

Integral Protection of Cultural Heritage of the Grand Canal of China: a Perspective of Cultural Spaces

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ABSTRACT. *The Grand Canal has formed a typical linear cultural heritage in the process of historical evolution and regional change. The formation of canal culture is the continuation of the production of cultural space and collective memory. From the perspective of cultural space as a whole, the historical and cultural authenticity and the integrity of the natural ecological environment of the Grand Canal should be paid enough attention to. Through the protection of material cultural space, the optimization of ecological environment space and the continuation of spiritual cultural space, the spatial situation of the grand canal and development of the cultural heritage of the canal can be reconstructed, the cultural consciousness of the residents along the canal be activated.*

KEYWORDS: *Cultural heritage; Grand canal; Heritage protection; Cultural space*

1. Introduction

The Grand Canal is a great water conservancy project built by the ordinary people in ancient China. It consists of the Sui and Tang Grand Canals, the Beijing-Hangzhou Grand Canal and the East Zhejiang Canal. The Grand Canal connects four major rivers of China, namely, the Yangtze River, the Huaihe River, the Yellow River and the Hai River. It has bred a profound historical and cultural heritage, formed a distinctive humanistic landscape and folk customs, and been known as the “Long Corridor of Ancient Culture”. In 2014, the Canal was officially listed in the World Heritage List, becoming China's 32nd World Cultural Heritage Site. The successful application of the Grand Canal is a milestone starting point, and the follow-up protection work is full of challenges. The biggest challenge is that the Canal is a “living” and mobile super-large linear cultural heritage. The existence of the “living state” of the Canal increases the complexity of its protection.

Since 1990, a series of concepts have emerged in the field of world cultural heritage protection, such as “cultural line”, “historical path”, “current heritage”,

“heritage corridor”, “heritage canal” and “linear cultural space”. Domestic scholars have put forward a variety of protection modes for its cultural heritage protection, such as “rescue protection”, “integral protection” and “productive protection”. They emphasize the continuation of the vitality of cultural groups and maintain that the Canal has the characteristics of both cultural routes and heritage corridors. They highlight the integrity of the environment in historical areas and requires the joint protection of regional integrity by multiple cities.

The perspective of cultural space in heritage conservation originates from the study of French sociologist Lefebvre. He insists that space is the product of society. Cultural space is not only an integral part of social space but also the carrier of cultural heritage. Cultural space is a “cultural field” formed by human activities on the basis of specific physical space or natural space. Our study will explore how the cultural space of the canal is produced, what role the local government plays in the cultural protection of the canal, and what contradictions exist between the ecological environment protection of the canal and the economic function of the canal (Barrère 2016, Lu and Zhou 2016). On this basis, we will analyze the production process of the cultural space, explore ways to maintain the authenticity and integrity of such space of the Grand Canal.

Cultural space has dual dimensions of space and time. Space must be extended and developed vertically through time and horizontally through space (Beer and Boogaard 2017, Xue et al 2019). Canal cultural space is not a general concept of spatial geography, but a concept of “cultural space-time”. The greatest feature of canal culture is the living heritage. This “living state” depends on the interaction of the three elements of time, space and people in space-time, forming a dynamic cultural field.

2. Canal Cultural Space as a Form of Cultural Heritage

2.1 Concept and Research Methods of the Cultural Space

The academic circles usually use the concept of two kinds of cultural heritage to explain the canal as a specific type of cultural heritage. These two heritage concepts are cultural routes and heritage corridors. The concept of cultural route originated from Europe’s attention to the excavation and protection of culture, while that of heritage corridor originated from the United States emphasis on landscape and recreation function. At the 1994 Madrid World Heritage expert meeting on cultural routes, cultural routes were defined for the first time by a variety of tangible elements. The cultural significance of these elements comes from cross-border or cross regional exchanges and multi-dimensional dialogue, which shows the interaction between the regions along the routes in time and space. The concept of heritage corridor is the product of the common development of greenway movement, landscape construction and heritage protection in the United States. The Erie Canal National Heritage Corridor act passed by the U.S. Congress in 2000 affirmed the positive role played by the Erie Canal in the development process of the United

States, and stressed that the protection of the corridor will have unparalleled national significance in the protection of history, culture and natural resources.

The Grand Canal undoubtedly belongs to the heritage corridor of river route type. From the perspective of historical resources, the heritage corridor of the Grand Canal belongs to the “ancient road”, because the cultural relics along it are distributed in a belt. From the perspective of historical resources, the cultural relics along the Canal are distributed in strips, and the planning and integration of them need to emphasize the combination of human and nature. To protect the heritage corridor of the Canal, we need to link the heritage resources together. This canal, which was dug in the Spring and Autumn period, completed in the Sui Dynasty, flourished in the Tang and Song Dynasties, dredged in the Ming and Qing Dynasties, is an important symbol of Chinese civilization and a place of memory of Chinese culture.

2.2 Historical Evolution and Regional Change of the Grand Canal

The cultural heritage of the Grand Canal is formed through a long historical evolution process in a specific space. The Canal, with a history of 2500 years, originated from Hangou excavated by Fuchai (the king of Wu Kingdom) in the Spring and Autumn Period. The Jiangnan Canal, the first part of the Canal, was constructed During the Dynasties of Qin, Han and Liuchao. The Sui Dynasty, in order to use troops and communicate between the north and the south, excavated many channels by using natural rivers and the former canal, and formed the national canal system from Zhuojun (the north) to Hangzhou (the south). During the Tang and Song Dynasties, with the southward shift of the national economic center and Changjiang-Huai region becoming the national financial center, the canal became the water transport center of the Yangtze, Huai and Taihu lakes and the water transport and salt transport hub. During the Yuan, Ming and Qing Dynasties, the canal culture entered its peak period of development. Beijing, the capital of the Yuan Dynasty, changed the direction of the canal from south to north, which completely opened up the Grand Canal running more than 3,000 miles from Beijing in the north and Hangzhou in the south. During the Ming and Qing Dynasty, many wharfs prospered along the canal because of grain and salt transportation, which foreshadowed the formation of a waterborne economic belt along the canal. This narrow area has become the richest, most concentrated, most densely populated and most developed area in the country. It has become the lifeline of safeguarding the rule of the country.

A flowing canal is not yet a cultural system. However, if we link it with the way of life, cultural concepts, folk customs and so on, we can discover unique cultural forms in it. In the process of commodity transportation, it not only flows with material wealth, but also carries rich spiritual culture. It links up many important cultural cities, such as Chang'an, Luoyang, Kaifeng, Yangzhou, Suzhou, Hangzhou, Beijing and other cities that once became the political or economic center of the country. Officials, businessmen, literati, craftsmen and artists, monks and Taoists, and foreign envoys staying along the canal bank handle official business, establish

guildhalls, visit friends and friends, preach scriptures and disseminate skills (Lu,2016, Gursoy et al 2019). They brought and spread the architectural technology, folk art, painting, embroidery art, folk customs and so on to the canal area, forming a quite distinctive cultural landscape and style.

2.3 Elements of Canal Cultural Space

From the historical changes of the Canal, we can see that the formation of the Canal culture requires not only a certain geographical and ecological space, but also a long period of cultural accumulation, including cultural exchanges, dissemination and identification of the people living in the coastal watershed. Canal heritage protection includes four key components: one is the material and cultural heritage as the foundation of the heritage canal, the second is the water transport system and river management system to maintain the smooth operation of the canal, the third is the intangible culture such as folk customs, cultural festivals and handicraft accumulated in the long-term historical development and the fourth is the natural ecological environment of the Canal (Table 1).

Table 1 Elements of Canal Cultural Space

Cultural Spatial Dimension		Functions	Value Attributes
Natural ecological space	Canal Ecology and Landscape Environment (along the ecological shelter forest, wetland, characteristic vegetation, ecological corridor, etc.)	Canal flows through regional ecosystems	Natural ecological value: natural ecological environment of canal
Material Cultural Space	Ancient Canal Channel	Maintenance of navigation, transportation or canal systems	Cultural value-heritage of canal water conservancy project
	Water Conservancy Engineering (Water Source, River Gate, Dam, Bridge, Fiber Channel, Weir, Dike, Water Tank, etc.)	Maintaining the water volume of the canal and ensuring smooth water transport	
	Affiliated facilities (bank pass, wharf, ferry, barge, granary, guild hall, post station, temple, etc.)	Guarantee smooth water transport	
	Shipping Engineering	Maintaining Canal Shipping	
	Relics	Ancient Sites, Guild Halls, Tombs, Architectures and Stone Carvings	Cultural value: the material and cultural heritage of the canal
	Important historical sites and representative buildings in modern times (museums, cultural museums, exhibition halls, former residences of celebrities, etc.)	Carrying important historical events of the canal	

	Canal settlements (ancient towns, historic and cultural blocks)	Urban construction, village traffic, business and human production and life exhibition due to the rise of canal	
Institutional Cultural Space	Waterway transport system	Guarantee smooth water transport	Cultural Value: intangible Cultural Heritage of the Canal
	Canal management system	Guarantee the continuity of the function of the canal	
Spiritual Cultural Space	Folk art (painting, clay sculpture, paper-cut, etc.)	Ensuring the spread, blending and accumulation of canal culture	Cultural Value: intangible Cultural Heritage of the Canal
	Folk crafts (embroidery, ceramics, papermaking, sculpture, architecture, silk weaving, etc.)		
	Folk literature (poetry, ballads, literary works, etc.)		
	Folk culture (wedding and funeral ceremony, festival, clothing, diet, residence, transportation, folk stories, etiquette, production and life customs, etc.)		
	Religious belief		
	fair culture (flower fair, lamp fair, temple fair, etc.)		
	Other related intangible cultural heritage		

Source: the relevant information provided by Jiangsu Provincial Department of Water Resources.

3. Integral Protection of Canal Cultural Space in the Post-Application Era

Since the 21st century, the cause of cultural heritage protection in China has entered the era of “post-heritage application” which seeks the protection and revitalization of traditional culture from the pursuit of labels. Heritage protection has been further extended from the protection of heritage itself to the protection of heritage areas, that is, the heritage and its cultural space was protected as an inseparable whole.

3.1 Protection of Material and Cultural Space: Value Integrity of Canal Heritage Ontology

There are many cultural relics and historic sites along the Canal, the core of which is the heritage of water conservancy projects (waterways, water sources and hydraulic construction). In addition, the cultural relics and historic sites along the Canal also include the Heritage related to water conservancy projects, settlements, ancient towns and streets. Historical relics along the canal should be thoroughly investigated and listed, and then classified for protection. Some parts of the world cultural heritage should be protected, and attention should be paid to preserving the

original appearance when renovating, so as to avoid destroying the original expansion and reconstruction, so as to truly show the historical development process of the canal. The non-existent sites are no longer reconstructed and displayed by means of landmarks, which together constitute the geographical or physical space of the Canal Cultural Heritage. In the process of preservation and renovation of cultural relics, there should be distinct color distinction between the old buildings and the new ones.

Cultural heritage is historical, realistic and future. From the perspective of social development process, the trend of homogeneity and commercialization of social space itself cannot be changed (Naziris et al 2016, Zhang 2019, Turk 2019). Historical and traditional cultural heritage can only seek a relative balance in a specific regional space. The canal will compress the three different times of tradition, modernity and post-modernity into a space-time, so that the cultural space with traditional characteristics that cultural heritage relies on coexists in the social space of modernity. Resource integration integrates the essence of the ancient canal culture into the modern canal, and also carries out the protection of canal cultural space to all levels of urban planning. In urban planning, respect for history and culture should be strengthened to help people truly perceive the cultural space of the Canal.

3.2 Construction of Ecological Environment Space: Natural Environment Integrity of the Canal Culture

The Canal is a flowing cultural heritage, which represents unique water charm and humanistic connotation and becomes the cultural and natural base of the canal spirit. Each historical area and its surrounding environment are regarded as an interrelated unity as a whole. Its coordination and characteristics depend on the combination of its components, which include human activities, buildings, spatial structures and the surrounding environment. The construction of the Grand Canal Cultural Belt can not only adopt a coordinated strategy in the overall protection of the Canal Cultural Heritage, but also strengthen the radiation and discourse power of the Canal Culture in the whole country and even in the world.

Firstly, the integrity of landscape ecology on both sides of the canal should be strengthened. The construction of the Grand Canal Cultural Belt should attach importance to the combination of environmental protection and ecological balance, and to the harmonious coexistence of the natural and human ecology of the Grand Canal. The construction of the canal cultural Belt should focus on the integrated development of rivers, banks and cities. Taking the Canal as the main line, the government should strengthen water ecological management, promote the construction of ecological forest belt along the Canal, and construct the ecological corridor of the Canal which is connected by rivers and lakes and interdependent by mountains, rivers, forests and lakes. Water and banks, rivers and buildings, functional facilities and cultural landscapes are coordinated, so that excellent culture, excellent ecology and beautiful environment can be unified, and the cultural space of the Canal can be constructed orderly and aesthetically.

Secondly, the integrity of the canal water transport organization system should be strengthened. To continue the shipping function of the Grand Canal, it is an important aspect to construct the ecological waterway of the Grand Canal. The life of the Grand Canal lies in its multi-faceted and multi-level utilization. Only by continuing to play its main function or add new functions according to the changes of the times can its long-term vitality be maintained. From the perspective of development, the Grand Canal has always been in the process of change, and the ancient and modern canals have been integrated in most of the channel changes (Dou et al 2018, Hirszenberger et al 2019.). In daily life, the Canal still needs to give full play to the comprehensive functions of transportation, irrigation, flood control and drought relief, South-to-North Water Transfer and urban water use, so as to integrate the construction of ecological civilization into the construction of ecological waterway, and strive to maintain the harmony between the canal waterway and the human and natural environment.

Thirdly, we should build the integrity of cultural tourism project and the cultural vision of water landscape. The unique spatial, temporal and participatory characteristics of cultural space determine that its market-oriented operation must rely on a certain platform and take the path of tourism survival. The shipping function of the Canal for thousands of years has played its military, political, economic, cultural and other functions. However, attention should also be paid to the organic linking of the canal ecology, tourism and urban construction, so that tourists can enjoy the new cultural tourism experience while feeling the thick culture of the Canal.

3.3 Continuation of Spiritual and Cultural Space: Integrity of the Live Protection of the Canal

The different cultural areas through which the Canal runs are like beads of various colors, strung together by a line to form a bead chain. While rivers flow through different cultural regions, they also bring cultural blending and ethnic migration, and play a role in linking multi-ethnic cultural patterns. The flow of the Canal not only retains many historical relics and monuments, but also creates rich intangible cultural heritage. The intangible cultural heritage is a stable cultural form of a nation, reflecting its cultural identity and cultural identity. The protection of intangible cultural heritage is a self-construction of traditional culture in the process of modernization. The protection of the Canal remains is not only a government cultural project, but also a social movement in which people participate in cultural protection. Spatial display and intergenerational inheritance of the intangible cultural heritage of the Canal is an important way to protect the integrity of its spiritual and cultural space.

Strengthen the static display of the intangible cultural heritage of the canal. Through museums, cultural galleries, landscape exhibitions and other modern communication technologies such as physical objects, pictures, videos, models and virtual imaging means, the formation process and shape of the canal heritage can be displayed in many forms, and the cultural space protected by the heritage can be

reproduced. This can give full play to the function of cultural education and artistic edification. Museum is an important place for cultural heritage exhibition. As a large linear cultural heritage, a series of museums should be built along the canal. A number of museums embodying the cultural theme of the canal should be built through the construction of the intangible cultural heritage museum, folklore museum, canal transport museum, water science and technology museum, traditional art museum and so on. Museum, focus on displaying the cultural heritage of the Canal. The comprehensive display of cultural heritage and ecological protection achievements of the Canal will be conducive to the integration of natural ecological resources and historical and human resources, and the organic integration of nature, culture, history and landscape.

Promote the live display of the intangible cultural heritage of the canal. To protect intangible culture, we should not stop at the level of “memory engineering” and collecting objects. The most important thing is to create a modern way of survival suitable for the survival and development of intangible cultural heritage. These “living history” reproduce the fragments of living life in history through scene reproduction, scene simulation, festival activities or performance in the way of “time-place”. At the same time, organizing exhibitions and exhibitions of non-heritage projects of the Grand Canal Cultural Belt, holding non-heritage performing arts projects and non-heritage site interactive experience activities will help to create a historical atmosphere of the canal cultural heritage, let local people and foreign tourists feel the real existence of historical and cultural memory, and shape the canal heritage and modernity. The cultural space of daily life experience relevance and interaction. At the same time, it coordinates the cooperation between exhibition and inheritance, and forms a living space for the common memory of life skills and canals.

Strengthen the intergenerational inheritance of the intangible cultural heritage of the canal, and build relevant protection, inheritance and education bases. Handicraft techniques in canal culture, such as embroidery, ceramics, clay sculpture, sculpture, silk weaving and catering culture, can be continued through the cultivation of inheritors. Not only do a good job in the construction of inheritors' directory system and financial support, but also pay attention to the long-term monitoring of living inheritance, and have a high age and special grasp. The inheritors of traditional skills should be rescued and protected, and effective inheritance mechanism should be actively explored. For example, they are encouraged and supported to carry out apprenticeship activities. With local residents as the main body of activities, the display, use, protection and inheritance of non-heritage will be integrated into the daily life of local people, so that each local person will become the inheritor of non-heritage culture, to ensure the inheritance of these precious skills and fireworks. Non-hereditary inheritors can also set up various handicraft workshops and old-fashioned stores in historical and cultural blocks under the original geographical environment and the new social living space. Tourists can experience the process of non-heritage production, and cultural heritage resources can also realize the economization of heritage and the transmission and continuation of heritage, and achieve a win-win situation of culture and economy (Dou et al 2018).

4. Reflections: Cultural Consciousness and Heritage Protection

The Canal not only shows the long corridor of brilliant ancient Chinese culture and the different customs and customs between the north and the south of China, but also represents the earliest and most perfect database and showroom of water conservancy engineering and geography in ancient times. It communicates relatively independent geographical areas by connecting natural water systems, breaks cultural independence of different regions by means of various kinds of personnel flow, promotes the prosperity of coastal towns by means of commodity exchange, and promotes the integration of different regional cultures by means of cultural inclusion (Yu and Xu, 2019, Wang and Bramwell, 2012). Its significance lies in its flowing and living cultural heritage. In ancient times, it is the channel of transportation of grain and salt from south to north. Now it is an important means of flood control and irrigation, main line of transportation of coal and grains from north to south, main channel of diversion of water from south to north and tourism route with multiple cultural functions.

The inclusion of the Grand Canal in the World Heritage List indicates that the protection of the Canal has attracted worldwide attention and attention. For a long time, the protection of Chinese cultural heritage has been regarded as a matter of the state, and the local government plays the most prominent role in the protection of heritage. Many local government departments have also gradually evolved heritage protection into economic activities. They now realize that heritage protection must return to culture. With the rapid economic development of China, many cities along the Canal are facing the cultural revival and prosperity. On the premise of perfecting the laws and regulations for the protection of cultural heritage, the key to cultural construction is to excavate cultural details and improve cultural consciousness (Wu et al 2017, Santa and Tiatco 2019). Through the construction of the cultural space of the Canal, we can enhance the awareness of the community along the canal to participate in heritage protection, activate people's national cultural consciousness, shape people's common collective consciousness and spirit of the times, and make the canal culture glow with stronger vitality.

The integrity of the Grand Canal cultural heritage is reflected in time and space. From the perspective of time, the Canal cultural heritage is a complex of historical and intangible cultural heritage, reflecting its characteristics of connecting ancient and modern. On the other hand, the cultural heritage of the Canal reflects the concept of space. It connects the national capital in the north and the rich Jiangnan districts in the south, which promoted the exchange of Chinese mainstream culture. As a cultural route, the Canal Heritage also reflects the communication between civilizations. One end of the Grand Canal is connected with the land Silk Road through Chang'an (now Xi'an), the other is connected with Mingzhou (now Ningbo) through the East Zhejiang canal, and the maritime Silk Road. It not only influenced Japan and South Korea in East Asia, but also strengthened the connection between China and the Arab world and the Christian world.

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