

# THE CULTURAL SYMBOLISM AND IDENTITY OF HUAYAO DAI TRADITIONAL CLOTHING PATTERNS - AN ANALYTICAL STUDY BASED ON COMMUNITY LIFRSTYLE AND VALUES

Jing DING<sup>1</sup>, Akapong INKUER<sup>2</sup>, Chanoknart MAYUSOH<sup>3</sup>, and Pisit PUNTIEN<sup>3</sup>

1 Doctoral Student of Philosophy Program in Visual Arts and Design, Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University, Thailand;  
s65584948033@ssru.ac.th

2 Advisor in Visual Arts and Design, Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University, Thailand; akapong.in@ssru.ac.th

3 Visual Arts and Design, Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University, Thailand; chanoknart.ma@ssru.ac.th (C. M.); pisit.pu@ssru.ac.th (P. P.)

## ARTICLE HISTORY

**Received:** 3 February 2025

**Revised:** 17 February 2025

**Published:** 11 March 2025

## ABSTRACT

The Huayao Dai people of Yunnan Province, China, are renowned for their vibrant and intricate traditional clothing, which contains rich cultural and symbolic significance. This paper analyzes the patterns and motifs found in Huayao Dai's traditional attire, exploring how they reflect the community's lifestyle, beliefs, and values. Drawing upon quantitative and qualitative research methods including field observations, interviews, and surveys the study systematically investigates the artistic elements and cultural connotations embedded in these patterns. The findings indicate that Huayao Dai clothing motifs profoundly convey cultural identity yet face severe challenges from globalization and modernization. From a sustainability perspective, this paper proposes strategies for preserving and revitalizing these valuable cultural resources, advocating for integrating traditional motifs into contemporary creative product design to bridge the gap between tradition and modernity.

**Keywords:** Huayao Dai, Cultural Motifs, Traditional Clothing, Cultural Symbolism, Heritage Preservation, Creative Design

**CITATION INFORMATION:** Ding, J., Inkuer, A., Mayusoh, C., & Puntien, P. (2025). The Cultural Symbolism and Identity of Huayao Dai Traditional Clothing Patterns - An Analytical Study Based on Community Lifestyle and Values. *Procedia of Multidisciplinary Research*, 3(3), 53.

## INTRODUCTION

### Research Background and Problem Statement

Huayao Dai, an ethnic minority in Yunnan Province, China, are noted for their traditional attire, characterized by bright colors and complex motifs. These garments incorporate geometric shapes, floral patterns, and various color combinations, offering visual appeal and profound insights into Huayao Dai's social hierarchy, religious beliefs, ecological knowledge, and lifestyle (Formoso, 2002). Each motif crystallizes the history and culture of Huayao Dai, functioning like a “visual narrative” passed down through generations (Xiaoyun, 2002).

For instance, geometric designs often symbolize harmony and balance within the community, while floral motifs such as lotus and peony convey notions of purity, vitality, and prosperity (Formoso, 2002). Furthermore, the color scheme dominated by red, black, and green signifies vitality, stability, and renewal, closely tied to the agrarian background of the Huayao Dai (Zhu, 2023). However, rapid globalization and urbanization have posed increasing challenges to preserving these traditional patterns.

Empirical data illustrate that younger generations tend to favor modern, diversified aesthetics, gradually distancing themselves from traditional clothing. A 2024 Gasa Cultural Festival survey revealed that only 32% of respondents aged 18-30 could recognize and explain the cultural significance of Huayao Dai clothing patterns, whereas 78% of those aged over 50 could do so. This stark generational gap underscores pressing need to protect Huayao Dai motifs (Guo, 2018).

From a production perspective, the labor-intensive methods of hand-weaving and natural dyeing which imbue these garments with intricate detail and cultural depth are being replaced by mechanized processes and chemical dyes. While modern methods offer efficiency and cost reduction advantages, they often result in simplified motifs that lose the nuanced artistry and symbolic richness intrinsic to the Huayao Dai (Yang et al., 2019). Consequently, the community's distinctive cultural identity and the wealth of information behind it are at risk, representing a significant loss for global cultural diversity (Xiaoyun, 2002; Zhu, 2023).

### Core Research Questions

In response to these challenges and to facilitate the safeguarding and revitalization of Huayao Dai clothing patterns, this paper centers on two key questions:

1) What are the primary elements of Huayao Dai clothing patterns, and what cultural meanings do they convey?

This question aims to identify the symbolic components of the motifs and analyze their connections to Huayao Dai's social, spiritual, and ecological values.

2) How can contemporary design practices innovatively adapt these patterns while preserving cultural authenticity?

This question examines how traditional motifs might be integrated into modern cultural and creative products to sustain their cultural vitality and significance in a new era.

### Significance of the Study

1) Cultural Significance: By treating Huayao Dai clothing patterns as “cultural archives,” this study systematically elucidates their key role in ethnic identity, spirituality, and collective memory. The detailed documentation and analysis provide empirical and theoretical support for future preservation and transmission efforts.

2) Academic Contribution: By combining cultural semiotics with the study of ethnic clothing motifs, this research deepens the academic understanding of cultural symbolism and traditional art forms, offering theoretical and methodological insights applicable to other ethnic or regional contexts.

3) Practical Implications: For policymakers and the design industry, the study outlines viable approaches to incorporating traditional motifs into modern creative industries, including the

use of digital tools and contemporary design concepts. These approaches aim to meet global market demands while preserving authenticity.

4) Global Relevance: In a world of intensified cultural exchange, preserving unique regional cultures poses a considerable challenge. The preservation and revitalization of Huayao Dai motifs reflect a larger endeavor to protect cultural diversity worldwide, providing useful strategies that other minority or local cultures can adapt.

In conclusion, this research not only seeks to preserve Huayao Dai's cultural heritage but also to demonstrate how traditional patterns can be revitalized through innovative design practices. By bridging the past and the present, the study contributes to the sustainable development of cultural heritage and its integration into contemporary life.

### **Research Objectives**

This study investigates the cultural symbolism and identity embedded in Huayao Dai traditional clothing patterns, analyzing their relationship with the community's lifestyle and values. It further explores strategies for integrating these motifs into contemporary creative industries, ensuring cultural preservation while fostering innovation.

## **LITERATURE REVIEWS**

### **Theoretical Framework: Cultural Semiotics and Symbolism**

Cultural semiotics provides a critical lens for interpreting the symbolic meanings embedded in visual elements, particularly in traditional clothing patterns. According to Barthes (1977), cultural objects, including clothing, are rich in semiotic codes that communicate historical, social, and cultural narratives. Patterns in Huayao Dai traditional clothing exemplify this idea, as they convey collective identity, community values, and ecological wisdom (Xiaoyun, 2002). Geometric patterns, for example, are semiotic symbols of harmony and order, reflecting Huayao Dai's social structures and respect for cosmic balance. These patterns often mirror the interconnectedness within the community, symbolizing familial ties and communal unity (Formoso, 2002). Meanwhile, floral motifs, such as the lotus and peony, are steeped in cultural symbolism, representing purity, vitality, and prosperity (Guo, 2018).

Additionally, the vibrant color palettes employed in Huayao Dai clothing dominated by red, black, and green function as semiotic markers of life, stability, and renewal. Red signifies celebrations and vitality, black denotes resilience and protection, while green represents regeneration and harmony with nature (Zhu, 2023). This theoretical framework of cultural semiotics underscores the intricate ways in which these patterns act as visual archives of the community's values and traditions, aligning closely with the study's focus on the symbols and meanings that reflect the Huayao Dai lifestyle (Yang et al., 2019).

### **Main Features of Huayao Dai Patterns**

Huayao Dai's traditional clothing patterns are distinguished by their complexity and cultural depth. These motifs can be classified into three main categories:

1) Geometric Shapes: Geometric patterns in Huayao Dai clothing often serve as metaphors for cosmic order and social relationships. Common motifs, such as diamonds and interlocking lines, emphasize balance and structure within community. These shapes represent the orderly relationships among families and their connection to broader natural world (Formoso, 2002).



**Figure 1** Geometric Shapes

2) Flower Elements: Floral patterns are inspired by the surrounding natural environment and reflect Huayao Dai's reverence for nature. Motifs such as the lotus signify purity and spiritual growth, while the peony is associated with wealth and honor. These patterns express the community's aspirations and values, blending cultural aesthetics with symbolic meanings (Guo, 2018).



**Figure 2** Flower Elements

3) Color Palettes: The color scheme of Huayao Dai traditional attire predominantly features red, black, and green. Red symbolizes vitality, joy, and auspiciousness, making it a central color for festivals and ceremonies. Black represents strength and protection, often associated with the community's resilience. Conversely, green reflects harmony and renewal, symbolizing the community's agrarian roots and relationship with nature (Zhu, 2023).



**Figure 3** Color Palettes

**Table 1** Symbolism in Huayao Dai Patterns

Pattern Type	Symbolism	Examples
Geometric Shapes	Harmony, order	Diamonds, interlocking lines
Floral Elements	Prosperity, vitality	Lotus, peony
Color Palettes	Life, stability, renewal	Red, black, green

### Comparative Research on Cultural Patterns

Globally, traditional clothing motifs are vital cultural identity and heritage markers. For example, African tribal patterns often signify social hierarchy, clan identity, and spiritual beliefs (Gikandi, 2013). Similarly, Japanese kimono designs encapsulate familial heritage and seasonal changes, with specific motifs conveying social status and personal narratives (Dalby, 2001).

In addition to African and Japanese patterns, Latin American indigenous textile designs, such as those of the Mayan culture, exhibit striking similarities with Huayao Dai motifs in their geometric arrangements and symbolic uses of color (Gonzalez, 2019). Middle Eastern embroidery traditions also parallel Huayao Dai clothing in their symbolic meanings and intergenerational transmission methods, particularly in representing social status and cultural identity (Brown, 2022).

Comparatively, Huayao Dai patterns parallel these global traditions with their geometric shapes, floral motifs, and symbolic colors. These patterns encapsulate the community's spiritual, social, and environmental narratives, offering a unique lens into the Huayao Dai worldview (Formoso, 2002; Zhu, 2023). However, like many indigenous art forms, these patterns face challenges in maintaining authenticity amidst modern pressures, including globalization and urbanization (Guo, 2018).

### Challenges in Preservation and Innovation

Despite their cultural richness, Huayao Dai's traditional clothing patterns are increasingly vulnerable to the pressures of globalization and technological limitations. Two primary challenges emerge from the literature:

1) Globalization and Cultural Erosion: The intensification of cultural exchange may undermine indigenous traditions, as younger generations tend to embrace global aesthetics at the expense of local attire. This trend is particularly evident in the shift from traditional to modern clothing styles, as observed in various cultural contexts (Guo, 2018; Yang & Wall, 2009).

In recent years, the impact of globalization on cultural heritage has garnered significant academic attention. Prasad et al. (2024) highlight the pivotal role of Virtual Reality (VR) and Augmented Reality (AR) technologies in enhancing cultural dissemination and engagement. These immersive technologies enable younger generations to experience traditional cultures more intuitively, thereby mitigating the marginalization of cultural heritage in a globalized context (Prasad et al., 2024).

Furthermore, Singh & Kumar (2024) explore the application of digital technologies in the preservation of indigenous cultures in India, emphasizing the critical role of community participation and digital literacy in counteracting cultural erosion. Their study indicates that the success of digital preservation projects is closely linked to local communities' cultural identity and active involvement (Singh & Kumar, 2024).

2) Technological Gaps in Preservation: While digital tools such as 3D modeling and vector software facilitate the documentation and adaptation of traditional patterns, rural communities often lack the resources or expertise required to fully utilize these technologies. Limited access to digital training opportunities and financial constraints frequently hinder local artisans from leveraging modern preservation tools effectively (Zhu, 2023; Yang et al., 2019).

Lukita et al. (2024) underscore the significance of Digital Archive Management Systems (DAMS) and smart technology integration in cultural heritage preservation. Their research

reveals that technological adoption significantly enhances cultural engagement, particularly in resource-constrained communities. Through digital training and infrastructure development, these technological gaps can be effectively bridged (Lukita et al., 2024).

A systematic literature review by Mendoza et al. (2023) indicates that technologies such as 3D modeling, AR, and VR hold substantial promise for cultural heritage preservation. Approximately 70% of studies emphasize the role of these technologies in enhancing the efficiency and accessibility of digital preservation efforts. However, the primary barriers to technology adoption include a lack of professional training and funding, especially in remote areas (Mendoza et al., 2023).

Additionally, Cosovic and Maksimovic (2022) investigate the potential of Digital Twin technology in dynamic monitoring and management of cultural heritage. This technology enables real-time tracking of the physical status of cultural assets, assisting cultural management institutions in proactively mitigating potential risks and addressing the limitations of traditional preservation methods (Cosovic & Maksimovic, 2022).

### **Integrated Strategies for Addressing Challenges**

To address these challenges, a more comprehensive approach is required—one that combines digital preservation with active community participation to ensure both the authenticity and adaptability of Huayao Dai's traditional patterns. The following strategies are proposed: Digital Archiving and Data Visualization: Establishing multimedia digital archives using 3D scanning technology and high-resolution imagery to systematically document traditional patterns and craftsmanship, thereby creating a sustainable cultural data repository (LeFurgy et al., 2005).

Artisan Digital Skills Training and Knowledge Sharing: Organizing regular digital skills workshops to equip local artisans with foundational competencies in 3D modeling, digital illustration, and online cultural dissemination (Mendoza et al., 2023).

Interdisciplinary Collaboration and Cultural Innovation: Fostering cross-disciplinary partnerships with contemporary designers, technologists, and cultural researchers to explore innovative applications of traditional patterns in modern product design, fashion, education, and digital arts (Åubocki, 2023).

Virtual Experiences and Immersive Education: Developing immersive cultural experiences through VR/AR applications, particularly targeting younger audiences and international communities to enhance the global reach of traditional cultural heritage (Rao, 2024).

**Table 2** Challenges and Digital Solutions in Cultural Heritage Preservation

<b>Challenge</b>	<b>Description</b>	<b>Examples</b>	<b>Digital Solutions</b>
Globalization and Cultural Erosion	The dilution of traditional values and aesthetics due to global cultural exchanges	Younger generations favor modern attire over traditional patterns (Guo, 2018)	VR/AR immersive experiences to enhance cultural identity and engagement (Prasad et al., 2024)
Technological Gaps in Preservation	Lack of access to digital tools and technical training in rural communities	Local artisans lacking 3D modeling and digital archiving skills (Zhu, 2023)	Digital Archive Management Systems (DAMS) and community-based digital literacy programs (Lukita et al., 2024)
Intergenerational Knowledge Gaps	Ineffective transmission of traditional craftsmanship and symbolic knowledge	Decline in traditional skills among younger generations (Yang & Wall, 2009)	Digital Twin technology for dynamic monitoring and visualization of cultural knowledge (Cosovic & Maksimovic, 2022)
Inadequate Digital Infrastructure	Limited hardware, software, and network support in remote areas	Inability to establish robust cultural heritage databases in rural regions (Mendoza et al., 2023)	Cloud-based cultural databases and remote digital preservation support systems (Mendoza et al., 2023)

## Synthesis and Opportunities

The Huayao Dai clothing patterns are vital cultural symbols reflecting the community's values and identity. However, globalization and technological limitations threaten their authenticity and relevance (Guo, 2018; Zhu, 2023). While studies highlight the importance of digital tools and community involvement (Yang et al., 2019), a balanced strategy is needed to preserve authenticity while exploring modern innovations.

Adopting digital tools such as VR, AR, and DAMS has proven effective in preserving intangible cultural heritage globally (Mendoza et al., 2023). These technologies not only facilitate the documentation of traditional motifs but also foster interactive learning environments, enabling broader cultural dissemination.

Digital tools, such as vector design, can document these patterns for contemporary use. However, local artisans must be involved to ensure cultural depth and symbolism are retained. Beyond preservation, integrating these motifs into fashion, home decor, and educational materials can promote cultural pride and generate economic benefits. For instance, applying motifs to everyday products like stationery or clothing can make them accessible to younger generations and global audiences.

The future of Huayao Dai patterns depends on combining modern technology with traditional craftsmanship. This approach ensures their survival while transforming them into resources that thrive in contemporary markets and cultural contexts.

## RESEARCH METHODOLOGY

### Research Design

A mixed-methods design approach was adopted to ensure a holistic understanding of the research objectives. The design integrated quantitative surveys to understand the perceptions of a broad audience and qualitative interviews to delve into the cultural and artistic essence of the Hmong brocade patterns and explore their practical adaptability in contemporary creative industries.

1) Quantitative Surveys: A survey was administered to 450 tourists at the 2024 Gasa Cultural Festival, capturing participants' awareness and aesthetic preferences regarding Huayao Dai motifs. SPSS software was used to analyze the survey data, employing descriptive statistics (e.g., mean, standard deviation, frequency distribution) and inferential statistics (e.g., t-tests, correlation analysis) to examine relationships between demographic factors (age, gender, cultural exposure) and perceptions of Huayao Dai motifs. For instance, a t-test was conducted to compare awareness levels between different age groups, and a correlation analysis explored the relationship between participants' cultural exposure and their appreciation of the motifs.

2) Qualitative Interviews: In-depth interviews were conducted with 5 key informants, including village elders, cultural institution heads, and government cultural heritage management officials in the town of Gasa. The qualitative data was analyzed using thematic analysis, with a structured coding scheme developed to categorize emergent themes related to cultural symbolism, adaptation challenges, and modern applications.

Step 1: Transcription and Initial Coding - Interviews were transcribed verbatim and subjected to open coding, where initial labels were assigned to different themes related to Huayao Dai motifs. Step 2: Axial Coding - Related themes were clustered into broader categories such as "cultural identity," "market adaptation," and "design challenges." Step 3: Thematic Mapping - Final themes were validated and refined, ensuring coherence and relevance to the study's objectives.

3) Digital Analysis: Adobe Illustrator was used to digitize and experiment with traditional motifs. The digital process involved the following steps:

3.1) Vectorization: Traditional motifs were manually traced using the pen tool to create scalable vector graphics.

3.2) Color Scheme Experimentation: Different palettes (including traditional red, black, and green vs. modern pastel tones) were tested for market adaptability.

3.3) Pattern Application: Motifs were mapped onto mockup designs of contemporary products, such as textiles, fashion accessories, and stationery items.

3.4) Market Evaluation: Visual prototypes were assessed by survey participants, with feedback collected to refine the designs.

The combination of SPSS-driven statistical analysis, thematic coding for qualitative data, and systematic digital experimentation provided a comprehensive methodological framework for understanding and preserving Huayao Dai clothing motifs.

### **Data Collection Instruments**

1) Questionnaires: Structured questionnaires were designed to measure participants' perceptions of Huayao Dai motifs. Likert-scale questions (e.g., 1 = Strongly Disagree to 5 = Strongly Agree) were used to evaluate awareness, emotional connections, and aesthetic preferences. Open-ended questions let respondents express detailed opinions about the patterns' cultural and artistic value.

2) Interview Guides: Semi-structured interview guides were tailored to each participant group. For artisans and elders, the focus was on the cultural origins, symbolic meanings, and traditional crafting techniques of Huayao Dai patterns. For designers, the guides emphasized challenges in preserving authenticity while catering to modern market trends.

3) Digital Tools: Adobe Illustrator served as the primary tool for digitizing and analyzing patterns. Traditional motifs collected during fieldwork were traced and converted into scalable vector graphics, allowing for flexible adaptations. The digital process included experimenting with color schemes, scaling, and layout adjustments to explore the patterns' applicability in various design contexts.

### **Data Analysis**

1) Quantitative Data Analysis: Survey data were analyzed using SPSS software. Descriptive statistics, including means, standard deviations, and frequency distributions, summarized participants' perceptions of Huayao Dai motifs. Inferential statistics, such as t-tests and correlation analyses, examined relationships between demographic factors (e.g., age, cultural background) and responses to the patterns.

Key Findings: (1) Older participants demonstrated significantly higher awareness of Huayao Dai motifs ( $M = 4.2$ ,  $SD = 0.8$ ) compared to younger participants ( $M = 3.1$ ,  $SD = 0.9$ ),  $t(448) = 9.34$ ,  $p < .001$ ; and (2) Female respondents prefer to incorporate patterns into fashion items, while male respondents prefer their use on finished stationery products..

2) Qualitative Data Analysis: Interview transcripts were coded and analyzed using analysis software to identify recurring themes. Thematic analysis focused on cultural symbolism, adaptation challenges, and modern application opportunities. Emerging themes included:

2.1) Patterns as Community Identity: Artisans highlighted the role of motifs in reinforcing social and familial connections within the Huayao Dai community.

2.2) Modern Aesthetic vs. Tradition: Designers emphasized the tension between preserving traditional authenticity and meeting contemporary design demands.

### **Research Framework**

The following research framework guides study, integrating its objectives, methodologies, and analysis techniques:



**Table 3** Research Framework

Research Objectives	Methods	Analysis Tools	Outcomes
Study cultural significance of Huayao Dai patterns	Interviews with artisans and elders	Qualitative Coding	Themes on cultural symbolism and community values
Analyze design adaptability	Digital tools (Illustrator)	Digital Experimentation	Modern product designs showcasing motifs
Evaluate public perception	Surveys (450 participants)	Descriptive, Inferential	Insights into awareness and aesthetic preferences
Develop strategies for preservation	Synthesis of qualitative and quantitative findings	Mixed-Methods Analysis	Recommendations for cultural preservation and innovation

### Summary

This methodological approach ensures a comprehensive understanding of cultural significance and design potential of Huayao Dai patterns. The study bridges traditional heritage and modern creative practices by combining quantitative surveys, qualitative interviews, and digital tools. The framework addresses the study's objectives and provides actionable insights for sustainable preservation and innovative application.

## RESEARCH RESULTS

### Symbolic Meanings of Patterns

The Huayao Dai traditional clothing patterns reflect profound cultural values, with each motif serving as a visual narrative of the community's beliefs, social structures, and way of life. Based on qualitative interviews and digital analyses, the key symbolic meanings identified are as follows:

**Diamonds:** Diamonds are recurring motifs in Huayao Dai attire, symbolizing familial harmony and social order. Community elders noted that the symmetrical arrangement of diamond patterns echoes the village's value system, underscoring stability and unity.

**Lotus Motifs:** The lotus, revered in Huayao Dai culture and Buddhist traditions, often represents purity, resilience, and spiritual enlightenment. Artisans reported that lotus patterns frequently appear in ceremonial clothing to invoke blessings and spiritual protection during major events.

**Color Palettes:** The dominant use of red, black, and green conveys themes of life, stability, and renewal. Specifically, red symbolizes prosperity and vitality, black denotes strength and resilience, and green reflects harmony with nature. These color choices align with the Huayao Dai's ecological environment and agricultural traditions.

### Patterns in Modern Design

The research incorporated Adobe Illustrator to digitize and experiment with traditional designs to assess how Huayao Dai motifs could be adapted for contemporary creative products. The following applications emerged as particularly viable:

#### 1) Fashion Applications

1.1) **Implementation:** Notebooks, greeting cards, and other stationery items were created to explore Huayao Dai motifs in everyday personal and professional contexts. Designs featured vectorized traditional patterns adapted to minimalistic layouts, focusing on enhancing cultural aesthetics while maintaining functionality.

1.2) **Key Result:** The survey showed that over 70% of participants found the patterns to be culturally unique and visually appealing, with 65% indicating a willingness to purchase stationery products featuring Huayao Dai designs. Interestingly, female respondents (78%)

showed a stronger preference for floral motifs in notebooks, while male respondents (60%) favored geometric designs on items like folders and bookmarks.

## 2) Stationery Design Applications

2.1) Implementation: Notebooks, greeting cards, and other stationery items were created to explore Huayao Dai motifs in everyday personal and professional contexts. Designs featured vectorized traditional patterns adapted to minimalistic layouts, focusing on enhancing cultural aesthetics while maintaining functionality.

2.2) Key Result: The survey showed that over 70% of participants found the patterns to be culturally unique and visually appealing, with 65% indicating a willingness to purchase stationery products featuring Huayao Dai designs. Interestingly, female respondents (78%) showed a stronger preference for floral motifs in notebooks, while male respondents (60%) favored geometric designs on items like folders and bookmarks.

## 3) Evidence-Conclusion Linkage

These quantitative findings provide strong support for the preservation and revitalization strategies proposed in this study. The positive reception of Huayao Dai motifs in fashion and stationery products highlights the potential for integrating traditional cultural elements into modern consumer markets. The survey data demonstrates a clear connection between cultural appreciation and purchasing behavior, validating the strategy of using creative product design as a tool for cultural heritage preservation.

Furthermore, the application of Adobe Illustrator not only facilitated the digital preservation of traditional motifs but also enabled the exploration of new aesthetic possibilities, thereby bridging traditional craftsmanship with contemporary design practices. This approach ensures that Huayao Dai cultural symbols remain vibrant and relevant in modern society.

# DISCUSSION & CONCLUSION

## Implications for Cultural Preservation

Integrating Huayao Dai motifs into modern creative industries carries significant implications for safeguarding and propagating cultural heritage:

### 1) Revitalizing Traditional Craftsmanship

Incorporating these patterns into fashion, home decor, and stationery revitalizes the demand for artisan skills, such as hand-weaving and natural dyeing. This approach reinforces the importance of age-old craftsmanship and ensures its transmission to younger generations, preserving the Huayao Dai's cultural and technical heritage.

### 2) Global Cultural Exchange

Adapting Huayao Dai motifs for modern markets through international fashion events, global retail channels, or widely available stationery products broadens awareness and fosters appreciation of this ethnic art form. Such exposure promotes cultural diversity within global design practices, helping maintain local traditions' distinctiveness.

### 3) Economic Opportunities

Huayao Dai patterns possess considerable commercial appeal, offering new revenue streams for local communities. By aligning ancestral artistry with contemporary consumer trends, cultural heritage and economic growth can thrive together. Thus, heritage preservation becomes closely intertwined with economic advancement.

## Everyday Integration: The Role of Stationery

Among the various applications, stationery products uniquely embed cultural motifs into users' daily routines. Items such as notebooks and greeting cards serve as low-barrier entry points for consumers to engage with Huayao Dai aesthetics. Preliminary surveys indicating over 70% willingness to purchase Huayao Dai-themed stationery underscore the potential of everyday products to function as conduits for cultural transmission, reinforcing continuous exposure to Huayao Dai motifs in personal and professional settings.

## Synthesis and Main Conclusions

This study underscores the cultural and artistic significance of Huayao Dai traditional clothing patterns, revealing them as vibrant archives of community values, history, and identity. By examining their symbolic meanings and assessing their adaptability within modern creative industries particularly in fashion, home decor, and stationery the research highlights their dual function as both cultural artifacts and design resources.

## Key Contributions

- 1) Cultural Preservation: This research provides an actionable framework for integrating Huayao Dai motifs into contemporary products, ensuring that these patterns retain their deep cultural resonance while finding relevance in modern markets.
- 2) Design Innovation: The study demonstrates how digital tools (e.g., Adobe Illustrator) and market-driven design strategies can effectively modernize traditional patterns without compromising authenticity. In doing so, it shows that cultural heritage can flourish alongside global consumer demand.
- 3) Economic and Social Sustainability: By commercializing Huayao Dai motifs, local communities can generate sustainable income streams that reinforce cultural pride. This synergy between economic interests and heritage conservation paves the way for socially and culturally robust development.
- 4) Limitations and Generalizability

This study's findings are primarily rooted in the cultural context of the Huayao Dai community in Yunnan Province, China, which may limit their generalizability to other cultural settings. The symbolic meanings of motifs, color preferences, and design applications are deeply connected to the Huayao Dai's unique socio-cultural and ecological environment, potentially reducing their direct applicability to different ethnic groups with distinct historical and aesthetic backgrounds.

However, the interdisciplinary methodology—combining qualitative interviews, quantitative surveys, and digital design analysis—offers a flexible framework that can be adapted to other cultural contexts. This approach could be effectively applied to the study of traditional patterns in Latin American textiles, African tribal art, or Middle Eastern embroidery to explore both universal and culture-specific design dynamics.

Future research should expand the geographical scope and include cross-cultural comparative studies to enhance the external validity of these findings, offering broader insights into the preservation and adaptation of traditional motifs in contemporary design.

## Future Directions

Further research could investigate the long-term impact of integrating traditional patterns into diverse commercial sectors, possibly by examining how artisan communities evolve over time. Comparative studies with other minority groups facing similar preservation challenges may also yield broader strategies for upholding cultural authenticity amid globalization. Given the promising survey results, the stationery sector specifically warrants additional exploration, as it demonstrates the ease with which traditional motifs can be incorporated into everyday contexts. Ultimately, the enduring relevance of Huayao Dai clothing patterns reaffirms their capacity to bridge heritage and modernity, offering inspiration for both local stakeholders and international audiences through thoughtful preservation and innovative design.

## ACKNOWLEDGMENT

Researcher would like to express her sincere to the thesis advisor, Asst. Prof. Dr. Akapong Inkuer for his invaluable help and constant encouragement throughout the course of this research. In addition, the researcher has to give thanks to all lecturers for their assistance: Asst. Prof. Dr. Chanoknart Mayusoh, and Asst. Prof. Dr. Pisit Puntien. At the same time, the researcher gratefully thanks to Miss Kanyanee Phuangsua, Miss Sasanant Rattanapornpisit,

Miss Visitha Chintaladdha, Mr. Chat Sukarin, and others who give great supports. Finally, the researcher would like to express her gratitude to the Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University for supporting in every aspect.

## REFERENCES

- Barthes, R. (1977) *Image-music-text* (S. Heath, Trans) London Fontana Press.
- Campos-Navarro, R., Dorantes, L., & Cavaleri, D. D. (2024). *Los bordados mayas que protegen de enfermedades en el estado de Yucatán, México*. Zea Books
- Cavaleri, D. D. (2016). *Los textiles mayas contemporáneos de Yucatán en el espejo del Códice Trocortesiano*.
- Cosovic, M., & Maksimovic, M. (2022). *Application of the digital twin concept in cultural heritage*.
- Dalby, L. (2001). *Kimono: Fashioning culture*. New Haven, CT Yale University Press
- Formoso, B. (2002). The costume of the Tai Sai women (Xinping County, Yunnan Province, PR of China). *The Siam Society Journal*, 90, 1-20.
- Giannetto, C. (2018) *Performing shifting identities Mayan embroidery, migration, and tourism in the Eastern Yucatán*.
- Gikandi, S. (2013). *African art and the colonial encounter Inventing a global commodity*. Cambridge University Press.
- Guo, Z. (2018). The conflict between and adjustment of the upbringing for children of the Dai nationality and school education. *Atlantis Highlights in Social Science, Education, and Humanities Research*, 20, 56-63.
- Hutson, J., Weber, J., & Russo, A. (2023). Digital twins and cultural heritage preservation A case study of best practices and reproducibility in Chiesa dei SS Apostoli e Biagio. *Art and Design Review*.
- LeFurgy, W. G., Hedstrom, M., Pardo, T., & Walters, T. (2005). *Preserving information long-term Digital archiving*. Library of Congress Digital Preservation Program.
- Machidon, O., Postelnicu, C., & Gîrbacia, F. (2016). *3D reconstruction as a service Applications in virtual cultural heritage*.
- Mendoza, M. A. D., Franco, E. D. L. H., & Gómez, J. E. G. (2023). Technologies for the preservation of cultural heritage—A systematic review of the literature. *Sustainability*.
- Nur, S. (2024). The importance of virtual reality in the conservation of cultural heritage An examination of the Penataran Temple case study in Blitar Regency, East Java. *Knowledge Garden*.
- Rao, S. (2024). Innovative approaches to cultural preservation Integrating AR/VR technology in Kempegowda Museum - A case of Bengaluru. *International Journal for Multidisciplinary Research*.
- Shih, N., & Chen, H. X. (2020). Digital preservation of old cultural elements in AR and VR. In *2020 3rd IEEE International Conference on Knowledge Innovation and Invention (ICKII)* (pp 125-127).
- Singh, V., & Kumar, A. (2024). Digital technologies in indigenous culture preservation Case studies from India. *International Journal of Cultural Heritage Management*, 14(2), 89-102.
- Xiaoyun, Z. (2002). The culture of the Huayao Dai and its prospects Comparative research on the cultural characteristics of the Dai peoples living in the upper reaches of the Red River. *MANUSYA Journal of Humanities*, 5(2), 6-18.
- Yang, L., & Wall, G. (2009). Minorities and tourism Community perspectives from Yunnan, China. *Journal of Tourism and Cultural Change*, 7(2), 77-100.
- Yang, M. (2012). *A cultural interpretation of Huayao Dai costume from the perspective of cultural ecology*.

- Yang, Y., Zhang, D., Ji, T., & He, Y. (2019). Designing educational games based on intangible cultural heritage for rural children A case study on “Logic Huayao”. In *Proceedings of the International Conference on Game-Based Learning* (pp 120-128) Springer.
- Zhu, F. (2023). Research on the design strategy of space renewal of handicraft culture in Huayao Dai village of Gasa based on non-genetic inheritance. *Journal of Sociology and Ethnology*, 5(3), 45-58.

**Data Availability Statement:** The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

**Conflicts of Interest:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

**Publisher’s Note:** All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.



**Copyright:** © 2025 by the authors. This is a fully open-access article distributed under the terms of the Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0).