

Received: May 2023 Accepted: June 2023

DOI: <https://doi.org/10.58262/ks.v11i2.223>

## Research on Elements of Rural Environmental Design in China from the Perspective of Regional Culture

Fujian Mo<sup>1</sup>, Rosjana Chandhasa<sup>2</sup>

### Abstract

*Regional culture is a cultural type that distinguishes the characteristics of a local region, and it is the spirit and soul of rural environmental characteristics. Based on the background of rural revitalization in China, this study puts forward the elements of rural environmental design in China from the perspective of regional culture, and provides reference for rural construction. This study collects and records a large amount of rural construction data for analysis through literature analysis, field investigation and qualitative research, and studies the elements and methods of rural environmental design. The research results include: 1. Through the investigation of the regional cultural inheritance of ethnic minorities in southern China, the effective methods and design strategies of regional cultural inheritance in various villages are analyzed; 2. Through a large number of literature readings and field investigations, a summary of the rural environment from the perspective of regional culture Design elements; 3. Taking the construction project of Duomai Village, Debao County, Baise City, Guangxi as a practical case, the effect of regional cultural design elements in rural design application is verified. From the perspective of regional culture, integrate regional design concepts, and rationally apply rural environment design strategies to carry out rural environment construction, not only beautify the rural environment while inheriting local folk culture, but also drive rural industries and promote sustainable rural development.*

**Keywords:** Rural Construction, Regional Culture, Regional Design.

### Introduction

In the report of the 19th National Congress of the Communist Party of China, the rural revitalization strategy was listed as one of the seven major strategies for China's future development. It is clearly stated in the rural revitalization strategic plan: "The countryside is a regional complex with natural, social, and economic characteristics, and has multiple functions such as production, life, ecology, and culture. Main space of activity". The report of the 20th National Congress of the Communist Party of China pointed out that it is necessary to continue to promote rural revitalization in an all-round way. Revitalize".

Rural construction is the specific carrier of a beautiful China, and it is an important starting point for realizing the development of China's agricultural production, rural ecological livability, and affluent farmers' lives. Rural construction is an extremely important part of China's beautiful rural construction, and it is of great significance to the comprehensive well-off, the common development of all ethnic groups and the sharing of the fruits of reform and opening up.

In the process of China's rural construction and development in the past two decades, whether it is the grand strategic background of "beautiful countryside" to "rural revitalization" at the national level, or the "three-year action to improve the style" at the regional level, the ultimate goal is to Trying to revitalize

---

<sup>1</sup>Doctoral Student of Philosophy Program in Visual Arts and Design, Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University, Email: [s62584948033@ssru.ac.th](mailto:s62584948033@ssru.ac.th)

<sup>2</sup>Advisor in Visual Arts and Design, Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University. Email: [rosjana.ch@ssru.ac.th](mailto:rosjana.ch@ssru.ac.th)

the countryside and how to build a beautiful countryside with more characteristics. However, looking back at the actual construction process, due to insufficient design guidance, rural construction has to a certain extent deviated from the main conditions of rural development, and there has been a clear separation from regional culture, especially in ordinary villages.

### **Research objectives**

To study and analyze elements of rural environmental design in China from the perspective of regional culture.

## **Literature Review**

### **Chinese Housing Culture Information**

The "Complete Collection of Chinese Traditional Residential Types" compiled by the Ministry of Housing and Urban-Rural Development of the People's Republic of China contains about 500 types of residential buildings in 34 provinces, cities, and districts (including Hong Kong, Macao and Taiwan), and comprehensively introduces the types of traditional Chinese residential buildings. The distribution, shape, construction, decoration, representative architecture, cause and evolution summarize the basic characteristics of each type (Ministry of Housing and Urban-Rural Development of the People's Republic of China, 2014).

The architectural styles of traditional Chinese dwellings are mainly divided into 12 types, and the spatial distribution of the architectural style areas formed therefrom has obvious differences between the north and the south, which reflect the traditional Chinese dwellings from the five aspects of settlement environment, spatial layout, modeling style, building materials, and detailed decoration. The regional differences in architectural styles are obvious. Natural environmental factors are the cornerstone of regional differentiation of traditional residential buildings, humanistic factors such as patriarchal ethics, Feng Shui concept and national culture are the internal driving forces of regional differentiation, and human factors such as population migration, war defense and business economy are the main factors of regional differentiation. External thrust (Wang, Lu, Wu & Fan, 2019)

### **Research on the Environmental Construction of Traditional Villages**

The formation of traditional village and town settlements is due to differences in regional climate, terrain environment, living customs, ethnic cultural traditions and religious beliefs, resulting in differences in the landscape of village and town settlements in different regions (Peng, 1992). The traditional rural regional cultural landscape is not only the crystallization of the wisdom of the working people in the past dynasties, but also the material carrier of the inheritance of regional culture, which has important historical, cultural and scientific research value (Sun, Chen & Wang, 2008). Feng Jicai's 2012 article "The Predicament and Way Out of Traditional Villages—Talking about Traditional Villages as Another Type of Cultural Heritage" discussed the necessity and urgency of traditional village protection, the relationship between traditional villages and cultural heritage, and the protection paths and methods of traditional villages.

### **Practical Research on the Construction of Rural Environment by Regional Culture**

The development of culture is not only fixed at a special historical node, or only manifested in a group of valuable buildings, but more importantly, it is the "continued" development of its real and vivid human history and local feelings (Shan, Zhao & Zhang, 2016). The construction of the rural environment requires the formation of a mechanism for the participation of architects, users and managers, multi-professional crossover, and multi-work cooperation to coordinate and handle the relationship between modernity and tradition, material and spirit, architecture, environment and people (Zhang, Cheng, Liang & Liu, 2015). Specific measures for the construction of rural human settlements

include improving the natural ecological environment of the countryside, realizing overall management of the countryside, improving the overall quality of villagers, and protecting rural regional culture (Feng, 2016). It is necessary to tap the regional advantages of rural characteristics and integrate modern landscape design concepts to create a new type of rural landscape that combines unique regional culture and scientific design concepts (Wang & Huang, 2018). To truly promote and realize the revitalization of rural culture, the following important relationships must be properly handled: traditional culture and modern culture, urban culture and rural culture, regional culture and world culture, mass culture and elite culture (Zhao, 2018). Rural development should be combined with regional culture to promote the overall revitalization of the countryside by building cultural industry bases, building cultural identity bonds, strengthening ecological civilization construction, and cultivating public participation awareness (Xu & Hou, 2020). The construction of beautiful countryside combines regional cultural inheritance and ecological culture, aims at the common progress of economic development and cultural inheritance, and turns the development of rural ecological cultural industry into an indispensable part of the construction of beautiful countryside, striving to protect the rural ecological environment and characteristic resources and take the road of sustainable development (Bian, 2020).

#### **Four elements of rural environment design**

To carry out rural environment design from the perspective of regional culture, the following elements must be considered:

***Elements of the natural environment:*** Including regional climate, landform features, ecological environment, local materials, colors and other factors.

***Humanistic elements:*** Including traditional way of life, traditional customs, national culture, and intangible cultural factors such as rural cohesion and sense of belonging.

***Elements of Living Environment Requirements:*** Rural construction must meet the various living needs of villagers, including material elements such as rural overall planning, road traffic, buildings and structures, landscape environment, and public facilities.

***Elements of Rural industrial:*** Including rural agriculture, animal husbandry, animal husbandry, fishery, as well as handicraft industry, tourism and other factors.

#### **Research Methodology**

In this study, the researchers identified the research framework and used qualitative research methods and analytical methods. It includes literature research, field investigation, observation and interviews, collecting and analyzing data.

Step 1: Determine the scope of the research content. This research adopts the combination of field investigation method and practice verification method. Qualitative research methods are used to study the types and development status of ethnic minority villages in southern China, the current mainstream methods of regional design, and the status quo of regional design intervention in rural revitalization. Effective methods and optimized content for beautiful countryside construction are put forward from the perspectives of regional cultural inheritance and rural environment improvement.

Step 2: Visit the cultural bureaus, village committees and relevant village management personnel of the counties and cities where representative ethnic minority villages in southern China are located through literature research, questionnaire surveys, field investigations, and interviews to learn about the history and culture of ethnic minority villages on the spot. The protection of relics and residential buildings, and the data of rural development. By comparing and analyzing specific measures to promote the

development of rural construction at home and abroad, summarizing the problems and experience of regional design involved in rural construction, so as to grasp the direction of regional design involved in rural construction, and optimize the application of regional design in the process of rural construction and development. Through the analysis of different types of regional design intervention in rural construction practice projects, perceptual knowledge and theoretical analysis are connected to form the empirical status of regional design intervention in rural construction, and summarize the opportunities and challenges faced by rural construction. Then, using the practical projects of regional design involved in rural construction as a carrier, innovatively explore and summarize effective measures and methods for rural construction. Research objects include:

1. The target population of the questionnaire in this study is divided into two categories: one is the designers of rural construction projects or related practitioners; the other is the audience of rural construction projects. The key issue of the research is that rural construction projects affect the connection elements between people and the environment, people and people, and villages and cities under the perspective of the theory of man-land relationship.
2. The interviewees of this study are mainly divided into four parts. One part is the staff involved in the rural construction projects; the second part is the beneficiaries of the rural construction projects; the third part is the experiencers of the rural construction projects; the fourth part is the experts engaged in the research of rural revitalization. The focus is on understanding how people from different backgrounds view the effect of regional design intervention in rural construction from different perspectives.

**Figure 1:** Villagers conduct a visit to investigate



Source: Chen Qiuyu

Step 3: data analysis According to some design cases that the researchers have completed and are in progress. The studies of these cases will be carried out around the dimension of regional design intervention in rural construction, and the combination of qualitative analysis and quantitative analysis will be used to conduct research, providing reference for the overall strategy of rural construction in China, so as to achieve rural environment improvement and rural development The purpose of the positive cycle between.

Step 4: Summarize the results of data analysis, and obtain an effective method of using regional design methods to carry out rural environment construction.

## Research Results

Through a large amount of literature research, as well as on-the-spot investigations of ethnic minority villages in southern China and based on the construction practice of Duomai Village in Debao County, Guangxi, the principles of rural environmental design were summarized, and the following results were obtained.



### Inheritance of Rural Culture of Ethnic Minorities in Southern China

Investigate the construction of regional cultural inheritance and protection in ethnic minority villages in southern China. In the results, the sample information collection was completed through the camera, and the results of rural construction were analyzed through interviews with villagers and village leaders,



and subjective conclusions were drawn.

**Table 1:** Analysis of Some Cases of Rural Development in Southern China.

No.	Rural project	Village photos	Project instruction	Inheritance of regional culture
1	Huanjiang County, Guangxi Nanchangtun, Zhongnan Village		In 2014, it was listed as the first batch of "Villages with Chinese Minority Characteristics" by the National Ethnic Affairs Commission.	As the birthplace of the Maonan nationality, it has well inherited the cultural characteristics of the Maonan nationality.
2	Ziyuan County, Guangxi Hekou Yaozu Township		The sixth batch of new urbanization demonstration towns in Guilin City, Guangxi Zhuang Autonomous Region.	The elements of the Yao nationality were excavated and the overall renovation of the rural facade was done.
3	Sanjiang County, Guangxi Chengyang Bazhai		The wooden building of the Dong nationality in the village - Chengyang Fengyu Bridge is a national key cultural relic protection unit.	The whole village has inherited the architectural culture and living customs of the Dong people very well.
4	Longsheng County, Guangxi Jinkeng Yao Village		Form a beautiful rural landscape that integrates the customs of the Yao nationality and integrates natural landscape and human resource factors.	The whole village has inherited the architectural culture and living customs of the Yao people very well.
5	Shanglin County, Guangxi Guming Village		Formerly known as "Guminzhuang", it was included in the fifth batch of Chinese traditional villages in 2019.	The village has a beautiful environment, surrounded by mountains and rivers, and the Zhuang villages are well preserved.
6	Liping County, Guizhou Tongguan Village		It was assisted by Tencent, and the author presided over the design and completed the construction of the Dong Nationality Dage Ecological Museum project.	It has well inherited the national intangible cultural heritage of the Dong Nationality Song.
7	Songtao County, Guizhou Tai Wan Village		The inherited Songtao Miao embroidery technique was selected into the fifth batch of national intangible cultural heritage.	The Miao embroidery skills are well inherited, and the village is well preserved.
8	Xiangxi, Hunan Fenghuang Ancient City		In 2001, it was awarded the title of National Historical and Cultural City, and it is a famous historical and cultural city in China.	Reasonable development and management have well preserved the overall style of the ancient town.
9	Yuanyang County, Yunnan Hani Village		The cultural landscape of Honghe Hani Terraces in Yunnan Province, China is included in the UNESCO World Heritage List.	The government is actively carrying out the protection of the Hani mushroom house architectural heritage.

Source: Author

### **Rural Environment Construction Practice in Duomai Village, Debao County, Guangxi, China**

Duomai Village is about 55 kilometers away from Debao County. The average altitude of the whole village is more than 800 meters. It belongs to the Dashi mountainous area and has inconvenient transportation. The total area of the village is 16.69 square kilometers, and the total area of cultivated land is 1728 mu, including 280 mu of paddy field and 1448 mu of dry land. There are 25 natural villages in the village, with a total of 298 households and a permanent population of 986, all of whom are of the Zhuang nationality. Duomai Village has a history of more than 200 years. After many village migrations or mergers, the natural villages of Duomai Village are relatively scattered. Duomai Village is mainly facing the problem of labor loss. With the development of the village and the serious erosion of foreign culture, migrant workers return home to build houses in pursuit of modern architectural styles. Traditional architectural skills are not well inherited, and there is a lack of effective house building. As a result, traditional dwellings were destroyed, the architectural style and appearance of villages were lost, and a large number of cement box buildings appeared. The infrastructure in the village is not perfect, the landscape environment is dilapidated, the villagers have a single form of life and entertainment, and the happiness index has not improved much.

**Figure 2:** Current Status of Housing in Duomai Village.



Source: Chen Qiuyu

### **Construction of Rural Micro Vegetable Gardens**

Reasonable integration and utilization of the idle land in front of and behind the houses in Duomai Village, planting local seasonal vegetables, and creating a "micro-vegetable garden" integrating viewing and picking. Combining rural landscape with agricultural production can not only beautify the environment of the village, but also allow villagers to have an area of responsibility for environmental sanitation. The planting of "micro-gardens" promotes villagers' awareness of consciously participating in the governance of the rural public environment, enhances the enthusiasm and initiative of the villagers, and also brings into play the creativity of the masses.

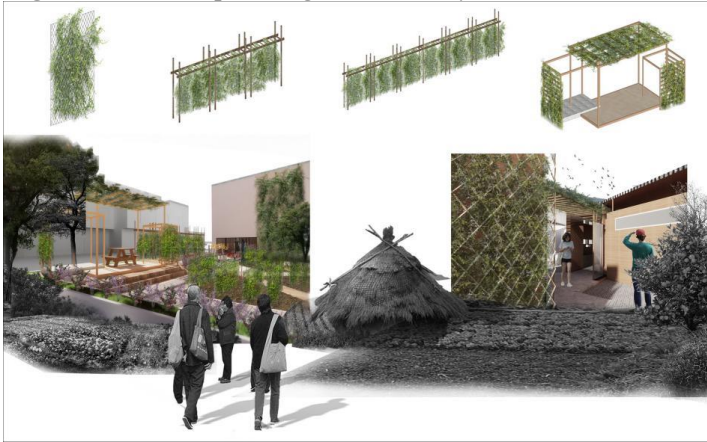
**Figure 3:** Rural Micro-Garden Construction



Source: Author

Use local bamboo materials, honeysuckle and other resources to create an ecological and natural rural landscape.

**Figure 4:** Landscape Design with Honeysuckle Theme.



Source: Author

### **Construction of Village History Museum**

The village history museum is an important position for inheriting local ethnic culture and cultivating civilized rural customs. Through on-the-spot research and information collection, the rural regional culture is excavated and organized, and the geographic information, historical development, industrial information, farming culture, ethnic culture, and rural construction of Duomai Village are displayed in the form of exhibition boards. At the same time, the old farming tools, weaving and spinning tools of the villagers, as well as living utensils and clothing are collected, and the villagers' memory of the local culture is aroused through the form of physical display. The construction of the Village History Museum has greatly improved the villagers' awareness of regional culture and their confidence in local culture.

**Figure 4:** Villagers And Leaders of All Levels Visit the Duomai Village History Museum.



Source: Chen Qiuyu

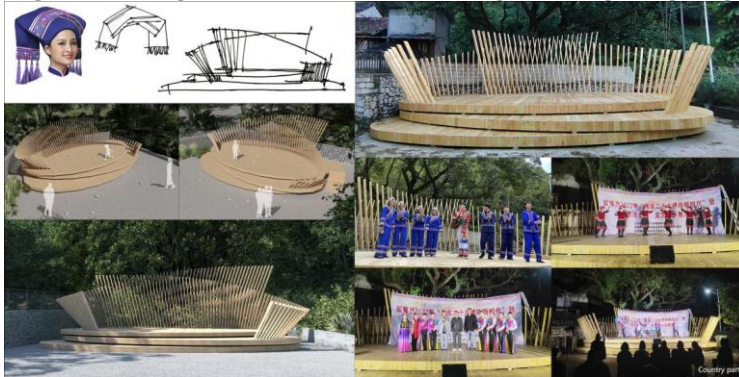
### **Stage Construction of Zhuang Nationality Songs**

The Zhuang people love to sing. As early as the 1990s, Duomai Village established its own Zhuang song and dance troupe, which is composed of women who love to sing folk songs in the village. Whenever they celebrate grand festivals in the village, they will go on stage to sing Zhuang folk songs. However, the educational resources in remote mountainous areas are limited, and many children in the village will go to the county town to study. The inheritance of Zhuang folk song culture is in jeopardy. Taking the Zhuang women's headdress as the design element, combined with the parametric design method, the shape of the Zhuang women's headdress is displayed on the stage, and at the same time, it forms the gesture of embracing with



both hands, which symbolizes holding the cultural treasures of the Zhuang nationality.

**Figure 5:** Design Scheme of Duomai Village Zhuang Song Stage

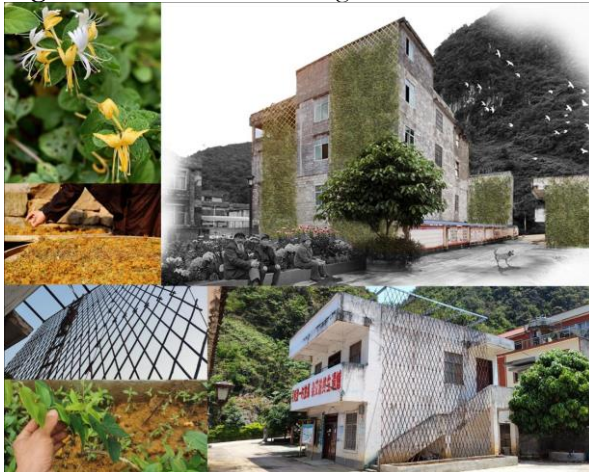


Source: Author

### **Residential Facade Renovation**

Duomai Village is located in a rocky mountain area with a suitable climate and rich resources of wild *camellia japonica* on the mountain. Honeysuckle has the functions of dredging throat, clearing heat and detoxifying, relieving summer heat, etc. It is a climbing plant that grows in bushes or sparse forests, rock piles, mountain foot roadsides and village fences. The economic value of wild honeysuckle is extremely high, and villagers can increase their family income by picking and selling wild honeysuckle. On the side of the houses, we built bamboo fences, transplanted and inserted the honeysuckle on the mountain, and as the honeysuckle climbed and grew, a unique vertical green facade was formed to improve the architectural style of Duomai Village. Adapt measures to local conditions and combine regional industrial resources to create a low-cost and economically valuable way to renovate residential facades.

**Figure 8:** Residential Building Rehabilitation Plan for Multi-Pulse Villagers



Source: Author

### **Rural Environment Construction Strategies from the Perspective of Regional Culture**

#### ***Use Local Materials for Construction***

Rural construction should use local natural products as construction materials as much as possible, which



has unique and cultural characteristics. The excavation and utilization of local materials is ecological and can also achieve the advantage of low cost renovation.

### ***Application of Regional Cultural Elements***

Fully excavating regional cultural elements to build the countryside is an important means to enhance the connotation of rural culture. Ethnic culture, folk customs, regional customs, etc. are all important dominant factors of regional culture. Extracting these regional cultural elements, such as ethnic patterns, functional requirements due to living habits, etc., and using these elements to carry out design can enhance the cultural value of villagers. Self-confidence, better display of local characteristic culture.

### ***Rural Construction Model with Full Participation***

A village is a village of villagers. To improve the rural environment, it is necessary to improve the villagers' awareness of their main responsibility. Rural construction should mobilize the villagers to participate in building a beautiful home together, effectively stimulating the villagers' sense of pride and cohesion in their homeland, so that the villagers can devote themselves to construction and cherish it in maintenance. Only by continuously improving ideology, aesthetic level, and professional skills can we better independently promote rural development. Different ethnic groups in different regions have different folk customs, creating unique aesthetics, which is also an important manifestation of regional culture.

### ***Use Industrial Resources to Carry out Rural Construction***

Unique local industrial resources reflect the unique cultural characteristics of the region. It is an effective way to fully combine regional industrial resources to carry out rural environment construction. While improving the rural environment, villagers can independently maintain the environment, so as to make the beautiful rural environment sustainable.

## **Conclusions**

The rural environment construction is carried out from the perspective of regional culture, and the importance of the four elements of the rural environment is verified through practice.

### **Rural Construction Should Pay Attention to Natural Ecological Protection**

One side of water and soil nourishes one side of people, and the unique natural environment and ecology are important manifestations of the beautiful countryside. In the process of rural construction, it is necessary to follow the principle of sustainable development, effectively protect and rationally utilize rural ecological resources, cultural landscapes and natural landscapes, and actively apply local green ecological materials and low-tech suitable for local construction to realize rural development. Green sustainable development.

### **Rural Construction Should Achieve Effective Cultural Inheritance**

Culture is the soul of a rural settlement, and a village with only external forms but no cultural connotations is an empty shell. The rural environment is no longer limited to the material rural landscape that people see, and regional culture must be expressed in rural construction. From the perspective of regional culture, we must fully tap local ethnic cultural resources, respect local traditional customs, integrate regional culture into rural environment construction, and achieve effective cultural inheritance.

### **Rural Construction Should Start from the Needs of Villagers**

Rural construction should fully respect local folk customs, meet the growing living needs of villagers, plan and build more functional spaces, and enrich the cultural life of villagers. In the process of construction and implementation, it is necessary to enhance the cohesion and participation of villagers,

actively participate in the construction of the rural environment, jointly maintain the rural environment, and promote rural development.

### **Rural Construction Should Be Combined with Local Industries**

Industrial revitalization is the foundation of rural revitalization, and industrial prosperity can effectively support rural construction. Rural construction should make full use of local industrial advantages, tap regional industrial characteristics, combine with them, highlight local industrial characteristics to carry out rural environment construction, and form a village environment with unique regional characteristics.

### **Acknowledgment**

Researcher would like to express his sincere to the thesis advisor, Assoc. Prof. Dr. Rosjana Chandhasa for her invaluable help and constant encouragement throughout the course of this research. In addition, the researcher gratefully thanks to Miss Kanyanee Phuangsu, Miss Sasanant Rattanapornpisit, Miss Visitha Chintaladdha, Mr. Chat Sukarin, and others who give great supports.

Finally, the researcher would like to express his gratitude to the Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University for supporting in every aspect.

### **References**

- Bian, S. (2020). Research on the construction of beautiful countryside under the inheritance of regional culture. *Jiangsu Architecture* (03), 11-13.
- Feng, H. (2016). International experience and domestic practice in the construction of rural human settlements. *World Agriculture* (01), 149-153.
- Feng, J. (2013). The Dilemma and Way Out of Traditional Villages - Talking about Traditional Villages as Another Type of Cultural Heritage. *Folk Culture Forum* (01), 7-12.
- Ministry of Housing and Urban-Rural Development of the People's Republic of China. (2014). *The Complete Works of Chinese Traditional Residential Types*. China Architecture and Building Press.
- Peng, Y. (1992). *Analysis of Traditional Village Settlement Landscape*. China Architecture and Building Press.
- Shan, Y., Zhao, T., & Zhang, G. (2016). Research on the Cultural Inheritance Model Based on the Perspective of Humanistic Care - The Enlightenment of Community Building in Taiwan to the Protection of Today's Historical Villages and Towns. *Chinese Garden* (06), 11-14.
- Sun, Y., Chen, T., & Wang, Y. (2008). Advances in Research on Regional Cultural Landscapes in Traditional Rural Areas. *Advances in Geographical Sciences* (06), 90-96.
- Wang, D., Lv, Q., Wu, Y., & Fan, Z. (2019). The regional differentiation characteristics and formation mechanism of traditional Chinese residential buildings. *Journal of Natural Resources* (09), 1864-1885.
- Wang, Q., & Huang, Y. (2018). Rural landscape design based on regional cultural characteristics - Taking Changzhou Meilin Village as an example. *Design* (23), 67-69.
- Xu, H., & Hou, A. (2020). Research on the Key Points of Rural Revitalization Based on Regional Culture. *Architecture and Culture* (04), 56-57.
- Zhang, Q., Cheng, H., Liang, R., & Liu, J. (2015). *Theoretical Research and Practice of Rural Architecture Renewal*. New Architecture (01), 28-31.
- Zhao, X. (2018). Cultural Development Dimensions in Rural Revitalization. *Soochow Academics* (02), 5-12+43.