



Study on the Characteristic Public Space of Traditional Valley Villages in West Sichuan —Taking Dasang Village as an Example

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Abstract

There are many types of traditional villages in western Sichuan, mainly valley villages, and their public space is greatly influenced by topography and village industry model. Dasang Village, as a traditional village with agriculture as the leading industry, its public space function is more inclined to the daily life of the villagers. According to the field investigation, there are a large number of traditional Tibetan buildings in Jiarong in Dasang Village, which are scattered all over the village, which has a great influence on the layout of public space in the village, the national characteristics and industrial composition lead to the formation of a characteristic public space in the village. There is a lot of green cover in the village, and the species of primary vegetation is rich, with artificial green space between. Dasang Village is weak in originality and has obvious environmental transformation. The study of its architecture and outdoor public space can be used as a reference model for the protection and transformation of valley-type traditional villages in western Sichuan.

Subject Areas

Architecture

Keywords

Valley-Type Village, Dasang Village, Characteristic Public Space

1. Introduction

According to the previous research results, the traditional valley village in western Sichuan is similar to the more primitive village, the demand for public space in the village is not high, and the use of public space is limited by the topogra-

phy. As a result, local residents pay less attention to the public space in the village, and the degree of development of public space is not high. The purpose of this study is to study and analyze the public space characteristics of Dasang Village, a valley village in western Sichuan, which has optimized the public space, and to provide a reference scheme for the optimization and transformation of the public space of valley villages in western Sichuan.

2. The Present Situation of Public Space in Valley Villages in West Sichuan

There are a large number of traditional minority villages in western Sichuan, mainly the villages inhabited by the Qiang and Tibetan. Most of these villages are distributed along the river and are uniformly called valley villages. According to the vertical distribution, valley villages can be divided into hillside type and hillside gentle slope type [1] (Figure 1).

The public space of the valley village in western Sichuan can be defined as the space in which villagers can freely enter and leave for activities [2], as well as the unity of red and white weddings, festivals and other activities that take place in the space and a series of institutionalized organizations formed in the space for a long time, and it has the dual attributes of “public” and “space”, which not only carries the social life, but also has a certain material form [3]. In these villages, more villages have transformed the public space in the village to varying degrees.

According to the data collection and on-the-spot investigation, the current situation of public space in valley villages in western Sichuan can be divided into the following three types: First, after systematic tourism planning and transformation, all kinds of infrastructure construction is based on tourism services, and the transformation has a strong commercial flavor of template and homogenization. The second is the livable transformation of the public space in the village, which aims to improve the quality of life of the residents and improve the happiness index of the people’s life. The last one is that the village public space is relatively primitive, without obvious transformation, and the public space and infrastructure in the village are relatively old, which affects the daily life of residents to a certain extent.

3. Characteristics of Public Space in Ethnic Minority Villages in West Sichuan

The ethnic minorities in western Sichuan are mainly Tibetan and Qiang, and there are national traditional buildings in most villages. Compared with non-ethnic areas, the new houses built spontaneously by residents in these villages still retain a large number of local and national characteristics, the overall appearance of the village is more harmonious, and the national characteristics are more obvious. According to the architectural distribution, the spatial forms of these traditional villages can be divided into four types: core aggregation type, non-nuclear aggregation type, linear type and scattered type [4]. On the other hand, due to the topography, the spatial shape of valley villages is generally

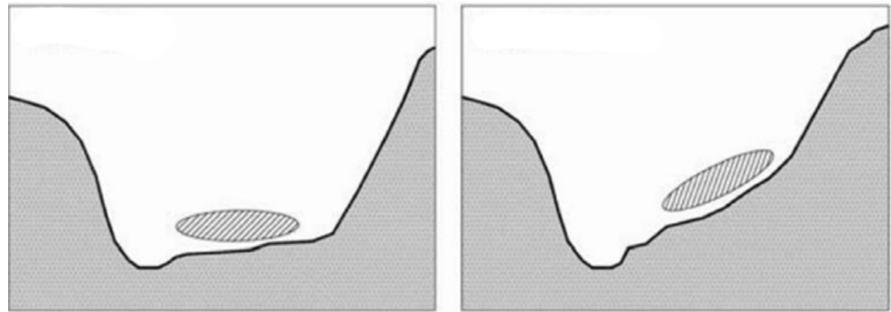


Figure 1. Distribution form of valley villages.

distributed linearly along the river, while the villages with larger and flatter terrain will form seedless aggregation type and scatter type.

The main industry of Tibetan villages in the alpine valley area of western Sichuan is planting, and there are small-scale private farming. Most traditional Tibetan villages have venues for residents to carry out collective activities. The houses in the village are distributed in groups according to the families, the fields are arranged around the houses, and the roads connect the courtyard gates. Important buildings such as village committees are generally located in the center of the village or at the entrance of the village. They are generally new buildings, and a small number of them are rebuilt from large old buildings. A few villages with more developed tourism also have tourism-related facilities such as tourist centers, with wider roads and perfect traffic signs than ordinary villages. Most of the residential houses in the village have been transformed to receive tourists. Various commercial facilities are distributed on both sides of the main road and around the scenic spots.

As the main topography of western Sichuan is mountainous, most of the villages in western Sichuan are not flat, and only a small number of villages distributed on the platform or river beach avoid the steeper terrain. Due to the limitation of sloping land, the public space of these villages is relatively compressed, and the road direction and the distribution of production land are greatly affected by the topography. The characteristics of its public space are as follows: From the perspective of spatial form, the form of public space is subject to function and coincides with the surrounding natural landscape environment, and from the type of space, the type of public space depends on the leading industry of the village and the production and life style of residents [5].

4. The Present Situation of Dasang Village

4.1. Current Situation of Location and Environment

Dasang Village is located in the Dandong River Valley of Geshza Town, Danba County, located in the gentle slope of the river valley on the west bank of the middle reaches of the Geshza River, about 15 kilometers away from Danba County. The location of the village is about 2100 meters above sea level, the Danba area is located in the plateau monsoon climate, the local people are di-

vided into seasons by drought and rain, the annual average temperature is 14.2°C, the annual precipitation is about 600 mm, the sunshine is sufficient, and the temperature difference between day and night is large. The main road of the township is located on the northeast bank of the Geshza River, and it is necessary to cross the river to enter Dasang Village.

The interior of the village has high green cover, many native plants, most of the vegetation is alpine plants, rich in trees and shrubs, and rich in medicinal plants. In the village, irrigation canals are set up on the side of a street and lane that is not the main driveway (**Figure 2**), and using the natural slope of the village, the farmland along the canal is covered from high to low, another waterway is separated at the gentle node, and a waterwheel mill is set up. It is only open for use during the harvest season.

4.2. The Present Situation of Production and Life of Village Residents

The residents of the village are all Tibetans, and the main industries are multi-crop cultivation and small-scale animal husbandry. The main crops are corn, as well as the cultivation of economic trees such as pepper and apples (**Figure 3**). Small-scale livestock farming is mainly for cattle and pigs, and a small number of residents are also engaged in poultry farming. This kind of breeding is not regarded as an external industry, but only belongs to the behavior of private life.

The average age of village residents is too old, and most of the permanent residents in the village are middle-aged and elderly people over the age of 55. In addition to daily production (that is, farming, animal husbandry, etc.), more of these villagers' daily behavior is to talk in their own courtyard or public sitting-out areas, as well as aimless walking on the village road. Occasionally during the holidays, there will be a large-scale gathering of villagers to carry out national activities in specific open public spaces, such as Guozhuang dance.

4.3. The Present Situation of Spatial Layout of Villages

The village extends from the water bank to the hillside, and the houses distributed on the shore form the barrier of the whole village. Due to the lower elevation of the waterside, the buildings on the bank have less impact on the buildings on the hillside, and a number of architectural features are formed layer by layer.

The main driveway of the village divides the village into two, while other streets and lanes are connected to the main driveway and diverge to different areas of the village (**Figure 4**). Among them, the buildings near the road in the northwest and southeast of the main road are relatively new, and most of them have been renovated or rebuilt in situ, while the buildings in the farther area on the southeast side of the road are relatively old and scattered. Village committees, activity centers, health centers and other public buildings are distributed on both sides of the main driveway, along the road from the village entrance to the center. The houses in the village are centered on these public buildings and are arranged outward in the form of leaves and veins. Farmland is interspersed



Figure 2. Schematic diagram of canal in Dasang Village.



Figure 3. Corn, one of the main crops.



Figure 4. Schematic diagram of main traffic layout in Dasang Village.

between various houses, which not only separates different levels of buildings, but also leaves room for private activities for each house. The farther away from the village public buildings, the more scattered the residential distribution, and the larger the surrounding farmland area.

Several orchards are scattered on the hillside on the periphery of the village, and the orchards are separated by primary vegetation; the periphery of the orchard is the taller primary alpine forest.

5. Analysis of Public Space in Dasang Village

Dasang Village, as a typical traditional settlement of ethnic minorities in western Sichuan, is also called Dasang Zangzhai by Danba locals. Therefore, Dasang Village not only has the unique public space of the Tibetan village, but also has some unique public space because of the topography, production and life and other factors.

5.1. Summary of Main Public Spaces in Dasang Village

According to the field investigation, excluding the open space without obvious public space function, the number and scale of public space and facilities in Dasang Village can be summarized into the following table (Table 1).

5.2. Analysis on the Function of Public Space in Dasang Village

According to the above summary of public space, the public space function of Dasang Village can be divided into two types: one is the public space with production-related functions, which is also the most characteristic public space in Dasang Village; the other is used as a place for activities or parties.

The public space for producing related functions is the waterwheel mill (Figure 5). A single waterwheel mill covers a small area and is set up above the water body of the village. The mill is divided into two layers, the lower layer overlaps with the waterway, and the water wheel shaft extending from the upper layer connects the upper and lower layers. The main materials for the construction of the mill are stone and wood, all of which are made of local materials, and the surrounding walls are made of stone to increase the stability of the mill. The middle wall is composed of wood to reduce the load on the floor above the waterway and prevent the floor from collapsing. The lower water wheel is placed in a separate waterway, which is a secondary waterway separated from the main waterway, where the flow is controlled through the gate and is cut off when not in use. The upper side of the mill is connected with the road, which is convenient for users to get in and out; the top of the mill is still equipped with the same white stone as the local residence. After a local visit and investigation, the main crop in the village is corn. After harvest, part of the corn will be ground with a water wheel and used to raise livestock.

Among the public spaces for other activities or gatherings, there is a relatively special one, that is, Guozhuang Dance Square. The Guozhuang Dance Square in Dasang Village is located in an activity area in the center of the village, and some street fitness equipment are arranged around it, and the activity floor is paved with irregular slates (Figure 6). The “Guozhuang” set up in the center of the venue is the biggest difference between this venue and other public activity

Table 1. Summary of main public spaces in Dasang Village.

Name	Scale (m ²)	Quantity
Water wheel mill	2*2	3 - 4
Guozhuang Dance Square	Irregular, about 400	1
Village committee and activity ground	Irregular, about 800	1
Health centres and activity grounds	Irregular, about 600	1

**Figure 5.** Water wheel mill in Dasang Village.**Figure 6.** Guozhuang dance square.

venues. In a large number of ethnic groups, there is the concept of “Guozhuang”, most of which have the same meaning, which refers to “reunion and song and dance” [6], as well as Dasang Village and its surrounding areas. “Guozhuang” is the name of the nation with Guozhuang culture, which is actually set up in the outdoor fire pond. The form of “Guozhuang” in Dasang Village is a square fire pond, which is about 1 m long and 0.3 m deep, and the top is the same metal frame as the fire pond set in the room. Generally speaking, when the villagers gather to do the pot dance, the fire pond will be ignited. Generally speaking, the activity of the pot village dance lasts about three hours, during

which the flame in the fire pond keeps burning. Other activity spaces are composite functions, set in the courtyard of public buildings, and the site has indoor activity space. There are a variety of sports grounds with different functions, including but not limited to basketball courts, table tennis courts and so on, which are generally used for daily leisure activities of residents in the village. However, according to the specific situation of the investigation, the frequency of use of these sites is low, and the gate of the courtyard is usually closed.

The newer regional public space in the village has reasonable distribution and rich functions, which can meet the needs of various activities in the daily life of the villagers. In the older areas of the village, the public space is relatively scarce, the traffic situation is poor, the environment is also more primitive, and the boundary between cultivated land and primitive woodland is not obvious. According to visits and observations, the older areas have no trend of transformation for the time being, and still remain in a state of scarcity of public space.

Generally speaking, except for the waterwheel mill for production services, the other major public spaces serve the physical and spiritual needs of the daily life of village residents.

5.3. Inspiration and Optimization of Public Space in Dasang Village

Dasang Village, as a more primitive traditional village with agriculture as the leading industry, its public space tends to serve local residents. Compared with the traditional villages dominated by the tertiary industry (mainly tourism), the nature and function of public space are more simple, and the related facilities are more concise. There are few commercial services in the village, only 1 - 2 private small shops similar to daily grocery stores, and all of them are located on the first floor of their own houses, which do not belong to public space in terms of space classification. In addition to the basic functions, leisure activities and sports functions and space, the village committee also has a mini public security station, which is responsible for the management of public security within the village and the supervision of production and life safety. In the courtyard of the health center, apart from the basic functions of the hospital and the activity space in the courtyard, a micro fire station has been set up at the exit of the courtyard to prevent and solve the hidden dangers of fire control in the village. From this, it can be concluded that the function of the public space in Dasang village is simple, and apart from the daily leisure space of the villagers, other spaces and functions are related to safety prevention, and are more complete, and the village security awareness is high. The main public space of the village is directly connected with the main traffic roads in the village, and the sign is obvious and easy to use. Dasang Village has obvious spatial zoning, which can be distinguished by the preservation of the building and the form of the building.

However, at present, there are still several non-private and non-agricultural open spaces in Dasang Village, which can be used to transform them into public spaces lacking in the village, such as education-related spaces (libraries, etc.).

Although Dasang Village has high vegetation coverage due to its geographical location, there are still artificial green spaces in the village. these public green spaces are so numerous and scattered that they can not be used effectively and are limited by area and small in scale. can not reflect the various functions of green space.

6. Conclusion

As a typical valley-shaped village in western Sichuan, while Dasang Village has a public space similar to that of the same type of village, it has also improved and optimized part of the public space and improved the more primitive public space, thus improving the quality of daily life of local villagers and enhancing the richness of their spiritual life. Its unique public space is gradually developed after adapting to the production and life mode of the village, and plays a role in improving and promoting the production activities of the village, forming a virtuous circle of the function of the public space. Compared with similar villages, without changing the original traditional architectural structure and original environment, Dasang Village has invested certain resources in the transformation and optimization of public space and paid attention to the environmental quality of the village. It points out a direction of modernization of traditional villages in ethnic minority areas.

Conflicts of Interest

The authors declare no conflicts of interest.

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