

Research Trends and Hot Spots of Ciqikou Ancient Town in Chongqing

—On the Metrological Research of Ciqikou Conference Papers

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Abstract

Rated as a national AAAA-level scenic spot, Ciqikou boasts one of the four ancient towns in Chongqing, known as a historical and cultural street in China, a key protected traditional street in Chongqing, and a folklore and cultural tourism circle in Bayu. It has made great contributions to the cultural value, economic value, and academic value of the local area. This paper collects 17 representative conference papers from 2007-2021 from the background of Ciqikou Ancient Town, involving block renovation, organic renewal, and density analysis. Through visual analysis, the research trends and research hotspots of Ciqikou Ancient Town are discussed, in order to provide references for the theoretical research and practical application of Ciqikou Ancient Town.

Keywords: Ciqikou architecture, conference papers, visual analysis, research hotspots, research trends

1. INTRODUCTION

As an important platform to understand the latest hot topics and views of concern in the industry, conference papers are the key to understanding the core issues and innovation points, and the research hotspots and trends in the field can be derived from the statistics and analysis of the content of the conferences in recent years. In 2007, Gao Wei and Zhou Fangfang et al. proposed the importance of the key conservation of Chongqing's historic and cultural city through "The Rhythm of Ancient Towns - The First Tour of Chongqing's Ancient Town of Ciqikou" at the first Materials Conference in Shandong ^[1]. Few related issues were raised at the conference in the seven years until 2013, and the relevant papers on the Ciqikou architecture have been published in conferences since 2014. The number of papers published in the conference has been increasing in a curvilinear manner since 2014. The hotspots of the conference also extended from pre-conservation to diversified perspectives such as habitat needs, global localization, Maslow's needs, and nuclear density analysis. However, most of the current research methods

are mainly descriptive analysis, and there is a lack of visual analysis of the latest hot spots and trends of the conference.

This paper uses the visual analysis and data editing tools of the CNKI database to analyze features of the representative conference papers of Ciqikou architecture from 2007 to 2021, "The First Shandong Materials Conference", "2008 China Urban Planning Annual Conference", and "The 15th National Regional Tourism Academic Conference". "Development Seminar and Holiday Tourism Forum", "2016 Annual Conference and Academic Seminar of Chinese Society of Architectural History", "2016 China Fire Protection Association Science and Technology Annual Conference", "2017 China Urban Planning Annual Conference", and "2018 (13th) Urban Development and Planning Conference", "2019 (14th) Urban Development and Planning Conference", "2020/2021 China Urban Planning Annual Conference and 2021 China Urban Planning Academic Season". A comprehensive analysis of paper sources, research hotspots, and trends is conducted, with the aim to provide references for architectural research of the Ciqikou Ancient Town in Chongqing.

Table 1 2007-2021 Conference Statistics

	Conference Time	Conference Venue	Conference Name	Conference Topic	The Number of Papers
1	March 2007	Jinan, Shandong, China	The First Shandong Materials Conference	Building Science and Engineering	1
2	September 2008	Dalian, Liaoning, China	2008 Annual China Urban Planning Conference	Building Science and Engineering	1
3	October 2010	Chengdu, Sichuan, China	The 15th National Regional Tourism Academic Development Seminar and Exclusive Tourism Forum	Tourism	1
4	November 2013	Qingdao, Shandong, China	Urban Age, Collaborative Planning-2013 China Urban Planning Annual Conference	Building Science and Engineering	1
5	September 2016	Baotou, Inner Mongolia, China	2016 Annual Meeting and Symposium of the Chinese Society of Architectural History	Building Science and Engineering	1
6	November 2016	Nanjing, Jiangsu, China	2016 Annual Science and Technology Conference of China Fire Protection Association	Building Science and Engineering	1
7	November 2017	Dongguan, Guangdong, China	2017 Annual Conference of China Technical Planning	Building Science and Engineering	1
8	July 2018	Suzhou, Jiangsu, China	2018 (13th) Urban Development and Planning Conference	Building Science and Engineering	3
9	August 2019	Zhengzhou, Henan, China	2019 (14th) Urban Development and Planning Conference	Building Science and Engineering	2
10	September 2021	Chengdu, Sichuan, China	2020/2021 China Urban Planning Annual Conference and 2021 China Urban Planning Academic Season	Building Science and Engineering	4
11	September 2021	Wuhan, Hubei, China	2021 National Symposium on Teaching and Research on Digital Technology in Architecture for Architecture Faculties and DADA2021 Digital Architecture Society Symposium	Building Science and Engineering: Computer Software and Computer Applications	1

2. STATISTICAL ANALYSIS

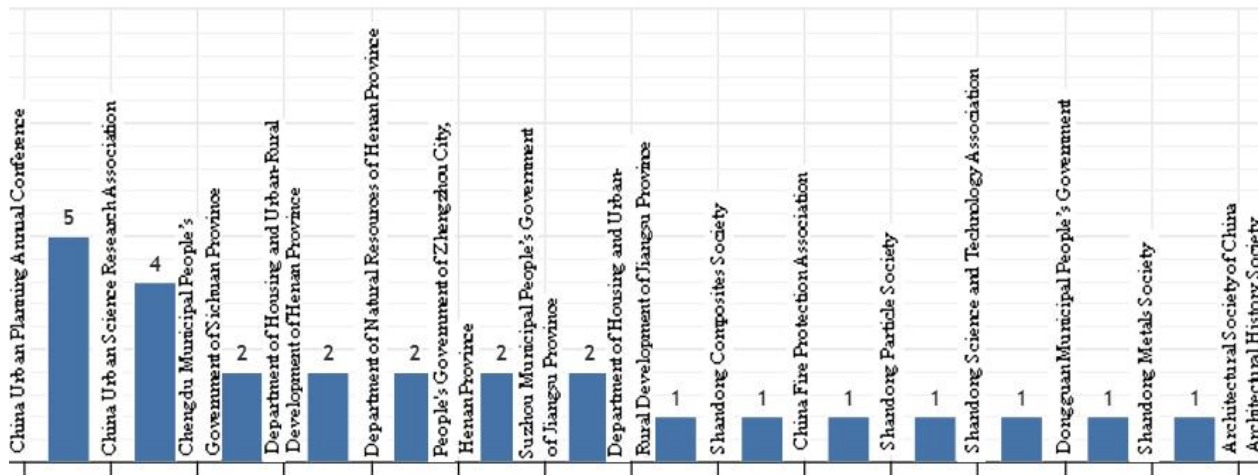
Statistics and analysis are conducted according to the source of the conference papers, the number of papers, and the source of the papers.

2.1 Sources of conference papers

In this paper, 17 conference papers on hot topics in Ciqikou Ancient Town were screened from CNKI from March 2007 to September 2021. A total of 11 conferences were held in China, including Shandong, Dalian, Chengdu, Inner Mongolia, Jiangsu, Guangdong, and Wuhan. Among them, there are six conferences on urban development and planning, a tourism conference, a fire protection conference, a materials conference, and two architectural research conferences (Figure 1). The units

involved are China Urban Planning Society, China Urban Science Research Association, Chengdu Municipal People's Government of Sichuan Province, Department of Housing and Urban-Rural Development of Henan Province, Natural Resources Department of Henan Province, Zhengzhou Municipal People's Government of Henan Province, Suzhou Municipal People's Government of Jiangsu Province, Department of Housing and Urban-Rural Development of Jiangsu Province, Shandong Composite Materials Society, China Fire Protection Association, Shandong Particle Society, Shandong Science and Technology Association, Dongwan Municipal People's Government, Shandong Metal Society, Building History Society of China Construction, etc.(Figure 2). About 90% of conference topics are based on architectural science, which shows that architecture plays a leading role in the process of urban development.

Table 2 Source of conferences



2.2 Paper sources and quantity

From the geographical distribution of paper sources, 13 of the 17 papers on Ciqikou are from Chongqing University in Chongqing, 2 from Chongqing Planning and Design Institute, and the other 2 from Harbin Institute of Technology and Qingdao Technological University (Figure 3). Since 2007, the research on the protection of Ciqikou has been mentioned in conference papers, and then in 2008, 2010, and 2013, Pu Weiran, Liu Jun, Liu Yajing, and Li Heping respectively proposed the protection process and performance evaluation of Ciqikou. During this period, there were few papers and not many people paid attention to. Among them, no one mentioned related papers in this field in 2009. The research perspective of the Ciqikou architecture is also limited to the protection of the original architecture, and

no reasonable plan and implementable solutions have been proposed. Since 2016, researchers in this field have gradually increased. In 2016, there were two conference papers in this field, one in 2017, two in 2018, two in 2019, and five in 2021 (Figure 4). The perspective of concern expands from conservation to Maslow's hierarchy of needs theory, research on the evolution of historic districts, research on commercialization control, research on fire evacuation, research on phenomenological spatial perception experience, research on spatial optimization under cultural-ecological vision, and research on renewal strategies for marginal communities in historic districts. The perspective of research has been gradually expanded, from the study of architecture itself to the relationship between architecture and people, the study of the emotional needs of the scene, etc. By this year, these five papers have all witnessed the importance of the academic field on this topic.

Table 3 Distribution of papers

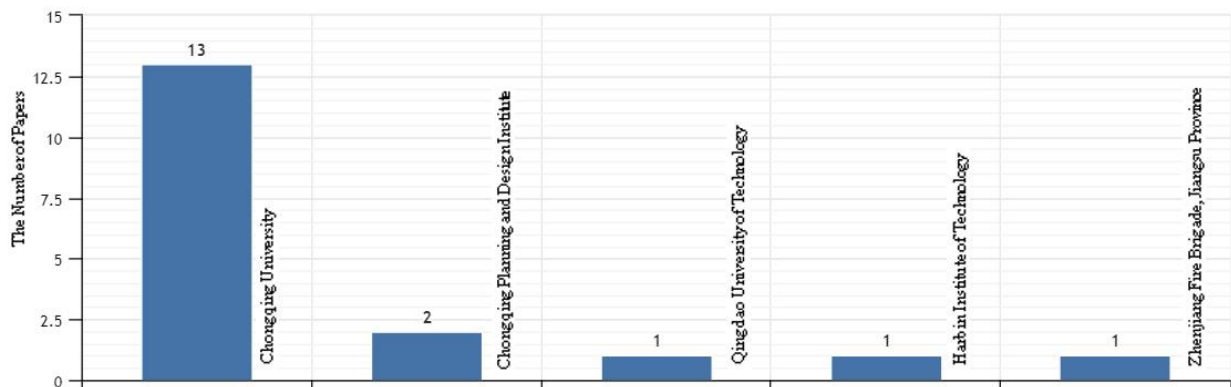
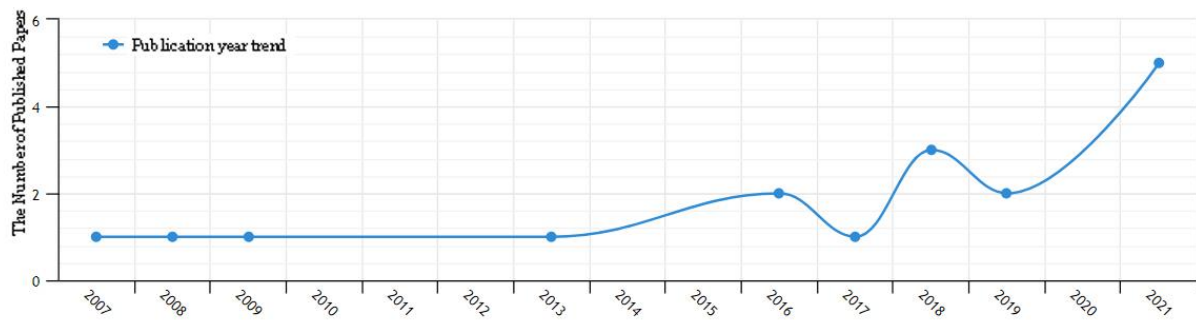


Table 4 Annual publication trend of papers in Ciqikou Ancient Town Conference

3. RESEARCH HOTSPOTS AND TRENDS

3.1 Research hotspots

The keyword is the author's summary and refinement of the content of the paper, mainly used to express the subject content of the paper. Both from the perspective of conveying information and from the perspective of storing information, keywords bring great convenience to the storage and retrieval of literature. Therefore, the analysis of keywords in this paper can draw research hotspots and research trends in the past few years. In this paper, the keywords of 17 conference papers are organized and 69 keywords are summarized. Among them, historical districts appear 15 times, those related to conservation appear 7 times, Ciqikou Ancient Town and ancient architecture appear 7 times in total, keywords of tourism appear 5 times, those related to experience appear 5 times, those related to architectural features appear 5 times, and firefighting keywords appear 3 times. The methods analyzed in the keywords are typology, hierarchical analysis, architectural phenomenology, nuclear density analysis, and MR techniques. Other keywords are global localization, innovation, sustainable development, evolution mechanism, community separation effect, prototype extraction, etc. Through the analysis of the above keywords, it can be seen that historical districts and characteristic ancient towns are the current research hotspots. Researchers use various analytical methods to explore the sense of place, experience, innovation, and sustainable development of ancient town buildings.

3.2 Research trends

By summarizing and combing the keywords, the changes of keywords can be obtained, thus acquiring the research changes and trends of Ciqikou Architecture. From the analysis, the main research themes between 2007 and 2021 include the conservation and evaluative research of the Ciqikou architecture, tourism development research, neighborhood evolution research, demand level research, sustainable development research, spatial perceptual experience research, spatial

optimization research, renewal strategy research, MR technology research, and other topics. The research topics are mainly concentrated in several aspects: one is the research on the renewal and protection of Ciqikou architecture, the second is the perceptual experience research with the human theme, and the third is the related research on the premise of tourism. The subject related to technology has gradually become a new research direction.

3.3 Research content classification

After sorting out the research topics and content of 17 papers, this paper divides them into four major aspects: "Conservation Research of Ciqikou Architecture", "Multi-perspective Experiential Research", "Sustainable Tourism Development", and "Diversified Urban Renewal". Pu Weiran and Liu Jun proposed to control the artificial elements and protect the characteristic features of the city in the paper "Research on the Composition and Protection of Mountainous City Features: Taking the Main Urban Area of Chongqing as an Example".^[2] Liu Yajing and Li Heping evaluated the protection process and performance of the physical environment of the Ciqikou Historic District and provided references for the protection of the district.^[3] Qin Fuqiang proposed to realize the cultural inheritance and protective reconstruction of historical areas by protecting traditional culture and regional characteristics, and then to discuss the role and application steps of typology in the protection and renewal of historical blocks.^[4] Liao Guannan pointed out that the historical stratification method was used to summarize the three-layer mechanism, and thus proposed a plan to protect the block.^[5] Huang Shengxiang proposed to expound people's subjective perception experience from the four aspects of space scale, space form, human behavior activities, and infrastructure construction, from which the relationship between the objective existence of material space and behavior experience was extracted, and the lane space design strategy of returning to the place was proposed.^[6] Zeng Xudong also proposed in the paper "Research on the Application of MR Technology in Historical Building Navigation-Taking Ciqikou Zhongjia Courtyard as an Example" to bring a new multi-

perspective, multi-dimensional, and interactive experience in historical architecture guided tour by digital means. [7] Hui Hong pointed out in the paper that tourism development must take the realization of community development as the fundamental goal. In their paper "Study on Fire Evacuation Design of Mountainous Historic Towns in Tourism Development: The Case Study of Chongqing's Ancient Town of Ciqikou", Zhou Xing and Zhang Qingshun proposed a comprehensive fire evacuation design strategy for Ciqikou by correspondingly increasing the fire separation, expanding the evacuation space, and sorting out the evacuation flow lines, and a comprehensive fire evacuation design strategy for the ancient town of Ciqikou was proposed. [8] Xu Weiqing et al. put forward a strategic response based on the protection of the sustainable development of historical and cultural blocks: linkage area, control of scale, type, and composition, with a commitment to promote the harmony between the protection of historical and cultural blocks and the development of tourism and commerce, and the formation of a good cultural atmosphere and business environment. [8]

4. CONCLUSION

This paper analyzes the conference papers on Ciqikou from 2007 to 2021 through visual analysis, discusses the paper sources, the number of papers, the research direction, and the research content, and then counts the research hotspots and research trends. At present, the research of Ciqikou architecture is in further development, and this paper expects to provide references for the theoretical research and application practice of Ciqikou architecture by combing the research hotspots of the conference papers this year. However, it is also necessary for everyone to learn advanced research methods, expand research horizons, and correctly grasp future research directions and research priorities while integrating local culture.

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