

Inheritance and Innovation: A Study on the Path of Ancient Village Cultural Tourism Planning and Design

Yunyi Huang

School of RWTH Aachen University, Aachen, 52062, Germany

Abstract: In the global wave of cultural heritage protection, the preservation and reuse of ancient settlements has become increasingly prominent, especially in the context of increasing cultural tourism. Taking Nanmen Village as a case study, this paper can explore how to skillfully integrate technological innovation and contemporary aesthetic concepts while maintaining traditional values, in order to achieve a prosperous innovation process. The first strategy is to investigate and understand the historical origin, cultural characteristics and existing problems of Nanmen Village in detail, so as to clarify the difficulties encountered in the process of inheritance and transformation of this ancient community. Then, this paper puts forward the concrete path from two aspects of inheritance and innovation. In the aspect of inheritance, it focuses on the measures to protect traditional architecture, folk customs and intangible cultural heritage, as well as the methods to strengthen community participation and residents' education; In terms of innovation, it introduces the application of Internet technology and digital twin technology, such as online booking and tour, social media promotion, virtual reality experience and intelligent management. In addition, combined with many successful cases at home and abroad, this paper also analyzes the effect of these innovative designs in practical application, and provides specific planning and design schemes and implementation strategies for Nanmen Village. Finally, this study refines the accumulated insights, highlights the decisive role of cultural inheritance and innovation in the evolution of ancient village cultural tourism, and makes future exploration paths. This study not only contributes theoretical and practical guidance to the cultural tourism development of Nanmen Village, but also provides a reference for the conservation and evolution of other ancient settlements.

Keywords: Nanmen Village; Cultural Inheritance; Innovative Design; Internet Technology; Digital Twin.

1. Introduction

In the trend of global integration and modernization, ancient villages, as a precious intangible heritage, contain profound historical traces and cultural connotations. However, with the acceleration of urbanization, many ancient villages are suffering from severe challenges such as the destruction of traditional houses, the disappearance of intangible cultural heritage, the emigration of indigenous people and the weakening of economic vitality. This situation poses a threat to the survival of ancient villages, and also restricts the prosperous prospects of their cultural tourism. Therefore, how to use creative design strategies to promote the sustainable evolution of ancient villages under the condition of maintaining local cultural genes has become an urgent issue [1]. Nanmen Village in a certain province of China, for example, has a rich heritage and unique culture, with a large number of intact buildings from the Ming and Qing dynasties, a wide range of intangible cultural expressions, and distinctive local customs, which have attracted many visitors over the years. However, recently, Nanmen Village has also encountered difficult problems such as imperfect infrastructure, serious homogenization of tourism projects, and low sense of participation of residents. In view of this, it is particularly critical for Nanmen Village and other ancient villages of the same type to find a feasible path that combines the dual goals of cultural conservation and economic development. The goal of this paper is to make a comprehensive analysis of the current situation of Nanmen Village, and try to study how to combine innovative technology and modern design thinking to promote the innovation trend of cultural tourism on the principle of respecting and preserving its traditional culture. The specific

significance of this study is: cultural protection, economic development, theoretical contribution and practical guidance.

2. Theoretical Basis

2.1. Cultural Protection Theory

In this way, the authenticity and integrity of historical relics can be preserved forever [2]. The core guidelines followed in this area relate. The principle of authenticity emphasizes the preservation of the original characteristics and essential attributes of cultural heritage without loss. The integrity principle seeks to preserve the full continuity of its historical, artistic and scientific values. The principle of sustainability seeks to go hand in hand with environmentally friendly development while ensuring the safety of cultural heritage. The principles of community interaction advocate the integration of local communities with a view to taking part in the safeguarding of cultural heritage. In the conservation practice of traditional architectural heritage, common conservation strategies are covered. Repair and care to resist damage caused by age or human decay to traditional buildings. The application of science and technology is to use advanced scientific and technological tools such as three-dimensional mapping and digital modeling to record and monitor the status quo of ancient buildings in detail. Legal construction legislation and optimization of relevant laws and regulations, define and consolidate the responsibility and obligation for the conservation of traditional architecture, with a view to comprehensive protection. As for the preservation of intangible cultural heritage such as language, music, drama and traditional crafts, the following ways are often adopted. Literature archives rely on text descriptions, audio and video materials to systematically record intangible culture, create a

searchable database, and promote its inheritance and research. A series of intangible cultural heritage inheritance activities will be held to train successors to ensure that wisdom and knowledge will be passed down from generation to generation. The community integration strategy encourages community members to participate in the protection and inheritance of intangible cultural heritage in order to strengthen the group's sense of cultural belonging.

2.2. Regional Economic Sustainability

Sustainable tourism embodies a smart strategy to fulfill the current tourism needs on the premise of ensuring that the needs of future generations are not damaged. The cornerstone of this concept contains three pillars. Ecological conservation It advocates reducing the pressure of tourism activities on the natural world, safeguarding biodiversity and the integrity of geographical features. Community inclusion involves a deep respect for and adaptation to the culture of the local community, as well as acceptance of local customs and traditions. Economic vitality Ensure that tourism can generate economic momentum and enhance regional financial progress through tourism-driven revenues. The promotion of cultural tourism to regional economy is multifaceted. First, it provides a large number of employment opportunities for local residents. Second, the consumption of tourists directly increases the income of local residents and promotes the development of related industries. Third, infrastructure has been improved. Fourth, successful cultural tourism projects can enhance the visibility and reputation of the region and attract more tourists and investment.

2.3. Application of Innovative Technology

The application of Internet technology in cultural tourism is mainly reflected in: online booking and tour, the development of mobile applications, providing scenic spot booking, navigation, tour and other services to facilitate tourists to obtain information; Social media promotion, using Weibo, wechat, Tiktok and other social media platforms to release tourism information and attract young tourists; Big data analysis, through big data technology to analyze tourist behavior, optimize tourism products and services, improve tourist satisfaction [3]. Twinning technology simulates the behavior and state of physical entities through digital models, and has also been applied in cultural tourism [4]. The first is virtual reality experience: create a virtual reality model of ancient villages, so that tourists can experience the charm of ancient villages at home, and increase the tourism attraction. Secondly, the level of intelligent governance appears. With the help of digital twin technology, the planning and resource scheduling of tourism industry are accurately optimized to enhance the operation and maintenance efficiency of scenic spots. Moreover, with the help of this advanced technology, it is possible to protect the cultural heritage. By tracking and monitoring the status of cultural relics and monuments digitally, hidden dangers can be quickly captured and solved, and the cultural heritage can be further protected.

2.4. Integration of Theoretical Framework

This study combines cultural protection theory, regional economic sustainability theory and innovative technology application theory to build a comprehensive theoretical framework to guide the planning and design of cultural tourism in Nanmen Village [5]. The first is cultural protection,

so that traditional architecture and intangible cultural heritage can be effectively protected and passed on to future generations. The second is economic development: through innovative design, enrich tourism products and services, enhance tourist experience, and drive the development of local economy. Third, technological innovation: the introduction of Internet technology and digital twin technology to improve tourism management and visitor experience, to achieve intelligent and efficient.

3. Analysis of Current Situation of Nanmen Village

3.1. Overview of Nanmen Village

Located in a province in the hinterland of China, Nanmen Village, a village with a rich history, is about 200 kilometers away from the bustling capital and is easily connected by traffic. Documents prove that this village can be traced back to the source of Ming Dynasty, after 600 years of vicissitudes of wind and rain. Nanmen Village has played a key role in the history of Commodity Exchange center, its cultural heritage is rich, many Ming and Qing dynasties buildings have been well preserved, become its distinctive cultural symbols. These ancient buildings include elegant residences, ancestral temples and memorial archways symbolizing glory, all bearing witness to the passage of time. In addition, the intangible cultural heritage of the village is diverse and valuable, covering exquisite folk crafts, such as delicate embroidery and ceramic making, as well as active folk performing arts, such as vivid dragon and lion dances, and unique local opera performances, such as Cantonese opera. It is worth noting that Nanmen Village's folk celebration activities are unique. On every festival, the village will hold a series of traditional celebrations, such as temple fair, folk song duet and dragon boat race. Such a cultural feast can always attract countless visitors to come and get immersed in this hot land with intertwined history and culture.

3.2. Current Situation of Nanmen Village

Nanmen Village is home to nearly 2,000 residents, and its community structure is unique. Most of the resident young and middle-aged workers are migrant workers, while most of the elderly and young people stay in the countryside. The economy is deeply rooted in agriculture, but more recently, rural tourism has emerged and is increasingly becoming an income generating force for some villagers. However, limited by the thin tourism product line and the service quality to be improved, the current tourism revenue is still limited. The roads in the village are relatively narrow, some sections have not yet hardened, and the traffic is inconvenient. There are only a few family hotels in the village, with limited reception capacity and poor facilities. Food and beverage service is based on farm music, dishes are single, and sanitary conditions need to be improved. The lack of tourist service centers, parking lots, public toilets and other infrastructure in the village affects the tourist experience. Some ancient buildings have been damaged due to disrepair and lack of systematic protection measures. Traditional handicraft and folk art are faced with the problem of no successor, and it is difficult to inherit. Villagers' awareness of cultural heritage protection is not strong, their participation is low, and they lack effective organization and guidance.

There are both natural aging problems and man-made behaviors in the protection of traditional buildings. Some

ancient buildings have problems such as wall cracking and roof leaking. In order to meet the needs of life, individual villagers arbitrarily demolished and modified ancient buildings, destroying their original appearance. The lack of funds is another problem in the preservation of traditional buildings. In terms of intangible cultural heritage inheritance, many traditional skills and folk arts are faced with the dilemma that there is no successor, and the inheritance chain is broken; Lack of social cognition, the young generation's lack of awareness and interest in traditional culture, resulting in the lack of inheritance power; The market of traditional handicrafts and folk arts is not developed enough, and the lack of economic benefits makes it difficult to attract young people to learn and inherit. These problems not only affect the cultural tourism development of Nanmen village, but also restrict its sustainable development. Therefore, it is urgent to solve these problems through scientific planning and design and effective policy measures to realize the comprehensive revitalization of Nanmen Village.

4. The Path of Inheritance and Innovation

4.1. Inheritance Path

Develop a detailed renovation plan and regularly inspect and maintain ancient buildings to ensure their structural safety and appearance integrity. Introduce a professional heritage conservation team to use scientific methods and techniques for restoration. We will improve relevant laws and regulations and prohibit the demolition and renovation of ancient buildings at will. Establish a dedicated regulatory body responsible for monitoring and enforcing conservation measures. Encourage villagers to participate in the protection of ancient buildings and improve their protection awareness and ability. The intangible cultural heritage shall be recorded by means of text and video, and a database shall be established to facilitate inheritance and research. The use of modern technical means, such as digital recording, video, etc., to ensure the integrity and accuracy of the data. Implement the living inheritance mechanism of intangible cultural heritage, cultivate a new generation of successors, and maintain the continuation of the inheritance of technical wisdom. To encourage the younger generation to join the learning process through the deployment of workshops in educational institutions and communities. Community residents are encouraged to participate in the protection and inheritance of intangible cultural heritage to enhance cultural identity. Through the organization of cultural festivals, folk activities and other forms to increase the participation of residents. Through brochures, posters, lectures and other forms, villagers' awareness and awareness of cultural heritage protection are raised. Set up a community conservation organization to coordinate resources. By sharing tourism income and providing employment opportunities, villagers can benefit from it and improve their participation enthusiasm.

4.2. Innovation Path

Introduce Internet technology. Develop mobile applications to provide scenic spot booking, navigation, tour and other services to facilitate tourists to obtain information. The application can contain detailed introduction of scenic spots, historical background, tourist reviews and other content. Use social media platforms such as Weibo, wechat and Douyin to release travel information and attract young tourists.

The special culture and beautiful scenery of Nanmen Village will be displayed through live broadcasts and short videos. : Analyze tourist behavior through big data technology, optimize tourism products and services, and improve tourist satisfaction. For example, personalized tour routes and activities can be recommended according to the preferences of tourists. Digital twin technology is also being applied: creating a virtual reality model of Nanmen Village, so that visitors can experience the charm of the ancient village at home. The virtual reality model can include interactive links, such as virtual tour, interactive games, etc., to increase the sense of participation of tourists; Optimize tourist management and resource allocation, and improve the operation efficiency of scenic spots. For example, traffic and parking arrangements can be adjusted to avoid congestion by monitoring the flow of visitors in real time; Record and monitor the status of cultural heritage, identify and address potential problems in a timely manner, and ensure the safety of cultural heritage. For example, an alarm system can be set up to automatically notify management when something is unusual in an ancient building.

4.3. Concrete Measures

Set up a special group to conduct a comprehensive survey of the ancient buildings in the village and formulate a detailed renovation plan. Priority should be given to repairing severely damaged buildings and progress should be made step by step. Employ a professional heritage conservation team and use scientific methods and techniques for restoration. The restored building is inspected regularly to ensure its long-term stability. Raise funds for conservation through various channels such as government funding, social donations and tourism income. Set up a special protection fund to ensure the rational use and management of funds.

In order to ensure the safe protection of intangible cultural heritage, an indispensable step is to use multiple media such as written records, audio and video materials to catalogue and document such heritage in detail, and build a comprehensive data treasure house containing rich content such as historical narration, technical implementation steps, and dynamic performance images in the inheritors. Periodic seminars and heritage workshops are also important to attract and motivate young people to study and further ensure that they are able to carry on and develop these intangible cultural treasures. Relevant courses should be offered in schools to incorporate intangible cultural heritage into the education system. Through the organization of cultural festivals, folk activities and other forms to increase the participation of residents. For example, cultural activities such as traditional temple fairs and lion dance competitions are held during holidays every year to showcase the unique culture and folk characteristics of Nanmen Village.

In the introduction of Internet technology, cooperate with professional software companies to develop mobile phone applications for Nanmen Village tourism. The program should include scenic spot booking, navigation, tour and other functions to facilitate the use of tourists. Open official accounts on Weibo, wechat, Tiktok and other platforms to regularly release travel information. The special culture and beautiful scenery of Nanmen Village will be displayed through live broadcasts and short videos. Partner with big data analytics companies to collect and analyze visitor data. Based on the data analysis results, optimize tourism products and services to improve tourist satisfaction. In the application of

digital twin technology, we cooperated with professional technology companies to create a virtual reality model of Nanmen Village. The model should include a detailed introduction of scenic spots, interactive links and other content. Develop intelligent management systems to optimize traffic and parking arrangements by monitoring the flow of visitors in real time. An alarm function should be included in the system to automatically notify the management when there is an anomaly in an ancient building. Digital twin technology is used to record and monitor the state of cultural heritage and to identify and address potential problems in a timely manner. For example, sensors can be installed in key parts of ancient buildings to monitor their condition in real time.

5. Practical Case Studies

5.1. Domestic Case Study

The old town of Lijiang, located in Yunnan Province, and the old town of Hongcun, located in Anhui Province, are both praised as examples of precious ancient towns interwoven with history, culture and natural scenery, and attract worldwide attention. Both places have established conservation funds funded by the government alone or jointly funded by the government and villagers to repair and maintain ancient buildings and maintain their original appearance. The intangible cultural heritage of the two places has been inherited and promoted through various ethnic cultural festivals, ethnic music festivals (such as the Dongba Cultural Festival of the Naxi nationality) and arts and crafts exhibitions (such as the three carvings of the state: wood carvings, stone carvings and brick carvings). Both cities have also used Internet technology to develop mobile tourism applications, providing scenic spot booking, navigation, tour and other services, and using Weibo, wechat, Tiktok and other platforms to release tourism information to attract young tourists. Through digital twin technology, a virtual reality model has been created, and tourists can experience the beauty and culture of ancient cities and ancient villages through VR devices, optimize visitor management and resource allocation, and monitor the flow of tourists in real time to avoid congestion. These measures and the land have improved the popularity of the two places. The Old town of Lijiang was awarded the title of World Cultural Heritage in 2000, and since then, it has attracted more than 10 million tourists every year, making it one of the most popular tourist attractions in China. At the same time, Hongcun, a bright pearl of ancient villages, attracts more than 20 million visitors every year, consolidating its status as a prominent ancient village tourist resort in China. The booming tourism industry has played a significant role in boosting the economic development of these two places, creating a large number of employment opportunities, improving the financial situation of residents, and safeguarding the survival of cultural heritage in an effective way. At the same time, this prosperity has strengthened the identity of the local culture, and inspired the people to respect and pride in the cultural heritage.

5.2. International Case Study

Located in the northeastern territory of Italy, Venice is a world-famous water city, unique for its intricate network of canals and deep cultural heritage. Since 1987 the city has been honoured to be included in the UNESCO World Heritage List for its unparalleled historical, cultural and water features. In

order to protect this precious historical relic, the Venetian authorities have formulated careful protection laws and carried out a series of restoration and maintenance work of ancient buildings, with the unswerving hope of safeguarding and continuing the time mark and aesthetic value of ancient buildings. The government and private industry jointly contribute to the establishment of a conservation fund. Through the Venice Carnival, the International Film Festival and other events, to inherit and promote the culture of Venice. The school offers relevant courses to train young inheritors. The Venice Tourism mobile phone application has been developed using Internet technology to provide scenic spot booking, navigation, tour and other services. Use social media channels such as Facebook, Instagram and YouTube to spread travel information to capture the attention of the teenage tourist community. Using digital mirroring technology, a virtual reality simulation of Venice has been built, allowing visitors to immerse themselves in the charm and history of the water city with the help of virtual reality equipment. By enhancing tourist control and resource allocation, people flow can be balanced to avoid regional congestion. Consequently, Venice attracts 30+ million visitors annually, becoming a top tourist spot. Tourism boosts the regional economy, creating jobs and improving residents' finances. Venice's cultural heritage is protected through conservation, fostering cultural identity and pride.

6. Conclusion

Through a systematic analysis of the current situation and problems of Nanmen Village, this study puts forward the path of cultural inheritance and innovation, and provides theoretical and practical guidance for the development of cultural tourism in Nanmen Village. By protecting traditional buildings, inheriting intangible cultural heritage, introducing emerging technologies and optimizing infrastructure, Nanmen Village can achieve sustainable development of cultural tourism and improve residents' living standards and cultural identity. Future research will continue to explore more innovative methods and practice paths to provide more comprehensive support for the protection and development of ancient villages.

References

- [1] Tang C, Yang Y, Liu Y, et al. Comprehensive evaluation of the cultural inheritance level of tourism-oriented traditional villages: The example of Bei**g[J]. *Tourism Management Perspectives*, 2023, 48: 101166.
- [2] Zhang X. Cultural Inheritance and Digital Protection of Ancient Villages in Chizhou Area from the Perspective of Rural Revitalization[J]. *Journal of Sociology and Ethnology*, 2024, 6(5): 1-8.
- [3] Hu B, Mu C, Tao T. Research on the integration development path of rural tourism and traditional culture protection and inheritance based on the integration of big data[J]. *Applied Mathematics and Nonlinear Sciences*, 2024.
- [4] **g X U, Mao M A O, Yuandong Z H U. Inheritance and Innovation of Regional Cultures in Architectural Designs of Yichang[J]. *Journal of Landscape Research*, 2023, 15(3).
- [5] Ying X U. THE ACTIVATION AND INHERITANCE PATH OF FOLK HOUSE ARCHITECTURE IN YAO

MOUNTAINOUS AREAS OF GUANGXI PROVINCE[J].
Procedia of Multidisciplinary Research, 2023, 1(9): 2-2.