



Original Article

## Inheritance and Innovation of Lanjiefu Culture in the Digital Economy: A Semiotic and Design-Based Perspective

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**Abstract:** Lanjiefu is a traditional folk practice in Wenzhou that represents a complex system of ritual, visual symbolism, and social relations that sustains local identity and collective memory. In the digital era, cultural heritage faces increasing pressure from globalization, technological change, and shifting social structures. Although digital tools offer new opportunities for preservation and dissemination, they also risk reducing cultural expressions to decontextualized visual content. Existing studies on Lanjiefu and similar traditions tend to emphasize either documentation and preservation or commercialization and design innovation. However, these approaches often lack a systematic framework for interpreting cultural meanings and for guiding their appropriate translation into contemporary contexts. This study addresses this gap by examining how core symbolic elements of Lanjiefu can be preserved and adapted without losing their embedded cultural significance. A qualitative case study approach was employed, using field observations, semi-structured interviews, and focus group discussions with 53 participants. Data were analyzed through thematic and semiotic analysis, complemented by a design-based framework. The findings show that Lanjiefu operates as a structured symbolic system and that its transmission has weakened due to economic pressures, time constraints, and changes in the digital lifestyle. The study proposes a distinction between symbolic extraction and superficial borrowing, and positions digital technology as a supportive layer rather than a primary driver. The research aims to identify core symbolic elements, explain transmission challenges, and develop a framework for context-sensitive cultural translation. The study concludes that sustainable cultural inheritance requires integration of semiotic interpretation, design application, and community-based practices.

**Keywords:** Lanjiefu; Intangible Cultural Heritage; Semiotic Analysis; Digital Economy; Cultural Innovation.



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### 1. Introduction

Lanjiefu represents one of the most distinctive forms of folk cultural practice in Wenzhou, integrating ritual worship, kinship structures, festive gatherings, food traditions, performative expressions, and visual symbolism into a unified cultural system. It functions not only as a ritual event but also as a medium for

transmitting collective memory, social values, and local identity across generations (Chen, 2011; Dabing, 2011). From the perspective of cultural studies, such practices constitute complex symbolic systems in which meaning is embedded in material forms, social interactions, and ritual processes (Rab, 2007). However, the contemporary condition of Lanjiefu cannot be understood through static narratives of preservation or decline. The festival now operates within a rapidly transforming socio-economic and technological environment shaped by urbanization, labor mobility, changing family structures, and the expansion of digital media. These structural changes have altered patterns of participation, weakened intergenerational transmission, and reshaped cultural consumption practices (Poddar, 2024; Xiaojuan, 2023). At the same time, digital transformation has introduced new opportunities for cultural dissemination, creative expression, and heritage preservation, while also generating risks related to cultural commodification and loss of contextual meaning (Burri, 2010; Koshelieva et al., 2023; Lazzeretti et al., 2025).

Current academic discussions on Lanjiefu largely fall into two dominant approaches. The first approach emphasizes cultural preservation, treating Lanjiefu as an intangible cultural heritage that requires documentation, archiving, and protection. This perspective aligns with broader efforts to safeguard traditional cultural expressions through institutional and technological means (Wu et al., 2021; Han, 2025). The second approach focuses on cultural innovation and commercialization, positioning Lanjiefu as a resource for cultural and creative industries, branding, and tourism development (Wang & Wang, 2025; Wang et al., 2024). This perspective highlights the potential of cross-sector integration and digital technologies to enhance cultural visibility and economic value.

Despite their contributions, both approaches exhibit significant limitations. Preservation-oriented studies often prioritize documentation over interpretation, resulting in static representations that fail to capture the dynamic and lived nature of cultural practices. Innovation-oriented studies tend to emphasize visual aesthetics, marketability, and digital dissemination, which may reduce cultural elements to superficial symbols detached from their original meanings and social functions. This dual limitation reflects a broader issue in digital cultural studies, where rapid technological integration can outpace critical reflection on cultural authenticity and symbolic integrity (Xiaojuan, 2023; Poddar, 2024). The core issue, therefore, lies in the lack of a systematic framework that connects cultural meaning, symbolic structure, and contemporary design translation. Existing research has not sufficiently addressed how specific cultural elements can be adapted for modern communication without undermining their embedded ritual, social, and ethical contexts. While studies on digital heritage highlight the potential of technologies such as virtual reality, knowledge graphs, and data-driven systems (Lu-lu et al., 2025; Han, 2025), they often focus on technical implementation rather than the interpretive processes required for culturally appropriate transformation. Similarly, research on digital art and creative industries emphasizes innovation and aesthetic production but rarely examines the semiotic foundations of cultural symbols (Rani, 2018; Huang, 2025).

This gap indicates the absence of an integrated semiotic and design-based perspective capable of distinguishing between transferable and non-transferable cultural elements. Without such a framework, cultural innovation risks becoming either overly conservative or excessively commodified. Moreover, there is limited attention to the role of community participation, cultural context, and symbolic interpretation in guiding digital transformation processes. In response to these limitations, this study adopts a semiotic and design-based analytical framework to reconceptualize Lanjiefu as a structured system of signs. It examines how meanings are constructed through visual forms, ritual practices, spatial arrangements, and performative actions, and how these elements can be selectively translated into contemporary design and digital communication contexts. This approach aligns with emerging interdisciplinary perspectives that emphasize the interaction between culture, technology, and creative industries in the digital era (Lazzeretti et al., 2025; Deng & Wang, 2025).

Accordingly, the objectives of this study are threefold. First, it aims to identify and interpret the core symbolic elements of Lanjiefu, including visual, ritual, and performative components, through a systematic semiotic analysis. Second, it seeks to examine the factors contributing to the weakening of cultural transmission, with particular attention to socio-economic change and digital transformation. Third, it aims to develop a structured framework for the translation of cultural symbols into contemporary design and communication practices, ensuring that innovation remains grounded in cultural meaning and social context. More specifically, this study intends to contribute to the literature by: (1) establishing a clear distinction between symbolic elements that are context-dependent and those that are adaptable for wider dissemination; (2) proposing a design-oriented model that integrates cultural interpretation with practical application in digital media, cultural products, and heritage education; (3) providing empirical insights into how local communities perceive and negotiate cultural change in the digital economy; and (4) advancing a theoretically grounded approach to cultural sustainability that balances preservation, innovation, and cultural integrity. Through this integrated perspective, the study seeks to move beyond binary debates between preservation and commercialization, offering a more nuanced understanding of how intangible cultural heritage can be sustained and revitalized in a rapidly evolving digital environment.

## 2. Literature Review

### 2.1. Digital Transformation and Cultural Heritage

The relationship between digital technology and cultural heritage has attracted increasing scholarly attention. Early debates framed digitalization as a threat to traditional cultural expressions due to issues of replication, decontextualization, and commodification. However, subsequent studies provide a more balanced view. Digital technologies can support preservation, enhance accessibility, and facilitate cultural transmission when applied with contextual sensitivity (Burri, 2010). Recent research further confirms that digitalization reshapes how culture is produced, distributed, and consumed, while simultaneously altering cultural identity and social interaction patterns (Xiaojuan, 2023). Scholars emphasize that digital transformation creates both opportunities and structural challenges. On one hand, it expands cultural reach, enables global collaboration, and introduces new forms of creative expression (Koshelieva et al., 2023; Lazeretti et al., 2025).

On the other hand, it raises concerns regarding intellectual property, digital inequality, and the erosion of cultural authenticity (Poddar, 2024). These tensions suggest that digitalization is neither inherently beneficial nor inherently harmful. Its impact depends on how cultural content is interpreted, mediated, and governed. Despite these advances, much of the literature remains technologically oriented. Studies often prioritize tools such as digital archives, virtual reality, and data-driven systems without sufficiently addressing the cultural meanings embedded in heritage practices (Han, 2025; Wu et al., 2021). It creates a conceptual imbalance where technological capability exceeds interpretive depth. As a result, cultural heritage risks being reduced to digitized content rather than understood as a living system of meaning.

### 2.2. Intangible Cultural Heritage and Lanjiefu Studies

Research on intangible cultural heritage highlights its role in maintaining social cohesion, shaping identity, and preserving historical continuity. Lanjiefu, as a representative folk tradition in Wenzhou, embodies these functions through ritual practices, symbolic expressions, and communal participation (Chen, 2011; Dabing, 2011). Existing studies document its historical development, cultural characteristics, and local significance, establishing it as an important cultural asset. Recent scholarship has expanded this perspective by examining Lanjiefu within the context of the digital economy. Digital technologies are increasingly used to preserve, promote, and reinterpret the festival, including the development of knowledge graphs and digital cultural databases (Lu-lu et al., 2025). Other studies explore branding strategies and cultural product development to enhance market visibility and youth engagement (Wang & Wang, 2025; Wang et al., 2024).

While these contributions demonstrate Lanjiefu's adaptability, they also reveal critical limitations. Preservation-focused studies tend to treat culture as static content that can be stored and retrieved. Innovation-focused studies often emphasize commercialization and aesthetic design, sometimes neglecting the cultural meanings underlying visual elements. This dual tendency reflects a broader issue in heritage research: the unresolved balance between cultural integrity and economic value. Moreover, existing studies rarely examine how local communities interpret and negotiate these transformations. The roles of social actors, including elders, artisans, and younger generations, are often underexplored despite their central importance in cultural transmission (Poddar, 2024). This gap limits the ability to develop culturally grounded and socially sustainable innovation strategies.

### 2.3. Semiotics and Cultural Interpretation

Semiotic theory provides a critical framework for understanding culture as a system of signs and meanings. It conceptualizes cultural practices as structured relationships between signifiers, such as symbols, objects, and performances, and their associated meanings (Rab, 2007). This perspective is particularly relevant for intangible cultural heritage, where meaning is often embedded in ritual actions, visual forms, and sensory experiences. However, the application of semiotics in digital cultural studies remains limited. Many studies focus on visual representation and design outcomes without systematically analyzing the underlying symbolic structures. As a result, cultural elements are often extracted and reproduced without sufficient interpretation, leading to superficial or distorted representations. In the context of Lanjiefu, symbolic elements such as colors, motifs, and ritual objects carry layered meanings related to blessing, kinship, and social hierarchy. Without a semiotic framework, these elements risk being reduced to decorative patterns in digital media and cultural products. This limitation highlights the need for a more rigorous analytical approach that connects symbolic interpretation with practical application.

## 2.4. Design, Creativity, and Cultural Translation

The integration of design and digital technology has become a key strategy for cultural innovation. Digital art and creative industries demonstrate how technology can expand artistic expression and introduce new forms of cultural production (Rani, 2018; Huang, 2025). Cross-border integration and interdisciplinary collaboration further enhance the value and competitiveness of cultural products (Wang et al., 2024). In the context of intangible cultural heritage, design plays a crucial role as a medium of cultural translation. It enables transforming traditional elements into formats accessible and relevant to contemporary audiences. Studies on cultural branding and communication strategies highlight the importance of aligning design with cultural identity and consumer behavior (Ma, 2026; Wang & Wang, 2025). However, current design-oriented research often prioritizes innovation outcomes over cultural processes. The emphasis on aesthetics, marketability, and digital dissemination can lead to the detachment of cultural elements from their original contexts. This raises concerns about authenticity and cultural sustainability. Furthermore, the lack of clear criteria for selecting and adapting cultural elements increases the risk of misinterpretation and cultural dilution.

The reviewed literature reveals three major patterns. First, digital transformation has become a dominant force shaping cultural heritage, offering both opportunities and challenges. Second, studies on Lanjiefu and similar traditions emphasize either preservation or innovation, but rarely integrate both perspectives. Third, while semiotics and design are recognized as relevant frameworks, they are often applied in isolation rather than as a combined analytical approach. These patterns indicate a significant research gap. There is a lack of an integrated framework that connects semiotic interpretation, cultural context, and design-based application in the study of intangible cultural heritage. Existing research does not adequately address how cultural meanings can be systematically interpreted and selectively translated into contemporary forms without compromising their embedded social and ritual significance.

In addition, there is limited empirical analysis of how different cultural elements differ in their transferability. The distinction between context-dependent and adaptable elements remains unclear, which weakens the theoretical foundation for cultural innovation. Furthermore, the role of community participation and local knowledge in guiding digital transformation is insufficiently explored. This study addresses these gaps by proposing a semiotic and design-based framework that integrates cultural interpretation with practical application. It aims to provide a systematic method for identifying core symbolic elements, evaluating their transferability, and translating them into contemporary design and communication strategies while preserving cultural integrity.

## 3. Materials and Methods

### 3.1. Research Design

This study adopts a qualitative interpretive case study design to examine the inheritance and innovation of Lanjiefu culture within the digital economy. The approach is appropriate because the research focuses on understanding the symbolic meanings, ritual practices, and socio-cultural dynamics embedded in the context of intangible cultural heritage. The study integrates semiotic analysis and design-oriented inquiry to bridge cultural interpretation with applied innovation.

### 3.2. Study Area and Sampling

The research was conducted in Wenzhou, China, including the urban area and two culturally representative township communities where Lanjiefu practices remain active. A purposive sampling strategy was applied to select participants with direct knowledge and experience of the festival. A total of 53 participants were involved, representing diverse social roles, including festival organizers, village leaders, artisans, and community members across age groups, namely youth, middle-aged, and elderly. This diversity ensured comprehensive perspectives on both cultural continuity and transformation.

### 3.3. Data Collection

Data were collected through multiple qualitative techniques to ensure depth and triangulation.

First, fieldwork observation was conducted to document ritual processes, spatial arrangements, symbolic artifacts, performances, and community interactions. Observations focused on capturing both material and performative aspects of Lanjiefu as a cultural system. Second, semi-structured interviews were carried out to explore participants' interpretations of cultural meaning, perceptions of decline, and views on digital adaptation. Interview questions were flexible, allowing participants to elaborate on culturally specific experiences. Third, focus group discussions were organized to examine shared understandings, intergenerational differences, and collective reflections on cultural transmission. These discussions provided insight into communal values and social dynamics. In addition, visual and artifact documentation

was undertaken, including the recording of colors, motifs, ritual objects, and symbolic forms. These materials served as primary data for semiotic interpretation.

### 3.4. Data Analysis

The study employs a two-stage analytical framework.

First, thematic analysis was used to identify recurring patterns across the dataset. The analysis focused on key themes such as cultural meaning, transmission challenges, social functions, and perceptions of digital transformation. Data coding was conducted iteratively to ensure consistency and analytical depth. Second, semiotic analysis was applied to interpret Lanjiefu as a structured system of signs. This involved examining the relationship between signifiers, including colors, symbols, artifacts, spatial layouts, and performances, and their corresponding cultural meanings, such as blessing, kinship, identity, and ritual hierarchy. This analysis enabled the differentiation between culturally transferable elements and those embedded in specific ritual contexts.

#### 3.4.1. Design-Based Translation

To extend the analysis into practical applications, the study incorporates a design-based research component. This stage involves three sequential processes. First, key symbolic elements are systematically identified and interpreted based on semiotic findings. Second, selected elements are abstracted into visual and conceptual frameworks suitable for contemporary communication. Third, these elements are translated into potential design applications, including digital visual media, cultural and creative products, and heritage education materials. This process ensures that innovation is grounded in cultural meaning rather than superficial aesthetic replication.

#### 3.4.2. Validity and Reliability

The study ensures methodological rigor through data triangulation, combining observations, interviews, focus groups, and visual documentation. Participant diversity enhances the reliability of findings across social groups. In addition, iterative analysis and cross-validation of themes strengthen interpretive consistency.

## 4. Results

### 4.1. Lanjiefu as a Symbolic System

The findings demonstrate that Lanjiefu operates as a structured symbolic system rather than a discrete cultural event. Its meaning emerges through the interaction between material forms and embedded cultural values. Ritual altars express hierarchy and reverence, color systems communicate blessing and sacred intensity, processions transform belief into collective movement, and food and performance sustain memory through sensory engagement. These elements function as interconnected signifiers that construct a coherent cultural narrative through repeated communal practice. This result aligns with the theoretical view that culture is fundamentally a system of symbols through which societies construct meaning and social order (Rab, 2007). It also supports contemporary arguments that cultural practices cannot be reduced to isolated artifacts or digital content, as their significance depends on contextual relationships and lived experience (Xiaojuan, 2023).

A visual analysis further reveals that Lanjiefu possesses a distinct, internally consistent visual identity. Rounded and expressive forms dominate figurative elements such as dough sculptures and theatrical figures, while linear and symmetrical structures characterize ritual spaces and altars. Flattened silhouettes are evident in lanterns, shadow puppets, and other folk objects, indicating a shared visual grammar across different material forms. Color usage is highly codified. Red, yellow, green, and gold signify prosperity, vitality, and sacredness, whereas black conveys symbolic clarity and craftsmanship. These findings confirm that visual elements are not decorative but function as carriers of cultural meaning and social values. This interpretation is consistent with studies on cultural production and visual identity, which emphasize that design elements in traditional practices embody accumulated social knowledge and collective memory (Koshelieva et al., 2023; Rani, 2018). It also supports research on cultural geography, which highlights the role of spatial and visual forms in shaping cultural identity and regional distinctiveness (Deng & Wang, 2025).

The analysis also clarifies Lanjiefu's distinctiveness. Its uniqueness does not rely solely on historical origin but on the integration of ritual belief, kinship structures, performative practices, and visual systems into a unified cultural framework. This integration creates a dense network of meanings that differentiates Lanjiefu from other folk traditions. Such findings are consistent with earlier studies that identify Lanjiefu as a localized cultural system shaped by social relations and historical continuity (Chen, 2011; Dabing, 2011).

However, the results also reveal a critical vulnerability. When symbolic elements are detached from their ritual and social contexts, their meanings become fragmented. For example, motifs such as dragons, lanterns, or altar patterns may retain visual appeal after simplification. Still, their cultural significance weakens when removed from practices of blessing, reverence, and communal gathering. This process leads to symbolic reduction, where complex meanings are transformed into consumable visual forms.

This finding reflects broader concerns in the literature on digital cultural transformation. While digital technologies enhance accessibility and dissemination, they also risk simplifying cultural expressions into visual commodities (Poddar, 2024; Lazeretti et al., 2025). Similarly, research on intangible cultural heritage emphasizes that digital representation cannot fully replicate the social and relational dimensions of ritual practices (Wu et al., 2021). From a design perspective, this result highlights the need for context-sensitive cultural translation. Existing studies on cultural and creative industries demonstrate that design can enhance cultural visibility and market value (Wang et al., 2024; Wang & Wang, 2025). However, without a clear understanding of symbolic meaning, design interventions may lead to superficial innovation. The findings support the argument that cultural elements must be interpreted before they are transformed into digital or commercial formats.

Moreover, the results suggest that digital technologies should function as supporting tools rather than primary frameworks for cultural innovation. While data-driven systems, digital archives, and knowledge graphs can improve documentation and accessibility (Han, 2025; Lu-lu et al., 2025), they cannot substitute the embodied and relational aspects of cultural practice. This reinforces the need to balance technological application with cultural interpretation. Thus, the results establish that Lanjiefu is a multilayered symbolic system grounded in social practice, visual identity, and ritual meaning. The discussion highlights that its sustainability depends on maintaining the relationship between symbolic forms and their cultural contexts. The findings also address a key gap in existing research by demonstrating that effective cultural innovation requires an integrated approach that combines semiotic interpretation with design-based application.

#### 4.2. Why Cultural Transmission Has Weakened

The findings indicate that the weakening of Lanjiefu transmission results from interrelated structural, socio-economic, and technological pressures rather than a single causal factor. This multi-dimensional decline reflects broader transformations in cultural systems under conditions of modernization and digitalization. First, organizational burden emerges as a primary constraint. Participants consistently associate declining participation with rising financial costs, complex preparation processes, and increasing expectations of social display. What was previously a system of reciprocity and shared obligation has gradually shifted toward a model characterized by economic pressure and social comparison. This transformation alters the underlying logic of participation, reducing voluntary engagement and increasing fatigue among community members. Similar patterns are identified in cultural heritage studies, where the commercialization and institutionalization of traditional practices often impose additional economic and symbolic burdens on local actors (Poddar, 2024; Lazeretti et al., 2025).

Second, time constraints and changing labor structures significantly affect cultural continuity. Migration, urban employment, and accelerated daily routines reduce the availability of participants, particularly among younger generations. Rituals that require extended preparation and collective coordination become increasingly difficult to sustain. The shift from community-led participation to outsourced or paid performances further weakens the festival's social foundation. This finding aligns with research in cultural geography, which shows that mobility and changing spatial relationships disrupt traditional cultural practices and weaken localized cultural systems (Deng & Wang, 2025).

Third, digital lifestyles reshape social behavior and cultural engagement. The findings do not suggest that digital technology directly causes cultural decline. Instead, digital media reconfigure how individuals experience social interaction, leisure, and participation. Social media, online entertainment, and virtual communication offer immediate and individualized forms of engagement that contrast with the collective, time-intensive nature of ritual practices. As a result, participation in Lanjiefu is not only reduced in frequency but also perceived as less necessary in everyday life. This observation is consistent with studies indicating that digital technology transforms cultural consumption patterns and social interaction structures (Xiaojuan, 2023; Koshelieva et al., 2023).

At the same time, the literature highlights that digitalization is not inherently detrimental. It can support cultural preservation and dissemination when applied appropriately (Burri, 2010; Wu et al., 2021). However, the findings suggest that digital engagement often substitutes rather than complements embodied cultural practices. This substitution effect contributes to the erosion of kinship-based participation norms, which historically sustained Lanjiefu as a communal obligation. Despite these challenges, the results indicate that Lanjiefu retains strong residual cultural value. Participants continue to recognize its importance in facilitating family reunion, preserving ancestral worship, reinforcing local identity, and sustaining emotional memory through sensory experiences such as food, sound, and visual performance. This persistence

confirms that the issue is not a complete loss of cultural relevance but a disruption in transmission mechanisms. Similar conclusions are drawn in studies of intangible cultural heritage, which emphasize that cultural decline often reflects weakened transmission structures rather than diminished cultural significance (Lu-lu et al., 2024; Chen, 2011).

From a theoretical perspective, these findings demonstrate that cultural sustainability depends on the alignment between social structures, temporal conditions, and modes of engagement. When these elements become misaligned, even culturally significant practices experience decline. Existing research on digital heritage and cultural industries often focuses on technological solutions such as digital archives, branding, or data-driven systems (Han, 2025; Wang & Wang, 2025). However, the present findings suggest that such approaches may be insufficient if they do not address the underlying social and behavioral transformations affecting participation. The weakening of Lanjiefu transmission results from the combined effects of economic pressure, time scarcity, and digital reconfiguration of social life. The discussion highlights a critical implication: cultural preservation strategies must move beyond technical and aesthetic interventions to address the social mechanisms of participation and intergenerational continuity. This insight contributes to the literature by emphasizing that sustainable cultural innovation requires not only digital tools and design strategies but also the reinforcement of community-based cultural practices.

### 4.3. From Core Signs to Contemporary Design Translation

The findings indicate that once Lanjiefu is understood as a coherent symbolic system, cultural innovation can be implemented through a structured and context-sensitive process. The primary objective is not to transform the festival into a commercial spectacle, but to translate core symbolic elements into contemporary design formats while preserving their cultural meaning and social function. This approach directly addresses a key limitation in existing heritage studies: cultural elements are often adopted without sufficient interpretation, leading to superficial representation. A central contribution of this study is the distinction between symbolic extraction and superficial borrowing. Symbolic extraction requires a rigorous analysis of the relationship between signifiers, such as visual forms, artifacts, and motifs, and their signified meanings, including beliefs, values, and social functions. This aligns with semiotic theory, which conceptualizes culture as a structured system of meaning rather than a collection of isolated objects (Rab, 2007). In contrast, superficial borrowing involves the direct use of visual elements without understanding their cultural context, often leading to misinterpretation and a loss of authenticity.

This distinction responds to broader concerns in digital cultural studies. While digital transformation has expanded opportunities for cultural production and dissemination, it has also increased the risk of reducing cultural expressions to aesthetic commodities (Koshelieva et al., 2023; Poddar, 2024). Therefore, cultural innovation must be grounded in interpretive analysis before its application in design. Empirical findings illustrate this process through specific symbolic elements. The dragon motif in Lanjiefu, for example, functions as more than a decorative pattern. It represents auspiciousness, protection, collective identity, and seasonal renewal. Its translation into contemporary design can follow multiple pathways. Traditional performance emphasizes movement and collective participation, while graphic design or paper-cut formats highlight symbolic abstraction and visual clarity. However, these transformations remain valid only when the underlying cultural meanings are retained.

Similarly, elements such as dough figurines, ritual altars, lanterns, masks, and shadow-puppet forms exhibit consistent visual structures that can be adapted into modern design systems. These include standardized line patterns, geometric forms, and color schemes. The findings confirm that these elements can support design innovation, but only when their ritual origins and narrative significance are preserved. This observation is consistent with research on digital art and cultural creativity, which emphasizes the integration of cultural meaning with technological expression (Rani, 2018; Huang, 2025). The study further demonstrates that visual identity theory provides a practical framework for translating cultural symbols into contemporary applications. A structured visual identity system can extract representative elements, such as color hierarchies, symbolic motifs, and artifact silhouettes, to produce coherent design outputs. These outputs may include educational materials, museum exhibitions, public cultural communication, and creative products. Such applications enhance cultural visibility and engagement, particularly among younger audiences, without replacing the original ritual context.

This finding aligns with studies on cultural and creative industries, which highlight the role of design in strengthening cultural identity and expanding cultural markets (Wang et al., 2024; Wang & Wang, 2025). It also supports the argument that digital technologies and creative industries can contribute to cultural sustainability when grounded in local meaning and community context (Lazzeretti et al., 2025). However, the results also reveal a critical limitation in existing approaches. Many heritage innovation strategies prioritize digital marketing and visual promotion without establishing a clear interpretive foundation. This often leads to fragmented representations and cultural dilution. In contrast, the present findings emphasize a sequential process:

1. Identify and interpret core symbolic elements
2. Classify elements based on their cultural function and transferability
3. Translate selected elements into appropriate design formats
4. Apply design outputs in context-sensitive communication and education

This structured approach ensures that innovation remains culturally grounded. It also addresses concerns in the literature regarding the imbalance between technological advancement and cultural depth (Xiaojuan, 2023; Han, 2025). Furthermore, the classification of cultural elements into transferable and non-transferable categories represents a significant theoretical contribution. Ritual-specific elements that depend on sacred context should not be detached for public or commercial use. In contrast, symbolic elements with broader communicative potential can be adapted for design and digital dissemination. This distinction reduces the risk of misinterpretation and aligns with best practices in the preservation of intangible cultural heritage (Wu et al., 2021). The findings demonstrate that effective cultural innovation requires a semiotically informed and design-oriented framework. Design should function as a cultural translator, facilitating understanding and engagement, rather than replacing or simplifying traditional practices. This integrated approach contributes to the literature by providing a systematic method for balancing cultural preservation, design innovation, and digital transformation.

#### 4.4. Digital Communication as a Secondary Layer

The findings indicate that digital technologies play an important but supportive role in the inheritance of Lanjiefu culture. Rather than functioning as the primary analytical framework, digital tools are more effective when positioned as a secondary layer that facilitates documentation, interpretation, and dissemination. This positioning reflects a shift from technology-driven approaches toward culturally grounded strategies. Digital platforms provide clear advantages in systematic preservation and accessibility. Archival systems can store oral histories, ritual procedures, local terminology, and visual documentation of endangered practices. These capabilities enhance the durability and reach of cultural knowledge, particularly in contexts where traditional transmission mechanisms are weakening. This result is consistent with studies that highlight the role of digital technologies in safeguarding intangible cultural heritage through documentation and data integration (Wu et al., 2021; Han, 2025).

In addition, digital media supports public engagement and cultural education. Short-form videos, social media content, and virtual exhibitions can increase visibility and awareness, especially among younger audiences and geographically dispersed communities. These tools also enable cross-regional and international cultural exchange, which is increasingly important in the global digital environment (Burri, 2010; Xiaojuan, 2023). Research on digital humanities further demonstrates that structured digital systems, such as knowledge graphs, can enhance understanding and accessibility of complex cultural information (Lu-lu et al., 2025). However, the findings also reveal significant limitations and risks associated with digital communication. When digital content prioritizes visual appeal and rapid dissemination, it often simplifies cultural expressions into fragmented, decontextualized representations. For example, short-form videos that emphasize bright colors, crowded rituals, or dramatic performances may attract attention but fail to convey the underlying meanings of kinship, blessing, and ritual obligation. This process leads to a shift in perception, where audiences interpret Lanjiefu as entertainment rather than a culturally embedded practice.

This issue reflects broader concerns in the literature on digital transformation. While digital technologies expand cultural reach, they can also encourage commodification and reduce complex traditions to consumable content (Poddar, 2024; Koshelieva et al., 2023). Similarly, research on cultural industries notes that increased visibility does not necessarily translate into deeper cultural understanding, especially when content lacks contextual interpretation (Lazzeretti et al., 2025). Furthermore, immersive technologies such as virtual reality can simulate visual and sensory aspects of rituals but cannot reproduce the social and relational dimensions that define their cultural significance. Ritual practices are embedded in kinship networks, collective participation, and shared obligations, which cannot be fully captured through digital representation. This limitation supports the argument that digital heritage should complement rather than replace lived cultural experience (Wu et al., 2021).

Based on these findings, this study proposes a hierarchical framework for digital communication in cultural heritage contexts. First, digital tools should prioritize the preservation of fragile cultural resources through accurate and comprehensive documentation. Second, they should support contextual interpretation by clearly explaining symbolic meanings. Third, they can facilitate design-based translation of transferable elements into accessible formats. Finally, strict boundaries must be maintained to protect non-transferable ritual elements, particularly those with sacred or context-dependent significance. This framework addresses a key gap in existing research, where digital strategies often emphasize dissemination without sufficient attention to cultural hierarchy and symbolic integrity. By integrating semiotic interpretation

with digital application, the study provides a more balanced approach to cultural innovation. Digital communication contributes to Lanjiefu's inheritance by enhancing preservation, accessibility, and engagement. However, its effectiveness depends on its integration within a culturally grounded framework. The findings demonstrate that technology should serve cultural meaning rather than redefine it, and that sustainable heritage innovation requires careful alignment among digital tools, symbolic interpretation, and community context.

## 5. Conclusions

This study reconceptualizes Lanjiefu as a multilayered symbolic system and examines how its cultural inheritance can be sustained within the digital economy. The findings show that Lanjiefu derives its significance from the interaction between ritual practices, visual forms, kinship structures, and collective memory. Cultural meaning is embedded in symbols such as colors, motifs, spatial arrangements, and performances, which function as interconnected signifiers rather than isolated aesthetic elements. The study also demonstrates that weakening cultural transmission is driven by structural and behavioral changes, including rising organizational costs, time constraints associated with labor mobility, and the transformation of social interaction under digital lifestyles. These factors disrupt participation and intergenerational continuity, even though the cultural value of Lanjiefu remains intact. Thus, the challenge lies not in cultural irrelevance but in weakened transmission mechanisms.

In response, this research proposes a semiotic and design-based framework for cultural inheritance. The results highlight the importance of distinguishing between symbolic extraction and superficial borrowing, and of interpreting cultural elements before translating them into contemporary formats. The study further establishes that design should function as a cultural translator, enabling adaptation into digital media, educational platforms, and creative industries without detaching symbols from their original meanings. Moreover, the findings position digital technology as a supportive secondary layer rather than a primary driver. Digital tools are effective for documentation, interpretation, and dissemination, but they cannot replace the embodied and relational aspects of ritual practices. A hierarchical approach to digital communication is therefore necessary to preserve cultural integrity while enhancing accessibility. In general, this study achieves its objectives by: (1) identifying and interpreting the core symbolic elements of Lanjiefu; (2) explaining the factors contributing to weakened cultural transmission; and (3) developing a structured framework for translating cultural symbols into contemporary design and communication practices. The study advances the literature by integrating semiotic analysis with design-based application, providing a systematic approach to balancing cultural preservation and innovation.

### 5.1. Research Limitations

This study has several limitations. First, the empirical scope is limited to selected communities in Wenzhou, which may not fully represent the diversity of Lanjiefu practices across different regions. Second, the study relies primarily on qualitative data, which provides depth but limits generalizability. Third, while the research proposes a design-based framework, it does not include empirical testing or evaluation of specific design applications, particularly in digital environments or among different user groups.

### 5.2. Policy Implications

The findings offer several implications for policymakers and cultural practitioners. First, cultural preservation policies should move beyond documentation and emphasize contextual interpretation and community participation. Supporting local actors, including elders and cultural practitioners, is essential for sustaining transmission mechanisms. Second, cultural innovation strategies should adopt a selective and structured approach, distinguishing between transferable and non-transferable cultural elements. This can prevent cultural misrepresentation and protect ritual integrity. Third, digital heritage policies should prioritize cultural hierarchy and ethical boundaries, ensuring that digital dissemination does not expose sacred or context-specific elements solely for commercial or promotional purposes. Finally, integration between cultural policy and creative industries should be strengthened to support design-driven cultural translation, enabling sustainable development of cultural products, education, and public engagement.

### 5.3. Future Research

Future research should extend this study in several directions. First, empirical testing of design applications is needed to evaluate how different audiences, particularly younger generations, interpret and engage with translated cultural symbols. Second, comparative studies across regions and cultural contexts can provide broader insights into the transferability of the proposed framework and identify variations in cultural adaptation processes. Third, interdisciplinary research integrating digital technologies, such as artificial intelligence, virtual reality, and knowledge graphs, can explore how advanced tools can support

culturally grounded innovation without compromising authenticity. Fourth, future studies should examine the role of community governance and participatory models in guiding cultural transformation, particularly in balancing local values with global cultural exchange. Thus, the sustainability of Lanjiefu culture depends on maintaining the relationship between symbolic meaning, social practice, and adaptive innovation. This study demonstrates that effective cultural inheritance requires a shift from technology-driven approaches to meaning-centered frameworks, integrating semiotic interpretation, design translation, and digital tools in a coherent, culturally grounded manner.

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**References**

- Burri, M. (2010). Digital technologies and traditional cultural expressions: A positive look at a difficult relationship. *International Journal of Cultural Property*, 17(1), 33–63.
- Chang, S. (2025). Little women and transformative girl narrative in China: Translation, adaptation and reception. *International Journal of Education and Humanities*, 5(3), 415–427.
- Chen, H. (2011). Lanjiefu: Locale of creation and imagination of culture with local features. *Journal of Wenzhou University*, 24(2), 12–17.
- Dabing, Y. (2011). History, characteristics and contemporary renaissance of Lanjiefu in Wenzhou. *Journal of Wenzhou University*, 24(2), 3–11.
- Deng, X., & Wang, Z. (2025). The research progress on cultural geography: Theoretical foundations, core content, and practical applications. *Geographical Research Bulletin*, 4, 414–440.
- Han, J. (2025). Research on data-driven digital inheritance system of intangible cultural heritage. In *Proceedings of the 2025 International Conference on Computers, Information Processing and Advanced Education (CIPAE)* (pp. 810–815). IEEE.
- Huang, J. (2025). Cultural inheritance and innovation path of digital art: Integration and development of computer-assisted art creation and digital media technology. *Journal of Combinatorial Mathematics and Combinatorial Computing*, 127, 2455–2470.
- Koshelieva, O., Tsyselska, O., Kravchuk, O., Buriak, B., & Miatenko, N. (2023). Digital transformation in culture and art: Exploring the challenges, opportunities and implications in cultural studies. *Research Journal in Advanced Humanities*, 4(3), 41–55.
- Lazzeretti, L., Oliva, S., Innocenti, N., & Capone, F. (2025). Rethinking culture and creativity in the digital transformation. *European Planning Studies*, 33(5), 671–679.
- Lu-lu, W., Ghani, D. B. A., & Ze-lin, L. (2024). Inheritance and innovation of Lanjiefu culture in the age of digital economy. *Asia Pacific Journal of Business, Humanities and Education*, 9(2), 130–141.

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- Lu-lu, W., Mohamed, F. N., & Ze-lin, L. (2025). Lanjiefu in Wenzhou City under the perspective of digital humanities: Constructing a knowledge graph to empower the cultural resource base. *International Journal of Education and Humanities*, 5(3), 404–414.
- Ma, M. (2026). Research on the construction and communication strategies of rural intangible cultural heritage brands. In *Proceedings of the 5th International Conference on Culture, Design and Social Development (CDSO 2025)* (pp. 89–94). Atlantis Press.
- Poddar, A. K. (2024). Impact of global digitalization on traditional cultures. *The International Journal of Interdisciplinary Social and Community Studies*, 20(1), 209.
- Rab, A. (2007). Digital culture–Digitalised culture and culture created on a digital platform. In *Information society: From theory to political practice* (pp. 1–24).
- Rani, A. (2018). Digital technology: Its role in art creativity. *Journal of Commerce and Trade*, 13(2), 61–65.
- Wang, L. L., Dahlan Bin Abdul Ghani, & Liu, Z. L. (2024). Innovative design of Lanjiefu cultural and creative products in the context of cross-border integration. *International Journal of Academic Research in Progressive Education and Development*, 13(3), 2024–2034. <https://doi.org/10.6007/IJARPED/v13-i3/22504>
- Wang, T., & Wang, L. (2025). Building and promoting local folk cultural and creative brands: A case study of Lan Jiefu.
- Wu, J., Guo, L., Jiang, J., & Sun, Y. (2021). The digital protection and practice of intangible cultural heritage crafts in the context of new technology. In *E3S Web of Conferences* (Vol. 236, p. 05024). EDP Sciences.
- Xiaojuan, J. (2023). Technology and culture in the digital era. *Social Sciences in China*, 44(1), 4–24.