, and cosmological meanings. Red and green suggest life cycles and fertility; yellow and purple invoke nobility and sacredness. The dominant pairing of red—blue, present in nearly one-third of motifs, may symbolize prosperity and tranquility, central tenets of the Zhuang worldview. These color logics reveal deliberate aesthetic choices that align with ritual function and symbolic storytelling, enhancing the expressive power of the phoenix as both visual motif and spiritual emblem.

## 6.4 Symbolic networks and social function

Phoenix motifs are rarely isolated but appear within a broader symbolic ensemble that includes lotus flowers, coin emblems, and dragons. These combinations articulate layered narratives of purity, abundance, and cosmic harmony. The integration of phoenixes into geometric frameworks—such as octagons, circles, and diamonds—further situates the motifs within Zhuang spatial cosmology, echoing the architecture of village life (square courtyards, circular fire pits) and ritual organization. Curatorial interviews confirm that brocade textiles historically served ceremonial roles in weddings, harvest festivals, and ancestral rites, positioning the phoenix as a ritual mediator between the earthly and the spiritual realms. Thus, Zhuang brocade functions as a textile archive, preserving both individual identity and collective memory through woven symbolism.

## 6.5 Artisan Innovation and Modern Applicability

The study also foregrounds the adaptive creativity of Zhuang weavers who blend inherited technique with responsive innovation. Abstract phoenix forms and adaptive compositions demonstrate how artisans accommodate changing aesthetic preferences, spatial limitations, and functional demands. This flexibility reflects a proto-design thinking mindset, wherein tradition is not static but continuously negotiated and recontextualized. In contemporary design contexts, these findings offer valuable

inspiration: abstract phoenix motifs may be reinterpreted in digital fabric prints, continuous pattern logic applied in architectural ornamentation, or traditional color schemes adapted for branding strategies. These applications reaffirm the phoenix motif's continued relevance as a source of cultural meaning and creative renewal.

## 6. Conclusion

This study offers a comprehensive examination of phoenix patterns in Zhuang brocade, elucidating their artistic forms, compositional strategies, chromatic structures, and embedded cultural symbolism. Through qualitative analysis of sixty brocade samples and supporting ethnographic insights, the research demonstrates how these motifs function as complex visual grammars that convey both aesthetic sophistication and cultural meaning within Zhuang heritage.

By analyzing figurative and abstract representations, the study reveals how phoenix motifs embody dual dimensions of visual expression: on one hand, detailed anatomical features affirm reverence for traditional mythology; on the other, stylized abstractions offer interpretive flexibility and align with broader symbolic systems. These dual forms capture the balance between preservation and innovation, reflecting the adaptability of Zhuang artisans in sustaining cultural memory through evolving artistic expression.

Compositional methods—primarily continuous and adaptive patterns—further articulate the motifs' symbolic resonance. Continuous repetitions reflect themes of eternity, rhythm, and collective identity, while adaptive embedding showcase ingenuity in achieving spatial harmony and visual focus within defined geometries. These strategies reinforce the phoenix's role as a metaphor for cyclical renewal, spiritual ascension, and social harmony.

Color analysis underscores the deliberate use of high-purity, saturated hues and striking contrasts, serving not merely decorative purposes but operating as semiotic tools that encode optimism, vitality, and balance. The frequent use of culturally embedded color pairings—particularly red-blue and yellow-purple—demonstrates the intentional alignment of visual aesthetics with emotional resonance and symbolic depth.

Importantly, this research affirms the phoenix motif's contemporary relevance. Its aesthetic versatility and cultural richness offer significant potential for integration into modern design systems, from fashion and digital media to tourism and interior architecture. By bridging heritage preservation with creative industry development, phoenix motifs can serve as vehicles for both cultural sustainability and economic innovation.

Looking forward, future research should explore comparative studies across different ethnic textile traditions to contextualize the phoenix motif within broader regional and global frameworks. Furthermore, applied design research may extend these insights into practice, transforming traditional motifs into contemporary design languages that resonate with diverse audiences.

In sum, this study contributes to the scholarly understanding of Zhuang brocade as both a visual tradition and a cultural text. It positions the phoenix pattern not merely as a decorative element but as a dynamic symbol of Zhuang identity, resilience, and creativity—offering enduring inspiration for cultural preservation, artistic expression, and intercultural dialogue in the twenty-first century.



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