

Innovating Tradition: Integrating Song Dynasty Ru Ware Aesthetics into Contemporary Ceramic Design

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Abstract: This study explores the core aesthetic principles of Song Dynasty Ru porcelain and their integration into contemporary ceramic design. As a symbol of China's intangible cultural heritage, Ru porcelain embodies significant visual and philosophical meanings. Through ethnographic research and expert interviews with ceramic designers and scholars, a practical framework is proposed to incorporate Ru porcelain aesthetics into modern creative processes, as illustrated in Fig. 1, which shows the application of Ru porcelain identity guidelines during the collaborative design process. Through ethnographic research and expert interviews with ceramic designers and scholars, a practical framework is proposed to incorporate Ru porcelain aesthetics into modern creative processes. The study identifies key elements of Ru porcelain's aesthetic identity and examines how these elements are translated into new ceramic works through form, glaze, and symbolism. The results suggest that embracing traditional design not only preserves cultural heritage but also fosters creativity and adds market value in the contemporary design industry.

Keywords: Ru porcelain, song dynasty, cultural heritage; ceramic design, design innovation, intangible aesthetics, traditional-to-modern transition

1. Introduction

Ru porcelain, considered one of China's most exquisite ceramics, originated during the Song Dynasty (960-1127) by (Yan, 2024). Its elegant sky-blue glaze, restrained forms, and intricate decorative features reflect not only exquisite craftsmanship but also profound aesthetic and philosophical concepts rooted in Taoist simplicity, literati refinement, and harmony with nature. Like Ru porcelain, Korean celadon emphasizes a delicate glaze and natural forms, often with a slightly more textured surface (Koehler, 2015). Japanese raku, on the other hand, focuses on irregular, spontaneous forms and colors, offering a contrast in how these ceramics express their cultural identity. This comparative discussion of East Asian ceramic traditions is further visualized in the collaborative design which highlights the steps taken from concept to final product (Yang & Shi, 2025). As one of the "Five Great Kilns," Ru porcelain embodies a minimalist design logic, attracting the attention of scholars and designers.

In recent years, cultural sustainability and the revitalization of traditional crafts have become key topics in design practice and policy discussions (Noamna & Jintapitak, 2025) as creative industries seek to innovate through cultural narratives, the reinterpretation of classical forms and intangible aesthetic knowledge has attracted renewed attention (Bin et al., 2022). Designers are increasingly exploring ways to translate historical artefacts into contemporary design languages, not only to preserve their cultural relevance but also to enrich their material and symbolic expressions in modern contexts.

However, existing literature often focuses on the technical restoration, material analysis, or museum conservation of Ru porcelain (Jieshan, 2024), with insufficient attention paid to how its intangible aesthetic values such as visual balance, subtle glaze color, and symbolic minimalism can be systematically integrated into current design approaches. This gap reflects a broader challenge facing heritage-based design: how to foster innovation while maintaining authenticity (Olave, 2021).

To address this challenge, this study explores the potential of Ru porcelain aesthetics as a guiding framework for contemporary ceramic design. Using a design ethnography approach encompassing semi-structured interviews,

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collaborative workshops, and artefact analysis. This study introduces two interpretive models Ru I and Ru II which serve as frameworks for translating the aesthetic and cultural knowledge of Ru porcelain into modern design practice. "Ru I" focuses on preserving traditional visual elements such as form, texture, and glaze, while "Ru II" emphasizes modern reinterpretations that incorporate these elements into contemporary design languages.

By exploring the collaborative interactions between designers and Ru porcelain heritage experts, this study provides insights into how intangible cultural knowledge can foster innovation in ways that are both contextually grounded and creatively stimulating.

2. Literature Review

2.1 Aesthetic Identity of Ru Porcelain

Ru porcelain is widely acclaimed for its restrained, elegant glaze and minimalist style during the Song Dynasty (Yang, 2024). Its design conveys philosophical concepts rooted in Taoist naturalism. Yang & Shi (2025) argues that the aesthetic identity of Ru porcelain embodies a symbiotic relationship between culture and vision, in which material form and visuality are shaped by cultural and symbolic meanings.

This perspective, arguing that aesthetic perception of ceramics stems from the "cultural consciousness" inherent in design, glaze, and form transformations. These intangible values constitute "aesthetic identity," a term often used in Chinese ceramic theory to describe the deep connection between craftsmanship, spiritual resonance, and cultural memory.

2.2 Traditional Aesthetics and Contemporary Design

Recent design research emphasizes the importance of achieving cultural sustainability through heritage design. Designers no longer seek solely visual inspiration from traditional artefacts but instead engage in what Knappe (2021) describe as design translation the process of translating symbolic values and material memories into modern works.

When designing Ru porcelain, modern designers face the challenge of maintaining the exquisite delicacy and spiritual restraint of the original (Howard, 2014). While classical aesthetics are often rich in symbolism, the minimalist nature of Ru porcelain requires a more metaphorical design approach to ensure the integrity of its visual language.

2.3 Design Innovation and Intangible Cultural Heritage

The integration of intangible cultural heritage (ICH) into modern design is not only about preservation but also about development. As Jieshan (2024) argues, the innovation of ICH requires revitalizing cultural knowledge and adapting it to modern needs. This perspective aligns with the important role of the creative industries in heritage revitalization, with collaboration between experts and designers as a crucial mechanism for sustainable development.

Furthermore, Enne et al. (2012) emphasize that heritage-focused design increasingly relies on an understanding of proportional balance, symbolic meaning, and factors that are characteristic of Ru porcelain. Recent reforms in Chinese ceramic design education reflect this trend, emphasizing interdisciplinary training and cultural immersion.

3. Methodology

This study employed design ethnography combined with qualitative research methods to explore how modern designers interpret and apply the aesthetic principles of Song Dynasty Ru porcelain, transforming them into innovative design outcomes (Wang et al., 2025). The findings from the collaborative workshops are summarized in Table 2, which shows the frequency of core aesthetic elements used across different design phases. The results demonstrate that elements like shape and glaze were most frequently utilized, emphasizing their central role in maintaining Ru porcelain's aesthetic identity. This approach combined expert interviews, observation analysis, and object evaluation to comprehensively understand the inheritance and reinterpretation of aesthetics within the context of practice.

3.1 Participants

This study chose 13 participants, including 10 modern ceramic designers and 3 ceramic experts. Each participant had at least eight years of professional experience in ceramics or cultural heritage-based design. Participants were selected based on purposive sampling criteria, emphasising the following: 1) Active involvement in Ru porcelain or celadon design; 2) Professional or academic recognition in the field; 3) Willingness to engage in in-depth discussions about aesthetics and craftsmanship.

This fusion of traditional craftsmanship with contemporary design expertise provides cross-generational insights into how Ru porcelain values are inherited and reinterpreted.

3.2 Data Collection

Over a 10-week research period, this study employed three methods: 1) Semi-structured Interviews: These interviews were conducted online to explore the designers' understanding of Ru porcelain aesthetics, their creative motivations, and how traditional values influence design decisions. Each interview lasted 60-90 minutes and was audio-recorded with the designers' consent. 2) Field Observation: The researchers documented the design process in the ceramic studio through field notes, sketches, and photography, focusing on material, form development, and aesthetic identity. 3) Artefact

Analysis: Ten modern products influenced by classical Ru porcelain were visually and contextually analyzed to assess which traditional characteristics were adopted or reinterpreted.

3.3 Data Analysis

All interviews were transcribed and analyzed using thematic analysis (Dapkus, 1985). Codes were generated inductively to identify recurring patterns related to the interpretation of aesthetic features. A framework was used to analyze observational and artifactual data, comparing the application of specific Ru porcelain elements (shape, texture, glaze, and ornamentation) across projects and participants. This framework visually mapped innovation pathways and categorized them according to fidelity to Ru porcelain tradition, functional adaptation, and contextual reinterpretation.

Together, these methods provide a solid foundation for understanding how aesthetic heritage is integrated and transformed within contemporary design contexts.

4. Results

Through interviews, artefact observations, and design analysis, this study draws three main conclusions. These findings reflect how the aesthetic characteristics of Ru porcelain can be effectively applied to modern ceramic design innovation.

4.1 Identified Aesthetic Elements of Ru Ware in Practice

Analysis of modern designs influenced by Ru porcelain highlighted three aesthetic themes (Table 1). These interpretations align with Yang & Shi (2025) notion of cultural-visual resonance, which emphasizes emotional perception through minimal physical detail. As shown in Figure 3, the frequency of core aesthetic elements in the collaborative design outputs demonstrates that the use of shape and glaze was most prominent. This suggests that these elements were critical in ensuring the designs remained true to Ru porcelain's cultural and aesthetic roots.

Table 1. Aesthetic themes of modern designs influenced by Ru Porcelain

Aesthetic Element	Traditional Interpretation	Contemporary Adaptation
Glaze Texture	Celestial blue; jade-like depth; crackle patterns	Layered matte glazes; use of celadon-blue tones; controlled crazing for texture
Form Language	Soft curves, symmetrical yet natural forms, inward-leaning lip	Simplified ergonomic silhouettes; abstracted vessel lines; modular reinterpretation
Symbolic Meaning	Emptiness, quietness, purity, nature	Narrative metaphors in product naming; storytelling through glaze-color associations

4.2 Strategy of Design Translation

Interviews with ceramic designers revealed three strategies for this study: 1) Selective abstraction: Designers extract only the most powerful elements of Ru porcelain aesthetics, such as hues or glazes, while avoiding literal reproduction. This theory on symbolic reinterpretation in design innovation. 2) Function-driven integration: Incorporating Ru porcelain characteristics into practical and market-oriented products, such as tableware, vases, and minimalist artworks. 3) Narrative layering: Designers incorporate poetic elements into product naming and narratives to maintain cultural depth.

4.3 Design Practice Framework Emerged

Based on artefact observation and designers' responses, this study proposes an aesthetic integration model to guide the application of Ru porcelain aesthetics in modern ceramic design see Figure 1. This model illustrates how cultural elements are transformed from historical artefacts into modern designs. This process is not a linear reproduction, but rather a layered reinterpretation. Designers extract visual, tactile, and symbolic characteristics, recode them, and integrate them into a contemporary context.

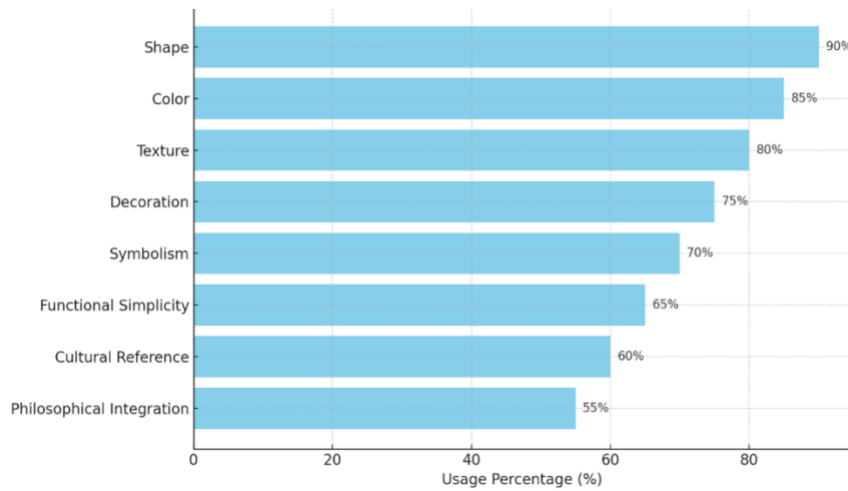


Figure 1. Application of Ru porcelain identity guidelines

4.4 Design Examples Observed

The design by the ceramic expert demonstrates this process: a modern vase was designed based on the characteristics of a traditional Ru porcelain vase. This result confirms that design innovation influenced by the Ru porcelain aesthetic can enable products to carry cultural depth while maintaining functionality and modernity.

Based on the structured visualization in Figure 2, the collaborative process revealed three key findings: 1) the consistent integration of Ru porcelain aesthetic identification criteria; 2) the designers' interpretations of traditional patterns varied but complemented each other; and 3) the key role of retrospective thinking aloud (RTA) in refining the work.

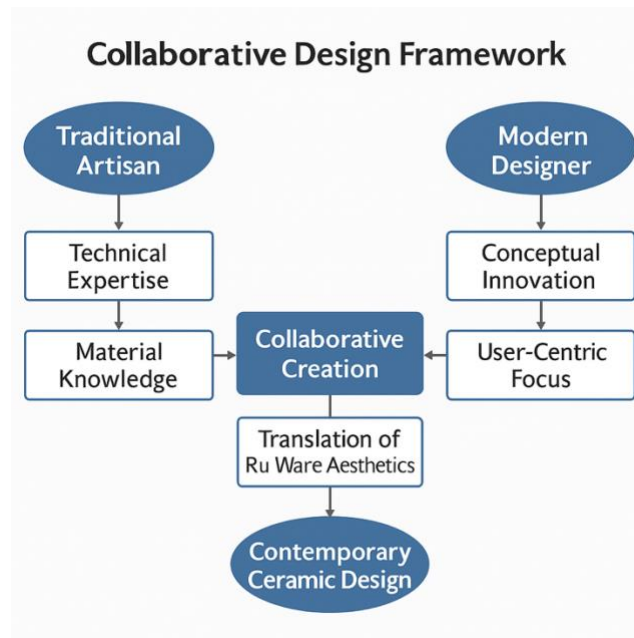


Figure 2. Collaborative design process of Ru porcelain

4.4.1. Application of Ru Aesthetic Elements in Prototypes

The analysis of the six collaborative groups' outcomes indicated that shape and glaze were the most dominantly applied Ru I aesthetic elements, followed by texture and decoration. These elements were mapped across three phases - ideation, modelling, and evaluation-as shown in Table 2.

Table 2. Frequency of aesthetic element usage across collaborative phases

Aesthetic Element	Ideation Phase (Frequency)	Modelling Phase (Frequency)	Evaluation Phase (Frequency)
Shape	6 times	5 times	4 times
Glaze	5 times	4 times	3 times
Texture	4 times	2 times	2 times
Decoration	4 times	3 times	2 times

This table demonstrates that shape (especially simplified Yuhuchun vase and trumpet flower forms) was a foundational element during early ideation and remained central throughout the process. Designers emphasized maintaining curvature consistency and proportional harmony, referencing classical Ru forms documented in museum archives.

4.4.2. Reflection Through Retrospective Think-Aloud (RTA)

During the RTA session, participants were asked to articulate their design intentions and how their cultural knowledge influenced their decision-making. A thematic analysis of their verbal responses revealed three key themes: 1) Aesthetic justification: The designers identified the use of gentle curves and glaze colors as key to embodying tranquility. 2) Cultural resonance: Drawing on Taoist philosophy, the designers emphasized "harmony with nature" as a core motivation for adopting understated, minimalist decor. 3) A representative excerpt from the RTA: "We referenced Confucian guiding principles and decided that the curves had to remain natural and subtle. But we also had many debate show modern could it be before it ceased to be Confucian?" (Participant D3)

These findings highlight the cognitive role of RTA in design-based research (Lloyd & Snelders, 2021), as it enables reflective cultural translation and facilitates the incorporation of implicit knowledge into a concrete form.

4.4.3. Output Diversity and Cultural Fidelity

A comparison of the six collaborative projects reveals that, despite their distinct forms, each prototype shares a common aesthetic rooted in Confucian principles. This demonstrates the successful integration of intangible cultural heritage into cultural design elements. Figure 3 below visually demonstrates this fusion of traditional and contemporary design logic.

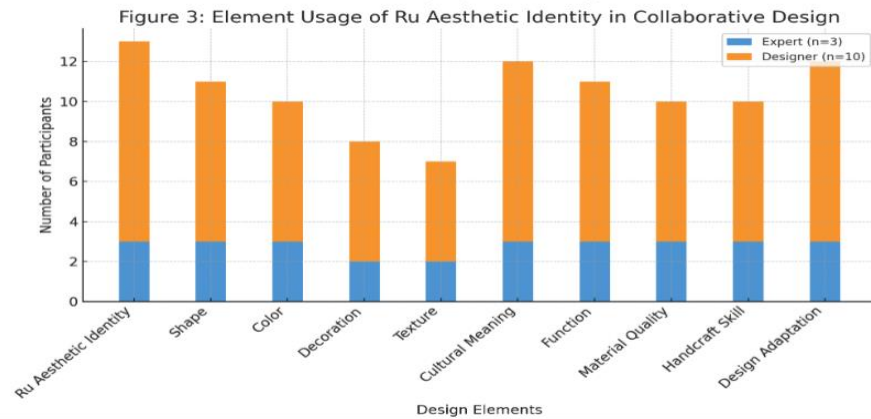
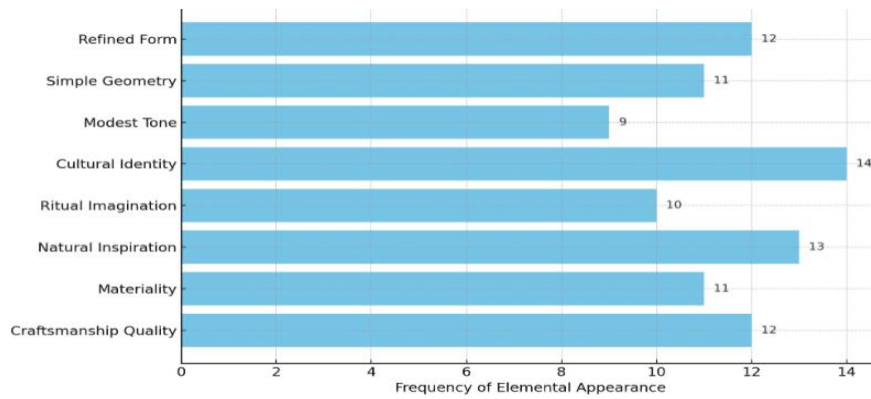


Figure 3. Frequency of core elements

This convergence demonstrates that RuI guidelines not only support design coherence but also enhance cultural fidelity, enabling teams to innovate within a historically significant aesthetic framework.

5. Discussion

This study explored the integration of classical Ru porcelain aesthetics into modern ceramic design practice, focusing on intangible cultural knowledge, craftsmanship, and collaborative design processes. The collaborative design framework shown in Figure 1 highlights how designers translated traditional aesthetic principles into contemporary works. The frequency of element usage, presented in Figure 2, supports the idea that elements such as shape and glaze are essential for preserving the essence of Ru porcelain in modern designs, while still allowing for innovation. Additionally, a key factor in design success was the ability to blend traditional aesthetics with contemporary market needs. Designers were able to maintain the cultural significance of Ru porcelain while ensuring their designs met modern expectations, as evidenced by the positive market feedback and the high frequency of design elements associated with consumer preference, such as ergonomic shapes and symbolic glazes.

The following discussion will integrate the literature, theoretical framework, and research objectives to comprehensively analyze the main research findings and further elaborate on their significance for cultural heritage preservation, design innovation, and knowledge inheritance ins in Figure 3.

5.1 A Modern Design Interpretation of Ru Porcelain Aesthetics

The results indicate that the aesthetic characteristics of Ru porcelain, rooted in its delicate glaze, refined form, and minimalist decoration, hold practical relevance in the context of modern design. Participants in the collaborative design process agreed that the aesthetic principles of Ru porcelain (form, color, texture, and decoration) serve not only as cultural symbols but also as creative constraints, enhancing the originality and cultural resonance of ceramic design (Yang & Shi, 2025).

This aligns with You (2020) thesis that ceramic aesthetics is not merely about visual appeal but also contains philosophical symbolism and sociocultural significance. Similarly, a syntactic analysis of Ru porcelain forms confirms its structural balance and symbolic expression, as previously noted by Jieshan (2024).

5.2 Intangible Knowledge as a Design Resource

The results of this study further demonstrate that intangible cultural heritage, such as design logic, glaze recipe traditions, and firing techniques, plays a key role in shaping the integrity and authenticity of modern Ru porcelain. Designers participating in the collaborative workshop identified the knowledge embedded in the Ru porcelain aesthetic identification guidelines as both a source of inspiration for design decisions and a standardization specification.

This confirms previous literature highlighting the value of embedded knowledge in heritage-related innovation (Sorbo & Tonello, 2025). Incorporating intangible attributes into physical artefacts can both promote cultural continuity and provide flexibility for interpretation.

5.3 The Role of Co-design in Heritage Revitalisation

Through collaborative design findings, this study explored how professional expertise (from ceramic experts) and creative experimentation (from designers) can be combined to create artworks that embody traditional values while embodying contemporary aesthetics. Designers' conclusions from retrospective reflection (RTA) exercises indicated a deeper understanding of Ru porcelain design principles after participating in the Ru porcelain Phase II guidelines, particularly regarding formal simplification, subtle tonal harmony, and symbolic motifs.

This finding supports research by Olave (2021), which emphasizes the role of collaborative design and intergenerational collaboration in sustainable heritage innovation. Furthermore, the design process highlights the epistemological shift from individual craftsmanship to collective creation in heritage-based design practices.

5.4 Balancing Innovation and Cultural Authenticity

This study identified a balance between innovation and cultural authenticity. Designers expressed a desire to modernize Ru porcelain pieces while also acknowledging the need to remain true to Ru porcelain's conceptual and aesthetic roots. This echoes Yang & Shi (2025), who emphasized that authenticity in ceramic aesthetics requires consideration not only of material fidelity but also of cultural intentionality. The findings suggest that Ru porcelain's minimalist visual language offers a timeless design vocabulary adaptable to diverse cultural and market contexts.

5.5 Implications for Education and Policy Practice

The findings have important implications for design education and cultural policy. Integrating Ru porcelain aesthetics into design curricula can enhance students' cultural literacy and creativity, supporting the wider dissemination and reinterpretation of traditional aesthetics across various design disciplines.

From a policy perspective, this study highlights the need to develop strategies to support collaborative practices and knowledge-sharing mechanisms between master artisans and contemporary designers. This approach aligns with recent policy frameworks advocating for the preservation of living heritage systems and intangible knowledge (Jieshan, 2024).

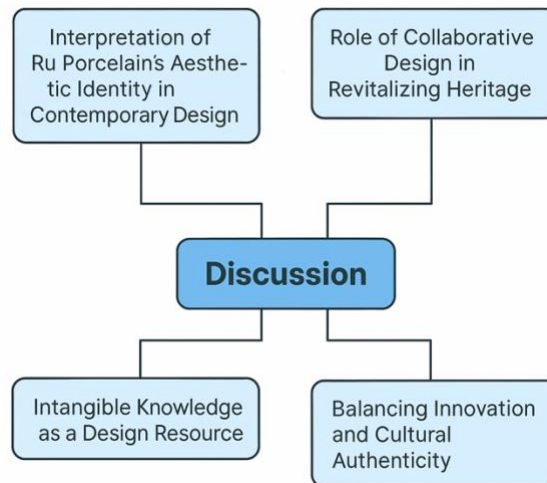


Figure 4. Summarizes the traditional Ru porcelain

6. Conclusions

This study successfully constructs a comprehensive framework for understanding and applying the aesthetic characteristics of classical Ru porcelain to contemporary ceramic design. The results, visualized in Figure 1. through Figure 4, highlight how traditional aesthetic elements such as form, glaze, and symbolism were incorporated into modern design practices while maintaining cultural authenticity. These findings offer valuable insights for future ceramic design that embraces cultural heritage alongside innovation. By integrating the forms, colors, textures, and ornamentation outlined in the Ru porcelain aesthetic guide, this study bridges the gap between traditional cultural knowledge and modern design practice. An ethnographic case study approach enables in-depth exploration of tangible artefact characteristics and intangible cultural values, while collaborative design experiments demonstrate the practical value of these findings. Ultimately, this study provides a culturally rooted and methodologically rigorous model to support the innovation and inheritance of Ru porcelain craftsmanship in the modern era.

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Conflict of Interest

The author declares no conflict of interest.

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