

Analysis on the Contemporary Chinese Rural Type Planning Exploration*

Hongyan Quan

Department of Architecture
College of Engineering
Yanbian University
Yanji, China

Guanghu Jin**

Department of Architecture
College of Engineering
Yanbian University
Yanji, China

**Corresponding Author

Abstract—China is an economic and agricultural power. The accumulation of production, society and families over thousands of years makes different rural areas have their own unique culture. Rural planning has become an inevitable product in the context of social progress and economic growth. However, a template is obviously not applicable to the needs of different types of villages. In the context of the new era, it is of great significance to explore the theory of rural construction suitable for the sustainable development of different types of villages. Therefore, to meet the needs of sustainable rural development, the operational theory of rural construction needs to start from the practical problems and challenges faced by rural construction and provide theoretical guidance for its own sound development.

Keywords—classification planning; characteristic agriculture; the beautiful countryside

I. INTRODUCTION

Against the background of building a new socialist countryside, raising farmers' income level, new-type urbanization strategy and building a beautiful countryside, China's rural construction faces different problems. This obviously requires us to explore new architectural theories that meet different development conditions in rural areas.

From the perspective of practice, the current rural construction practice shows a positive trend; the government, the organization and the farmer are all carrying on the exploration about the countryside construction from the different level, which has established the foundation for the construction countryside construction new theory. The urbanization trend in rural areas around the world is shown in the following figure. (see “Fig. 1”)

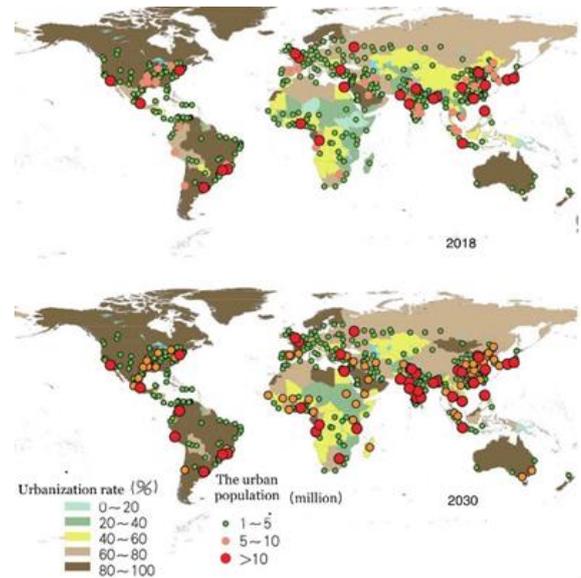


Fig. 1. The trend of urbanization in rural areas around the world.

^a (Data source: World Urbanization Prospects, UK, <http://esa.un.org/unpd/wup/>)

II. THEORETICAL CONSTRUCTION OF RURAL CONSTRUCTION UNDER DIFFERENT TYPES

Starting from the theory of construction, this paper divides contemporary villages into three different types: first, villages with small or scattered scales; second, villages with general scale and cultural deficiencies; third, villages that conform to beautiful rural construction. Explore the most appropriate planning methods and means for different types of villages, and provide an innovative theoretical basis for the current active rural construction practices. (see “Fig. 2”)

*It is supported by the 13th Five-Year Science and Technology Project of the Education Department of Jilin Province, China (project number: JJKH20180900KJ).

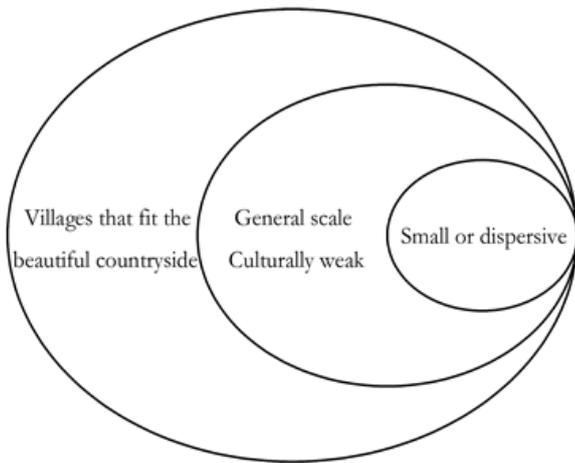


Fig. 2. Rural type.

A. Villages with Small Scale and Strong Dispersion

Such villages are mostly located in mountainous areas, and the size of settlements is a few households, with strong dispersion. This type of village cannot use the modern sense of planning model for rural construction. It is difficult to move the village to the same location. Considering the production and lifestyle of local villagers and the management of some fine products, moving the village to the same location will cause inconvenience to the production and management of villagers, and it is likely to damage the local regional characteristics and cultural context. At the same time, the living cost of villagers increases, and the disposal of homestead will increase the economic burden of the government. Therefore, the social, historical and cultural characteristics of traditional villages are not destroyed. Planning considerations include:

1) *Site location, site scope, building safety and landscape protection*: In such villages, there is no need to set specific requirements for household registration, but only to stipulate the general scope of land to meet the requirements of building safety and villagers' convenience. Such as building site selection to near field; clarify the red line of land use and construction line to determine the scope of land use and ensure the safety of buildings.

After the safety requirements are basically satisfied, consider the characteristics of rural landscape: rural morphology, farmland texture, iconic buildings and cultural landscape, etc. Through the analysis of the relationship between the elements and the surrounding environment, it is needed to determine the scope of protection and put forward targeted protection principles. It is also necessary to ask professional staff for construction guidance and clear management authority and make use of the abundance of natural remains to achieve vivid rural living space forms.

2) *Infrastructure construction*: In many lessons learned that people can know the importance of infrastructure construction in rural planning. First of all, it can quickly and directly improve rural production and living conditions, improve the living standards of farmers. Second, it is also an

effective means for external support forces to win farmers' trust quickly. At the same time, the rural government should advocate the joint construction of villagers. Stimulate the enthusiasm of farmers to participate in rural construction

Specific rural infrastructure construction can be carried out from the following aspects: first, to help the village form a circular chain of planting, breeding and biogas ecological agriculture and develop green agriculture; second, to construct of domestic sewage and garbage treatment stations, use modern science and technology to degrade and purify domestic garbage and sewage and recycle and reuse after reaching the standard, so as to ensure the living environment of modern rural areas; third, to promote the use of green and clean energy such as solar energy; fourth, to give road maintenance to ensure convenient transportation between villages and towns; fifth, to combine road construction with permeable materials and storm drains to prevent rainwater infiltration.

The written requirements for the planning of this type of village are considered from only five aspects: site requirements for the first building, such as short cuts and near-fields; the second is to determine the courtyard form according to the regional cultural characteristics, such as enclosed courtyard, group gathering, well layout, linear layout and other different patterns; the third chamber depth requirements; the fourth building height form; Fifth, the building appearance, including roof form requirements, color requirements; cannot be divorced from the local traditional architecture. In the case of limited funds, local materials should be used as much as possible, and innovations should be made in terms of forms, materials and construction modes.

This kind of planning, in fact, is more like a management requirement; it can be expanded to a larger scope, the management of more towns. In cooperation with the work of infrastructure construction, on the premise of not changing the original context of the village and saving the input of funds, the overall appearance of the village is changed to improve the living standard of the villagers, improve the quality of life, and create a more beautiful and livable rural environment, which has completed the basic purpose of rural planning. (see "Table I")

TABLE I. REQUIREMENTS OF RURAL CONSTRUCTION IN SEVERAL ASPECTS

In terms of requirements	The specific content
Site selection	Short cut, near field, etc.
The courtyard form	Enclosed type, group type, well type layout, linear layout, etc.
breadth	Enclosed type, group type, well type layout, linear layout, etc.
Building height	Including the number of building floors, the height of each floor, etc.
Architectural appearance	Roof form, wall color, building materials, etc.

B. General Size, Culture Is Not Strong Village

Such villages have a certain degree of population aggregation, which may be due to their proximity to cities, or special advantages, etc. This makes its economy develops relatively rapid and prematurely enter modernization process. Therefore the buildings are mostly renovation buildings. People just randomly tear down the unity of architecture style — buildings are made random when they should be serious, or serious when they should be random. As a result, culture disappears completely. Due to the lack of urban development opportunities and prospects, such villages have to be in a relatively awkward position. For such villages, efforts will be made to increase the construction of public service facilities and public environment, develop characteristic agriculture, strive to obtain brand certification with the help of the local government according to the specific situation, and develop light industry appropriately.

1) Public services and environmental protection: In Due to the relative aggregation of people, the recreational activities of villagers outside production are more colorful. In addition to the intensive use of land, equalization of public services and rural community construction, the construction of public space is the core issue of rural construction. The layout planning of towns and villages should strengthen the research on the demand of local public service facilities. Targeted planning and layout should be carried out for various regions with different levels of economic development, ethnic customs and terrains.

In terms of public service facilities, we will selectively build comprehensive service facilities based on local needs, including comprehensive service centers, health care centers, primary schools, garbage disposal stations, farmers' markets and agricultural product distribution centers. The top-down construction of public facilities is easily recognized by villagers, which makes them more willing to invest in rural construction and enhances their sense of responsibility in rural construction.

The current town planning, to some extent, ignores environmental problems. Poor sanitation, improper garbage collection and removal, and canal pollution have seriously affected the level of rural living environment. In recent years, the government has paid more and more attention to environmental problems, in addition to the top-down governance model; In addition, efforts should be made to arouse the villagers' sense of "hometown responsibility" and call on the masses to renovate the rural environment and build livable hometown together. Adopting "block responsibility system" to divide environmental maintenance and governance into heads is an effective means of environmental governance.

2) Characteristic agriculture: Agriculture is the most primitive and fundamental economic source of rural people, and featured agriculture is the result of long-term selection by villagers according to local climate and water and soil conditions, representing local superior and most characteristic resources and food culture.

Respect of characteristic produce regards the village as the unit to approve to give brand attestation to higher-level government. This certification is not only an endorsement of raw materials, but also a guarantee of processing, storage, transportation and other technologies. It has three benefits: in terms of economy, there are more sales channels for high-quality agricultural products, such as export, which enables farmers to obtain greater benefits, promotes the growth of rural economy, increases the visibility of villages, and brings about a virtuous circle of more and more easy export of village agricultural products. In social aspect, the high profit of featured agricultural products will provide stable employment for the villagers in this village, avoid the hollowing out of modern rural areas, and also attract a part of the backflow of external employment population. In terms of culture, brand certification will become a label for the region, raising its popularity and increasing rural people's sense of pride.

Efforts should be made to ensure the quality of the goods and take export into consideration. Since the household contract system adopts the "equal distribution system" in the distribution relationship, most farmers are in a decentralized state after its implementation. Even if the number of farmers' labor force is released, the production and operation mode of single family has an insufficient position in market negotiations and lacks competitiveness. Moderate development collective economy, it is to increase farmer income main method. Therefore, we carry out unified acquisition of agricultural products and variety improvement, the implementation of agricultural orders, open up export channels to help farmers increase income.

For example, village based cooperation with large "supermarkets". In the first stage, the "supermarket" buys the farmer's products directly at the original purchase price of the intermediary wholesaler. In the second stage, on the basis of full communication with "supermarket", introduce marketization and high value-added varieties into rural areas, optimize planting varieties through agricultural technology improvement, improve the value of single product and increase farmers' income. The joint development of contract agriculture and agriculture and supermarket not only increases farmers' income, but also cultivates farmers' market consciousness, and continuously accumulates experience and knowledge of agricultural production and product sales, which lays a solid foundation for subsequent rural construction. (see "Fig. 3")

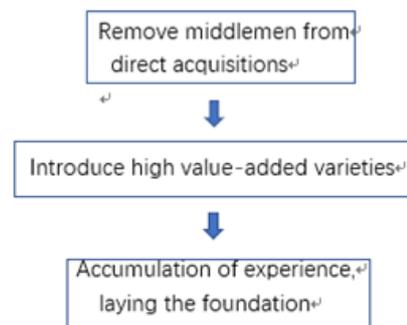


Fig. 3. Development steps.

The endogenous force activated in the process of rural development, through the reconstruction of social organizations, gradually becomes the leading force in rural construction. At this time, external participation in rural construction is mainly to play a supervisory and guiding role. Provide technical advice or expertise. With the advancement of rural construction, the intervention of external forces gradually weakened, and the sustainable development of the rural market stabilized.

Light industry can be developed according to local conditions. Such as the processing of local fruit into canned fruit for sale; processing local livestock into ham, cooked food into the market for sale; local plants are woven into handicrafts and articles for sale. When the price of raw materials is doubled after secondary processing, the profit of farmers is higher, and at the same time, a large number of jobs are required for villagers, forming a virtuous circle of sustainable development.

C. Beautiful Countryside Construction Type Village

Only a small part of Chinese villages can be built into beautiful villages. The village has the local special family social relations, the production life style, the religion nationality belief, the local culture custom. Its humanistic ecology and architectural aesthetics are activated cultural heritage. On the one hand, developing tourism industry can greatly increase the economic income of residents and the government. On the other hand, it indirectly completes the infrastructure and inherits the local culture, which is one of the most ideal ways to protect the traditional villages.

Deep excavation of culture, detailed exploration of characteristics: Compared with ordinary villages, traditional villages have more heritages of the times, such as architectural forms, village location, and space background. Traditional villages can fully demonstrate the production, lifestyle and national cultural characteristics of specific geographic units in a certain historical period. Its cultural content can be roughly divided into two aspects: first, external culture. Such as architectural forms of different styles, gorgeous regional costumes, regional religions organized by masses, pilgrimage rituals, traditional celebrations, etc. The second is the internal culture. As a specific living space, maintain a relatively complete spatial form. This is a new type of cultural relic, with high scientific and historical significance. It is the inner "hometown soul" that traditional villages accumulate in long-term production and life.

Look for features and set up sightseeing spots. The style includes natural features and architectural features. The natural features are the natural advantages and beautiful landscapes of the building's geographical location. Architectural style refers to local representative buildings or preserved buildings. As a result of the rural more profound clan concept, these buildings are ancestral halls, temples and so on. The above features are set as important nodes in the beautiful rural construction, enriching the rural spatial form and relationship.

1) Protection and development of cultural heritage: In the context of economic development, rapid urbanization and rural tourism, China's rural cultural heritage protection has developed rapidly. In any case, protection should go hand in hand with development. Combining with local background and economic development level, the protection measures that meet local needs are sought from the following aspects.

a) Public education: The protection of rural cultural heritage should first establish local villagers' sense of identity and pride in local traditional culture, and require the government to vigorously promote rural culture and let villagers recognize the significance and connotation of traditional culture. According to different groups of people, public education is divided into three levels: first, to preach cultural heritage knowledge to rural residents and staff. For teenagers, handicraftsmen, architects and planners are invited to go deep into the classroom to explain the knowledge related to cultural heritage. The school regularly organizes students to visit and visit the rural cultural heritage, and contacts the local heritage management department for professional interpretation. Iii. Professional training for architects and planners. Make them fully understand the development process, history and culture of the village, and formulate the planning theory and method exclusive to the village.

b) Institutional innovation: In terms of the state, relevant laws and regulations should be improved to increase the punishment for the destruction of cultural heritage. Define the responsibilities and management authority of each department; through the media publicity of the importance of protecting cultural heritage and the legal responsibility of destroying cultural heritage, the destruction of cultural heritage can be reduced. In terms of local governments, heritage is counted and protected areas are designated, which are updated and protected through planning and design methods such as organization and coordination, spatial remodeling and functional recombination.

c) Market cultivation: The state, local government and villagers make joint efforts to build a beautiful and ideal village and improve the overall sightseeing and consumption of the village. To create sustainable villages, dynamic stability is the best protection for the villages. As long as the market competitiveness of the village is cultivated, the village will naturally develop in a better direction step by step.

2) Establishing the consumption space of beautiful country: According to the local characteristics, the village will be divided into regional consumption space to establish. According to the actual situation, it is divided into waterfront entertainment area, agricultural experience area, fruit picking and selling area, characteristic snack area, foreign trade business area, rural rehabilitation area, accommodation experience area, mountain sightseeing area, etc. Building connections, connecting blocks. Each

consumption space is required to have clear external functions, and each functional block can be intersected and closely related to each other. Better sightseeing experience for tourists.

3) *Promotion*: To some extent, publicity and promotion can arouse the public's awareness of the value of heritage and even promote the development of tourism market. In addition to the above internal publicity and promotion of "public education", we can also carry out the following three aspects of publicity: Second, the establishment of rural museums. Record the rural development process, collect, research and repair the cultural heritage. Through exhibitions in museums, it is necessary to develop the number of associations for the purpose of "cultural heritage protection", mobilize members to raise funds or provide voluntary services, and supplement the lack of human and financial resources for heritage protection. Make brochures of rural culture and organize tour routes with heritage associations of surrounding towns to promote the development of local tourism.

Cultural excavation, heritage protection, space establishment, publicity and promotion, and gradually improve the development of tourism industry in beautiful rural areas. (see "Table II")

TABLE II. VILLAGE TYPES

Rural type	Planning
Small scale and strong dispersion	Infrastructure construction, framework type standard requirement
General scale culture is not strong	Construction of public space and development of characteristic agriculture and light industry
In line with the construction of a beautiful countryside	restore the original culture and architectural style; develop tourism and commerce

III. SUMMARY OF CONSTRUCTION METHODS

It is jointly operated by central enterprises, government, villagers and institutions of higher learning. The protection and development of rural cultural heritage need not only the guidance of the state, but also the linkage and cooperation of all social classes. This cooperative approach balances the desire of the state to protect the heritage and the needs of local economic revitalization, and also enhances villagers' awareness of rural culture.

It is necessary to fully mobilize social forces. Efforts will be made to strengthen protection and development of rural cultural heritage. Each step has detailed technical means and institutional safeguards. The central government, together with local participants, covers as many social groups as possible and forms a social action network for heritage conservation and development. Through positive interaction, we will continue to explore and protect rural cultural heritage and shape its sustainable use. The central government gradually reduced the top-down administrative intervention,

by expanding domestic demand and mobilizing the enthusiasm of social groups, which turn to social forces.

Protection and development should go hand in hand. Protection is not the goal. Only by taking local cultural heritage as a resource for sustainable development can its value be truly excavated. It is necessary to make use of local cultural heritage, promote economic growth, promote employment, attract investment and develop local tourism; to promote family inheritance in rural society; the cultural aspect helps local residents build cultural confidence. Through the protection and development of heritage, the rural society finds its own culture and development space in the new era and at the same time drives the development of surrounding villages.

IV. CONCLUSION

Most of the articles of scholars are studying the tourism development of the beautiful countryside. However, tourism development is not the only way for rural planning, and not all villages can meet the requirements of tourism development. According to the above three types of villages, we should choose the most suitable planning scheme to construct the contemporary countryside of sustainable development.

REFERENCES

- [1] Huang Huang, Yang Guiqing, Misselwitz Philipp, Langguth Hannes. Post-Rural Urbanization and Rural Revitalization: Can China Learn From New Planning Approaches in Contemporary Germany [J]. *City Planning Review*, 2017(11): 111-119.
- [2] Kong Weijie, He Yi. Selective Conservation Of the Heritage in "Atypical Historic Villages": A Case Study of Xiashui in Dongqian Lake, Ningbo [J]. *City Planning Review*, 2018(1): 101-111.
- [3] Sun Shiwen, Liu Qizhi, Wang Fuhai, Shi Nan, Tuan Qifeng, Shi Weiliang, Zou Bing, Wang Shifu, Duan Degang, Yu Binyang, Huang Yaping. Urban-rural Governance and Planning Reform [J]. *City Planning Review*, 2015(1): 81-86.
- [4] Zhang Li, He Lian. Layout Plan and Extended Discussion From the Views of Villagers and Government: A Case Study on x Town in Mid-Jiangsu Region Reform [J]. *City Planning Review*, 2017(1): 55-62.
- [5] Wang Chunhui, Tang Hairu, Liu Shangxiao. Exploration on Action Plan Compilation Based on the Style and Feature Construction: A Case of Tonglu [J]. *City Planning Review*, 2015(1): 72-77.
- [6] Zhao Zhongshu, HU Min, Xu Meng. Strengthening the integrated Protection of Urban-Rural Settlement System [J]. *City Planning Review*, 2016(1): 77-79.
- [7] Liu Lulu, Xiao Dawei, Zhang Xiao. Implementation Effect Evaluation and Application of Historic and Cultural Village Conservation [J]. *City Planning Review*, 2016(6): 94-112.
- [8] Bai Zhengsheng. Parctical Village Planning Concepts and Methods [J]. *City Planning Review*, 2018(3): 59-62.
- [9] Tao Ran, Wang Ruimin, Pan Rui. Key Reforms of New Urbanization [J]. *City Planning Review*, 2015(1): 9-15