

Research on the Protection and Utilization of Jingdezhen's Grand - Scale Relics and Regional Economic Development

Zhou Wenjia

*Institute for History of Science and Technology and Cultural Heritage, University of Science and Technology Beijing, Beijing, China
zhouwenjia111@163.com*

Abstract: *Jingdezhen, as the world's porcelain capital, has major historical sites that carry the core historical value of a thousand-year-old porcelain-making civilization. This article takes typical projects such as the Imperial Kiln Factory National Archaeological Site Park as the research object to explore the collaborative mechanism between the protection of large-scale sites and regional economic development. Through scientific protection models (such as on-site protection, digital documentation and the construction of site museums) and innovative utilization paths (such as site park planning and the integrated development of culture and tourism), Jingdezhen has achieved a win-win situation of the dynamic inheritance of cultural heritage and the transformation of economic benefits. By establishing an interconnected system of 'protection-display-industry', strengthening cultural identity and social cohesion, and forming a new regional development model driven by geographical economic factors, we can further deepen the transformation of cultural heritage values and provide replicable sustainable development models for similar cities.*

Keywords: *Large Heritage Sites, Protection of Large Heritage Sites, Jingdezhen*

1. Introduction

1.1 Definitions related to major archaeological sites

Large-scale historical sites refer to large-scale ancient cultural sites composed of remains and their related environments. It generally refers to primitive settlements, ancient capitals, palaces, mausoleums and burial clusters, religious sites, water conservancy facility sites, transportation facility sites, military facility sites, handicraft sites, and other architectural relics that are of great significance in China's archaeological culture or have held important political, economic, cultural, and military positions in Chinese history [1]. These sites often reflect important events, major changes or representative cultural phenomena of a certain historical period. Large-scale historical sites are usually large in area, rich in relics and artifacts, and carry abundant historical information and cultural connotations. They serve as important bases for historical and cultural research. In addition, the preservation condition of major historical sites is relatively good. Despite having endured a long period of time and natural and man-made damage, they can still provide relatively complete historical information.

At present, the main models for the protection and utilization of large-scale heritage sites in China include on-site protection and display and utilization protection. The original site protection mode is divided into complete protection and partial protection. For large and well-preserved sites, protective measures such as not breaking ground or excavating are adopted. Comprehensive protection of the sites is carried out by establishing protected areas or demarcating protected zones. This model is applicable to those sites that are in good condition and have high historical value. For partially damaged large-scale sites, partial protection of the sites is carried out through technical means such as restoration and reinforcement. This model can not only protect the core part of the site but also showcase its historical value. The main core utilization methods of the display and utilization model include building heritage parks and establishing heritage museums. Planning the large-scale heritage site as a heritage park can be conducted. Through reasonable layout and landscape design, make it a comprehensive cultural heritage protection area integrating protection, scientific research, education and tourism. Archaeological site parks not only represent an innovation in the protection of major heritage sites but also expand the connotation of parks as a functional element of the city [2]. For instance, the Terracotta

Army Museum of Emperor Qinshihuang in Shaanxi Province is a typical representative of the site park. Near major sites, a site museum should be established to centrally display unearthed cultural relics and related research achievements, enhancing the public's understanding and knowledge of the sites.

The protection of major historical sites holds multiple significant meanings. As important carriers of human history and culture, safeguarding major historical sites can preserve and pass on rich historical and cultural heritages, enhancing national pride and cultural identity. At the same time, large-scale sites are important research objects in disciplines such as archaeology and history. Through the excavation and study of large-scale sites, the development context and historical process of ancient societies can be revealed, enriching and improving the knowledge system of human history. The development of large-scale sites and the construction of archaeological site parks and museums have significant educational functions. They can serve as important resources for historical education and cultural popularization. Through the protection and display of sites, the public's understanding and love for history and culture can be enhanced, and the cultural literacy of the entire population can be improved. In addition, the protection and utilization of major heritage sites can also drive the development of tourism and promote the prosperity of the local economy.

1.2 Analysis of the current status of cultural tourism at Jingdezhen site

Jingdezhen is located in the northeastern part of Jiangxi Province, China, bordering Anhui Province and Zhejiang Province. Jingdezhen was established and thrived on porcelain, and it still regards the porcelain industry as an important sector to this day. It is world-renowned as the "Porcelain Capital" [3]. Kiln sites are scattered throughout the city, with Zhushan, Fuliang, Leping and other places as the centers, boasting a long history of porcelain-making and rich cultural heritage. During the Tang Dynasty, the porcelain-making industry in Jingdezhen had already taken shape, and the porcelain produced was called "Xinping porcelain". During the Five Dynasties and Ten Kingdoms period, Jingdezhen became one of the important porcelain kilns of the Southern Tang Dynasty. The Song Dynasty was an important period for the development of porcelain industry in Jingdezhen. The firing techniques were constantly improved and the product varieties were rich, making it a representative of southern celadon. After the Yuan Dynasty, Jingdezhen gradually became the national center of porcelain production and was hailed as the "Porcelain Capital". The Ming and Qing dynasties were the golden age of porcelain manufacturing in Jingdezhen. During the Yongle period of the Ming Dynasty, an imperial kiln factory was established in Jingdezhen, specializing in the production of porcelain for the royal family. Jingdezhen porcelain is renowned worldwide for its exquisite craftsmanship and unique style. During the reigns of Emperor Kangxi, Yongzheng and Qianlong in the Qing Dynasty, Jingdezhen porcelain reached its peak in craftsmanship, with a wide variety of types and exquisite workmanship, and was sold well both at home and abroad.

From the perspective of the development of the cultural industry and tourism, Jingdezhen boasts several well-known tourist attractions, such as the Ceramic History Museum, the Ruins of the Imperial Kiln Factory, and the Taoxi River Cultural and Creative Park. Regular large-scale cultural and tourism festivals such as the Ceramic Expo and the International Ceramic Biennale are held, attracting a large number of domestic and foreign tourists and ceramic enthusiasts. The total output value of the ceramic industry has been steadily increasing in recent years. In terms of education and research, Jingdezhen Ceramic University cultivates over 3,000 ceramic professionals each year, providing a large number of professional talents for the local and national ceramic industries. The school has established extensive cooperative relations with well-known domestic and foreign ceramic enterprises and art institutions, promoting the innovation of ceramic art and technology. In 2023, the total output value of the ceramic industry reached 20 billion yuan, accounting for over 40% of the city's total industrial output value. The total tourism revenue reached 15 billion yuan, increasing by 18% year-on-year. The proportion of tourism revenue in the city's GDP exceeds 20%. Jingdezhen has promoted the development of its local economy and enhanced its international reputation and influence by vigorously developing the cultural industry and tourism. The profound heritage of ceramic culture combined with modern industrial development has enabled Jingdezhen to occupy an important position in the cultural industry and tourism both nationally and globally.

2. The coordinated path for the protection of Jingdezhen's large heritage sites and regional economic development

2.1 References from domestic and international successful cases

There are numerous successful cases of the protection, development and utilization of major heritage sites worldwide. The cultural relic protection and tourism development of the Terracotta Army of Emperor Qinshihuang in Xi'an have achieved remarkable success. Its core strategy is to base on scientific protection and combine it with modern tourism development methods to achieve a win-win situation for cultural heritage protection and economic benefits. The Terracotta Army Museum of Emperor Qinshihuang adopts advanced constant temperature and humidity technology to maintain an appropriate temperature and humidity in the exhibition halls, preventing the terracotta warriors from being damaged due to environmental influences. The establishment of an air filtration system effectively controls dust and pollutants, ensuring that cultural relics are not eroded. At the same time, a professional team for cultural relics protection and restoration will be formed. By applying the world's leading restoration techniques, the damaged Terracotta Army will be scientifically restored to its original appearance. Moreover, cultural heritage must be regularly inspected and maintained, and potential issues should be promptly identified and addressed. By using high-tech means such as 3D scanning and digital modeling, a comprehensive digital record of the Terracotta Army is made and a cultural relic archive is established. And through VR and AR technologies, it provides online virtual visits and interactive experiences, reducing direct contact with physical cultural relics.

The museum is divided into multiple exhibition areas, and the visitor flow lines are rationally planned to avoid excessive concentration of people and reduce the pressure on cultural relics. Firstly, the daily number of visitors can be controlled, a reservation system can be adopted, and a comfortable visiting environment can be ensured. Secondly, various educational programs and interactive experiences, such as archaeological simulation and terracotta figurine making experiences, can be provided to enhance visitors' understanding of and interest in history and culture. Thirdly, regular domestic and international touring exhibitions can be held to display terracotta warriors and horses artifacts, so as to improve the international influence and reputation of the museum. Through cooperation and exchanges with internationally renowned museums, joint research and exhibitions are carried out to promote cultural exchange and dissemination. The Terracotta Army Museum of Emperor Qinshihuang has successfully achieved the protection and utilization of cultural heritage through scientific protection measures and reasonable tourism development. This model not only protects precious historical relics but also boosts the local economy through the development of tourism, achieving dual benefits of culture and economy.

A case of the protection and development of major historical sites abroad includes the Luxor Temple, an important site of ancient Egyptian civilization. The Luxor Temple is located in a desert climate zone, where the drastic changes in temperature and humidity have a significant impact on the cultural relics. For this reason, the management department has implemented constant temperature and humidity control in the indoor exhibition area and key areas of the temple, using modern equipment to maintain stable environmental conditions. The temple is equipped with an advanced environmental monitoring system that monitors temperature, humidity and air quality in real time to ensure that adverse factors are detected and dealt with promptly. The architectural structure of the temple should be reinforced, including repairing damaged stone columns and walls to prevent further damage. The restoration technology that combines modern materials with traditional methods ensures the long-term effectiveness of the restoration work. At the same time, a high-tech security system has been installed, including video surveillance, infrared alarms and security personnel patrols, to prevent vandalism and theft.

The temple features different exhibition areas both inside and outside. The outdoor area showcases the grandeur and atmosphere of ancient architecture, while the indoor galleries display unearthed artifacts and related archaeological findings. Modern display technologies such as LED lighting and multimedia presentations are used within the galleries to enhance the viewing experience. Near Luxor Temple, the Luxor Museum has been established to exhibit artifacts and archaeological discoveries from the temple. The museum's design emphasizes harmony with the historical background and cultural ambiance of the temple.

These successful cases demonstrate that the protection, development, and utilization of major heritage sites can be achieved through various approaches. Strict protective measures ensure the integrity and long-term preservation of the sites; diverse development and utilization models promote

cultural dissemination and tourism growth; significant economic benefits not only enhance the self-sustainability of the sites but also drive regional economic development. Through these measures, these major heritage sites not only preserve historical and cultural heritage but also become important economic and cultural resources in modern society.

2.2 Specific application examples of Jingdezhen

In October 2010, the Jingdezhen Imperial Kiln Factory Site was selected as one of the first batch of national archaeological site park project units announced by the National Cultural Heritage Administration [4]. The location of the Jingdezhen Municipal Government is precisely at the center of the imperial kilns of the Ming and Qing dynasties, and it is also the center of Jingdezhen's centuries-old glory. In the imperial kiln area covering approximately 50,000 square meters, archaeological discoveries have been continuous over the past two decades. Particularly, the formal archaeological excavations that began in 2000 and continue to this day have achieved significant results and were rated as one of the top ten new archaeological discoveries in China in 2003. Within a 2-square-kilometer area centered around the imperial kiln site, the government will renovate the streets, protect cultural landscapes such as lanes, ancient workshops, original wood-fired kilns, and ancient residences, and build a ceramic historical and cultural museum city. It was also decided that the "Imperial Kiln Site Park" and the "Jingdezhen Ceramic Museum" would be planned and constructed at the Zhushan Site, and efforts would be made to apply to the United Nations for the title of "World Cultural Heritage".

From 2002 to 2009, the Imperial Kiln site carried out more than ten large-scale relocation projects and conservation works, including the reconstruction of the Imperial Kiln gate, the protective wall pile project for the Dragon Pearl Pavilion at the Imperial Kiln site, the renovation of the inner and outer squares of the Imperial Kiln gate, the protection house project for the Imperial Kiln furnace site, the protective house project for the north slope of Zhu Mountain at the Imperial Kiln site, the transformation of the Imperial Kiln Craft Museum, the construction of an ancient theater, the renovation of the cultural relic restoration center, the reconstruction of the Youtao Lingci temple, the construction of the Welcome Building and the Imperial Treasure Hall, the transformation of water, electricity, and pipeline networks, the reconstruction of central roads, and greening projects, with a total investment of nearly 30 million yuan. In 2014, Jingdezhen Imperial Kiln Factory, as the only historical site in China that can comprehensively and systematically reflect the production and cultural information of official kiln ceramics, was announced by the National Cultural Heritage Administration as one of the second batch of national archaeological site parks. The Jingdezhen Imperial Kiln Factory National Archaeological Site Park has been successfully included in the list of national archaeological site parks. In addition to the 53,400-square-meter core area, the planning of the Jingdezhen Imperial Kiln Factory National Archaeological Site Park also takes the surrounding brick lanes such as Pengjia Lane and Bijia Lane as important carriers for showcasing the historical features of ceramics.

The Ming and Qing imperial kiln site in Jingdezhen meets the requirements of large-scale site protection in terms of both the scale and value of the site. It belongs to the handicraft site among the major heritage sites [5]. At the end of 2016, the National Cultural Heritage Administration officially issued the "Special Plan for the Protection of Major Heritage Sites during the 13th Five-Year Plan Period". The Jingdezhen Imperial Kiln Site (including the Gaoling Kaolin Mine), Hutian Kiln Site, Wucheng Site (including the Zhuwei City Site), Jizhou Kiln Site, Tongling Copper Mine Site, Zijin City Site and Tiehe Ancient Tomb Complex in Jiangxi Province have been listed as key national protection projects, aiming to enhance the overall protection, display and utilization level of major sites. This represents a further improvement in the level of site protection based on the construction of national archaeological site parks.

In terms of museum construction, the Imperial Kiln Factory houses the China Imperial Kiln Craftsmanship Museum, which opened in 2008. The China Imperial Kiln Craft Museum is divided into two floors, upper and lower. The main content of the first floor exhibition hall: Through observing video materials, touching production raw materials, pigments, production tools and other exhibits, it showcases the history and inheritance of the imperial kiln porcelain-making techniques, introduces the raw materials and kiln furniture of these treasures, the porcelain-making process of throwing, shaping, glazing, painting and coloring, as well as the history of emperors managing imperial kilns and officials supervising artisans in production throughout the ages. The second-floor gallery primarily showcases original and high-quality replicas of porcelain treasures from the Yuan, Ming, and Qing dynasties, with over 150 pieces on display. The exhibitions on the second floor also feature thematic displays based on archaeological findings from the imperial kilns, such as the 'Chenghua Porcelain Exhibition' set up at

the end of 2016. To the north of the imperial kiln site lies the Dragon Pearl Pavilion, which has been a representative building of the imperial kiln site since the Ming dynasty. The pavilion was rebuilt in 1990 and houses a large collection of official porcelain treasures and kiln-related historical records, providing indispensable and significant reference value for research on Jingdezhen's official kiln wares.

3. The impact of the protection of major heritage sites on the economic development of Jingdezhen region

3.1 Direct economic benefits

3.1.1 Tourism revenue

The development of the ancient kiln sites in Jingdezhen has greatly promoted the local tourism industry, thereby bringing significant economic benefits to the regional economy. Since the development of the ancient kiln site in Jingdezhen, the number of tourists has been increasing year by year. According to statistics, the number of tourists received by Jingdezhen was approximately 5 million in 2018. In 2019, it increased by 20% year-on-year. In 2020, due to the impact of the epidemic, the number of tourists decreased somewhat, but still reached about 4 million. In 2021, it increased by 75% year-on-year, and in 2022, it increased by 14% year-on-year. It can be seen that, except for the years affected by the epidemic, the number of visitors to the ancient kiln ruins in Jingdezhen has shown a continuous growth trend. Especially in 2021, with the gradual relaxation of epidemic prevention and control measures and the recovery of the tourism market, the number of tourists rose rapidly and reached a new high.

The tourism development of Jingdezhen's ancient kiln sites has not only directly brought significant revenue but also promoted the growth of related industries such as the ceramic industry. As the number of tourists increases, the demand for Jingdezhen ceramics has significantly grown, driving the local ceramic industry's development and transformation. Culturally, Jingdezhen has enhanced the influence and income of the cultural industry by hosting ceramic culture festivals, exhibitions, and other events. The growth of tourism has also boosted the prosperity of service sectors such as catering, accommodation, and transportation.

3.1.2 Employment opportunities

The development of the ancient kiln sites in Jingdezhen has also provided a large number of job opportunities for local residents. If a large number of professionals are engaged in the protection and management of sites, including archaeological excavations, cultural relic restoration and protection, archaeologists and technicians are needed. The management of the site requires administrative staff, security personnel, environmental monitoring personnel, etc. From the perspective of indirect employment opportunities, the development of tourism has driven the prosperity of the ceramic industry in Jingdezhen, providing a large number of employment opportunities for ceramic production, sales and related services, like ceramic artisans, ceramic salespeople, cultural event organizers, and artists and performers, etc. The development of the site has also driven the construction and maintenance of the surrounding infrastructure.

From direct employment to indirect employment and then to additional employment, covering various industries and fields, it has injected strong impetus into the development of the local economy. Meanwhile, these job opportunities have also improved the living standards of local residents and promoted social stability and development. In the future, with the further development of the heritage site and tourism, Jingdezhen will create more job opportunities and continue to make significant contributions to the local economic and social development.

3.2 Culture and social benefits

The development and utilization of Jingdezhen's ancient kiln sites have not only promoted local economic growth but also had profound impacts on cultural heritage preservation and education, as well as enhancing social cohesion.

3.2.1 Cultural heritage and education

Through the scientific protection and display of ancient kiln sites, Jingdezhen has preserved a rich ceramic cultural heritage. The unearthed cultural relics, ancient kiln remains and traditional craftsmanship displays within the ruins enable visitors to have an intuitive understanding of the history

and development process of Jingdezhen ceramics. Through museums and heritage parks, Jingdezhen has showcased the unique charm and profound heritage of its ceramic culture to the public. The ceramic-making techniques of Jingdezhen have been listed as a national intangible cultural heritage. The development and utilization of the site have further promoted the protection and inheritance of the techniques. The scenic area is equipped with a ceramic-making experience zone where tourists can make ceramic works by themselves and experience traditional craftsmanship. Regular large-scale cultural events such as the Ceramic Culture Festival and the Ancient Kiln Culture Week are held, attracting a large number of tourists and cultural enthusiasts to participate. These activities not only showcase Jingdezhen's ceramic culture but also infuse new vitality into traditional culture.

3.2.2 Enhancement of Social Cohesion

Through the preservation and display of ancient kiln sites, residents of Jingdezhen have gained a deeper understanding and recognition of their local history and culture. The development of these sites has made ceramic culture an important symbol of local culture, and residents take pride in it, significantly enhancing their sense of pride and belonging.

In daily life, residents of Jingdezhen actively participate in various cultural activities, inheriting and promoting ceramic culture. Through community cultural events and pottery-making experiences, residents not only enhance their understanding of ceramic culture but also strengthen neighborhood relationships and community cohesion through interaction.

4. Conclusion and recommendations

The protection and development of Jingdezhen's ancient kiln sites have played a significant positive role in the regional economic development. Through scientific preservation and rational utilization, Jingdezhen has successfully transformed cultural heritage into economic resources, achieving a win-win situation for culture and economy.

As a tourist attraction with profound historical and cultural heritage, Jingdezhen attracts a large number of domestic and foreign tourists. The prosperity of the tourism industry has driven the development of related industries such as accommodation, catering, transportation and shopping, directly increasing local fiscal revenue and residents' income. At the same time, the protection and display of the site have attracted a large number of tourists. Ticket revenue, tour guide service fees, and souvenir sales have directly brought considerable economic benefits. The development of tourism has driven the prosperity of the surrounding service industries. The increase in tourists' demands for dining, accommodation and shopping has promoted the prosperity of the local service industry and business. Its cultural industry has achieved considerable development under the impetus of site protection. By hosting activities such as the Ceramic Culture Festival, art exhibitions, and cultural lectures, Jingdezhen has not only enriched its cultural products and services but also enhanced the added value of its cultural industry.

Through the development of the cultural industry, not only can excellent traditional culture be inherited and promoted, but also new impetus can be injected into the regional economy. Integrate cultural resources with tourism organically, create cultural tourism brands with local characteristics, attract more tourists and drive regional economic development. The successful experience of Jingdezhen provides important inspiration for other regions. The protection and development of cultural heritage should focus on scientific protection, rational utilization, the organic combination of culture and economy, as well as the coordinated development of social and economic benefits. Only in this way can a win-win situation of culture and economy be achieved and the sustainable development of the regional economy be promoted.

References

- [1] Lu Jian Song. *Current Status, Issues, and Policy Considerations for the Protection of Major Archaeological Sites in China* [J]. *Fudan Journal (Social Sciences Edition)*, 2005, (06): 130-136.
- [2] Shan Jixiang. *The Exploration and Practice of Large - scale Archaeological Site Parks* [J]. *China Cultural Heritage Scientific Research*, 2010, (01): 2 - 12.
- [3] Hu Jianxin, Zhang Jie, Zhang Bingbing. *Strategies and Technical Practices for the Revival of Traditional Handicraft City Culture: Museum and Art Gallery Protection and Renovation Design in Jingdezhen's 'Taoxi Creek' Industrial Heritage Exhibition Area* [J]. *Architectural Journal*, 2018, (05):

26-27.

[4] Zhao Wenbin. *Research on Planning and Design Models of National Archaeological Site Parks* [D]. Beijing Forestry University, 2012.

[5] Cai Qing. *Cultural Landscape Conservation Based on Regional Characteristics* [D]. Southeast University, 2006.