

PRESERVATION AND RENEWAL OF ETHNIC ARCHITECTURAL CULTURE IN QIANDONGNAN PREFECTURE: CASE STUDY IN BASHA MIAO VILLAGE

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ABSTRACT

This scholarly endeavor explores the quintessential characteristics of ethnic architecture in Qiandongnan, with an in-depth focus on the Basha Miao Village. It commences by meticulously analyzing the historical evolution, stylistic diversity, and salient features of the region's ethnic architecture. Notable emphasis is placed on the Miao and Dong ethnic groups' influence, the strategic use of pine and cedar as the principal construction materials, the venerable craftsmanship of ancient concave and convex buttress structures eschewing iron nails, and the distinctively sloping roofs adorned with fired clay tiles. The paper then accentuates the architectural peculiarities of Basha Miao Village, underscoring its unique geographical adaptability and its innovative construction system, both of which are of paramount importance for academic inquiry. A meticulous delineation follows, portraying the current state of Basha Miao Village's architecture, with a spotlight on its traditional wooden structures, the ingenuity of low and multi-story stilt houses, and the meticulous spatial arrangement that encapsulates the architectural legacy of the traditional villages. In conclusion, the paper embarks on a thorough examination of the current land use for village construction, the state of residential construction, and a forward-looking development assessment. This research not only imparts profound insights and a nuanced understanding of the ethnic architectural heritage in Qiandongnan but also paves the way for future studies. It sets the stage for further exploration into sustainable development models, the integration of modern technologies with traditional practices, and the formulation of policies that will ensure the harmonious coexistence of cultural preservation with socio-economic progress, thereby honoring the rich tapestry of Qiandongnan's ethnic architectural legacy for generations to come.

Keywords:

Ethnic Architecture, Basha Miao Village, Traditional Construction Techniques, Sustainable Development, Cultural Heritage Preservation

INTRODUCTION

Qiandongnan Autonomous Prefecture is a region of China with a high concentration of ethnic minorities, including the Miao, Buyi, Dong, and 10 other ethnic minorities. The unique traditional ethnic architecture of Qiandongnan Prefecture integrates ethnic history, ecology, and architectural skills and has been called a "living fossil of anthropology" and "the world's largest ethnic museum. These traditional ethnic buildings have carried a rich human spirit, customs, and culture. Nowadays, under accelerated urbanization, the preservation and renewal of the ethnic architectural culture in Qiandongnan have become a matter of great concern for the local government.

According to research data from the China Village Culture Research Center (Hu & Binbin, 2012), as of 2004, there were 9,707 ethnic architectural traditional villages with distinctive features in China. By 2010, there were only 5,709 left, a decrease of 7.3% per year, or an average of 1.6 ethnic architecture ancestral villages per day. In the context of revitalizing ethnic architecture, this research proposal focuses on an in-depth study of ethnic architecture in Qiandongnan (taking BaSha Miao Village as an example), which helps to systematically analyze the different characteristics of the ethnic architecture in Qiandongnan and summarize the relationship between ethnic elements and architectural forms. Contemporary, combined with modern architectural design techniques, provide more help for preserving and renewing an ethnic architectural culture in Qiandongnan.

CHARACTERISTICS OF ETHNIC ARCHITECTURE IN QIANDONGNAN

The history, style, and main characteristics of the ethnic architecture of Qiandongnan, China: The ethnic architecture of Qiandongnan is represented by the Miao and Dong. Its most distinctive feature is the all-wooden architecture made of pine and cedar wood as building materials. It is assembled using ancient concave and convex buttresses and without any iron nail connections, with sloping roofs covered with clay-fired tile (Li & Zhenlai, 2005). The earliest surviving ethnic architecture is the wooden pagoda at Zengchong Dong Village, over 350 years old. The ethnic architecture of Qiandongnan has been passed down and continued to be used for thousands of years because the architecture has become a carrier of ethnic culture (Shi & Hefang, 2015). From the solemn ceremonies held during the construction of the houses to the totemic symbols carved on the buildings is strong evidence of the combination of ethnic elements with architectural design. The ethnic architecture of Qiandongnan plays a vital role in preserving ethnic culture. In addition, in a study of the characteristics of ethnic architecture in Qiandongnan, it was analyzed that the biggest reason for the formation of local ethnic architecture is the enclosed mountainous geographical factor. Although the mountains and forests provided a large amount of timber as a building material, the lack of flatland buildings was built by raising a wooden platform from the edge of the foundation with wood to merge with the original foundation. On the one hand, this saves land. On the other hand, it reduces deforestation, which shows that ethnic architecture also reflects the early awareness and behavior of the ancient people towards environmental protection.

CHARACTERISTICS OF BASHA MIAO VILLAGE ARCHITECTURE

Basha Miao Village in Qiandongnan, China, is a remarkable ethnic enclave with a storied past that spans millennia. Renowned as one of China's most enigmatic Miao settlements, it preserves a rich tapestry of traditional practices, including hunting and farming, which have been passed down through generations. This village stands out as one of the last in the country where the legacy of gun-toting tribes persists, symbolizing a warrior spirit that is deeply ingrained in its cultural identity. The Miao people here maintain a vibrant community life, characterized by strong familial and communal bonds, and are known for their exquisite silver craftsmanship and vibrant, hand-embroidered attire. Despite the challenges of modernization, the village continues to cherish and promote its cultural heritage, offering visitors an unparalleled glimpse into a way of life that is both ancient and enduring.

The Basha Miao settlement and village architecture are unique in their geographical adaptation. The construction system is mature, containing a wealth of geographical adaptation techniques and green experiences that are highly valuable for research (Huang & Dong, 2019). In the 20 years between 1996 and 2007, the Basha Miao Village has maintained its original way of life. Only a tiny part of the culture and building techniques of the ethnic group are now present in the modern culture and forms of the Miao village (Kuang & Huimin, 2010). In addition, the current promotion of green building, digital building and BIM technology also contributes to the preservation and improvement of national culture (Yusuf, Manteghi, & Roslan, 2021; Rashid & Husin, 2021; Anuar & Zainal Abidin, 2015).



Figure 1: 3D scanning model of Basha Miao Village in Basha Miao Village

Enveloped by the undulating contours of the surrounding topography, the village of Basha emerges as a distinctive settlement, richly endowed with the Chinese fir (*Cathaya argyrophylla*), a species esteemed for its remarkable resilience to warping, decay, and infestation by insects. The bark of this fir, recognized for its superior qualities, serves as an optimal roofing material, integral to the structural integrity of the village's traditional edifices, predominantly constructed from this robust and durable timber. Situated atop a landscape characterized by a significant elevation gradient of approximately 200 meters, the traditional wooden architecture of Basha Village is underpinned by robust stone foundations. This harmonious fusion of construction and environment culminates in a striking visual tableau of timber-framed dwellings, seamlessly integrated within an emerald tapestry of venerable arboreal canopies and bamboo thickets. The village exudes an ambiance of serenity and rustic refinement, a rare and alluring quality that is both captivating and of significant scholarly interest.

The traditional dwellings in Bashavillage are characterized by modest proportions, mainly comprising two types: low stilts houses and multi-story stilt houses. Perched on the ridges, the low stilt houses are primarily built to withstand strong winds and prevent structural distortion or collapse. These structures lack ground-level floors, with floorboards placed about 1.5 feet above the ground to prevent moisture seepage. The interior layout and features are akin to those of multi-story stilt houses. Multi-story houses typically consist of three levels: the ground floor, used for livestock husbandry, poultry rearing, firewood storage, and milling; the second floor, featuring a hearth, long corridors, and bedrooms; and the third floor, utilized for storing miscellaneous items, with water buffalo horns hung on the floor beams and crops tied to the central pillars. Livestock in low stilts houses are mainly kept in adjacent sheds. Most residences comprise two or three rows of rooms and sheds, constructed from Chinese fir and topped with a gable roof, covered with either Chinese fir bark or small blue tiles. Each household is equipped with a hearth, serving as a space for cooking, hospitality, and heating. Festive rituals are also conducted around the hearth, which serves as a focal point for ceremonies. A square k'ang rack, over a meter in size, is often installed above the hearth for drying grains. Due to fire safety and hygiene concerns, hearths have been relocated to the ground floor, with many k'ang racks removed, and livestock, poultry, and fertilizers gradually relocated outside the living quarters. The second floors of multi-story stilt houses typically feature long corridors, approximately 1.5 meters wide, providing a space for cooling off, resting, dining, women's needlework, and weaving. The residences feature small sliding windows, seldom opened, with some even remaining permanently closed.

Built along the contours of the mountains, Bashavillage exhibits a tiered layout typical of Miao ethnic villages, showcasing a harmonious and well-ordered arrangement that reflects the distinctive character of the culture. As one of the representative Miao cultural villages in southeastern Guizhou Province, it preserves relatively intact historical relics and cultural heritage, accompanied by a wealth of historical and cultural information, demonstrating a high cultural standard. It serves as a testament to the lifestyle and cultural characteristics of the region during the Ming and Qing dynasties, possessing significant historical, artistic, and scientific value.

CURRENT STATUS OF CULTURAL PROTECTION IN BASHAVILLAGE

Preservation of the Overall Spatial Layout of Traditional Villages

Within the region, there exist three core traditional villages: Liangjiao, Dazhai, and Zaige Xinzhai. Overall, these traditional villages have largely maintained the traditional landscape and layout of mountainous regions, along with the functional arrangement of raised granaries. The spatial organization seamlessly conforms to the terrain, extending from the foot of the mountain to its summit, harmonizing with the natural environment while maintaining an organic integration of architecture with the landscape, mirroring the natural slope of the terrain.

The main streets and branching road networks of traditional villages sprawl outward from the inside, with internal pathways following the irregularities of the terrain, stretching freely. Each village has a main footpath, winding up the mountain contours, extending along contour lines, with secondary paths branching off, often featuring stepped pathways, providing access to every household.

Current State of Traditional Miao Ethnic Architecture in Bashavillage

Traditional Architectural Style

Bashavillage's traditional dwellings are relatively small in scale and can generally be classified into two types: low stilts houses and multi-story stilt houses. Residents situated on the ridges predominantly inhabit low stilts houses, primarily for protection against strong winds. These structures lack ground-level floors, with floorboards placed approximately 1.5 feet above the ground to prevent moisture seepage. The interior structure and layout are similar to those of multi-story houses. Multi-story houses typically consist of three levels: the ground floor, used for livestock husbandry, poultry rearing, firewood storage, and milling; the second floor, featuring a hearth, long corridors, and bedrooms; and the third floor, used for storing miscellaneous items, with water buffalo horns hung on the floor beams and crops tied to central pillars. Livestock in low stilts houses are mainly kept in adjacent sheds. Most residences consist of two or three rows of rooms and sheds, constructed from Chinese fir, with gable roofs covered in Chinese fir bark or small blue tiles. Each household is equipped with a hearth, serving as a space for cooking, hospitality, and heating. Festive rituals are also conducted around the hearth, serving as a ceremonial space. A square k'ang rack, often over a meter in size, is installed above the hearth for drying grains. Currently, due to fire safety and hygiene considerations, hearths have been relocated to the ground floor, with many k'ang racks removed, and livestock, poultry, and fertilizers gradually relocated outside the living quarters. The second floors of multi-story stilt houses typically feature long corridors, approximately 1.5 meters wide, providing a space for cooling off, resting, dining, women's needlework, and weaving. Residences feature small sliding windows, seldom opened, with some remaining permanently closed.

Built along the contours of the mountains, the well-ordered overall layout of each village reflects the typical character of the Miao ethnic village, providing a solid basis for the study of the living space and ecological environment of Miao ethnic villages. As one of the representative Miao cultural villages in southeastern Guizhou Province, it preserves relatively intact historical relics and cultural heritage, accompanied by a wealth of historical and cultural information, demonstrating a high cultural standard. It serves as a testament to the lifestyle and cultural characteristics of the region during the Ming and Qing dynasties, possessing significant historical, artistic, and scientific value.

Currently, Bashavillage's tourism development is rapidly expanding, leading to significant demands for the renovation, expansion, and construction of traditional village buildings within the region. The contradiction between protection and development is becoming more prominent, with inadequate guidance and control over architectural style, resulting in a certain degree of damage to the traditional architectural landscape due to the construction of numerous new reinforced concrete structures.



Figure 2: Basha Miao Village Architectural Style

Preservation of Granaries and Drying Racks

Granaries and drying racks remain well-preserved and functional to this day, with almost every household having them. To prevent fires, granaries and drying racks are generally built around the periphery of the village, hence their age tends to be quite old. Granaries typically feature suspended gable roofs, covered with Chinese fir bark or small blue tiles, supported by four pillars, often square or rectangular in shape. Some granaries are accompanied by annexes, providing space for people to enter and exit the granary doors and to place ladders. Drying racks are wooden structures used for air-drying glutinous rice. During the golden autumn season, drying racks adorned with hanging grains stand like golden walls along the edges of the village, forming a beautiful landscape.



Figure 3: Preservation of Granaries Drying Racks



Figure 4: Drying Racks 3.2.3 Village Gates

Each natural village in Bashavillage has its own village gate, constructed from Chinese fir wood, most of which appear rather worn and aged. The village gates of Dazhai, Wangjiazhai, and Zaizhuangzhai are the largest, featuring a "信鼓" (xin gu), a traditional drum, although in modern times, they have lost their function of deterring thieves and are only effective during ritualistic activities. Village gates serve as the iconic entrance to the village, historically functioning as a defense mechanism. While this function has dissipated over time, they remain the passage into the village, symbolizing the territorial and cohesive essence of the village community. Village gates represent typical ethnic architecture, often adorned with thorny plants, creating an ecological gate that harmonizes with nature, showcasing the ecological environment where humans coexist harmoniously with nature.



Figure 5: Village Gates

CURRENT STATUS OF VILLAGE CONSTRUCTION LAND USE

Within the planned area, the current area of construction land for rural residential areas is 21.12 hectares, with a registered population of 2801 people, resulting in an average construction land area of 75.54 square meters per person.

CURRENT STATUS OF RESIDENTIAL CONSTRUCTION

Layout Characteristics

Residential areas within the planned area are situated along the mountains and rivers, neatly arranged and stacked atop one another. The residents' settlements extend from the foot of the mountain to the ridge, following the flow of the water, presenting a gentle and expansive layout. The buildings are relatively low in height, harmonizing with the mountain terrain, and striving to preserve the integrity of the mountain's ecosystem, achieving an organic integration of architecture with the natural landscape.

Village Landscape Pattern

Village sites are selected to accommodate natural constraints and early ethnic defense needs, resulting in a terraced layout of "mountains—farmland—village—valley—water body" under the spatial characteristics of the mountains. Given the mountainous terrain of Guizhou, Miao villages are constructed along the mountains and rivers, utilizing slopes to create more usable space. The architectural groups are staggered in height, compact and exquisite, coexisting harmoniously with the natural environment, creating a unique landscape pattern. Within the planned area, residential areas naturally form a unified

architectural style, primarily using abundant wood and stone resources, complemented by brick, tile, and earth materials for stilted houses, resulting in a unified overall style and a distinctive landscape.

Village Appearance

Overall, the current buildings within the planned area are traditional wooden stilted structures, mostly with sloping roofs, with relatively good building quality. In the protected areas of traditional villages, the architectural style is relatively consistent, although there are very few structures that do not conform to the overall architectural pattern. In areas outside the protected traditional villages and non-traditional village areas, some new buildings adopt modern European-style architectural styles, which are highly discordant with the overall architectural pattern.

DEVELOPMENT ASSESSMENT

Overall Trends and Opportunities

1. Implementation of Rural Revitalization Strategy

Since the 19th National Congress of the Communist Party of China, the rural revitalization strategy has become a crucial measure to build a beautiful China and achieve common prosperity among the people. Guizhou Province has successively introduced strategic plans for rural revitalization, as well as six actions for the construction of "Four in Rural Homes ▪ Beautiful Villages" and its infrastructure, emphasizing the direction of "creating characteristics," "highlighting pastoral scenery," and "enhancing rural areas."

In 2021, the provincial government formulated and issued the "Five-Year Action Plan for the High-Quality Development of Traditional Villages in Guizhou Province (2021-2025)," highlighting the importance of high-quality development of traditional villages as a new initiative in rural revitalization, aiming to cultivate traditional villages into "beautiful homes with visible mountains, visible waters, and memorable hometown feelings."

2. Prospects for Cultural Experience-based Rural Tourism Market

Currently, with the improvement of people's living standards, there has been a qualitative shift in consumption concepts. Short-distance holiday trips and weekend leisure travel are gradually becoming popular, with ecological leisure vacation tourism, health and wellness tourism, and folk cultural experience tourism increasingly becoming mainstream in the tourism market. Traditional villages, as important carriers of rural tourism, will play a significant role in future rural revitalization.

3. High-Level Attention from County and Township Governments

This planning project, as a pilot project for village planning in the Bmei Township, has received attention from both county and township governments. In the context of rural revitalization, how to vigorously develop rural tourism, promote high-quality development of traditional villages, and carry out rural planning and construction work has become a key focus of this planning project.

4. High Enthusiasm of Villagers for Tourism Development and Strong Desire to Improve Living Standards

Through current status discussions and questionnaire surveys, villagers have shown high approval for this village planning project and have raised many genuine demands. There is high enthusiasm for village development, and villagers hope to improve their living standards through infrastructure improvement and tourism development.

Advantages and Endowments

1. Good Ecological Landscape and Natural Environment

The planned area boasts lush forest vegetation and excellent ecological environment, with a forest coverage rate of 80% and stunning natural scenery. Ancient trees are abundant throughout the planned area, distributed in various natural villages. Additionally, due to topographical reasons, the planned area features unique terraced landscapes.

2. Deep Ethnic Culture with Preserved Traditional Lifestyles and Folk Customs

The planned area comprises five natural villages, with three core traditional villages, where some residential buildings are historical traditional structures that are well-preserved, representing typical Miao ethnic villages. The intangible cultural heritage of the Miao ethnic group, such as Miao embroidery, lusheng dance, and Miao New Year, is well inherited and celebrated in the planned area. All Miao customs and festivals can be experienced in the planned area, including the Spring Festival, the Third Month Third (Yingshan Red Festival), Qingming Festival, Dragon Boat Festival, Zhehe Festival, Swing Festival, Double Ninth Festival, Lusheng Festival, and Miao New Year.

CONSTRAINTS AND RESTRICTIONS

Lack of Industrial Support

The planned area relies mainly on agriculture and income from migrant work. Agricultural income is primarily derived from planting and breeding, while the secondary industry in the village is in its early stages, and the development of the tertiary industry is relatively low. The current industrial development is relatively single, unable to provide more support for village development. The single industry has also led to an increase in the number of villagers working outside the village, limiting the vitality of village development.

Failure to Form a Cultural Brand for Miao Embroidery Inheritance, Failing to Drive the Development of Other Industries

The planned area lacks tourism supporting facilities. Although Miao embroidery and silverware making techniques are exquisite, they are still carried out on a household or individual basis, failing to form a unified cultural brand and unable to drive the development of other industries.

Single Regional Tourism Nodes with Short Routes and Visiting Time

The tourist nodes and activities within the planned area are single, with short tourist routes and limited visiting time, failing to establish temporal and spatial continuity.

Lack of Prominent Village Construction Features, Urgent Need for Improvement in Living Environment

The overall architectural style within the core protected areas of traditional villages is relatively consistent, but there are some structures that disrupt the overall landscape and require rectification. Outside the core protected areas of traditional villages, the incongruity between new European-style buildings and traditional Miao stilted houses affects the tourist experience, necessitating urgent improvement in the living environment.

RISKS AND CHALLENGES

Identifying Development Characteristics and Building Core Tourism Attractions

Identifying the most attractive tourism selling points based on the characteristics of tourism resources in the planned area, planning tourism products reasonably, and forming an integrated tourism area covering "food, accommodation, transportation, shopping, and entertainment" is the biggest challenge for the planned area. The goal is to attract and retain visitors effectively.

Balancing Tourism Development with Traditional Village Protection

While developing tourism, it is crucial to fully respect the living habits and production methods of traditional village residents, improve the production and living conditions of traditional villages, and prevent hollowing out and excessive commercialization of traditional villages.

Transforming Traditional Crafts like "Miao Embroidery" into Industries

Miao embroidery, as a unique traditional craft of the Miao ethnic group, is mainly used by villagers for personal use at present. The plan relies on the development of tourism to scale up the display, production, inheritance, and sales of Miao embroidery into a standardized industrial chain.

Strengthening Integration and Linkage among Industries to Promote the Development of Comprehensive Tourism

Utilizing the driving force of the tourism industry, it's essential to properly develop the planting, breeding, traditional handicrafts, and other industries in the planned area, construct a new industrial system, and promote the comprehensive development of tourism in Bmei Township.

Uncertainty in Selecting Specialized Agriculture and Animal Husbandry Industries and Market

The current featured industries in the planned area mainly include rice field fish farming, chili and passion fruit cultivation, beekeeping, and a small amount of poultry and livestock breeding. Due to the significant market uncertainty, the economic resilience of the industries is relatively weak.

CONCLUSION

The BaSha Miao Village has been in existence for more than a thousand years. It has become a representative of ethnic architecture and culture with high cultural, historical, economic, and environmental value in the Qiandongnan region. In China's rapid urbanization, the destruction of ethnic architecture is a common problem. Some ethnic buildings of cultural and historical value have been in disrepair for many years. Many of the local traditional buildings have become dangerous. Moreover, the old conventional buildings can no longer meet the villagers' modern needs. They are even less capable of receiving tourists, and their tourist and economic value are not reasonably exploited. The preservation and renewal of the ethnic architectural culture of Qiandongnan is now a long-term goal to which the local government attaches the most significant importance. The design of a more modern landmark building with traditional ethnic elements will enable the local ethnic architecture to be better preserved and developed. At the same time, it will allow the tourism and economic value of the BaSha Miao Village to be exploited in a way that will increase the villagers' income and the government's tax revenue. Finally, the sustainable development of the BaSha Miao Village will become a model for the conservation and renewal of the ethnic architecture of Qiandongnan.

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