

Study on the Strategy of Rural Planning and Design under the Background of Regional Culture

--Take Lijianyuanzi, Tangchang Town, Pidu district as an Example

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Abstract: Fei Xiaotong pointed out that the essence of Chinese society is rural, so it is of great significance to study the connotation of rural culture for rural understanding. Based on the exploration of the potential value and function of rural regional culture and the interpretation of the methods of rural planning and design, this paper makes an on-the-spot investigation of Lijia yard, summarizes the problems and contradictions existing in the six aspects of industry, road, space, function, architecture and landscape of Lijia yard, and combines the protection of rural regional culture with rural planning and design. Combined with this, the development planning strategy suitable for the revitalization of lijianyuanzi village is concluded.

1. Introduction

The countryside is mainly engaged in agriculture, the population distribution is more scattered than the town, is a dynamic development organism. The material wealth and spiritual culture that people have created, precipitated and improved in this organism are called rural traditional culture. It represents the cultural connotation, ideology and morality of rural society[1]. Villages in different regions have different material and non-material cultural heritages, with strong national identity and historical continuity, so they are called regional culture. This culture often permeates the material environment and spiritual field, and acts on the production, life style and ideology of local people, which makes the villages have typical characteristics different from other villages [2]. Understanding the meaning of rural regional culture is helpful to the construction of rural culture and community governance [3]. The protection and inheritance of rural regional culture plays an important role in human cultural heritage and characteristic rural construction. For a long time, China has paid attention to urban planning, neglected the development and construction of rural areas, resulting in the obvious dual structure of urban and rural areas. Moreover, the rural planning has always followed the system of urban planning, only focused on the pursuit of modern life style, passively embedded in the track of urbanization, one-sided pursuit of urbanization at the material level, ignoring the regional and cultural characteristics of different villages, underestimated the potential role of rural social and cultural values, which makes it difficult for the rural space construction to resonate with the local villagers emotionally. The lack of rural regional cultural resources, the decline of rural public culture, and the imperfection of rural cultural space organization [4], make rural planning “one side of a thousand villages”, lack of place spirit, and make people have a serious sense of space loss [5].

2. Interpretation--elements and Strategies of traditional historical and cultural rural planning and design

Rural planning and design includes many contents, including different levels of rural space construction from the macro rural master plan to the micro plot detailed design, as well as the planning and design integrating architectural design and landscape design. The countryside has gathered a lot of regional culture and the nostalgia of generations. The rural planning and design under the background of regional culture is not only a purely cultural protection and inheritance

problem, but also a need to grasp the spatial form and economic business form of the countryside as a whole, comprehensively renovate the spatial environment, comprehensively improve the social value of the countryside, give full play to the catalyst effect of regional traditional culture, and make it as a rural space The basis of the order organization and planning, and the shaping according to the situation, let the inherent culture of the village flow in every part of the village, and pay attention to the psychological feelings of the villagers and tourists brought by various design spaces. It is necessary to excavate the connotation of regional culture one by one from six elements of industry, road, space, function, architecture and landscape, transform abstract regional culture into specific material form, plan and design around the reproduction of added value of regional characteristic culture, and implement different planning and design strategies for different aspects.

Table 1 Elements and Strategies of Rural Planning and Design

factor	strategy
industry	Mining industrial characteristics and developing economic benefits of cultural sites
Road	Combing and integrating the structure, connecting the public cultural space and improving the connectivity
space	Construction of spatial pattern, continuity of cultural space and complete sequence
function	Multiple functions are superimposed and “three lives” are integrated to derive cultural value
Architecture	Unity of construction form, combination of traditional regional culture and modern spirit
Landscape	Control of rural style, display of historical and cultural connotation and return of places

2.1 Industry--Feature Mining

One of the key points of Rural Revitalization is the integrated development of various industries in rural areas. Agriculture is the basis of human survival and development, and the cultural industry with rural characteristics can guide and promote the revitalization of agriculture, ecological environment and other aspects. Promote the integrated development of various industries, build a “agriculture+” multi-dimensional agricultural garden complex, develop the integrated industry of culture and tourism, promote the flow of urban and rural elements, realize the complementary advantages of various industries, and vigorously create “one village, one product”.

2.2 Road--Structural Carding

Rural road is the link between the country and the city, but also the connection of the internal space of the village, which is closely related to the development of the village. At present, most of the rural traffic conditions in China are complex, the road quality is low, and the connection degree is not high, which is not conducive to the construction of the overall rural morphology and the development of the industrial economy. In the planning and design of rural roads, we should selectively reserve valuable roads and increase or decrease roads, so as to connect various public communication spaces, develop their overall spatial context, and pay attention to the continuity and integrity of cultural space.

2.3 Space--Pattern Construction

Whether urban design or rural design, spatial form is one of the core elements. Every rural space has its unique characteristics which are different from other rural space forms. Rural space is the carrier and element of regional traditional culture. It is not only abstract and does not exist in a specific material, but also the embodiment of various rural material elements. At the macro level, the rural cultural heritage space is the determination of the pattern, geomancy and image of the village. At the macro level, it focuses on the continuation of the traditional topography and landform, the texture of the village, the traffic trend, and the land use. At the micro level, the inheritance of rural cultural space is the shaping of important nodes. The continuity of different space boundaries and the organic integration of different spaces play an important role in shaping an organic and unified rural space form.

The spatial design of traditional cultural villages should first consider the preservation of the pattern of traditional villages, continue the texture of villages, and take key cultural protection areas as the center of rural cultural heritage, such as cultural sites area, etc. the outer spatial interface

shape should correspond to the center, so that the space has a good sequence and integrity.

2.4 Function--Multivariate Superposition

The three most basic and important functions of the countryside are production, life and ecology. The realization of the function is based on the spatial scope, which is conducive to the realization of the sustainable development of the countryside by clarifying the material production space, social life space and ecological conservation space of the countryside [6]. Under the background of rural revitalization, the focus of rural construction has shifted from material renewal to comprehensive rejuvenation of functions [7].

The rural construction from the perspective of regional culture must also fully reflect the three main functions of the countryside, and at the same time, in line with the principle of functional combination, integrate into the value of traditional culture, derive more functions. Based on the agricultural production function, we will develop diversified business forms with cultural heritage value, such as rural leisure and sightseeing, characteristic residential experience, etc.

2.5 Architecture--Formal Unification

Traditional buildings in rural areas not only play a residential role, but also have the function of displaying the traditional culture with rural characteristics. However, at present, the urbanization of rural buildings is characterized significantly, and the destruction and lack of traditional buildings means that the carrier of cultural heritage inheritance is lost [8]. The design of rural architecture needs to consider the style, color, material and so on, which has a direct impact on the overall construction of rural style. For the existing traditional buildings, it is necessary to decide whether to dismantle or maintain them according to their construction quality; for the new buildings, on the basis of meeting the basic functional requirements of the rural buildings, it is necessary to apply the abstract rural traditional cultural symbols to the formal style or material structure of the buildings, show the regional cultural characteristics, protect and inherit the local history and culture.

2.6 Landscape --Style Control

Different natural resources, economic conditions and human life styles in rural areas have created many cultural landscapes, showing the distinctive traditional cultural characteristics and charm of rural areas. However, at present, the cultural landscape in rural areas is threatened by fragmentation, urbanization, commercialization and so on [9]. Based on the perspective of regional culture, rural landscape planning and design should first study the uniqueness of its landscape, resolve the conflict between protection and development, and pay attention to the protection and management of rural cultural landscape. In the construction of rural landscape, we need to consider how to transform abstract culture into landscape entity, and at the same time, we need to continue the original rural traditional style. The design should strive for high permeability and harmonious coexistence with nature.

3. Application--Planning and design strategy of Lijia yard, TangChang Town, Pidu District, Chengdu

Farming culture is a kind of traditional culture, which is formed by farmers' production and life in a long-term agricultural society. Farming culture is the most extensive cultural type in Chinese traditional culture. the earliest birthplace is Bashu region. The study of Bashu farming culture is of great significance to the modernization of traditional farming culture and the revitalization of rural areas. Linpan in Western Sichuan is a unique rural residential form formed by the organic integration of farmyard and surrounding natural environment such as trees, bamboo forests, rivers and the most peripheral cultivated land. As a living fossil bearing 4000 years of agricultural civilization in Western Sichuan, Linpan is an important agricultural cultural heritage and a unique one among the six scenic spots of "wind, forest, water, field, yard and road" in Bazi, Western Sichuan.

This study chooses Lijia yard, TangChang Town, Pidu District, Chengdu City as the planning

and design object. The village is a typical farming culture and forest protection village in Chengdu Plain, with profound regional traditional cultural characteristics. In 2019, it was selected into the 16th historical building protection list of Chengdu. The plot covers an area of 2.37 hectares, facing Pengzhou City across Baitiao River in the north, Dujiangyan City in the west, tangyuan town and xinminchang town in Pidu District in the East and ande town in the south. Relying on the characteristic farms around Baitiao River and the ancient Shu cultural heritage line, the site has a strong accumulation of farming culture and is an important forest landscape node on the Bashu farming cultural axis.

In recent years, due to the impact of urbanization, the traditional architectural style of Lijia yard has been damaged, a large number of population has been lost, and the industrial structure is single. According to the survey, most of the buildings in Lijia yard are similar to those in urban buildings, which are “square boxes” of concrete structure, and the architectural design is extremely irregular. At present, the population in the village is mainly the elderly, the labor force is low, and the rural vitality is seriously lacking. The benefits brought by traditional agricultural production are very small. The historical and cultural sites just unearthed are in a state of no protection and no development Rural capital needs to be revitalized.

In the context of rural revitalization, the preservation of rural regional culture is particularly important. In recent years, Chengdu has been actively building new rural communities, encouraging farmers to live together, protecting and using forest and disk resources, showing the unique style of forest and disk farmers living in Western Sichuan, improving the living environment in rural areas of Chengdu, building new urban and rural forms, and promoting the coordinated development of urban and rural areas. As a combination of Bashu farming culture and Lin pan culture, Li jiyuanzi should also actively explore the direction of rural development in the future under the influence of strong regional cultural characteristics, so as to determine the content and strategy of rural planning.



Fig.1 Current Situation of Residential Buildings

3.1 Industrial Strategy

“Industrial prosperity” is one of the basic requirements of Rural Revitalization Strategy, and also the basis of rural economic development. Agriculture is the industrial foundation of Lijia yard, and its traditional farming culture is also produced in the process of agricultural production. Traditional farming culture came into being in the past and exists in the present. At present, the main problems are the adaptability between the original culture and the development of modern civilization, as well as the separation of the protection and inheritance of agricultural production and traditional culture. In the planning and design, we should fully stimulate the multiple values of traditional farming culture, develop the “agriculture +” industrial linkage mode, run through the cultural industry, tourism industry, health care industry, etc. in the basic industry agriculture, we should promote the sales of agricultural products with creative design of agricultural products, traditional handicraft production, agricultural culture experience, forest sightseeing and leisure, etc., and form a complete heritage of traditional farming culture And protect the industrial chain to achieve industrial integration. This way of unifying the cultural value of rural regional cultural resources with the

economic value of the secondary and tertiary industries is conducive to the protection and increase of traditional regional culture. The revitalization of industry can also change the population structure of the village to a certain extent, attract the young people in the village and the investors in the city to build the village together and increase their sustainable development ability.

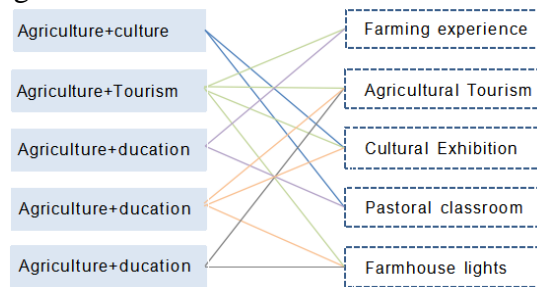


Fig.2 “Agriculture +” Industrial Linkage Mode

3.2 Road Strategy

At present, the current road density of Lijia yard is low, the connection degree of public space is low, and there is no good sight corridor. The roads are generally narrow and inconvenient to drive. In the planning and design of the road, the main village roads of the original road are retained, and the network structure is adopted, which greatly connects the public space. The flow of people is well guided which increases the accessibility of important cultural node areas. Distinguish the grade of the road, determine the width of the road and the material of the road according to the demand. The main village roads have been widened in the plan, and the ecological greenway of the neighboring village, Zhanqi village, has been extended, with the functions of walking and riding increased. Waterfront trestle is built on both sides of the river to make full use of natural water resources and create waterfront landscape. It focuses on the planning and design of the field trail in a large area of arable land in the north of the plot, which divides the arable land into rectangular fields with smaller scale, so as to provide tourists with the space to experience the traditional farming culture, experience the natural scenery in the field, and change various shapes to increase the plot's interest. At the same time, it can also plant different crops in different fields according to the season to form the land landscape.

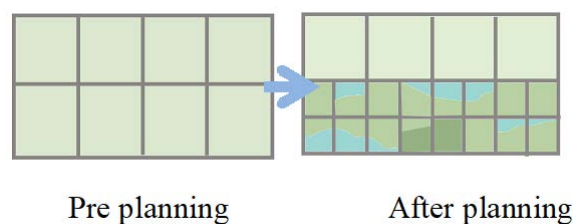


Fig.3 Planned Road(source: self drawn by the author)

3.3 Space Strategy

At present, the main problems of site space are the separation of traditional farming cultural space from production and living space, and the lack of public space. This plan attempts to carry out the spatial planning and design from the perspective of the high efficiency of the rural production space, the comfort of the living space and the integration of the beauty of the ecological space, so as to solve the interactive relationship and related response between the different spatial elements of the “three living” space. The coordination of these spaces helps to enrich the sense of spatial hierarchy.

The purpose of living space is to activate the public activity space of Lijia yard, to achieve the purpose of cultural exchange and inheritance from the emotional shaping of human settlements. In the planning, the house is surrounded by three sides, and a large area of sun dam is left in the middle to meet the needs of villagers' production activities. In the courtyard, small vegetable fields for tourists to experience planting and picking are set up to beautify the living space and

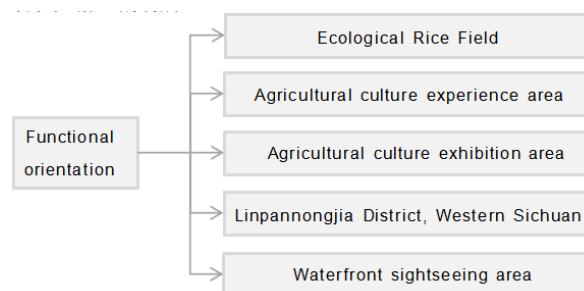
environment. Meanwhile, they also echo the cultivated land on the other side of the river, enriching the rural tourism activities and making the integration of agriculture and tourism closer.

The production space maintains the original agricultural production in combination with the ecological space, and penetrates with the living space, giving the villagers and tourists in the living space the opportunity to get close to the natural scenery and experience the cultural connotation, so that the traditional farming methods can be passed on inadvertently, and the regional cultural connotation radiates new vitality in the modern life.

3.4 Functional Strategy

According to the survey, the current functional division of the plot is vague and single, with only the functions of living and farming. It is concluded that Lijia yard belongs to the “atypical ancient village”, which can't rely on the only agricultural cultural sites to develop the traditional museum style heritage tourism way to develop the countryside, so it needs diversified function implantation [10]. In the planning, it refers to the functional orientation of TangChang construction control area, combines the future industrial development direction of the plot, fully penetrates the concept of cultural planning, and gives the site more diversified functions.

In the plan, the plot is divided into five areas, namely: (1) ecological paddy field area, rice, wheat and other economic crops are planted, and the basic farmland red line is strictly controlled to ensure the green and sustainable development of the primary industry; (2) agricultural culture experience area, based on the agricultural production function, increases the function of agricultural experience and land landscape display. Carry out activities such as traditional farming method teaching and rural picking, combine with modern civilization communication method, plant rape and other crops to form a pattern with regional cultural symbol, show the land landscape with the characteristics of farming culture and forest plate culture in Western Sichuan, and create an important node of farming culture communication; (3) farming culture exhibition area, to provide information communication and Carry forward the opportunity of inheritance, so that people can intuitively feel the charm and spirit of traditional farming culture. The core of the exhibition area is the agricultural culture museum group including the site, which integrates the functions of cultural site display, handicraft production and exhibition, agricultural souvenir purchase, etc. (4) The development of agritainment has laid a foundation for the development of agritainment. While retaining the traditional residence and culture of agritainment in Western Sichuan, it integrates into the tertiary industry, improves the villagers' own “blood production” ability, establishes agritainment and parent-child amusement park, realizes the diversified development of industry and opens the pulse of rural economy To develop more diversified business types to meet the two-way needs of urban and rural development; (5) waterfront sightseeing and recreation area, as a transitional area of ecology and life, connects a large area of cultivated land and forest land residential area. The water system is not only used for irrigation and construction of ecological pattern, but also plays a role in increasing the flexibility of the plot. Create a comfortable waterfront space, and form a landscape view corridor with other landscape nodes in the site, providing a place for villagers and tourists to visit and rest.



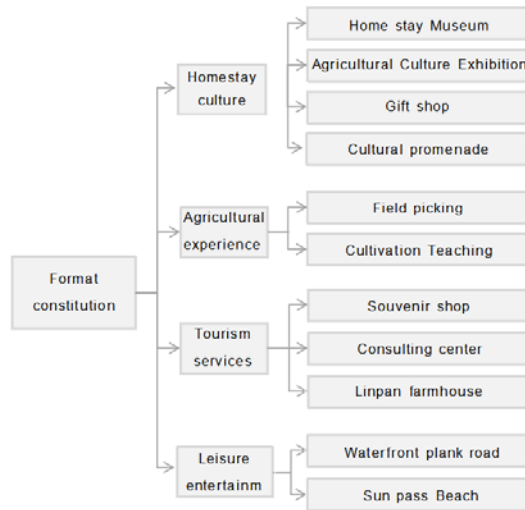


Fig.4 Functional Division of Planning Area

3.5 Construction Strategy

Through interviews and participatory observation, the villagers still hope to continue the current square house and are unwilling to live in high-rise buildings. The biggest demand is to have a big yard in front of the house, to be able to park and plant flowers and grass. Based on this demand, to ensure that the construction land does not increase, optimize the structure and shape of the building, so that it can adapt to the development of the industry and meet the needs of different functions. The plot is located in the forest landscape protection area of Western Sichuan. The style, color, material and interior of the building should conform to the traditional forest landscape of Western Sichuan. The planning and design of the residential building is one floor, which is an independent courtyard composed of main house, east-west wing house and south house, with the courtyard as the center to organize the architectural space. The structure is a through bucket wood structure, which is suitable for rainy and humid climate in Western Sichuan [11]. The street space is defined by architecture, which makes the streets flexible and changeable. Enclose the yard with fences, gravel, plants, etc. As we all know, Chengdu people's "slow life" is also a different cultural landscape. The courtyard surrounded by buildings has become the best choice for people to chat after dinner. Build a pot of tea and taste life in the courtyard surrounded by bamboo forest. This kind of spatial layout is more conducive to the communication between neighbors and makes the countryside more human.

Table 2 Architectural Design Guidance

Architectural style	Based on the architectural style of forest plate in Western Sichuan, the combination of forest plate culture and agricultural culture is realized by refining the architectural vocabulary of agricultural civilization. The main elements such as sloping roof, through bucket wood structure and small cross-section of beams and columns are interpreted by modern means and the current situation of a plot.
Architectural color	According to the provisions of Chengdu architectural design guidelines (2013), new and reconstructed buildings are mainly gray. The building color of the plot is mainly light gray and white, and the saturation should not be too high, forming a simple and elegant rural style.
Building material	It mainly adopts the common bamboo, wood, sand and stone in Western Sichuan, and takes local materials as far as possible to form the traditional architectural effect.
Building facade	The adoption of appropriate and relatively consistent proportion and scale is the continuous unification of the facade along the street, and at the same time, it is necessary to avoid the consistent undulation of the building contour, which makes the building group lack of vitality.

3.6 Landscape Strategy

At present, lijianyuanzi still retains the features of some original forest plates, but the effect of landscape formation and the visual experience of tourists are poor. In the process of landscape construction, we should pay attention to the preservation of the basic form of forest plate, improve the visual experience of landscape, and coordinate the joint effect of various landscape elements

from point to surface [12]. We will shape the “four in one” of residence, garden, water system and culture, form an ecological and cultural landscape network as a whole, realize the integration of “mountains, water, fields, villages and houses”, and form a harmonious landscape system of “replacing mountains with forests”, “symbiosis and boundless” and “integration of scenery and villages”.

Relying on the road to organize the important node space and form the green vein of the village tour line, add the landscape elements with the connotation of farming culture in the important node space, and upgrade and transform the road surface and the landscape on both sides of the road. The important node space encourages the setting of landscape walls and sculptures representing the farming culture to form the characteristic identity of the block and enrich the activity space of the neighborhood. The local eco-environmental protection materials should be used for pavement, the functions of the road should be defined by different materials, different textures and different assembly collage forms should be used to activate the space and enrich the effect. In the design of street furniture, such as garbage cans, lamps, signs and other facilities, we should fully integrate the characteristics of regional traditional culture, and adopt wood or stone materials to reflect creativity and original ecology.

4. Conclusion

It can be seen from the practice of cultural planning in lijianyuanzi rural planning of TangChang town that the multi angle excavation of regional culture and systematic cultural carding and analysis provide an important foundation and basis for rural planning. On this basis, cultural infiltration is carried out to construct rural planning strategies from industry, road, space, function, architecture and landscape, highlighting characteristic agriculture , farming culture, rural tourism, leisure and vacation in a comprehensive rural area with forest plate characteristics in Western Sichuan, forming a characteristic brand. To solve the problem of regional culture protection and inheritance in rural planning.

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