Research Status of Terrace Cultural Landscape Based on Citespace

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Abstract
Terrace is a farming way for human beings to adapt to nature and comply with the trend. In recent years, with the development of economy and tourism, the protection of terrace cultural landscape has gradually come into people's field of vision, this paper retrieves the relevant literature from CNKI and selects the highly relevant literature, and extracts the hot keywords through Citespace to the author organization and key words in the research field. This paper summarizes the research and comments on the number of articles in the protection for terrace cultural landscape, summarizes it from the aspects of policy, science and technology, tourism and so on, and puts forward the protection policy of terrace cultural landscape in the future.

Keywords
Terraced fields; Landscape; Cultural landscape

Introduction

Cultural landscape refers to the compound landscape formed by human beings consciously superimposing human activities on the natural landscape in order to meet certain needs. It reflects the comprehensive geographical characteristics of a region. Terraced fields belong to the humanistic landscape. Terraced fields, which have lasted for thousands of years, are the crystallization of human wisdom. In order to solve the food problem, ancient people-built terraces in hilly areas, which were created by the ancient working people in the practice of agricultural production. China was the first to build terraces. China's terraces are mainly distributed in the mountains among the south of the Yangtze River, most of which are in Guangxi, Yunnan and Guizhou. The main reason is that there are more rain mountains and water, which are mainly represented by Ailao Mountain in Yunnan and Longji rice terraces in Guangxi. As an achievement of modern human wisdom, terraced fields have been recognized as an important agricultural cultural heritage in China. By the end of

2021, eight terraces have been identified as important agricultural cultural heritage lists in China. Nowadays, the vigorous development and tourism of terraces in various places not only brings economic benefits, but also destroys the terraces to varying degrees. This paper analyzes and summarizes the overall context and trend in the field of terrace cultural landscape protection in China in recent years. The purpose of this paper is to provide theoretical reference for the protection of the terrace cultural landscape.

Current Research Status in This Field

Data Sources

The data onto this study come from all the Chinese literatures in CNKI periodical database. In the past 15 years, the key words "terrace", "landscape" and "cultural landscape" were selected from 2007 to 2021. The periodical scope was limited to all journals to search the literatures related to the protection for terrace cultural landscape, and then screened the articles according to the search information, deleted and studied the articles with low relevance and master's degree papers. In this paper, with the help of CiteSpaceV5.7. R2, the hot spots and trends of terrace cultural landscape in recent 15 years are processed and knowledge graph is generated.

Analysis of the Volume of Publications in Related Fields

From the annual distribution of literature data, the number of literatures on terrace cultural landscape basically shows an upward trend. The number of articles published in CNKI journals increased steadily from 2007 to 2021. In 2014, as a surge point, the number of articles reached 37 per year, it can be seen that the popularity of research on terraced landscape increased sharply in this year, and then the number increased steadily, falling only slightly in 2017. In 2017, General Secretary Xi Jinping pointed out in the report of the 19th CPC National Congress that we must establish and practice the idea that Clear waters and green mountains are as good as mountains of gold and silver. Therefore, the research on terraced fields increased in 2018, and the number of articles published increased to 47, and then reached a new high in 2019. Reached 56 per year, as shown in figure 1.

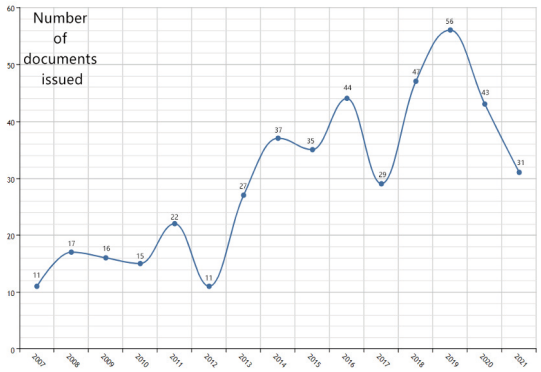


Figure 1. Analysis on the general trend of terrace cultural landscape research

(Source: from the author)

Author Distribution and Institutional Analysis

Combined with Citespace software, we can see that the main publishers in this field are the School of Tourism and Geography of Yunnan normal University, the Institute of Geographic Sciences and Resources of Chinese Academy of Sciences, the University of Chinese Academy of Sciences, the School of Tourism of Guilin University of Technology and the School of Landscape Architecture of Beijing Forestry University. As a result, it can be found that the institutions with a large number of articles are mainly universities, and some research institutes pay more attention to it, as shown in figure 2.

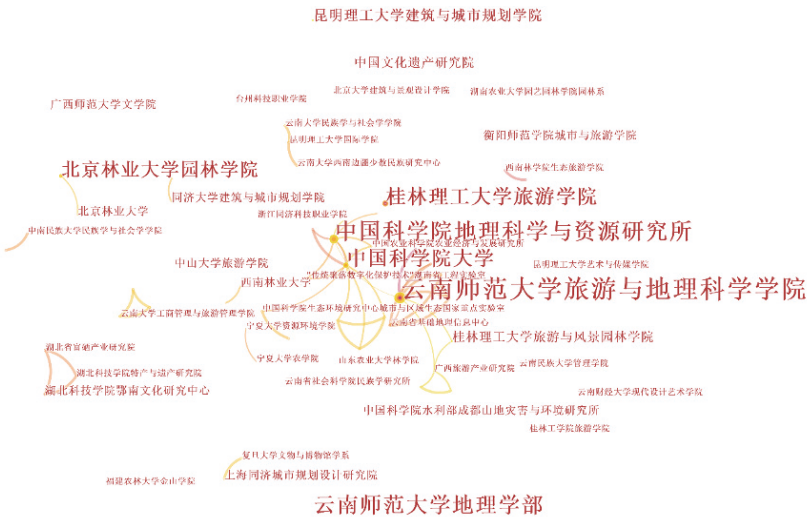


Figure 2. Co-occurrence mapping of research institutions about Terrace cultural landscape

(Source: from the author)

High-yield authors are mainly Jiao Yuanmei, Wu Zhongjun, Min Qingwen, Liu Xin, Liu Chengjing and others. See figure 3, Professor Jiao Yuanmei of Yunnan normal University is in the central position and has cooperated with many authors. Professor Jiao Yuanmei is mainly engaged in landscape ecology, cultural geography, remote sensing and GIS and has made great contributions to the study of terrace landscape ecology. Professor Wu Zhongjun of Guilin University of Science and Technology studies the residents' perception and influence of community agricultural cultural heritage tourism in the aspect of tourism of Longji terraced landscape, which has certain innovative significance of this field. Min Qingwen, a researcher at the Institute of Geographical Sciences and Resources of the Chinese Academy of Sciences, is mainly engaged in ecological agriculture and agricultural cultural heritage protection and ecosystem service functions in recent years and has high views on the ecological protection of terraced fields. It can be seen from the picture that some authors have formed excellent research teams, but the overall cooperation is not close. We should strengthen the cooperation between universities and institutions to facilitate better academic exchanges of the cultural landscape of terraces.

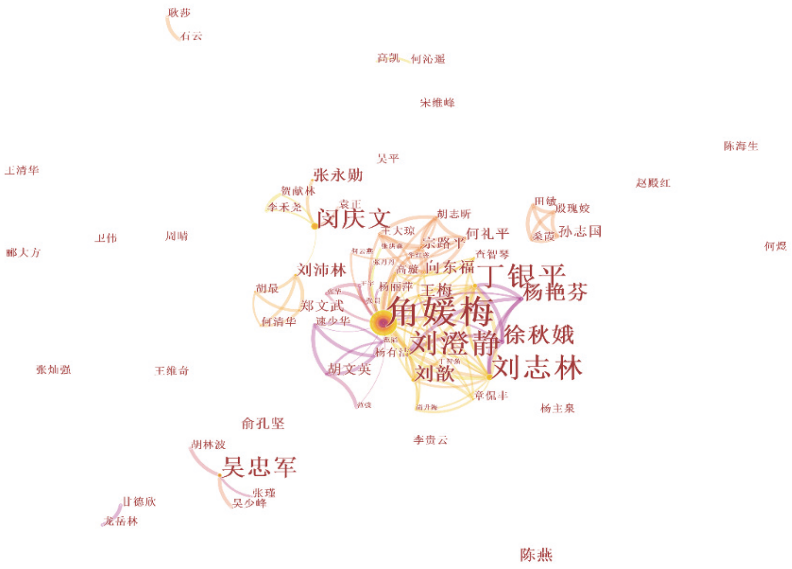


Figure 3. The visualization diagram of author cooperation

(Source: from the author)

Analysis of High-volume Journals

According to the results of the data, from 2005 to 2019, the research on terraced landscape was the most in the journal Green Science and Technology, with a total of nine articles, followed by Chinese Landscape Architecture and Acta Ecologica Sinica, with seven articles each. In addition, journals such as Landscape Architecture and Chinese Journal of Ecology are also important journals in this field, which can be seen in figure 4. The areas that pay most attention to terraced landscape are

landscape architecture and ecology.

Table 1 Journal Rnalysis Chart

The Journal	Quantity
Journal of Green Science and Technology	9
Chinese Landscape Architecture	7
Acta Ecologica Sinica	7
Landscape Architecture	6
Chinese Journal of Ecology	6

Keyword Co-occurrence and Research Topic Cluster Analysis

Keywords are generally mentioned repeatedly from the title, topic, abstract or paper, which is the logo of an article retrieval and a high concentration of the research topic. The frequency of its occurrence reflects the popularity of this field. In the summary of all the periodical research hotspots, the data onto CNKI is imported from Citespace software, the time slice is set as one year, and the keywords are clustered as network nodes. Using CiteSpace to generate keyword co-occurrence network for terrace cultural landscape literature, 36 keywords with frequency greater than 4 are selected, as shown in figure 4, and 3 keywords (terrace, landscape) that are highly similar or consistent with the topic of literature analysis are removed. The top five keywords in the study were Hani terraces (68 times), cultural landscape (28 times), agricultural cultural heritage (22 times), terraced field landscape (18 times) and landscape pattern (16 times). Secondly, "Hani" and "World Heritage" are also common keywords. It can be seen that recent scholars have done more research on "rural revitalization" and "traditional villages".

The top 20 prominent keywords from 2006 to 2021 are shown in figure 5, which shows the degree of salience of keywords. The higher the degree of salience, the greater the influence in that period. During this period, the top ten keywords are: surface water, terrace culture, Hani terraces culture, Yuanyang County, tourism, soil and water conservation, terraces, Hani nationality, Wuling Mountain area. It can be seen that scholars pay more attention to the culture, ecological protection and tourism of terraced fields.



Figure 4. Co-occurrence mapping of keywords about Terrace cultural landscape

(Source: from the author)

Top 20 Keywords with the Strongest Citation Bursts

Keywords	Year	Strength	Begin	End	2007 - 2021
地表水 *Surface water*	2007	2.3108	2007	2013	
梯田文化 *Terrace culture*	2007	1.6446	2007	2013	
哈尼族梯田文化 *Hani Terrace Culture*	2007	1.8123	2008	2009	
元阳县 *Yuanyang County*	2007	1.434	2009	2014	
旅游 *Travel*	2007	1.5469	2011	2012	
水土保持 *Water And Soil Conservation*	2007	2.1537	2011	2016	
梯田 *Terrace*	2007	2.196	2011	2013	
哈尼族 *Hani Nationality*	2007	1.8352	2012	2013	
武陵山片区 *Wuling Mountain Area*	2007	1.5451	2012	2014	
景观 *Landscape*	2007	2.0241	2014	2015	
保护 *Protection*	2007	1.2435	2014	2017	
红河哈尼梯田 *Honghe Hani Terrace*	2007	1.9537	2014	2016	
梯田景观 *Terrace Landscape*	2007	2.6689	2014	2017	
农业文化 *Agricultural Culture*	2007	1.2133	2015	2017	
景观设计 *Landscape Design*	2007	1.5525	2016	2019	
乡村景观 *Rural Landscape*	2007	1.6643	2017	2021	
龙脊梯田 *Rural Landscape*	2007	1.852	2017	2019	
风景园林 *Longji Terrace*	2007	2.0524	2018	2021	
乡村振兴 *Rural Vitalization*	2007	3.113	2018	2021	
传统村落 *Traditional Villages*	2007	2.7933	2019	2021	

Figure 5. Keywords with the strongest citation bursts about Terrace cultural landscape

(Source: from the author)

Research Trends

When analyzing the research trend of the terrace cultural landscape, the visual layout pattern is adjusted to time zone map (TimeZone), which can show the trend of word frequency changing with time, from which we can see its developing trend.

The time series analysis map of the literature on the vitality of public space can be obtained from the CNKI data source. The circular node represents the keyword, and the larger the circular point of the keyword, the higher the frequency change. Looking at the overall trend, the ‘Hani Terraces’ with the highest average change rate, and appeared in the early stage of the study, showed that early scholars paid the most attention to the Hani Terraces. With the passage of time, due to the introduction of relevant policies to promote the economic development of rural areas and the protection of natural landscape, the research object has gradually shifted to the keywords of 'sustainable development 'and ' rural revitalization', reflecting the current situation and some measures of terrace cultural landscape in China.

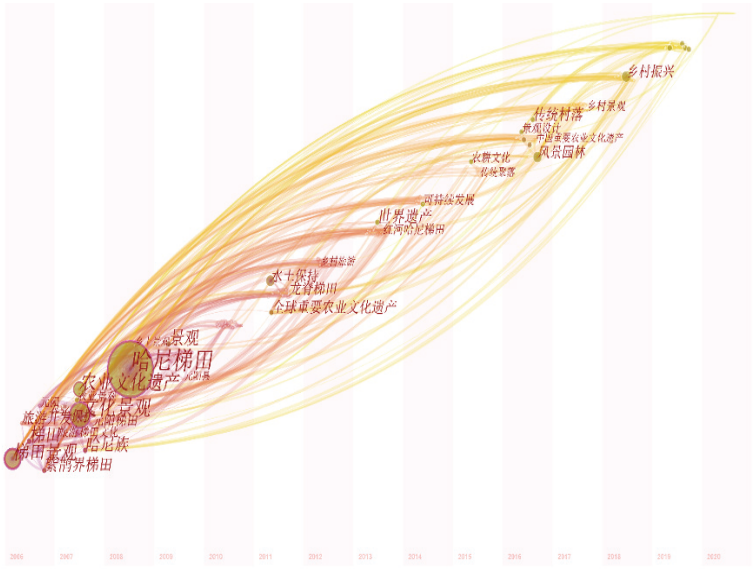


Figure 6. High frequency keyword co-occurrence network Timezone cluster analysis

(Source: from the author)

How to Protect the Cultural Landscape of Terraced Fields

Policies to Protect the Cultural Landscape of Terraced Fields

The Terrace is an important agricultural cultural heritage in China, and some well-known terraces in the world are listed as global important agricultural cultural heritage or world heritage, so the

government needs to introduce some policies to protect the cultural landscape of terraced fields.

The lack of implementation of government policies is one of the reasons for the destruction of the cultural landscape of terraced fields. Hu Weifang, Zhang Yongxun, Wang Wei and other scholars have studied the agricultural cultural heritage of Fujian United terraced fields by using the principles and methods of landscape ecology. It is suggested that the situation can be improved through eco-tourism and the mechanism of mutual compensation for villagers and the government. Zou Fangfang, Wang Wei, Hu Minjie and other scholars also put forward the problems and opportunities of local social and economic development in the study of the current situation and trend of social and economic development in this area. finally, some suggestions are put forward from the aspects of infrastructure construction, sustainable development of agriculture, improvement of tourism and so on. Li Junming and Deng Min studied the landscape protection mechanism of Longji rice terraces, and analyzed the internal mechanism of Longji rice terraces landscape protection and the threat of tourism to agricultural terraced field agricultural culture. this paper puts forward some suggestions straightening out the distribution mechanism and strengthening infrastructure construction to solve the problems caused by tourism development. After Hani terraces is listed on the World Heritage list, it not only needs to relate the universality of the world heritage, but also needs to be entangled with the local population loss, the decline of village heritage and other factors. Yan Haiming and Xie Li think that‘standardized diversity’ can help similar cultural heritage play a helpful role.

Public participation is very important to the protection of the terrace cultural landscape. Yan Guotai, Ma Rui, Zheng Guangqiang and other scholars studied Hani terraces cultural landscape through community participation. This paper analyzes the dilemma of community participation in the protection of Hani terraces cultural landscape heritage, and constructs a conceptual model of community participation in the world heritage protection of Hani terraces cultural landscape, which is tested through practice. In the study of the influence of tourism on Longji rice terraces cultural landscape, Wu Zhongjun believes that the main problems are the change of villagers' planting mode, tourism development and terraced planting, and benefit distribution of the development of terraced tourism. Scholars hope to alleviate these problems of government intervention and public participation.

Nowadays, the successful policies in some places can be used for reference. Chen Koudan, Chen Zhiyuan, Zheng Yan and other scholars have found that the successful experience of Bayan settlement in Taiwan can be applied to Fujian United terraces in the same situation. It has a certain inspiration and reference for the design and development of local farming culture. Chen Koudan and others also found that many rural communities in Taiwan tried to revitalize local development with the concept of Pumen sustainable design. By taking the Bayan settlement as an example, they hoped to give new enlightenment to the development of agricultural landscape tourism in China.

Cheng Haifan, Zhang Pan, Zhu Liangwen and others conducted research on local community participation, style and environment renovation, and implementation of management safeguard measures through Hani terraces, and put forward references and suggestions for departmental management and technical assistance.

Liu Ruiqi and Ye Xi studied the Hani Folk Village in Dengkou, Honghe Prefecture, conducted field investigation and case analysis, put forward the problems of the local landscape of the local Folk Village and put forward suggestions for increasing the use of terraced resources, cultural inheritance, strengthening infrastructure construction, etc., design landscape planning and look forward to the prospect. Gravagnuolo Antonia and Varotto Mauro analyzed the emerging practice of terrace restoration from the perspective of circular economy, and discussed whether and how to restore the positive role of terrace landscape in modern society.

It can be seen from this that some local governments have launched corresponding policies of the protection for the terrace cultural landscapes, but they are not perfect. Help protect the terrace cultural landscape by implementing policies that benefit the people.

Science and Technology Promote Ecological Protection of Terrace Cultural Landscape

The development of science and technology has played a great role in the monitoring and ecological protection of terraced landscapes. Geographic information system (GIS), also called "geographic information system", is a specific and very important spatial information system. Some scholars use GIS to study the protection for terrace cultural landscapes. Zhang Kanfeng, Jiao Yuanmei, Liu Xin and other scholars analyzed the visual landscape sensitivity of Hani Terraces through GIS technology. At the same time, combined with relevant factors, the visual landscape of the core area of Hani Terraces Heritage was divided into four areas and planned and adjusted according to different areas protection. Zong Luping, Jiao Yuanmei, Li Shihua and other scholars used field investigation, interviews and GIS mapping analysis on the rural settlement landscape and evolution of the Hani Terraces Heritage Area to study the Hani settlement landscape, and put forward suggestions for the protection of the terraces. Zhou Zongjun, Bao Jigang, Weng Shixiu and others took the Hani terraces of the Honghe River as an example, used GIS technology to extract the information on local land used types, and investigated the effect of external intervention by the local government. Zhao Dongmei, Jiao Yuanmei, Qiu Yingmei used the MaxEnt model to study the landslide susceptibility in the core area of Hani Terraces based on GIS grid analysis method, and provided ideas of the sustainable development, disaster monitoring and prevention of the core area of this area.

Some scholars will use high-resolution remote sensing technology. For example, Zheng Wenwu, Liu Peilin, Zhou Yimeng and other scholars take the Ziquejie terraced fields in Xinhua County,

Hunan Province as the research object, use high-resolution remote sensing images to extract information, and use the landscape pattern index analysis method, to analyze and study the local human relations. Wang Chenli, Xu Dan, Lin Wenpeng and other scholars used high-resolution satellite remote sensing images to monitor the cultural landscape heritage elements before and after the application in the study of the Honghe Hani Terraces, analyze the current status and changing trends of their land cover, and explore the role of remote sensing methods of heritage elements. Feasibility and reliability in change monitoring. Li Wanyuan, Tian Jia, Ma Qin and others used remote sensing image supervision and identification technology with the support of Google Earth Engine (GEE) to monitor the dynamics of loess terraces. Using this research method on the GEE cloud platform can efficiently and accurately monitor long-term, large-scale remote sensing the scale of loess terraces. Yang Rongjuan, Liu Yang, Min Qingwen, etc., based on Landsat satellite remote sensing images, studied the landscape evolution characteristics of the dry farming Shiyan terrace agricultural cultural heritage site in Shexian County, Hebei Province, and discussed the driving factors of landscape evolution.

Yucong Miao, Yanling Huang, Shengfeng Luo and other scholars analyzed the landscape perception and characteristics of tourists from the aspects of high-frequency vocabulary and semantic network, found out the problems existing on the landscape planning of rural eco-tourism areas, and put forward planning suggestions.

To sum up, it can be seen that 3S technology and computer network technology are mainly used in the protection of terraced fields. In the research of terraced field landscape, it mainly includes the geographical environment, remote control system, global positioning system, GIS is the main, and RS and GPS provide assistance for GIS. Computer network technology and modern computer skills are closely related to communication skills. It is formed into the development of relevant information about social modernization, and various technologies are used in combination with each other.

Tourism Industry Optimization Promotes the Protection of Terrace Cultural Landscape

In recent years, the tourism development of terraced fields has brought terraced field tourism into the field of vision of many people, but at the same time, the visit of a large number of tourists has also led to the destruction of the cultural landscape of terraced fields. Some scholars have made plans for the optimization of the tourism industry. Wang Ting, Hu Xinjun, Qiu Yuxi and others took Yun He Terraced Fields as an example to analyze the goals, principles and ideas of their overall tourism planning, planning to build three systems of "landscape + viewing + supporting", which are the cultural landscape of terraced fields. Tourism provides experience.

Sustainable development has become a hot topic in the cultural landscape of terraced fields in recent years. Geoffrey Wall, Sun Yehong and Wu Ping have studied the sustainable tourism development of terraced fields. Scholars have compared the tourism relationship between the south-central Bali of Indonesia and the Hani terraced landscape of Honghe, Yunnan, China, proposed measures and suggestions for the tourism development of the Honghe Hani Terraces from four aspects: resources and accessibility, market and marketing, and believed that the development of tourism must pay attention to the sustainable development of tourism. Dong Qian and Su Yang took Hani Terraces as an example in their research on sustainable tourism, and believed that the key to protecting large-scale and living cultural heritage such as Hani Terraces in Yunnan lies in protecting the relationship between people and land. Finally, suggestions are made from three levels of protection, development and management.

The hollowing out of local villages in terraced fields has also become an important issue. Young people choose to go out to find jobs, leaving only the elderly and children in the villages. This is a very big problem for the development of local tourism, mainly due to economic reasons. Zhang Aiping, Zhang Jiaojiao, Zhang Yongxun and others analyzed the coupling characteristics of farmers' livelihood and agricultural land use through the empirical investigation of Hani terraces, using coupling coordination degree, LOWESS fitting and other methods, and believed that the protection of agricultural cultural heritage should not only pay attention to agriculture For the protection and utilization of land, it is necessary to build a back-feeding mechanism for tourism to agricultural production and increase the additional income of agricultural production. Scholars such as Li Junming and Li Zhongbin have conducted research on Longsheng Longji rice Terraces Scenic Spot. By participating in observation and interviews, they have explored the mechanism of terrace landscape changes under the impact of tourism from the perspective of economics. Suggestions are made in three aspects: construction and limiting the number of tourists. Wang Mei, Jiao Yuanmei, Hua Honglian and others conducted research on the Honghe Hani Terraces. Through questionnaires and interviews, they used mathematical statistics to analyze the differences between local residents' perceptions and attitudes of tourism impact. There are obvious differences in tourism resources and management, tourism economy and so on. Therefore, solving economic problems will attract more young people to engage in related jobs and solve the problem of hollowing out rural areas.

Nostalgia tourism has now become a new form of tourism. Among them, Xie Yanjun, Yu Jia, Wang Danping and others have conducted research on nostalgia tourism, using qualitative and quantitative methods to study nostalgia and landscape. In addition, scholars such as Lin Qianqian and Zhao Qiaoyan studied the Guilin Longji Terrace Scenic Spot from the aspect of nostalgia, conducted field investigations on different groups, and put forward suggestions on nostalgia tourism.

Liang Yan and Wang Hongsong put forward protection suggestions for the combination of land-

scape genes and digitalization of Hani Terraces through the construction of landscape gene maps, the induction of digital expression forms and the demonstration of examples. And provide ideas for the development of tourism products. IN his research on the rural tourism of combined terraced fields, Chen Koudan proposed an immersive design strategy by investigating the perception and participation behavior analysis of tourists' agricultural cultural experience in terraced field tourism.

Guannan Zhu, Xiande Li, Yongxun Zhang and other scholars studied the multi-participation mechanism in tourism management to maintain the important agricultural heritage system and found that the coordinator, the two committees of Dazhai and the local government were the key factors in its management. ZheWang and LawalMarafa studied the landscape imagination and its potential cultural conflicts in tourism based on the theory of social imagination and taking the terraced fields of the Hani nationality in Honghe in China as an example. JunGao,Hongxia Lin and Chaozhi Zhang collected data through participant observations and semi-structured interviews and found that local governments, state-owned tourism enterprises and hotel operators benefited a lot from the region's tourism, but did not share the responsibility for actually maintaining the heritage landscape. The author believes that villagers play the greatest role in maintaining the cultural landscape of contemporary and future generations of Chinese citizens and tourists, but encounter many restrictions and obstacles in the process.

The Existing Problems and Development Trends of This Research Direction.

Existing Problems

(1) Lack of Terraced Tourism Policy System

The cultural landscape of terraced fields has been damaged in part because the relevant government policies are not in line with public sentiments or are not properly implemented. First of all, most of the terraced fields in China are located in the mountains of southern China, the transportation is inconvenient, and the journey to terraced tourism is very difficult, which is very disadvantageous to the development of terraced tourism. Secondly, in terms of the benefit distribution mechanism with the villagers, some local policies are not in place, resulting in uneven distribution of interests, villagers are unwilling to participate in the construction of terraced tourism or the degree of participation is not high, and they are unable to retain local young people, leading to the problem of rural hollowing out. Although Longji rice terraces are now under policy control, it is found that the terraces outside the local scenic spots are often abandoned, because local residents prefer to work in tourism rather than farming. In the study of Hani terraces, Zhou Zongjun and others can see that a similar situation has appeared on this side of Hani terraces, and there has also been a trend of

drought and abandonment in recent years.

(2) Ecological Destruction of Terraces

From some recent studies, it can be found that in addition to some problems in ecological protection, some villagers in Yuanyang Hani terraces give up planting rice and plant out-of-season vegetables in pursuit of economic benefits. Resulting in a reduction in paddy field area, not only reduced local biodiversity, but also led to the degradation of terraced landscape value. Secondly, some terraced fields due to economic reasons, the transfer of age labor, some terraced land abandoned uncultivated, this phenomenon will lead to serious slope collapse and land degradation, causing great damage to the stability of the local ecosystem.

(3) The Traditional Terrace Culture has Gradually Disappeared

The economic strength of the villagers has been improved, and the new styles, new patterns and new materials emerging in the evolution of residential buildings will often lead to the problem of adaptability with the surrounding geographical environment to meet the new needs of residents. For example, the local "mushroom houses" in Hani terraces and the buildings represented by dry-fence buildings in Longji rice terraces, traditional buildings have gradually evolved into brick-and-tile dwellings, basically forming a courtyard-style settlement structure. Up to now, the exterior, style and building materials of some new buildings are very similar to those of today's urban houses. It destroys the harmony between the local buildings and the surrounding terraced landscape. Local culture is also at risk of being lost, such as some local dialects, songs and dances, handicrafts and so on. Young people are also unwilling to learn the techniques of terraced farming and are not interested in traditional culture, which leads to the imminent loss of some traditional cultures.

Development Trend

(1) Strengthen the Construction of Tourism System to Promote the Protection of Terrace Cultural Landscape

The government should introduce some policies to strengthen control to help terrace cultural landscape better integrate with tourism, so that tourists can better understand the cultural landscape of terraced fields. The government can effectively plan and guide the infrastructure construction of agricultural cultural heritage sites by setting up special supervision and coordination departments for the development of agricultural cultural heritage sites, so as to prevent repeated construction of rural infrastructure and damage caused by mismanagement. It can promote the construction of cultural tourism, develop terraced rural tourism, cultural and creative industries, inject cultural soul,

and form a unique rural intellectual property system. When necessary, consider appropriate restrictions on the number of tourists, in order to reduce the excessive pressure of tourists on the terrace ecological environment. To straighten out the distribution mechanism, we should give corresponding subsidies to farmers who operate terraced fields, and we should also readjust the distribution proportion in the distribution of profits, and we should not regard them as ordinary farmers. Their income should be paid by tourism development companies according to their labor volume, which can not only improve farmers' income, but also improve cultural self-confidence.

(2) People Spontaneously Promote the Protection of Terraced Field Landscapes

In the process of protecting the cultural landscape of terraces, local people should be allowed to participate in the protection. They have a better understanding of the local situation, can better protect it. Government departments need to provide policy support to protect community residents in all aspects, which can promote the formulation of planning while the government is empowered. Moreover, in some remote areas, community organizations are not sound and even more need the smooth promotion of the government. We need to strengthen national self-confidence, protect China's important agricultural cultural heritage, and let terraced culture take root in the hearts of local residents. Agricultural cultural heritage sites as an inseparable property of local residents, villagers also have their own cultural and political needs, they also hope that decision-makers and practitioners can take their own opinions and ideas in the process of protection.

(3) Strengthen the Ecological Protection and Promote the Protection of Terrace Cultural Landscape

In terms of ecology, first of all we should vigorously strengthen the supervision of terraced plants, mainly rice fields, on this basis, we can appropriately increase the diversity of agricultural organisms, increase the varieties of rice, increase the biodiversity of terraced fields, can help economic growth, can help rice to adapt to different environments, effectively prevent the threat of diseases and insect pests, and resist extreme weather. Develop eco-tourism, enhance the sustainability of terrace tourism development, increase environmental protection education for tourists, and help reduce the ecological damage caused by tourism to terraces. According to the capacity of eco-tourism, the number of tourists in terraced scenic spots should be allocated scientifically.

Summarize

This paper combs the relevant literature on terraced landscape, and based on Citespace visualization of terrace cultural landscape information, analyzes and summarizes the hot spots and trends of terrace cultural landscape in the 15 years from 2007 to 2021, during which the number of documents continues to increase. The main content of the study summarizes the protection of terrace cultural

landscape through policy, science and technology, and tourism industry, and puts forward a series of suggestions. In recent years, more and more attention has been paid to terrace cultural landscape, and some protection policies have been launched one after another, but there is still a big gap. In the future, we should continue to expand the depth and breadth of research in this field and strengthen the cross-integration between different disciplines. To find a new theoretical explanation from the perspective of sociology, geography, management, economics, ecology and so on. The protection of terraces can also provide a basis for their sustainable development and promote the development of similar landscape pattern research. Through a systematic review, this paper hopes to provide a theoretical basis and practical reference for the study of terrace cultural landscape in China.

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