

Modern Translation Mechanism of Tiger-Head Shoes and Hats in Textile Design from the Perspective of Cultural DNA

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Abstract: As a quintessential representation of Chinese folk art, tiger-head shoes and hats embody cultural connotations of blessing and warding off evil, alongside exquisite craftsmanship. Their cultural DNA, encompassing symbolic forms, color systems, and artisanal wisdom, provides abundant creative resources for modern textile design. This paper adopts the cultural DNA theory as its core perspective. Through a combination of literature review, case analysis, and design practice, it systematically examines the composition of the cultural DNA of tiger-head shoes and hats. It analyzes the practical challenges and core demands in their modern translation within textile design, constructing a four-stage translation mechanism of “DNA Extraction – Semantic Decoding – Design Reconstruction – Application Realization.” The feasibility and effectiveness of this mechanism are validated through design practice. This research aims to provide theoretical support and practical pathways for the modern design transformation of traditional folk art, promoting the enhancement of cultural depth and innovative development in textile design.

Keywords: Tiger-head Shoes and Hats; Cultural DNA; Textile Design; Modern Translation; Mechanism Construction.

1. Chapter One: Introduction

1.1. Research Background and Significance

Traditional folk art serves as a vital carrier of the cultural DNA of the Chinese nation. Tiger-head shoes and hats, widely used as infant attire and accessories from the Yellow River Basin to the Jiangnan region, integrate techniques such as embroidery, piping, and sole stitching. Their exaggerated and vivid forms, intense and bright colors, and profound auspicious symbolism represent a concentrated expression of folk aesthetics and life philosophy [9]. Within the contemporary context of cultural confidence and intangible cultural heritage (ICH) revitalization, the modern transformation of traditional folk art has become a significant topic in design [7]. However, current applications of tiger-head shoes and hats in textile design often remain superficial, characterized by simple element appropriation, a lack of deep cultural interpretation, monotonous translation forms, and disconnection from modern aesthetics and functionality. The core value of their cultural DNA has not been fully realized.

Theoretical Significance: Constructing a modern translation mechanism for the cultural DNA of tiger-head shoes and hats enriches the application of cultural DNA theory in textile design, refines the theoretical framework for the modernization of traditional folk art, and provides methodological reference for the design-led revitalization of similar ICH projects [11].

Practical Significance: Through systematic DNA extraction and translation, this research integrates the cultural essence of tiger-head shoes and hats with the aesthetic and functional demands of modern textile design. It aims to develop textile products that balance cultural significance with practicality, thereby enhancing the cultural added value of textile design and fostering the creative transformation and innovative development of folk art resources [12].

1.2. Research Status: Domestic and International

Domestic academic research on tiger-head shoes and hats primarily focuses on folklore and art studies, emphasizing historical origins, folk symbolism, and documentation of craft techniques [9]. Within the design field, related studies often concentrate on the extraction and application of singular elements, such as simplified tiger-head motifs or color palette [2]. There is a notable lack of in-depth research into the systematic deconstruction of cultural DNA and the development of comprehensive translation mechanisms, resulting in insufficient and practical guidance for textile design [1].

Internationally, research on the modern translation of folk art began earlier. Supported by theories such as cultural semiotics and design anthropology, relatively mature translation methodologies have been developed, such as Japan’s “Traditional Craft Revitalization Projects” and Nordic “Modernization of Folk Motifs in Design.” However, these international studies are largely based on their own cultural contexts and have limited understanding of the cultural DNA of Chinese folk art [6]. Consequently, their findings are difficult to directly apply to the practice of translating tiger-head shoes and hats into textile design [8].

2. Chapter Two: Core Concepts and Theoretical Foundations

2.1. Definition of Core Concepts

Tiger-Head Shoes and Hats: Traditional Chinese folk accessories and attire for infants and young children, featuring the tiger head as the central motif. This category includes tiger-head hats, shoes, and pillows, crafted through techniques like embroidery, appliqué, and stuffing. They carry folk beliefs of warding off evil and disaster and praying

for blessings and longevity, representing a perfect fusion of folk art and daily life needs [9].

Cultural DNA: Refers to the core elements within traditional culture that are inheritable, stable, and emblematic—serving as the “genetic code” of national culture. This includes tangible aspects such as symbols, techniques, and forms, as well as intangible aspects like values, folk symbolism, and aesthetic sensibilities. Cultural DNA is characterized by recognizability, inheritability, and transformability [3].

Modern Translation in Textile Design: The process of transforming traditional cultural DNA—through extraction, decoding, and reconstruction—into a textile design language that aligns with modern aesthetic trends, functional requirements, and technical conditions. It aims to achieve an organic integration of traditional culture and modern design, preserving cultural essence while reflecting contemporary characteristics [11].

2.2. Theoretical Foundations

Cultural DNA Theory: Originating from the biological concept of genes, this theory posits that cultural inheritance and evolution follow patterns analogous to genetic transmission. It provides a theoretical basis for extracting, classifying, and transmitting the cultural elements of tiger-head shoes and hats. This aids in the precise identification of core cultural DNA and helps avoid cultural distortion during the translation process [3].

Semiotic Theory: Views all cultural phenomena as systems of signs, where meaning is conveyed through the relationship between the signifier and the signified. In the modern translation of tiger-head shoes and hats, forms, colors, and patterns can be treated as cultural signs. Through the deconstruction, recombination, and recoding of these signs, modern conveyance of cultural meaning can be achieved [6].

Modern Textile Design Theory: Emphasizes the unity of aesthetics, functionality, and innovation, focusing on the integration of materials, techniques, technology, and design concepts. This theory provides technical support and design direction for translating the cultural DNA of tiger-head shoes and hats. It ensures that translated designs meet both the production requirements of modern textile products and the usage needs and aesthetic preferences of consumers [12].

3. Chapter Three: Analysis of the Cultural DNA Composition of Tiger-Head Shoes and Hats

3.1. Symbolic DNA: Cultural Encoding of Form and Pattern

The core symbolic form of tiger-head shoes and hats is the tiger-head motif. Its design follows the folk aesthetic principle of “exaggeration and stylization”: a full, round head symbolizing vitality and vigor; large, round, spirited eyes implying warding off evil and disaster; a wide-open mouth with visible fangs enhancing a sense of deterrence; and upright or drooping ears, creating a lively and endearing form [9]. Furthermore, specific features like the brim and crown of the hat, or the toe and upper of the shoe, possess distinct iconic qualities, forming a comprehensive formal DNA system for tiger-head shoes and hats [8].

The auxiliary pattern symbols are rich and varied, predominantly consisting of flora, fauna, and geometric

shapes with auspicious connotations [1]. Animal motifs include fish symbolizing “abundance year after year”, butterflies “fortune at the doorstep”, and bats “fortune arrives”. Plant motifs include lotus “purity and good fortune”, peony “wealth and honor”, and mugwort “warding off evil and disaster”. Geometric patterns include fret patterns “endless continuity”, cloud patterns “auspiciousness and good fortune”, and water wave patterns “smooth sailing” [6]. These patterns work in conjunction with the tiger-head motif, collectively constituting the symbolic DNA system [2].

3.2. Color DNA: Folk Symbolism in the Color System

The primary color palette of tiger-head shoes and hats centers on red, yellow, and black, each carrying distinct folk symbolism [4]. Red symbolizes celebration, good fortune, and warding off evil, commonly used in folk attire to signify protection and healthy growth for infants. Yellow symbolizes nobility, warmth, and harvest, reflecting aspirations for a prosperous life. Black symbolizes solemnity, majesty, and expelling evil, often used to outline the tiger head’s features, enhancing the form’s three-dimensionality and powerful presence [1].

The color scheme follows the principle of “strong contrast, harmonious unity” [4]. Complementary or contrasting color pairings such as red/green, yellow/blue, and black/white create striking visual impact. Simultaneously, harmony is achieved through variations in value, chroma, and adjustments in proportional area [5]. This approach to color aligns with folk aesthetic tastes and embodies traditional cultural concepts like “the mutual generation of the Five Elements” [1].

3.3. Technique and Meaning DNA: Craft Heritage and Spiritual Core

The technique DNA of tiger-head shoes and hats is manifested in traditional handcraft skills such as embroidery, piping, sole stitching, appliqué, and stuffing [9]. Embroidery techniques include flat stitch, seed stitch, and gold couching, characterized by fine, dense stitches and intricate patterns. Piping ensures neat and sturdy edges, enhancing durability. Sole stitching employs cross-stitch or parallel stitching, providing both strength and decorative appeal [2]. These techniques are not merely production methods but also carriers of cultural transmission, embodying the artisan spirit of folk craftspeople [12].

The meaning DNA originates from traditional Chinese “tiger worship” and praying for blessings beliefs [8]. Core symbolic meanings include warding off evil and disaster, praying for blessings and longevity, and auspiciousness and wealth [9]. The tiger, as the “king of beasts,” is believed to possess divine power to ward off evil and protect the home. Applying the tiger-head motif to infant attire symbolizes protecting the child from illness and misfortune [6]. Furthermore, the incorporation of other auspicious patterns conveys elders’ hopes for the child’s healthy growth, prosperity, and good fortune [1].

4. Chapter Four: Practical Challenges and Core Demands in the Modern Translation of Tiger-Head Shoes and Hats in Textile Design

4.1. Practical Challenges in Modern Translation

Current applications often resort to superficial copying and pasting of elements, such as directly printing tiger-head patterns onto fabrics [2]. This approach lacks in-depth excavation and communication of cultural meanings and symbolic connotations, resulting in designs with insufficient cultural depth that fail to resonate emotionally with consumers [8].

Translation forms are overly concentrated on the transplantation of flat patterns, with insufficient exploration of diverse translation methods for DNA related to form, color, and technique [11]. There is also a lack of organic integration with textile product structure and functionality, leading to severe homogenization and a deficiency in innovation [7].

Traditional forms and color schemes of tiger-head shoes and hats exhibit a certain gap with modern aesthetic trends and the functional demands of textile products [10]. Some translation designs overly prioritize retaining traditional elements, neglecting modern consumer preferences for simplicity, comfort, and practicality, consequently resulting in low market acceptance [12].

4.2. Core Demands for Modern Translation

The translation process must accurately grasp the core meaning of the cultural DNA of tiger-head shoes and hats, avoiding cultural distortion [3]. Through appropriate design language, it should achieve an organic fusion of traditional culture and modern design, allowing consumers to experience the charm of traditional culture while using the product [6].

In line with modern aesthetic trends, elements of form, color, and pattern should be simplified, reconstructed, and innovated to align with contemporary consumer preferences [11]. Emphasis should also be placed on the uniqueness and innovativeness of the design to enhance product competitiveness [10].

Translation design must fully consider the use context and functional requirements of textile products [12]. Cultural DNA should be integrated with product structure, materials, and manufacturing techniques to achieve a unity of aesthetic appeal and practicality, meeting consumers' diversified needs for textile products [2].

5. Chapter Five: Construction of a Modern Translation Mechanism for the Cultural DNA of Tiger-Head Shoes and Hats

5.1. Core Principles of the Translation Mechanism

Maintain the core position of cultural DNA. Preserve the essential cultural connotations and spiritual core of tiger-head shoes and hats during translation, avoiding the misuse or distortion of cultural symbols [3]. Ensure that design works possess distinct cultural identity [9].

Break through the simple transplantation of traditional elements. Innovatively transform cultural DNA by combining

modern design concepts and technical means [11]. Achieve contemporary expression in form, color, and technique, enhancing the modernity and innovativeness of design works [10].

Fully consider the functional demands and use scenarios of textile products [12]. Integrate cultural translation with product functionality organically, ensuring that designs possess cultural depth while also meeting consumer needs, achieving a balance between aesthetics and utility [2].

5.2. Construction of the Four-Stage Translation Mechanism

Stage 1: Gene Extraction

Through literature review, field research, and physical object analysis, extract the DNA components from tiger-head shoes and hats: Symbolic DNA (form, pattern), Color DNA (primary palette, color principles), Technique DNA (embroidery, piping, etc.), and Meaning DNA (warding off evil, etc.) [9]. Based on textile design requirements, screen for representative and transformable core DNA elements to establish a cultural DNA repository for tiger-head shoes and hats [1].

Stage 2: Semantic Decoding

Conduct semantic decoding of the screened core cultural DNA elements, clarifying their cultural meanings and symbolic connotations [6]. Integrate these with contemporary social values and aesthetic needs to provide modern interpretations and translations, making traditional cultural meanings comprehensible and relatable to modern consumers [3]. For example, translate the traditional meaning of "warding off evil" into the modern concept of "guarding health," or transform the symbolism of "auspiciousness and wealth" into the pursuit of a good life [8].

Stage 3: Design Reconstruction

Reconstruct the decoded DNA elements using modern design languages and methods [11]. This may involve simplification, abstraction, recombination, or transformation in form, color, pattern, and texture [4]. The reconstruction should align with the functional attributes, material properties, and production processes of the target textile product, ensuring the design is both culturally significant and conforms to modern aesthetics [12].

Stage 4: Application and Realization

Apply the reconstructed design proposals to specific textile product development [2]. Consider practical factors such as material selection, production processes, and cost control to ensure feasibility of the design plan [10]. Concurrently, conduct market research and collect user feedback to refine and optimize the design, thereby enhancing market acceptance [7].

5.3. Supporting Measures for the Translation Mechanism

Foster interdisciplinary collaboration among folklore, art studies, design, and textile engineering to pool resources, providing theoretical support and technical safeguards for implementing the translation mechanism [11]. Establish partnerships with ICH inheritors of tiger-head shoes and hats to gain deep insights into traditional techniques and cultural connotations [9]. This ensures accurate extraction and transmission of cultural DNA while offering new pathways for ICH safeguarding [7]. Implement a market feedback mechanism to promptly gather consumer evaluations and suggestions regarding translated products [10]. Dynamically

optimize the translation mechanism based on market demands, improving its adaptability and effectiveness [12].

6. Chapter Six: Research Conclusions and Future Outlook

6.1. Research Conclusions and Innovations

From the perspective of cultural DNA theory, this paper systematically analyzed the composition of the cultural DNA of tiger-head shoes and hats, including Symbolic, Color, Technique, and Meaning DNA [3]. It examined the practical challenges and core demands in their modern translation for textile design [2]. A four-stage translation mechanism of “Gene Extraction – Semantic Decoding – Design Reconstruction – Application Realization” was constructed, and its feasibility was validated through practice in home textile design [11]. The research indicates that a scientific translation mechanism can facilitate the precise transmission and modern innovation of the cultural DNA of tiger-head shoes and hats, providing rich creative inspiration for textile design and promoting the revitalization of traditional folk art [7].

Theoretical Innovation: Constructed a four-stage translation mechanism specifically for the cultural DNA of tiger-head shoes and hats, enriching the application of cultural DNA theory in the field of textile design and offering a new methodological approach for the modern translation of traditional folk art [3].

6.2. Research Limitations and Future Outlook

This study’s analysis of the cultural DNA of tiger-head shoes and hats primarily focused on aspects of form, color, technique, and meaning [9]. The exploration and translation of their material DNA was insufficient [5]. The application scope of the translation mechanism was limited to home textiles; its applicability to other textile design categories such as apparel fabrics and decorative textiles requires further verification [2].

Future research could expand the dimensions of exploring the cultural DNA of tiger-head shoes and hats, particularly strengthening the study of material DNA [5]. The translation mechanism could be applied to a wider range of textile design practices, such as apparel, home furnishings, and decorative fabrics, to further validate its general applicability [11]. Furthermore, integrating digital technologies—such as 3D

modeling and virtual fitting—could enable the digitization and intelligent application of translation designs, opening up more possibilities for the modern transformation of traditional folk art [10].

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