



# Interview with Feng Gu: Revitalizing and Activating Canal Cities through the Integrated Protection of Water Heritage of the Grand Canal

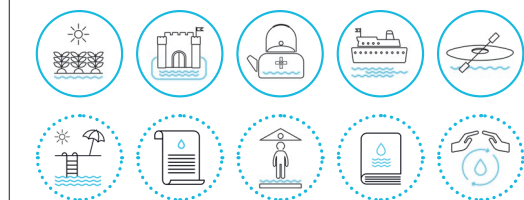
Interview with **Feng Gu**, former director of the China Grand Canal World Heritage Application Joint Office by **Kaiyi Zhu**, Delft University of Technology & UNESCO Chair Water, Ports and Historic Cities, and **Qingyong Zhu**, Guangling College of Yangzhou University

*China's Grand Canal was the world's most extensive civil engineering project before the Industrial Revolution. This interview explores how the process of applying for and achieving World Heritage status has led to the improvement of the environment surrounding the Grand Canal and encouraged collaboration among canal cities spanning eight provincial administrations. It highlights the role of water heritage as a catalyst for improving the protection of historic landscapes and waterscapes as well as the Grand Canal's cultural heritage. It also addresses how these efforts have supported the integrated development of canal cities. The Grand Canal remains a vital link that promotes balanced cultural, ecological and economic development, contributing to the sustainability of various canal cities across northern and southern China.*

**Keywords:** Grand Canal, integrated approach, canal cities, World Heritage, cultural and ecological belts

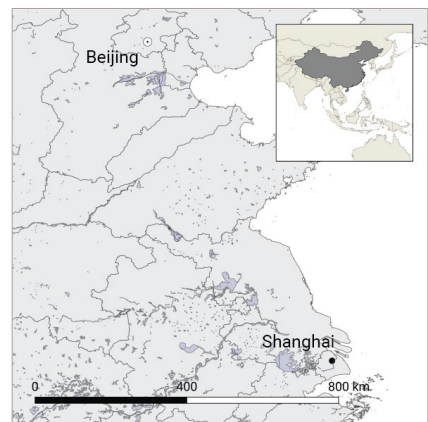


## KEY THEMES



## CLIMATE

- (C) Cwa** : Humid Subtropical Climate - southern sections (Suzhou and Hangzhou)
- (D) Dwa** : Humid Continental Climate - northern sections (around Beijing)



< Fig. 1 The Qianlong Emperor's southern inspection tour through the Grand Canal, fragment (Source: Yang Xu, 1770. Public domain).

## Introduction

**INTERVIEWER | Kaiyi Zhu: The 22nd of June 2024 marked the tenth anniversary of the successful inscription of the Grand Canal of China as a World Heritage Property. As the former director of the China Grand Canal World Heritage Application Joint Office, why did you initiate the application 20 years ago?**

**INTERVIEWEE | Feng Gu, former director of the China Grand Canal World Heritage Property Application Joint Office:** It was Zhewen Luo, former director of the China Institute of Cultural Heritage, who, along with other leading scholars, first proposed the idea for the nomination and inscription of the Great Canal as a UNESCO World Heritage Property. After the success of the Great Wall, Luo Zhewen realized that the Grand Canal was the only heritage as important as the Great Wall and that it could represent our national status and spiritual values as well as our long agricultural civilization.

It all began in 2004, during China's South-to-North Water Diversion Project, which aimed to draw water from southern rivers and supply it to arid regions in the north. An exploration team conducting a heritage investigation discovered 919 pieces of so-called "cultural relics" – cultural heritage objects – in one segment of the Grand Canal. At that time awareness of the need to protect heritage was still shallow and the pre-project plan did not fully consult the heritage sector. The feasibility study did not even include a budget for heritage protection.

In response to this lack of awareness, 58 members of the National Committee of the Chinese People's Political Consultative Conference jointly submitted a "Proposal on Attaching Great Importance to the Protection of the Beijing-Hangzhou Grand Canal and Initiating the Work of

World Heritage Application" in March 2006. This political support has greatly facilitated the process of applying for World Heritage status for the Grand Canal.

**Kaiyi Zhu: From your point of view, what are the most significant features of the Grand Canal?**

**Feng Gu:** The Grand Canal holds significant tangible and intangible heritage value. Ultimately, we chose to focus on investigating its "waterworks remains" in accord with the six criteria outlined by the UNESCO World Heritage Convention. This focus allows us to present physical evidence of the artificial watercourse traces, demonstrating that the Grand Canal was the world's most extensive civil engineering project prior to the Industrial Revolution.

China has been an agricultural country throughout its long history. The Grand Canal represents and sustains China's agricultural civilization, acting as an economic and cultural corridor across the country. While the Great Wall no longer plays a role today, the Grand Canal continues to function as a shipping channel, with historical reservoirs, irrigation systems and military defenses dating to the fifth century AD. It has not only been an important transport route for dynasties but has also played a positive role in north-south communication, cultural exchanges and ecological improvements. Using the north-south artificial waterway to link the east-west natural water system (e.g., the Yellow River, Yangtze River and Qiantang River) was a great pioneering move.

Furthermore, one unique feature of the Grand Canal, as highlighted by UNESCO, is the Caoyun system of dynastic management of national resources, which relied on the Canal. The imperial monopoly gathered and redistributed grain and strategic raw materials to the political center

through waterways to maintain the political center's control over tax revenues (fig. 2).

**Qingyong Zhu:** The Grand Canal spans more than 20 cities in eight provincial administrative regions. Why was Yangzhou selected as the leading city for the nomination files?

**Feng Gu:** There are many reasons. First, Hangou (fig. 3), the earliest clearly documented canal section, is located in Yangzhou, presenting a great sample for the subsequent construction of large-scale water conservancy projects in China, such as the Dujiangyan Irrigation System and Zhengguo Canal Irrigation System. Second, the Grand Canal is no longer fully navigable. Many of the canal channels within cities have lost their main function, but in Yangzhou, there are still approximately 400 million tons of freight transported each year (fig. 4). It is invaluable evidence that after 2500 years the Grand Canal can still play an important transport role in the modern world.

Third, Yangzhou and the Grand Canal have coexisted, and have risen and fallen together. Wheth-

er it was during the Sui (581–618) and Tang (618–907) dynasties, or the Ming (1368–1644) and Qing (1644–1911) dynasties, the Yangzhou section of the Grand Canal played a key role in water transport, agricultural irrigation and more. Fourth, Yangzhou is one of the first 24 designated historical and cultural cities in China as well as the historical national economic center and an important port for both domestic and foreign trade. In general, the Yangzhou Canal section reflects the linear and dynamic characteristics of the Grand Canal as living heritage.

### Revitalizing the Protection and Management of Grand Canal Heritage and Cities

**Qingyong Zhu:** How has the World Heritage nomination and inscription reactivated the Grand Canal as a whole?

**Feng Gu:** The Grand Canal has nurtured the birth and development of many water cities along its route (fig. 5). By the twenty-first century, some of the historic docks, bridges, dikes and stagecoaches had become dilapidated, even while



^ Fig. 2 The Qianlong Emperor's southern inspection tour through the Grand Canal (Source: Yang Xu, 1770. Public domain).



^ Fig. 3 The Temple of the King (Dawang Temple), a listed cultural relic, located at the site of the ancient Hangou, honors King Fu-Chai of Wu, who ordered the excavation of Hangou in 486 BC. This project was the first to artificially connect two natural water systems, the Yangtze River and the Huai River, marking the beginning of the 2,500-year history of the Grand Canal (Source: Kaiyi Zhu, 2024).



^ Fig. 4 Busy transport scene on the Yangzhou section of the Grand Canal (Source: Qingyong Zhu, 2024).



^ Fig. 5 A map of the courses of the Grand Canal, China (Source: Groverlynn, 2016. Wikimedia Commons, CC BY-SA 4.0).

some continued to be used. In preparing the nomination files, state authorities designated many canal-related heritage sites, while listing the Beijing-Hangzhou section of the Grand Canal as a National Cultural Heritage Unit and allocating special funds for requisite restoration and

conservation. In this context, administrations at all levels, along with cultural heritage protection institutions and authorities, have restored many important historical buildings, cultural heritage objects and monuments, and effectively conserved the historical canal landscapes.

Various municipal administrations have started to take responsibility for improving the water environment of the Grand Canal. In Yangzhou, for example, the local authorities in the county of Shaobo have developed new cultural and ecological belts and parks along the Grand Canal, enhancing green spaces and providing leisure and walking facilities. These efforts have substantially improved the quality of life for residents, particularly in villages and towns along the canal. Additionally, the initiatives have addressed problems of waste and direct sewage dumping, creating a virtuous cycle for the canal environment and ecology.

**Qingyong Zhu:** In addition to protecting and promoting canal heritage, what other benefits has the application for inscription on the World Heritage List brought to the Grand Canal and associated canal cities and cultural heritage?

**Feng Gu:** First and foremost, we have solved the problem of uneven development between the North and the South, which has resulted in different efforts to protect the water heritage of different sections of the Grand Canal. Particularly in many northern cities, which are heavily polluted by industry, the inscription on the World Heritage List has increased the motivation of local authorities to manage the Grand Canal effectively and protect relevant cultural heritage. The emphasis on cultural heritage conservation has contributed to the reduction of water pollution and the environmental enhancement of the Grand Canal.

Furthermore, canal cities that participated in the application had to develop conservation planning under unified principles based on their respective conditions. Representatives from the selected 35 canal cities met every spring and autumn to discuss and work together to promote the conservation of the canal heritage, forming an efficient mechanism.



^ Fig. 6 Night cruise activities on the Grand Canal drive the night-time economy of tourist attractions (Source: Kaiyi Zhu, 2024).

In addition to fostering inter-city collaboration, we also established the World Historic and Cultural Canal Cities Cooperation Organization in Yangzhou in 2009. This is a non-profit public welfare organization that is committed to promoting interactive exchanges among the world's canal cities, sharing experiences in economic, social and cultural development, strengthening the protection of canal cultural heritage and promoting mutually beneficial cooperation among global canal cities as diverse as Venice and Panama City.

### **Opportunities and Challenges of a World Heritage Property**

**Kaiyi Zhu:** That's an interesting point. Would you please elaborate on how heritage conservation strategies have evolved in the 20 years since the start of the application process for inscription on the World Heritage List?

**Feng Gu:** Although the Grand Canal became a World Heritage Property in 2014 under an efficient working mechanism, it is important to consolidate the achievements of this designation and further strengthen the protection of the



^ Fig. 7 People use the wide walkways on the banks of the Grand Canal for resting, exercising, playing Chinese chess, performing, walking, jogging and communicating (Source: Kaiyi Zhu, 2024).

Canal. This includes emphasizing conservation efforts at the grassroots level, including environmental protection, safeguarding heritage sites and conducting additional research. At the time of inscription, the Grand Canal was still understudied, a concern shared at the time by our team of experts.

Fortunately, after 2014 the state introduced the concept of the Grand Canal Cultural Belt – a functional zone focused on the protection, inheritance and utilization of canal culture. This initiative aims for the integrated development of the cultural industry and tourism, leveraging the remains of the Canal’s waterworks, ancillary facilities and related relics. It emphasizes a humanistic approach, appreciation of landscapes and contemporary cultural expressions within

an international context, distinguishing it from traditional economic zone strategies (fig. 6). The physical development of the Grand Canal Cultural Belt involves enhancing water infrastructure, effectively protecting heritage sites and canal sections, and adaptively reusing cultural heritage. These efforts address gaps left during the initial the preparation process, which was more narrowly focused on achieving the World Heritage inscription.

In our efforts to conserve the cultural heritage of the Grand Canal, we have set forth three key objectives: (1) protecting the dignity of the neglected water cultural heritage; (2) ensuring that cultural heritage sites become drivers of local economic and cultural development rather than obstacles to urban growth; and (3) enhanc-



ing the quality of life for local residents (fig. 7). Over the past 20 years, the core approach has shifted from a focus on salvage conservation to improving the overall quality and integration of the heritage.

**Kaiyi Zhu: What has been the impact of World Heritage inscription on the integrated revitalization of relevant water heritage and canal cities?**

**Feng Gu:** First, to build the Grand Canal Cultural Belt, many canal cities have established museums based on their relationships with the Grand Canal, such as the China Grand Canal Museum (Yangzhou), Sui and Tang Dynasty Grand Canal Museum (Luoyang), Beijing-Hangzhou Grand Canal Museum (Hangzhou) and China Caoyun Museum (Huai'an). So the process has not only boosted the tourism economy but also provided a cultural center for citizens and an educational environment for the next generations. Besides, you can see the overall enhancement of the canal heritage with the public. For example, when we excavated the ruins of the ancient city gate along the Canal during urban development, residents around us supported the preservation of the ruins. Nevertheless, I cannot fully agree that it is correct to blindly seek the immediate protection of excavated heritage, as the conservation technologies and concepts we have at present are not advanced. I hope that we can leave something for future generations to do.

**Qingyong Zhu: Do you foresee any challenges in the protection process that we should be aware of?**

**Feng Gu:** Conservation and utilization are contradictory in heritage practice. There are many unused historic buildings, monuments and ruins that we need to utilize wisely. The rational use of cultural heritage is a catalyst for conservation, but there is of course a need to be wary

of over-utilization. With China's high population density and rapid development, how to manage the environment around the Grand Canal and conserve heritage is a topic we need to study for a long time. Although experts have defined all the protection zones of this World Heritage Property and the management departments have set up a full line of surveillance, it is still difficult to supervise and monitor the surroundings. The heritage protection work of the Grand Canal is a demanding endeavor, requiring significant ongoing effort.

On top of that, I am thinking of various threats as well. As mentioned earlier, the active navigability of the Grand Canal, maintained to this day, has guaranteed north-south water transport. Under such circumstances, the shipping administration would prefer to upgrade the waterway to allow larger and a greater number of vessels to pass through simultaneously to safeguard the capacity. This ambition could also conflict with protecting canal heritage. Today the conflict between economic interests and cultural values remains unresolved due to the varied responsibilities and priorities of the many different administrations involved.

**Conclusion**

**Kaiyi Zhu: You have highlighted many issues and challenges that can arise in the conservation of the Grand Canal heritage. What factors do you believe should be considered to better protect the Outstanding Universal Value of the Grand Canal as a World Heritage Property?**

**Feng Gu:** I think there is a need for cooperation between various administrations, governmental departments, heritage and water authorities and various organizations, such as the shipping administration, the urban planning departments,

environmental sectors, the heritage conservation institutions, the World Historic and Cultural Canal Cities Cooperation Organization and so on. For example, for resilience and biodiversity, we need more soft canal banks and diverse species. It is therefore crucial that heritage conservation support sustainability in contemporary practices. That requires trade-offs in negotiations involving various stakeholders and the identification of common values shared by all.

#### Acknowledgment

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#### Policy Recommendations

- The implementation of heritage conservation strategies should be measured in the context of technical, conceptual and regulatory imperfections with a long-term perspective.
- Authorities and institutes with different responsibilities and interests in the management and governance of canals must collaborate to promote the overall enhancement of the canal zone's environment and the economic-cultural development of canal cities, all with the goal of heritage conservation.



**Feng Gu** is the former director of the China Grand Canal World Heritage Application Joint Office, deputy director of the Grand Canal Professional Committee of the Chinese Society of Cultural Relics, and the former director of the Yangzhou Municipal Cultural Relics Bureau. Following his retirement, he is now a member of the Jiangsu Provincial Museum of Literature and History. He is also a researcher and the honorary director of the Yangzhou Museum.



**Kaiyi Zhu** is a postdoctoral researcher and lecturer at the Chair History of Architecture and Urban Planning, Delft University of Technology, working at the interface of architectural and urban history and heritage studies. She is also affiliated with the UNESCO Chair Water, Ports and Historic Cities, as well as the LDE Port City Futures project and Centre for Global Heritage and Development. Kaiyi obtained her PhD at TU Delft where she completed the research project "In the Name of Conservation." Her research mainly focuses on the transnational exchange of ideas, layered cultural values, the interpretation of heritage concepts and contemporary urban regeneration.

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**Qingyong Zhu** is a senior lecturer at Guangling College of Yangzhou University. He focuses on the study of engineering management and has long been involved in preservation, adaption and regeneration practices of historic architecture and landscapes in the old city center of Yangzhou.