# A Comparative Study of the Conservation and Transmission of Cultural Heritage in China and Abroad--Dunhuang and Italy as Examples

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Received: August 29, 2022 Accepted: September 13, 202 Online Published: September 20, 2022

#### Abstract

Cultural heritage carries the spiritual bloodline of a nation and perpetuates precious cultural genes. Every generation's shared responsibility is to explore the value of cultural heritage. With the rise of digital technology and modern communication, higher demands and expectations have been placed on the preservation and transmission of cultural heritage. This paper examines the preservation and transmission of cultural heritage in Dunhuang and Italy, conducting a comparative study from several perspectives, including the levels of talent and education, dissemination and popularization, funding and economic development, and finally drawing on Italy's proven experience in preserving and transmitting cultural heritage to explore new ideas for the preservation and development of Dunhuang's cultural heritage.

**Keywords:** Chinese and foreign cultural heritage, conservation and heritage, Dunhuang, Italy, digitization

### 1. Background of the Study

Cultural heritage is a valuable spiritual and cultural asset for humanity. Along with the rapid development of the digital era, Dunhuang has achieved particular success in preserving and transmitting cultural heritage, but sustainable development is still a dilemma. Furthermore, promoting cultural heritage industries' development through conservation and innovation and establishing a more professional and complete modern conservation system is also a challenge for various countries. This research is based on the cultural heritage of Dunhuang and Italy and the following considerations.

- 1) Chinese Dunhuang and Italian Renaissance cultures are representatives of Eastern and Western civilizations, without a long historical break. Although both have experienced a journey from destruction to the preservation, they generally focus on the continuation and transmission of history and culture. Both cultures have precious cultural value. Dunhuang is located at the gateway to the Silk Road. Its culture, with its frescoes, cave documents, painted sculptures, and the remains of cultural relics from the Dunhuang area, is a fusion of multiple cultures from multiple regions and ethnicities across the Silk Road, making it a place of cultural diversity. Italy, the birthplace of the Renaissance, ranks first in the number of World Heritage sites and is renowned for its 58 cultural heritages, including ancient buildings, ruins, and paintings, which contain tens of thousands of classical works of human art and are a concentration of Western civilization.
- 2) When cultural heritage is digitized, both move forward with heritage and innovation. Dunhuang is a late starter in cultural heritage conservation, and its conservation system and development model still need to be improved. Italy's cultural heritage can be traced back to the 19th century, and Italy was one of the first countries in the world to establish the idea of conservation. The maturity of its philosophy, legislation and development is an excellent model for other countries and regions (Rong, 2017). It is essential to draw on Italy's experience to provide the essence for the conservation and preservation of Dunhuang's cultural heritage in China.

## 2. Current Situation and Issues in the Protection and Inheritance of Dunhuang's Cultural Heritage

Due to the late start of cultural heritage protection in our country, the protection and research of Dunhuang Grottoes did not start until 1944. Even after 1944, the path was still challenging. The Dunhuang Grottoes was initially opened to the public in 1979, but keeping the heritage and visitors safe is still a challenge. From 1984, the preservation work of Dunhuang Grottoes gradually transitioned from salvage conservation to scientific

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conservation. And from 1990 to the present, Dunhuang's cultural heritage has finally been brought back to life through digital technology (Jinshi, 2004). On the road of Dunhuang cultural heritage protection and inheritance, Dunhuang Research Institute is advancing in the torrent of reform and innovation. Although it is already a leader in protecting cultural heritage in China, many problems still need to be overcome.

#### 2.1 Insufficient Professional Talent Reserve and Talent Drain Problem

Talents are the core to the conservation and preservation of Dunhuang's cultural heritage. Yet, lacking professional talent is a critical challenge in preserving Dunhuang's cultural heritage. Few universities and research institutions currently offer Dunhuang studies and digital conservation-related disciplines due to a single training approach and a mismatch between training and the needs of society. At the same time, the Dunhuang Academy has rarely been able to recruit talent and train them on its own. Because of the high learning threshold and long learning cycle of conservation-related disciplines, the teaching process is often performed in a pattern of passing down from master to apprentice, taking years or even decades to learn the art. With such time and financial costs, the long investment and sporadic returns have dampened the enthusiasm of young people, resulting in a shortage of professionals.

In addition, the work related to cultural heritage is mostly for state-owned enterprises and institutions, where the talent introduction, market decision-making, market competition, and elimination are bound by the original enterprise and institution system. There is not only a shortage of professional talent but the available quota of employees in the state-owned enterprises and institutions. Some people still think employment in those places is lifelong, resulting in poor talent mobility. In addition, insufficient income is also an essential factor in the brain drain, as professional competence is not proportional to income returns, affecting the motivation of potential candidates. How to guide the training of professionals through the market mechanism and improve the level of professionalism and income is a real problem facing the talent shortage.

# 2.2 Limited Access to Dunhuang Culture and Poor Public Engagement Channels

Overall, the range of arts and culture in our country is not broad enough, and the lack of universal access to the arts has, to some extent, led to the development of the depth of Dunhuang's cultural popularity. As Dunhuang is located in a relatively remote area, it is inconvenient to participate on the ground, and the public in other regions is often in a state of powerlessness. However, with the use of film and television in the form of documentaries, variety shows and television dramas, and new media such as Weibo and Jitterbug, Dunhuang culture has been popularised nationwide with some success. However, engaging with cultural preservation through internet channels can also easily fall into a spiral of over-entertainment, with short videos and infomercials providing fragmented content that often leaves people with a superficial understanding of Dunhuang culture, stopping them from further study. People usually cannot fully understand the spiritual core and lack the motivation to act in depth.

Apart from the Northwest part of China, education and teaching related to Dunhuang's cultural heritage in education from the basic level to tertiary institutions are rare and subject to significant regional influences. However, Dunhuang culture is not simply a regional culture; as a model of cultural and spiritual fusion between East and West, an important part of the Chinese nation and a common civilizational treasure of humanity, it is not enough to rely on the research of Dunhuang researchers in ivory towers and the promotion of Dunhuang culture and tourism-related industries, but also requires the participation and action of the public, various social organizations, and international forces.

# 2.3 There Is Still a Funding Gap and a Lack of Social Capital Participation

For a long period of development, government funding for preserving Dunhuang's cultural heritage was inadequate. As the state has taken cultural heritage seriously, it has continued to increase its funding allocations. This, coupled with the economic benefits of the booming cultural tourism industry, has to some extent ensured the smooth running of Dunhuang's cultural heritage. However, state funding for heritage conservation is usually project-specific and more of a protective and salvage sense. At the same time, the cultural tourism industry suffers from the contradiction between tourism development and heritage conservation, with tourism revenues only maintained at an average level. With the further development of digital preservation, the need for investment in science and technology remains vast. As a result, there is currently a funding gap in some cultural heritage conservation projects.

During the development process, Dunhuang has encouraged social capital participation through corporate partnerships and brand co-branding. Most companies are initially enthusiastic, but often after a period of investment, they find that the cultural sector requires enormous resources and effort, requiring a massive

investment of human, financial, and material resources. However, obtaining more immediate short-term gains is difficult, so enthusiasm quickly cools, and the partnership project eventually fails silently.

### 3. The Italian Experience of Cultural Heritage Conservation and Development

Italy gave birth to the civilization of the ancient European culture and the Renaissance, which symbolizes "rebirth." Since 1909, the Italian government has begun to attach importance to the protection of cultural heritage. The central government has promulgated relevant laws and regulations for the normative protection of historical relics. In 1947, the new Italian Constitution was promulgated, recognizing that the cultural heritage within Italy's territory was not only the origin of national civilization but also a fundamental interest of the country. The government established the Ministry of Cultural Heritage and Activities and set up eighteen conservation directorates with an acceptable division of labor in different areas, such as excavated objects, ancient books, and ancient buildings, each with its responsibilities. Italy's strict legal system and comprehensive regulations have been constantly improved for over a century, and the concept of cultural heritage protection has been shaped and pursued with the utmost care so that tens of thousands of cultural assets have shone through the years.

## 3.1 Complete Chain of Talent Building, Traditional and Emerging Talents Develop Together

Italy's success in cultural heritage conservation is mainly due to the government's support for higher education in the fields of restoration and archaeology. Several Italian higher education institutions have set up disciplines related to repairing cultural relics, which further specialized their training in various areas (Benedetti, Abbondandolo, & Gaiani, 2021). A stable teaching system has been established in the country for the conservation of historical monuments (Beibei, 2018), and higher education institutions have trained a large number of people for the conservation of monuments. In addition, the government has established a policy of 'The Special Superintendency,' which is part of the Soprintendenza per i Beni Ambientali e Architettonici (Architectural History and Environmental Supervision Bureau) under the Ministry of Cultural. The official supervisors are usually university professors, renowned archaeologists, architects, and other professionals who supervise the conservation and restoration of cultural heritage and provide valuable advice to the Italian government on developing the tourism industry, etc.

Based on cultural heritage protection, the development of the cultural and creative industries has also given rise to much high-quality personnel. Universities offer several cultural management-related courses and jobs as artistic and creative designers, craft artists, and creative planners. These are highly sought-after and have become one of the highest employment rates. As a result, a completed team has been formed in Italy's cultural heritage in various aspects, from conservation and development to dissemination and commercialization, with a clear division of labor and a solid commitment to their respective positions, gradually passing on the cultural heritage.

# 3.2 The Concept of Conservation Is Prevalent, and All People Participate in Cultural Heritage

The ongoing inheritance and protection of cultural heritage is not just the job and responsibility of practitioners; Italy is committed to engaging the wider public, businesses, and others in the process. The popularisation of art in Italy often starts with children, with schools taking pupils on visits to ancient buildings and artifacts to learn about history and culture. These activities are included as part of the pupils' assessment, thus providing primary education for all. The Italian people have a strong sense of "localism"; they are fond of their country's historical and civilizational monuments, and for them, spending time with them has become a habit and a taste of life. Therefore, everyone does their utmost to protect the cultural heritage.

Since 1997, the Italian government has held an event on "The week for the culture" every year in the last week of May (Xiaoming, 2009). In addition, on the first Sunday of every month, the "Free Museum Sunday" is held, during which all national cultural and natural heritage sites are open to the public free of charge. Hundreds of events related to history and culture are organized, such as film festivals, music festivals, seminars, etc., making it a day when people can get close to those valuable cultural treasures. It has become customary for people to get close to their cultural heritage on this day. In addition to official guidance, many private organizations such as the Italian Environmental Foundation and the Italian Association of Historic Buildings have flourished, continuing to promote the Government's policy and awareness-raising efforts to help preserve cultural heritage. In this spirit, the people have become the protagonists in managing and transmitting cultural heritage.

## 3.3 Diversified Sources of Funding to Achieve Unity between Cultural Heritage and Economy

Regarding funding for cultural heritage, Italy has a solid governmental system that encourages the participation of the public, businesses, foundations, and other social groups to invest in cultural heritage with private capital and with the assistance of social and international organizations. Since 1994, the Italian government has

established a policy of 'cultural adopters,' whereby the government retains the right to own, supervise and develop cultural heritage, while the right to use and manage ancient buildings is given to 'adopters' by way of tender. The adapters can use the buildings as bookstores, cafes, souvenir shops, etc., according to their needs, and the government only takes a portion of the revenue from the business. In addition, the 'adopters' are required to undertake the day-to-day restoration and maintenance work. The government has opened up the restoration work to some companies that have the capacity and need to promote it (Yuan, 2019). In 1996, the Italian government passed a law that earmarked eight percent of the revenue from social lotteries for national heritage conservation (Jingwu, 2021). In 2014, the government continued its policy of offering artistic incentives to facilitate access to the public for the protection of cultural heritage, encouraging people and companies to contribute financially to cultural conservation by offsetting up to 65% of their taxes, thus stimulating private investment in cultural heritage conservation and encouraging more people to contribute to the preservation of cultural heritage (Qian, Aihe, & Yongkang, 2019).

Therefore, the Italian government is not only relying on the state's financial allocation but also on the linkage with the market to preserve the cultural heritage and its cultural values to the maximum extent possible, and to promote tourism and cultural and creative industries as economic pillars, so that cultural heritage and the economy can develop sustainably. This will promote tourism and cultural and creative industries as economic pillars and allow cultural heritage and the economy to create mutually reinforcing and integrated.

## 4. New Ideas for the Conservation of Dunhuang's Cultural Heritage from the Italian Experience

While Italy's cultural heritage is unique to its context, the preservation and transmission of cultural heritage is the consensus of all humanity, and its proven experience is somewhat universal. On this basis, and considering Dunhuang's strengths and characteristics, we can bring new ideas to bear on managing Dunhuang's cultural heritage.

4.1 Promote the Joint Development of Research Institutions, Vocational and Higher Education Schools, and Private Research and Study Platforms, and the Laddering and Integrated Training of Internship Talents

Dunhuang can take advantage of its conservation-based industry-academia-research system to develop its talent through a management mechanism and model of high-level team building, as well as promote an optimized income distribution system to enhance the sense of entitlement of the relevant heritage practitioners so that the Dunhuang Grottoes conservation and research team can continue to grow. In the first instance, the Dunhuang Research Institute is the core research institution that should join forces with experts and scholars in heritage conservation, heritage restoration, and Dunhuang studies from universities to build innovative research platforms, promote academic exchanges and other activities, and continuously strengthen the training of relevant talents, thereby exporting several highly skilled cultural heritage conservation talents (Sheng, 2021).

Secondly, a specialized vocational higher education school should be established to build a comprehensive and well-developed system in terms of majors and disciplines to train professionals in the whole chain of cultural heritage protection industries, from heritage restoration and conservation to cultural management, creation, and tourism. It is common for Chinese domestic students to pursue entry into general higher education. Still, for heritage-related majors, the quantity and quality of cultural heritage talents currently exported by universities are unbalanced with the actual work requirements. With the industrialization of cultural heritage conservation and inheritance, there is a need for many specialized and highly skilled cultural and artistic talents and the construction of a professional training system for them. Restorers, artisans, and painters are all highly specialized and technical professions, and a four-year course of study at a regular university is insufficient to meet fieldwork demands. Therefore, it is possible to learn from the Italian practice of actively promoting vocational education for skilled people, change the concept of discrimination in vocational education and make skilled talents a real "cake" within reach of society (Gizzi et al., 2019).

In addition, the development of folk learning platforms for professional practice in workshops and personalized cultural heritage education can be strongly supported. For example, the Mogaoli Artisan Village's efforts to teach the skills of color sculpture making have been complemented by classes and joint schooling with relevant institutions across the country, promoting non-heritage cultural activities on campus. They are offering lectures on Dunhuang-related art and culture and experience and training in clay sculpture techniques, thus training several students for the transmission of non-heritage culture and, in this way, injecting folk power into the transmission and dissemination of Dunhuang art.

4.2 Spreading the Essence of Dunhuang Culture, Using Digitalization to Achieve Universal Participation
Italy is committed to making history and culture more relevant to the modern world, and living with history and

culture has become a way of life for Italians. In China, not everyone has the opportunity to participate in the preservation of Dunhuang for complex geographical and economic reasons. Still, it is our shared responsibility to pass on Dunhuang culture. In addition to primary art education in ivory towers, more people can join in preserving and transmitting cultural heritage through digital communication. Drawing on the Italian experience, monthly free online exhibition days could be launched to promote and educate about cultural heritage through virtual exhibitions, academic sessions, and live lectures on the subject.

As Dunhuang culture continues to spread, it is also essential to further explore the depth of cultural communication and to regenerate and recreate culture based on respect for tradition, rather than being superficial and formal and losing its humanistic connotations. For example, Tencent and the Dunhuang Research Institute have worked together to create digital projects such as the "Cloud Tour Dunhuang" applet and the Dunhuang animated drama, which revitalize traditional culture through creative media and are successful practices for immersive learning of Dunhuang culture and experiential dissemination of Dunhuang art. A benign mechanism to guide the public, businesses, and the community to extract the profound connotations of Dunhuang culture, making history and culture new and integrated into everyone's lives. The preservation of Dunhuang culture has gone from being confined to a small cave to being embedded in the digital cloud, helping to promote the conservation and love of Dunhuang culture for all and immortalizing Dunhuang in today's digital age.

4.3 Accumulating Funds through Diversified Cooperation and Stimulating Economic Benefits with Innovation in the Tourism, Cultural and Creative Industries

The lack of funding is a bottleneck and a challenge in conserving Dunhuang's cultural heritage. The Italian experience can be drawn on to provide funding from the government, sponsorship from individuals and social organizations, and funding from society through market mechanisms. Firstly, the government should continue to increase its financial commitment to cultural heritage protection by setting up special funds and broadening the funding sources through issuing cultural heritage-related government bonds and lotteries. However, the current demand for funds for cultural heritage protection in China is so great that it is still difficult to rely on government finances alone to meet the demand. The continued sponsorship of charitable funds such as Tencent's Digital Donor program and the Friends of Dunhuang Foundation.

Taking the market as a starting point and increasing private funding is another breakthrough in addressing the lack of funding. In the development of cultural creation, tourism industrialization, and marketization, emphasis should be placed on the action and integration of crucial Dunhuang cultural IPs, supported by the Dunhuang Cultural Tourism Group, strengthening cooperation with technology and cultural enterprises, as well as incentivizing the establishment of small and micro cultural and creative enterprises as a way to form a complete Dunhuang tourism and cultural creation system. Additionally, IPs and brands can be actively promoted for co-branding, allowing Dunhuang culture to gain economic benefits while breaking the circle (Yanmei & Zhuolin, 2022). The Italian government's 'adopter system' for the protection of cultural heritage has led to the creation of regular adopters for cultural heritage, who actively promote the protection of the heritage and the development of the cultural economy through their monitoring of the heritage. While not feasible under China's current cultural heritage management system, the current development of NFT digital collections has created new possibilities. With blockchain technology support, Dunhuang artifacts are given their unique identity, allowing for the identification of 'adopters' for digitized art collections, and the public is seen as the owner of the digitized cultural heritage. In June 2021, Alipay, in conjunction with the Dunhuang Fine Arts Institute, released a limited edition of the Dunhuang Flying Sky and Nine-Coloured Deer NFT collections as a preliminary attempt to engage the public in investing in Dunhuang's cultural heritage. The public can participate in investing in Dunhuang's cultural heritage.

At the same time, while promoting the cooperation model of multiple subjects such as the government, enterprises, the private sector, and other social forces, it is necessary to correctly understand the relationship between inheritance protection and development and exploitation and the relationship between social and economic benefits and to find a balance between cultural heritage and economic development (Shan, 2015), which can promote the sustainable and benign growth of cultural heritage industry.

## 5. Conclusion

"Cultural heritage protection" is not only the key word for the Italian government's cultural protection, but also the Chinese government's key word for cultural protection. The protection of cultural heritage is a long-term task. We should learn from the essence of other countries and combine our own national conditions to create a unique road for our own cultural protection. Both the government and individuals should assume the corresponding responsibility for inheritance and protection, broaden the path of cultural protection, and make cultural heritage

last forever.

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