

Inheritance and Protection of Grass Cloth from the Perspective of Cultural Ecology

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Abstract

This paper examined the inheritance and protection of grass cloth from a cultural ecology perspective. Through a field survey of the core production areas of grass cloth in Jiangxi Province, this study provided a comprehensive analysis of the cultural ecology of grass cloth development and local protection initiatives in Wanzai and Fenyi. The study involved data collection from 10 participants, including grass cloth inheritors, cultural center staff, enterprise founders, and factory employees, using unstructured observation and semi-structured interviews. The analysis used qualitative coding methods to uncover key themes concerning inheritance methods, policy measures, and cultural ecological changes, along with a chronological examination of development phases. The core findings revealed that the integration of culture and tourism, regional branding, and inheritance support mechanisms has facilitated the sustainable preservation and transformation of grass cloth techniques, overcoming challenges such as declining numbers of artisans and market competition. It was found that Wanzai and Fenyi have constructed a systematic path for ecological protection and diversified development by constructing a three-in-one inheritance strategy of “systematic protection of cultural ecology, characteristic branding development, and support mechanism for inheritors,” achieving the systematic protection and modern transformation of traditional crafts while providing a model for local characteristic cultural industry upgrading.

Keywords: Cultural Ecology; Grass Cloth; Traditional Handicraft; Inheritance Strategy; Protection Initiatives.

Introduction

Grass cloth is a woven fabric made in China primarily from ramie (Dewey, 1929) and is representative of traditional Chinese textile culture. The craft of weaving grass cloth is a living cultural practice passed down through generations. It not only reflects China's society, economy, and environment, but also embodies traditional Chinese thought. In 2008, the weaving technique of grass cloth was inscribed on the list of China's intangible cultural heritage, signaling its cultural importance and the urgent need for preservation. However, the survival and sustainable transmission of this craft remain in jeopardy.

The inheritance crisis of grass cloth has become increasingly evident in recent years. According to the Ministry of Culture and Tourism of the People's Republic of China, by March 2025 there are only three nationally recognized inheritors of grass cloth weaving techniques, one of whom is Shuya Song from Wanzhai County, Jiangxi Province. According to a list published by the Xinyu Municipal Bureau of Culture, Radio, Film, and Tourism, Yusheng Wang from Fenxi County will be designated as a provincial-level representative inheritor of grass cloth weaving techniques. According to a list published by the Yichun Municipal People's Government, Zhixue Song and Zhiyong Song from Wanzai County will be designated municipal-level representative inheritors of grass cloth weaving techniques. Beyond the aforementioned four nationally, provincially, and municipally designated representative inheritors, the number of individuals engaged in the grass cloth industry long-term is minimal, and most are elderly. This reflects the fragility of skill inheritance and the high risk of disappearance.

From an industrial perspective, Jiangxi remains one of the core regions for grass cloth production, yet the industry is fragmented and small-scale. A survey of enterprises reveals that most grass cloth companies in Jiangxi Province were established after 2000, such as Jiangxi Grass Cloth Cultural Communication Co., Ltd. (2009), Wan sheng Grass Cloth Co., Ltd. (2016), and Gu xia Jin Chao Grass Cloth Culture Co., Ltd. (2015). Only 12 enterprises remain in the core production areas of Zunyi County, Xinyu City, Wanzhai County, and Yichun City. Most enterprises struggle to compete in the modern textile industry due to outdated production technologies, weak brand development, and limited market adaptability. The disconnect between traditional product forms and contemporary consumer demands further undermines their market competitiveness.

Similar to other traditional handicrafts, grass cloth faces a double dilemma: the decline of craftsmanship due to the scarcity of inheritors, and the market-driven challenges posed by modernization. Without effective cultural and ecological protection strategies, grass cloth risks fading into

obscurity. At the same time, traditional handicrafts are increasingly recognized as valuable resources that is used to create a local cultural landscape and promote local economic growth, while also promoting local cultural identity (Chen et al., 2021). The study of sustainable development and holistic conservation of grass cloth in Jiangxi based on cultural ecology theory, considering the adaptability of the cultural attributes of grass cloth and contemporary cultural ecology, can not only highlight the historical and social nature of the study, but also provide a new way of thinking for the inheritance and protection of grass cloth. This study employs unstructured observation and semi-structured interviews to collect data, delving into the current state of grass cloth weaving techniques, the challenges facing their transmission, and potential protection pathways. It aims to provide practical insights and policy recommendations for the sustainable transmission of traditional crafts, thereby advancing the protection and development of this precious intangible cultural heritage.

Research Objectives

1. To explore the evolution of the cultural ecology of grass cloth development in Wanzai and Fenyi, Jiangxi Province.
2. To analyze the specific measures and effectiveness of cultural ecological protection for grass cloth in Wanzai and Fenyi.
3. To summarize the experience and strategies of the cultural and ecological development of grass cloth in Wanzai and Fenyi.

Literature Review

Cultural ecology not only provides a new perspective to understand the survival state of grass cloth, but also provides a theoretical basis for its sustainable development path. This paper aims to provide support for the construction of a cultural ecology-based protection strategy for grass cloth by reviewing relevant research findings on the inheritance of traditional handicrafts from a cultural ecology perspective, the current status and dilemma of grass cloth inheritance, and research on traditional handicraft protection mechanisms.

1. Cultural Ecology and Inheritance of Traditional Handicrafts

Cultural ecology is a field of study that examines the relationship between culture and the ecological environment, specifically the interactive relationship between natural conditions such as land and natural resources, and cultural factors such as technology and economics, and how these interactions give rise to the similarities, differences, and changes among various cultures. The

concept and methodology of “cultural ecology” were first proposed by American anthropologist Julian Haynes Steward. Steward (1972) proposed the multilineal evolution of culture, meaning that various cultures adapt and develop within their specific environments. Building on this, scholars have increasingly applied cultural ecology to the study of intangible cultural heritage and traditional handicrafts. For instance, Yang et al. (2022) proposed a multidimensional model of handicraft inheritance responsive to new cultural ecologies to achieve the sustainable development of handicraft, while Li et al. (2024) highlighted the potential of ecological perspectives to reshape exhibition practices by integrating knowledge, environment, and audience experience. These studies provide valuable theoretical pathways for linking ecological concepts with the continuity of craft traditions.

However, these contributions often remain at the conceptual or programmatic level, with limited empirical testing of how ecological approaches can be effectively operationalized in diverse socio-economic contexts. While Taru and Watan’s (2020) study on Tayal clothing offers an example of resource-sharing and recycling mechanisms in practice, its findings are highly localized and may not be easily generalizable to other crafts. Overall, the literature demonstrates an awareness of cultural ecology’s relevance but still lacks systematic comparative studies that evaluate its practical efficacy across different cultural ecosystems.

Current research insufficiently addresses how ecological frameworks can be applied to the fragile context of Chinese grass cloth, particularly in regions where industrial decline and generational discontinuity present acute challenges.

2. Current State and Dilemma of the Inheritance of Grass Cloth

Grass cloth embodies both historical memory and ecological wisdom. However, under the pressures of industrialization and changing consumption, it faces a severe survival crisis. Historical and descriptive studies, such as those by Liao and Yang (2016) and Barraclough (2010), traced the decline of grass cloth to technological backwardness, high manual costs, and competition from mechanized textiles. Similarly, Style (2022) and Dewey (1929) offered detailed accounts of ramie production and the shifting trajectories of bast fiber textiles, noting the difficulty of sustaining ramie in the face of cotton’s market dominance.

These works provide indispensable historical documentation and highlight structural constraints on the craft’s survival. Yet, their focus on descriptive analysis—outlining decline rather than exploring recovery—limits their utility for developing actionable strategies. Few studies examine how innovation, market adaptation, or cultural repositioning might reinvigorate the

industry. Moreover, most research treats grass cloth as a static relic of tradition, rather than as a living craft that can evolve within contemporary cultural and ecological systems.

There is a lack of forward-looking inquiry into how grass cloth can be revitalized through innovative design, adaptive market integration, or cultural ecology-based protection strategies.

3. Research on the Protection Mechanisms for Traditional Handicrafts

With the gradual decline of traditional crafts, how to effectively protect and revitalize them in the modern era has become a focus of academic and policy attention. Existing research emphasize multiple dimensions of safeguarding, ranging from talent cultivation and the establishment of diversified social education mechanisms (Yan & Chiou, 2021) to policy frameworks for cultural heritage (Ghose & Ali, 2023), as well as innovation-driven development models (Fu, 2023) and targeted strategies for specific crafts such as grass cloth embroidery (Hu, 2024).

Recent studies have provided important insights into the sustainability and innovation of traditional craft industries. Wanniarachchi et al. (2020) indicate that enhancing the sustainability of Sri Lanka's handwoven textile industry requires integrating design improvements, closed-loop manufacturing, and community entrepreneurship. Ariffin et al. (2023) demonstrate that craft innovation can manifest in diverse forms, illustrating how creative renewal preserves cultural heritage while meeting contemporary demands. These studies offer insights for promoting the ecological and creative development of grass cloth.

While this literature provides a broad mosaic of protection mechanisms, it is often focusing either on isolated strategies without integrating these insights into a holistic cultural ecosystem framework. Furthermore, despite some localized empirical work, there remains a lack of systematic analysis that bridges ecological theory with industrial practice and evaluates the long-term viability of proposed models.

In summary, the literature provides valuable theoretical insights into cultural ecology, detailed historical accounts of grass cloth, and diverse perspectives on craft protection. However, three major gaps remain: A lack of systematic empirical studies that apply cultural ecology to fragile crafts like grass cloth. Insufficient exploration of innovative and market-oriented pathways for grass cloth's sustainable development. Limited integration of protection strategies into a holistic cultural ecosystem framework. This study aims to address these gaps by adopting a cultural ecology perspective to analyze the inheritance dilemmas of grass cloth in Jiangxi, while also proposing an integrated protection strategy that combines ecological sustainability, industrial transformation, and cultural innovation.

Research Methodology

This study employs qualitative research methods to conduct an in-depth exploration of the current state of the cultural ecology of grass cloth development in Wanzai and Fenxi counties of Jiangxi Province, as well as the cultural ecology protection measures and construction strategies. The research primarily relied on a combination of unstructured observation and semi-structured interviews to conduct field investigations. Unstructured observation was primarily used to capture the authentic process of grass cloth craftsmanship inheritance and the cultural ecological atmosphere in natural settings. Observation sites included factories, cultural museums, educational bases, and traditional villages. During the observation process, researchers focused on the everyday state of grass cloth production practices, the interactive process of craftsmanship inheritance, and the cultural participation of local residents and external visitors. Additionally, the study employed semi-structured interviews to obtain deeper local insights and experiential perspectives. Interview participants included inheritors, staff members of cultural centers, founders of enterprises, and employees of factories. Interview topics centered on the development history of grass cloth, current challenges in inheritance, the implementation of cultural ecological protection policies, and future development visions, aiming to present the complexity and dynamism of the grass cloth cultural ecosystem from multiple perspectives.

Phase I: Unstructured Observation

Unstructured observation was chosen because direct observation or participation allows us to grasp the essential characteristics of the research subjects, their social worlds, and their lives (Lofland et al., 2022). This research approach is particularly suitable for capturing the authentic dynamics of the grass cloth cultural ecology in Wanzai and Fenxi, Jiangxi Province, and observing the inheritance practices, community participation, and related cultural activities of the grass cloth craft.

Selection Criteria of Research Sites and Samples: Wanzai and Fenxi counties were chosen because they are the most representative regions of grass cloth production in Jiangxi, with both long-standing cultural heritage and active contemporary innovation (As shown in Figure 1). Within these sites, samples were selected based on three criteria: (1) representativeness in terms of inheritance lineage (e.g., nationally recognized inheritors such as Zhixue Song); (2) institutional and industrial significance (e.g., enterprises, museums, and cultural tourism sites); and (3) diversity of participants, including inheritors, factory employees, cultural promoters, and policy practitioners.

Researchers conducted long-term fieldwork between November 2023 and September 2024, making six intensive visits to Wanzai and Fenxi, with each stay ranging from one to two weeks. Field notes were recorded systematically to ensure consistency across different sites and time periods. During

the observation process, three key areas were focused on: first, the interaction methods between inheritors and community members; second, the cultural ecology protection sites, such as cultural museums and study-tour bases, which reflect the inheritance mechanisms and display logic; and third, the collaborative process between local governments, enterprises, and intangible cultural heritage participants in promoting the diversified development of grass cloth. These observation notes provide an important perspective for understanding the interaction between local specificity and cultural ecology, and lay the contextual foundation for the second phase of in-depth interviews.

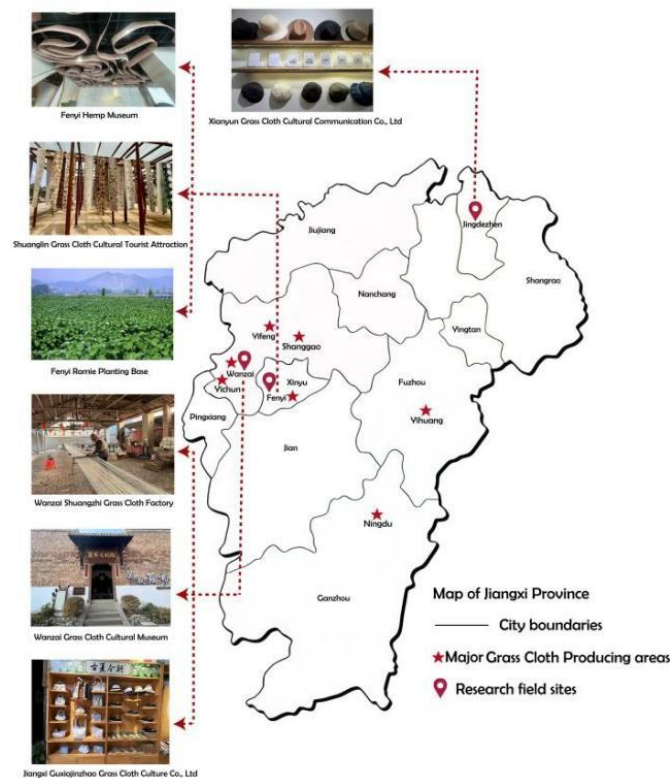


Figure 1 Map of research field sites (Source: Constructed by researchers)

Phase II: Semi-structured Interviews

Semi-structured interviews can provide researchers with space to adapt as research questions change while still maintaining their guidance because the main topics of discussion are predetermined (Ruslin et al., 2022). This study conducted over 12 interviews in two stages: the first round from December 2023 to February 2024 and the second round from July to September 2024, each lasting approximately 40–60 minutes. Multiple rounds of interviews were conducted with representative inheritors such as Zhixue Song and Yusheng Wang. Additionally, interviews were held with Zhixue Song's family members, employees of the Grass Cloth factory, and Yi Liao,

the founder of Xianyun Grass Cloth Cultural Communication Co., Ltd. Informal interviews were also carried out during daily interactions to capture unstructured but valuable perspectives.

The in-depth interviews were designed around four dimensions, and the researchers recorded the interviews with the participants' consent. In addition to the in-depth interviews, the researchers also conducted informal interviews in the participants' daily lives to gather more information. The first dimension focuses on participants' experiences of individual growth and the inheritance of grass cloth production techniques. The second dimension covers the inheritance mechanisms within families and communities. The third dimension examines the impact of industrial development changes on the preservation of grass cloth. The fourth dimension aims to summarize the challenges and coping strategies faced in contemporary inheritance, and invites participants to share their views and suggestions for future development.

Research Results

1. The Evolution of the Cultural Ecology of Grass Cloth Development in Wanzai and Fenyi, Jiangxi Province

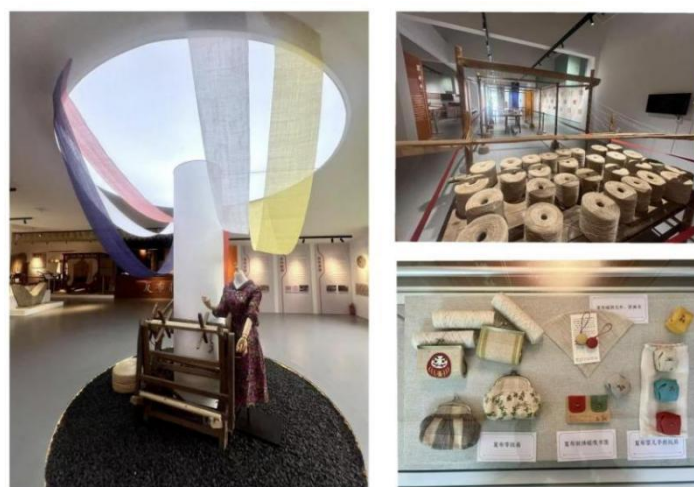
Grass cloth is a handmade fabric made of ramie fibers, which is called “Xiabu” by the Chinese. It is said that Lin Siyuan, a native of Wanzai, invented the grass cloth mosquito net during the North and South Dynasties, which was the source of the local people's utilization of ramie fabric. During the Tang and Song dynasties, the grass cloth was classified as a tribute as the finest fabric for ancient Chinese clothing. Today, this technique is still preserved in several areas of Jiangxi Province. The 83 counties and cities in Jiangxi Province produce grass cloth, and the well-known production areas are Wanzai, Fengyi, Shanggao, Yifeng, Yihuang, Ningdu, among which Wanzai and Shuanglin are the most famous.

Over the past six hundred years, the development of grass cloth in Jiangxi Province has undergone a great transformation. The three stages of grass cloth cultural ecology evolution in Wanzai and Fenyi, Jiangxi Province (social-economic-environmental dimensions) are shown in Table 1. In the first stage, during the Ming and Qing Dynasties (1368s–1912s), the production of grass cloth was mainly carried out within the family, presenting the phenomenon that the sound of the loom was heard in every house. According to Jiangxi modern literature, there were hundreds of workshops operating grass cloth and about 70% of farmers were engaged in grass cloth production in Wanzai in the Ming Dynasty, and there are more than 1,000 workshops and more than 3,000 people engaged in grass cloth production and trade in Qing Dynasty. The second

stage is the Republic of China (1912s–1949s), the production mode of grass cloth was replaced by individual handicrafts by organizing factories. During the Republic of China period, the annual production of grass cloth in Wanzai often amounted to more than 10,000 rolls, which became a model of the industry in the whole of China. However, after Japan launched the war of aggression against China in 1931, the sales of grass cloth showed a precipitous fall and the enterprises of grass cloth closed down and went bankrupt one after another. In the 1920s, grass cloth was affected by the impact of the foreign cloth market, which led to a sharp decline in the export of grass cloth. The third stage is after the founding of the People's Republic of China to the 21st century (1949s–now). After the founding of the People's Republic of China, the production of grass cloth in Jiangxi Province was rapidly restored and developed, and grass cloth factories were reopened. But in the 1980s, with the influx of modern textiles, grass cloth production hit rock bottom. Until the 1990s the international market reopened, grass cloth from domestic demand into export-oriented. This era is the most prosperous period of the grass cloth, there are more than 85% of the people engaged in the grass cloth industry in Shuanglin town. Shuanglin grass cloth received widespread praise and held a large market share in South Korea, Japan, and other countries. The financial crisis in the 2008s caused a sharp decline in exports, nearly pushing Jiangxi grass cloth to extinction. Wanzai and Fenyi, as representative production areas of Jiangxi grass cloth, have both been actively promoting the deep integration of the grass cloth culture and tourism industry in the last decade. Visitors to Wanzai Grass Cloth Culture Museum in the Wanzai Ancient City Scenic Spot can not only buy all kinds of grass cloth products, but also learn grass cloth production techniques and related knowledge. The Shuanglin Grass Cloth Cultural Tourist Attraction in Fenyi has created a cultural tourism and idyllic complex tourism project site that integrates grass cloth handcrafting, education, experience, and leisure, as shown in Figure 2, which has become an important support project for the local economy.

Table 1 Comparison of the three stages of grass cloth cultural ecology evolution in Wanzai and Fenyi, Jiangxi Province (social–economic–environmental dimensions)

Stage	Society	Economy	Environment
Stage 1 (1368–1912) Ming and Qing Dynasties	Household-based production, grass cloth production is integrated into farmers' daily life.	More than 1,000 handicraft workshops, grass cloth became a pillar of the local economy.	Production depends on manual work and local raw materials, forming an ecological pattern of coexistence between human beings and nature.
Stage 2 (1912–1949) The Republic of China	Grass cloth production became industrialized, with peasants turning into factory workers; war caused social instability.	The industry once peaked as a national model but declined after war and foreign competition, leading to factory closures and trade stagnation.	Production was factory-based but still relied on local resources; ecological management weakened during wartime.
Stage 3 (1949–Now) After the founding of the People's Republic of China	Urbanization endangers traditional crafts, while ICH policies and rural revitalization promote the revival of grass cloth. Cultural–tourism integration fosters diverse social culture and cognitive transformation.	The grass cloth industry has gone through revival–decline–revival. After export prosperity in the 1990s and setbacks from the financial crisis, the 21st century transformation relies on the “cultural innovation + tourism” model.	Modern textiles disrupt the traditional ecological chain, but tourism development links ecological experience with ICH protection. Cultural villages explore an ecology-based sustainable path.

**Figure 2** Shuanglin Grass Cloth Cultural Tourist Attraction (Source: Photographed by author)

2. Cultural and Ecological Protection Initiative for Grass Cloth in Wanzai and Fenyi, Jiangxi Province

The mild climate and abundant water supply in Jiangxi Province provide ideal conditions for producing grass cloth. For over 1,600 years, Jiangxi Province has been one of the primary production areas of grass cloth in Chinese. However, with the acceleration of industrialization and the exodus of young people, the number of artisans who master traditional weaving techniques of grass cloth is dwindling, and this traditional craft is on the verge of extinction. In order to protect the local grass cloth culture, the Jiangxi Provincial Government has re-evaluated the relationship between traditional culture and rural revitalization, and implemented a series of conservation initiatives based on the development concept of building a cultural ecology.

First, the integration and synergistic development of the protection initiatives through grass cloth cultural and tourism industry and creative industries will help Jiangxi's grass cloth industry break through its original single-industry structure. This will give the industry a more solid, risk-resistant foundation and help maintain the sustainability of the inheritance of grass cloth culture. Qiu et al. (2022) suggests that intangible cultural heritage can be a valuable tourism resource for governments and local communities. The most representative example in Jiangxi Province is the Shuanglin Grass Cloth Cultural Tourist Attraction in Fenyi County, which consists of the Grass Cloth Culture Center, Weaving Art Center, Grass Cloth Cultural Experience and Education Center, Ramie Park and Forest Park. Among them, the Grass Cloth Culture Center mainly showcases the historical origins of grass cloth culture and its production process, and consists of three halls. The Hall of History mainly reviews the brief history of Chinese grass cloth and the history of Shuanglin grass cloth. The production process hall mainly displays the scenes of the production process of grass cloth. The exhibition hall mainly displays the inheritance genealogy of the technique and products of grass cloth. In order to highlight the innovative use of grass cloth, the scenic area also invites artists to create and organize grass cloth art exhibition. At the same time, Fenyi County relies on the Shuanglin Grass Cloth Cultural Tourist Attraction to carry out educational study activities, which breaks the traditional mode of indoor teaching and adopts a combination of indoor learning and outdoor experience as an educational study method. As shown in Figure 3, the Shuanglin Grass Cloth Cultural Tourist Attraction invited inheritors to explain the knowledge of ramie growth, teach the manipulation techniques of stripping, drying and weaving, and let everyone experience the production of grass cloth.



Figure 3 Teaching scene of inheritor Yusheng Wang (Source: Photographed by researchers)

Secondly, the sustainable inheritance of grass cloth cannot be separated from the creative transformation of grass cloth resources and industrialized development. Branding is an important way for the creative transformation and innovative development of grass cloth culture. Jiangxi Guxiajinchao Grass Cloth Culture Co., Ltd. is the most representative grass cloth brand established in Wanzai from the perspective of branding development of regional characteristics, and has developed various types of home products and creative products of grass cloth, as shown in Figure 4. From the market response, the formation of regional characteristics of grass cloth branding development route can not only enhance the market share of grass cloth, but also conducive to the development of the diversity of grass cloth culture, which plays an important role in the sustainable development of grass cloth. Zhixue Song, the municipal representative inheritor of grass cloth weaving technique in Wanzai, said the following:

“In 2015 I founded Jiangxi Guxiajinchao Grass Cloth Culture Co., Ltd. Although we have not yet formed a mature branding mode of operation, there is a huge potential and market prospects for the branding development of grass cloth. At present, we are actively expanding the application scope of grass cloth in the field of contemporary daily necessities to meet market consumption demand and promote the industrialization of grass cloth. In order to improve the softness and comfort of grass cloth, we have also cooperated with universities in recent years to carry out research on grass cloth biofungal enzyme degumming and anti-wrinkle treatment technology, and have achieved good results”. (Personal Interview, WZ202407)



Figure 4 Grass cloth products in Guxiaojinchao brand store (Photographed by researchers)

Xianyun Grass Cloth Cloth Co. Ltd. is a company established by Yi Liao in 2018 for the protection and inheritance of grass cloth weaving techniques. The company uses Wanzai grass cloth as the raw material for its cultural and creative products. As shown in Figure 5, these products are widely sold and are the core of the company's profitability. This brand creates scarce cultural and lifestyle products by adhering to the core skills of traditional handcraft. Each handmade grass cloth product carries unique traces of production, and this differentiation precisely meets the intrinsic needs of contemporary consumers in pursuit of personalization and emotional links with traditional culture.

The development of the characteristic brand can make the grass cloth activate its commercial value on the basis of retaining the traditional skills, and the commercial value feeds the development and inheritance of the grass cloth, in order to form its independent benign development, which has a significant role in promoting the protection and inheritance of Jiangxi grass cloth.



Figure 5 Grass cloth products in Xianyun shop (Photographed by researchers)

Finally, the loss and reduction of inheritors is a realistic dilemma for the living inheritance of grass cloth. Therefore, the protection of inheritors is the key to the protection of grass cloth. In recent years, Wanzai County has actively promoted the living inheritance of grass cloth, helped inheritors establish studios, organized training courses, and encouraged the combination of master apprenticeship and modern teaching to innovate the inheritance mechanism. Fenyi County has established cultural venues such as the Shuanglin Grass Cloth Cultural Tourist Attraction, providing teaching platforms for inheritors and breathing new life into traditional crafts.

Zhixue Song is currently the most well-known inheritor of the grass cloth weaving technique in Wanzai County, and his family has been engaged in grass cloth weaving for generations. In 1998, his father Shuya Song founded Wanzai Shuangzhi Grass Cloth Factory. With the strict control of quality, the grass cloth produced by Shuangzhi Grass Cloth Factory has quickly opened up its popularity both domestically and internationally. In order to promote grass cloth, Zhixue Song developed more than 200 kinds of cultural and creative products made of grass cloth, such as shoes, bags, hats, fans, and curtains, etc. Zhixue Song said the following:

“In order to protect everyone's motivation, whenever someone grows ramie and produces yarn, I will come to their home to buy it. Handmade production means that the cost of grass cloth products is high, so grass cloth lacks competitiveness compared to other fabrics. However, if we switched to machine spinning, the valuable natural gum would be lost. In order to break through this dilemma, we have cooperated with several universities to research and strive to optimize the process of weaving grass cloth. We hope to realize the large-scale and efficient production of grass cloth on the premise of retaining the natural texture and anti-bacterial effect”. (Personal Interview, WZ202407)

Yusheng Wang is a famous inheritor of Fenyi's grass cloth production techniques. He not only inherited the grass cloth production skills, but also has been helping to promote the integration of grass cloth and cultural tourism in Fenyi. Yusheng Wang said the following:

“My family has been making grass cloth for three generations, and I've been doing it for more than 30 years. In the early 90's, it was the heyday of grass cloth in Fenyi. Basically every family here made grass cloth. Nowadays, the inheritors are aging seriously and the new force is weak, so I am worried that this craft will be lost in the future. What I want to do is leverage the platform created by the government to inherit this skill”. (Personal interview, FY202409)

The protection and support of inheritors requires the establishment of a diversified financial support system, innovative inheritance models, and the provision of platforms for inheritors to teach their skills and display their achievements, all of which are diversified and effective protection mechanisms.

3. Strategies for the Cultural and Ecological Development of Grass Cloth in Wanzai and Fenyi, Jiangxi Province

Interviews with inheritors, entrepreneurs, and employees reveal five interrelated themes that shape the cultural and ecological development of grass cloth. As shown in Table 2, these include the safeguarding of heritage and skills through intergenerational transmission and workshops, the transformation of industrial development from factories to creative industries, the role of market and branding in enhancing competitiveness, the importance of policy and support such as subsidies and training platforms, and the promotion of cultural tourism through museums, education bases, and interactive experiences. These insights highlight the resilience of grass cloth culture while demonstrating the dynamic interplay between tradition and innovation.

Building on these findings, Wanzai and Fenyi have promoted the development of grass cloth to a diversified model integrating tourism, cultural creation, and education. On the one hand, public participation and cultural experience have increased through the establishment of grass cloth cultural attractions and study bases. On the other hand, the creative transformation and market-oriented extension of grass cloth resources are realized through the development of regional characteristic brands. In addition, supporting the inheritors, innovating the transmission mechanism, and building display and exchange platforms can effectively alleviate the problem of inheritance fault. Ultimately, an integrated model of ecological maintenance, industrial development, and skills inheritance has been formed as a comprehensive strategy for sustainable protection.

Table 2 Summary of interview themes (summarized from inheritors, entrepreneurs, and employees)

Dimension	Themes from Interviews	Representative Quotes
Heritage & Skills	Intergenerational transmission, risk of extinction, apprenticeship & workshops.	“The essence of grass cloth is handmade, and the plight of it is also handmade.” – Zhixue Song
Industrial Development	Shift from family workshops → factories → creative industries.	“In the early 90’s, basically every family here made grass cloth. After 2014, the grass cloth market began to slowly shrink. We are actively expanding the use of grass cloth into contemporary daily necessities.” – Qing Song
Market & Branding	Branding enhances competitiveness, expansion into lifestyle products.	“Even after gaining protection as an intangible cultural heritage, its ecosystem continues to shrink. Only through commercialization and widespread application can this craft survive.” – Yi Liao
Policy & Support	State subsidies, intangible cultural heritage protection, training platforms.	“The state provides financial subsidies to inheritors every year, but we rely more on our own strength. We hope that the local government can give us more support.” – Song Zhixue
Eco-cultural tourism	Museums, education bases, interactive experiences attract younger generations.	“Whenever needed, I go to the Shuanglin Grass Cloth Cultural Tourist Attraction to demonstrate the millennia-old grass cloth weaving techniques to students and visitors. The skills we learned from our ancestors must not be lost in our generation.” – Yusheng Wang

New Knowledge from Research

This paper proposes a new path for the inheritance of grass cloth, i.e., to realize the systematic protection and modern transformation of grass cloth, and to build a sustainable inheritance model through the trinity of “systematic protection of cultural ecology + characteristic brand development + protection and support of the inheritors” integration mechanism, as shown in Figure 6.

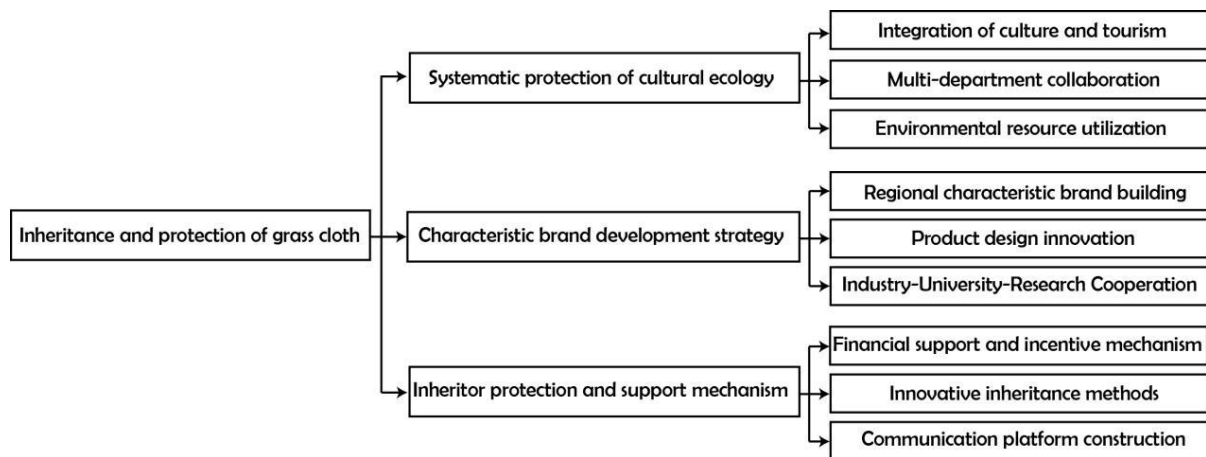


Figure 6 The trinity integration mechanism of grass cloth (Source: Constructed by researchers)

Discussions

This study analyzes the preservation pathways of Wanzai and Fenyi grass cloth through the lens of cultural ecology, proposing an integrated strategy that combines ecological conservation, brand innovation, and inheritor support. This aligns with Cai et al. (2024), who highlighted the innovative integration of bamboo weaving with fashion design to balance heritage preservation and sustainable industrial growth, and with Wanniarachchi et al. (2020), who proposed sustainable innovation strategies to promote the market development of Sri Lanka handloom industry and community-based entrepreneurship. Together, these studies explain how traditional crafts can adapt to modernization while maintaining cultural authenticity and ecological integrity.

The research findings have practical significance for the theoretical development and policy formulation of the grass cloth industry, demonstrating the potential for integrating cultural ecological conservation with industrial transformation. However, this study focuses on the two major grass cloth production areas in Jiangxi Province, and the applicability of the research conclusions to other regions requires further validation. Additionally, the study emphasizes qualitative analysis and lacks quantitative assessments of the effectiveness of conservation measures. Future research could be expanded to other regions, combining big data analysis and policy evaluation methods to further explore development pathways for the integration of intangible cultural heritage with cultural creativity, education, and technology. Overall, this study provides practical local experience and theoretical references for the modern transformation of traditional handicrafts.

Conclusion

This study investigated the inheritance and protection of grass cloth through fieldwork in Wanzai and Fenxi, Jiangxi Province. Evidence from 12 semi-structured interviews with inheritors, entrepreneurs, and employees highlights three key strategies for sustainable development of grass cloth: (1) establishing a systematic cultural ecological protection framework, (2) promoting distinctive regional branding, and (3) strengthening inheritor protection and support mechanisms. Unstructured observations conducted at grass cloth cultural centers, museums, tourist sites, and enterprises further revealed the practical challenges of balancing traditional craft production with market transformation. Research findings indicate that sustainable inheritance requires collaboration among governments, cultural institutions, and enterprises to establish a dynamic ecosystem that both preserves traditional craftsmanship and meets contemporary market demands.

Overall, evidence from both interviews and field observations supports that the sustainable inheritance of grass cloth depends on the effective integration of ecological conservation, brand innovation, and inheritor support mechanisms, transforming traditional craftsmanship into a resilient and adaptive cultural industry.

Suggestions

Based on the research findings, this study proposes a phased, actionable strategy for the sustainable development of the grass cloth industry. In the short term (1–2 years), local governments and cultural departments should provide targeted funding and training programs, establish learning and demonstration bases at cultural centers or tourist attractions to attract young inheritors, and strengthen the cultivation of existing inheritors. In the medium term (3–5 years), industry associations and enterprises should promote cross-sector collaboration among artisans, designers, and researchers to enhance creativity and product diversification. Improvements in post-processing and technology should support market-oriented transformation, while regional brand development and ecological certification systems can elevate market recognition and consumer trust. In the long term (beyond 5 years), Over the long term (5+ years), national cultural authorities, governments, and communities should establish a comprehensive cultural-ecological conservation framework integrating cultural, ecological, and economic dimensions. Incorporating grass cloth culture into art and design education, and building a long-term inheritance mechanism

that combines community participation, academic research, cultural tourism, and policy support, will ensure the vitality and sustainable development of grass cloth culture.

References

- Ariffin, W. J. W., Shahfiq, S., Ahmad, F., Ibrahim, A., & Ghazalli, F. S. (2023). Handicraft innovations: A strategic approach to preserving intangible cultural heritage of Malaysia. *ISVS e-Journal*, 10(7).
- Barraclough, T. (2010). *Ramie, Rhea, China Grass or Nettle Fibre*. Nabu Press.
- Cai, Y., Huo, J., Zhang, H., & Wang, L. (2024). Exploration of the innovative development path of bamboo weaving and fashion design in the background of intangible cultural heritage. *Cultural Heritage*, 6(5), 14–23. <https://doi.org/10.25236/FAR.2024.060503>
- Chen, Z., Ren, X., & Zhang, Z. (2021). Cultural heritage as rural economic development: Batik production amongst China's Miao population. *Journal of Rural Studies*, 81. <https://doi.org/10.1016/j.jrurstud.2020.10.024>
- Dewey, L. H. (1929). *Ramie, a fiber-yielding plant (No. 110)*. US Government Printing Office.
- Fu, Y. (2023). Analysis of the transmission and development of traditional handicrafts in intangible cultural heritage. *Frontiers in Art Research*, 5(5). <https://doi.org/10.25236/FAR.2023.050504>
- Ghose, A., & Ali, S. M. A. (2023). Protection and preservation of traditional cultural expressions & traditional knowledge in handicraft trade: Advocating the need for a global cultural policy framework. *Revista de Direito Internacional*, 20(2). <https://doi.org/10.5102/rdi.v20i2.9109>
- Hu Y. (2024). Research on the inheritance and protection of Xiabu embroidery in the context of intangible cultural heritage–assisted disability economy. *Scientific and Social Research*, 6(8). <https://doi.org/10.26689/ssr.v6i8.7973>
- Qiu, Q., Zuo, Y., & Zhang, M. (2022). Intangible Cultural Heritage in Tourism: Research Review and Investigation of Future Agenda. *Land*, 11(1). <https://doi.org/10.3390/land11010139>
- Liao, J., & Yang, X. (2016). Study on the evolution of grass cloth. *Asian Social Science*, 12(6). <https://doi.org/10.5539/ass.v12n6p109>
- Li, S., Guan, X., & Jia, H. (2024). Research on the design of local exhibition space of intangible cultural heritage skills from the perspective of cultural ecology. *The Frontiers of Society, Science and Technology*, 6(5). <https://doi.org/10.25236/FSST.2024.060512>
- Lofland, J., Snow, D., Anderson, L., & Lofland, L. H. (2022). *Analyzing social settings: A guide to qualitative observation and analysis*. Waveland Press.

- Ruslin, R., Mashuri, S., Rasak, M. S. A., Alhabsyi, F., & Syam, H. (2022). Semi-structured Interview: A methodological reflection on the development of a qualitative research instrument in educational studies. *IOSR Journal of Research & Method in Education (IOSR-JRME)*, 12(1), 22–29.
- Steward, J. H. (1972). *Theory of culture change: The methodology of multilineal evolution*. University of Illinois press.
- Styles, J. (2022). *Flax, hemp, ramie and jute: The bast fibres* (Vol. 1, pp. 45–53). Paris, France: UNESCO.
- Taru, Y., & Watan, B. (2020). The route to ramie cultural ecology. *Senri Ethnological Studies*, 103. <https://doi.org/10.15021/00009619>
- Wanniarachchi, T., Dissanayake, K., & Downs, C. (2020). Improving sustainability and encouraging innovation in traditional craft sectors: the case of the Sri Lankan handloom industry. *Research Journal of Textile and Apparel*, 24(2), 111–130. <https://doi.org/10.1108/RJTA-09-2019-0041>
- Yan, W.-J., & Chiou, S.-C. (2021). The Safeguarding of Intangible Cultural Heritage from the Perspective of Civic Participation: The Informal Education of Chinese Embroidery Handicrafts. *Sustainability*, 13(9). <https://doi.org/10.3390/su13094958>
- Yang, N., Zang, X., & Chen, C. (2022). Inheritance patterns under cultural ecology theory for the sustainable development of traditional handicrafts. *Sustainability*, 14(22). <https://doi.org/10.3390/su142214719>