

Integration of Benjarong Porcelain Motifs into Mai Tam Mee Silk Pattern Design: A Cross-Media Approach to Thai Craft Innovation

Siqi Song

Faculty of Architecture, Khon Kaen University, Thailand

Warin Boonyaputthipong

Faculty of Architecture, Khon Kaen University, Thailand

Thanasit Chantaree

Faculty of Architecture, Khon Kaen University, Thailand

Article Info:	Research Article
Article History:	Received November, 23, 2025
	Revised December 25, 2025
	Accepted December 31, 2025
Corresponding Author:	Siqi Song
E-mail Address:	siqi.s@kkumail.com

Abstract

The preservation and innovation of traditional crafts face the dual challenge of maintaining cultural authenticity while achieving contemporary value. This study addressed this issue by exploring the integration of traditional Benjarong porcelain patterns into contemporary Mai Tam Mee silk design. Using qualitative methods, the research decoded the cultural semantics of Benjarong patterns from the reign of King Rama II and conducted a comparative analysis with the form of Mai Tam Mee. The results revealed a visual complementarity between the two. Based on this, key design elements were extracted from seven dimensions to guide the redesign. Two design proposals, validated by experts, demonstrated the feasibility of transforming the aesthetic of porcelain into textile applications while preserving cultural meaning. This study not only provides a practical framework for the contemporary transformation of traditional patterns but also creates a material dialogue in response to the “21st Century Maritime Silk Road.”

Keywords : Benjarong porcelain, Pattern integration, Cross-media design, Cultural heritage

Introduction

In the contemporary context of globalization and cultural transformation, traditional handicrafts face the fundamental challenge of achieving innovation and development while preserving cultural authenticity (DeSoucey, M., Elliott, M.A., & Schmutz, V., 2019). As Kirshenblatt, G.B. (2004) observes, change is intrinsic to culture, and efforts to preserve and sustain specific cultural practices must negotiate the tension between stabilizing traditional forms and accommodating the inherently dynamic and processual nature of cultural phenomena. This challenge extends beyond the mere survival of craft practices, encompassing the translation and reinterpretation of cultural symbols within processes of modernization. Cross-media design understood as an approach that enables the creative transformation of visual language across different material carriers provides both a critical theoretical framework and a practical methodology for the revitalization of traditional crafts (Mäkelä, M., & Löytönen, T., 2017)

This study focuses on two representative Thai handicrafts: Benjarong porcelain and Mai Tam Mee silk. Benjarong (five-colour porcelain) is a type of ancient Chinese export ware characterised by elaborate decorative patterns and rich polychromy (Rooney, D.F., 2017). In Thailand, it underwent a stylistic evolution from imitation to hybridisation and eventual localisation, which has been the primary focus of existing scholarship (Zhang, A., 2020). Mai Tam Mee, by contrast, is a contemporary innovation derived from traditional Mudmee (ikat) weaving practices in Ban Hua Fai village, Chonnabot District, in the Isan region of northeastern Thailand (Chullasthira, C., 2022). Its key innovation lies in replacing conventional resist-tying techniques with direct hand-dyeing, allowing pattern creation to transcend the geometric repetition typical of traditional ikat and achieve a painterly degree of expressive freedom (Boonyaputthipong, W., 2018). Current studies on Mai Tam Mee have largely concentrated on technical processes and community development.

Although both crafts exhibit a “*hand-painted*” visual quality in their final decorative effects, they differ fundamentally in technical logic, material carriers three-dimensional ceramic surfaces versus two-dimensional warp-and-weft textiles and production processes. This condition of being “*rooted in hand-painted aesthetics yet heterogeneous in materiality and technique*” renders their integration more than a matter of simple pattern borrowing, positioning the two crafts as a paradigmatic case for exploring how cultural schemata may traverse material boundaries. For this reason, translating Benjarong’s well-developed cultural pattern system into design resources suitable for Mai Tam Mee production represents a topic of both significant potential and considerable complexity. However, academic research to date lacks systematic investigation into how these two heterogeneous media porcelains and silk can be integrated at the level of visual language (Qu, Y., 2019). This research gap not only reflects a fragmentation within scholarly discourse but also, in practice, limits the incorporation of Benjarong’s rich Sino–Thai symbolic resources into Mai Tam Mee, a medium with strong contemporary adaptability. Consequently, the potential

for the two crafts to achieve extended cultural value and industrial upgrading through synergistic innovation remains constrained.

Accordingly, this study aims to fill this critical gap by constructing a systematic framework of comparative analysis and design-oriented methods, while also responding to the spirit of cultural dialogue advocated by the “21st Century Maritime Silk Road” initiative. Grounded in semiotic theory (Peirce, C. S., 1998) used to interpret the cultural meanings of decorative motifs and pattern design concepts employed to deconstruct form, line, colour, structure, composition, and pattern arrangement the research conducts a systematic investigation of samples from central Thailand (The Bangkok National Museum and the Pinsuwan factory in Samut Sakhon Province) and northeastern Thailand (The Ban Hua Fai community in Khon Kaen Province). The study seeks to address the following core research questions: 1) How can the cultural semantics of Benjarong patterns from the reigns of Rama II to Rama III be decoded and interpreted in order to assess their potential for cross-media translation? 2) What specific formal differences and complementarities exist between the two crafts, and how do these characteristics influence design transformation? 3) How can a feasible and verifiable cross-media pattern integration design methodology be constructed and validated?

By addressing these questions, this research not only seeks to provide concrete design strategies for the contemporary development of Benjarong and Mai Tam Mee, but also aims, at a theoretical level, to offer an analytically grounded and replicable cross-media design research model for the “*creative transformation*” of traditional handicrafts. In doing so, it explores potential pathways through which traditional cultural value may be regenerated within contemporary contexts.

Research Objectives

1. To interpret the typical Benjarong patterns from the reigns of Rama II by applying Peirce’s semiotic theory.
2. To analyze and compare the formal characteristics and crafting techniques of Benjarong and Mai Tam Mee.
3. To extract key design elements to redesign Mai Tam Mee patterns inspired by Benjarong.

Research Methodology

This study adopts a qualitative research approach, integrating literature review, field investigation, and design practice to systematically examine cross-media integration pathways for incorporating Benjarong motifs into Mai Tam Mee silk. Data collection and analysis were conducted between December 2023 and June 2025.

1. Research Steps

The study follows a structured research trajectory consisting of four stages: theoretical construction, empirical data collection, comparative analysis, and design validation. First, a theoretical framework

grounded in cross-media design and semiotic analysis was developed through a comprehensive review of relevant literature. Second, field investigations were conducted to obtain first-hand empirical data. Third, systematic formal comparisons were carried out between the two categories of craft samples. Finally, the feasibility of the proposed integration approach was examined through design practice and expert evaluation.

2. Target groups

Data collection focused on two core categories: craft artifacts and key informants. For the craft artifacts, purposive sampling was employed to select ten Benjarong samples from the reign of King Rama II and ten contemporary Mai Tam Mee samples. Selection criteria emphasized historical authority, stylistic representativeness, and technical significance, including museum-held objects or authoritative reproductions, coverage of common motif types, and the ability to fully demonstrate core craft characteristics.

With regard to key informants, five in-depth interviews were conducted with individuals possessing extensive experiential knowledge. These included a factory manager with 25 years of experience and a painter with one year of experience from the Pinsuwan factory; two senior weavers from the Ban Hua Fai community with 30 and 12 years of professional experience, respectively; and one interviewee with 50 years of experience who serves both as a community administrator and a technical expert in Mai Tam Mee.

3. Research Tools

Semi-structured interviews and participant observation were employed as the primary research tools. The interviews were conducted based on a pre-designed interview guide, addressing topics such as craft techniques, motif semantics, and development and innovation. All interviews were carried out with the informed consent of the participants. The participatory observation was conducted in two stages. First, the types and styles of porcelain from the reign of King Rama II, officially recognized by the Bangkok National Museum, were verified. Subsequently, field observation of the study objects was carried out at the Pinsuwan factory and Ban Hua Fai community, with a focus on hand-painting techniques, tool usage, and production processes, in order to gain an in-depth understanding of the technical logic and practical mechanisms underlying the formal characteristics.

4. Data Collection

The data for this study were collected from both secondary and primary sources. Secondary data comprised a systematic review of scholarly literature, museum catalogues, and archival records concerning the history and pattern characteristics of Benjarong, as well as the technological development and innovation of Mai Tam Mee. This review provided the theoretical foundation and historical context for the research. Primary data were obtained through semi-structured interviews and participatory observation conducted at the Bangkok National Museum, the Pinsuwan factory in Samut Sakhon Province, and the Ban Hua Fai community in Khon Kaen Province. Field notes were used to record detailed observations of

craftsmanship techniques, tool usage, production processes, cultural interpretations, and innovative practices. In addition, digital recording devices captured key stages of production, pattern details, and color applications, providing direct visual evidence to support the analysis.

5. Data Analysis

Data analysis was conducted across three interconnected dimensions: motif interpretation, formal comparative analysis, and design validation. First, interview transcripts and observational records were systematically organized and analyzed to identify key issues related to technical characteristics, meaning construction, and challenges encountered in cross-media integration. Second, a design criteria framework encompassing seven dimensions style, motifs, structure, layout, color, materials, and techniques was established to extract design elements from the Benjarong and Mai Tam Mee samples. Finally, preliminary design outcomes were evaluated by an interdisciplinary panel of experts, including weavers, graphic designer, and textile designer. Using a structured evaluation approach incorporating criteria such as technical feasibility, cultural authenticity, and aesthetic innovation, expert feedback was collected and used to refine the design proposals, thereby validating the effectiveness of the proposed integration pathway.

Research Results

The integration of Benjarong and Mai Tam Mee constitutes a design practice grounded in cross-cultural dialogue and closely aligns with the principles of the “*21st Century Maritime Silk Road*” initiative, which emphasizes mutual learning, shared prosperity, and collaborative innovation among civilizations along historical maritime routes. Through systematic analysis, this study elucidates the feasibility of cross-media integration between Benjarong and Mai Tam Mee, identifies its core tensions, and proposes corresponding pathways for resolution. The findings indicate that such integration is founded on a dual basis: first, a shared craft genealogy rooted in hand-drawn logic as a fundamental creative mechanism; and second, semantic commensurability derived from shared symbolic meanings within Sino-Thai cultural contexts. However, in the process of material and visual translation, the integration encounters a fundamental visual tension—namely, how the finely detailed pictorial qualities emphasized in Benjarong can be effectively transformed into the large-scale and holistic visual impact pursued in Mai Tam Mee. In response to this tension, the study advances specific findings across three analytical dimensions.

1. Semiotic Decoding of Pattern Semantics and the Feasibility of Cross-Cultural Translation

This study employed Peirce’s (1998) semiotic triad icon, index, and symbol to decode the Benjarong patterns extensively found in both the King Rama II period artifacts and replicas produced by the Pinsuwan factory (Figure 1). A translatability gradient (high, medium-high, medium, low) was systematically established by evaluating the degree of consensus across these three semiotic dimensions in a cross-cultural context. Patterns were assigned a high translatability rating when their visual forms, indexical associations (cultural

context), and symbolic meanings were highly consistent in both Thai and Chinese cultural frameworks. Conversely, patterns received a low translatability rating if one or more dimensions involved significant conflict or risk of misinterpretation. This grading framework directly informed subsequent design translation strategies.

(A) Benjarong motifs line drawing			
			
A1: Lotus	A2: Chrysanthemum	A3: Thai textile pattern	A4: Water lettuce
(B) Icon			
B1: Olive-shaped petals in a pink-to-white gradient, shown in a progressively blooming state.	B2: Composed of a central disc and a single layer of ligulate petals; small, disc-shaped, and predominantly white in tone.	B3: Vines and geometric elements	B4: The leaves are stacked and open like lettuce
(C) Index			
C1: Thai and Chinese-Buddhist culture	C2: Thai-Religious ritual Chinese-Double Ninth Festival	C3: Thai-Amulet	C4: Thai and Chinese-River
(D) Symbol			
D1: Sacred, purity	D2: Thai-Purity and auspicious Chinese-Healthy and longevity	D3: Thai-Protect, defend against evil	D4: Thai-Prosperous Chinese-Prosperous (environmental threats)
(E) Conclusion on translatability potential (10 Benjarong motifs)			
E1: High Lotus	E2: Moderately high Chrysanthemum, jasmine, peony	E3: Moderate- Thai textile pattern, butterfly,	E4: Low Water lettuce, Himaphan forest flower, Naga, Thep phanom

Figure 1 Semiotic analysis and translation potential gradient of representative Benjarong motifs (Partial)

High translatability motifs (e.g., the lotus): These motifs exhibit widely shared iconic forms (floral and abstract representations), while their conventional meanings (purity and sacredness) show a high degree

of consensus in both Thai and Chinese cultural contexts. They can therefore be directly extracted as primary design prototypes.

Moderately high translatability motifs (e.g., the chrysanthemum): Their indexical meanings display subtle cultural variations (Thailand: purity and devotion; China: longevity and well-being). In design applications, the intended symbolic direction should be explicitly guided to avoid semantic ambiguity.

Moderate translatability motifs (e.g., Thai textile patterns): Their core indexical meaning (protection) is embedded exclusively within the Thai cultural context, whereas their iconic forms (geometric patterns) are more universally legible. During transformation, semantic distillation and morphological reconfiguration are required, emphasizing the concept of “protection” rather than directly replicating geometric appearances.

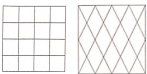
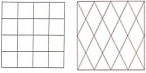
Low translatability motifs (e.g., water hyacinth): Although their iconic forms are visually universal, their conventional meanings risk ecological misinterpretation in the Chinese cultural context, where the plant is associated with invasive species. Such motifs are therefore excluded from the design translation process.

2. Comparison of the Formal Characteristics and Craft Techniques of Benjarong and Mai Tam Mee

The core tension of cross-media integration lies in translating the intricate patterns of Benjarong into the monumental visual compositions of Mai Tam Mee. To systematically deconstruct this tension, the present study establishes a formal analytical framework. As shown in Table 1, the comparison aims to clarify how each identified difference constitutes either a design constraint or an opportunity, thereby constructing a strategic bridge from analysis to practice.

Table 1 Comparison of Formal Characteristics and Their Design Standards

Category		Benjarong (r. Rama II)	Mai Tam Mee	Constraint/opportunity
Pattern size		Small	Big (The smallest size : 1x1cm)	Simplified method (Nipaporn, Interview : 2025)
Line		1. Straight line 2. Curved/ freeform line	1. Straight line 2. Curved/ freeform line 3. Zigzag line	Attend to serrated-edge diffusion and color differentiation
Color	Pattern	5 colors (red, green, yellow, white, black) or so (gold)	Any but must be darker than the background color	Emphasize gold as a defining identifying feature of Benjarong

Category		Benjarong (r. Rama II)	Mai Tam Mee	Constraint/opportunity
	Background	White or green	White or light color	The pattern colors should be darker than the background (Supanee, Interview : 2025)
	Structure	1. Unit combination (most)  2. Grid structure  3. Ring structure  4. Free structure 	1. Grid structure (most)  2. Free structure 	Unit-based motifs and circular compositions, shaped by structural constraints, are characteristic of Benjarong and are relatively rare in Mai Tam Mee, making them well suited for complementary integration.
	Layout	1. Full coverage  2. Layered coverage (most) 	1. Full coverage (most)  2. Half coverage 	Layered decoration is a typical ornamental feature of Benjarong vessels.
	Style	Traditional	Modern and free	Revitalize the contemporary value of traditional culture

3. Design Validation

3.1 Design Element Extraction

Based on the above analysis, this study identifies key visual elements applicable to cross-media design across seven dimensions: style, motif, structure, layout, color, material, and technique (Figure 2). In design practice, considering both the refined ornamental characteristics of Benjarong patterns and the technical constraint of a minimum drawing unit of 1 × 1 cm in Mai Tam Mee, stylistic decisions were informed by artisans' experience and guided by the visual design simplification framework proposed by Hsu, C.C. &

Wang, W.Y. (2018). Unit motifs with varying degrees of translational potential were simplified accordingly, including high-potential motifs (lotus), medium-high-potential motifs (chrysanthemum, jasmine, and peony), and medium-potential motifs (Thai textile pattern, butterfly).

In terms of structure and layout, unit motifs were developed based on the commonly used modular and circular compositions in Benjarong, in combination with the grid-based construction characteristic of Mai Tam Mee. Decorative execution was achieved through hand-drawn silk threads, applied either as layered ornamentation or as all-over patterns. With regard to material and technique selection, chemical dyes demonstrated greater overall stability and suitability for hand-dyeing practices when color durability, labor input, and time costs were taken into account. The color strategy follows the iconic five-color palette of Benjarong and is further extended through analogous hues to maintain overall chromatic harmony.

At the level of detail, gold was introduced as a key identifying element. On the one hand, the Nam Thong (gold-water) technique characteristic of Benjarong was referenced by applying gold pigment to accentuate fine details; on the other hand, gold threads were incorporated into the plain-weave structure at the textile level, enhancing the overall refinement and decorative quality of the design.

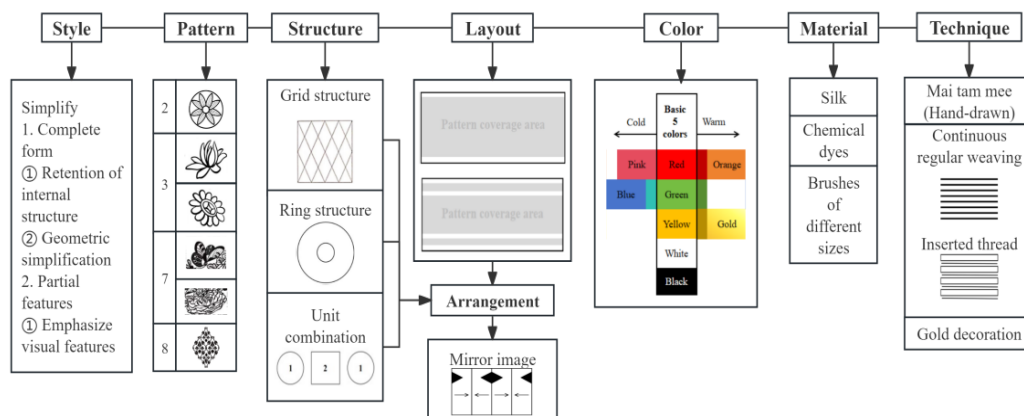


Figure 2 Element Extraction

3.2 Design Transformation

Sketch 1 (Figure 3) is titled “Endless Love”, with jasmine as the core compositional element. Jasmine is endowed with the symbolic meaning of “purity” in both Chinese and Thai cultures. In Thailand, jasmine is further recognized as the representative flower for Mother’s Day. The name echoes this cultural connotation of eternal and cyclical love between mother and child.

In terms of morphological composition, the center retains the structural characteristic of 8 petals from the original inspiration pattern, symbolizing the “mother.” An additional 8 oval-shaped buds are added to the outer ring as extended elements, emphasizing the layered and undeveloped visual feature, symbolizing the “children.” The dual-ring layout of inner and outer elements reflects the emotional

connection between mother and children that is cyclical, interdependent, and never-ending, while also forming a visual structure symbolizing “wrapping and protection,” reinforcing the emotional theme. The cultural connotation expressed by this design has been recognized by graphic design expert. At the same time, evaluations by weavers and textile expert indicate that circular motifs exhibit a high degree of novelty and development potential in Mai Tam Mee. However, due to their relatively large unit scale, they are more suitable for large-area fashion applications; alternatively, the circular forms may be quartered and adapted for smaller product categories, such as cushions.

In terms of color application, the pattern adopts a low-contrast color combination of green and brownish yellow, while the background features large areas of blank space to reflect the meaning of “purity.” Compared with the Benjarong-inspired pattern, the color expression does not continue its gorgeous style. The use of gold is greatly simplified, appearing only through the insertion of golden threads during the weaving process, which not only echoes the golden decoration characteristic of Benjarong, but also technically helps prevent the circular patterns from being compressed and deformed during weaving.

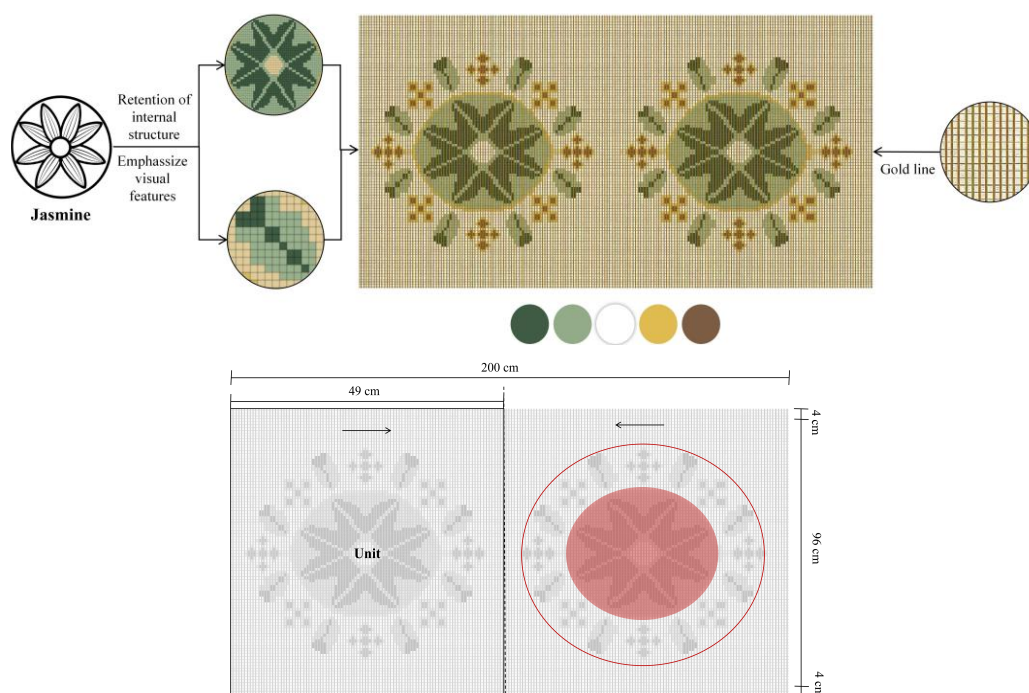


Figure 3 Sketch 1 “Endless Love”

Sketch 2 (Figure 4) is titled “Shelter of Love”, integrating all elements extracted during the motif analysis process, including six types of patterns: Thai textile geometric patterns, lotus, jasmine, butterfly, chrysanthemum, and peony. The design is rich in cultural connotations. Its key themes can be distilled as: protection, love, and eternity (Figure 5).

In terms of morphological composition, the sketch refers to Benjarong’s layered layout design: the upper and lower border areas take Thai traditional textile patterns (geometric elements) as the core, and

by preserving the internal structure, the traditional meaning of “resisting evil” is not weakened, while it also aligns closely with the protective attribute of the border in both visual and functional aspects. The central core pattern area is composed of two unit combination patterns, namely ① the circular pattern and ② the square pattern in Figure 6. The two unit patterns do not exist independently, but are meaningfully connected through internal elements: the center of unit ① is a lotus seed pattern, and the center of unit ② is a blooming geometric lotus pattern, intended to express the “origin” relationship, symbolizing the continuation of mother and child, echoing the theme of maternal love carried by the jasmine flower and highlighting the cultural symbol of “love.” In unit ①, butterflies with internal structure are used to connect the circular shapes, and the cultural symbolism of the butterfly transformation, life cycle, and eternity corresponds to the circular structure representing no beginning and no end, continuous and unbroken. Chrysanthemums and peonies only emphasize visual features as auxiliary decoration. Compared with Sketch 1, the overall pattern style is closer to the traditional style of Benjarong. The researcher also hopes to present the visual differences and expressive approaches of traditional and modern design styles under the method of pattern simplification through the comparison of the two sketches.

In terms of color application, the sketch strictly follows Benjarong’s five-color system, in which white is represented by the undyed silk thread color (beige). The overall tone leans toward warm colors, and gold is extensively used for outlining in the pattern to enhance the gorgeous delicacy and decorative aesthetics of Benjarong patterns.

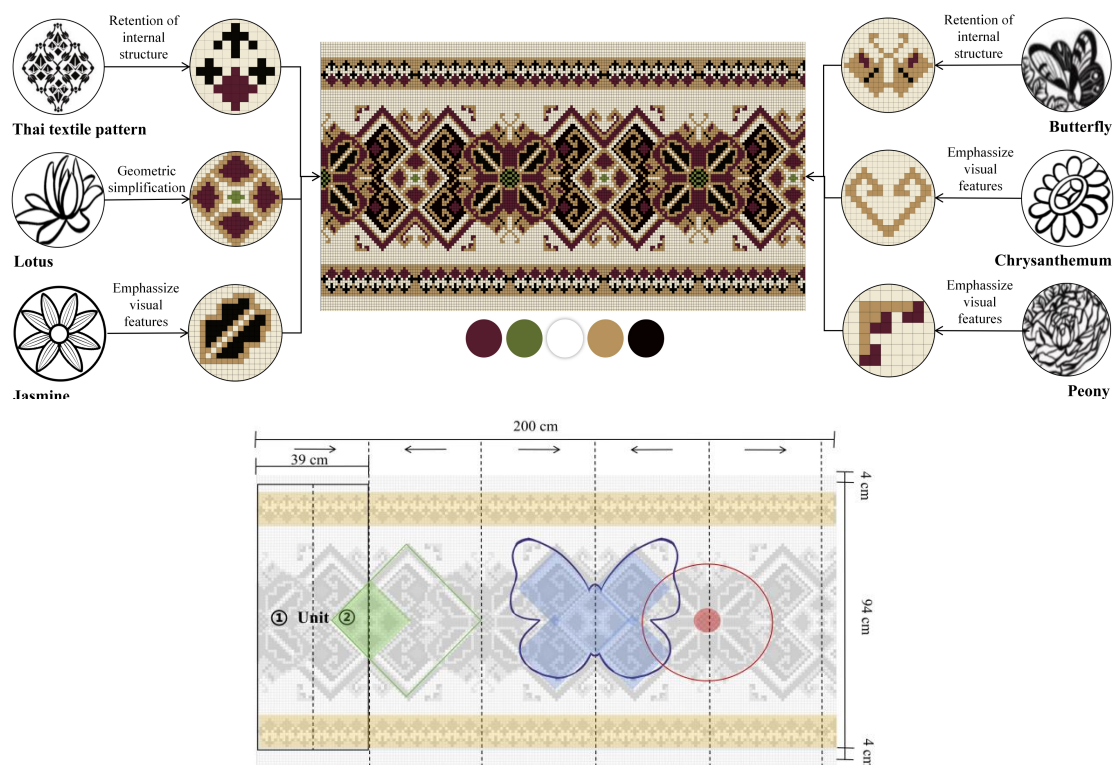


Figure 4 Sketch 2 “Shelter of Love”

3.3 Expert Evaluation and Design Optimization

To ensure the feasibility, cultural authenticity, and aesthetic innovation of the proposed designs, a structured expert validation was conducted. An interdisciplinary panel comprising two senior Mai Tam Mee weavers from Ban Hua Fai, a textile designer specializing in Thai silk, and a graphic designer with expertise in cultural visual communication evaluated the designs. The assessment was carried out based on a set of predefined criteria (Table 2).

Table 2 *Expert Assessment*

Evaluation dimensions		Assessment items			
		Weaver 1	Weaver 2	Textile design expert	Graphic design expert
Sketch 1 /Fabric 1	Technical feasibility	Circular patterns are quite rare in Mai Tam Mee, but there is strong willingness to explore their development.		The circular patterns need to be discussed with weavers and tested to accurately calculate the number of warp and weft threads.	Based on the recommendations of weavers and textile design expert.
	Cultural authenticity	Supplementary explanations are needed to more effectively convey cultural meanings.			
	Aesthetic innovation	Beautiful.		With a modern aesthetic, the enlarged circular patterns expand the visual scale. However, large sizes are not suitable for smaller product categories.	Using too much similar weight and color in the pattern causes the pattern to lack dimension.
Sketch 2 /Fabric 2	Technical feasibility	The border decoration is challenging but still feasible; however, the serrated edges may be more pronounced.			Based on the recommendations of weavers and textile design expert.
	Cultural authenticity	Supplementary explanations are needed to more effectively convey cultural meanings.			
	Aesthetic innovation	Traditional style.		Consider adding gold decorative elements to echo the gold water technique.	The pattern has a distinct dominant color (reddish-brown).

Based on expert evaluation, the gold-water decoration features of Benjarong in Sketch 1 were enhanced: the yellow pixels around the original pattern were replaced with gold (using the corresponding dyes provided by Ban Hua Fai), while the dark green areas were intensified by increasing the dye concentration or reducing the amount of water to enhance contrast (Figure 5). In Sketch 2, water-based glitter gold paint was applied to certain parts of the pattern to highlight the central motif, reinforcing the luxurious and delicate aesthetic characteristic of Benjarong patterns (Figure 6). It is worth noting that the actual dimensions of Fabric 1 and Fabric 2 are 250 × 102 cm and 210 × 102 cm, respectively. These adjustments mainly represent reasonable optimizations made by the factory based on the pattern design, aiming to ensure the integrity and visual appeal of the patterns, and all remain within acceptable limits.



Figure 5 Fabric 1 “Endless Love”



Figure 6 Fabric 2 “Shelter of Love”

Conclusion and Discussion

1. Conclusion

This study demonstrates that the cross-media transformation of Benjarong motifs into Mai Tam Mee silk is feasible when guided by both semantic evaluation and media-specific constraints.

First, the translatability of motif semantics exhibits a clear gradient. Semiotic analysis reveals that motifs with a high degree of cross-cultural semantic consensus (e.g., the lotus) can be directly adopted as core design motifs. Motifs with medium-high or moderate translatability (e.g., chrysanthemums and certain Thai textile patterns) require morphological guidance and semantic reinforcement to ensure effective cultural interpretation, whereas motifs such as water hyacinth present a high risk of cross-cultural misreading and should therefore be excluded from the design system.

Second, formal transformation must be driven by the target medium. Comparative formal analysis indicates that successful cross-media integration does not involve the direct transfer of Benjarong patterns, but rather a redesign process governed by the structural, material, and compositional constraints of Mai Tam Mee textiles. Scale limitations, compositional logic, and material expression play a decisive role in shaping the final design outcomes.

Finally, the design practice validated the applicability of the proposed innovation pathway. Through integrative innovation, this study developed two design collections, Endless Love and Shelter of Love, which were subsequently fine-tuned under expert guidance to ensure practical feasibility, ultimately resulting in the realization of two actual fabric samples. The study provides a systematic approach and practical model for the contemporary transformation of traditional patterns, while simultaneously generating new cultural narratives.

2. Discussion

This research provides a methodological framework that bridges theory and practice in cross-media design, confirming the viability of transforming traditional motifs across different craft media. In contrast to previous studies that primarily focused on either Benjarong or Mai Tam Mee as isolated media, this study emphasizes their compatibility in terms of visual language and cultural expression.

Expert assessments indicate that the proposed “formal transformation-semantic continuity” approach is particularly effective for motifs with high translatability. However, for motifs with medium-high translatability, maintaining semantic integrity during processes of simplification and reinterpretation remains an ongoing challenge. In such cases, the inclusion of explanatory design narratives may help mitigate potential semantic ambiguity in market-oriented applications.

Several limitations should be acknowledged. Due to material constraints inherent to Mai Tam Mee, the current design outcomes are largely restricted to light-color backgrounds and relatively simplified layered stripe decorations derived from warp-weft structures. More complex color schemes and the integration of motifs within layered decorative elements remain underexplored. Future research may further

investigate technical collaboration with artisans and situate this case within broader theoretical frameworks, such as cultural adaptation or innovation diffusion, through comparative studies with other traditional craft transformation models.

References

- Boonyaputthipong, W. (2018). **Design approach and factors affecting Mudmee silk design of community-based enterprise in Isan**. Doctor of Philosophy in Culture, Fine Arts and Design Research, Khon Kaen University.
- Chullasthira, C. (2022). **Chonnabot's Mudmee Textiles**. Khon Kaen : Klungnanawittaya Publishing.
- DeSoucey, M., Elliott, M. A., & Schmutz, V. (2019). Rationalized authenticity and the transnational spread of intangible cultural heritage. *Poetics*. 75 : 101332. <https://doi.org/10.1016/j.poetic.2019.101332>
- Hsu, C.C. & Wang, W.Y. (2018). Categorization and Features of Simplification Methods in Visual Design. *Art and Design Review*. 6 : 12-28. <https://www.scirp.org/journal/paperinformation?paperid=82324>
- Kirshenblatt, G.B. (2004). Intangible heritage as metacultural production. *Museum International*. 56(1-2) : 52-65. <https://unesdoc.unesco.org/ark:/48223/pf0000135852>
- Mäkelä, M., & Löytönen, T. (2017). Rethinking materialities in higher education. *Art, Design & Communication in Higher Education*. 16(2) : 241-248.
- Peirce, C. S. (1998). **The essential Peirce : selected philosophical writings**. Vol. 2, 1893-1913 (Peirce Edition Project, Ed.). Indiana University Press. URL: <http://site.ebrary.com/id/10583027>
- Qu, Y. (2019). Cross-media communication of visual and its dynamic model under media convergence. *Journal of Jishou University (Social Sciences)*. 40(6) : 136-151
<https://doi.org/10.13438/j.cnki.jdxb.2019.06.015>
- Rooney, D. F. (2017). **BENCHARONG: Chinese Porcelain for Siam** (1st ed.). Bangkok : River book Publishing.
- Zhang, A. (2020). Research on Chinese Export “Benjarong” Porcelain to Thailand. *Cultural Relics World*. (01) : 84-87. <http://www.cnki.net>