Research and analysis on the status quo of traditional villages in Guangxi Province based on Cite-space

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ABSTRACT

There are many well-preserved traditional ancient buildings in Guangxi Province, and the visualization of the academic achievements in this field can help to form a clear understanding of the current research status and development trend, so as to provide reference value for the subsequent research work. In this paper, we use Cite-space visualization software to systematically sort out 317 CNKI journals with the theme of "traditional villages in Guangxi" from the perspectives of literature characteristics and literature content, and find that: the number of published journals on the whole shows a rising trend, but is still relatively small; the academic atmosphere of mutual cooperation among journal authors is still good; the academic atmosphere of included journals is still good; the number of published journals is still small; and the academic atmosphere is still very small. The academic atmosphere among journal authors is still good; the included journals are mainly regional and ethnic, highlighting the specialization of regional nature research; the research hotspots are focused on traditional villages, rural revitalization, tourism development, urbanization and other fields, and future research should be combined with rural revitalization and rural tourism, and more consideration should be given to the development mode of rural revitalization by virtue of the characteristics of the traditional villages and the use of the tourism industry to promote rural revitalization, which is not only in line with the strategic planning of the country but also can better protect and inherit the traditional villages, but also can better protect and inherit the traditional villages. It can also better protect and inherit traditional culture.

KEYWORDS

Guangxi; Traditional villages; Cite-space; Visualization

1. INTRODUCTION

Rural revitalization is not about big demolition and construction, but about rebuilding these characteristic traditional villages. In 2018, the Strategic Plan for Rural Revitalization was released and implemented, which actively promotes rural construction and economic development, and traditional villages are protected and revitalized as a result. In December 2012, the Ministry of Urban Construction of the State issued the Guiding Opinions on Effectively Strengthening the Protection and Development of Traditional Villages. Traditional villages are rich in historical information and cultural landscapes, and have great social value. In 2012-2022, a total of 8,171 traditional villages were listed in the Chinese Traditional Villages List, of which 342 are in Guangxi Province. This national list provides financial, policy and technical support for the digital inheritance and protection of traditional villages, and promotes systematic research in the academic community. Traditional villages in Guangxi are famous for their natural scenery and simple folk customs, and they retain a large number of ancient relics, and many of them have been listed as national key cultural relics protection units, so the protection and development of traditional villages in Guangxi is urgent, and
the study of their related academic achievements can provide a theoretical basis for the planning and protection of village cultural relics in the future.

Table 1. Number of batches of China's traditional village list (number)

<table>
<thead>
<tr>
<th>Province</th>
<th>First batch</th>
<th>Second batch</th>
<th>Third batch</th>
<th>Fourth tranche</th>
<th>Fifth batch</th>
<th>Sixth batch</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>646</td>
<td>915</td>
<td>994</td>
<td>1602</td>
<td>2666</td>
<td>1352</td>
<td>8175</td>
</tr>
<tr>
<td>Guangxi</td>
<td>39</td>
<td>30</td>
<td>20</td>
<td>72</td>
<td>119</td>
<td>62</td>
<td>342</td>
</tr>
<tr>
<td>Guangxi %</td>
<td>6.04%</td>
<td>3.28%</td>
<td>2.01%</td>
<td>4.49%</td>
<td>4.46%</td>
<td>4.59%</td>
<td>1</td>
</tr>
</tbody>
</table>

The above data comes from the official website of National Traditional Villages. From the data, we can see that the number of traditional villages in Guangxi has shown a relatively stable development in the list of traditional villages in China over the years. Among them, the number of traditional villages in the fifth batch of the national list is the highest in the past years, which shows that China's policy is carried out in a gradual and orderly manner, presenting the trend of "first pilot and then liberalization". It is believed that in the future, more traditional villages will receive the government's attention and protection, and even revitalization.

Regarding the traditional villages in Guangxi Province, scholars have discussed them from the three levels of "spatial distribution and adaptive use, revival and protection of historical villages, and tourism resources development mode". Regarding the spatial distribution of traditional villages, some scholars have analyzed the spatial analysis method and concluded that: the core-edge structure of the national traditional villages and inter-provincial differences are more obvious, characterized by more in the south and less in the north [1], and there is an obvious spatial autocorrelation [2]. Regarding the revitalization and protection of historical villages, most scholars advocate the adoption of a comprehensive protection, highlighting the key points, moderate development of the protection mode, and from the overall pattern, natural ecological space, artificial material space and spiritual and cultural space, to carry out specific protection measures [3]. From the perspective of tourism development, the value of traditional villages can be divided into ancient village exploratory, tourism and sightseeing, leisure and vacation type. To explore the traditional its ecological, cultural, scientific, decorative, identity and other village values in different types of tourism landscape [4]. Based on this, this paper intends to take "Guangxi traditional villages" as the theme word, and conduct a visualization study on the 317 documents screened in order to have a preliminary understanding of the current research status, research hotspots, research frontiers and future research trends.

2. RESEARCH METHODOLOGY AND DATA COLLECTION

2.1. Research Methodology

At present, the existing knowledge graphs are mainly Matlab, Origin, Connected papers, VOS viewer, etc. [5], of which Cite-space has the characteristics of clear graph, diverse categories, and easy to use, therefore, this paper uses Cite-space software developed by Prof. Chao-mei Chen to analyze the relevant literature on the features such as "authors of the articles, included journals, and institutions", and to analyze the contents of the "keyword co-location, keyword clustering, keyword emergence, and keyword temporal spectra".

2.2. Data Collection

CNKI Chinese Periodicals Full Text Database, which covers the most comprehensive Chinese periodicals, was selected, and the irrelevant entries such as dissertations, newspapers, academic conferences, books and patents were removed, and the traditional villages in Guangxi Province were
taken as the research object, and the subject term was set to the exact value of "traditional villages in Guangxi" considering the completeness of the literature, and 317 effective periodicals were screened for visualization mapping research. Finally, 317 valid journal documents were selected for the visualization mapping study. The search date was October 29, 2022, and the time range of the retrieved journals was from 2007 to 2022. All the documents were entered into Cite-space in Refworks format for computational analysis, and keywords, authors, and institutions were selected for corresponding retrieval and analysis, respectively.

3. CHARACTERIZATION OF LITERATURE

3.1. Quantitative Analysis Of The Literature

![Figure 1. Histogram of the number of documents on "traditional villages in Guangxi".](image)

The quantitative statistics of the literature retrieved from KnowledgeNet year by year [6] can reflect the degree of activity and attention in this field [7], as can be seen from the figure, from 2007 to 2021, the relevant literature shows an overall trend of increasing quantity, and the study of traditional villages in Guangxi continues to receive attention from the academic community [8] and is in the mode of fluctuating development. Since 2021, the government proposed to vigorously develop the protection of traditional villages, affected by the lagging effect of the policy, the number of related literature appeared to be flat development, only to show a sharp upward trend 2 years later. 2014 is a small outbreak of the literature year [9], the related literature reached a relative peak state in 2017 and 2020, and the year 2021, due to the epidemic, instead, showed a very declining trend.
3.2. Analysis Of Research Power

3.2.1. Author analysis

The author collaboration visualization network diagram can reflect the core group of authors in the field and their collaborative relationships, thus tracking the dynamics of the discipline. [10] The connecting relationships between authors indicate the existence of collaborative relationships with each other. In this case, the larger font size of the author's name indicates that he/she has more publications. Setting the threshold at 2 [11], it is easy to see that the authors with the most publications are, in order of ranking, Liao Yuhang, Liu Zhihong, Li Bohua, Li Liang, Liu Peilin, Yao Lei, Jia Siyi, Li Zhongguo, and Li Jun. The color of the connecting line between the authors changes from cool to warm tones, representing the time from far to near. Zhihong Liu, Zhongguo Li, Pengfei Zhu, Guobin Shan, and Liqun Zeng are scholars who have collaborated in the past, while Xinggui Chen, Mei Wang, Xinggui Chen, Liyi Tan, Xiaonie Liang, Nan Chen, and Weidong Yu are scholars who have collaborated recently. Liao Yuhang had and still has mutual collaborative relationships with other scholars, indicating that he has been continuously digging deeper in the field. With Liao as the center, many scholars have cooperated with him, and the links between scholars are very extensive and close, forming a large academic cooperation network and creating a good academic atmosphere. Overall, more than half of the scholars in this field are in cooperation with each other, indicating that the linkage between authors in the field of traditional villages is relatively stable, which is very favorable for academic exploration, and there are not too many individual scholars working on their own. Judging from the number of articles published by Liao and the degree of cooperation, in order to carry out deeper research in a particular field, it is inevitable that one will need to discuss, cooperate and communicate with other scholars in order to achieve the effect of mutual collision of thinking.

Figure 2. Author collaboration visualization network diagram

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3.2.2. Analysis of included journals

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Journal</th>
<th>Number of Inclusions</th>
<th>Ranking</th>
<th>Journal</th>
<th>Number of Inclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Guizhou Ethnic Studies</td>
<td>4</td>
<td>6</td>
<td>Journal of Guangxi University for Nationalities</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Planner</td>
<td>4</td>
<td>7</td>
<td>Journal of Yunnan University for Nationalities</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Economic Geography</td>
<td>2</td>
<td>8</td>
<td>Journal of Guilin University of Technology</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Agricultural Resources and Zoning in China</td>
<td>2</td>
<td>9</td>
<td>Shaanxi Normal University Journal Geographical studies</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Journal of Natural Resources</td>
<td>2</td>
<td>10</td>
<td>Geographical studies</td>
<td>1</td>
</tr>
</tbody>
</table>

As the research object is specifically the traditional villages in Guangxi, the inclusion of journals in its research field also shows obvious regional characteristics, probably because the literature of researching a certain region is more likely to be paid attention to by regional and district journals, and the content can be more targeted. The journal with the largest number of included literature, Guizhou Ethnic Studies, also includes only four pieces of literature in the related field, indicating that the research in this field is not deep and vertical, and of course, the regional research literature is certainly not as theoretically large as the number of journals that study the macroscopic national nature of the exploratory literature. Observing the inclusion of journals on traditional villages in Guangxi, it is not difficult to find that the journals in this field are mostly accepted by regional journals, humanities and geography journals and academic journals, which can be seen in the obvious regional geographic characteristics of this field, which also proves once again that the number of spatial characteristics of the research villages is large. Regional journals are mainly concentrated in Guizhou, Guangxi, Guilin, Shaanxi and other central and western regions which are relatively rich in traditional cultural resources, presenting distinctive and rich regional characteristics.
3.2.3. Analysis of issuing bodies

Issuing institutions are mostly art colleges, architecture colleges, design colleges, landscape architecture colleges of universities, all of which come from universities with strong regional architectural strength [12], which are extremely close to the research field of "traditional villages" and completely show the pattern of specialization in the field of art. Colleges and universities have become the main body of scholars to issue papers, a large number of output academic papers, academic results and academic research. Therefore, the state should increase investment in colleges and universities, and utilize a large amount of financial resources to meet the demand for scientific research. At the same time adhere to the cultivation of the academic spirit of colleges and universities, strengthen the construction of scientific research personnel team, only to improve the quality of domestic scientific research. After all, the research and development of innovative academic achievements can lead to national cultural, scientific and technological progress.

4. ANALYSIS OF LITERATURE CONTENT

4.1. Research hotspots

The time slice was set to one year, and the literature in the relevant field was visualized and mapped for a total of 16 years from 2007 to 2022. Keywords, as the most refined expression of the literature [13], are co-linear referring to the extent to which the described information co-occurs. In constructing the keyword co-linear mapping, the threshold was set to 5, meaning that the graph shows keywords with a frequency of 5 or more occurrences in the research literature. The font size of the keywords indicates the frequency of the keywords, and the larger the frequency, the relatively larger the font of the keywords. From the figure, it can be seen that traditional villages, rural revitalization, tourism development, traditional architecture, urbanization, and spatial distribution belong to the keywords with the highest frequency, whose frequencies are 196, 22, 17, 14, 9, and 9, respectively, which means that the research hotspots in this field are focused on, and they belong to the most common research focuses in this field. Sorting the centrality of the keywords, it is easy to know that the centrality of the keywords "traditional villages, rural revitalization, protection, tourism development, traditional dwellings, spatial form, traditional architecture, renewal mode, ancient villages, development, famous towns and villages, village landscape" are all higher than 0.1, and generally speaking, keywords with a centrality higher than 0.1 indicate their association with other keywords, which are the most common research focus in this field. Generally speaking, keywords with centrality higher than 0.1 indicate a high degree of association with other keywords, which shows
that the above keywords are closely related to each other in this field and often appear in the same topic.

![Figure 4. Keyword co-linear visualization mapping](image)

### 4.2. Analysis of research frontiers

Keyword clustering refers to the close relationship, with similar meaning of the keywords listed, through the algorithm to screen out the most prominent keywords that can represent the central idea as a representative of the category, to give it the value of the clustering label. The number in front of the clustering label is the number, the smaller the number is, the more keywords are included in the clustering. When the keyword clustering category is set to 10, it can be seen that the ten clusters measured by the system, in order of ranking, are traditional villages, protection, rural revitalization, influencing factors, tourism development, traditional inhabitants, urbanization, Guilin City, Guangxi Zhuang, and housing provident fund contributions. Through the keyword cluster analysis, the closely related keywords can be classified and the number of keywords can be simplified, so as to better summarize the hotspots and focuses of the research, and reveal the research background and development direction of the field.

![Figure 5. Keyword clustering visualization mapping](image)
4.3. Analysis of research trends

4.3.1. Development trend of research hotspots

Keyword prominence mapping, on the other hand, reacts to the frontier areas that researchers focus on at different times [14], with a sudden burst of many of the same keywords in certain years, with STRENGTH denoting the rate of prominence, and YEAR denoting the year in which the keyword first appeared. This map can show the trend of the field, the development frontiers, and the shift of research centers. During the emergence of a research field, many keywords will become the hot topic of the moment at a certain time, and then the hot topic keeps shifting. The intensity then indicates the research fervor corresponding to the keyword in the current time period. Since 2007, research has focused on village hamlets, while the term urbanization has received extensive academic attention since 2012. Tourism development, on the other hand, became a hot topic of the moment in the time period from 2017 to 2020. When the village is developed to a certain extent, in 2019, the attention begins to shift to areas such as architectural landscape, conservation use, and rural revitalization. In this stage, the relevant research process began to accelerate, and the research direction also underwent a new change. On the one hand, the discussion on the development and design of rural landscape is still a hot issue, on the other hand, how to strengthen the protection of traditional culture in the village and regard conservation development as a model of sustainable development [15] has become a more concerned issue in the academic community.
4.3.2. Follow the trend of time

Figure 7. Keyword timeline mapping

Figure 7 Keyword timeline mapping timeline visualization mapping: the rightmost side of each horizontal line category shows the cluster label, the horizontal axis from left to right represents the time from far to near, the timeline mapping is more refined than the time zone mapping, reflecting the evolution of keywords under a certain cluster in time. Since 2017, the research content of this field starts from "village spirit, heritage, spatial form", probably influenced by the rural revitalization strategy [16], the research content is gradually biased towards the direction of "tourism development", and the research focuses on "architecture, urbanization". "Architecture, urbanization" [17], relative to the inherent cultural needs of traditional villages, more concerned about whether the existing rural architecture can drive rural revitalization, and how to plan the space to better play a protective role. After that, the problems and corresponding solutions in the rural landscape are explored, and it is proposed to carry out functional transformation of architectural space. At this stage, the future outlook of these ancient architectural clusters in rural settlements is proposed. From the figure, it can be seen that in the traditional village clusters, the term traditional village first appeared in 2012, followed by keywords such as cultural characteristics and human habitat in 2015. After that, perhaps the promulgation of the Rural Revitalization Strategy made renovation design and functional transformation gradually evolve into a popular field. Against the background of the government's proposal to vigorously protect traditional culture in 2020, habitat ecology has become a research hotspot again, and scholars have gradually realized the importance of realizing the protection of traditional villages.

5. CONCLUSION AND OUTLOOK

5.1. Conclusions Of The Study

This paper uses Cite-space software to visualize and analyze 317 CNKI journals with the theme of "Guangxi traditional villages" from the aspects of literature characteristics and literature content, and draws the following conclusions. First, the number of published journal articles shows an overall increasing trend, but the number of documents in some years has declined, especially in the year 2021, which is affected by the epidemic, showing a very strong decline, which is not conducive to the current national strategic direction for the protection and research of traditional villages. Secondly, the authors of journals show a situation of "half cooperative research, half independent research", in which Liao Yuhang is the center, forming a large academic exchange circle in this field. Thirdly, the journals included in the literature are mainly regional and ethnic, and the issuing organizations are mainly architecture schools, art schools and design schools of universities, which highlights the relevance of regional nature research and village research. Fourth, the research hotspots focus on "traditional villages, rural revitalization, tourism development, urbanization" and other aspects, and the current research trends and research frontiers are rural revitalization and rural tourism [18].
5.2. Research Outlook

With the promotion of rural revitalization strategy, the development of traditional villages ushers in new opportunities. Guangxi Zhuang Autonomous Region is the richest region of intangible cultural heritage in China, and since 2007, traditional villages in Guangxi have gradually been noticed by academics, which greatly benefits the protection and development of local traditional villages in Guangxi. This paper visualizes and analyzes the literature in the related field, and from the results, it is not difficult to realize that traditional villages have always been an important destination for cultural tourism and cultural heritage tourism, which provides scholars in this field with a reference to the future research direction.

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REFERENCES