

Study on the Problems and Countermeasures for the Protection and Renewal of Tiled Houses in the Construction of Yi Family New Village

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Abstract: The Liangshan region of Sichuan Province is the largest concentration of the Yi ethnic minority in the country, the poorest ethnic minority region, and one of the main battlefields in Sichuan's war against poverty. In order to win the battle against poverty and achieve rural revitalisation, the Sichuan Provincial Party Committee and Provincial Government have put forward the "Yi New Village" project, which focuses on the construction of new houses with ethnic characteristics and the promotion of a new civilised and healthy life. The construction of Yi Family New Village has improved the living conditions of the Yi people, changed the infrastructure of the Yi area, promoted the economic development of the Yi area, and enabled the Yi people to lead a happy life. However, there are also many problems in the construction of new Yi settlements, this paper discusses the issue of updating and protecting the typical dwellings of the Yi ethnic group called "tile-board houses" in the context of "clothing, food, housing and travelling". This paper discusses the problems of renewing and protecting the typical dwellings of the Yi ethnic group called "tiled houses", and then proposes corresponding countermeasures.

Keywords: Yi Family New Village, Rural Revitalisation, Tiled Rooms, Xiaoliangshan.

1. Introduction

In February 2018, General Secretary Xi Jinping went deep into the hinterland of Daliang Mountain to investigate the fight against poverty, and he stressed that fighting the war against poverty is one of the three major battles put forward by the 19th CPC National Congress, which is of great significance to building a moderately prosperous society in all aspects as scheduled and realising the Party's first hundred-year goal; we should be aware of and grasp the arduousness of the tasks facing us in winning the war against poverty, and be aware of and grasp the salient problems in practice and the urgency to solve them, so as not to relax, not to stop, not to slacken off, and to improve the quality of the poverty eradication process, focusing on the impoverished regions, and to take the war against poverty forward in a solid and practical way[1].

The Liangshan region of Sichuan Province is the largest Yi ethnic minority area in the country, the poorest ethnic minority area, and one of the main battlefields of Sichuan's war against poverty[2]. The Sichuan Provincial Party Committee and Provincial Government have formulated the "Ten Poverty Alleviation Projects in the Liangshan Yi Region"[3] as a general plan to win the battle against poverty and to build the infrastructure for rural revitalisation, thereby realising the revitalisation of the countryside. Among them, the Yi Family New Village project is in the first place. Since the "three houses" transformation from the Yi family new village in 2010 after the pilot, 2011 full implementation of the construction. 2016, Liangshan Yi family new village construction invested nearly 5.55 billion yuan of financial special funds for poverty alleviation at all levels of the province, state, county, Yi area 10 counties to implement projects covering 1048 villages, 65,524 households, directly benefiting More than 300,000 people have been documented as poor, and more than 1.01 million farmers, including non-poor people, have shared roads and other public welfare

projects in their villages.

The construction of Yi family new villages is directly related to the personal interests of thousands of households, and directly related to the poverty alleviation and leapfrog development of the Yi region. Nowadays, the Yi family new village has been like a spring like in Liangshan, a new Yi village and the blue sky and white clouds reflect each other, the new village spacious village roads interlaced connected, clean and tidy residential villagers smile, the villagers said goodbye to the stereotypes of the past, began a new healthy and civilised new life in the Yi region (Figure 1). However, there are also many problems in the construction of Yi new villages, this paper discusses the issue of renewal and protection of typical Yi dwellings "tile-board houses" in the "clothing, food, housing and transport" of "living", and then This paper discusses the problems of renewing and protecting the typical dwellings of the Yi ethnic group called "tiled houses", and then proposes corresponding countermeasures.



Figure 1. The Beautiful Yi Family New Village

2. Conceptual Definition

2.1. Temporary housing built with tiles

There are no lofty and majestic temples, shrines and tombs in Yi architecture, and what expresses its architectural craftsmanship is the unique style of residential houses - tile-panelled houses (Figure 2). Liangshan's architectural

dwelling are very subtle, can be said to be unique, mainly in the following aspects [4]: First, where the Yi craftsmen, no drawings before repairing the house, all based on experience and the master's family requirements to build the house; second, the beams and a variety of through the square, the arch and other decorations are assembled on the ground after the choice of auspicious days in a day on the whole on the column; third, the entire house composition is all through the square, the arch, do not use a nail, and do not use a bit of adhesive; fourth, the decorations of the tiled house, the tiled house is unique. Fourth, the decoration is exquisite, most of the eaves are hanging cow horns and wall partition patterns, which looks very beautiful. The eaves of the tile-board house under the pendant columns and partitions are also carved with a variety of patterns to show that the evil spirits, wall partitions with inlaid strips and mounted board mortise and tenon set.

Monolithic tiled houses are usually single-storey buildings of "one character" type, supported by a unique "product frame" structure [5], forming a large volume of architectural space, with a two-storey attic in the interior part, and an open space in the centre, usually the hall. The Yi people are still left-winged, and the fire pit is placed on the left side of the hall, the main bedroom space is arranged next to the fire pit, and the right side of the hall is the storage space. Wooden boards were used as tiles to cover the roof, and gravel was used to prevent the roof from being blown away by the wind. The "herringbone" shape of the roof was interlaced to form a ridge with light slits, which was the most characteristic feature of the tiled houses [6]. The light yellow wood and yellow earth rammed walls blend perfectly with the local environment. The diasporic tile-panelled house settlement is inlaid with green irregular fields between the built-up areas, constituting a green backdrop for the settlement, with a flexible field layout, usually planted with vegetables.



Figure 2. Tile boarding house structure plan

2.2. New Yi family village

The Yi New Village is a poverty-alleviation project featuring new rural construction in the large and small Liangshan Yi settlements. As the name suggests, the Yi family new village is the construction of new homes for the Yi people, mainly through the construction of demonstration sites, in the poverty-stricken Yi settlement villages to focus on new construction or to build new homes with national characteristics, and advocate a new civilised and healthy life in a way that radiates to the surrounding ideas for poverty alleviation and assistance [7].

The construction of new villages for the Yi families is a systematic project, and poverty alleviation and development, with the construction of new villages for the Yi families as its content, is a model for the Party and the State to carry out

poverty alleviation work in ethnic minority areas, as well as for the construction of new rural areas in ethnic minority areas. Poverty alleviation in the Yi ethnic minority areas of the Greater and Lesser Liangshan Mountains, through the efforts made during the 10th and 11th Five-Year Plan periods, has brought about changes in the outlook of many villages in the Yi ethnic minority areas. The construction of new villages of Yi nationality has improved the living conditions and infrastructure of the Yi people, promoted the economic development of the Yi region, and enabled the Yi people to lead a happy life [8]. In the past, the old dilapidated houses and dirty and poor old environment are now changing into a new look. Party committees and governments at all levels in Liangshan Yi area closely focus on the main theme of "enriching and benefiting the people, improving people's livelihoods", and strive to implement the "three-house" renovation, new village construction, migrant poverty alleviation and other projects, which have greatly changed the Yi area's poor living environment, poor living conditions, and poor transport conditions. The backwardness of the Yi area has been greatly changed by the poor living environment, poor living conditions and poor traffic conditions. Nowadays, the highway has led to large and small Yi villages, the people's houses are bright and spacious, the public welfare facilities in the villages are complete, the environment is more beautiful, and the appearance of the villages is more neat and tidy [9]. Many Yi villages show a new style of "green mountains and green water from afar, beautiful villages close by, neat and hygienic villages, orderly houses".

3. Problems of Residential Houses in The Construction of Yi Family New Village

3.1. Old residential building materials are old

Most of the residential buildings in Liangshan were repaired before 70 years ago, and the timber was not properly treated against moisture during the pre-construction period, and the wooden structures in the buildings have been mouldy and rotting (Fig. 3), which is a hidden danger, and at the same time, due to the economic backwardness of the mountainous regions and the lack of knowledge about seismic protection and disaster prevention, the current existing buildings are all suffering from seismic deficiencies.



Figure 3. Building materials for tiled roofs

3.2. A large number of empty rooms in the new Yi Family Village

Xiaoliangshan in the housing construction planning to Yi cultural characteristics as the basis for the construction, taking into account the protection of its unique ethnic culture, in the area of the basic to meet the basic needs of residents, but part

of the unified planning of self-built housing design inconsistency leads to the appearance and quality is difficult to guarantee, while for residents living in the high mountains in accordance with the unified design pattern of the construction of the construction of a new house is difficult to be built, which a series of problems lead to the existence of a large number of Yi family new villa This series of problems has led to the existence of a large number of empty houses in the new villages of the Yi family. Scholars Song Yucheng and Yang Xiaochuan pointed out in "Analysis of the Construction Effectiveness and Problems of "Yi Family New Village" in Xiaoliangshan Region" [10] that according to the survey data, 41% of the residents think that the household structure of the Yi Family New Village is poor and the construction of the house is imperfect, and 30% of the residents think that the houses are poor in ventilation, lighting and moisture-proofing, and it is difficult to guarantee the quality of the houses constructed according to the unified construction design pattern. The houses constructed under unified planning have problems such as poor quality assurance and leakage in rainy days. Meanwhile, in the construction of new villages, these villages are planned in accordance with urban neighbourhoods, which looks neat and tidy but has destroyed the places for people to socialise and changed people's traditional way of life. The new building technology and new materials used in the construction of new villages have sidelined the original Yi architectural methods, and the architectural crafts with local Yi characteristics are gradually being lost and dying out, which is not conducive to the inheritance and development of the national architectural culture [11].

4. Causes of Problems with Tiled Rooms in the Construction of New Yi Family Village (Yijiaxinzhai)

4.1. Rough planning for Yi Jia Xin Zhai

In the construction of the new Yi family village, there are cadres and masses of the project's knowledge and understanding is not in place, the enthusiasm of the masses to participate in the construction of the project has not been fully mobilised [12]. In the process of construction of new cottage, too much attention is paid to the "quantity" of the construction, and the planning and design of the style shaping and theme highlighting are not reasonable, and the construction of houses, no matter whether it is in-situ repair or unified construction, is to ask for a unified housing structure, without considering the regional characteristics and the actual needs of the residents, and lack of individuality. The decoration style and house layout of each cottage construction are the same, reflecting the local characteristics of the elements into the insufficient, in some details of the processing is not fine enough, resulting in the Yi family new cottage is not fully combined with the local natural environment, part of the village is not enough to highlight the theme after the completion of the cottage, the characteristics of the village is not distinctive [13]. The construction of houses does not take into account the ideas of the residents, and they cannot meet the needs of the residents in terms of living, which in turn leads to the emergence of empty houses.

4.2. Low quality of construction subjects

(1) Poor living habits. The ecological livability of the Yi Family New Village is closely related to the functional

upgrading of rural infrastructure. Poor traditional cooking and hygiene habits, such as villagers still burning wood for cooking, not flushing toilets, not changing clothes, littering, etc., have caused conflicts with the original residents of the resettlement site from time to time, and some villagers have expressed dissatisfaction. Farmers generally lack of environmental awareness, that the pressure of electricity is too much, the fire pit burning wood for cooking is convenient and cost-effective, can save electricity, although the price of electricity is lower than the city price, but still expressed dissatisfaction [14].

(2) Ideological backwardness. In Liangshan Yi area, due to the backwardness of the ideological concepts, in promoting the construction of new villages in Yi family, by the influence of local protectionist ideas, a small number of farmers in the ideological profit-oriented, not enterprising, specifically manifested in the government to put forward unreasonable requirements, sitting and waiting for the government's poverty alleviation policy, unwilling to let the professional construction team to enter the construction site, do not cooperate with the government in the acquisition of land, demolition and relocation of the work, or even to make profit from it, the emergence of a crowd of people to create a riot and block the project. and other irrational behaviours [15]. These bad behaviours are characterized by local protectionism, which increases the difficulty of government coordination and hinders the smooth progress of the construction work.

4.3. The rate of the building grant is too low

For the construction of new Yi family houses, the average construction cost per household is around 70,000 yuan, and based on the standard 20,000 yuan subsidy for new households, farmers need to raise at least 45,000 yuan to 50,000 yuan of their own funds, after deducting some of the sand, gravel and timber provided by the farmers themselves. In addition, most of the villages in the Yi ethnic area are remote, with high hills and steep slopes, dispersed dwellings, and the cost of secondary handling of materials accounts for about 20 per cent of the total investment in housing construction, making the cost of housing construction high. Some farming households in the Yi region have extremely weak family foundations, which, coupled with the high threshold for loans, puts pressure on self-financing.

5. Improvement Measures

5.1. Rational planning

First of all, in the design of the village, it must be in line with the local geomorphological features, and the design should try to let the texture of the village be preserved [16]. Each family leaves a certain amount of land in front of the door, but also for the villagers to leave some space for socialising and interaction, such as the central field dam and threshing floor, especially some buildings with original features of the village, such as water mills, etc., and it is necessary to appropriately plant green plants suitable for the local climate in the village, so as to make the village have a certain effect of greening. Secondly, if the village is rebuilt or reconstructed on the original site, it is necessary to listen to the opinions of the original inhabitants during the design process, and reasonably adopt the requirements for alteration or reconstruction put forward by the original inhabitants. In the process of reconstruction and rebuilding, the villagers'

living habits should not be violated, and no reconstruction measures should be taken against their wishes. Finally, in the repair of the village, if modern measures are to be introduced, these modern measures must not violate the layout and shape of the original village, to ensure that under the premise of not violating the architectural culture of the original village, and then carry out modernisation [17]. Designers can drive the development of the village through the construction of primitive village tourism projects, and to promote and protect the architectural characteristics of the village [18].

5.2. Changing villagers' attitudes

The key to poverty alleviation and development is poverty alleviation of the mind. The first and foremost task of doing a good job of economic and social development is to do a good job of cultural construction and cultural inheritance and development [19]. Taking comprehensive poverty alleviation and development and new rural construction as an entry point, the campaign for a new healthy and civilised life should be actively carried out to advocate and develop a modern and civilised way of life. While promoting material construction, equal attention should be paid to the construction of science and technology and culture to do a good job of poverty alleviation [20]. Combined with the reality of the construction of new rural areas in ethnic areas, not only to improve the construction of new Yi family houses, but also to pay more attention to the important position of science and technology and cultural construction, only to emancipate the mind, innovation and development, in order to get rid of poverty and become rich from the root, so as to independently participate in the construction of the new rural areas and the construction of socialist modernisation.

5.3. Improved management of funds

The large funding gap is a major problem in the construction of Yi family new villages. The funds invested by government departments are mainly used for housing construction, public places, roads in the village, infrastructure, education, industrial development, etc. However, the investment of funds is limited after all, and in the construction, a good and reasonable fund allocation programme will further reduce the construction cost, enhance the construction efficiency, and avoid the problems of duplicated construction and wastage of resources [21].

The construction of Yi new villages is mainly to help Yi people improve their living environment, improve their quality of life and promote local economic development. It is necessary to encourage the Yi people to start their own business and employment in the township and get rid of poverty on their own, instead of relying on the government's poverty relief subsidies. Government departments can increase the subsidies for Yi people to return to their hometowns for entrepreneurship and employment to encourage and guide Yi people to escape poverty on their own [22]. By providing certain vocational skills training for Yi people, the comprehensive ability of individual employment can be improved [23].

5.4. Tiled roofs updated to retain ethnic character

The protection and renewal of tiled houses should firstly be combined with the architectural and cultural characteristics of ethnic minorities. The spiritual beliefs and cultural practices of the Yi people have determined that their buildings are

different from Han dwellings in terms of layout and façade decoration. Although the Yi people like to use colours boldly and unrestrainedly in their costumes and paintings, for example, they use vivid red, yellow and blue for painting decorations, but in architecture, they are still relatively cautious about the use of colours, and the vivid paintings usually only appear under the eaves as embellishments [24]. Secondly, the materials should be locally sourced, locally sourced materials can reduce the transport cost of the materials, effectively reduce the tail gas pollution caused by transport, and protect the mountain environment. Finally, it is necessary to reasonably select the structural materials, the building structure is the skeleton of the building, is the force components, should meet the use of the building function and modelling. The stability of the building structure directly affects the safety and service life of the building [25].

6. Conclusion

As the highest form of traditional dwellings of the Yi people in Liangshan, the uniqueness of the tiled houses lies in the superb "wearing bucket" technique and the indoor and outdoor carvings and decorations of the rich ethnic style, which is not only a display of craftsmanship, but also a complex of ethnic customs. The construction of Yi Family New Village has invested a large amount of money to improve the living environment of the Yi ethnic group as a starting point, and has achieved good results, but in the implementation of its policies, there are still villagers dissatisfied with the phenomenon of empty rooms. In order to solve the above problems and promote the better protection and development of the tiled houses, this paper puts forward four strategies, which are: firstly, reasonable planning, and retaining the village texture as much as possible in the design; secondly, changing the ideological concepts and doing a good job in poverty alleviation; thirdly, improving the management of funds and reasonable distribution; and fourthly, updating the tiled houses to retain the ethnic characteristics. In addition, the Yi region should also seize the policy opportunities, inherit the Yi culture and customs, and explore a new path for the development of the characteristics of the traditional ethnic villages in the gradually disappearing traditional villages.

References

- [1] He Wanmin. The big and small Liangshan Mountains fight a new battle against poverty[J]. Sichuan Party Construction(City Edition), 2014(05):44-45.
- [2] He Wanmin. The Future of Yi District is Not a Dream--Side Story of Poverty Alleviation in Large and Small Liangshan Yi District [J]. Sichuan Party Construction (City Edition), 2015 (08):46-47.
- [3] Zhang Chongning. The size of the Liangshan Yi area "ten poverty alleviation project" overall programme introduced[N]. Liangshan Daily (Han), 2014-05-01 (A05). DOI:10.28542/n.cnki.nlsrh.2014.000593.
- [4] Bao Xiu. Research on the design of Yi characteristic style of modern farm houses in Daliang Mountain area[D]. Southwest University of Science and Technology, 2020. DOI: 10.27415/d.cnki.gxngc.2020.000114.
- [5] Cheng B,Liu Gaping. Research on the optimal design of the product frame structure of Liangshan Yi ethnic tile-board house dwellings[J]. Sichuan Research on Building Science, 2014, 40(02): 58-60.

- [6] Yang Zhiyu. On the Roots of the Difference and Connection between Liangshan Yi Minority Folk Houses and Honghe Yi Minority Folk Houses--Taking Tileboard House and Tupa House as an Example [J]. *Design*,2016(15):54-56.
- [7] Ma Jinwei. Investigation and Research on the Construction of Yi Family New Village--Taking the Construction of Yi Family New Village in Big and Small Liangshan Mountains as an Example[J]. *Journal of Southwest University for Nationalities (Humanities and Social Sciences Edition)*,2013,34(11):29-33.
- [8] CPC Leshan Municipal Party School Project Group,Zhao Qingyun. Current Situation Survey and Countermeasure Research on the Construction of "Yi Family New Village" in Leshan[J]. *Journal of Party School of CPC Leshan Municipal Committee*,2013,15(06):9-16.
- [9] Du Feixue. A new Yi family village in the depths of the big and small Liangshan Mountains[J]. *China Ethnicity*,2014(11):57-63.
- [10] Wang Denghui. Research on the Protection and Renewal of Typical Ethnic Traditional Villages in Yunnan [D]. *Yunnan Agricultural University*, 2017.
- [11] Wang Jingxing. Scientific Planning of New Village Construction Cracking the Bottleneck of Development in Yi Area - Research on Promoting the Construction of Yi Family New Village in Leshan City[J]. *Journal of Party School of CPC Leshan Municipal Committee*,2013,15(04):90-91+108.
- [12] Song Yuchen, Yang Xiaochuan, Tang Li, Ye Maoyu, Api Niangniang. Effectiveness and problem analysis of the construction of "Yi family new village" in Xiaoliangshan region[J]. *Modern Business Industry*, 2017(31):32-34.DOI:10.19311/j.cnki.1672-3198.2017.31.015.
- [13] Yu H. Research on Problems and Countermeasures of Yijia Xinzhai Construction in Poverty Eradication[J]. *Journal of Guangdong Administrative College*, 2019, 31(04):31-37.DOI:10.1397
- [14] 5/j.cnki.gdxz.2019.04.004.
- [15] Lu Xiaodong. Research on the problems and countermeasures in the construction of "Yi Family New Village" in Liangshan [D]. *Sichuan Agricultural University*, 2013.
- [16] Liangshan, Sichuan, "four moves to gather force" to build new villages[J]. *Rural Work Newsletter*,2012(11):63-64.
- [17] Yang Fengjiang,Li Zhengguo. Suggestions on the Construction of Modern Characteristic Folk Houses in Yi Zhou[C]//. *Proceedings of the Second Symposium on Yi Studies in the Adjacent Counties of Four Provinces (Regions) of Yunnan, Sichuan, Guizhou and Guizhou*. ,2011:242-247.
- [18] Li Shuangyi, Yang Zunzun, Ma Rongjiao, Lin Tao, Wu Junjun. Research on the traditional residential culture of ethnic minorities in Liupanshui area of Guizhou--Taking the Yi as an example[J]. *Residential Industry*, 2019(04):32-35.
- [19] Li Jin. New life in harmony with cultural tradition and modern civilisation[J]. *Sichuan Party Construction(City Edition)*, 2011 (09): 33.
- [20] He Wanmin. Liangshan: New life from "sitting on the bench"[J]. *Sichuan Party Construction(City Edition)*, 2011 (06): 42-43.
- [21] Li Changping. Deepening Rural Reform and Poverty Alleviation[J]. *Rural Work Newsletter*,2014(02):19-20.
- [22] Kang Xuan. Practical Exploration of Rural Revitalisation Strategy in Xiaoliangshan Yi District in Post-Poverty Eradication Era[J]. *Journal of Party School of CPC Leshan Municipal Committee (New Theory)*,2021,23(02):41-49.
- [23] Wu Bibo. Design Helps Rural Poverty Alleviation--Taking the Design of Yi Traditional Crafts in Xiaoliangshan, Sichuan as an Example[J]. *Art Observation*,2020(12):152-153.
- [24] Zhu Chengjing. Research on modelling and colouring of traditional dwellings of Liangshan Yi[J]. *Think Tank Times*, 2017 (12).