

# Study on Landscape Cluster Model and Continuous Conservation of Traditional Villages in Southeast Chongqing

ZHANG Jing<sup>1</sup>, LIN Bingyao<sup>2</sup>, CHEN Qiuyu<sup>3</sup>, TIAN Qi<sup>4</sup>

**Author Affiliations** 1 Associate professor; 2 Master student, corresponding author, email: 3097423110@qq.com; 3 PhD student, School of Architecture and Urban Planning, Chongqing University; 4 Master student; 1&2&4 College of Geography and Planning, Chengdu University of Technology

**ABSTRACT:** Southeast Chongqing is one of the most concentrated areas of traditional villages in China, and its rich and diverse mountain traditional village landscape is an important historical and cultural heritage, which is formed under the dual influence of geography and ethnicity. Faced with the realistic requirement of concentrated and continuous conservation of traditional villages in this region, there is an immediate demand to investigate the formation background, cluster model and conservation and utilization system of traditional village landscape in the region. By using the research methodology of historical geography, GIS spatial analysis, and spatial planning, the study analyzes the clustering, correlation, systematization and specificity of traditional village landscape clustering pattern in southeast Chongqing and proposes the clustering conservation and utilization system and implementation strategy of traditional village landscape from three scales: regional, watershed and settlement, so as to explore the current stage of traditional village clustering conservation work. It also proposes an effective path for the conservation of traditional villages and sustainable development of the region.

**KEY WORDS:** traditional village; landscape cluster; cluster-based conservation; southeast Chongqing; concentrated continuous conservation

## 1 Introduction

In the mountainous southwestern areas of our country, where the natural environment is complex and ethnic groups are diverse, there are a large number of traditional villages. According to the statistics of the six batches of the Chinese Traditional Villages List, the number of traditional villages in the four provinces and one city in southwest China is as high as 2, 177, accounting for 26% of the total number in the country. Among them, the density of traditional villages is the highest in the Yunnan-Guizhou Plateau, southeast Guizhou, and southeast Chongqing (Figure 1). The traditional villages in these areas

not only retain rich historical and cultural resources and cultural landscapes, but also fully reflect the diversity and complexity of the evolution of human-land relations under the dual influence of the natural environment and ethnic history and culture in mountainous areas[1-2]. In order to fully protect the cultural heritage of concentrated and contiguous traditional villages and explore a long-term mechanism for the protection of traditional villages, the Ministry of Finance and the Ministry of Housing and Urban-Rural Development have put forward the requirement of “implementing the protection and moderate development of traditional villages in areas with suitable

[The format of citation in this article]

ZHANG Jing, LIN Bingyao, CHEN Qiuyu, et al. Study on Landscape Cluster Model and Continuous Conservation of Traditional Villages in Southeast Chongqing[J]. *Journal of South Architecture*, 2025(1): 30-45.

• **Fund Projects:** General Project of Humanities and Social Sciences Research of the Ministry of Education (22YJC760121), National Natural Science Foundation of China (52408053) Soft Science Project of Sichuan Provincial Science and Technology Plan Project; (2022JDR0308)

**Document Identification Code A**      **DOI** 10.33142/jsa.v2i1.15472      **Article number** 1000-0232(2025)01-030-16

Copyright © 2025 by author(s). This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License

(<https://creativecommons.org/licenses/by-nc-nd/4.0/>).

<http://www.viserdata.com/journal/jsa>

conditions” since 2017, which has opened up the protection and development practice of traditional villages in concentrated and contiguous areas from single settlements to settlement clusters [3]17. In 2022, Youyang Tujia and Miao Autonomous County and Xiushan Tujia and Miao Autonomous County in southeast Chongqing were listed as national demonstration counties for the protection and utilization of concentrated and contiguous traditional vil-

lages. Faced with the overall protection requirements of “connecting points and lines into pieces” for traditional villages, how to deeply grasp the regional traditional village landscape formation mechanism and clarify the relationship between the traditional village landscape cluster model and spatial structure is an important basis for the regional protection and differentiated utilization of traditional villages.

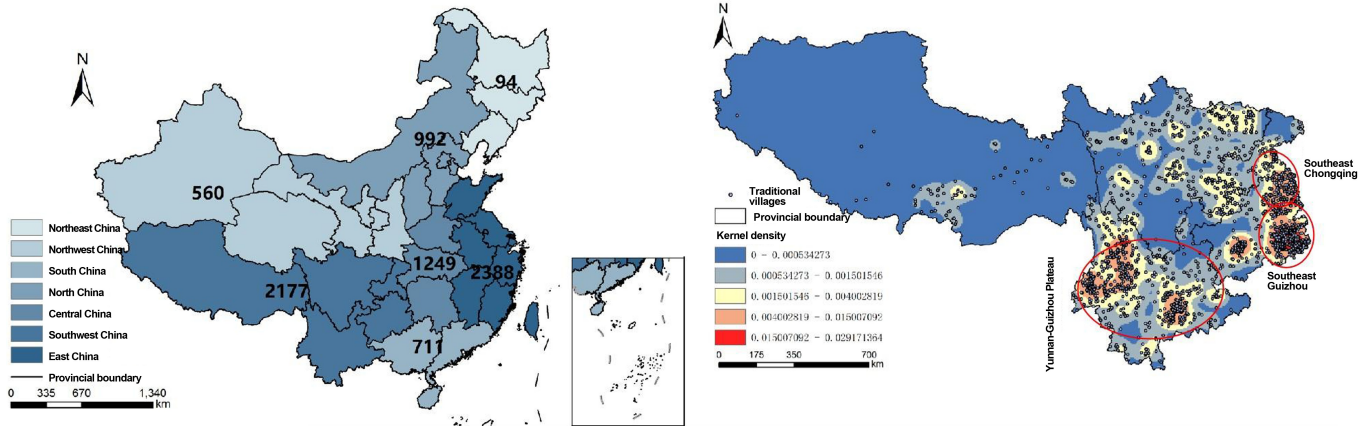


Figure 1 Number and kernel density distribution of six batches of traditional villages in southwest China

In recent years, with the introduction of the rural revitalization strategy and the advancement of traditional village protection in China, research on the protection and development of traditional villages has gradually expanded from the study of the internal space of a single settlement to the protection of settlement landscapes. The study of traditional village settlement landscapes mainly revolves around landscape genes [4], element identification [5], characteristic mapping [6], and influencing factors [7]. The research scope has gradually expanded from the identification of landscape elements of a single settlement to the exploration of the characteristics of traditional settlement landscape metabolism, inheritance, and variation [12] at different scales, such as watersheds [10] and regions [11], based on the concepts of landscape gene cells [8] and gene chains [9]. The research methods have also gradually been combined with spatial analysis methods such as GIS [13] and GeoDesign [14]. In contrast, the research on the overall protection and utilization strategies of traditional villages in concentrated and contiguous areas

is relatively weak. Existing studies are mostly aimed at exploring the influencing factors, landscape value and characteristic generation mechanisms of traditional settlement landscapes [15-17]. Some scholars use quantitative analysis methods such as social network analysis, minimum resistance model [18] and MST clustering [19] to evaluate the spatial distribution characteristics and development level of regional traditional villages, and suggest building a regional network linkage pattern of traditional villages [20] and exploring a cluster protection and development model for traditional villages [21] to solve the problem of scattered protection caused by insufficient protection motivation and lagging development of individual villages or cultural heritage. However, in general, the application of overall protection strategies is still in its infancy [22]. It is urgent to analyze the generation, characteristics and development pattern of regional traditional village landscapes based on specific case areas, analyze the driving mechanism of traditional village landscape generation and the guiding strategy for concentrated and contiguous pro-

tection and development, and improve the research system of overall protection and development of traditional villages.

Therefore, in order to explore the characteristics of the traditional village landscape cluster in southeast Chongqing and construct a concentrated and contiguous protection strategy based on landscape clusters, this study sorted out the staged influence of regional natural environment, institutional policies, transportation and technological development in the formation of traditional village landscape in southeast Chongqing through historical and geographical literature. Through the correlation analysis of the spatial distribution of traditional villages and landscape elements, the agglomeration, correlation, characteristics and systematicity of traditional village landscape clusters were explored. On the basis of constructing a cluster protection and utilization framework for traditional village landscapes, a “point-line-surface” landscape cluster construction with settlement landscape as point, watershed unit as line and cultural cluster as surface and a regional coordinated protection and utilization strategy of zoning, grading and differentiated development were proposed. It is hoped that taking the southeast Chongqing area, where traditional villages are most concentrated and multi-ethnic cohabitation is the representative, as an example, the experience and model of regional traditional village landscape cluster protection and development with practical application value can be summarized to provide reference for the concentrated and contiguous protection and regional coordinated development of traditional villages in my country.

## 2 Phased impact mechanism of landscape formation of traditional villages in southeast Chongqing

The southeast Chongqing region discussed in this study refers to the one district and four counties of Chongqing City located on the northwest edge of the Wuling Mountain Area, including Qianjiang District, Shizhu Tujia and Miao Autonomous County, Pengshui Miao and

Tujia Autonomous County, Youyang Tujia and Miao Autonomous County, and Xiushan Tujia and Miao Autonomous County (Figure 2). Through the analysis of historical and geographical documents in the region and the field survey of the first five batches of 73 traditional Chinese villages, it was found that the southeast Chongqing region, due to its status as a transportation corridor and hub between Ba and Chu, and its proximity to the political center of Chongqing Prefecture, has made the traditional villages in the region present a mountain settlement landscape with the integration of Tujia, Han and Miao cultures. In the historical process of its landscape formation, the opening of the Yuanshui River Basin by the imperial court in the fifth year of Xining in the Song Dynasty (1072) and the “bureaucratization of Tusi” in the twelfth year of Yongzheng in the Qing Dynasty (1734) and the twenty-sixth year of Qianlong in the Qing Dynasty (1761) were key historical nodes that affected the development and governance of the southeastern Chongqing region. Therefore, what follows uses the mid-Song Dynasty and the early Qing Dynasty as two dividing lines to analyze the phased impact mechanism of the formation of traditional village landscape in southeast Chongqing (Figure 3).

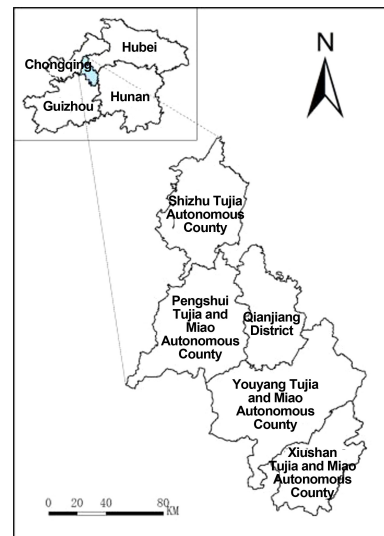


Figure 2 Location and scope of the study area

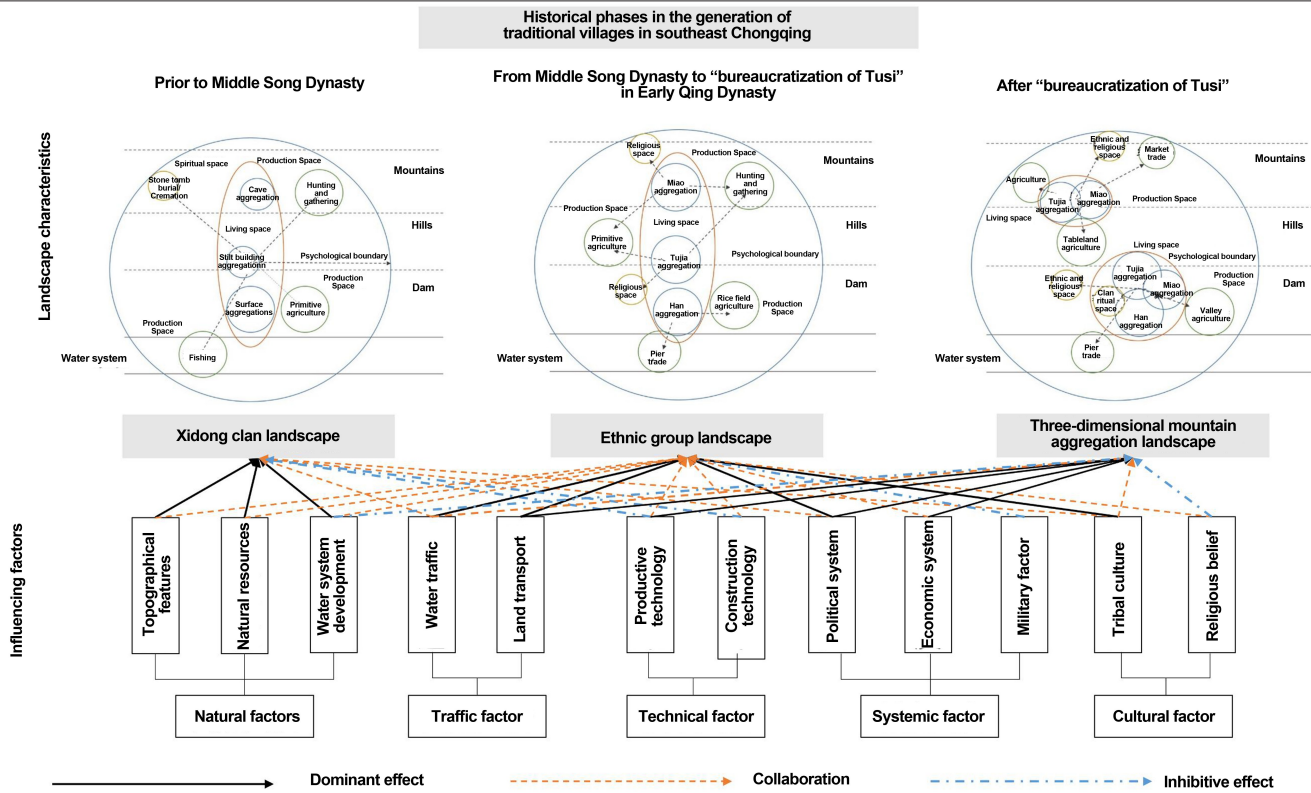


Figure 3 Phased impact mechanism of landscape formation of traditional villages in southeast Chongqing

**2.1 Formation of the Xidong tribe landscape under the dominance of natural factors (before the mid-Song Dynasty)**

Before the large-scale development of the Wuling Mountain Area in the mid-Song Dynasty, the local human settlements in the southeast Chongqing area were mainly concentrated in the middle hills and flat river valley areas of varying heights and sizes. The settlement archaeological sites discovered in southeast Chongqing and its surrounding areas today mainly include three types: cave sites, ground settlement sites, and stilt settlement sites, all of which are closely related to rivers and streams<sup>1)</sup>. In the historical documents of the Tang and Song Dynasties, whether it is the record that the Ba people flowed into the Wuxi area at the junction of Hubei, Hunan, Guizhou and Chongqing at the end of the Qin Dynasty, and the five sons of the Ba people "each became the head of a river"<sup>2)</sup>, or the historical and geographical description of "Nine creeks ('Xi') and eighteen flatlands ('Dong'), one tribe for one flatland" in the Wuling Mountain Area, it shows that the riverside flat landforms scattered among the canyon-type mountains in the area, as well as the fishing and

hunting resources near the water and mountains, provided a relatively suitable and closed waterside settlement environment for the formation of the original settlements in the area, and the criss-crossing water systems between the valleys became an important clue to the formation of the Xidong tribe landscape based on blood relations.

**2.2 The formation of ethnic landscape under the influence of transportation development and system (from the middle of the Song Dynasty to before the reform of the administrative system)**

During the Xining period of the Northern Song Dynasty (1072), the central government opened roads and built borders in the Wuling Mountain area in southeast Chongqing in order to open up a passage from Dongting Lake to Guangxi. This led to the formation of military transportation post roads with the Wujiang River and Yuanshui River as the core [23] 50-56 (Figures 4-1 and 4-2). Tuntians were set up on the post roads and military administrative guard posts were established. As a result, relying on the development of water and land transportation and the implementation of the tuntian and immigration reclamation system, a large number of Han immigrants

moved into the river valleys along the river. The prosperity of agriculture led to the continuous expansion of cultivated land in the shallow hills along the river (Figures 4-4 and 4-5). On the other hand, in the Tusi area covering most of Shizhu, Youyang and Xiushan, the feudal lord economy and small-scale agricultural production of slash-and-burn farming made it more primitive than the agricultural economy of the tuntian areas. The main ways of wealth accumulation were nanmu felling and the collection of military pay by the Tusi army [23] 125-128. Therefore, under the

prohibition of “barbarians do not leave the border, and Han people do not enter the dong,” Tusi, prefectures and counties, garrisons and scattered Miao areas formed ethnic divisions in geographical units, that is, Han settlements were located in garrisons, tuntian areas, and commercial areas, Tujia settlements were located on both sides of streams and rivers and in shallow hills in Tusi areas, and Miao settlements were located in the back mountains, “inside the stream” and other semi-high mountain areas.

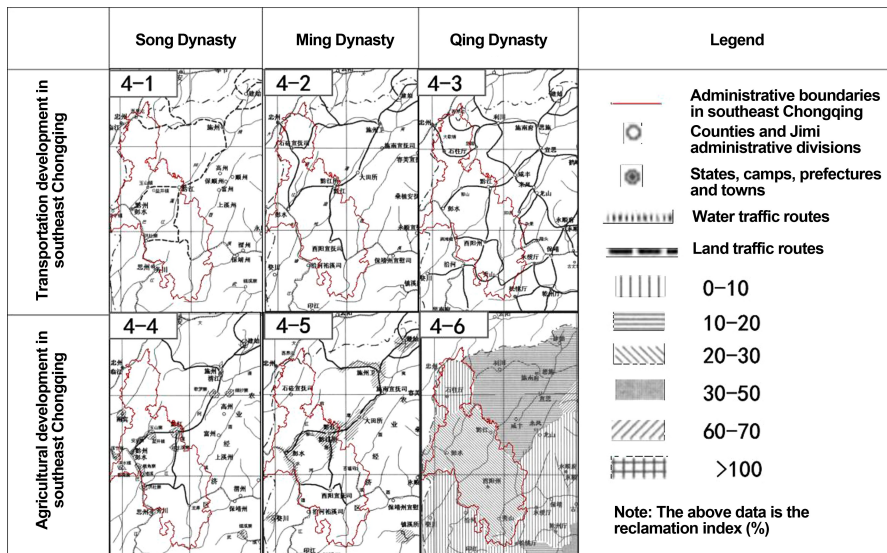


Figure 4 The historical process of transportation and agricultural development in southeast Chongqing

**2.3 The formation of mountain three-dimensional settlement landscape under the influence of cultural integration (after the reform of Tusi to officials)**

Under the implementation of the “reform of Tusi to officials” system in the early Qing Dynasty, the Qing government further renovated the mountain post roads opened in the Ming Dynasty, forming a transportation network system with waterways as the axis and land as the network. The commercial geography structure with Gongtan and Longtan in Youyang Prefecture as the regional commercial centers and Shizhu and Qianjiang as the secondary centers gradually matured (Figure 4-3), and the market town commercial landscape formed along the commercial roads developed rapidly. At the same time, under the policy of “recruiting people to reclaim wasteland,” a large number of people poured into the southeastern part of Chongqing in the early Qing Dynasty. The immigrants or

the descendants of the local Tujia people gradually moved to the hillsides, presenting a mountain three-dimensional agricultural settlement landscape with comprehensive coverage of settlements from river valleys to mid-mountains (Figure 4-6).

**3 Characteristics of traditional village landscape clusters in southeast Chongqing and the construction of a protection and utilization framework**

From the above analysis, it can be seen that the mountainous three-dimensional traditional village landscape clusters with multi-ethnic cultural integration in the region are not formed by chance or random, but are the result of spatial organization of human settlement space elements in mountain valleys under the effect of a series of influencing factors such as nature, transportation, technology, system, and culture[24]. Over time, a traditional village cluster with closely related elements and mutually

supported functions has been formed in southeast Chongqing. Based on the delineation of the supporting attributes of the traditional rural settlement cluster model by existing scholars, the following will analyze the characteristics of the traditional village landscape clusters in southeast Chongqing from the three attributes of agglomeration, correlation, and characteristics [3] 19, and delineate its landscape cluster units based on the systematic mechanism of landscape generation [25].

**3.1 Agglomeration characteristics with tributary water system as the core**

Agglomeration is a manifestation of the evolution of traditional village landscapes, that is, the agglomeration of spatial attributes is formed through the agglomeration of social relations such as population and production. It is also a prerequisite for the concentrated, continuous and clustered protection and development of traditional villages. Through the nearest neighbor index and kernel density analysis of 73 sample villages in southeast Chongqing, it was found that the distribution of traditional villages in the region is varied in density, with multiple aggregation cores and an obvious “core-edge” structure. The aggrega-

tion cores are located in small marginal areas within the tributary basins, mainly concentrated in the Youshui River Basin and the Apeng River Basin on the east and west sides of Youyang, as well as the Meijiang River Basin in Xiushan, and are aggregated in round patches (Figure 5).

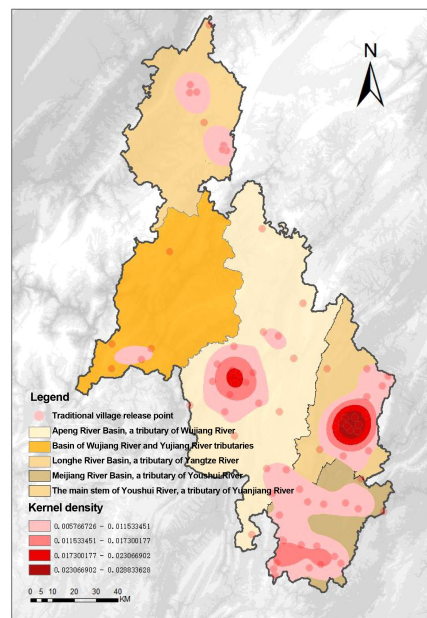


Figure 5 Kernel density analysis of the spatial distribution of traditional villages in southeast Chongqing

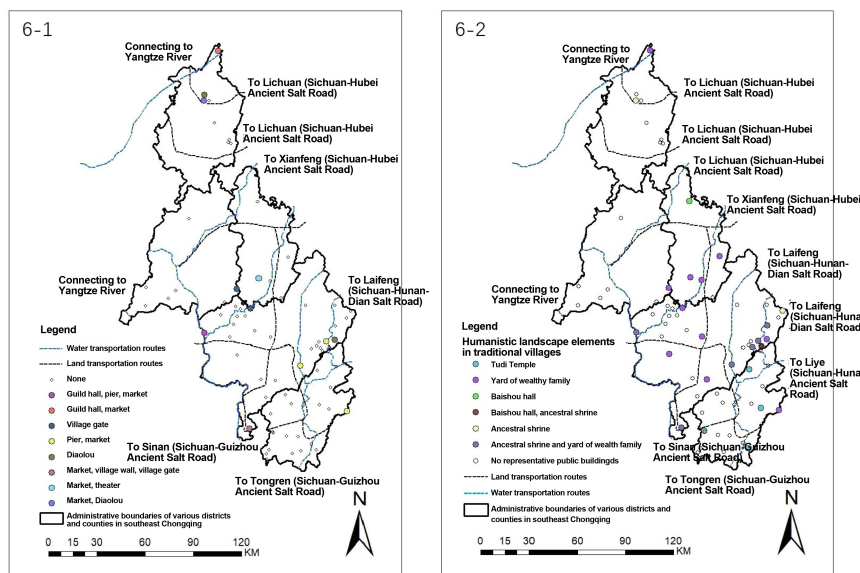


Figure 6 Spatial distribution of cultural landscape elements in traditional villages in southeast Chongqing

**3.2 Correlation characteristics based on ancient road transportation**

Correlation is an important factor in the formation of traditional village landscape clusters. From the above anal-

ysis of the influencing mechanism, it can be seen that water and land transportation and cultural identity are important clues to maintain the stability and development of the traditional village landscape cluster in southeast Chongqing

and are also important bases for the delineation of objects in future cluster protection and development. Therefore, by analyzing the spatial distribution of sample villages and their internal human landscape elements with the natural water system and the ancient road routes sorted out in the county annals, it is found that commercial function landscapes such as guild halls, docks, and markets and defensive function landscapes such as watchtowers and village walls are mainly distributed in villages adjacent to the ancient road routes (Figure 6-1); cultural core elements with regional influence, such as ancestral halls and baishou halls, are also closely related to historical ancient road routes (Figure 6-2).

### 3.3 Unique characteristics based on historical functions and national culture

Unique characteristics refer to the differentiated yet similar values of various landscape elements in the traditional village landscape cluster, which are also the resource and competitiveness of village landscape protection and utilization. Through the correlation analysis between the spatial distribution of sample villages and altitude, it is found that the functions of villages show vertical differentiation characteristics by altitude (Figure 7, Figure 8). The main functions of valley areas are water-land trade and agriculture combined with polder fields and dam fields, those of low-altitude mountain areas are land trade and agriculture combined with terraces, dam fields, and ridge fields, and medium-altitude mountains feature land trade and agriculture combined with ridge fields and terraces. Therefore, combined with the differences in the types of typical cultural landscape elements in traditional villages in southeast Chongqing, the traditional village landscapes in southeast Chongqing are divided into five landscape types: mountain agricultural landscape, ancient road trade landscape, military defense landscape, immigrant clan landscape, and ethnic landscape (Table 1).

### 3.4 Framework for cluster protection and utilization of traditional village landscapes based on systematic characteristics

Through the analysis of the three supporting attributes of agglomeration, correlation and characteristics, it can be found that the traditional village landscape cluster is

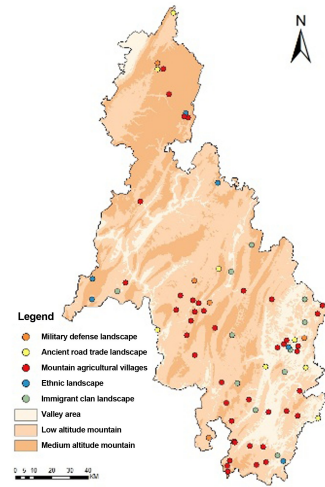


Figure 7 Spatial distribution of functional elements in traditional villages in southeast Chongqing

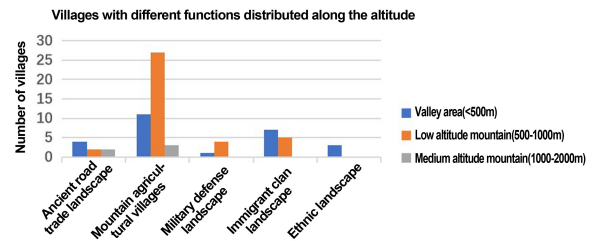




Figure 8 Distribution of villages with different functions by altitude in southeast Chongqing

not a simple sum of settlements and spatial collections, but a spatial structure of traditional settlement woven by water systems and roads under specific natural conditions. It embodies the multi-complex dynamic system relationship composed of the coupling interaction between natural, economic, political and cultural elements. How to optimize the agglomeration and correlation of the existing spatial functional system, optimize and reorganize these rich single settlement landscape type characteristics with the regional natural ecological environment and human geography resources, and form a traditional village landscape cluster protection and utilization system with agglomeration effect, group characteristics and differentiated development is a key issue that needs to be solved at this stage. Therefore, the study combines the landscape generation mechanism and spatial structure characteristics of traditional villages in southeastern Chongqing, analyzes regional cultural characteristics, delineates landscape cluster units, sorts out the key elements of landscape clusters, and constructs a framework for cluster protection and utilization of traditional villages in southeast Chongqing (Figure 9).

Table 1 List of landscape characteristics of traditional villages in southeast Chongqing

Broad categories of landscape features	Narrow categories of landscape features	Natural ecological landscape	Economic production landscape	Group settlement landscape				Family house landscape	Typical villages	Typical village aerial photo/ current status
				Spatial pattern	Street pattern	Cultural space	Spatial pattern			
Mountain agricultural village landscape	Slope terraced field village landscape	Mountain semi-slope	Mainly curved terraced fields	Large, medium and small-sized	Massive/strip	Organic organized	Ancestral house, well	Stilt house + zuozi house, courtyard	Hejiayan Village, Dahekou Village, Youyang County, Dazhai Village, Xiushan County (see the picture right))	
	Valley fishing and hunting village landscape	Mountain valley/river valley	Mainly polder/irregular dam field	Large, medium and small-sized	Scattered/strip	Organic dispersion/organic-organized	Baishou hall, pier, square	Courtyard, zuozi house	Cangling Village, Youyang County ( see the picture right ), Nanxi Village, Lianghe Village, Xiushan County	
Ancient road trade village landscape	Riverside trade village landscape	Riverside valley	Riverside trade, no farmland	Large-sized	Strip	Street-dominated	Ancestral hall, guild hall, pier	Shop, courtyard, zuozi house	Youyang Xiaoyin Village (see the picture right), Yandi Village, Xiushan Biancheng Village	
	Land-based village landscape	Hilly/flat land/mountain valley	Land-based trade, no farmland/ mainly irregular dam fields and curved terraces	Large and medium-sized	Strip	Street-dominated	Ancestral hall	Shop house, courtyard, zuozi house	Qianjiang Shuicheping Old Street (see the picture right), Shizhu County Fumin Village	
Military defense village landscape	Civil defense village landscape	River valley coast/hilly flat land/mountain valley	Land trade/ mainly irregular dam fields and curved terraces	Large and medium-sized	Massive/strip	Organic organized/ street-dominated	Village wall, watchtower, mountain village	Shop house, courtyard	Xincheng Village, Shizhu County (see the picture right), Nanjie Village, Youyang County, etc.	



(Continued)

Broad categories of landscape features	Narrow categories of landscape features	Natural ecological landscape	Economic production landscape	Group settlement landscape				Family house landscape	Typical villages	Typical village aerial photo/ current status
				Spatial pattern	Street pattern	Cultural space	Spatial pattern			
Immigrant clan village landscape	Immigrant manor village landscape	River valley	Mainly polder/ irregular dam field	Small and medium-sized	Massive/ scattered	Organic organized /organic scattered	Ancestral hall, ancestral house	Manor	Daping Village, Wuli Community, Youyang County Yangang Ancient Village ( see the picture right), etc.	
Ethnic characteristics village landscape		Mountainous half-slope/hilly flat land	Mainly curved terraces	Large, medium and small-sized	Massive	Organic organized	Baishou hall, tudi temple	Stilt house + zuozi house	Hewan Village (see the picture right ) in Youyang County, Qinglongzhai, Ethnic Village in Xiushan County, Xinjian Village in Qianjiang District	

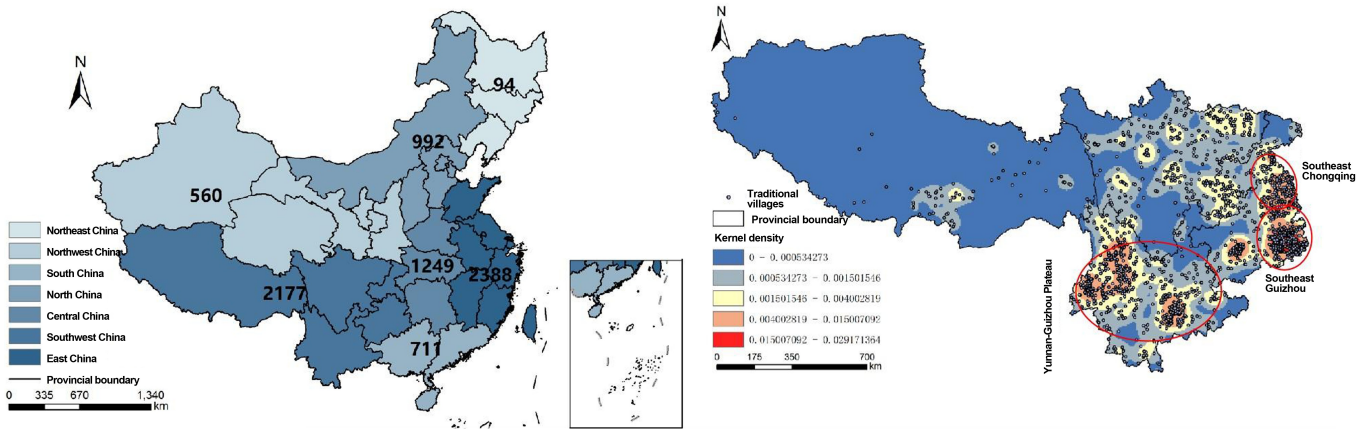


Figure 9 Framework of the cluster protection and utilization system of traditional villages in southeast Chongqing

#### 4 Cluster protection and utilization system of traditional village landscape in southeast Chongqing

##### 4.1 Region scale: spatial framework of landscape cluster protection based on cultural ecosystem

The regional cluster protection and utilization of traditional village landscape in southeast Chongqing not only

needs to protect the “point-shaped” traditional village landscape characteristics, but also emphasizes the “surface” mountain topography and ethnic cultural foundation, the cultural routes composed of natural water systems, historical ancient roads, and the village landscape composed of traditional village ecology, economy, settlements, hou-

ses and other landscape elements, which together form a regional cultural ecosystem [26]. This regional cultural ecosystem is the basis for the sustainable development of

historical and cultural protection in southeastern Chongqing, and its regional overall protection value is far greater than that of a single settlement.

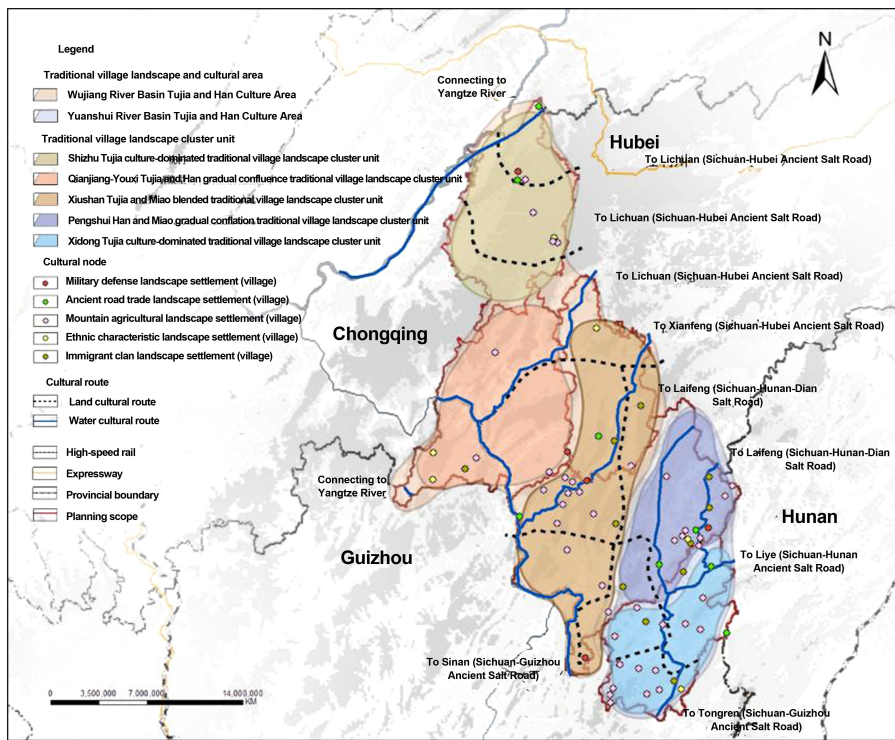


Figure 10 Cluster protection space framework for traditional village landscape in southeastern Chongqing

Therefore, starting from the agglomeration, correlation and characteristics of landscape clusters, a cluster-type spatial framework for the protection of traditional village landscapes consisting of “points-lines-surfaces” is established. The study comprehensively considers the agglomeration characteristics of traditional villages in southeast Chongqing with tributary water systems as the core, the correlative characteristics with ancient road transportation as the clue, and the unique characteristics with historical functions and ethnic culture as the value. The southeast Chongqing region is divided into two large traditional village landscape cultural areas in the north and south with Maobagai-Guangyangai as the boundary: the Tujia and Han cultural area in the Wujiang River Basin and the Tujia and Miao cultural area in the Yuanshui River Basin. Within the two cultural areas, they are further subdivided into five traditional village landscape cluster unit areas based on “geographical location + dominant or integrated cultural type” and the distribution and enrichment of cultural landscapes, so as to carry out more targeted protection

(Figure 10).

On this basis, it is necessary to break administrative boundaries at the regional scale and clarify the control measures for the basic elements and relevance elements that maintain the stability of landscape clusters [27]. For example, the protection of the regional Maobagai-Guangyangai mountain ecological basic network, the cultural ecological protection of the Youshui River, Meijiang River and Wujiang historical waterways and post lines, the protection of the traditional village structure and entity in the river basin, etc.

**4.2 Watershed scale: Construction of cultural routes and hierarchical protection strategies within cluster units**

The basin is both a geographical unit and a cultural unit. The natural geographical environment within the basin unit affects the generation of traditional village ecological landscape elements in a one-way dimension, while the human geographical environment affects the generation of village settlement landscape and architectural landscape in

the form of the flow of multiple elements such as transportation, technology, and culture [28]. The five traditional village landscape cluster units delineated above correspond to the Long River, a tributary of the Yangtze River, the Apeng River and Ayi River, tributaries of the Wujiang River, and the Youshui River and Meijiang River, tributaries of the Yuanshui River.

Therefore, the study proposes the construction of cultural routes and hierarchical protection strategies for the traditional village landscape clusters in the five tributary basin units. The basin units where traditional villages are concentrated are taken as the core areas of the traditional village landscape cluster units, and linear heritage protection corridors are constructed. According to the historical

functional characteristics of the villages and the types of landscape elements, core protection villages, key protection villages, and general protection villages are delineated (Figure 11, Table 2). First, a cultural route with water systems and ancient roads as clues is constructed within the landscape cluster unit. Taking the core area of the Youshui River Basin in the Youdong Tujia culture-dominated traditional village landscape cluster unit as an example, the delineation of the heritage corridor relies on the original site selection factor of the traditional village - the water system, and the 1.8 km range of the Youshui River mainstream and the 1.2 km range of tributaries such as Dajian-xi, where the historical and cultural resources are most concentrated, are delineated as the heritage corridor.

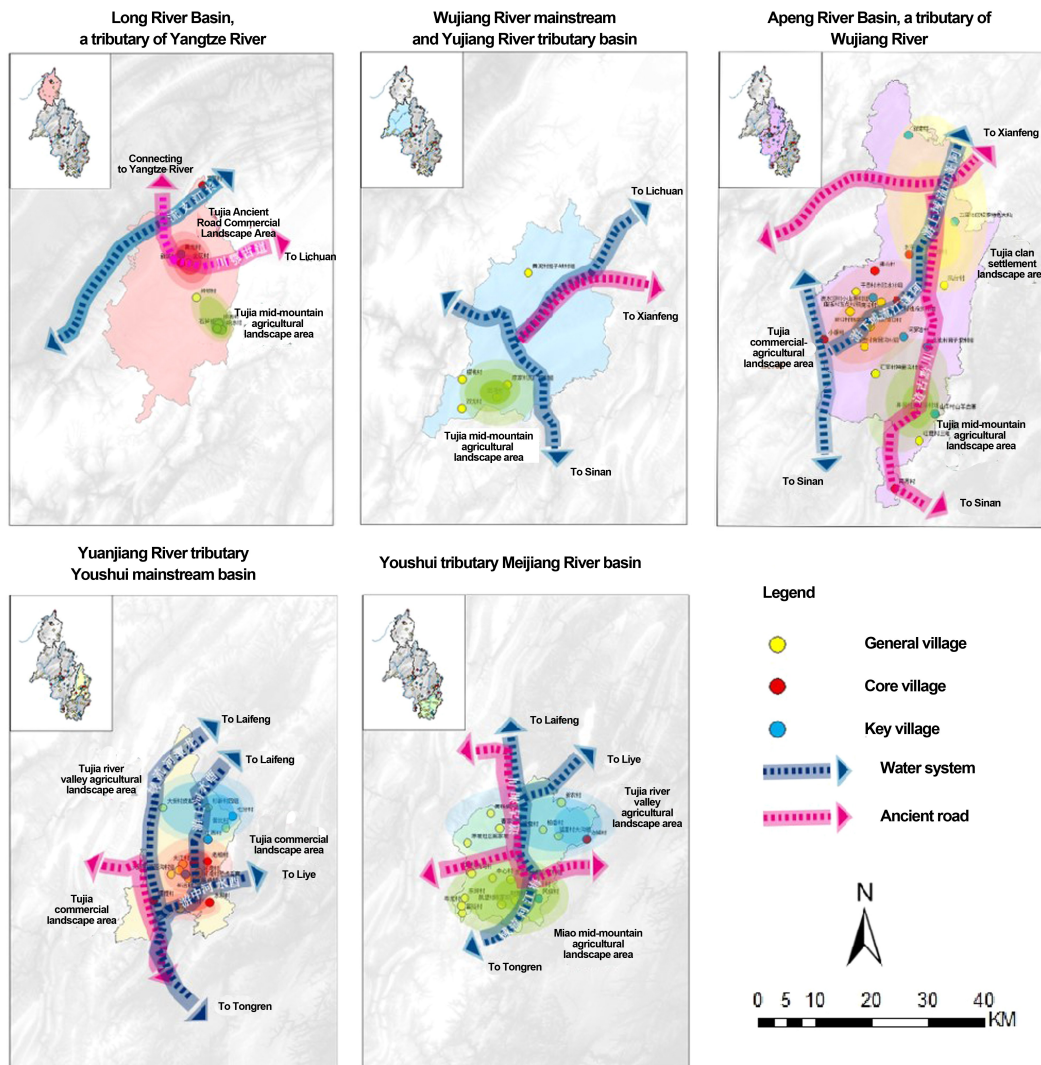


Figure 11 Hierarchical protection and cultural route map of traditional village landscapes in southeast Chongqing at the watershed scale

Secondly, in terms of the hierarchical protection strategy, the core protected villages with the landscape characteristics of the ethnic settlements in the mountainous areas of southeast Chongqing are comprehensively protected, their historical resources and surrounding environment are strictly controlled, and the important historical landscape elements in the villages are protected and designed to intuitively reflect the regionality of the traditional village landscape in southeast Chongqing; they are relied on to form the dominant center of the traditional

village land-scape resources in the basin. Secondly, the structural and related landscape elements such as the ancient transportation roads and military and commercial landscapes in the key protected villages are protected to strengthen their hub status in the basin landscape unit. For general farming villages, maintenance of the existing style is the main focus, and the integrity of the traditional village landscape elements is protected according to the three-zone control requirements.

Table 2 List of the zoning of traditional village landscape cluster units and village classification protection in southeast Chongqing

Traditional village landscape and cultural area	Traditional village landscape cluster unit	Landscape cluster unit area	Landscape cluster corridor	Traditional village landscape protection classification	
Maobagai-Guangyangai north of Tujia, Han and Miao culture mixed traditional village landscape and cultural area	Area I—Shizhu Tujia culture dominant traditional village landscape cluster unit	Tujia ancient road commercial landscape area	Sichuan-Hubei ancient road	Core village	Xincheng Village
				Key village	Huanglong Village
				General village	Jinhua Village
			Tujia mid-mountain agricultural landscape area	—	General villages
		Scattered distribution	Yangtze River tributaries	Core village	Fumin Village
	Area II — Pengshui Han-Miao culture-gradual conflation traditional village landscape cluster unit	Miao mid-mountain agricultural landscape area	—	General villages	Yingtao Village, Tianwan Village, Shuanglong Village, Rongjia Village Wachangba
		Scattered distribution	—	General village	Huangni Village Danzixia
	Area III — Qianjiang-Youxi Tu-Han culturegradual conflation traditional village landscape cluster unit	Tujia business-agricultural landscape area	Lower reaches of the Apeng River Basin	Core villages	Foshan Village, Shuicheping Old Street, Xiaoyin Village, Yongxiang Village
				Key villages	Hejiayan Village, Cangling Village Chiliushui Village Group, Dahekou Village, Shuiba Village Xiaoshanpo Village Group
				General villages	Lingkou Village Yangjiazhai Village, Qiantian Village Muoushui Village Group, Miaoxi Village Wulong Village Group, Nanxi Village
		Tujia clan settlement landscape area	Upper reaches of the Apeng River Basin	Key village	Shuicheping Old Street
				Key villages	Xinjian Village, Daping Village, Wuli Community Chengjia Characteristic Courtyard
				General village	Fengtai Village
		Tujia mid-mountain agricultural landscape area	Sichuan-Guizhou ancient road	Core village	Nanjie Village
				Key village	Longchi Village Dongzituo Village Group, Yangyang Village Yanggu Village
Generalvillage				Huijia Village Shenliangxi Village Group, Bingyuan Gelaoxi Village Group, Hongxia Village Group 3	

(Continued)

Traditional village landscape and cultural area	Traditional village landscape cluster unit	Landscape cluster unit area	Landscape cluster corridor	Traditional village landscape protection classification	
Maobagai-Guangyangai South Tujia-Miao Culture Mixed Traditional Village Landscape	Area IV - Youdong Tujia Culture Dominant Traditional Village Landscape Cluster Unit	Tujia commercial landscape area	Longtan River Basin	Core villages	Yanti Village, Shuiba Village
				General village	Yanyuan village
		Tujia commercial landscape Area	Youshui River Basin Middle Reaches	Core villages	Laobai Village, Houxi Village
				Key Village	Qinglong village Qinglong stockage
				General villages	Qianjin Village, Hewan Village, Dajiang Village, Hewan Village Konghuxi Village, Changyuan Village, Liangzhi Village Lantiangou, Guangming Village Zinc Jianggou Village Group, Daban Village Pidu Village Group
	Tujia river valley agricultural landscape area	Upper Youshui River Basin	Key villages	Qifen Village, Jiangxi Village	
			General villages	Daban Village Pidu Village Group, Xibi Village, Shanling Village Group 4	
	Area V - Xiushan Tu-Miao Culture Integration Traditional Village Landscape Cluster Unit	Miaomid-mountain agricultural landscape area	Sichuan-Hunan Ancient Road	Key villages	Minzu Village, Kaigan Village
				General villages	Caitang Village, Dazhai Village, Lianghe Village, Kaibao Village Chenjiaba, Dongping Village, Fuyu Village, Cenlong Village, Guanxian Village Dayeshanzhai Village Group, Zhongxin Village
		Tujia river valley agricultural landscape area	Meijiang River Basin	Core village	Biancheng Village
			General villages	Xinnon Village, Caojiagou Village, Huangyangbiandan Village, Maopo Community Xiongjiapo, Baixiang Village, Yuanyang Village, Mengdong Village Dagou Group	

**4.3 Settlement scale: Exploring innovative utilization models for differentiated development**

On the one hand, the traditional village landscape is a cultural landscape heritage that has continued to evolve over a long period of historical change, and on the other hand, it is also an important component of the contemporary rural living environment. At this stage, the concentrated and contiguous protection of traditional villages requires the protection and utilization of traditional villages to be transformed from the utilization of landscape resources of a single village to the upgrading of traditional village cluster capital. The traditional village cluster utilization model expands the planning scale to the natural space system and the urban-rural coordination system from the perspective of holistic protection and sustainable development, and explores ways to activate the protection

of cultural heritage and match urban and rural economic development [3]16-20. Taking the traditional village landscape cluster unit of Qianjiang and Youxiof gradual confluence between Tujia and Han cultures as an example, in addition to the typical commercial villages and towns of Longtan Ancient Town and Gongtan Ancient Town, the natural landscape of the canyon of the Apeng River tributary in the Wujiang River Basin, the long-established Ran family Tusi administrative center, the “Qianjiang Ancient Road” running through Hunan and Guizhou, and the extensive pastoral and mountain villages between the river valleys and mountains together constitute the Youxi’s traditional village landscape pattern of “ancient road commerce, mixed residence of Tujia and Han.” At present, the ancient towns of Longtan and Gongtan have been well protected, but the overall pattern of their historical villages

and towns and many of the “points” and “lines” of traditional village landscape resources are being destroyed by the homogenized tourism industry competition and the gap in urban and rural economic development. Therefore, it is necessary to carry out targeted guidance on industrial development, urbanization, road traffic, landscape control, etc. in the landscape cluster units of Qianjiang and Youxi traditional villages, establish a landscape cluster system development strategy with cultural heritage function as the core, and list ecological conservation function and traditional agricultural fine transformation as the priority areas for the development of traditional villages in the landscape cluster units, so as to ensure agricultural production functions and provide support and control for the development of heritage tourism. On this basis, combined with the location conditions of the villages, the landscape types of traditional villages and the current socio-economic situation, three models of living in the countryside, ecological conservation and heritage tourism are proposed (Figure 12) to achieve differentiated development.

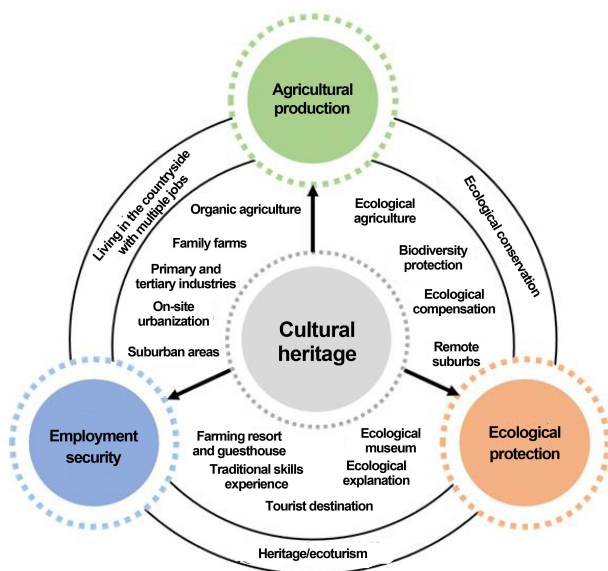


Figure 12 Utilization model of cluster protection of traditional village landscape in southeast Chongqing

The development positioning of traditional villages such as Xinjian Village and Daping Village is mainly based on the heritage tourism model. In terms of landscape types, they are mainly military defense landscapes with distinctive cultural landscape elements, immigrant clan

landscapes and ethnic landscapes. Their tourism development has great potential and their employment guarantee function is relatively obvious. However, in order to avoid the gentrification and kitsch tourism development that deviates from the cultural heritage function, the combination of heritage interpretation, traditional village cultural landscape types and tourism should be emphasized. We cannot simply pursue the maximization of economic benefits. We need to develop more forms from the collective level of rural communities to achieve the goal of heritage and ecotourism development.

The development positioning of traditional villages such as Shuicheping Old Street and Xincheng Village is mainly based on the model of living in the countryside with multiple jobs. In terms of landscape types, they are mainly ancient road trade landscape villages and intensive agricultural landscape villages. They rely on relatively convenient transportation conditions, based on traditional agricultural resources, and increase the relative profits of agriculture in the form of family farms, organic agriculture, and ecological agriculture, attracting rural young labor to combine agriculture and nearby employment to achieve “local urbanization.”

The development positioning of traditional villages such as Fengtai Village and Xiangshui Village is mainly based on the ecological conservation model. In terms of landscape types, they are mainly a few traditional agricultural and forestry landscape villages. Because agricultural productivity is weak, population decline is serious, and infrastructure construction is difficult to be effective, reducing the human and material input per unit area is more in line with the natural resource and environmental characteristics of the village, and is also conducive to improving its ecological conservation function. For such villages, it is necessary to actually reduce the economic pressure on farmers. Eco-museum projects or natural reserves can be used to develop eco-friendly agriculture and protect the characteristics and patterns of rural ecological landscapes. The key is to strengthen the comprehensive construction of social infrastructure and achieve the goal of social equity.

## 5 Conclusion

With the advancement of the concentrated and contiguous protection of traditional villages in China, the significance of the holistic and clustered protection of traditional village landscapes from a regional perspective has gradually received attention. In 2020, the Ministry of Finance and the Ministry of Housing and Urban-Rural Development issued the “Notice on Organizing the Application for Demonstration Cities for the Concentrated and Contiguous Protection and Utilization of Traditional Villages in 2020” (Finance Office Construction [2022] No. 6), which clearly defined the overall goal of “promoting the comprehensive improvement of the appearance of regional traditional villages, while exploring the establishment of a long-term mechanism for the protection and transformation of traditional villages, and demonstrating and driving the protection and utilization of traditional villages in other regions.” Therefore, this study takes the southeastern Chongqing area on the northwest edge of the Wuling Mountain area, where traditional villages are most concentrated, as the research area. Based on the analysis of the influencing mechanism of traditional village landscape generation and the characteristics of landscape clusters, a framework for clustered protection and utilization of traditional village landscapes is constructed, and the clustered protection space and implementation strategy of the “point-line-surface” regional landscape space are proposed, amounting to an empirical study of the existing holistic concentrated and contiguous protection model.

As the research on the protection and development of traditional villages in China continues to advance, the exploration of regional, holistic, and cluster protection models and paths for traditional villages will become an important topic for future research. The problems of insufficient functions, disorderly competition, and resource waste caused by the protection model dominated by the protection of single settlements in the previous stage will become the core issues that need to be solved in the protection and utilization of historical and cultural resources at the scale of national space planning. This study is based on the exploration of the classification of traditional village landscape types from a historical and geographical perspective, and the exploration of the cluster protection

and utilization system of traditional village landscapes at the three levels of region, watershed, and settlement. It can provide methodological support for the overall systematic protection and dynamic coordinated development of traditional village landscapes in areas with concentrated and contiguous traditional villages in China, and provide a reference for the regional and holistic protection of traditional settlements and dwellings in other ethnic regions.

### Figure and Table Sources

Figures 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, and 12: created by the authors.

Figure 4: Redrawn according to Figures 4-1, 4-2, 4-3, 4-4, 4-5, and 4-6 in reference [28].

Table 1: The table and the photographs are all works of the authors.

Table 2: Made by the authors.

### Notes

- 1) Archaeological discoveries in southeast Chongqing are relatively scarce, but the sites of Yongshun Buermen in Xiangxi, Chadong in Huayuan, and Liujiahe settlement in the Lingshui River Basin that have been discovered in the Wuling Mountain area in southeast Chongqing are closely related to rivers.
- 2) See (Song) Le Shi: Taiping Huanyu Ji, Volume 120, Jiangnan Xidao 18.

### References

- [1] LIU Peilin, LIU Cunla, DENG Yunyuan, et al. Landscape Division of Traditional Settlement and Effect Elements of Landscape Gene in China[J]. Journal of Geographical Sciences, 2010, 65(12): 1496-1506.
- [2] WU Yan, SHAN Jun. Association Study on Regionality and Ethnicity of Building in the Minority Settlements of Northwest Yunnan [J]. Architectural Journal, 2013(5): 95-99.
- [3] ZHANG Dayu, ZHANG Wenjun, CHEN Danliang. Analysis and Exploration of the Concept of Traditional Settlement Protection and Development Cluster Mode in The New Period[J]. Urban Development Studies, 2022, 29(4): 17, 19, 16-20.
- [4] LIU Peilin, LIU Cunla, LI Bohua, et al. Characteristic and Genes-Analysis of Traditional Settlements' Landscapes in Chinese Minority Areas[J]. Chinese Geographical Science, 2010, 30(06): 810-817.
- [5] ZOU Weihuan, ZHANG Dingqing. Research on Landscape Gene I-

- dentification and Mapping of Traditional Settlements: A Case Study of Traditional Settlements along Shu Routes in Southern Shaanxi[J].New Architecture,2021(1):121-125.
- [6] WANG Zhaofeng,LI Qin,WU Wei.Genome Map Construction of the Cultural Heritage Landscape and Its Characteristics in Traditional Villages of Wuling Mountain Area[J].Economic Geography,2021,41(11):225-231.
- [7] LI Xin,GUO Wei,LIN Qing.Research on Landscape Characteristics of Traditional Settlements in Hangjiahu Area[J].Modern Urban Research,2022(1):62-68.
- [8] YIN Langchuan,LI Bohua,LIU Peilin, et al.Biological Characteristics of Landscape Gene Cells in Traditional Settlements[J].Economic Geography,2022,42(03):182-189.
- [9] HU Hui,HU Zui,WANG Fan, et al.Features of Gene Information Chain of Traditional Village Landscape and Its Identification[J].Economic Geography,2019,39(08):216-223.
- [10] YIN Langcuan,LIU Peilin,LI Bohua et al.Map of Traditional Settlement Landscape Morphology Gene: A Case Study of the Xiangjiang River Basin[J].Chinese Geographical Science,2023,43(6):1053-1065.
- [11] LI Jing, YANG Dinghai, XIAO Dawei. Regional Differentiation and Forming Mechanism of Cultural Landscape of the Traditional Settlements and Vernacular Dwellings in Hainan Island[J].Urban Development Studies,2020,27(5):1-8.
- [12] XIANG Yuanlin,CAO Mingming,QIN Jin, et al.Study of Traditional Rural Settlements Landscape Genetic Variability in Shaanxi Province Based on Accurate-Restoration[J].Progress in Geography,2020,39(09):1544-1556.
- [13] HU Zui.A Research on the Geographical Information Features of Traditional Settlement Landscape Gene and the Related Understanding Approaches [J].Journal of Geo-Information Science, 2020,22(5):1083-1094.
- [14] HU Zui,LIU Peilin.Exploration on the Combination of GeoDesign and the Theory of Cultural Landscape Genes of Traditional Settlements[J].Economic Geography, 2021,41(8):223-231.
- [15] LIN Likai,GUI Yan,DU Chunlan.Study on Landscape Environmental Adaptation of Traditional Yi Settlements in Southwest China[J]. Chinese Landscape Architecture,2023,39(4): 27-33.
- [16] PAN Ying, WU Qi,SHI Ying.Research on the Landscape Characteristics and Values of Traditional Settlements in Gulao Watersides Settlement[J].City Planning Review,2022,46(7):108-118.
- [17] PAN Ying,BAI Rui,SHI Ying.Research on the Landscape Characteristics of Traditional Settlement under the Influence of Topographic Factors—A Case of Weizhou Island in Beibu Gulf[J]. Chinese Landscape Architecture,2021,37(11):33-38.
- [18] CHEN Xiaohua,WU Shiqiang.Development Pattern, Mechanism and Guiding Strategy of Network Protection of Regional Traditional Villages: Taking Jixi County of Anhui Province as an example[J].Journal of Anhui Agricultural University,2023,50(3): 473-483.
- [19] JIANG Pei chen,WANNG Zhu.Exploration on the Construction of Regional Traditional Village Hierarchical Collaborative Network Based on MST Clustering: A Case Study of Concentrated Continuous Protection and Utilization of Traditional Villages in Yongzhou City[C] // Academic Committee of Urban Planning New Technology Application of Urban Planning Society of China. Consolidating the Data Foundation, Strengthening the Innovation Engine and Empowering Multi-dimensional Scenarios—Proceedings of the 2022 China Urban Planning Informatization Annual Conference. Guangxi Science and Technology Publishing House,2022:408-416.
- [20] LYU Ningxing,FAN Zaiyu,GENG Hong, et al.The Integral Cultural Protection Dilemma and Revitalization Development Strategy of Ethnic Villages in Poverty-Stricken Areas[J].Modern Urban Research,2019(07):8-15.
- [21] CHANG Guangyu,HU Yan.Exploring the Protection and Development of Traditional Villages Cluster[J].Urban Development Studies,2020,27(12):7-11.
- [22] LI Mei,XU Dongsheng,ZHAO Pengfei,etal.Investigation on Continuous Protection and Activation Utilization of Traditional Settlement Space Via Digital Technology-Taking Jingxing County as an example[J/OL].Industrial Construction:(2022-10-31)[2022-12-27].https://kns.cnki.net/kcms/detail/11.2068.TU.20221031.0927.002.html.
- [23] XIE Xiaohui.Manufacturing Marginality: Xiangxi in the 10th-19th Centuries[M].Beijing: Triptych Bookstore,2020:50-53、125-128.
- [24] XIE Yuting, YING Jiabin, CHEN Lin. Typology, Morphogenesis and Adaptive Transformation of Polder Landscape in the Yangtze River Delta[J].Urban Development Studies, 2022,29(4):70-77.
- [25] GAO Fanqing,YANG Yuliang,ZOU Kaize, et al.The Study of the Basin Differentiation of Traditional Villages in Yunnan Province [J].Journal of Yunnan Normal University( Natural Sciences Edition),2022,42(1):64-72.
- [26] SHAO Yong,HU Lijun,ZHAO Jie.Research on the Overall Protection and Utilization of Historical and Cultural Resources from a Regional Perspective: A Case Study of Southern Anhui[J].Urban Planning Forum,2016(3):98-105.
- [27] SHAO Yong,CHEN Huan,HU Lijun.The System,Types and Characteristics of Historic Settlements in Southern Anhui [J].HERitage Architecture,2021(1):38-51.
- [28] ZHU Shengzhong.Regional Economy and Spatial Process: An Exploration of the Historical Economic Geography of the Tujia Region[M].Beijing:Science Press,2015:76-78、193-795.