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Technological Transmission and Cross-Cultural Adaptation of Chinese-Style Textiles on the Maritime Silk Road (17th–19th Centuries)

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Abstract: During the seventeenth to nineteenth centuries, global maritime trade expansion facilitated the circulation of Chinese-style textiles along the Maritime Silk Road. Distinguished by refined craftsmanship and distinctive decorative patterns, these textiles disseminated across Europe, Southeast Asia, and Japan, serving as critical media for cross-cultural design exchange. Beyond their function as trade commodities, Chinese-style textiles embodied transferable craft knowledge, including embroidery, weaving, and gold-thread techniques. Through maritime networks and commercial institutions, these techniques underwent selective adaptation to local materials, aesthetic preferences, and production systems. This study examines the technological features and cross-cultural transformations of Chinese-style textiles to explore how textile craftsmanship was reinterpreted across diverse regional contexts. Case studies from Europe, Japan, and Southeast Asia reveal that textile technology transmission catalyzed local design innovation and reshaped material production in the pre-industrial era. This research positions textile craftsmanship as an active agent in early modern global design exchange and contributes a material-based perspective to Maritime Silk Road studies.

Key words: Chinese-style textiles; Textile craftsmanship; Maritime Silk Road; Cross-cultural design; Material culture

1 Introduction

The seventeenth to nineteenth centuries witnessed intensified maritime trade, during which the Maritime Silk Road interconnected China with Europe, Southeast Asia, and East Asia. Along these routes, Chinese-style textiles—including silk fabrics, embroidery, and gold-woven textiles—circulated widely, valued for their material quality and decorative excellence. These textiles functioned not merely as luxury goods but also as vehicles shaping foreign perceptions of Chinese craftsmanship and design.

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Previous scholarship on Chinese-style textiles has primarily addressed stylistic influence and symbolic meaning, particularly within the framework of European Chinoiserie. While this research has clarified the visual impact of Chinese motifs on foreign decorative arts, textile craftsmanship as a form of transferable design knowledge has received comparatively limited attention. Unlike static visual patterns, textile techniques necessitate adaptation to local materials, tools, labor systems, and production conditions, rendering them especially responsive to cross-cultural interaction.

This study approaches Chinese-style textiles as technological artifacts embedded in global circulation. It posits that the overseas dissemination of Chinese textile craftsmanship constituted neither simple diffusion nor direct imitation. Rather, techniques such as embroidery, brocade weaving, and gold-thread production underwent selective transformation in response to regional demands and industrial contexts. Through case studies from Europe, Japan, and Southeast Asia, this article demonstrates how textile technologies functioned as active agents in cross-cultural design exchange and contributed to the formation of early modern global material culture.

2 Case Studies: Cross-Cultural Adaptation of Chinese-style Textile Technologies

2.1 Guangzhou Export Textiles and Market-oriented Adaptation

As the principal production center for Chinese export textiles during the seventeenth to nineteenth centuries, Guangzhou mediated technological exchange along the Maritime Silk Road. Under the Canton trading system, foreign merchants submitted detailed commissions specifying motifs, color preferences, materials, and intended uses. Chinese artisans responded by adjusting traditional textile techniques while preserving recognizable elements of Chinese craftsmanship.

In embroidery production, large-scale export textiles increasingly employed efficient stitches—satin stitch and knot stitch—to satisfy overseas demand for quantity and durability. Concurrently, emblematic Chinese motifs (floral scrolls, birds, auspicious symbols) were retained to maintain cultural recognizability. Dyeing practices were modified: mineral-based pigments were used more frequently to enhance color fastness, reflecting European expectations for durability under sunlight and repeated washing.

This customization process illustrates how Chinese textile technology operated flexibly within global trade networks. Rather than exporting fixed craft traditions, Guangzhou workshops produced adaptive hybrids balancing efficiency, aesthetic recognition, and market demand. These export textiles represent an early form of design adaptation driven by cross-cultural negotiation.

2.2 European Reinterpretation: Rococo Tapestry and Decorative Transformation

In eighteenth-century Europe, Chinese-style textiles were often encountered indirectly through imported fabrics, prints, and decorative objects. The Beauvais Tapestry(Figure 1) Manufactory exemplifies how Chinese visual elements were reinterpreted within European production systems. Designers rarely accessed original Chinese textiles; instead, they relied on secondary sources, including inexpensive imported fabrics, chinoiserie prints, and illustrated travel accounts.

Figure 1 Monnoyer, Bovee's fantastical-style 'Musicians and Dancers' [1]

Within this context, Chinese motifs were transformed to conform to European aesthetic conventions. Architectural elements associated with Chinese court life were replaced with European spatial structures(Figure 2), while garden scenes were reorganized according to symmetrical compositional principles. Textile patterns such as dragons and phoenixes were stripped of their original symbolic meanings and reduced to ornamental forms, often merged with Rococo scrolls and foliage.

Figure 2 Paul, 'The Luncheon' [2]

This process constitutes cultural re-encoding. Chinese textile imagery was not reproduced as an authentic representation but adapted as a decorative vocabulary within European design logic. The resulting tapestries demonstrate how textile technology and visual motifs were reshaped to serve new social functions, particularly as symbols of refinement within aristocratic interiors(Figure 3).

1 Monnoyer, Bovee's fantastical-style 'Musicians and Dancers', tapestry, 1690–1730, The Getty Museum.
2 Paul, 'The Luncheon', from the Royal Manufacture of Beauvais, France, 17th century, collection of the Getty Museum.

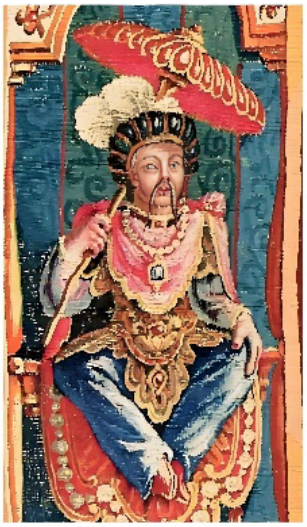

Figure 3 Detail of the border of a French Beauvais-style tapestry, 1685–1687[1]

2.3 Japanese *Kara-ori*: Technical Integration and Localization

During the Edo period (1603–1868), Japan developed *Kara-ori* textiles (Figure 4) as a highly localized adaptation of Chinese silk and gold-thread weaving techniques. Unlike European reinterpretations, Japanese artisans maintained more direct access to Chinese textile technologies through official trade and artisan exchange via Nagasaki.

Figure 4 Tang-weave fabric[2]

Chinese techniques, including brocade weaving and gold-thread incorporation, were absorbed and transformed to suit Japanese dress culture requirements. Traditional Chinese textiles were typically narrow and long, designed for robe construction, whereas Japanese kimonos demanded fixed-width fabrics(Figure 4) and modular production. Japanese artisans modified looms accordingly, enabling segmented weaving that increased efficiency and reduced material waste.

1 Detail of the border of a French Beauvais-style tapestry, 1685–1687.
2 Tang-weave fabric, gold-ground with weeping cherry blossom cart, Japan, Edo period (17th century).

Figure 5 Peonies on a checkered ground and a wooden fence, Tang-style woven clothing (Edo period, 18th century)[1]

Material adaptation was equally significant. To address Japan's humid climate, gold-thread production was simplified by replacing complex gilding processes with gold-leaf-wrapped threads. Over time, *Kara-ori* textiles became central to elite kimono production and ceremonial use, forming the foundation for regional weaving centers such as Nishijin.

2.4 Comparative Perspective on Regional Adaptation

Across these case studies, Chinese-style textile technologies demonstrate varying adaptation degrees shaped by local production systems, social structures, and aesthetic values. European reinterpretations emphasized visual transformation within established manufacturing frameworks, while Japanese adaptations focused on technical integration and industrial sustainability. In Southeast Asia, Chinese embroidery techniques were selectively combined with local symbolic systems and religious traditions, producing hybrid decorative languages embedded in regional craft practices. These differences highlight textile technology as an active medium of cultural negotiation. The transmission of embroidery, weaving, and gold-thread techniques generated diverse material expressions shaped by regional contexts rather than uniform outcomes.

1 Peonies on a checkered ground and a wooden fence, Tang-style woven clothing (Edo period, 18th century).

3 Cross-Cultural Impact and Technological Influence

The dissemination of Chinese-style textile technologies exerted significant influence on local industries and consumption patterns before industrialization. In Europe, exposure to Chinese silk, embroidery, and weaving techniques stimulated experimentation in textile manufacturing and contributed to the development of more complex patterning systems. These influences formed part of the broader technological environment preceding mechanized textile production.

In East Asia, particularly Japan, Chinese textile technologies contributed to the formation of sustainable local industries. The localization of *Kara-ori* techniques supported the emergence of specialized weaving centers and reinforced the integration of textile craftsmanship into social and ceremonial life.

In Southeast Asia, Chinese textile techniques played a catalytic role in regions with less-developed textile infrastructures. Local artisans incorporated Chinese methods into existing craft traditions, enabling regional textile production growth and the formation of hybrid visual identities. In these contexts, textile technology functioned not merely as an imported skill set but as a resource for local innovation.

4 Conclusion

The transmission of Chinese-style textile technologies along the Maritime Silk Road demonstrates that craftsmanship functioned as a dynamic medium of cross-cultural exchange rather than a fixed tradition. Through selective adaptation to local materials, production systems, and aesthetic preferences, Chinese embroidery and weaving techniques generated diverse regional outcomes in Europe, Japan, and Southeast Asia. By foregrounding textile technology as design knowledge in motion, this study contributes to a material-based understanding of early modern global exchange. It highlights the role of craft practices in shaping cross-cultural interaction before industrialization and underscores the importance of textiles as active agents in global design history.

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