

CSSCI literature Research on Cultural Heritage Related Topics Based on Knowledge Graph

Caitian Wu¹, Yongxing Xia² and Hongxi Chen^{3,*}

¹ School of Economics and Management, Quanzhou University of Information Engineering, Quanzhou 36200, China

² School of Economics, Fujian Normal University, Fuzhou, 350117, China

³ Nan'an Branch, Quanzhou Yixing Electrical Engineering Construction Co., Ltd., Quanzhou, 362300, China

Abstract: Cultural heritage is the wealth left by history to mankind, and the protection and inheritance of cultural heritage is the necessary meaning for a country to retain its cultural roots and keep the soul of the nation. By using the bibliometric software CiteSpace, this paper makes a visual analysis of the knowledge map of CSSCI research literature generation on Chinese cultural heritage-related topics since the 21st century, and sorts out and studies its research status and evolution context. Through the analysis of keyword clustering, Timeline chart and emergence chart, this paper believes that the current research in the field of Chinese cultural heritage is biased towards cultural and tourism integration, rural revitalization, cultural self-confidence and digital humanities, and predicts that the development of digital cultural heritage and the related topics of rural revitalization enabled by cultural heritage will become the key frontier of future research.

Keywords: Cultural heritage, CSSCI, Bibliometrics.

1. Introduction

Cultural heritage refers to the assets left and passed down from human ancestors. What is passed on, whether it is called inheritance, inheritance, ancestral property (especially in patrilineal societies) or primogeniture, together with the inheritance relationships and institutions that form the core of the study of cultural heritage. [1] The protection and inheritance of cultural heritage is the proper meaning for a country to retain its cultural roots and the soul of the nation. At present, China ranks second in the world in terms of the number of world cultural heritage sites, and first in terms of the number and scale of intangible cultural heritage protection. Remarkable achievements have been made in the protection and inheritance of cultural heritage, and research on related topics has been continuously promoted and rich scientific research results have been obtained. By using bibliometric software CiteSpace, this paper displays the knowledge map of CSSCI (Chinese Social Sciences Citation Index) on cultural heritage-related topics, so as to sort out and study the research status and evolution of China's cultural heritage, further excavate and predict future research trends, and provide certain references for the high-quality development of cultural heritage-related topics.

2. Research Design

2.1. Research Sample

The sample literature data selected in this paper are from the CNKI database with the widest literature coverage and the largest number in China, and the source category is selected as CSSCI. The keyword of the search was "cultural heritage", and the search time was from January 1, 2000 to January 24, 2024. Considering the scientific nature and rigor of the samples, the search scope was "academic journals", and a total of 1845 sample literature data were obtained.

2.2. Research Tools

CiteSpace is a commonly used visual bibliometric analysis

software. It can show the structure, evolution and cooperation of a research field by drawing the scientific knowledge map, and analyze the research direction and hot spots of the literature. Therefore, CiteSpace is selected as a research tool in this paper to analyze the frontier fields and research hotspots of cultural heritage-related topics.

2.3. Research Parameters

In this paper, the obtained sample data was imported into CiteSpace6.2.R7W software for analysis, and parameters were set: the literature time partition was from January 1, 2000 to January 24, 2024, and the years per slice was "3"; term source selected all by default; node types select author, institution, and keyword respectively; the keywords were sliced by pathfinder, pruning networks and pruning the merged network graph construction algorithm, and the author and institutional cooperative network, keyword co-occurrence, clustering and emergence graphs were obtained. The information of frequency, intermediary centrality and connection degree of each node is integrated to realize the visual analysis of cultural heritage research.

3. Visual Analysis of Literature Related to Cultural Heritage

3.1. Author Cooperation Network Analysis

By adjusting the software parameters, this paper obtains the visual map of author cooperation in literature related to cultural heritage, as shown in Figure 1. The size of the node text in the figure indicates the number of publications. The larger the text, the more the author has published. The thickness of the lines between nodes indicates the closeness of the cooperative relationship between the authors, and the thicker the lines indicate the greater the intensity of cooperation between the authors.



Figure 1. Author cooperation network diagram

As shown in Figure 1, in the cooperation network of authors on cultural heritage-related topics, there are 12 authors with more than 4 publications, among which Peng Zhaorong and Zhang Ying are the largest, and Feng Huyuan and Ma Xiaojun are the most extensive cooperation networks. In terms of research content, Peng Zhaorong from Xiamen University mainly focuses on homeland heritage, cultural park and heritage anthropology, Zhang Ying from Sichuan Fine Arts Institute mainly focuses on cultural heritage protection and artistic heritage, and Feng Huyuan and Ma Xiaojun from Lanzhou University mainly focus on the study of Dunhuang mural heritage. It is worth noting that Qi Qingfu of Minzu University of China is the most cited author in a single paper, "On Inheritance and Inheritors in the Protection of Intangible Cultural Heritage"[2]Peng Zhaorong of Xiamen University has published 30 relevant papers in this field, which shows that he is one of the most influential authors in the basic research in this field.

3.2. Analysis of Institutional Cooperation Network

The map of cooperation network of cultural heritage document research institutions is shown in the figure below. The size of nodes in Figure 2 indicates the number of published papers. The larger the node, the more published papers the research institution has. The thickness of the connections between nodes indicates the closeness of the cooperative relationship between research institutions, and the thicker the lines indicate the greater the cooperation intensity between institutions.

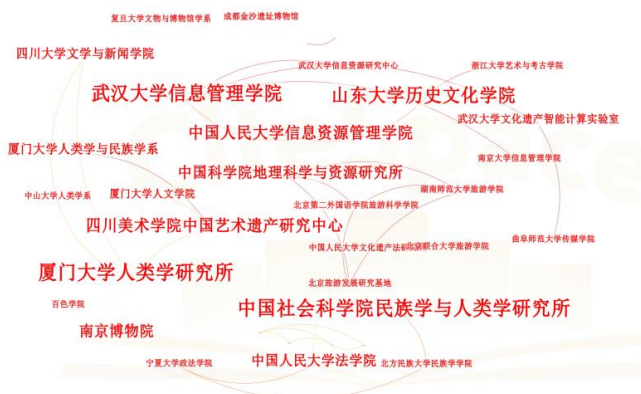


Figure 2. Number of academic papers published by the institution

According to the analysis results, a total of 8 institutions have published more than 10 papers. Among the eight research institutions, the School of Cultural Heritage of

Northwest University, the Chinese Academy of Cultural Heritage, the School of Urban and Environmental Sciences of Peking University, and the School of Architecture and Urban Planning of Tongji University do not have prominent node lines in the figure above. Indicating that there are not many cooperative papers between them and the research institutions that have made achievements in this field. On the contrary, the other four have close cooperation with research institutions that have made achievements in this field: The Institute of Anthropology of Xiamen University focuses on the research of landscape anthropology and homeland heritage, and cooperates more with the Art Heritage Research Center of Sichuan Fine Arts Institute and the School of Literature and Journalism of Sichuan University; The Institute of Ethnology and Anthropology of Chinese Academy of Social Sciences focuses on the "traditional-modern" transformation of cultural heritage and the integration of culture and tourism, and has close cooperation with the School of Ethnology of North University for Nationalities; The School of Information Management of Wuhan University focuses on the research of cultural heritage wisdom data and archive protection, and the School of History and Culture of Shandong University focuses on the research of the value attributes of cultural heritage. Both of them have maintained cooperation and exchanges with the School of Information Resource Management of Renmin University of China. In general, there is a close relationship between the research institutions on the theme of cultural heritage literature, and some institutions, as important nodes, play a bond role in the cooperation process.

3.3. Analysis of Hot Topics in Related Research

Keywords are the words that express the essence of the central meaning of the paper, which helps to quickly grasp the research theme of the article. Among them, the keywords with high frequency and center can clearly show the research hotspot in a specific field. This paper uses CiteSpace software to carry out co-occurrence (see Figure 3), clustering (see Figure 4 and 5) and emergence (see Figure 6) of keywords, draw the distribution table of frequency and centrality of keywords (see Table 1), analyze the development context and frontier topics in the field of cultural heritage research, and predict the future development direction.

3.3.1. Keyword co-occurrence analysis

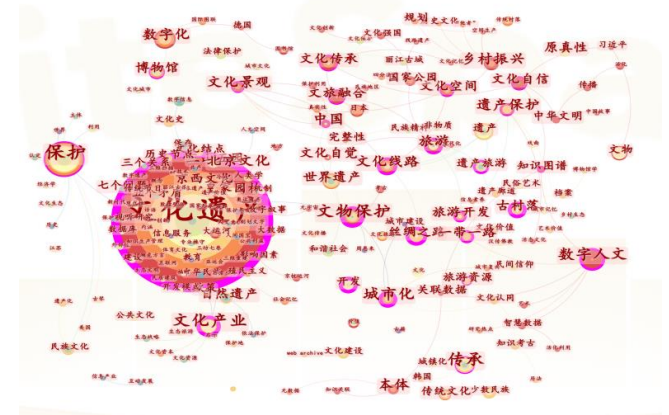


Figure 3. Keywords clustering diagram

Table 1. Keywords frequency statistics

Serial number	Frequency	Centrality	Start time	Keywords
1	858	1.17	2000	Cultural heritage
2	92	0.16	2002	Protection
3	19	0.48	2002	Cultural industry
4	18	0.11	2006	Heritage Preservation
5	16	0.07	2012	Digital
6	15	0.23	2018	Digital Humanities
7	13	0.07	2005	World heritage site
8	13	0.13	2006	Legacy
9	12	0.07	2011	Relics
10	12	0.15	2009	Cultural heritage
11	12	0.46	2001	Preservation of heritage
12	11	0.07	2018	Rural revitalization
13	11	0.4	2008	Cultural circuit
14	10	0.38	2007	Travel
15	10	0.51	2008	Silk Road
16	9	0	2010	Traditional culture
17	9	0.02	2009	Ethnic minorities
18	9	0.03	2003	Natural Heritage
19	9	0.17	2020	Cultural and tourism integration
20	9	0.18	2018	cultural confidence.

Figure 4 shows the map of co-occurrence of key words in literature related to cultural heritage. The larger the keyword size, the higher the centrality, the larger the node graph, the more frequent its occurrence, the darker the color, the more recent the research time, and the thicker the line, the stronger the correlation between the two. The frequency of "cultural heritage" in the literature is the highest, and far exceeds that of other keywords, which depends on the retrieval method selected in this paper. In addition, the keywords with high frequency also include "protection", "cultural industry", "heritage protection", "digitalization", "digital humanities", "world heritage" and "inheritance". The combination of these keywords reflects the wide attention paid to the protection and inheritance of cultural heritage, the continuous development of cultural industry and the evolving trend of the digital development of cultural heritage.

3.3.2. Keyword cluster analysis

In this paper, the keywords of related literature are clustered, and 12 cluster labels are obtained after adjustment. The smaller the label order, the larger the cluster scale and the more keywords contained. In order to facilitate the discussion, this paper selected the two largest tags outside the cultural heritage for analysis, described the evolution order of keywords under each cluster, and cited important citations in the cluster to sort out the development context of the cluster.

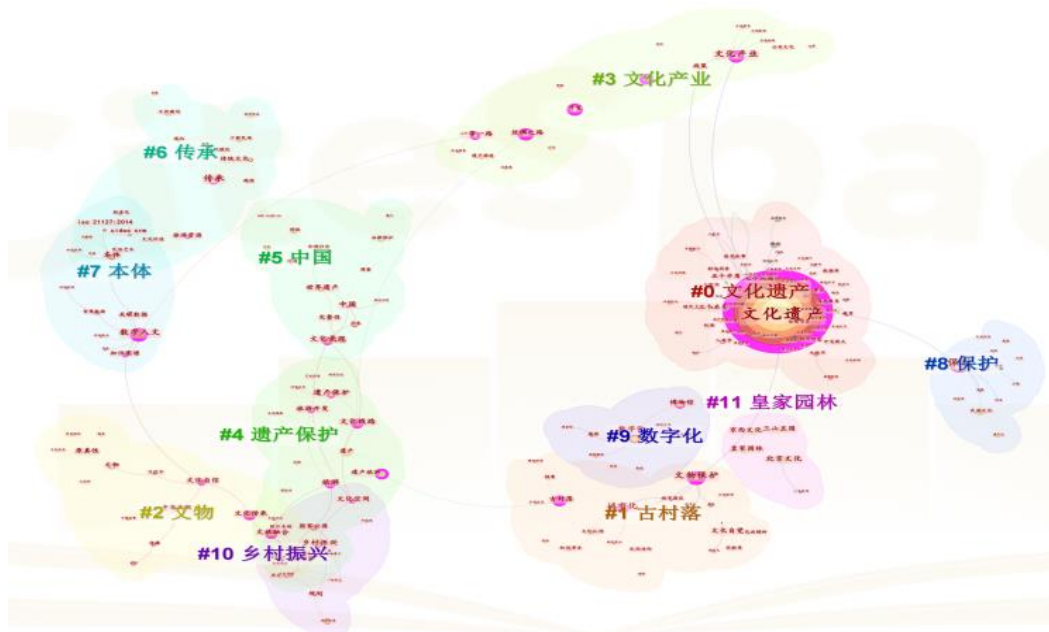


Figure 4. Keywords clustering classification map

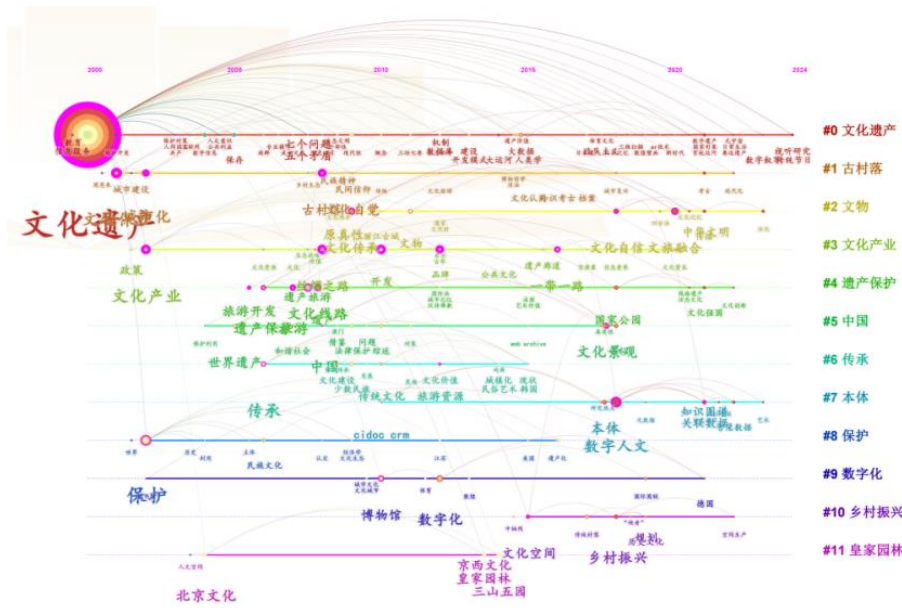


Figure 5. Keywords Spatiotemporal evolution graph

#1 Clustering -- Ancient villages: In China, ancient villages are the old name for traditional villages, referring to the villages built before the Republic of China. Ancient villages contain rich historical information and cultural landscape, which is the biggest heritage left by China's farming civilization, so it has become the focus of scholars. It can be seen from Figure 4 that ancient villages are the second largest cluster. From Figure 5, it can be seen that the evolution sequence of keywords in this cluster is as follows: urban construction -- rural ecology -- ancient villages -- folk beliefs -- cultural tourism -- urban Renaissance -- archaeology -- modernization, etc. Wang Dong combined Beijing's modern urban construction with the protection of ancient cultural capital to explore a reasonable path [3] for the development of urban modernization; Wang Yuankun regards ancient villages as cultural heritage as ecological places formed by historical and cultural accumulation, and explores the aesthetic cognition[4] of rural ecology; Tian Zhaoyuan and other folk beliefs are related to rural-city, and study their protection path[5] in the process of urbanization; Over the years, scholars have always paid attention to the development of cultural tourism in ancient villages and other cultural heritage, and closely combined the inheritance, protection, innovation and development of cultural heritage with cultural tourism. At the same time, the modernization of cultural heritage such as urban rejuvenation, archaeology and ancient villages has gradually attracted the attention of scholars.

#2 Clustering -- Cultural relics: Cultural relics are the precious historical and cultural heritage of mankind, which are the relics of human culture left in society or buried in the ground. As shown in Figure 4 and Figure 5, cultural relics are the third largest cluster, and the evolution sequence of its keywords is: cultural protection - cultural consciousness - Confucian culture - cultural memory, etc. The protection of cultural heritage is the most important work of cultural heritage at present. Many scholars have carried out research on the protection, inheritance and utilization of cultural heritage. Qi Qingfu regarded inheritance as the core and soul [2] of intangible cultural heritage protection through his discussion on the inheritance and inheritors of intangible cultural heritage protection; By summarizing and analyzing the development and evolution of international laws and regulations on the protection of cultural heritage in the past

hundred years, Zhang Chaozhi et al. clarified the relationship [6] between international laws and regulations on the protection and utilization of cultural heritage. Cao Wobing combined cultural heritage, cultural consciousness and cultural construction to trace the development process[7] of China's cultural heritage; The related research on the inheritance and construction of cultural heritage by cultural memory such as Confucian culture has also gradually developed.

3.3.3. Keyword emergent analysis

Top 8 Keywords with the Strongest Citation Bursts

Keywords	Year	Strength	Begin	End	2000 - 2024
保护	2002	8.02	2002	2014	[Red bar from 2002 to 2014]
自然遗产	2003	3.64	2003	2008	[Red bar from 2003 to 2008]
文物	2011	3.99	2011	2014	[Red bar from 2011 to 2014]
文化产业	2002	4.92	2012	2014	[Red bar from 2012 to 2014]
文旅融合	2020	4.17	2020	2024	[Red bar from 2020 to 2024]
乡村振兴	2018	4.05	2018	2023	[Red bar from 2018 to 2023]
文化自信	2018	3.28	2018	2024	[Red bar from 2018 to 2024]
数字人文	2018	6.36	2021	2024	[Red bar from 2021 to 2024]

Figure 6. Top keywords with the strongest citation bursts

As can be seen from Figure 6, the development of literature on topics related to cultural heritage can be roughly divided into three stages. From 2002 to 2008, research on conservation and natural heritage was mainly focused; 2011-2012 focused on conservation, cultural relics and the development of cultural industries; After 2018, it began to pay more attention to the research of rural revitalization, cultural self-confidence, digital humanities and cultural and tourism integration.

4. Epilogue

This paper selects literatures related to Chinese cultural heritage since the 21st century from CNKI core database as research samples, adopts bibliometric method, and uses CiteSpace software to conduct research cooperation network analysis and keyword co-occurrence, clustering and emergent word extraction analysis, reviews the current research situation in the field of Chinese cultural heritage, and predicts future hot fields.

Combined with the research results of this paper, and

compared with the research progress of Chinese cultural heritage-related literature, this paper predicts the following two hotspots in the field of Chinese cultural heritage-related research in the future.

The first is the development of digital cultural heritage, that is, the effective combination of cultural objects and digital technology, so as to provide a new path and model for the cultural heritage information management system. With the widespread application of digital means and methods, digital cultural heritage has attracted wide attention due to its characteristics of renewable, shareable and reusable. On the basis of combining multiple subjects, disciplines, interfaces and visions, information recording forms and optimizes the multi-dimensional presentation of its contents with the help of digital media, which can create a heritage scene that combines virtuality and reality, and promote the visualization, contextualization and interaction of cultural heritage. Digital technology can help the accurate management of cultural heritage information. According to the technical requirements of multi-scale and multi-level information management, new ideas of accurate management of the whole chain of cultural heritage can be explored, and multi-participation and dynamic interaction of heritage information management system and sharing and mutual feed mode can be created, providing new possibilities for the iterative advancement of cultural heritage protection.

The second is cultural heritage enables rural revitalization. China's comprehensive rural revitalization strategy includes the requirements of industrial prosperity, ecological livable and rural civilization, all of which are closely linked to the protection and utilization of cultural heritage. By cultivating and developing new forms of "culture + industry", China will integrate rich and colorful cultural forms into handicraft, cultural creativity, tourism, Internet live broadcasting, construction, service and other industries, so as to enhance the

connotation of rural industries, enrich the types of cultural industries, and lay a solid foundation for enhancing the innovation and competitiveness of rural enterprises. Common prosperity is an important value pursuit of rural revitalization. The economic value of cultural heritage is reflected in its great potential in creating jobs, increasing income and reducing poverty. The deep integration of cultural heritage with rural tourism, traditional handicraft industry and emerging Internet marketing methods such as live streaming can bring new driving forces and new growth points to rural economic and social development, and is the only way to achieve prosperity in rural life.

References

- [1] Peng Zhaorong. Cultural Heritage and Contemporary World [J]. Guizhou Social Sciences, 2023(08):85-90.
- [2] Qi Qing-fu. On inheritance and Inheritors in the protection of Intangible Cultural Heritage [J]. Northwest Ethnic Studies, 2006(03):114-123+199.
- [3] Wang Dong. Beijing's modern city construction and Cultural ancient capital protection [J]. Beijing Social Sciences, 2003(01):11-16.
- [4] Wang Yuankun. Aesthetic Cognition of rural ecology [J]. Jiangxi Social Sciences, 2008(07):195-198.
- [5] Tian Zhaoyuan. Research on Folk Belief heritage Protection in the process of Urbanization [J]. Journal of East China Normal University (Philosophy and Social Sciences Edition), 2012, 44(04):18-22+152-153.
- [6] Zhang Zhaozhi, Zheng Yanfen. Evolution of international rules on the relationship between cultural heritage protection and utilization [J]. Tourism Forum, 2011, 26(01):81-88.
- [7] Cao Bingwu. Cultural Conscious Cultural Construction of Cultural Heritage -- Pursuing the development course of China's Cultural heritage [J]. Southeast Culture, 2011(03):7-12.