

Research Article

Construction of Ecological Landscape Environment in Guanzhong Traditional Villages from the Perspective of Rural Revitalization

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In order to supplement and improve the landscape evaluation system of traditional villages and play a positive guiding role in the specific protection and development of village landscape, this paper proposes the ecological landscape environment evaluation of traditional villages in Guanzhong from the perspective of rural revitalization. First of all, the relevant national and provincial evaluation standards are deeply studied, and the comprehensive evaluation system of the traditional village landscape in the Guanzhong region is constructed by using expert scoring and an analytic hierarchy process, which includes 6 criteria and 25 indicators. Three typical villages of different types and different development stages, namely, village A, village B, and Village C, were selected for landscape investigation and comprehensive evaluation. The results show that the weight of village location and landscape pattern is the largest, that is, the most important. The second is architectural landscape, with a weight of 0.236, accounting for a high proportion. Then, it is the natural landscape and street landscape, with a weight of 0.1-0.2. Finally, it is the intangible cultural landscape and landscape style protection, with a weight of less than 0.1. The alpha value of the comprehensive evaluation questionnaire of the village A is 0.984. The alpha value of the comprehensive evaluation questionnaire of village B is 0.941. The alpha value of the comprehensive evaluation questionnaire for the landscape of village C is 0.986, which is greater than 0.8. *Conclusion.* This study makes a comprehensive evaluation of the landscape of typical traditional villages.

1. Introduction

“Building a beautiful village is not about “smearing grease and powder.” It cannot be demolished and built, especially ancient villages must be well protected,” General Secretary Xi Jinping emphasized in Dongshan Village, Hubei. With the continuous progress of the times, the social environment in which we live is also changing and developing. The central government pays more attention to the protection of traditional villages at the national level. In 2012, the Ministry of Housing and Urban-Rural Development, the Ministry of Culture, the State Administration of Cultural Relics, and the Ministry of Finance jointly issued the notice on the investigation of traditional villages, which was the first investigation of traditional villages. In 2015, a notice from the Ministry of Housing and Urban-Rural Development and

other departments on the protection of Chinese traditional villages was issued, further strengthening the protection of traditional villages [1]. In 2020, the general office of the Ministry of Housing and Urban-Rural Development issued a notice for the implementation of the listing and protection of Chinese traditional villages. At the same time, the number of traditional villages in the list was counted and published, increasing from 646 in the first batch to 2666 in the fifth batch, with an increase year by year. The 2018 strategic plan for Rural Revitalization (2018–2022) was officially approved and issued by the CPC Central Committee and the State Council [2]. The plan further clarified the specific contents and key issues related to promoting rural economic revitalization in that year. It is proposed that “famous historical and cultural villages, traditional villages, ethnic minority characteristic villages, characteristic landscape

tourism villages, and other villages with rich natural, historical, and cultural characteristics and resources are important carriers to highlight and inherit the excellent traditional culture of China. Figure 1 shows the village's scenic spot of rural landscape practice to explore a new path for rural revitalization.

Culture is the soul of tourism and tourism is the carrier of culture. The guiding opinions of the general office of the state council on promoting the development of territorial tourism were issued in 2018, and then the Ministry of Culture and Tourism officially launched the curtain of the integrated development of culture and tourism in the same year. Under the background of the integrated development of culture and tourism, for the typical and unique agricultural civilization and agricultural culture of traditional villages, they have become the "favorite" in the development of rural tourism, while the traditional village landscape is not only agricultural civilization. As an important expression of agricultural culture, it is also an important material carrier [3]. Based on these, the evaluation of the traditional village landscape is particularly important. Only by building a reasonable evaluation model for a traditional village landscape and obtaining accurate evaluation results, can we make targeted protection for the traditional village landscape and develop and utilize it on the basis of protection. Agricultural culture has a long history in China, and traditional villages are the carrier of this culture, which contains rich historical culture and natural ecological landscape resources. However, with the change in society and the development of the times, the acceleration of the urbanization process has led to multiple challenges and impacts on traditional villages in China, presenting problems such as a reduction in number, destruction of history and culture, and loss of village characteristics. These problems make the development of traditional villages easy to enter a fork in the road. Based on these problems, this paper attempts to construct the landscape evaluation system of traditional villages in Anhui Province, so as to provide a development path for traditional villages from the perspective of the landscape, which is conducive to better development and protection of traditional villages [4].

On the basis of this study, this paper uses AHP to establish the landscape evaluation system of traditional villages in Guanzhong area on the distribution law, site selection characteristics, landscape characteristics, and classification of traditional villages in Guanzhong area. Different types of typical traditional villages were selected to explore the landscape characteristics and existing problems of the traditional village landscape in Guanzhong area from the microlevel.

2. Research Methods

2.1. Method

2.1.1. Literature Induction. We search academic works, papers, and periodicals through the academic journal website, widely collect relevant domestic and foreign documents, conduct in-depth research on the research results of

traditional villages, traditional village landscapes, traditional village landscape evaluation, landscape characteristics, landscape sensitivity evaluation, etc., at home and abroad, and do a good job in the collection and collation of literature review and village basic data [5, 6].

2.1.2. Field Investigation Method. In the field survey, the landscape of regional traditional villages was investigated in detail. According to the contents of the "Questionnaire on Filing of Traditional Villages," attention should be paid to observation, photography, and mapping in the actual investigation, improving the basic data of the study and sorting out the basic data. We should pay attention to communicating with the government staff and the secretary of the village committee of the village to obtain historical and cultural information about the village. At the same time, we actively communicate and interview villagers to master the current situation of residents' production and life, understand their site selection characteristics, settlement landscape pattern, plane shape, and architectural landscape, and deeply explore the problems of traditional village landscape [7].

2.1.3. Mathematical Analysis. This paper first establishes the traditional village geographic database through Baidu coordinate picking and coordinate deviation correction processing and then, relying on the spatial data processing function of the ArcGIS platform, carries out quantitative analysis of the distribution characteristics of traditional villages in the region and the landscape pattern characteristics of village location through kernel density analysis, buffer zone analysis, weighted overlay analysis, and other methods.

2.1.4. Analytic Hierarchy Process. Analytic Hierarchy Process (AHP), for short, refers to the decision-making method that decomposes the elements that are always related to decision-making into objectives, criteria, schemes, and other levels and carries out qualitative and quantitative analysis on this basis. The hierarchical structure is objective level, criteria level, and indicator level [8, 9]. In this study, the analytic hierarchy process was applied to determine the weight of the traditional village landscape comprehensive evaluation system and the single factor weight of the landscape ecological sensitivity evaluation.

2.1.5. Expert Scoring Method. The expert scoring method refers to the method of soliciting the opinions of relevant experts anonymously, making statistics, processing, analysis, and induction of the opinions of experts, objectively synthesizing the experience and subjective judgment of most experts, making reasonable estimates of a large number of factors that are difficult to be quantitatively analyzed by technical methods, and analyzing the degree of value realization after multiple rounds of consultation, feedback, and adjustment [10, 11].

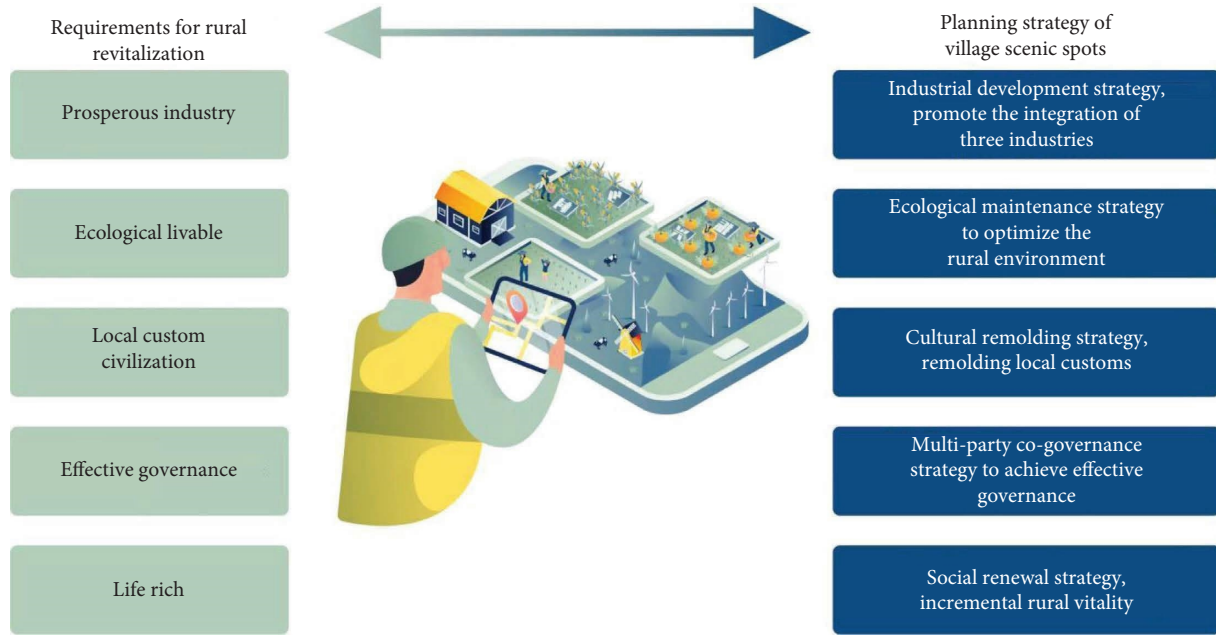


FIGURE 1: Village scenic spot of rural landscape practice: exploring a new path for rural revitalization.

2.2. Selection Principles of Indicators

2.2.1. *Scientific Principle.* The comprehensive evaluation index of traditional village landscape should be selected from a scientific perspective. The indicators should be able to measure and reflect the situation of the landscape and have scientific connotation. The statistics and analysis methods of indicators should be standardized and universal.

2.2.2. *Systematic Principle.* In the later stage, the indicators are used for the construction of the evaluation system, while the traditional village landscape is an organic system, including many subsystems, so the selection of indicators should be comprehensive and there should be a clear subordinate relationship between levels [12].

2.2.3. *Operability Principle.* Due to the particularity of traditional village landscape measurement, the selected index factors should be measurable and operational.

2.3. Selection of Index Factors

2.3.1. *Interpretation of the Evaluation Standard Index System.* The evaluation and identification index system of traditional villages (for Trial Implementation), the evaluation index system of famous historical and cultural towns and villages in China, the evaluation and identification index system of traditional villages in Shaanxi Province (for Trial Implementation), and other relevant evaluation standards are deeply studied [13].

2.3.2. *Summary of Traditional Village Landscape Evaluation.* Based on the theme of “traditional village landscape evaluation,” “village landscape evaluation” and “traditional

village evaluation,” the index of key documents is extracted and screened. The rural landscape evaluation index system proposed by Professor Liu Binyi includes five degrees of landscape habitability, accessibility, compatibility, sensitivity, and beauty. We established a landscape style evaluation system that includes 4 criteria and 27 indicators, including natural landscape, human landscape, artificial landscape, and landscape-style environment. The landscape evaluation system is established on the basis of human landscape, natural landscape, and intangible culture. In this paper, the factors of the criterion layer and the index layer of the key documents are counted, and the natural landscape and the street landscape are further extracted as the criteria layer of the comprehensive evaluation of the landscape, and then, we adjust the standard level and index level in combination with the regional characteristics of Guanzhong region to further supplement and improve the evaluation system [14].

2.4. *Establishment of Evaluation System.* According to the abovementioned analysis, the landscape evaluation index system of traditional villages in Guanzhong area is finally determined (Table 1).

3. Result Analysis

3.1. Index Weight Calculation

3.1.1. *Construction of Comparison Matrix.* In order to get the importance of the evaluation indexes, the expert scoring method is used to calculate the weight of the initially constructed comprehensive evaluation index system of traditional village landscape in Guanzhong area. Thirty experts in landscape architecture, planning and design, tourism planning, and other related disciplines were selected for matrix scoring, which were all valid questionnaires [2].

The following judgment matrix (Tables 2–8) is finally obtained by combining expert opinions and weight judgment through multiple studies:

3.1.2. Weight Calculation and Consistency Inspection. It mainly includes the following steps to obtain the weight of the comprehensive evaluation index system of traditional village landscape in Guanzhong area:

- (1) The weight of each factor of each matrix is obtained by the arithmetic mean method; after summarizing the weights of each factor, we calculate the total ranking weight (Table 9).
- (2) The consistency test shows that the CR value of each matrix is less than 0.1, and the consistency result is good (Table 10).

3.1.3. Weight Result Analysis. The weight reflects the impact of the index on the landscape style of traditional villages in Guanzhong area. We reorder the total ranking weight of the 25 factors in the index layer (Table 11). Statistical analysis shows that among the 25 factors, the weight greater than 0.050 mainly includes the integrity of the C2 village landscape pattern, the regionality of the C7 traditional architectural style, the richness of C1 village historical elements, the attraction of the C15 water landscape, the age of C9 traditional architecture, the recognition of the C10 street landscape, the age of C3 village formation, and the attraction of C14 plant landscape. It shows that it is very important to protect the integrity of the landscape pattern, the regionality of the architectural style, and the preservation of historical elements for villages. However, the implementation degree of the C22 supervision and management system, the suitability of the C12 street and lane space scale, the richness of the C20 intangible culture, and the cleanliness of C24 environmental sanitation facilities are all low, which indicates that there is not enough attention in supervision and management and intangible cultural inheritance of traditional villages, mainly focusing on the physical landscape [15].

3.2. Comprehensive Evaluation of Typical Traditional Village Landscape in Guanzhong Area

3.2.1. Comprehensive Evaluation Calculation. In September and October 2020, field surveys and interviews were conducted for villages A, B and C, and the comprehensive evaluation of typical traditional villages in Guanzhong area was issued to local tourists, villagers, and members of the village committee. A total of 100 questionnaires were distributed and 85 valid questionnaires were recovered, including 30 in village A, 28 in village B, and 27 in village C [16].

(1) Data Reliability Test. In order to ensure the authenticity of the questionnaire results, this paper uses SPSS online calculation to analyze the data reliability. It can be seen from the test results (Table 12) that the alpha value of the

comprehensive assessment questionnaire of village A is 0.984. The alpha value of the comprehensive evaluation questionnaire of village B is 0.941. The alpha value of the comprehensive evaluation questionnaire of C village is 0.986, which is greater than 0.8, indicating that the reliability of the questionnaire is excellent.

(2) Scoring Data Processing. We process the obtained data, calculate the average value of the indicator layer, and use the average value to represent the final score of the indicator [17]. Through the calculated total ranking weight value and the average value of the indicator layer, the final score of the indicator layer is calculated (Table 13), and the score of the criterion layer is calculated. Finally, the comprehensive evaluation results of village A, village B, and Village C are calculated (Tables 14–16).

3.2.2. Analysis of Evaluation Results. The overall statistical analysis shows that among the three traditional villages, village A has the highest comprehensive evaluation score of landscape, followed by village B and finally village C. Through comprehensive analysis of the data of the criterion layer (Figure 2) and the indicator layer (Figure 3), it is found that village a has the highest scores in terms of site selection and landscape pattern, architectural landscape, street landscape, intangible cultural landscape, and landscape style protection, and the natural landscape is in the second place. At the level of street and lane landscape and natural landscape, the landscape planning and design are carried out, the street and lane scale is appropriate, and a variety of landscape techniques are used. The development degree is the highest and the overall landscape is the best [18]. The material cultural landscape of traditional villages has been repaired, and the intangible cultural heritage hall has been built to display the intangible cultural heritage of Guanzhong. The infrastructure is complete, and the “a village model” of Rural Revitalization has achieved good results.

From the criteria level, the index level, and the field survey results, the overall score of village B is the second. Among them, the village site selection and landscape pattern, architectural landscape, street landscape, and intangible cultural landscape are in the second place, and the natural landscape and landscape style protection are in the third place. Village B has a special landform, a perfect landscape pattern, and a long history. The development plan for traditional villages in village B has been prepared, and a hot spring resort hotel has been built based on geothermal resources. The overall landscape atmosphere is good. However, the protection of traditional dwellings and streets and lanes is insufficient, and the phenomenon of empty and waste in ancient villages is obvious. The protection and renewal of the village’s traditional houses and historical streets and lanes is the biggest problem faced by village B. The public space of village B has poor sanitation and infrastructure. Due to the high degree of hollowing out of villages and the increase in the degree of abandonment of buildings, there is a problem of generation division in

TABLE 1: Comprehensive evaluation index system of traditional village landscape in Guanzhong area.

Target layer A	Criterion layer B1–B6	Index layer C1–C25
Comprehensive evaluation of traditional village landscape in Guanzhong area A	Site selection and landscape pattern B1	<ul style="list-style-type: none"> C1 richness of historical elements of villages C2 integrity of village landscape pattern C3 the age of village formation C4 particularity of village site selection
	Architectural landscape B2	<ul style="list-style-type: none"> C5 coordination between village and surrounding environment C6 coordination of new and old buildings C7 regionalism of traditional architectural style C8 integrity of traditional buildings C9 age of traditional architecture
	Street landscape B3	<ul style="list-style-type: none"> C10 regional recognition of street and lane landscape C11 integrity of street and lane landscape C10 suitability of spatial scale of streets and lanes C13 street lane spatial node richness
	Natural landscape B4	<ul style="list-style-type: none"> C14 plant landscape attraction C15 water landscape attraction C16 attraction of ancient and famous trees C17 air quality comfort
	Intangible cultural landscape B5	<ul style="list-style-type: none"> C18 integrity of intangible cultural space C19 continuity of regional folk customs C20 intangible cultural richness C21 inheritor of intangible culture
	Landscape protection B6	<ul style="list-style-type: none"> C22 implementation of supervision and management system C23 villagers' awareness of landscape environmental protection C24 environmental sanitation facilities and cleanliness C25 perfection of village planning

TABLE 2: Total matrix.

A	B1	B2	B3	B4	B5	B6
B1	1	2/3	7/2	2	3	4
B2	1/3	1	2	4/3	3	7/2
B3	3/5	1/2	1	2/3	5/3	2
B4	1/2	3/4	5/2	1	2	3
B5	2/3	1/3	3/4	1/2	1	3/2
B6	1/4	3/7	1/2	1/3	2/5	1

intangible heritage, resulting in a low degree of intangible cultural heritage.

Through the comprehensive evaluation of the landscape of the three villages, it is found that the benign development of rural tourism has promoted the protection and renewal of traditional village landscape and the inheritance and protection of intangible culture to a certain extent and played a key role in the construction and development of traditional villages [19, 20]. To a certain extent, it has promoted the revival of traditional villages, slowed down the problem of hollowing out villages, and increased the vitality of villages; the protection of traditional village landscape is from top to bottom. On the basis of compiling village planning, we should strengthen the villagers' awareness of the protection and development of traditional villages.

3.3. Problems in Traditional Village Landscape in Guanzhong Area. Through the comprehensive evaluation and field investigation of the typical traditional village landscape in Guanzhong area, the author found that the traditional village landscape in Guanzhong area is of high value and rich in material and intangible cultural landscape resources. However, the following problems still exist:

3.3.1. Material Cultural Landscape. In recent years, due to the impact of potential problems such as imperfect policies and lack of theoretical knowledge, the development planning of traditional villages has mostly remained in the repair of the building surface, and the larger amount of work is only the renewal of traditional village buildings. Most of the traditional buildings repaired and rebuilt with new materials and new technologies will be closer to urbanization in style. The architectural style and features will tend to be homogeneous, and the traditional architectural style and features are gradually disappearing. The architectural landscape mainly has the problems of empty waste and the incongruity of old and new buildings. Under the influence of urbanization, the new buildings with uneven quality, different styles, and lack of features have affected the surrounding regional environment and landscape form, and the regional style of traditional villages is slowly being swallowed up by modernization. The maintenance cost of traditional villages is huge. Although the protection and development plan has been prepared, some village buildings are dilapidated, and there is a problem of obsolescence. Through the investigation and evaluation of typical villages, we can find that the historical streets and new streets of traditional villages in

TABLE 3: B1 judgment matrix.

B1	C1	C2	C3	C4	C5
C1	1	1/2	2	4	3
C2	2	1	3	5	4
C3	1/3	1/3	1	3	2
C4	1/4	1/4	1/5	1	1/2
C5	1/2	1/4	1/2	2	1

TABLE 4: B2 judgment matrix.

B2	C6	C7	C8	C9
C6	1	1/5	1/3	1/3
C7	6	1	3	2
C8	3	1/4	1	1/3
C9	5	1/2	3	1

TABLE 5: B3 judgment matrix.

B3	C10	C11	C12	C13
C10	1	2	6	3
C11	1/2	1	4	2
C12	1/7	1/4	1	1/3
C13	1/3	1/2	3	1

TABLE 6: B4 judgment matrix.

B4	C14	C15	C16	C17
C14	1	3/5	3	3/2
C15	7/3	1	4	3/2
C16	1/3	1/4	1	1/2
C17	2/3	2/5	2	1

TABLE 7: B5 judgment matrix.

B5	C18	C19	C20	C21
C18	1	2	5	3
C19	1/2	1	4	2
C20	2/5	1/5	1	1/2
C21	1/3	1/2	2	1

TABLE 8: B6 judgment matrix.

B6	C22	C23	C24	C25
C22	1	1/2	3	1/4
C23	2	1	4	1/2
C24	2/3	1/5	1	1/5
C25	4	2	5	1

Guanzhong area have poor spatial scale suitability and low identifiability.

3.3.2. Intangible Cultural Landscape. Through the comparison of typical traditional villages, we find that the villages with a high degree of benign development of traditional villages have good intangible cultural heritage, and the intangible cultural landscape space is well preserved and

TABLE 9: Index weight of each layer.

Target layer A	Criterion layer B1–B6	Single ranking weight of criterion layer	Index layer C1–C25	Index level single sort weight	Total sorting weight
Comprehensive evaluation of traditional village landscape in Guangzhong area A	Site selection and landscape pattern B1	0.308	C1 richness of historical elements of villages	0.264	0.083
			C2 integrity of village landscape pattern	0.416	0.13
			C3 the age of village formation	0.163	0.052
			C4 particularity of village site selection	0.062	0.019
			C5 coordination between villages and surrounding environment	0.099	0.032
	Architectural landscape B2	0.236	C6 coordination of new and old buildings	0.065	0.015
			C7 regionalism of traditional architectural style	0.469	0.113
			C8 integrity of traditional buildings	0.149	0.035
			C9 age of traditional architecture	0.319	0.077
			C10 regional recognition of street and lane landscape	0.486	0.059
	Street landscape B3	0.121	C11 integrity of street and lane landscape	0.282	0.036
			C12 suitability of spatial scale of streets and lanes	0.07	0.008
	Natural landscape B4	0.178	C13 street lane spatial node richness	0.168	0.022
			C14 plant landscape attraction	0.279	0.052
			C15 water landscape attraction	0.44	0.08
			C16 attraction of ancient and famous trees	0.1	0.017
			C17 air quality comfort	0.187	0.035
	Intangible cultural landscape B5	0.092	C18 integrity of intangible cultural space	0.476	0.046
			C19 continuity of regional folk customs	0.29	0.028
			C20: rich in intangible culture	0.084	0.008
			C21 inheritor of intangible culture	0.156	0.014
			C22 implementation of supervision and management system	0.159	0.012
	Landscape protection B6	0.065	C23 villagers' awareness of landscape environmental protection	0.278	0.018
			C24 environmental sanitation facilities and cleanliness	0.075	0.007
			C25 perfection of village planning	0.496	0.034

TABLE 10: Consistency inspection information of all levels.

Matrix	λ_{\max}	CI	RI	CR
A	6.020974945	0.004194989	1.2401	0.003383058
B1	5.068323224	0.017080806	1.1201	0.015250719
B2	4.079171889	0.02639065	0.9001	0.029322924
B3	4.031090618	0.010363539	0.9001	0.011515046
B4	4.021127873	0.007042624	0.9001	0.007825139
B5	4.006232117	0.002077374	0.9001	0.002308191
B6	4.07351207	0.024504025	0.9001	0.027226692

TABLE 11: Total ranking weight of index level factors.

Index layer C1–C25	Total ranking weight
C2 integrity of village landscape pattern	0.129
C7 regionalism of traditional architectural style	0.112
C1 richness of historical elements of villages	0.082
C15 water landscape attraction	0.079
C9 age of traditional architecture	0.076
C10 regional recognition of street and lane landscape	0.06
C3 the age of village formation	0.051
C14 plant landscape attraction	0.051
C18 integrity of intangible cultural space	0.045
C8 integrity of traditional buildings	0.036
C11 integrity of street and lane landscape	0.035
C17 air quality comfort	0.034
C25 perfection of village planning	0.033
C5 coordination between village and surrounding environment	0.031
C19 continuity of regional folk customs	0.027
C13 street lane spatial node richness	0.021
C4 particularity of village site selection	0.02
C23 villagers' awareness of landscape environmental protection	0.019
C16 attraction of ancient and famous trees	0.018
C6 coordination of new and old buildings	0.016
C21 inheritor of intangible culture	0.015
C22 implementation of supervision and management system	0.011
C12 suitability of spatial scale of streets and lanes	0.009
C20 intangible cultural richness	0.009
C24 environmental sanitation facilities and cleaning	0.006

repaired, with the development of ordinary and poor traditional villages, the generation of intangible cultural heritage, and the abandonment of intangible cultural landscape space. As a cultural heritage, the existence value of traditional villages has been continuously recognized and improved. However, the long-term economic gap between urban and rural areas has led to the transfer of vast rural labor force to cities in China. The uneven development of urban and rural areas has led to the special reality of "hollowing out" of villages. The "hollowing" of villages is not only the reduction of the young labor force but also the decline and rupture of the traditional village context. The relationship between people and villages is harmonious and symbiotic. The reduction and absence of the main body of the village have led to the inability to inherit the village culture that has been sustained by people. The traditional village culture is on the verge of disappearance. The village is the carrier of history and culture, and villagers are the indispensable elements of the village. Once the village completely loses its original villagers, the original village context will gradually disappear.

3.4. Strategies for Protecting the Landscape Base of Traditional Villages in Guanzhong Area

- (1) We will improve the infrastructure of agricultural production, including water conservancy projects and rural roads. By doing a good job in the construction of farmland water conservancy projects, changing the traditional agricultural development model, and improving agricultural production efficiency, in order to become rich, we must first build roads, repair and transform rural roads, replace the traditional mud roads with cement roads, ensure the convenience of agricultural product transportation, and promote the centralized mechanized production of agricultural products. We will improve agricultural production infrastructure, promote agricultural supply-side reform, and promote rural revitalization.
- (2) We will improve development infrastructure
To develop farmers, we should not only rely on the traditional development model but also improve the development infrastructure and improve the

TABLE 12: Cronbach's alpha coefficient of data reliability analysis.

Gauge name	Comprehensive evaluation questionnaire of traditional village landscape in village A	Comprehensive evaluation questionnaire of traditional village landscape in village B	Comprehensive evaluation questionnaire of traditional village landscape in village C
Alpha coefficient	0.984	0.941	0.986

TABLE 13: Evaluation results of index layer.

Index layer	Total sorting weight	A			B			C				
		Average score of village	Final score of village	Average score of village	Final score of village	Average score of village	Final score of village	Average score of village	Final score of village			
C1-C25												
C1	0.082	4.566	0.371	4.037	0.326	3.038	0.245					
C2	0.127	3.801	0.485	3.608	0.461	3.149	0.404					
C3	0.051	4.001	0.201	5.001	0.201	3.001	0.151					
C4	0.018	2.734	0.051	3.678	0.071	4.334	0.083					
C5	0.031	2.934	0.087	3.572	0.106	4.112	0.124					
C6	0.014	4.701	0.072	3.713	0.055	3.555	0.054					
C7	0.112	4.801	0.532	4.285	0.475	3.851	0.427					
C8	0.034	4.668	0.162	3.572	0.124	3.443	0.122					
C9	0.076	4.001	0.301	5.001	0.374	3.001	0.226					
C10	0.058	4.701	0.276	3.606	0.212	3.001	0.178					
C11	0.033	4.701	0.161	3.535	0.121	2.555	0.086					
C12	0.009	4.034	0.031	3.428	0.028	2.554	0.021					
C13	0.021	4.734	0.091	3.894	0.079	3.184	0.065					
C14	0.051	4.134	0.206	3.251	0.164	4.888	0.245					
C15	0.077	3.334	0.261	2.820	0.221	4.223	0.328					
C16	0.018	3.801	0.064	3.072	0.051	4.371	0.075					
C17	0.034	3.501	0.115	3.215	0.105	4.666	0.153					
C18	0.043	4.801	0.212	3.465	0.153	3.186	0.141					
C19	0.025	5.001	0.131	5.001	0.131	5.001	0.131					
C20	0.007	5.001	0.041	3.001	0.025	3.001	0.025					
C21	0.013	5.001	0.071	3.001	0.043	3.001	0.043					
C22	0.011	4.532	0.044	3.392	0.035	2.631	0.027					
C23	0.017	4.401	0.078	3.392	0.062	4.112	0.075					
C24	0.006	4.632	0.022	3.106	0.017	3.406	0.018					
C25	0.031	5.001	0.161	2.001	0.065	2.001	0.065					

TABLE 14: Evaluation results of standard layer in village A.

Village site selection	Architectural landscape B2	Street landscape B3	Natural landscape B4	Intangible cultural landscape B5	Landscape protection B6	Total score
Traditional village and landscape pattern B1						
Village A	1.196	1.067	0.564	0.648	0.451	0.307
						4.233

TABLE 15: Evaluation results of standard layer in village B.

Village site selection	Architectural landscape B2	Street landscape B3	Natural landscape B4	Intangible cultural landscape B5	Landscape protection B6	Total score
Traditional village and landscape pattern B1						
Village B	1.166	1.032	0.438	0.541	0.348	0.175
						3.7

TABLE 16: Evaluation results of standard layer in village C.

Village site selection and landscape pattern B1	Architectural landscape B2	Street landscape B3	Natural landscape B4	Intangible cultural landscape B5	Landscape protection B6	Total score
1.004	0.827	0.348	0.801	0.336	0.181	3.497

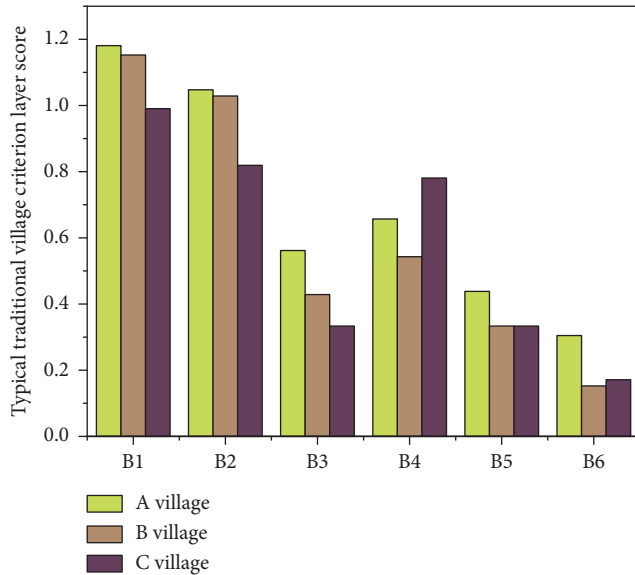


FIGURE 2: Score of standard layer of typical traditional villages.

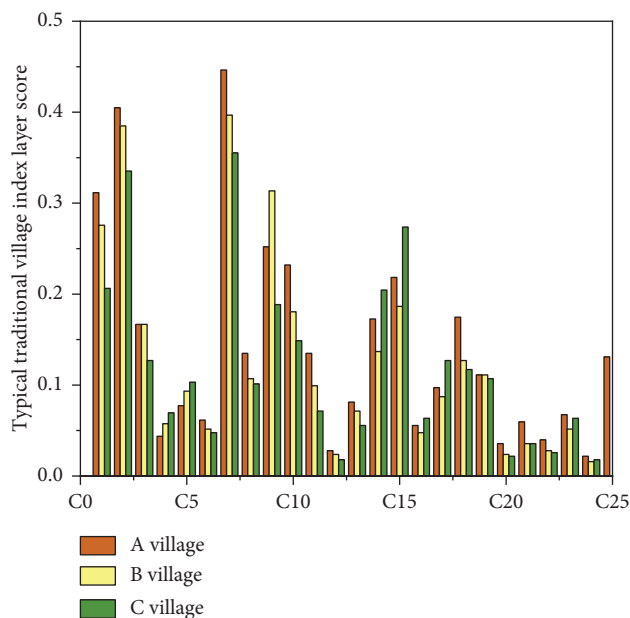


FIGURE 3: Index level scores of typical traditional villages.

conditions for farmers' survival and development. Under the trend of rural revitalization, we should vigorously develop and develop rural tourism and improve relevant tourism facilities to improve the living and development conditions of farmers, so as to develop tourism in response to rural revitalization.

(3) We will improve the enjoyment infrastructure

There is an enjoyable infrastructure, such as network and logistics. In rural areas, enjoying infrastructure is to enable farmers to enjoy the same life and treatment as urban residents, improve their living conditions and living environment, and promote the spiritual civilization of farmers.

4. Conclusion

This paper takes 45 national traditional villages in Guanzhong area as the research object, based on the theories of landscape ecology and sustainable development, uses the analytic hierarchy process and ArcGIS spatial analysis to study the spatial distribution, site selection characteristics, and landscape characteristics of traditional villages in Guanzhong area, constructs a landscape evaluation system, and puts forward the protection and renewal strategies of landscape style. First of all, at the macroregional level, we should pay attention to the overall distribution, location characteristics, landscape characteristics, and type division of traditional villages in the whole region. Secondly, at the microvillage level, the comprehensive evaluation system of the traditional village landscape in Guanzhong region was constructed, and three traditional villages with different geographical environments and different development stages were selected to interpret the landscape characteristics, and the landscape comprehensive evaluation of typical traditional villages was carried out. We analyze the existing problems of the village and find out the common problems. Finally, at the macroregional level, through the evaluation of landscape ecological sensitivity, the landscape-based protection area is divided and the protection strategy is proposed. At the microvillage level, the traditional village landscape protection and renewal strategies are proposed from three aspects, namely, the overall pattern protection, the material culture protection and renewal, and the intangible culture protection and inheritance. Through the study of the spatial distribution characteristics and site selection characteristics of traditional villages in the Guanzhong area, it is concluded that the traditional villages in the Guanzhong area generally present an overall distribution pattern of concentrated concentration in the east and scattered distribution in the south and the west, with two high-density areas, mainly concentrated in the northeast area of Weinan City, including Hancheng City and Heyang County, and the number of traditional villages are 11 and 7, respectively, with 2 medium-density zones and multiple low-density areas.

Data Availability

The labeled data set used to support the findings of this study is available from the corresponding author upon request.

Conflicts of Interest

The authors declare that there are no conflicts of interest.

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