

Approaches and Practices of Product Innovation in Rongchang Grass Cloth Through the Intervention of Modern Design Language

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Abstract

In the context of cultural confidence and consumption upgrading, the revitalization of intangible cultural heritage urgently needs to transition from productive protection to innovative development. This paper takes Rongchang Grass Cloth from Chongqing as its research subject, focusing on the core issue of how modern design language can systematically intervene in its product innovation. Through practice-oriented research methods and case analysis, this study identifies and proposes five core approaches through which modern design language intervenes in the product innovation of Rongchang Grass Cloth: symbol translation, material reconstruction, structural innovation, functional crossover, and narrative empowerment. The aim of this paper is to construct an effective design innovation methodology system, contributing to the theoretical framework for the contemporary transformation of Rongchang Grass Cloth and other similar intangible cultural heritage projects, ultimately promoting its creative return from cultural heritage to contemporary life aesthetics.

Keywords: Rongchang Grass Cloth, product innovation, design translation, intangible cultural heritage revitalization

1. Introduction

Rongchang Grass Cloth, renowned for its exceptional quality described as “light as cicada wings, smooth as a mirror, thin as paper, and fine as silk,” is hailed as the “living fossil of Chinese textiles.” Its long-standing reliance on traditional techniques such as hand-spinning yarn and splitting hemp fibers results in low production efficiency and limited novelty in product forms. However, these techniques embody profound localized knowledge and physical practices. Current research and preservation models for Rongchang Grass Cloth predominantly focus on documenting and conserving its craftsmanship, with limited market acceptance. Against this backdrop, the intervention of modern design language is regarded as a crucial pathway to revitalize traditional craftsmanship. Existing academic research primarily concentrates on cultural value discussions or fragmented case studies, lacking systematic induction and theoretical analysis of design intervention methods. Therefore, this paper aims to address the specific ways in which modern design language intervenes in the product innovation of Rongchang Grass Cloth and how these methods operate and yield results in practice. It seeks to construct a clear design innovation methodology system to bridge the gap between theory and practice, providing operable and replicable design tools for the revitalization of intangible cultural heritage.

2. The Translation Logic of Modern Design, Modern Design Language, and Rongchang Grass Cloth

Modern design language is a comprehensive expression system encompassing form, material, structure, function, and context. Its core principles include human-centered functional considerations, openness to new materials and technologies, a commitment to sustainable design ethics, and a deep pursuit of emotional resonance with users. Applying this language to Rongchang Grass Cloth essentially entails a profound process of

“design translation.” The logical starting point of this translation lies in the deep deconstruction of the essence of Rongchang Grass Cloth, which is not merely fabric but a composite cultural carrier.

Design translation is not a simple appropriation of elements or a stylistic mix-and-match but emphasizes a creative transformation based on profound understanding. This process requires designers to be proficient in both the traditional techniques and cultural connotations of Rongchang Grass Cloth and modern aesthetics and lifestyles, ultimately achieving accurate meaning transmission and poetic innovation.

As a complex cultural text, Rongchang Grass Cloth can be symbolically constructed from the following aspects:

Material Essence: Ramie fibers impart natural texture, breathability, coarseness, and wrinkle-prone characteristics.

Technical Core: The unique knots and irregularities formed during hand-spinning and weaving processes serve as tangible carriers of handmade value and warmth.

Cultural Symbols: Rongchang Grass Cloth embodies the memory of agrarian civilization and the simplicity and Zen spirit in Eastern aesthetics, representing the materialization of Eastern aesthetic philosophy.

The task of modern design, as proposed in this paper, is to extract these elements from their original historical context, treat them as “vocabulary” that can be recombined and imbued with new meanings, and then employ modern design grammar—such as minimalist forms, sustainable design ethics, and cross-disciplinary application thinking—to organize this vocabulary and create new products that meet contemporary aesthetic and functional demands.

3. Five Approaches of Modern Design Language Intervening in the Product Innovation of Rongchang Grass Cloth

Based on the analysis and induction of extensive design practices, this paper proposes five core innovation approaches, which together form a multidimensional and three-dimensional design language innovation system.

Symbol Translation: This approach focuses on the refinement and sublimation of visual culture, achieving a transition from formal resemblance to spiritual resemblance. Shifting from cultural imagery to design morphemes emphasizes the purification and re-creation of Grass Cloth culture at the visual level. Designers no longer directly replicate traditional patterns but extract the most core visual symbols, such as warp and weft threads, and transform them into recognizable, decorative, structural, or symbolic modern design elements through abstraction, geometrization, reconstruction, and deconstruction. For example, the Chinese designer brand “Invisible Visible” draws inspiration from the warp-and-weft structure of Grass Cloth in its jewelry design, using extremely fine metal wires to mimic the imagery of interwoven threads, constructing lightweight and bony accessories.

Material Reconstruction: This approach challenges the conventional perception of Grass Cloth as a “flexible fabric,” treating it as a raw and malleable “material” for physical reconstruction. Through techniques such as compositing, reshaping, deconstruction, and integration of new materials, its physical state, visual texture, and mechanical properties are actively altered, significantly expanding its expressive boundaries. For instance, Chinese designer Cai Fan’s “Light of Grass Cloth” lamp series is a paradigm of this approach. By compositing Grass Cloth with epoxy resin and utilizing the solidifying property of the resin, the soft Grass Cloth is shaped into various organic forms. When illuminated, light scatters through the ramie fiber texture, creating a warm, hazy, and unique lighting effect, where the simplicity of Grass Cloth and the modernity of the resin form a remarkable chemical reaction. Additionally, creating permanent folds through high-temperature molding or laminating multiple layers of Grass Cloth to enhance its stiffness are successful explorations in material reconstruction.

Structural Innovation: Breaking through traditional two-dimensional flat pattern-making to three-dimensional cutting, modular design, 3D technology, and AI technology, this approach strives to transcend the two-dimensional nature of Grass Cloth. Through innovative structural design, it endows Grass Cloth with an architectural sense of volume and sculpture in three-dimensional space. Three-dimensional cutting, modular splicing, and parametric design are its main tools. For example, local Chongqing fashion designer Shi Ruizhi extensively employs three-dimensional cutting techniques in her high-end Rongchang Grass Cloth fashion collection. By avoiding traditional flat cutting and engaging in three-dimensional creation on mannequins, the Grass Cloth garments exhibit fluid and spatially dynamic folds and contours completely transforming the stereotype of Grass Cloth as “soft and droopy” and endowing it with the sculptural power of high fashion.

Functional Crossover: This approach involves deliberately integrating Grass Cloth into non-traditional fields, leveraging scenario substitution to stimulate new functional attributes, cultural meanings, and aesthetic connotations. It also requires designers to deeply understand the functional requirements of different product categories and identify ingenious integration points with Grass Cloth. For example, applying Grass Cloth to the

consumer electronics field, such as manufacturing the casing of Bluetooth speakers. The natural acoustic permeability of Grass Cloth becomes a functional advantage, while its warm texture mitigates the coldness of electronic products. Similarly, using Grass Cloth to make laptop bags, notebook covers, or flower vessels in tea spaces are typical practices of successfully crossing from the “apparel” field to the “digital,” “stationery,” and “lifestyle aesthetics” fields, finding new application outlets for core craftsmanship.

Narrative Empowerment: In the era of the experience economy, transforming physical products into emotional tokens can imbue products with a “soul,” turning them from silent objects into storytelling entities. The value of a product lies not only in its physical function but also in the stories and emotions it carries. Through design means, the intangible narratives behind Grass Cloth—such as the production process, artisan stories, and regional culture—are integrated into the product, enhancing its emotional value and cultural appeal. Implementing a “One Cloth, One Certificate” system, where each high-end Grass Cloth product is equipped with a digital identity documenting the weaver’s name, photograph, production duration, and specific techniques employed, allows consumers to scan a QR code to learn the story behind the item, thereby establishing an emotional connection with distant artisans. Furthermore, developing series of cultural and creative products inspired by local cultural IPs like the “Eight Views of Rongchang” and narrating local landscape stories through packaging and display are effective practices of narrative empowerment. In such cases, consumers purchase not merely an object but a fragment of Rongchang’s cultural heritage and imagination.

4. Synergy, Challenges, and Development of Product Innovation Approaches

Design innovation approaches are not isolated but synergistically interact to shape successful innovative products. During the design intervention process, it is essential to avoid the risk of over-design, where excessive technical virtuosity may undermine the inherent simplicity and beauty of Grass Cloth materials. Preventing the superficial consumption of cultural symbols in the wave of commercialization and ensuring the preservation of core craftsmanship spirit present ongoing challenges. Simultaneously, balancing mass production with the uniqueness of handmade products is crucial.

The future development path of Rongchang Grass Cloth design will involve greater integration with digital twins, virtual fashion, parametric generative design, and other technologies, opening up digital dimensions for Grass Cloth innovation. Combining biodesign to develop naturally decomposable Grass Cloth bio-composite materials will maximize its ecological value. Additionally, establishing an integrated innovation community involving academic institutions, designers, artisans, and consumers will make the innovation process itself a living and sustainable cultural practice.

5. Conclusion

Through the analysis of Rongchang Grass Cloth in contemporary design practice, this paper systematically proposes five approaches through which modern design language intervenes in its product innovation: symbol translation, material reconstruction, structural innovation, functional crossover, and narrative empowerment. These five approaches constitute a rich and interconnected design innovation methodology, providing designers with specific paths and directions for breakthrough innovation from different dimensions. Practice demonstrates that modern design is no longer merely a decoration for traditional craftsmanship but an activator of its intrinsic vitality. Through professional symbol translation logic, it transforms Rongchang Grass Cloth into a living cultural resource capable of participating in contemporary life, conveying aesthetic values, and evoking emotional resonance. The methodological system constructed in this paper provides reference and practical paradigms for the sustainable development of Rongchang Grass Cloth. Ultimately, the highest level of intangible cultural heritage revitalization is to seamlessly and quietly reintegrate it into the torrent of contemporary life, with modern design serving as the key bridge to achieve this return.

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