Research Trends and Hot Spots of Ciqikou Ancient Town in Chongqing
———On the Metrological Research of Ciqikou Conference Papers

Xuemin Huang¹,a

¹Academy of Fine Arts, Sichuan University of Arts and Sciences, Dazhou, Sichuan, China
85304423@qq.com

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.

Table 1 2007-2021 Conference Statistics

<table>
<thead>
<tr>
<th>Conference Time</th>
<th>Conference Venue</th>
<th>Conference Name</th>
<th>Conference Topic</th>
<th>The Number of Papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 2007</td>
<td>Jinan, Shandong, China</td>
<td>The First Shandong Materials Conference</td>
<td>Building Science and Engineering</td>
<td>1</td>
</tr>
<tr>
<td>September 2008</td>
<td>Dalian, Liaoning, China</td>
<td>2008 Annual China Urban Planning Conference</td>
<td>Building Science and Engineering</td>
<td>1</td>
</tr>
<tr>
<td>October 2010</td>
<td>Chengdu, Sichuan, China</td>
<td>The 15th National Regional Tourism Academic Development Seminar and Exclusive Tourism Forum</td>
<td>Tourism</td>
<td>1</td>
</tr>
<tr>
<td>November 2013</td>
<td>Qingdao, Shandong, China</td>
<td>Urban Age, Collaborative Planning-2013 China Urban Planning Annual Conference</td>
<td>Building Science and Engineering</td>
<td>1</td>
</tr>
<tr>
<td>September 2016</td>
<td>Baotou, Inner Mongolia, China</td>
<td>2016 Annual Meeting and Symposium of the Chinese Society of Architectural History</td>
<td>Building Science and Engineering</td>
<td>1</td>
</tr>
<tr>
<td>November 2016</td>
<td>Nanjing, Jiangsu, China</td>
<td>2016 Annual Science and Technology Conference of China Fire Protection Association</td>
<td>Building Science and Engineering</td>
<td>1</td>
</tr>
<tr>
<td>November 2017</td>
<td>Dongguan, Guangdong, China</td>
<td>2017 Annual Conference of China Technical Planning</td>
<td>Building Science and Engineering</td>
<td>1</td>
</tr>
<tr>
<td>September 2021</td>
<td>Chengdu, Sichuan, China</td>
<td>2020/2021 China Urban Planning Annual Conference and 2021 China Urban Planning Academic Season</td>
<td>Building Science and Engineering</td>
<td>4</td>
</tr>
</tbody>
</table>

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.
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 2 Source of conferences

Table 3 Distribution of papers
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". 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. 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. 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. 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. 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. 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.
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.

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.

REFERENCES

[1] Gao W et al., Rhythm of the ancient town: A first visit
to the ancient town of Ciqikou in Chongqing, The
First Shandong Materials Conference, Jinan,
Shandong, China, 2007, pp. 53-56.
and protection of mountainous urban landscape -
taking the main city of Chongqing as an example,
2008 China Urban Planning Annual Conference,
Dalian, Liaoning, China, 2008, pp. 2215-2222.
Evaluation of Physical and Environmental
Protection in the Historic District of Ciqikou, Urban
Times, Collaborative Planning - 2013 China Urban
Planning Annual Conference, Qingdao, Shandong,
China, 2013, pp. 316-333.
[4] Qin F Q, The use of typology in the conservation of
ancient villages, towns and historic districts - an
example of prototype extraction and analysis of the
ancient town of Ciqikou in Chongqing, 2016 Annual
Meeting and Symposium of the Chinese Society of
Architectural History, Baotou, Inner Mongolia,
China, 2016, pp. 478-482.
district of Ciqikou based on layered analysis, 2018
(13th) Urban Development and Planning
Conference, Suzhou, Jiangsu, China, 2018, pp.
1668-1675.
[6] Huang S X, Research on the spatial perceptual
experience of streets and alleys in mountainous
historical districts based on architectural
phenomenology - taking the ancient town of Ciqikou
in Chongqing as an example, 2020/2021 China
Urban Planning Annual Conference and 2021 China
Urban Planning Academic Season, Chengdu,
Sichuan, China, 2021, pp. 1592-1602.
[7] Zeng X D et al., Research on the application of MR
technology in historical architecture guiding - an
example of Zhongjia Dajian in Ciqikou, 2021
National Symposium on Digital Technology
Teaching and Research in Architecture and
DADA2021 Digital Architecture Symposium for
Architecture Faculties, Wuhan, Hubei, China, 2021,
pp. 472-476.
[8] Zhou X and Zhang Q S, Research on Fire Evacuation
Design of Mountainous Historic Ancient Towns in
Tourism Development - An Example of Chongqing
Ciqikou Ancient Town, 2019 (14th) Urban
Development and Planning Conference, Zhengzhou,
Henan, China, 2019, pp. 890-897.