

# Study on Bayu Vernacular Architecture and Culture—Baxian-Old-Courtyard

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**Abstract:** The vernacular architectural culture of the Bayu region is an important part of traditional Chinese architectural culture, of which the old courtyard in Baxian is a typical representative. The purpose of this paper is to explore the connotation and characteristics of Bayu vernacular architectural culture, and to take the old courtyard in Baxian as a specific research object, to analyze its architectural style, cultural connotation, and its value in contemporary society. The study of the old courtyard in Baxian can not only deepen the understanding of Bayu vernacular architectural culture but also provide a useful reference for the protection and inheritance of vernacular architecture. At the same time, this paper also calls for more people to pay attention to and participate in the protection of vernacular architectural culture, and jointly guard these precious historical and cultural heritages.

**Keywords:** Bayu culture; Vernacular architecture; Baxian-Old-Courtyard; Protection and utilization

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## 1. Introduction

Bayu region, a land located in the southwestern part of China, has nurtured a rich culture of vernacular architecture. Among them, the old courtyard in Baxian, with its unique architectural style and cultural connotation, has become a bright pearl of the vernacular architectural culture of Bayu. “Baxian-Old-Courtyard” refers to the traditional courtyards with high architectural, cultural and historical values in Chongqing Banan District, which have the characteristics of Bayu style, Baxian tradition and Banan characteristics, and are called Baxian-Old-Courtyard. These old courtyards, such as Peng’s residence, Zhu’s compound, Qin’s compound, Liao’s manor, etc., are not only the homes where the people of Bayu have lived for generations but also the witnesses of history and the carriers of culture. They have recorded the historical changes, social development, and cultural inheritance of the Bayu region, and are the crystallization of wisdom and emotional support of the Bayu people.

However, with the changes of the times and the advancement of modernization, the old courtyards in Bayu County are facing many challenges. How to protect and inherit these historical and cultural heritages while harmonizing them with modern life has become an urgent problem. Therefore, the study of the old courtyards in

Baxian has not only historical and cultural value but also practical significance and social significance.

## **2. Overview of Bayu vernacular architectural culture**

### **2.1. The perfect fusion of natural environment and architectural art**

Firstly, this integration is reflected in the Bayu vernacular architecture on the natural environment compliance and use. Bayu region has complex terrain, mountains, and water, vernacular architecture in the site selection, layout, form, and other aspects are fully considered the characteristics of the terrain and the natural environment. For example, the building is often built on the mountains and water, using the terrain of the height of the staggered, forming a rich spatial layout of the level. At the same time, the buildings also pay attention to the harmonious symbiosis with the surrounding environment, using vegetation, water systems, and other natural elements to create a natural, comfortable, and livable environment <sup>[1]</sup>.

Secondly, the integration of Bayu vernacular architecture with the natural environment is also reflected in the choice of building materials. The vernacular architecture of the Bayu region mostly adopts locally produced timber, small green tiles, woolen stone walls, and other building materials, which not only have local characteristics but also coordinate with the natural environment, making the building more integrated into nature. Simultaneously, the use of these materials also reflects the wisdom and skills of the people of the Bayu region, since the art of architecture has achieved a perfect balance between practicality and aesthetics.

Thirdly, regarding the landscape pattern of the Bayu region and its relationship with traditional houses, we can elaborate on the following aspects. The landscape pattern of the Bayu region is unique, with longitudinal mountain ranges and dense rivers, and this topographical feature has had a far-reaching influence on the layout and form of traditional houses. From one perspective, traditional dwellings often follow the principle of “back of the mountain, face of the water” in choosing the site, i.e. there are mountains behind the houses as the reliance, and water in front as the prospect, which is not only conducive to ventilation and lighting but also implies stability and affluence in life. From another perspective, the shape of traditional houses is also influenced by the landscape pattern, for example, the contour lines of the buildings are often coordinated with those of the mountains, forming a harmonious and unified visual effect. This fusion not only demonstrates the unique natural features and humanistic characteristics of the Bayu region but also reflects the Bayu people’s reverence for the natural environment and their love of life.

### **2.2. Deep heritage of history and culture**

The deep heritage of the history and culture of Bayu vernacular architecture is fully reflected in the old courtyard of Bayu County. As a representative of the traditional houses in the Bayu area, the old courtyard of Bayu County not only carries rich historical and cultural information but also shows the unique artistic charm of Bayu’s vernacular architecture.

The Baxian-Old-Courtyard reflect the diversity of Bayu culture in architectural style and decoration. These courtyards have the characteristics of traditional Bayu architecture and have absorbed elements of various architectural styles such as Huizhou architecture and piercing architecture. The architectural details, such as carvings and colored paintings, also show the unique flavor of Bayu culture. The fusion of these cultural elements makes the Baxian-Old-Courtyard both regionally distinctive and artistically valuable in terms of style.

Baxian-Old-Courtyard also carries rich historical and humanistic connotations. Most of these courtyards have a long historical background and are witnesses to the historical changes in the Bayu region. In the courtyards, we can feel the industriousness, wisdom, and resilience of the people of Bayu, as well as learn historical information about the social, economic, and cultural aspects of the Bayu region.

### **2.3. Flexible and changeable multicultural mingling and inheritance**

Bayu architecture is flexible and versatile. Multicultural mingling and inheritance is an important manifestation of its unique charm. This integration is not only reflected in the diversity of architectural forms and styles but also lies in its deep historical and cultural heritage and inheritance of regional characteristics.

Firstly, Bayu architecture is flexible in form thanks to its construction principle of adapting to the local conditions and mountainous terrain. Whether it is the twelve common methods of adapting to the terrain, such as platforms, hangings, slopes, and drags, or the unique architectural forms such as dry-rail buildings and palatial buildings, they all fully demonstrate the wisdom of Bayu's architecture in adapting to the nature and utilizing the space. This flexibility enables Bayu architecture to display a variety of styles in different terrains and forms a rich and three-dimensional architectural hierarchy.

Secondly, Bayu architecture is the style of the integration of a variety of cultural elements, showing the characteristics of multicultural mingling. On the one hand, Bayu architecture inherited the essence of traditional architecture in Sichuan, focusing on harmony and symbiosis with the natural environment, emphasizing the spatial enclosure and openness of the building, and displaying the aesthetic style of thinness, lightness, elegance, simplicity, and elegance. On the other hand, Bayu architecture has also absorbed the characteristics of foreign architectural styles such as Central Plains Architecture, Chu Architecture, Shu Architecture, etc. For example, the solemn and symmetrical layout of Central Plains Architecture, the dynamic and romantic flavor of Chu Architecture, and the delicate and detailed decoration of Shu Architecture are all embodied in Bayu architecture. Based on maintaining its characteristics, it has selectively absorbed and borrowed certain elements and techniques of Huizhou architecture. Huizhou architecture is based on mountains and water in the overall planning and design layout, which is cleverly conceived, and matches the concept of harmonious coexistence with the natural environment pursued by Bayu architecture. Thirdly, Huizhou architecture pays attention to the symmetrical layout, which is also reflected in some traditional houses of Bayu architecture. In addition, the characteristic elements of Huizhou architecture, such as horse-head walls, brick carvings, stone carvings, and wood carvings, are also used and reflected in Bayu architecture to some extent. This multicultural fusion makes Bayu architecture both regionally distinctive and contemporary in style <sup>[2]</sup>.

Bayu architecture in the decorative techniques and detailing also reflects the multi-cultural integration and inheritance. Bayu architecture is good at using carving, painting, and other techniques to enrich the building's façade effect. These techniques not only reflect the mastery of the traditional craftsmanship of Sichuan but also a blend of foreign cultures and artistic styles. Concurrently, Bayu architecture uses materials from the combination of local characteristics and foreign elements, such as the use of local unique stone, wood, and other building materials, as well as using foreign building materials, forming a unique architectural style.

### **2.4. The embodiment of the concept of local materials and environmental protection**

Bayu architecture emphasizes the use of local materials, making full use of the rich local natural resources. This practice not only reduces construction costs but also reduces the dependence on external resources, in line with the concept of environmental protection and sustainable development. In traditional Bayu villages, buildings are mostly sited on slopes facing the wind and are easy to drain. According to the topography, they are constructed as retreating elevated buildings or attached to cliffs and hanging feet facing the canals, which not only ensures ventilation and moisture-proofing of the buildings but also cleverly combines with the topography, embodying the respect for and use of the natural environment <sup>[3]</sup>.

Typical timbers include pine wood. The Bayu region is mountainous, and pine grows widely, making it one of the most commonly used timbers for construction. Pine wood is light and soft, with straight grain, easy to process, and suitable for building structure and decoration. In addition, cypress is also common in the Bayu

area. It is tough, corrosion-resistant, and is often used in load-bearing structures and parts of buildings that require high durability. Moreover, cedar has a special place in Bayu architecture. Because of its fast growth, good material, straight grain, not easy to deform, corrosion-resistant, and insect-resistant characteristics, it has become an important material for traditional Bayu architecture. The cedar bark produced during the processing of cedar is often used as a roofing material because of its superior toughness, more waterproof performance than thatch, and non-perishable characteristics.

Furthermore, typical stone materials used include limestone. The Bayu region is rich in limestone resources. This stone is hard, wear-resistant, and corrosion-resistant, and is often used in the foundation of the building, wall and floor paving. Additionally, granite is also more common in the Bayu area, with rich colors, unique textures, and high decorative qualities, often used in building facade decoration and carving. Beyond that, sandstone is also used. Sandstone has a loose texture, is easy to process, and is often used for carving and shaping architectural details, such as door and window casings, column heads, and other parts.

### **3. The cultural connotation and contemporary value of the Baxian-Old-Courtyard**

#### **3.1. The old courtyard in Baxian is rich in history and has a unique and diversified architectural style**

The predecessor of Banan is the thousand-year-old historical county of Baxian, and there are many cultural relics such as ancient towns, ancient villages, and ancient buildings in the territory. These carry the humanistic spirit of resilience, boldness, openness, and tolerance of generations of Banan people and the strong nostalgia of the people of Bayu. Ancient towns and old courtyards are important carriers of cultural tours.

The architectural style of the Baxian-Old-Courtyard is unique. It combines various elements of Bayu and Huizhou architecture, with both the delicacy and subtlety of southern architecture and the simplicity and elegance of Huizhou architecture. This unique architectural style makes the Baxian-Old-Courtyard stand out among the many ancient buildings and become a unique landscape. The architectural style of the Baxian-Old-Courtyard embodies the characteristic of diversified integration. This is not only reflected in the integration of architectural elements but also the integration of architectural layout and function. Baxian-Old-Courtyard features a layout that serves both residential and commercial functions. The front shop of the street courtyard, along with the unique style of the footstools, embodies this multifaceted fusion of styles. Baxian-Old-Courtyard has a deep cultural connotation. Most of these old courtyards carry the long history and rich culture of the Bayu region and are important bearers of Bayu culture. By visiting these old courtyards, people can gain an in-depth understanding of the traditional culture and historical changes in the Bayu area, and feel the heavy historical atmosphere.

The old courtyards in Bayu County are rich in history. Most of these old courtyards have a history of several hundred years, witnessing the vicissitudes of the Bayu region. Each old courtyard contains rich historical stories and cultural connotations, allowing people to feel the weight of history and the charm of culture. For example, the famous Yang Cangbai's former residence, Peng's Residence, Huang's Compound, Bie Hua Shan Fang, Hua Fang Zhu-Ming Yuan, Xue Yuan Shuyuan, Wudou Qiu Xiaoyuan, Shiquan Hall, Hua Jing Yuan Zi and Qin's compound, among which Peng's Residence is a representative building among the old compounds in Baxian<sup>[4]</sup>. Peng's residence is located in South Hot Spring, Banan District, Chongqing, and is also commonly known as "Peng's Zhuangyuan" or "Peng's Compound," which was built in 1822 in the second year of the Qing Dynasty. With a history of 186 years, it is surrounded by a 5 to 7-metre-high wall, forming a courtyard with four corridors, and was originally the private residence of Peng, a salt merchant in the Qing Dynasty. With its unique architectural style, diversified and integrated features, deep cultural connotation, and rich historical background,

the old courtyard in Baxian has become a unique cultural landscape in the Bayu region.

### **3.2. Inheritance value and protection significance of Baxian-Old-Courtyard**

Baxian-Old-Courtyard carries rich historical and cultural connotations. As traditional courtyards with Bayu style, Baxian tradition, and Bannan characteristics in Chongqing, they have witnessed the historical changes and cultural development of the Bayu area. These old courtyards are not only material architectural heritage but also historical witnesses and cultural carriers, which are of great significance to the study and inheritance of Bayu culture.

The old courtyards in Bayu County embody unique architectural and artistic values. These old courtyards are unique in architectural style and diversified integration, both being the characteristics of Bayu architecture. However, the style also absorbed the architectural elements of other regions, forming a distinctive architectural style. Their architectural layouts, carving techniques, and use of materials reflect the wisdom and talent of ancient architects and are of great significance to the study of ancient architectural art and craftsmanship. The old courtyards in Baxian also have important social value. These old courtyards are valuable assets passed down from generation to generation by the people of the Bayu area, carrying the nostalgia and memory of the people of Bayu. They are not only a part of local residents' lives but also an important cultural resource to attract tourists. Protecting and inheriting the old courtyards in Baxian County helps promote the development of local cultural tourism and enhances the popularity and reputation of the region.

Nevertheless, with the acceleration of urbanization and modernization, the old courtyards in Baxian are facing more threats and challenges. Some of the old courtyards are gradually falling into disrepair or even being demolished due to age and lack of protection. Therefore, it is of great practical significance and urgency to protect the old courtyards in Baxian.

The inheritance value and protection significance of the old courtyards in Baxian lies in the fact that they carry rich historical and cultural connotations, embody unique architectural and artistic values, and have important social values. We should strengthen the protection and utilization of the old courtyards in Baxian so that they can continue to contribute to the inheritance and development of Bayu culture.

## **4. Strategies for architectural conservation and utilization of old courtyards in Baxian**

### **4.1. Scientific utilization to make old courtyards come alive**

Conducting in-depth survey mapping and assessment may help to conserve the old courtyards of Baxian. It is necessary to conduct a comprehensive resource survey to understand the historical background, cultural value, architectural features, etc. of each courtyard, to determine which courtyards have the value of development. Concurrently, the current situation of each courtyard should be assessed, and the focus and direction of protection and utilization should be clarified to formulate a scientific conservation plan. Conservation planning should take into account the historical, cultural, artistic, and scientific values of the old courtyards, and ensure that their original appearance and characteristics are not harmed in the process of conservation. The planning should clarify the objectives, principles, measures, and time sequence of protection, and guide subsequent utilization.

Moreover, diversified utilization and development can aid in conservation. The old courtyard of Baxian has rich cultural connotations and unique architectural styles, which can be activated to derive a variety of business forms, such as lodging, book gardens, cultural experience halls, and so on. Through the introduction of modern elements and design concepts, the old courtyard will become a cultural tourism destination integrating

accommodation, leisure, entertainment, education, and other multi-functions. Strengthening publicity and promotion is also key. Through media publicity and cultural activities, the visibility and influence of the Baxian-Old-Courtyard will be increased to attract more tourists and investors. In parallel, strengthen cooperation with travel agencies, online travel platforms, etc., to include the old courtyard in Baxian into the tourism line and recommend products to expand its market share.

Through in-depth investigation and mapping, scientific protection planning, diversified use, and development, strengthening publicity and promotion, as well as focusing on community participation and benefit sharing, the old courtyards in Baxian can be brought to life with new vitality and vigor.

#### **4.2. Case study on the conservation and utilization of the old courtyard in Baxian**

In recent years, Banan District has systematically developed the Baxian-Old-Courtyard cultural tourism brand. This includes the reservation of several Bayu style, Baxian traditional, and Banan characteristic traditional Chongqing architectures. The revitalization has led to the emergence of bed-and-breakfasts (B&B), bookstores, and other businesses, which have helped revive numerous scattered historical relics. This process, combined with the revitalization of the countryside, idle land, idle houses, and idle labor, paints a picture of livable and beautiful countryside <sup>[4]</sup>.

As one of the important projects of the Baxian-Old-Courtyard cultural tourism brand, Biehua Mountain House has attracted a large number of tourists to experience its unique architectural style and cultural heritage. Through restoration and protection, Biehua Mountain House not only preserves the original historical style but also integrates modern design concepts to provide visitors with a comfortable accommodation environment full of historical atmosphere. Biehua Mountain House also actively promotes the culture of Bayu, so that tourists can enjoy a good accommodation experience, but also a deep understanding of the traditional culture and historical heritage of the Bayu region.

The “Hanafuzhu-Mingyuan” (Flower House Building-Mingyuan) is another representative of the B&B project. The project has transformed the building from an unused farmhouse, retaining original elements such as adobe walls and old wooden beams, while adding new modern accommodation facilities, achieving a perfect combination of tradition and modernity. The clever and ingenious design of Hanafuzhu-Mingyuan has won wide acclaim from visitors. Through the revitalization of idle assets, Hanafuzhu-Mingyuan not only creates employment opportunities for local villagers but also provides a unique rural accommodation experience for tourists.

In addition, B&B projects such as This Mountain Residence and Flower House Story also have their own special features. This Mountain Residence focuses on the integration of ecological protection and natural landscape, providing tourists with an excellent place to get close to nature and relax. Meanwhile, The Flower House Story tells a narrative about flowers, allowing tourists to enjoy the beauty of the scenery at the same time, but also to feel a strong cultural atmosphere.

The success of these B&B projects has not only enriched the connotation of the Baxian-Old-Courtyard cultural tourism brand but also injected new vitality into the development of the local rural economy. Through the effective use of idle land, idle houses, and idle labor in the countryside, these projects have driven local villagers to increase their income and promote the sustainable development of the rural economy. Simultaneously, these B&B projects also enhance the visibility and reputation of Banan District, attracting more tourists to come to sightseeing tours, and further promote the prosperous development of its culture and tourism industry.

Banan District has successfully revitalized some traditional buildings with historical value by creating the

Baxian-Old-Courtyard cultural tourism brand, which has given rise to a diversified range of lodging businesses. The implementation of these projects not only protects the historical and cultural heritage but also promotes the development of the rural economy and the villagers' income, making a positive contribution to the construction of a livable and beautiful countryside.

### **4.3. Protection and utilization strategies of Baxian-Old-Courtyard**

With the acceleration of urbanization and modernization, the protection and utilization of the old courtyards in Baxian are facing many challenges. To protect these precious historical and cultural heritages, it is especially necessary to formulate scientific and reasonable conservation and utilization strategies. Firstly, strengthening laws and regulations is the basis for protecting the old courtyards in Baxian. Improve relevant laws and regulations, clarify the scope of protection and protection measures, and provide legal protection of the old courtyards. In parallel, increase the law enforcement efforts to crack down on the destruction of the old courtyard and ensure the effective implementation of the law. Secondly, exploring diversified ways of utilization is the key to maximizing the value of old courtyards. In addition to traditional cultural displays and tourism development, we can also consider using old courtyards for education, research, and other fields. For example, it can be made into an educational base to carry out historical and cultural education or as a research institution to attract experts and scholars to conduct in-depth research. These ways of utilization not only give full play to the value of old courtyards but also promote the development of related industries. Finally, strengthening public education and publicity is an effective way to enhance the awareness of the protection of old courtyards in Baxian. Through various channels and methods, popularize the historical value and cultural connotation of the old courtyards to the public, and raise the public's awareness and attention to them. Concurrently, encourage and support all walks of life to participate in the protection and utilization of the old courtyards to form a good atmosphere of common participation of the whole society <sup>[5,6]</sup>.

## **5. Conclusion**

In the process of exploring the contemporary value, conservation, and utilization of the old courtyards in Baxian, we are deeply aware that these old courtyards not only carry rich historical and cultural information but also are the vivid embodiment of the unique culture of the Bayu region. With their simple and elegant architectural style and deep cultural connotations, they have become a bridge connecting the past and present, inheritance and development. We should also be aware that the protection and utilization of the old courtyards in Bayu County is a long-term and arduous task. In our future work, we need to constantly innovate ideas and methods, and strengthen interdisciplinary cooperation and exchange, to promote the conservation and utilization of the old courtyard in Baxian County to move forward.

Facing the impact of urbanization and the challenges of modernization, the conservation and utilization of old courtyards in Baxian are particularly important. By strengthening laws and regulations, exploring diversified ways of utilization, and enhancing public education and publicity, we can effectively protect these precious historical and cultural heritages and give full play to their contemporary value.

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