Research on the International Image Dissemination of Cities Based on the NOW Corpus: A Case Study of Dujiangyan

Chunxia Jiang[*]

Sichuan University of Media and Communications, Chengdu, Sichuan, China

*Corresponding author

Keywords: Corpus; Dujiangyan; International Image

Abstract: As a city recognized for its world heritage in three categories, Dujiangyan boasts rich natural resources and cultural heritage. The dissemination of its international image is of great significance in enhancing Dujiangyan's competitiveness and attractiveness both domestically and internationally, and it is conducive to constructing a unique and diverse national image for China. This paper conducts a qualitative and quantitative analysis of the data and corpus texts from international English media reports on Dujiangyan over the past decade, based on the NOW (News on the Web) corpus, providing an objective basis and insights for shaping and disseminating Dujiangyan's image internationally.

1. Introduction

Cities are the products of historical development and human civilization evolution. They are both created by and serve as specific regions for the survival of certain tribes or groups, exhibiting distinct regional characteristics. Therefore, each city has its own unique urban culture, which forms the city's image. A city's image is a comprehensive representation of its inherent historical heritage and external features, reflecting the overall characteristics and style of the city. It encompasses the public's overall impressions and evaluations of the city's politics, economy, culture, society, environment, security, and sense of well-being. Thus, the shaping of a city's image relies on effective dissemination. Only through efficient international communication can the value and benefits of a city's image, as an intangible asset, be realized in urban development, national image building, and the promotion of Chinese culture[1].

Dujiangyan City, located at the source of Tianfu, is the birthplace of ancient Shu people, with a long history and profound cultural heritage. Dujiangyan's water conservancy culture, Taoist culture, giant panda culture, and local historical culture are not only significant components of Sichuan's Tianfu culture but also crucial parts of Chengdu's development as a national central city, promoting Bashu civilization and inheriting and developing Tianfu culture. In 1982, the State Council designated the Dujiangyan Water Conservancy Project as a "National Key Cultural Relics Protection Unit." In 1992, the State Council named Dujiangyan City as a "National Historical and Cultural City." In 1995, Dujiangyan City was recognized as a "National Advanced County (City) in Culture." In 2000, the UNESCO Heritage Committee listed Qingcheng Mountain and Dujiangyan as "World Cultural Heritage Sites." Over the past 70 years since the founding of the People's Republic of China, the cultural development of Dujiangyan City has undergone tremendous changes, especially after the "Wenchuan Earthquake" in 2008, with rapid and significant progress. Currently, Dujiangyan City is striving to accelerate the construction of a "World Ecological and Cultural Tourism City," in alignment with Chengdu's goal of building a national central city. Therefore, the international dissemination of Dujiangyan's image plays an important role in promoting Chinese culture, shaping China's diverse international image, and enhancing its competitiveness in the international tourism market[2-3].

2. Literature Review and Research Questions

This study uses the terms "城市形象" (city image) and "city image" or "urban image" as search criteria (subject search, covering fields such as titles, abstracts, and keywords) to conduct searches in both the CNKI (China National Knowledge Infrastructure) database and the WOS (Web of Science) database. As a result, 10,337 domestic research articles and 1,052 international research articles were found. The number of relevant research articles for each year from 2014 to 2023 is shown in Figure 1.
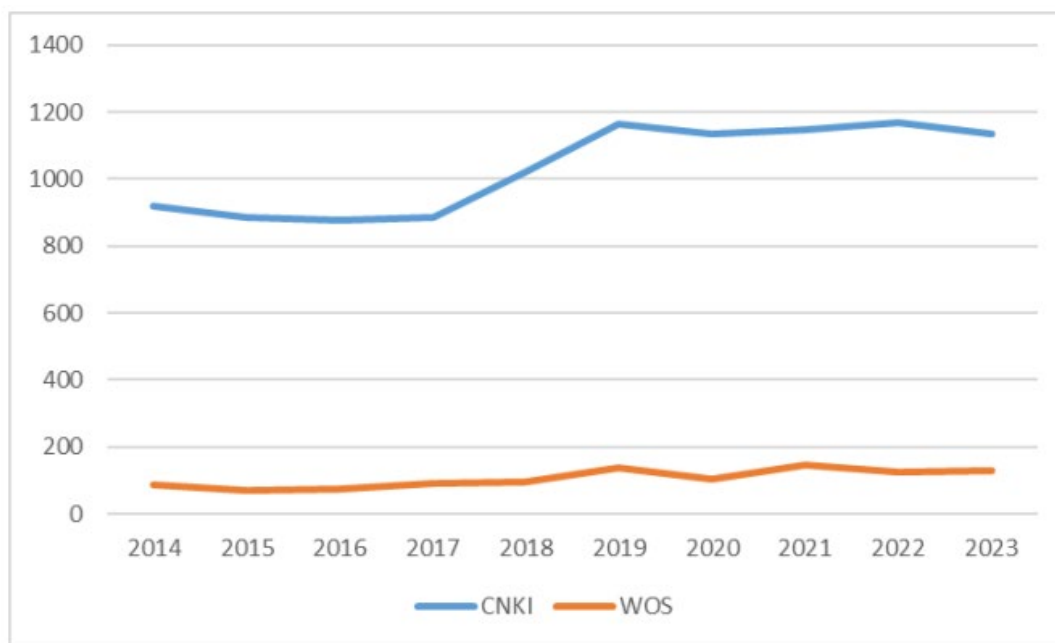

Figure 1 Distribution of Research on the Topic of "City Image" in CNKI and WOS from 2014 to 2023

From the annual data presented in Figure 1, it is evident that "city image" has been a hot research topic domestically over the past decade, which is closely related to China's efforts to establish international discourse power and influence that matches its comprehensive national strength. International research on "city image" has also shown a general trend of increasing attention. Data provided by CNKI indicates that domestic research on city image is most abundant in the field of economics, followed by journalism and communication, urban and rural planning, tourism economy, culture, and fine arts. Data from WOS shows that international research on city image mainly involves business economics, geography, engineering, environmental science, arts, public administration, and architecture. The research on city image at home and abroad is diverse in fields, rich in themes, and fruitful, laying a solid foundation for subsequent research[4].

However, a review and analysis of the literature reveal that there are not many studies taking language dissemination as the entry point. Representative studies in this field include: Huan Jia and Chen Bohua (2023), who empirically summarized the discourse paths for the external communication of the city image of Xi'an, a "popular city," innovatively analyzing the core strategies for constructing the discourse of city image dissemination; Cao Xiaohua (2023), who used the Sixth Tone, an English new media, to translate and introduce "Shanghai stories" from different periods, promoting the construction of a Chinese discourse system with local practical experience; Yang Yiyi and Chai Hongmei (2023), who used texts related to Qingdao in Japan's mainstream media "Asahi Shimbun" as corpus, deeply analyzing the image of Qingdao in "Asahi Shimbun" based on text mining and critical discourse analysis theories, discussing the tendencies and limitations of Qingdao's image presentation in Japanese media; Huang Jun and He Xingzhou (2022), who analyzed the relevant comment data on YouTube about Chongqing's international tourism, constructing a model of Chongqing's international tourism media image, etc.; Schwarzbach (1982), Weitzman (1984), and Hong-seop (2009) conducted in-depth and systematic exploration of the city image in literary works;

Jaworski & Thurlow (2010) and Pennycook (2009) examined city image and related issues from the perspective of symbolic landscapes[5-6].

Most of these studies on the image of Chinese cities focus on the perceptions of small-sample media. There are still few analysis and research results based on large-sample corpora of "multiple media," and studies using corpus methods from a linguistic perspective to examine the image of Chinese cities in mainstream English media are insufficient. Corpus analysis can enhance the ability to perform discourse analysis on textual information from aspects such as keywords, concordance lines, and collocations, revealing implicit ideas that researchers may not anticipate, thus providing a more objective perspective for discourse analysis. Using corpus research methods is conducive to exploring the multi-dimensional construction of city image. Moreover, current corpus-based studies of city image mainly focus on large cities like Xi'an, Shanghai, and Chongqing. Research related to small cities like Dujiangyan is very limited. However, as a national historical and cultural city and an excellent tourist city in China, Dujiangyan has significant importance. It is home to the world's oldest and only remaining grand water conservancy project characterized by dam-free water diversion. The dissemination of its international image is crucial for enhancing Dujiangyan's competitiveness and attractiveness both domestically and internationally, and it is beneficial for constructing China's unique and diverse national image[7].

News reports, due to their powerful dissemination effects, have significant impacts on the formation and guidance of public opinion, serving as important information carriers in shaping local images. Based on existing research, this paper utilizes the large corpus NOW (News on the Web), focusing on news reports related to Dujiangyan as the research object. Guided by corpus linguistics and critical cognitive discourse analysis, it aims to conduct quantitative and qualitative investigations of news reports on Dujiangyan in overseas English media over the past ten years (2014-2023). The study seeks to uncover the ideologies, value systems, narrative patterns, and cognitive methods behind these news reports, reveal the international image of Dujiangyan shaped by overseas English media, and develop strategies for self-representation of Dujiangyan's international image. This paper mainly addresses the following two research questions:

What is the status of Dujiangyan's international image as constructed by others over the past ten years (2014-2023)?

What are the strategies for self-representation of Dujiangyan's international image?

3. The International Image of Dujiangyan as Shaped by Overseas Media

The corpus used in this study is the NOW (News on the Web) corpus, which includes data comprising 18.5 billion words from online newspapers and magazines from 2010 to the present (as of January 23, 2024). The corpus grows by about 180-200 million words (approximately 300,000 new articles) per month, with an annual increase of about 2 billion words. A search within the NOW corpus revealed that "Dujiangyan" appeared 190 times from January 1, 2014, to December 31, 2023. This study then conducted a quantitative analysis, covering the distribution of reporting times, the distribution of reporting countries, and notable collocations, aiming to analyze the overall impression and attitude of the international community towards Dujiangyan. This provides a solid foundation for better understanding and improving the international image of Dujiangyan as shaped by overseas English media[8-9].

3.1. Reporting Time

Using "Dujiangyan" as the node word, the total word frequency and its annual trend from 2014 to 2023 were retrieved, as shown in Figure 2. Analysis of Figure 2 shows that the number of reports on Dujiangyan in overseas English media fluctuated and increased over the past decade, peaking in 2017. In March 2017, Dujiangyan launched 30 tourism-themed activities covering culture, sports, music, rural life, and wellness, injecting new content into the construction of Dujiangyan as an international tourism city. Additionally, besides continuing established brand festivals and events, new activities were introduced, such as the "2017 Chengdu Good Walk Charity Hiking Event," "Millennium Taiping Ruisheng Flower Returns to Dujiangyan," "Thanksgiving May, Meet Colorful Dujiangyan," "2017

World Carnival - British Culture Week," "2017 First Chinese Taoist Health Festival," and "2017 Dujiangyan First Electronic Animation Competition," totaling over 30 events. These activities promoted the cultural dissemination of Dujiangyan and provided important opportunities for the world to learn about Dujiangyan.
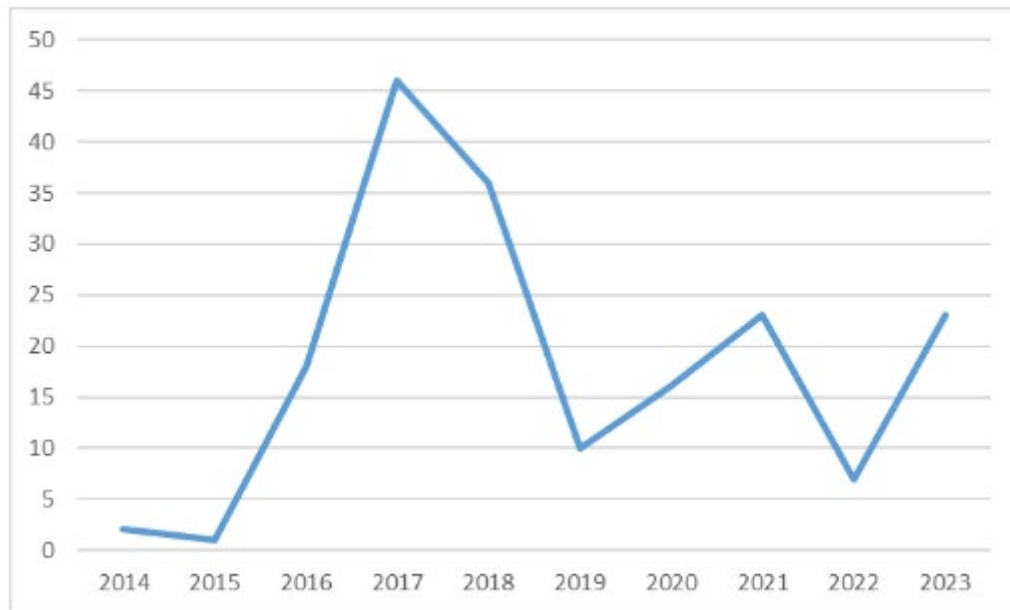

Figure 2 Frequency Distribution of the Node Word "Dujiangyan" in the NOW Corpus (by Year)

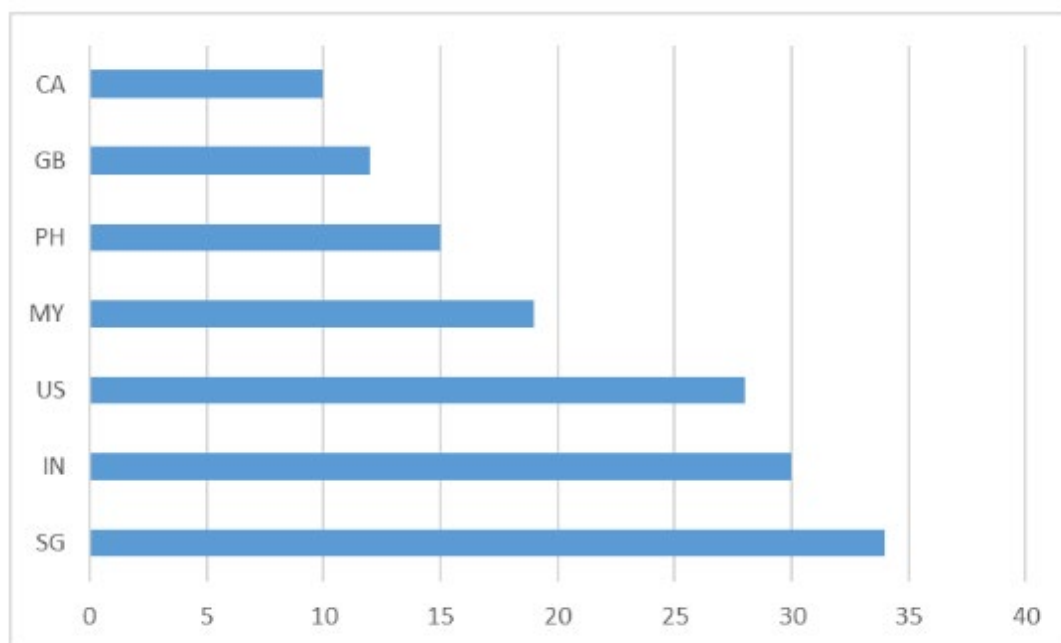## 3.2. Reporting Countries

Figure 3: Frequency Distribution of the Node Word "Dujiangyan" in the NOW Corpus (by Country)

The distribution of countries reporting on "Dujiangyan" in the NOW corpus over the past decade involved the top 7 countries, with total word frequencies shown in Figure 3. Over the past ten years, the country with the highest frequency of reports on Dujiangyan was Singapore, with 34 occurrences, followed by India, with 30 occurrences. Singapore has a Chinese population proportion of 70% and maintains close relations with China. The entire city of Singapore, like Dujiangyan, has a culture related to water, and in recent years, Dujiangyan has strengthened exchanges and cooperation with Singapore in economic and trade investment. Under the "Belt and Road" initiative, Dujiangyan has

carried out multi-field exchanges and cooperation with India. Since 2015, Dujiangyan has held the China-India International Yoga Festival for five consecutive years, achieving good results and promoting cultural exchanges between China and India[10].

3.3. Notable Collocations

HELP	ⓘ	★		FREQ +
1	ⓘ	★	CITY	46
2	ⓘ	★	PANDA	36
3	ⓘ	★	SYSTEM	33
4	ⓘ	★	IRRIGATION	32
5	ⓘ	★	BASE	30
6	ⓘ	★	CHINA	27
7	ⓘ	★	GIANT	24
8	ⓘ	★	SICHUAN	23
9	ⓘ	★	NEAR	16
10	ⓘ	★	CHENGDU	15
11	ⓘ	★	SOUTHWESTERN	15
12	ⓘ	★	WATER	13
13	ⓘ	★	PROVINCE	11
14	ⓘ	★	FESTIVAL	8
15	ⓘ	★	CHINESE	8

Figure 4 Significant Collocates of the Node Word "Dujiangyan" in the NOW Corpus

Using the "collocates" search method, high-frequency collocating nouns with the node word "Dujiangyan" from 2014 to 2023 were retrieved, with a span of four words to the left and right of "Dujiangyan." The top 15 high-frequency collocating nouns are shown in Figure 4. According to Figure 4, the high-frequency geographical descriptive words collocating with "Dujiangyan" include "city," "China," "Sichuan," "Chengdu," "southwestern," and "Province." English news media usually introduce basic information about Dujiangyan and its city when mentioning it. When describing Dujiangyan's geographical location, they often mention China, Sichuan Province, Chengdu, and the southwestern region, indicating a lack of independent city image for Dujiangyan. However, among the top five collocating words, besides "city," the others are "panda," "system," "irrigation," and "base." These four words correspond to the "panda base" and the "Dujiangyan irrigation system." The Dujiangyan China Giant Panda Garden is the main base for international and domestic cooperation in panda research and the only scientific research institution in China focused on panda disease prevention and control and wild rescue. Panda Valley, under the Chengdu Research Base of Giant Panda Breeding, is a natural base for the wild release of pandas. The Dujiangyan water conservancy project, characterized by dam-free water diversion, still irrigates fields today and is the ancestor of world water conservancy culture. Thus, pandas and irrigation are representative symbols for the external promotion of Dujiangyan, but it also reflects the inadequacy in the dissemination of other regional cultural features of Dujiangyan.

4. Strategies for Self-Shaping the International Image of Dujiangyan

The international communicative power of a city's image reflects its competitiveness and the shaping of the national image. In the face of challenges in shaping a city's image, it is particularly

important to rely on Dujiangyan's unique regional culture, integrate various communication methods, and mobilize various elements in shaping a unique and positive international image of Dujiangyan.

4.1. Define the International Image of Dujiangyan Based on Its History and Culture

The positioning of a city's image is a concentrated reflection of its unique features and connotations, both internal and external. Every city has its unique geographical environment, historical heritage, and folk customs, forming its characteristics over long-term historical development. Dujiangyan has become China's only "triple heritage city" with the titles of "Dujiangyan-Qingcheng Mountain World Cultural Heritage," "Giant Panda Habitat World Natural Heritage," and "World Irrigation Engineering Heritage," among other accolades. The city's unique characteristics are the essence of its value and competitiveness, serving as a rare resource for international image building. Therefore, in the process of positioning the city's international image, Dujiangyan should rely on its regional features, history, and culture to establish its international image as a world heritage city. Using this distinctive image as a flag, the city should plan its overall image building, emphasizing a strong and distinct city style.

4.2. Integrate Various Media to Promote the International Image of Dujiangyan

A city's image is a subjective impression of a particular city formed through media, personal experiences, interpersonal communication, and environmental factors. Thus, the shaping of a city's image cannot be separated from effective dissemination methods. Especially in the era of rapidly developing digital media, the international dissemination of a city's image must fully recognize the characteristics of the media era. Surveys show that over 60% of overseas audiences receive information about Chinese cities through online social media. Besides official mainstream media, these online platforms include popular online literature, film and television works, short videos, and other forms. In the process of disseminating Dujiangyan's international image, based on its positioning as a livable place and world heritage city, it is crucial to study the lifestyles of overseas audiences, integrate various promotional contents to ensure conceptual consistency among elements, and then use multiple media dissemination methods to repeatedly stimulate the public's impression of Dujiangyan. This approach deepens the psychological experience of overseas audiences with Dujiangyan's city image, achieving the best effect in international communication.

4.3. Systematically Utilize Various Elements in Shaping the International Image of Dujiangyan

The international dissemination of a city's image involves a wide range of aspects and diverse and complex audience groups, making it a large-scale systematic project. Therefore, in the process of shaping and disseminating the city's image, it is necessary to establish the concept of systematic communication, fully considering all elements in the city image-building system. In creating the international image of Dujiangyan as a livable place and world heritage city, the core should be the concept system of city image shaping, guiding the public in the city to adopt behavior systems consistent with the concept system, and designing a visual system in line with it. In the process of internationalizing the city's image, it is also essential to leverage the roles of both internal and external publics, consciously nurturing cross-cultural communicators, and linking the external communication efforts of the government, enterprises, civic groups, and individuals to enhance the international influence of Dujiangyan's city image, ensuring the effectiveness of communication.

5. Conclusion

As an essential part of the national image, the city image gradually becomes a card showcasing a city's comprehensive strength and cultural charm. The international communicative power of a city image also reflects its competitiveness. In the post-pandemic era, many Chinese cities face challenges such as a loss of individuality and insufficient connotation in image building. Addressing these challenges to create a unique and positive city image has become a crucial task in shaping and disseminating the international image of many cities. By utilizing the NOW corpus to examine the diachronic changes, regional distribution, and notable collocations of the term "Dujiangyan" from 2014 to 2023 and analyzing the relevant texts, it was found that Dujiangyan's international image

lacks independence and the overall impression in the international community is relatively singular. Therefore, in response to this phenomenon, three strategic suggestions are proposed for self-shaping the international image of Dujiangyan, aiming to better present a positive, diverse, unique, and vibrant international image of Dujiangyan to the world.

References

[1] Jung, Hong-seop. The Image of City in Lee Sang's Literature [J]. Literary Criticism, 2009(33): 453-481.

[2] Jaworski A, Thurlow C. Semiotic Landscapes: Language, Image, Space [M]. New York: Continuum, 2010.

[3] Pennycook A. Linguistic Landscapes and the Transgressive Semiotics of Graffiti [M]. London: Routledge, 2009.

[4] Schwarzbach, F. "Terra Incognita"—An Image of the City in English Literature, 1820–1855 [J]. Prose Studies, 1982, 5(1): 61-84.

[5] Weitzman, R. The Image of the City in Modern Literature by Burton Pike [J]. Comparative Literature, 1984, 36(4): 378-380.

[6] Chen Liuqin. The Connotation, Positioning, and Effective Dissemination of City Image [J]. Journal of Hunan City University, 2011, 32(01): 62-66.

[7] Cao Xiaohua. Translation and Broadcasting Strategies of English New Media and the External Communication of Shanghai's City Image [J]. Shanghai Culture, 2023(04): 5-11.

[8] Huan Jia, Chen Bohua. An Analysis of the Discourse Co-production Framework for External Communication of City Image in the Era of Integrated Media: A Case Study of Xi'an City [J]. Media, 2023(09): 60-63.

[9] Huang Jun, He Xingzhou. Research on the Media Image of Chongqing International Tourism: An Analysis Based on Grounded Theory of Overseas Social Media Users [J]. Contemporary Economy & Trade, 2022, 19(11): 133-136.

[10] Yang Yiyi, Chai Hongmei. Research on City Image from the Perspective of Big Data Discourse Analysis: A Case Study of the Image of Qingdao in Asahi Shimbun [J]. Northeast Asia Foreign Language Research, 2023, 11(02): 65-79.