

The Path to Sustainable Development of Local Intangible Cultural Heritage: A Case Study of Nüshu in Jiangyong, China

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Received February 9, 2024; **Revised** May 1, 2024; **Accepted** June 1, 2024

Abstract

Nüshu in Jiangyong, China, represents the world's only surviving gender-specific script and has been a highlight in the development of intangible cultural heritage both locally and globally over the years. This study employed qualitative research methods to describe and analyze Nüshu within the context of cultural inheritance, utilizing literature review, field research, and the application of sustainable development concepts to explore (1) the relationship between the concept of sustainable development and the sustainable development of culture, (2) the developmental changes in the transmission of Nüshu, and (3) the pathways to sustainable development of Nüshu in the context of cultural inheritance. The results indicated that, on one hand, the sustainable development of culture is an extension of the concept of sustainable development; on the other hand, the development of Nüshu faces urgent challenges related to modes of transmission, environmental context, and the inheritors themselves. Additionally, the sustainable development pathways for Nüshu could be explored from both static and dynamic perspectives. The findings of this study not only provided a theoretical basis for the protection and transmission of Nüshu culture but also offered reference value for the sustainable development of other precious local cultural heritages.

It was concluded that the sustainable development of Nüshu in Jiangyong offers critical insights into the broader application of sustainable practices within the realm of intangible cultural heritage. The study not only underscores the importance of culturally specific approaches but also

highlights the potential for these methods to contribute to global sustainability efforts, ensuring that local traditions enhance cultural diversity and economic vitality at the international level.

Keywords: Nüshu in Jiangyong, China; Intangible Cultural Heritage; Pathways to Sustainable Development

Introduction

Intangible Cultural Heritage (ICH), as defined by UNESCO, plays a crucial role in preserving the cultural diversity and identity of communities worldwide. However, despite the growing recognition of its importance, as highlighted by the 20th anniversary of the UNESCO Convention for the Protection of ICH in 2023, challenges remain in its preservation and integration into modern life. Studies by Chen and Luo (2022) and Yi, Xiao, & Xu (2021) have advanced our understanding by examining the legal and innovative frameworks necessary for ICH protection. Yet, they also reveal significant gaps, particularly in the application of these frameworks to specific cultural contexts and the incorporation of modern technological tools, as discussed by Han and Zhou (2022) and Chen and Yang (2021). These insights suggest a need for deeper, localized studies to bridge the gap between global policies and local implementation, particularly for unique cultural phenomena like the Nüshu script in Jiangyong, China.

The research focuses on Nüshu, a unique script used exclusively by women in Jiangyong, which represents a distinctive case within the broader category of ICH. The preservation and revitalization of Nüshu not only raises questions about cultural sustainability but also about the empowerment of women and the role of local communities in heritage conservation. The researchers bring a combination of field experience in Jiangyong and expertise in gender studies and cultural preservation, aiming to contribute to both academic knowledge and local community practices. The target audience for this research includes academics in cultural studies, policymakers in heritage conservation, and local communities engaged in sustaining their intangible heritage.

The objectives of this study are to critically analyze the current strategies employed in the sustainable development of Nüshu, identify the key challenges and opportunities presented by modernization, and propose actionable strategies for its preservation and integration into the global heritage community. This research will be conducted through qualitative methods, including field research in Jiangyong, planned for the spring of 2024, and interviews with key stakeholders. By doing so, this paper aims to offer a comprehensive understanding of the dynamic interaction

between tradition and modernity in the preservation of ICH and provide a model for similar ICH projects worldwide.

This research paper seeks to bridge the gap between theoretical frameworks and practical applications in the field of cultural heritage preservation. It will elucidate the complex dynamics of sustaining intangible cultural heritages such as Nüshu, emphasizing the integration of local traditions with global sustainability efforts. The outcomes are expected to benefit academic circles by providing empirical insights and methodological advancements, and society by enhancing the capacities of local communities to maintain and develop their cultural assets in a sustainable manner.

Research Objectives

- 1 . To investigate and analyze the relationship between the concept of sustainable development and cultural sustainable development.
2. To study and analyze the evolution of the inheritance of Nüshu in Jiangyong, China.
- 3 . To research and analyze the pathways to sustainable development for Nüshu in Jiangyong, China, within the context of ICH inheritance.

Literature review

Research Related to Sustainable Development Theory

Since the term "Sustainable Development" was introduced by the World Commission on Environment and Development (WCED) in "Our Common Future" in 1987, the concept of sustainable development has gradually become a principal guiding principle for the United Nations, governments around the world, private institutions, organizations, and businesses. In September 2015, the United Nations Development Summit was held at its headquarters in New York, where 193 member countries of the United Nations officially adopted 17 Sustainable Development Goals (SDGs). These goals aim to address developmental issues across social, economic, and environmental dimensions between 2015 and 2030, progressively moving towards a sustainable development path (Truby, 2023).

International academic research has focused on multiple disciplines, including ecology, economics, socio-politics, and systems theory. In the field of ecology, researchers like Wackernagel and Rees (1996) introduced the concept of the ecological footprint, using it to

quantitatively assess the sustainable development status of countries or regions by comparing ecological carrying capacity and ecological footprints. In economics, the World Bank (1995) developed the concept of genuine savings, measuring a nation's wealth and its capacity for sustainable development based on environmental pollution and natural resource depletion. From a socio-political perspective, the Human Development Index (HDI) proposed by the United Nations Development Programme (UNDP) in 1990 focuses on measuring per capita GDP, health status, and education level. In systems theory, the United Nations Commission on Sustainable Development (UNCSD) introduced the Driving Force–State–Response (DFSR) indicators system in 1996, aimed at monitoring human activities, states, and policy choices affecting sustainable development. Chinese scholars have also contributed to the theory and methodology of sustainable development evaluation. Early on, Li and Zhou (2006) proposed a Chinese sustainable development indicator system that includes subsystems of population, resources, environment, and economy. Zhao, Li, and Gao (2008) constructed a practical sustainable development evaluation indicator system. Ong and Zhang (2023) mentioned that in 2015, the United Nations General Assembly passed the 2030 Agenda for Sustainable Development and the 17 Sustainable Development Goals (SDGs), marking the first time culture was included as one of the goals for global sustainable development in the international development agenda. Following this, Zhang, Zhao, Jia, and Deng (2023) drew on the theory of the United Nations 2030 SDGs, exploring the intrinsic connections within the sustainable development indicator system for world cultural heritage sites like the Dazu Rock Carvings protection area, around the economic, environmental, and social clusters, combined with the concept of cultural heritage protection.

These studies demonstrate the multidimensionality and complexity of sustainable development evaluation. However, few scholars have delved into the development of ICH under the concept of sustainable development.

Research Related to Intangible Cultural Heritage (ICH)

The United Nations Educational, Scientific and Cultural Organization (UNESCO) defined "Intangible Cultural Heritage" in the 2003 Convention for the Protection of the ICH as the practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artefacts, and cultural spaces associated therewith—that communities, groups, and, in some cases, individuals recognize as part of their cultural heritage.

In recent years, scholars have conducted numerous discussions on the direction of ICH protection. For example, in terms of the principles of ICH protection, Xiang (2004) starts from the

perspective of "cultural spaces," highlighting that the protection of this type of ICH, in addition to following the general principles of ICH protection, also needs to adhere to principles of integrity, authenticity, ecological nature, and vitality. Regarding the current state of ICH protection, Wei (2020) addresses the ICH of the "Sky Zither" among the Jinlong Bulang people on the China–Vietnam border, pointing out issues such as unclear protection subjects, rough protection planning, ambiguous ownership of protection rights, and insufficient protection efforts. In terms of methods of ICH protection, Cheng (2021) analyzes the overview of Yao ethnic ICH resources, the current state of protection, and the current practices of Yao ethnic museums in ICH work, noting that ethnic museums play a crucial role in ICH protection by serving functions such as exhibition, education, and collection.

In addition to discussions on the direction of ICH protection, there have also been explorations in the direction of ICH inheritance. For instance, regarding ICH inheritors, Zhu (2020) discusses from a micro perspective the identity construction process of ethnic folk musicians, noting that ICH inheritors are the disseminators, explorers, and practitioners of ICH. In terms of methods of ICH inheritance, Chen (2010) emphasizes that the essence of education is the transmission of culture, and the inheritance of a nation's culture primarily relies on educational means, with school education being an important avenue for ICH inheritance. Concerning the dilemmas in ICH inheritance, Ga (2020) takes the Rebgong Jiansha Tibetan boots as a case study, pointing out that due to the retirement of old artisans, Tibetan boots are facing a talent gap and a lack of successors, urgently requiring rescue inheritance and protection. Additionally, there's the industrialization and development of ICH. Ai, Hu, and Xiong (2024) highlight that ICH faces challenges such as a lack of inheritors, deviation from traditional modes of inheritance, limited inheritance value, lack of inheritance mechanisms, and imbalanced standards during its development process. To ensure the continuity of inheritance and safeguard the value of ICH while maintaining its unique attributes, development should be based on the involvement of the government, society, ICH inheriting groups, and the public.

These studies offer a multidimensional research perspective on the protection and development of ICH. The academic community remains highly engaged in research on the sustainability of ICH culture, warranting further exploration.

Research on Nüshu in Jiangyong, China

Domestic and international research on Nüshu has yielded abundant results. Domestic research on Nüshu itself has essentially formed a system, with interdisciplinary studies involving a

wide range of disciplines, presenting a comprehensive research landscape. However, some issues still exist, such as unresolved questions about the origin of Nüshu characters, insufficient comprehensiveness in the study of Nüshu's ontology, and the low quality of recent research literature on Nüshu. International research on Nüshu is relatively scarce and scattered, lacking systematic study. As early as 2011, researcher He (2013) proposed that studying Nüshu from a gender culture perspective remains to be explored. It was not until 2022 that researchers Yao and Wang (2022), through analyzing the literary work "Snow Flower and the Secret Fan" related to Nüshu, proposed that Nüshu symbolizes women's resistance and conspiracy against a patriarchal society. It is evident that there are still gaps in the study of Nüshu within the context of gender studies, with most analyses of Nüshu being from a feminist perspective. Also in 2022, Peng (2022) attempted to explore the characteristic evolution and innovation of Nüshu, arguing that it should not merely be seen as a bygone signs of femininity but should be fully understood, recognized, and expanded from various perspectives. This indicates that gaps still exist in the field of international research on Nüshu. Additionally, Tian et al. (2019) suggests that as a local cultural phenomenon, a symbolic system for Nüshu could be constructed, along with establishing a database of Nüshu genes to achieve the dynamic and sustainable development of Nüshu cultural heritage.

In summary, coupled with researchers' field survey data, it is found that there are still several issues concerning Nüshu in Jiangyong, China, that warrant further research. These include the current state and problems of Nüshu's inheritance and development, and the exploration of sustainable development paths for Nüshu.

Conceptual Framework

This study focuses on Nüshu in Jiangyong, China, using it as a case study within the context of ICH inheritance, and is guided by the concept of sustainable development. It aims to deeply analyze and research the current status and challenges faced in the inheritance of Nüshu. Through this process, the study ultimately seeks to explore effective pathways for the sustainable development of Nüshu in modern society, providing reference strategies and suggestions for the protection and inheritance of other similar ICH cultures (Figure 1).

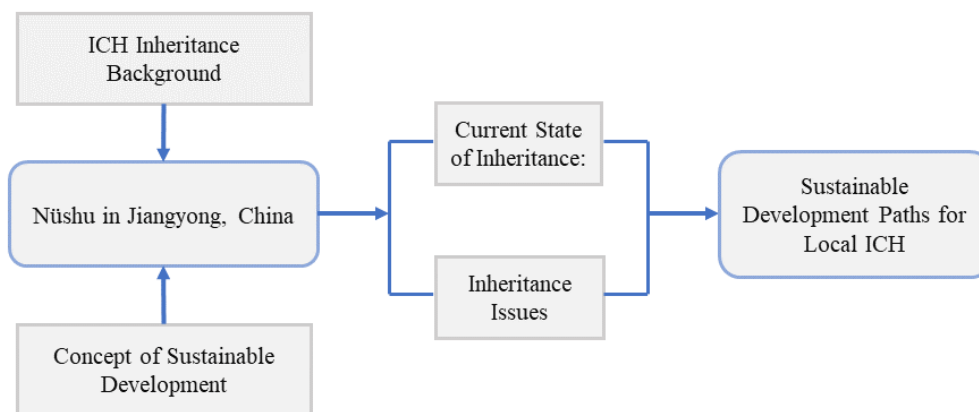


Fig.1 Conceptual Framework (source: Created by researchers, 2024)

Research Methodology

This study adopts a qualitative research methodological framework, with primary data collection channels including literature review, field research, and data derived from the researcher's doctoral thesis, covering demographics. Throughout this process, a series of tools were utilized, including interview guides, observation record sheets, and audio–visual recording devices. Through semi–structured in–depth interviews, researchers gathered valuable information from respondents, where the interview plan was not disclosed to the respondents in advance to ensure the objectivity and fairness of data collection. The observation record sheets allowed researchers to meticulously record the results of observations at every stage during field research. The collection tools for audio–visual materials included cameras, motion recorders, and recorders, aimed at gathering comprehensive audio–visual information. The recorded interview content facilitates subsequent precise retrospective data analysis. Ultimately, all data were categorized and validated through methodological triangulation, followed by category analysis and inductive analysis for in–depth analysis, resulting in descriptive analytical outcomes.

Research Results

Objective 1. Sustainable Development Concept and Cultural Sustainability

Cultural sustainability is essentially an extension of the concept of sustainable development, stemming from the three main concepts of economic, ecological, and social sustainability, and is a core concept related to the inheritance and development of ICH. Cultural sustainability refers to the process of societal development that not only focuses on sustainable economic and ecological development but also fully protects, inherits, and develops human cultural

heritage, achieving cultural self-renewal and perpetual utilization (Ding & Xu, 2019). Some scholars argue that the acceleration of globalization and modernization processes disrupts the balance of cultural ecology, leading to the loss of human cultural diversity and creating a cultural crisis (Zhu, 2012). This has led to the proposal of the "cultural ecology theory" to provide ideas and pathways for promoting cultural sustainability.

Firstly, the concept of cultural sustainable development is based on cultural ecology theory, emphasizing the protection of cultural ecological diversity. This theory, first introduced by American anthropologist Steward, clarified the interrelationship between culture and environment in "The Concept and Method of Cultural Ecology." Steward's theory focuses on the continuity and development of culture, noting that similar environments tend to lead to similar evolutionary directions in cultures, resulting in multilinear evolution. For example, ancient civilizations like China and Egypt developed similar irrigation technologies in arid environments. Steward (1955) also proposed the concept of a "cultural core," highlighting the relevance of culture to its environmental, technological, economic, and political factors. Therefore, cultural sustainable development must consider the adaptability and multilinear evolutionary characteristics of culture in specific environments and their interactions with political, economic, and technological factors.

Secondly, multilinear evolution reflects the diversity of cultural forms. Both material and intangible cultural heritages can imbue the concept of sustainable development, particularly the "people-centered" approach in the sustainable development of ICH. Marxist humanism theory considers "people-centered" as an important principle, which was formed based on the critique of Western humanism by Marxism and has been inherited and developed in practice (Xiang, 2016). In the realm of cultural sustainability, ICH, as a crystallization of human wisdom, inherently exists by attaching to humans, possessing a natural "people-centered" attribute (Liu, 2016). UNESCO's definition of ICH as social practices or production skills integrated into the collective or individual's daily lifestyle highlights the close relation of ICH with people's daily living, emphasizing the intrinsic connection between ICH and individuals. This connection is not only because ICH is created by people, but also because ICH loses its cultural value without human involvement.

Finally, the 17 SDGs of the United Nations closely relate to cultural sustainable development, reflecting its inevitability and importance. Under the UN SDGs framework, cultural sustainable development aims to protect, inherit, and activate various cultural resources in the process of globalization. Through education, urban planning, peacebuilding, and international cooperation, it seeks to achieve coordinated development in cultural, economic, social, and

environmental fields, creating a more just, inclusive, and sustainable future for humanity. By examining the UN SDGs, it is evident that the concept of cultural sustainable development is embodied within each goal (Table 1). In summary, cultural sustainable development is a cross-disciplinary, cross-sectoral, and cross-content concept that is not only reflected in the goals related to SDGs but also profoundly impacts the achievement of sustainable development objectives across social, economic, and environmental dimensions. By promoting cultural sustainable development, the global community's understanding, identification, and action towards sustainable development goals can be further enhanced.

Table 1 The Relevance of the United Nations SDGs to Cultural Sustainability (Source: Compiled by the author based on literature review)

No.	UN SDGs	Cultural Elements	Cultural Sustainability
1	No Poverty	Community Culture	Promote local traditional culture to enhance community economic development, create job opportunities, and reduce poverty.
2	Zero Hunger	Agricultural Culture	Maintain and inherit agricultural cultural heritage, such as seed preservation and traditional farming techniques, to improve food security.
3	Good Health and Well-being	Medical Culture	Protect and develop traditional medical knowledge to support the global public health system.
4	Quality Education	Multiculturalism	Incorporate multicultural content in education to enhance intercultural communication skills and respect for cultural diversity.
5	Gender Equality	Cultural Arts	Advocate for the elimination of gender discrimination in the field of cultural arts and encourage women's participation in cultural activities and decision-making processes.
6	Clean Water and Sanitation	Traditional Culture	Focus on traditional cultural wisdom in water resource management to ensure equitable use.
7	Affordable and Clean Energy	Green Culture	Utilize cultural resources to promote innovative design and dissemination of green energy.
8	Decent Work and Economic Growth	Cultural and Creative Industries	Develop cultural industries and creative economy to create more culture-related job opportunities.
9	Industry, Innovation, and	Cultural and Creative	Build infrastructure that considers local cultural

	Infrastructure	Industries	characteristics and environmental protection.
10	Reduced Inequalities	Cultural Rights	Protect the cultural rights of vulnerable groups and narrow the cultural gap between rich and poor.
11	Sustainable Cities and Communities	Cultural Heritage	Emphasize the protection of historical cultural heritage and community cultural construction in urban planning.
12	Responsible Consumption and Production	Environmental Culture	Promote products and services that reflect cultural values and environmental concepts.
13	Climate Action	Ecological Culture	Integrate traditional ecological knowledge and modern climate adaptation strategies to jointly address climate change.
14	Life Below Water	Marine Culture	Protect marine cultural heritage and enhance public awareness of marine ecological protection.
15	Life on Land	Indigenous Culture	Combine indigenous cultural wisdom for ecological protection and restoration.
16	Peace, Justice, and Strong Institutions	Cultural Exchange	Use cultural dialogue and exchange to promote peace and ensure cultural rights for all.
17	Partnerships for the Goals	Shared Culture	Strengthen international cooperation, share cultural resources and technologies, and jointly promote sustainable development of culture.

Objective 2. Evolution of Nüshu Inheritance in Jiangyong, China

Nüshu, discovered in the 1950s, is a unique script used exclusively by women in the rural areas of Jiangyong County, Hunan Province, China, centered around the Xiao River basin. It also encompasses the customs and culture formed around this script. Today, Nüshu has become a quintessential local cultural heritage and has been presented as a representative cultural gift from China to the United Nations. Looking at the trajectory of Nüshu's inheritance, it has evolved through three stages: natural inheritance, semi-natural inheritance, to non-natural inheritance (Table 2). Natural Inheritance refers to inheritors who were completely uninfluenced by Chinese characters. Semi-Natural Inheritance describes those who received national education but were only minimally influenced by Chinese characters in the transmission of Nüshu. Non-Natural Inheritance involves inheritors who have undergone national education, with Chinese characters having a significant impact on the transmission of Nüshu.

Table 2 Phased Characteristics of Nüshu Inheritance Evolution (Source: Compiled by the author based on literature review)

Inheritance Evolution	Phase 1: Natural Inheritance	Phase 2: Semi-Natural Inheritance	Phase 3: Non-Natural Inheritance
Historical Period	Before the establishment of New China	From the establishment of New China to the awarding of titles to non-natural inheritors	From the end of the 20th century to the present
Female Gender Characteristics	Yes	Blurred	No
Spontaneity and Entertainment	Yes	Partially	Partially
Secrecy	Yes	Semi-public	No
Educational Features	No	Yes	Yes
Familial	Yes	Yes	Yes
Societal	No	Partially	Yes

The first stage is natural inheritance, which is the spontaneous, ecological inheritance that occurs in the original or traditional settings. Compared to other forms of ICH, the uniqueness of Nüshu from Jiangyong lies in its being a form of folk literature carried by "women's script." This form determined that oral transmission and practice learning are its primary modes of inheritance. The natural inheritance stage of Nüshu is characterized by the following features: 1) a distinct female characteristic, passed down through oral traditions among women within families, excluding male participation; 2) spontaneity and entertainment, lacking intervention by systematic educational institutions; 3) secrecy, influenced by feudal society, where women used Nüshu in private settings; 4) familial, mainly transmitted within family blood relations and close friends, rarely involving outsiders. Nüshu culture represents a courtyard-style song hall culture, and Nüshu literature is a mass form of folk narrative literature rooted in the daily lives of local women, reflecting the "human-centered" idea in the transmission of Nüshu.

The second stage is semi-natural inheritance, which is a semi-public form of transmission combining oral and written forms (Table 3). After the establishment of New China, Nüshu culture underwent several historical impacts, leading to a sharp decrease in the number of inheritors and facing the risk of cultural loss, but it was preserved through the efforts of many. Transitional

figures such as He Yanxin and Hu Meiyue represent different stages of inheritance. The characteristics of the semi-natural inheritance stage include: 1) gradually blurred female characteristics, with males also able to learn Nüshu through study and participation in schools; 2) the initial emergence of educational aspects, such as the establishment of Nüshu schools becoming an important means for the widespread dissemination of Nüshu culture; 3) a shift from secrecy to openness, as the number of inheritors decreased, Nüshu culture transformed from a family secret to being widely disseminated in society.

Table 3 Transitional Period of Semi-Natural Inheritance Phase (Source: Compiled by the author based on literature review)

No.	Transitional Period	Inheritor	Successor	Relationship	Mode of Inheritance
1	Natural Inheritor → Semi-Natural Inheritor	/	He Yanxin	Grandparent-Grandchild	Oral Transmission
2	Natural Inheritor → Non-Natural Inheritor	Gao Yinxian	Hu Meiyue	Grandparent-Grandchild	Oral Transmission, Establishment of Schools
3	Semi-Natural Inheritor → Non-Natural Inheritor	He Jinghua	Pu Lijuan	Mother-Daughter	Oral Transmission, Nüshu Research

The third stage is non-natural inheritance, which refers to the public and quasi-ecological transmission under government regulation. This phase achieves diversified inheritance through the education system, scientific research institutions, policies and regulations, media promotion, and industry development. Specifically, it includes the following aspects: 1) Integration into the Education System: Local educational departments incorporate Nüshu into their curriculum systems, with some schools offering courses on Nüshu culture. At the same time, professional training classes are provided for adults and women's groups; 2) Research by Scientific Institutions: The academic community conducts in-depth research and publishes related literature and materials, such as the Chinese Academy of Social Sciences and Hunan University studying the origins, evolutionary process, and cultural connotations of Nüshu; 3) Policy and Regulation Support: The government introduces policies and regulations to establish cultural protection zones, museums, and research centers, providing material and legal support, such as setting up protection funds and Nüshu cultural ecological preservation areas; 4) Media Promotion: Enhancing Nüshu's publicity through television, internet, and other media means to raise public awareness, like special

programs produced by China Central Television; 5) Cultural Industry Development: Encouraging the creation of cultural products and tourism projects based on Nüshu, such as crafting artifacts and creating tourism routes, to achieve a dynamic inheritance of Nüshu culture combined with economic benefits.

Objective 3. Sustainable Development Paths for Nüshu in Jiangyong, China

From the perspective of the United Nations SDGs, the sustainable inheritance of Nüshu culture necessitates a variety of approaches, including educational popularization, industrial development, cultural infrastructure construction, and international cooperation. These measures not only protect this unique cultural sign but also promote socio-economic development and enhance public awareness and respect for traditional culture, thereby achieving the long-term inheritance of Nüshu culture. From an informational perspective, cultural relics are the most durable and stable signs. They originate from the past, allowing for the study and verification of history to reveal the objective laws of social development; they are rooted in the present, serving the construction of contemporary socialist spiritual civilization and becoming excellent teaching materials for patriotism and traditional education. Nüshu culture, with its rich and unique cultural resources, can not only promote local economic and cultural development by expanding and utilizing these cultural resources for new functions but also revitalize this endangered unique cultural phenomenon (Li, 2003). The essence of the sustainable inheritance of Nüshu in Jiangyong, China, lies in the vivid, unique, and meaningful Nüshu signs. They not only provide content carriers for the international dissemination of Nüshu's static inheritance but also lay the cultural foundation for Nüshu's dynamic inheritance, being an important support for Nüshu's "static-dynamic" sustainable development. Field investigations also reveal the main ideas for sustainable inheritance. When asked, "How can a sustainable development path for Nüshu be constructed?", officials from relevant departments suggested, "Constructing a sustainable development path for Nüshu is like planting an evergreen tree for this ancient art, allowing it to maintain its deep-rooted tradition while blooming flowers of the new era. In summary, it involves promoting the protection, inheritance, and development of Nüshu culture from both dimensions of Nüshu's static signs (script, poetry, craftsmanship) and its dynamic ICH inheritance, aiming for its continued prosperity in modern society." Therefore, this study, based on the UN SDGs, follows the logic of "sustainable development – cultural sustainability – ICH cultural sustainability," and proposes paths for the static and dynamic sustainable inheritance of Nüshu around aspects such as script forms, poetry, craftsmanship, customs, and artistic signs (Figure 2).

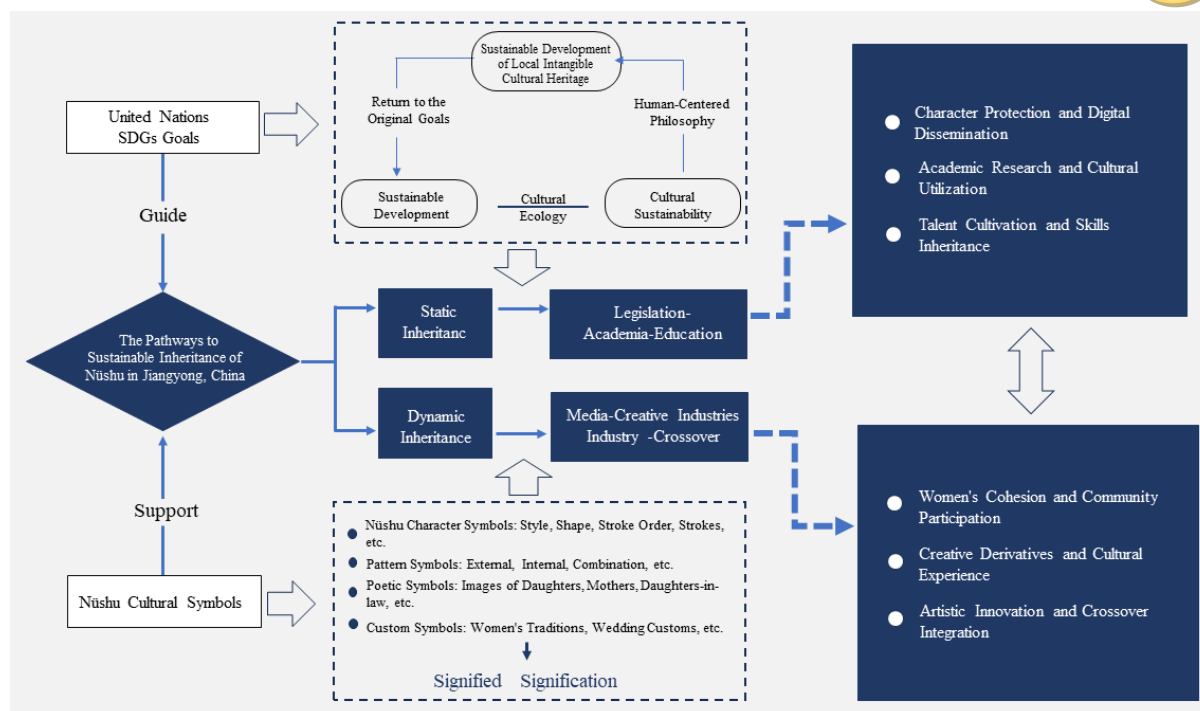


Fig.2 Development Path Diagram for Nüshu in Jiangyong, China

(source: Created by researchers, 2024)

Static sustainability refers to long-term preservation, documentation, and exhibition of Nüshu culture through non-active means, ensuring its historical value and artistic features are permanently retained. In other words, the static sustainable inheritance path for Nüshu in Jiangyong, China, does not require practical operation or live demonstration but relies on character signs, poetry signs, craft signs, and other carriers to record and transmit Nüshu culture. The goal is to ensure that this ICH can be protected and inherited effectively and permanently without compromising its original features. Relevant department personnel pointed out: "The static sustainable inheritance path for Nüshu refers to the long-term preservation and dissemination of Nüshu culture through non-active, physical, or digital forms." Specifically, this includes the following practical paths: 1) Character Protection and Dissemination: As an essential component of ICH, the protection and dissemination of Nüshu characters are crucial for inheriting and developing this unique cultural sign; 2) Academic Research and Cultural Utilization: The academic community should enhance research on the historical origins, artistic features, and social functions of Nüshu characters, revealing their profound cultural connotations and thus raising society's awareness and protection consciousness; 3) Talent Cultivation and Skill Inheritance: Focusing on the cultivation of Nüshu inheritors and the transmission of reading and writing skills is not only the protection and

continuation of traditional knowledge and skills but also a rediscovery, re-creation, and re-dissemination of Nüshu cultural value in a modern context.

Dynamic sustainability involves protecting and continuing the Nüshu cultural heritage through dynamic, interactive, and participatory methods, allowing its cultural connotations and skills to be authentically, vividly, and enduringly transmitted. This path aims to combine tradition with modernity, focusing on community participation and social needs to ensure the vitality of Nüshu culture is maintained and developed amid societal changes. Relevant department personnel noted: "The dynamic sustainable inheritance path for Nüshu is a multifaceted development strategy that blends tradition with modernity. It aims to activate the vitality of Nüshu culture, allowing it to shine anew in the contemporary social environment, continually enriching and perfecting the treasure trove of human cultural heritage." Specifically, this involves the following practical paths: 1)Active Inheritance and Cultural Experience: As the world's only cultural phenomenon and ICH, the core of Nüshu's dynamic sustainable inheritance path lies in the development of practical activities and the promotion of cultural experiences; 2)Women's Cohesion and Community Participation: As a unique female writing system, community participation and women's empowerment are two indispensable dimensions in constructing the dynamic sustainable inheritance path for Nüshu; 3)Artistic Innovation and Cross-boundary Integration: In discussing the static sustainable inheritance of Nüshu art, the focus is on innovatively integrating Nüshu signs with modern aesthetics and multiculturalism.

New knowledge

This study introduces new methodologies in the qualitative analysis of intangible cultural heritage, specifically focusing on the unique case of Nüshu. By applying both static and dynamic perspectives on cultural sustainability, it broadens the framework for assessing and fostering the preservation of local traditions within the global context of sustainable development. This approach provides fresh insights into the integration of gender-specific cultural practices with broader socio-economic objectives, contributing to a more inclusive and comprehensive understanding of cultural sustainability.

Discussions

1. Sustainable Development Concept and Cultural Sustainability

This research confirms that the application of the sustainable development concept to cultural preservation, as seen with Nüshu, represents a broader trend in how societies value and maintain their cultural heritage. Originally, Nüshu was a secretive script used exclusively by women in Jiangyong, which allowed them to foster a unique cultural space within a patriarchal society. This private nature of Nüshu safeguarded its traditions for generations but also limited its exposure to the outside world.

Past Trends: Traditionally, Nüshu was preserved through oral traditions and familial transmission, ensuring its continuity in a discreet manner, reflecting a period where cultural practices were intertwined with daily life and remained largely untouched by external influences.

Present Dynamics: In contemporary settings, the recognition of Nüshu has expanded beyond its local origins to gain national and international acknowledgment. This shift is emblematic of a larger movement towards recognizing and integrating intangible cultural heritage into the global cultural economy, where Nüshu is not only preserved but also adapted to serve as a tool for economic development and social empowerment.

2. Evolution of Nüshu Inheritance in Jiangyong, China

The evolution of Nüshu inheritance can be described through three distinct phases—natural, semi-natural, and non-natural. Each phase reflects significant socio-cultural and educational changes in China, impacting how this unique script has been transmitted across generations.

Natural Inheritance: This phase was marked by the exclusivity of the script to women and its transmission through oral and practical means within a closed community setting.

Semi-Natural and Non-Natural Inheritance: These stages signify the script's gradual opening to broader societal elements, influenced by educational reforms and cultural policies. The inclusion of men in the learning process during these phases indicates a significant cultural shift, moving from a secretive practice to a recognized cultural treasure, supported by institutional and educational frameworks.

3. Sustainable Development Paths for Nüshu

The proposed sustainable development paths for Nüshu reflect a strategic approach to maintaining its cultural integrity while promoting its utility in contemporary society. These paths are

aligned with the United Nations' Sustainable Development Goals, emphasizing the role of cultural heritage in promoting social inclusion, economic development, and cultural diversity.

Static and Dynamic Inheritance Paths: The static path focuses on preservation and archival strategies, ensuring the script's historical and cultural significance is well-documented and accessible. Meanwhile, the dynamic path advocates for the active transmission of Nüshu through community engagement, educational programs, and integration into the cultural industries.

Global Integration: These paths mirror global strategies for intangible cultural heritage preservation, which balance the need for maintaining authenticity with the imperative of adapting to changing social and economic landscapes.

Conclusion

This study has meticulously analyzed the sustainable development of Nüshu in Jiangyong, China, presenting a nuanced understanding of its evolution and current challenges. By integrating the concept of sustainable development with the unique aspects of this gender-specific script, the research has unveiled pathways that not only aim to preserve but also invigorate this valuable cultural heritage within its local and global contexts. It has demonstrated that the sustainability of intangible cultural heritage like Nüshu requires a balanced approach that respects traditional practices while embracing modern interventions such as education, technology, and policy support.

The findings underscore the importance of viewing cultural heritage through both static and dynamic lenses to ensure its continued relevance and vitality. Static strategies focus on documentation and conservation, essential for capturing the historical and cultural essence of Nüshu. Conversely, dynamic strategies emphasize active engagement and adaptation, ensuring that Nüshu remains a living, evolving practice that continues to enrich the cultural and economic life of its community.

Ultimately, this research contributes to the broader discourse on cultural sustainability, offering valuable lessons on integrating cultural heritage into the sustainable development goals (SDGs) and highlighting the role of specific cultural insights in shaping global sustainability strategies. The case of Nüshu not only enriches our understanding of the complexities involved in preserving intangible cultural heritage but also illustrates the potential for local traditions to inform and enhance global efforts towards a sustainable future.

Suggestions

In the context of the inheritance of ICH, this research focuses on Nüshu in Jiangyong, China, and delves into the sustainable development paths of local ICH within the theoretical framework of sustainable development. The contributions of this study are primarily manifested on two levels.

Firstly, it broadens the scope of research on the sustainable development of existing types of ICH, offering new perspectives and considerations. The study highlights the importance for relevant departments to consider and respect the unique evolutionary laws of each ICH entity when formulating development paths for local ICH, which is crucial for protecting and activating the value of ICH. Secondly, through in-depth analysis of Nüshu in Jiangyong, the study enriches the literature on the sustainable development of ICH in China, providing valuable references for subsequent research and practice. Additionally, the dissemination of the research findings not only enhances the academic community's understanding but also promotes public awareness of ICH protection and development, offering effective guidance for the inheritance and innovation of ICH culture.

Given the custom of burning Nüshu scripts upon the death of the writer, which has led to difficulties in fully grasping the early works and development traces of Nüshu, there is a potential impact on comprehensively showcasing the entirety of Nüshu. Therefore, it is suggested to establish a Nüshu database, researching and categorically recording the current state of this ICH.

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