

An Investigation Report on the International Communication Effect of Liuzhou Bridge Culture

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Abstract: This research takes Liuzhou Bridge as the research object, adopts the questionnaire survey method, the field investigation method, the literature retrieval method and the network retrieval method and so on many kinds of research methods, has carried on the research to Liuzhou Bridge Culture's international dissemination effect. The survey results show that there are some problems in the international communication of Liuzhou bridge culture, such as limited communication channels, single communication content, and poor communication effects. This study believes that in view of these problems, we should strengthen the construction of communication channels and expand diversified communication methods; Enrich the communication content and show the unique charm of Liuzhou bridge culture; Improve the effect of communication and strengthen interaction and communication with international audiences. The implementation of these countermeasures will help to improve the international reputation and influence of Liuzhou bridge culture, and promote cultural exchanges and interactions.

Keywords: Liuzhou; Bridge culture; International communication; City image.

1. Introduction

Urban culture is displayed through a variety of carriers, including food, customs and architecture. Liuzhou, the famous hometown of snail noodles, its unique bridge architecture is also an important part of urban culture. However, through research, we found that the current Liuzhou Bridge and the cultural connotation behind the implied lack of sufficient understanding and publicity. Chinese media mostly pay attention to the various forms and external images of Liuzhou Bridge, while ignoring the internal significance and deep-seated cultural value of the Bridge itself. And foreign media reports on this are even less, which is enough to show that our international communication is far from enough.

Liuzhou's bridge architecture should be used as a postcard to publicize the image of the city, to show the Chinese spirit, urban style and national spirit, to play a cultural lubrication role, and to attract the attention of Liuzhou's urban civilization image at home and abroad based on the international communication effect. In order to enhance the international influence of Liuzhou bridge culture and promote global cultural exchanges, we put forward targeted suggestions and solutions, aiming to strengthen its international communication effect, enhance Liuzhou's international influence, and promote global cultural exchanges and understanding.

2. Data Collection and Research Methods

This study uses a variety of academic research methods, including literature, field investigation, network investigation and questionnaire survey, to study Liuzhou bridge culture in an all-round and in-depth way.

2.1. Documentation

Through the use of China National Knowledge Network

(CNKI), China Social Science Citation Index, Wanfang Database, China Excellent Doctoral and Master's Dissertation Network and other resources, the key words "bridge culture", "shape, reality and soul" and "international communication" were searched, and the existing literature materials were systematically sorted out. Through reading the literature related to academic activities, analysis of the limitations of the study, clear research issues and research ideas, to find the theoretical basis for this study to provide an effective theoretical basis.

2.2. On-the-spot investigation method

In this study, through field investigation of Liuzhou bridges, the relevant data and materials are obtained, which provide a reliable basis for the study. Through on-the-spot observation and investigation, the historical background, cultural connotation and social value of Liuzhou bridges are deeply understood, which provides empirical support for the research.

2.3. Network Research Method

This research uses the domestic and foreign network platform, collects the Liuzhou bridge culture activity material which organized by the Liuzhou government, collects the foreign media platform to Liuzhou bridge culture report, unifies the traveling agency and so on media to Liuzhou bridge culture propaganda introduction, understands the Liuzhou bridge culture international dissemination situation at present. Through network research, we can obtain comprehensive information and provide international vision and reference for research.

2.4. Questionnaire survey method

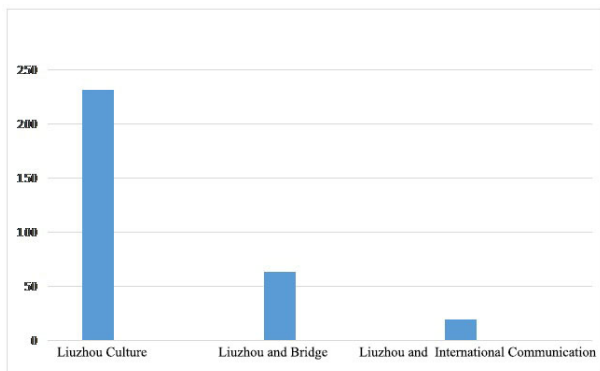
According to the purpose and task of the study, this study designed a questionnaire survey to investigate the understanding of Liuzhou bridges and the cultural connotations behind them by college students, local residents and national college students and residents. Through the questionnaire survey, the public's cognition and attitude

towards Liuzhou bridge culture are obtained, and social feedback and reference are provided for the research.

3. Findings and Analysis

3.1. Documentation

Table 1. Research on Liuzhou Culture on HowNet



As shown in Table (1), on HowNet, searching with "Liuzhou Culture" as the theme word, there are a total of 231 journal papers, of which 187 are related to snail noodles. The research on snail noodles is relatively comprehensive, covering craftsmanship, e-commerce marketing and international discourse power. With "Liuzhou" and "Bridge" as the subject words, there are 63 relevant journal papers, and the research scope mainly involves the bridge structure, quality technology and other aspects. There are only 19 documents on the theme of "Liuzhou" and "International Communication". Most of the main research directions are snail noodles, local mainstream media, new media promotion of snail noodles, and electric vehicles. There are 3 articles related to the media communication level of Liuzhou urban communication. Only Li Bin's paper titled "Strengthening International Communication by Giving Full Play to Local Characteristics" proposed three strategies for strengthening international communication, but none of them involved Liuzhou bridge culture. research.

Liuzhou is known as the "Bridge Museum". On HowNet, it only studies the number of bridge buildings in Liuzhou over the years. The research on bridge culture is only superficial, and there is no in-depth understanding and excavation of the bridge. cultural impact

3.2. On-the-spot investigation method

Through field visits to more than ten bridges in Liuzhou, we have an in-depth understanding of the value and significance of these bridges. Each bridge has its own characteristics, adding a unique charm to the development and image of Liuzhou.

As the first river-crossing bridge in Liuzhou City, Liuzhou Iron Bridge has important historical significance. It not only laid the foundation for international cultural dissemination, but also made outstanding contributions to the transportation of materials for the Anti-Japanese War. The Liujiang Bridge was the first advanced scheme in China and the thirteenth in the world at that time. It won the National Science Congress Award in 1978, demonstrating the brilliant achievements of human wisdom and technology. Wenhui Bridge is the first medium-through concrete-filled steel tube arch bridge in Guangxi. It organically combines the structure and function

of the bridge, shape and art, landscape and environment, and becomes the main road connecting the old and new urban areas. It is also one of the image projects of Liuzhou City. Shuangchong Bridge facilitates the transportation of Liubei and Liunan industrial zones, and plays an important role in promoting the industrial development of Liuzhou. The Zhegujiang Bridge was the bridge with the largest span and the highest technological content in Guangxi at that time, and won two architectural awards, the Luban Award and the Zhan Tianyou Award. The construction of Guangya Bridge and Guantang Bridge is of great significance for improving urban transportation infrastructure and promoting economic development

To sum up, each bridge in Liuzhou has a unique shape and characteristics, and they are closely related to the development and image of Liuzhou city. Through field visits and research on these bridges, we can deeply understand the cultural value behind the bridges. These bridges are not only important hubs of urban transportation and an important part of the landscape, but also an important part of Liuzhou's urban culture. They have witnessed the historical changes of Liuzhou, carried rich cultural connotations and humanistic spirit, and added unique charm and beauty to Liuzhou

3.3. Network Research Method

With the help of domestic and foreign network platforms, this network survey collected materials on bridge cultural activities held by the Liuzhou government, media reports, and publicity introductions from travel agencies, aiming to understand the current international dissemination of Liuzhou bridge culture.

From the perspective of communication channels, domestic media mainly publicize Liuzhou's bridge culture through official media such as "Nanguo Today", "Guangming Daily", "People's Information", etc. In addition, major universities in Liuzhou have also organized and launched related activities and tweets to promote Liuzhou bridges to all sectors of society. Major travel agencies have also released relevant videos and tweets to attract foreign tourists to check in and take pictures at the "Internet Celebrity Bridge" in Liuzhou.

From the perspective of communication content, the major network platforms combine the city's development process with national characteristics, showing the unique charm of Liuzhou's bridge architecture. For example, the Fenghuangling Bridge, the 22nd river-crossing bridge in the urban section of Liuzhou City, adopts the style of the Sanjiang Chengyang Fengyu Bridge and adds elements of the Dong Drum Tower. In addition, bridge construction is inseparable from local industrial construction. For example, "Made in Liuzhou Iron and Steel" rebar and other products are widely used in local bridge construction. These buildings are not only unique in shape, but also world-class in construction difficulty and speed.

From the perspective of communication effect, the development of Liuzhou's tourism industry has attracted many domestic tourists to visit. For example, the shape and bright light night scene of the Sanjiang Wind and Rain Bridge, which has the folk characteristics of the Dong nationality in Liuzhou, have become new "check-in points". At the same time, it also answers people's questions, why build so many bridges in the city? And many of them are bridges across rivers. In fact, this is related to the unique urban landform of Liuzhou. An article mentioned that "the Liujiang River, which

is like nine ileums, passes through the city". It can also be seen from the city overview that Liuzhou City is like a "pot". The Liujiang River surrounds the city center of Liuzhou in a "U"-shaped way., Interconnect with the periphery by building bridges. The development concepts to be conveyed by "opening mountains when encountering mountains, building bridges when encountering water" and "building roads first to get rich" are roughly the same, which fully demonstrates the role of transportation in economic development, and convenient transportation is the "pioneer" of economic development. However, although there are many introductions and dissemination of Liuzhou culture on domestic and foreign network platforms, most of them are introductions to snail noodles, and there are very few about bridge culture. Tourists who come to Liuzhou also come for the bowl of snail noodles. Few outsiders know that there are so many bridges in Liuzhou, and each one is different. Foreign netizens don't understand it even more. Therefore, the communication effect of Liuzhou bridge culture is very small. Therefore, it is necessary to publicize Liuzhou bridge culture.

3.4. Questionnaire survey method

A total of 371 questionnaires were sampled through the release of the questionnaire star questionnaire, aiming to understand the connotation, communication channels and potential of Liuzhou bridges and bridge culture. The questionnaire consists of 14 questions, involving the main audience groups, communication methods and promotion methods for different age groups of Liuzhou bridge culture.

Table 2. Communication Channels

Dissemination Channels	Number of persons	Proportion
TV coverage	101	27.22%
Newspaper/magazine coverage	94	25.34%
Web/Social Media	250	67.39%
Introductions from friends/loved ones;	132	35.58%
Others	19	5.12%

In terms of channels for understanding Liuzhou bridge culture, the Internet/social media is the most important source of information, accounting for 67.39%, followed by friend introductions and TV reports, and magazine reports also have a certain influence. Liuzhou Bridge Culture shows the unique cultural heritage of Liuzhou, but the communication channel of Liuzhou Bridge Culture is single in the process of dissemination. Most of the articles promoting Liuzhou Bridge Culture only focus on the architectural characteristics and appearance characteristics of the bridge, while the cultural heritage behind Liuzhou Bridge Culture is rarely promoted. Now the main promotion channels are more focused on the network communication channels, which shows that Liuzhou bridge culture can be more widely promoted through the network and social media communication channels, and the background of bridge culture can be disseminated.

Table 3. Do you know the characteristics of the bridge?

	Number of persons	Proportion
Yes	170	45.82%
No	201	54.81%

Table 4. Do you know the bridge culture?

	Number of persons	Proportion
Yes	117	31.54%
No	254	68.46%

Table 5. If you have ever been to Liuzhou bridges to play or take pictures, what kind of experience do you think these activities bring you?

	Number of persons	Proportion
Appreciation of beautiful scenery	175	47.17%
Cultural experience	79	21.29%
Tourism and Entertainment	96	25.88%
Others	21	5.66%

From Table (3) and Table (4), most people know that Liuzhou's bridges and each bridge has its own characteristics, but they have little understanding of Liuzhou's bridge culture. As shown in Table (5), when people visit Liuzhou bridges, enjoying the beautiful scenery is the main experience for them to play or take pictures on Liuzhou bridges, followed by tourism, entertainment and cultural experience.

Table 6. Do you think Liuzhou's bridge culture is conducive to the promotion of the city's image?

	Number of persons	Proportion
Yes	273	73.58%
No	98	26.42%

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	Number of persons	Proportion
Yes	273	73.58%
No	98	26.42%

Table 7. What impact do you think Liuzhou bridge culture has on the improvement of Liuzhou's urban image? (Multiple options available)

	Number of persons	Proportion
Increases the cultural heritage of the city	170	45.82%
Demonstrated the Chinese spirit and national spirit	170	45.82%
Attracts domestic and foreign tourists and investors	149	40.16%
Enhanced the city's visibility and reputation;	158	42.59%
Others	28	7.55%

Most interviewees believe that Liuzhou's bridge culture is conducive to the promotion of the city's image, and many interviewees believe that Liuzhou's bridge culture has a positive impact on the improvement of Liuzhou's city image.

In addition, 72.51% of the respondents believe that Liuzhou bridge culture has the potential for international communication, but for the international communication effect of Liuzhou bridge culture, most of the respondents believe that Liuzhou's international communication effect is average. From these results, we can see that compared with the influence of foreign communication, Liuzhou bridge culture has a certain popularity and influence in China, but the communication channels of Liuzhou bridge culture are limited, and the communication of Liuzhou bridge culture at home and abroad is not good.

4. Comprehensive Analysis and Countermeasures

Through the literature research, network research, questionnaire research and field research on Liuzhou bridge culture, we find that there are some problems and challenges in the international communication of Liuzhou bridge culture, and also give some reference countermeasures accordingly.

4.1. Limited communication channels

At present, it mainly relies on traditional media and social media, lacks diversified communication channels and platforms, does not make full use of the advantages of the Internet and digital technology, and lacks innovation and interactivity, which limits the scope and influence of Liuzhou bridge culture, resulting in many International audiences do not have a deep understanding of Liuzhou bridge culture.

Then we can Give full play to the role of multiple subjects and form diffuse communication^[1]

The government, the media and the public are the three main bodies of city image communication, and should participate in the communication of Liuzhou bridge culture together. The government can strengthen the protection and inheritance of bridge culture, carry out bridge culture publicity activities, build bridge culture museums, etc., so as to improve the public's cognition and understanding of bridge culture^[2]. At the same time, encourage the media and the public to actively participate in the communication process, share relevant content and stories of Bridge Culture through social media, and form diffuse communication. Social organizations and individuals can also give full play to their creativity and talents, create literary and artistic works related to bridge culture, and contribute to the spread of Liuzhou bridge culture.

4.2. Single dissemination content

The existing communication content mainly focuses on the architectural characteristics and appearance design of bridges, lacking in the excavation and dissemination of bridge cultural connotations and deep-seated values. Although Liuzhou has the reputation of "Bridge Museum", the research on HowNet pays more attention to the number of bridge buildings in Liuzhou, and lacks in-depth excavation and discussion on the cultural connotation and influence behind the bridges. Bridge design researchers only study the structure of different bridges in Liuzhou, and seldom focus on the urban development process and historical memory witnessed by these bridges.

At the same time, should Construct the communication matrix and guide the development of communication in depth^[3]

For the communication of Liuzhou bridge culture, an all-

round communication matrix should be established, including traditional media, social media, network platforms and other channels to improve the coverage and influence of communication. The government, the media and the public should jointly participate in the construction of the communication matrix, and use different platforms and channels to release information and content related to Liuzhou bridge culture to attract more audience attention and understanding. At the same time, it is necessary to pay attention to the in-depth development of communication. By digging deep into the connotation and value of bridge culture, carry out bridge culture research and academic exchange activities, and attract more international audiences to pay attention to and understand.

4.3. Poor dissemination effect

Due to the problems of communication channels and content, the international communication effect of Liuzhou bridge culture is not good, and it has not yet formed a strong international influence. This has affected the international exchange and dissemination effect of Liuzhou bridge culture, and also restricted its role and value in international cultural exchanges.

Therefore, it is possible to Improve communication efforts and refresh audience cognition

In order to improve the international influence of Liuzhou bridge culture, it is necessary to increase communication efforts and attract more international audiences to pay attention and understand through innovative communication methods and content. The government can strengthen the cooperation with foreign cultural exchange institutions, hold exhibitions and exchange activities of Liuzhou bridge culture, and improve the international popularity of Liuzhou bridge culture. The media and the public can also increase the dissemination and influence of Liuzhou bridge culture by creating and promoting literary and artistic works related to bridge culture and carrying out cultural exchange activities.

Grasp the rhythm of communication and maintain the heat of the city.

For the dissemination of Liuzhou bridge culture, it is necessary to arrange the rhythm and cycle of dissemination reasonably to maintain the attention and enthusiasm of the audience. The government, the media and the public should jointly formulate an annual communication plan, arrange different communication activities and content according to different seasons and festivals, and maintain the audience's continuous attention to Liuzhou bridge culture. At the same time, it is possible to maintain the popularity of the city and promote the international dissemination of Liuzhou bridge culture by regularly holding bridge cultural activities and strengthening media publicity.

To sum up, there are some problems and challenges in the international communication of Liuzhou bridge culture, and it is necessary to strengthen the improvement and optimization of communication channels, communication content and communication effects. By giving full play to the role of multiple subjects, building a communication matrix, improving the intensity of communication and grasping the rhythm of communication, it is believed that the international influence of Liuzhou bridge culture will continue to increase and make greater contributions to international cultural exchanges.

5. Summary

This research report conducts in-depth research and discussion on the international dissemination of Liuzhou bridge culture. Through the analysis of the survey data, we find that Liuzhou bridge culture has unique value and charm, but there are still some problems and challenges in international communication. Therefore, we put forward a series of targeted countermeasures and suggestions, aiming at promoting the international dissemination of Liuzhou bridge culture, and enhancing its influence and status in international cultural exchanges.

During the research process, we adopted a variety of research methods, including literature analysis, field surveys, in-depth interviews, etc., to ensure the objectivity and accuracy of the research results. Through the collation and analysis of the survey data, we find that the international communication of Liuzhou bridge culture is affected by many factors, including the main body of communication, the content of communication, and the channels of communication. Therefore, we need to start from multiple perspectives, strengthen inheritance and protection work, and at the same time innovate communication methods and content to improve the coverage and influence of communication.

In terms of countermeasures, we put forward the suggestion that the government, society and individuals should play a role together. The government can strengthen the protection and inheritance of bridge culture, and improve the public's cognition and understanding of bridge culture; Social organizations and individuals can actively participate in the dissemination process, create and promote literary and

artistic works related to bridge culture; The media should give full play to their own advantages, increase the intensity of communication, and improve the popularity and influence of Liuzhou bridge culture. In addition, we also put forward specific measures such as establishing an all-round communication matrix and grasping the rhythm of communication to promote the international communication of Liuzhou bridge culture.

In short, this research report provides useful reference and suggestions for the international dissemination of Liuzhou bridge culture. We hope that through the implementation of these countermeasures, more international audiences can understand and feel the charm of Liuzhou bridge culture and enhance its status in international cultural exchanges.

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References

- [1] Zhang Chunlei. Innovation of Chongqing City Image Communication Strategy in the All-Media Era [J]. Media, 2022 (04): 76-78.
- [2] Li Huifang. The Development of Socialist Cultural Industry in the "Three-Dimensional" Coordinate Domain [J]. Middle School Political Teaching Reference, 2018 (36): 33-35.
- [3] Wu Ling, Liu Chunyao, Du Jun. Research on the Shaping of Urban Image by Digital Media Public Art [J]. Art Education Research, 2022 (03): 74-75.