UNIVERSITÀ DEGLI STUDI DI PADOVA

DIPARTIMENTO DEI BENI CULTURALI:
ARCHEOLOGIA, STORIA DELL'ARTE, DEL
CINEMA E DELLA MUSICA

Future of Dunhuang — A Study of Innovative Heritage Management and Involvement of Local Communities for Valorization and Sustainable Tourism

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Acknowledgements

This is the part I am most looking forward to and also the part I am least willing to write down. Because I have accumulated much emotions and feelings aspiring to share. To my regret, it means that my PhD research is nearly finished when I write this part. First and foremost, I would like to thank, of course, my favorite Professor Chavarria. If I remember correctly, I received her first email on the day after Christmas 2018, which was destined to be a remarkable day. Our research started in 2019, she gave me a clear schedule for my PhD study in three years at first and guide me to the exact direction of my research. That's why I could quickly find the key points and start my research. I have to say, she is a wonderful leader who is excellent at finding the advantages of students. I am honored to be a member of her archaeological team for photo drawing work, which has been very rewarding and inspiring. At the same time, she is very respectful to the students' minds and leaves a lot of space for my research, allowing me to enjoy the research process freely. This would be a very precious memory in my life. Of course I will not forget Paolo Vedovetto, who helped me a lot to do a great job when I was assisting Prof. Chavarria's team with the illustrations. And Dr. Tamara Lewit who helped me a lot with my thesis. We didn't work together for a long time, but she provided me with important support, she helped me check the thesis, gave me smart comments, even some key details that surprised me. I also thank Dr. Yunrui Guo, who also provided some comments for my research.

In the past three years, I experienced different philosophical mindsets of the East and West, different social rules, and then finally a different social atmosphere. Learning more than just professional field knowledge, but also life skills and a healthier mindset to enjoy life, all these valuable experiences will accompany me to wherever I go in the future.

I am not only grateful to these people who have helped me a lot, but also to the city Padova. The city is small and doesn't have a lot of pollution. The city is also big and it holds some of my best memories. And finally I thank myself for my initial brave choice and my perseverance in the process to get to the final result.

Finally, I would like to express my gratitude to all of the above, and to many other great friends in my life, for all this preciousness. I hope I will have the opportunity to come back again to Padova, my favorite city, in the future.

Abstract

This thesis discusses the conservation and sustainable development of cultural heritage tourism, focusing on how to achieve community participation and value addition in China. We take the World Heritage Site of Dunhuang as the target of the study and compare it to different natural and cultural World Heritage sites in Italy. Many past studies have presupposed the same cultural context with little regard for cultural contextual differences, resulting in theories which are valuable but that are problematic to transmit across cultures, presenting difficulties such as the potential for translation of specialized vocabulary to cause misunderstanding in different cultural contexts. Through a comparison with Italy, this thesis analyzes the characteristics of heritage conservation and tourism development in China within the Chinese political and cultural context, and elaborates on the valorization of local community participation. The aim of this study is to provide a theoretical basis for cultural tourism and community participation in China, and to be a reference for other cases of the same type.

Key words: Dunhuang, Heritage management, Involvement, Residence, Sustainable tourism, empowerment.

Contents

Introduction

    The differences between Chinese and Western cultures and cultural practices influence every aspect of people's lives and make people in the East and West think in different ways, thus creating a myriad of communities with unique cultural characteristics. Differences between Eastern and Western societies are due in large part to differences in cultural backgrounds, which lead to differences in ways of thinking and the construction of different social cultures.

    China is one of the world's oldest civilizations, with a history spanning 5,000 years. Cultural heritage carries the cultural genes of a nation and reflects its spiritual characteristics (Zhang, 2020). China is rich in historical and cultural cities that have witnessed the trajectory of the country's history, and the pace of history has left an irreplaceable mark on these historic cities. Some of these historical and cultural cities were important places of power in ancient times, some were important towns for trade and commerce at the time, some are famous for their local heritage of iconic historical buildings, and some have been renowned down to the present day for their local handicrafts. Such historical capitals, which are historical artifacts, are the most direct way to get a better glimpse of the traces and veins of history. For example, Xi'an, with the tomb of Qin Shi Huang, gives people a sense of the ancient dynasty's feelings and attitudes towards life and death; Datong, with its Yingxian wooden pagoda, gives people a sense of the ingenuity and superb craftsmanship of ancient wooden architecture; the Forbidden City shows visitors the grandeur of the Ming and Qing dynasties; the Great Wall makes people aware of the magnificent defensive works of ancient times; The Temple of Heaven gives visitors an insight into the importance that ancient people attached to faith as a means of praying for good weather and rain; and sites such as the Mogao Grottoes contain a wealth of Buddhist treasures that give people a taste of the transcendent charm of religious art.

    A large number of cultural heritage sites record stories of human history that allow people to look at the future and better grasp the direction of the future. All things will inevitably disappear, but with the advancement of science and technology and the accumulation of knowledge in human society, we have a better understanding of the material characteristics of cultural heritage and more methods to protect them, so the speed of the loss of precious cultural heritage can be slowed down. In the protection of culture, "utilization" is also another means of protection. Shan Jixiang, the

former curator of the Palace Museum, believes that when cultural heritage is presented to the world in a better form, it will expand its vitality. Protection is not just remaining buried in the ground. Tourism is an important way to develop and promote cultural heritage. It is also an important driving force for the economy and industry of cultural heritage sites. The relationship between tourism and cultural heritage is mutual. Tourism is culture's external flesh and skin; culture is the skeleton and spine of tourism. Cultural attractions play an important role in tourism at all levels, from the global highlights of world culture to attractions that underpin local identities (Richards, 2001c).

The preservation of cultural heritage is not only valuable for the transmission of national culture, but also has many functions in modern society. In addition to strengthening collective social identity, heritage has become a tool for leaders to govern and plan for China, and a way to demonstrate soft power to outsiders (Zhu and Maags, 2020; Xie, 2013). There are many studies on cultural heritage conservation, and many people mention the phenomenon that in China it is easy to pay importance to the declaration of heritage projects but not to their subsequent conservation (Silverman and Blumenfield, 2013; Liu, 2013). However, due to the deep-rooted concept of *Po Jiu Li Xin* 破旧立新 (destroy the old to make way for the new) in China for thousands of years, China's cultural heritage has not only been insufficiently protected, but this concept has also contributed to its destruction to a certain extent (Ashton, 2013). Despite the success of the Communist revolution in transforming state and society, the relationship of the new order to the traditional historico-cultural legacy remains uncertain and deeply ambiguous (Sofield and Li, 1998). Tourism management in Asian countries has received a lot of attention from researchers, analyzing on the one hand how to develop, and on the other hand often referring to the special regimes of developing countries (Shepherdv and Yu, 2013). In particular, the separation of ownership, management and administration of heritage leads to conflicts between different powers and constrains the development of cultural heritage (Lu, 2002; Xu *et al.*, 2003; Xie, 2013). Researchers discuss in detail the development of cultural heritage in China through a number of examples (Xu *et al.*, 2003; Su, 2013; Peters, 2013; Sigley, 2013a; Nitzky, 2013a; Fan, 2003; Zhu and Li, 2013; Silverman and Blumenfield, 2013).

The relationship between cultural heritage and tourism has been highlighted by researcher (Bourdeau *et al.*, 2016). One notable reason is that tourism is considered to be an effective way of transmitting culture (Richards *et al.*, 2001). The study of cultural heritage or tourism, especially when it comes to Eastern cases, is more concerned with the authenticity of cultural heritage (Wang, 1999; Reisinger and Steiner, 2006a; Bryce *et al.*, 2015; Sofield and Li, 1998; Richards *et al.*, 2001). (Zhou *et al.*, 2013b) analyze the difference between authenticity in Eastern and Western civilizations by rethinking traditional Chinese culture.

Tourism is an important way to export culture, yet excessive tourism can also have a negative impact on heritage and local areas (Melotti, 2018). The tourism section of this study discusses the

tourism of European World Heritage cities (Richards, 2001a) and tourism in developing countries (Tosun, 2001). Specifically, we study the conservation and management of Dunhuang (Demas *et al.*, 2015), as well as tourism development (Feng *et al.*, 2014; Wang *et al.*, 2019a), in the context of Chinese tourism. Dunhuang is a cultural heritage site with great tourism potential in northwest China, and it has received significant official policy support in recent years with the goal of becoming a modern cultural tourism destination. The negative impact of Dunhuang's rapid tourism development has been an increase in tensions between tourism and local communities, so the final section of this study will focus on community engagement and valorization in China.

We review the development of community-based participatory tourism (Vettorazzo *et al.*, 2009; Pawson *et al.*, 2018; Tosun, 2000a) and the current status of community-based participatory tourism in developing countries (Tosun, 2001; Isaksson and Kotsadam, 2018). Then we introduce the concept of empowerment for the valorization (Scheyvens, 1999; Nitzky, 2013b; Tosun, 2001) of community participation (Zuo, 2000) in China. The theory of community participation and empowerment is based on the democratic institutions of developed Western countries (Tosun, 2000a), and therefore is hardly applicable to Chinese communities that lack the basic rights that underpin participation (Zuo and Bao, 2013; Sun and Bao, 2006). This study argues that community participatory tourism is a necessary condition for sustainable tourism development in heritage sites, which is based on fundamental rights such as land ownership. Therefore, community empowerment is the basic support for participatory tourism development in order to achieve community valorization and sustainable tourism.

This thesis discusses the conservation and sustainable development of cultural heritage tourism, focusing on how to achieve community participation and value addition in China. We take Dunhuang as the target of our study and compare it to the famous cultural heritage sites in Italy. Many past studies have presupposed the same cultural context with little regard for cultural contextual differences, resulting in theories which are valuable but that are problematic to transmit across cultures, presenting difficulties such as the potential for translation of specialized vocabulary to cause misunderstanding in different cultural contexts. Through a comparison with Italy, this thesis analyzes the characteristics of heritage conservation and tourism development in China within the Chinese political and cultural context, and elaborates on the valorization of local community participation. The aim of this study is to provide a theoretical basis for cultural tourism and community participation in China, and to be a reference for other cases of the same type.

Main research methods: survey; literature review; cross-subject research; qualitative analysis. This study first provides a literature review to systematically investigate the current status and history of the study topic. It brings together cross-subject research on major theoretical concepts from heritage conservation, sustainable tourism development and local community involvement to frame a novel multi-dimensional enquiry, in order to explore the necessity and feasibility of

community participation in promoting heritage conservation and sustainable tourism development. Furthermore, this study uses the survey method, which is most commonly used in scientific research, to obtain a variety of actual data through conversations with local people, questionnaires, and case studies. By these methods, we uncover the real life of the communities concerned and the real state of the interviewees. Finally, this study deals with the acquired data through qualitative analysis, to analyze the impact of community involvement on heritage conservation and sustainable tourism development, enhancing the persuasiveness of the findings.

Chapter 1.   International and national context

1.1   The definition of cultural heritage

This chapter mainly studies the management system and status quo of heritage protection in China, comparing it with the situation in Italy. Although China has developed rapidly in almost all aspects in recent years, its policies, laws and regulations have not yet been well-developed in these fields, because the lack of experience and practice in organization and management. This chapter attempts to analyze the reasons for the current situation and to put forward more practical and effective suggestions to accelerate the transformation of the management of China's rich cultural heritage. The change and development of the concept of heritage in China from ancient to modern times has shown an increasingly inclusive trend. The chapter summarizes the history of heritage protection, explains modern policies, analyzes the differences in heritage management systems between the two countries (Italy and China), and presents some examples, in order to analyze the advantages and challenges faced by heritage protection, and put forward reasonable suggestions.

1.1.1   *The definition of cultural heritage*

Cultural heritage includes artifacts, monuments, a group of buildings and sites, and museums that have a diversity of values including symbolic, historic, artistic, aesthetic, ethnological or anthropological, scientific and social (UNESCO, 2009). It includes tangible heritage (movable, immobile and underwater) and intangible cultural heritage (ICH) embedded in cultural, and natural heritage artifacts, sites or monuments. The definition covers industrial heritage and cave paintings but excludes ICH-related other cultural domains such as festivals, celebration etc.

The Athens Charter (1931) for the first time took into consideration the conservation of artistic and archaeological heritage, although without defining it (Vecco, 2010). The Charter was based on Le Corbusier's work Ville Radieuse, which had a profound impact on urban planning after World War II.

The 1954 Convention for the Protection of Cultural Property in the Event of Armed Conflict of UNESCO (henceforth the "Hague Convention") is the earliest modern international text that

mentions a superordinate concept of cultural heritage. It was developed in great part in response to the destruction and looting of monuments and works of art during the Second World War (Blake, 2000). This universal convention aims to protect cultural heritage threatened by war, stating that any loss of cultural property belonging to any people is a loss of the cultural heritage of humanity as a whole (Vecco, 2010).

The first text that gives a clear definition of heritage is the International Charter of Venice (1964) (Vecco, 2010). The Charter defines the concept of historic heritage buildings and calls for the use of all science and technology in the conservation and restoration of heritage buildings. It emphasizes that restoration is a highly specialized technique that must respect the original materials and documents without the slightest conjecture.

UNESCO signed the Convention for the Protection of the World, Cultural and Natural Heritage in 1972, and its most notable feature is that it links the concepts of nature conservation and cultural property protection. It considers the following as cultural heritage:

- Monuments: architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science;

- Groups of buildings: groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science;

- Sites: works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view.

Another important charter is the Charter for the Preservation of Historic Cities (ICOMOS, 1987), which states the necessity of preserving historic cities, and it recognizes both tangible and intangible values as objects of preservation.

With the rise of worldwide heritage conservation, the distinction between Chinese and Western cultural heritage forms made it difficult for the original 1964 Venice Charter to cover all the different types of heritage from different cultural regions. In order to amend the charter and to define the value and authenticity of cultural heritage, the Nara Document on Authenticity was drafted at the International Conference held in Nara in November 1994. The document not only provided a broader technical framework for authenticity analysis, but also clarified many long-standing debates about authenticity (Vecco, 2010; Larsen, 2018).

The World Heritage Regime was established to protect natural and cultural monuments and sites of outstanding, universal value. However, it is now often questioned for political reasons.

On the one hand, the heritage politics are constantly intertwined with recognition politics. On the other hand, the World Heritage Regime is indeed largely European in origin and content, so it cannot escape Western frameworks. In fact, World Heritage represents only a tiny part of global heritage, it is indeed the tip of an iceberg (Willems, 2013).

The concept of heritage grows out of eighteenth and nineteenth century anxieties over changing ways of life (Ashton, 2013). Heritage, "the 'buzz' word of the 1990s", is regarded as one of the most significant and fastest growing components of tourism. It is referred to as something which needs to be managed and marketed differently (Poria *et al.*, 2003). Sun Jiazheng, former minister of the Chinese Ministry of Culture, delivered a speech at the opening ceremony of the "China Intangible Cultural Heritage Protection Achievement Exhibition" in 2006: "When the dust of history has settled and everything is silent, only culture remains in the form of tangible and intangible heritage, it is not only the historical evidence that a nation has identified itself, but also the foundation and source of strength for the nation to move forward with confidence into the future." China has a 5000 year history of civilization across many dynasties (Zhou, 2013). The fact that cultural property is to be conserved not merely in order to admire it but also to foster its active enjoyment as a means for cultural elevation marked a significant transition from the static conception to the dynamic conception of cultural property. (Littrell, 1997) argues that culture can be viewed as comprising what people think (attitudes, beliefs, ideas and values), what people do (normative behaviour patterns, or ways of life) and what people make (artworks, artifacts, cultural products). Culture is therefore composed of processes (the ideas and way of life of people) and the products of those processes (buildings, artifacts, art, customs, 'atmosphere') (Richards, 2001a).

Currently, high technology and the pursuit of a convenient lifestyle shape ideas of progress and improvement in people's lives. It is important to look at the history that has shaped this and to preserve the culture that has been handed down to us. Based on an adequate awareness and understanding of history, it is possible to make more precise judgements about future trends. This is one of the main reasons why it is important to learn about cultural heritage, to understand it and to join in its preservation. The famous scholar Wu Liangyong once said that the cultural revival of every nation begins by summarizing its own heritage.

The concept of cultural heritage has evolved over time to become more specific and more compatible with different cultural contexts, and the leap from tangible to intangible cultural heritage is of historical significance. The Nara document's interpretation of authenticity highlights the compatibility of cultural heritage with different cultures.

The affirmation of new types of heritage highlights how heritage is a concept that cannot be defined in a single cultural context. It must be enriched with approaches and concepts of heritage that differ from those conventionally recognised in Europe (Vecco, 2010).

In conclusion, we introduce the evolution of the concept of cultural heritage in chronological

order. Furthermore, we revisit the development of China's cultural heritage.

1.1.2 *Concept of cultural heritage protection in ancient China*

One of the important values of cultural heritage is to provide people with access to the history it encapsulates. We introduce historical laws on heritage and protection, including the evolution of the term "heritage" in China, from "antiques" to "cultural relics" and finally to cultural heritage. These changes reflect the evolution of the concept of heritage, which gradually deepens and widens.

Ancient Chinese thinkers separated heritage into tangible wares (器, Qi) and the intangible *tao* (道, Dao). Seeking to highlight the intangible *tao*, Laozi (6th Century BC) stated, "Hence, the being (substance) provides a condition under which usefulness is found, but the nothingness (space) is the usefulness itself". This idea likely has to do with thoughts on life and death (Zhu, 2012).

The concept of "heritage conservation" has been proposed for a long time. Regarding "protection" regulations and laws, China has a very long history of cultural heritage protection. It can be traced back to the Zhou Dynasty (1046 BC – 256 BC). In *Zuo Zhuan* 左传 (an ancient book that records the Chinese history of several states during the Spring and Autumn Period), it is recorded that Zhou Gong stipulated that "to destroy is a thief, to hide a thief, to steal a bribe is to steal, a thief is a traitor, and the owner is to hide it. The name, the use of traitors, is a great evil, and there is always no pardon" (Zuo, 2000). That is, the misappropriation of national treasures, like other major crimes, cannot be pardoned. In ancient China, there was an idiom "ten evils are not forgiven", which means that there are ten bad behaviors that cannot be forgiven. One of the extremely bad behaviors is called "great rebellion" (Ban, 2021), referring to the Han Dynasty (202 BC – 220 AD), and the destruction of the imperial ancestral temple tombs and palaces as unreasonable and unforgivable. However, the ancient meaning of "protection" recorded in early times and the protection now advocated is quite different. Protection in ancient times refered more to the protection of the property and palaces of the royal family and nobles. Against the background of ancient centralized authoritarian rule, protection was equivalent to the current concept of inviolability of personal property, and the objects to be protected were all privately owned by the royal family. During periods of dynastic change in the history of China, most of the new monarchs destroyed the buildings of the previous monarchs, and immediately erected buildings that represented the culture of the time and belonged to their dynasty, to demonstrate the uniqueness of their rights. This began when Xiang Yu burned down the Xianyang palace in the last years of the Qin Dynasty (221 BC – 207 BC), and the demolition of the former royal buildings became a symbol of dynastic change. This is one of the reasons why China has thousands of years of history but not much material legacy. The palaces built by the Ming and Qing dynasties are the most valuable to still survive, because when the Manchus finally seized power they were full of awe at the Han palaces, having a history of nomadism without fixed residences and palaces.

Therefore, the Manchu rulers of the Qing Dynasty retained the buildings of the previous dynasty. This is one of the reasons why the Forbidden City has been well preserved to this day.

Tang Lv Shu Yi 唐律疏义 refers to the law written by Emperor Gaozong Yonghui in the third year (652) of the Tang Dynasty. Article 447 stipulates: "Those who obtain possessions in other people's land, hide them without giving them away, add up to the points of returning the owner, and subtract three from the stolen goods. If the ancient artifacts are of different shapes and not sent to officials, the crime is the same". This is the ancient criminal law that specifically punishes the discoverer for taking discovered cultural relics (tangible cultural heritage) as his own. In ancient China, there were long-standing laws that divided the ownership of cultural relics very clearly. For example, the law clearly stipulated: "Everyone who obtains possessions in the official land will enter and obtain people; those who obtain privately from others will be divided from the landlord. If the ancient artifacts have different shapes, they will be sent to the official for remuneration." This means that the ownership of the discovered cultural relics is handled according to land and artifacts in three situations: buried objects found on state-owned land belong to the discoverer; buried objects found on private land belong to the owner of the land; ancient precious cultural relics are all sent to the government, but the government has to pay remuneration. Although this kind of regulation has a certain significance for the protection of cultural relics objectively, its legislative purpose is mainly to maintain the state's exclusive right to important cultural relics and the authority of the emperor, rather than to protect the safety and survival of the cultural heritage itself. It can, however, be seen as an early form of cultural heritage, a way that is could be specially protected.

In the middle of the Northern Song Dynasty (11th century), the study of epigraphy, namely metal and stone carvings, emerged, and these objects were all called "ancient artifacts" or "ancient artifacts".

At the end of the Qing Dynasty and the beginning of the Ming Dynasty (17th century), the name "antique" or "gudong" was more used.

During the Qianlong period in the 18th century, "antiques" were used to name such artifacts and cultural relics, but generally did not include calligraphy, calligraphy, and rubbings.

During the Republic of China (1930), the National Government promulgated the "Antiquities Protection Law" with clear regulations: "cultural relics" referred to all antiquities related to archaeology, history, paleontology and other cultures. The concept and content of antiquities became broader than in the past.

By 1935, the Beiping government edited and published the "Stories of the Old Capital". At that time, the "cultural relics" already included immovable cultural relics and ancient buildings. Later, the State Administration of Cultural Heritage designated it as "Immovable cultural relic" (Immovable cultural relic).

From ancient artifacts to antiquities to cultural relics, and from cultural relics to cultural heritage, is not just a change of nouns (names, concepts, expressions), nor a simple "replacement" of the former by the latter. It reflects the advancement of the vision of those working with cultural relics, their concepts and sense of responsibility, and reflects the continuous development of the entire field of cultural relics in terms of breadth, depth and scientific approach; "cultural heritage" was born with the reform and opening up, the concept gaining a "deeper meaning and richer level"(Ruan, 2010).

Cultural tradition is, thus, a political tool and is much about those in positions of power telling stories about the past and present, so it is not surprising that "what is considered 'heritage' is continually subject to interpretation and reinterpretation, claim and counter claim, and negotiation"(Harrison and Hitchcock, 2005).

1.1.3 *Concept of cultural heritage protection in modern China*

In China, the concept of cultural heritage is often expressed as "cultural relics". To understand Chinese heritage culture, it is necessary to interpret the concept of "cultural relics". It reflects the history and current situation of Chinese heritage. Due to historical reasons and building materials, there are not many ancient buildings left. Ancient tomb culture has allowed a large number of ancient Chinese utensils, jewelry, clothing and other items to be preserved. Therefore, Chinese heritage protection has focused on the protection of individual objects, and protection of regions has always received less attention. The interpretation of the concept of heritage by famous scholars in the field of modern Chinese heritage protection can assist the understanding of the current status of Chinese heritage protection.

To study the concept of cultural heritage in China, we have to understand the term "cultural relics" in the Chinese context. The explanation in the *Modern Chinese Dictionary* is: "Things left over from history that are valuable in the history of cultural development, such as buildings, inscriptions, tools, weapons, living utensils and various works of art." Cultural relics are historical and cultural carriers, tangible cultural heritage, or materialized historical culture. Cultural relics are a part of the historical and cultural heritage of a country and nation (Xie, 2013). and cultural heritage and cultural relics are related to each other, but they are two different concepts. They should not be confused with each other or replace each other, and are different in connotation (Sain, 2003), although cultural relics make up the essence and core of cultural heritage (Ruan, 2010).

The historical definition of the concept of "cultural relics" can be equated with tangible cultural heritage, although in different historical dynasties, the names of "cultural relics" were different. Not all cultural heritage can be included in the concept of "cultural relics". Although cultural relics are the core of cultural heritage, "cultural heritage" is a broader concept, incorporating "cultural relics" but not identical.

Shan Jixiang (former dean of the Palace Museum and president of the Chinese Society of Cultural Relics) introduced the difference between the terms "cultural relics" and "cultural heritage": he considered cultural relics to be the essence of cultural heritage. It can be demonstrated by the example of a cultural element such as Mount Tai. The cliff stone carvings are included in the scope of "cultural relic" protection. However, when the world heritage listing was declared, the cliff stone carvings and the mountains behind were considered inseparable. The text on the cliff stone carvings records a culture, but the culture is inseparable from the entire Mount Tai, so the entire Mount Tai is declared part of a "cultural and natural heritage". In Shan Jixiang's view, the work of cultural relic protection should not only focus on the protection of the past, but also focus on cultural heritage. He explains that the protection of cultural relics in the past aimed at conserving static objects, ancient tombs, ancient grottoes or ruins, such as the Great Wall of China. These have often lost their original functions and their functions in the current society, and are rather objects to be viewed and studied. But current protection work also includes those producing and living in the area. In recent years, China has not only focused on the protection of a specific cultural relic but has developed into a region for the protection of the entire cultural heritage, and the concept of regions has been strengthened. In 2005, the 15th ICOMOS Conference was held in Xi'an and the "Xi'an Declaration" was discussed and passed. In 2007, the "Beijing Declaration" was put forward in a national seminar organized by multiple departments. In the transition from cultural protection to cultural heritage protection, the scope of protection is no longer limited to the cultural relic itself, but extends to the environment in which it is located.

Noting that the protection of cultural heritage is not only restricted to a certain item, Shan Jixiang believes that cultural heritage including cultural relics needs to be protected regionally; it is not only for the protection of the past and history, but also for the protection of the whole humanistic production environment, also paying attention to the protection of the relationships between regions, that is, the protection of cultural exchange lines, etc.; and finally, protection of contemporary culture also deserves attention. In sum,

- Cultural heritage needs to be protected as a whole;

- Production and living areas need to be protected;

- Cultural exchange lines need to be protected;

- Contemporary history and culture need to be protected.

The concept of contemporary heritage protection is quite significant. The protection of cultural heritage should not be limited in time. Not all historical relics are heritage, nor can the value of heritage be determined based on a length of time. The cultural heritage of buildings built in the late 19th and 20th centuries is known as Modern Heritage. A typical example is the Sagrada

Familia in Barcelona, Spain. It was designed by Antoni Gaudi and has been selected as a World Heritage Site, even though it is not yet completed. Together with his other architectural works, this represents the extraordinary architecture and building techniques of the late 19th and early 20th centuries. Gardens, sculpture, and decorative arts were given free rein in the design of the building (UNESCO).

In short, cultural heritage that characterises and identifies a community should be safeguarded, conserved and enhanced in order to enable such items to be enjoyed; but also cultural activities should be promoted in order to encourage the development and dissemination of new traditions that are currently being developed and which in the future may be incorporated within cultural heritage. There are also similar modern cases in China. For example, some physical remains that mark the aerospace technology of this era are also listed as cultural relics for protection and collection, while recently the government has begun to invest a lot of funds to protect "red" heritage, all of which focuses on contemporary heritage.

Such novelties thus constitute the cultural expressions of today, which need to become sedimented and to build up a humus so that tomorrow they may, in turn, perhaps become part of the heritage that characterises and identifies a community. To discuss the 'construction' of cultural identity or the 'invention' of tradition is "to emphasize that culture is a dynamic product of human consciousness and is constantly being reformulated in the contemporary context" (Grünewald, 2002). The extent to which heritage is at risk of disappearing cannot be completely determined by its age. For example, the life of textiles is short, and so textiles are more likely to disappear, and more quickly, than bronzes. Judging the rarity of cultural heritage cannot be based solely on length of time.

In the context of the development of China's cultural heritage protection work, a trend can be summarized, from the protection of a single cultural relic to the protection of an area, and then to a linking of related areas to become a large-scale protection area. Only by protecting the past and remembering the present can we continue our history.

1.2   Cultural heritage protection in China

1.2.1   *The development process of cultural heritage protection*

This section explores the influence of dynastic change in ancient China on cultural heritage. In feudal society, the emperor, as the supreme ruler, was honored with supreme power. All the world was considered to belong to the king's, meaning that all land and natural resources belonged to the emperor. Generally speaking, all historical buildings are also privately owned by the emperor. Whenever dynasties changed, most of the buildings left over from the previous dynasties faced the fate of being completely destroyed, and this phenomenon gradually became a tradition, which

still exists until modern times, becoming one of the main reasons for the large-scale man-made destruction of historical buildings. Such traditions should not continue to exist in current civilized society. We need to arouse the awareness of the value and protection of cultural heritage in order to avoid continued man-made destruction.

Contradictions remain between the differing objectives of the forces of socialism, modernization, globalization and traditional culture as the Chinese economy has developed since 2000. There are also conflicts between social change and development and cultural heritage protection. In the limited space of human activities, not all historical legacy is worthy of permanent preservation, and it is impossible for everything to be preserved forever, but often valuable heritage has already been filtered by time.

In the vast territory of China, many dynasties succeeded each other. In the past, the leaders of each dynasty were keen to build magnificent buildings to show the prosperous age under their rule. The change of dynasties in Chinese history was an era of disaster for cultural relics (Wang *et al.*, 2020a). In the history of China, there are many processes of unifying "Tianxia" (the land within China). Its basic territory and a Chinese political unit was formed by Qin Shi Huang (259 BC – 210 BC) and its borders determined by the military exploits of Emperor Wu of the Han Dynasty (156 BC – 87 BC). Under Emperor Li Shimin (598 – 649) of Tang Dynasty, the nation gained international status and economic and cultural achievements. The emperor Genghis Khan (1162 – 1227) fought around Eurasia and established the largest empire in Chinese history. Kangxi (1662 – 1722) was the emperor with the longest reign and established the territory of a unified multi-ethnic nation in China. In Chinese history, there were usually two ways to obtain absolute power. One was inheritance of the regime passed down by one's own family, and the other was war and contending for power, but in either case emperors made great efforts to show the prosperous age of their rule by a building boom.

In China's history, almost all dynasties adopted centralized authoritarianism. They absolutely obeyed the emperor's will and even named the dynasties with the emperor's surname. Once the dynasty was overthrown, the new successor would often destroy the buildings left by the old ruler and create new symbols for the new dynasty in order to consolidate his authority. These measures were referred as "dilapidating the old and establishing the new", which meant that all the old were completely eliminated. A primary cornerstone of the ideology propounded by the CCP since its inception in 1921 concerned the need to reject the cultural past as a whole and its replacement with a new Chinese socialist culture. Under this policy, massive destruction of China's rich and varied built heritage occurred and there were sustained attacks on its cultural (living) heritage (Sofield and Li, 1998). The deeply rooted approach of "destroy the old to make way for the new"(Po Jiu Li Xin) in China (Sigley, 2013b), has thus taken on new meaning since the expansion of the heritage industry in the early 1990s (Ashton, 2013).

This is one of the important reasons why only a few ancient Chinese buildings remain, apart from the fact that most buildings were wooden, and wood is difficult to preserve over a long time. The change of dynasties often led to the destruction of old buildings and the production of new ones, and this idea was surprisingly enduring into modern times. In the early days of the founding of the People's Republic of China, there was even a dispute about "whether the Forbidden City should be destroyed". On October 13, 1958, the Party Group of the Beijing Municipal Bureau of Culture put forward the "Request for Instructions on the Revolutionary Reconstruction of the Palace Museum". The report was approved in January of the following year. The proposal was to keep the main building, gardening more than 70% of the area, etc. It was strongly opposed by Lu Dingyi (the head of the Propaganda Department of the Central Committee of the Communist Party of China in 1945). In the end, the Forbidden City was retained and it became a cultural icon of Chinese society.

This differentiates the Chinese tradition. Although Confucianism reveres the old and honors the historian, it does not draw a sharp distinction or make a clear value judgment between the old and the new (Harrell, 2013). The interaction of man-made forces, natural force majeure, and the background of certain cultural traditions, make it difficult for many buildings to maintain their original appearance and survive into future generations.

Although this kind of overthrowing old things and building new things seems to have become a habitual choice in the history of the Chinese nation, there is no lack of awareness of heritage protection within eastern scholarship. Many researchers are very concerned about the protection of the heritage of this nation, and several have divided the destruction and movements for protection of Chinese heritage into several chronological stages.

The famous modern writer Wu Shu wrote a trilogy about Chinese cultural relics. Among them, the book *Who Is Auctioning China* was published again in 2014. The book divided the large-scale destruction and loss of Chinese cultural relics into 4 stages.

- The first stage was from 1860 to 1900, when many cultural relics and cultural relics of China were looted due to warfare. Most of the Qing Palace items put up for auction in the past and still today are cultural relics that were looted during the two catastrophes of Yuanmingyuan.

- The second stage was from the Second World War to the founding of the People's Republic of China (1949), mainly due to Western powers, Japan, Russia and other countries.

- The third stage was the "the Great Proletarian Cultural Revolution" launched in 1966, referred to hereafter as the Cultural Revolution.

- The fourth stage began in about 1980 and has not yet ended, consisting of the illegal acquisition of cultural relics induced by the market economy, such as tomb robbery, stealing, theft, etc. The most serious destruction has been in the past 20 years.

Although this is not an academic book, it exposes the status quo of Chinese cultural relics. The situation of ethnic cultural logistics and international auction houses is thought-provoking, and it also allows more non-professionals to understand the development of cultural heritage.

Some researchers have divided the development of cultural heritage protection into several stages, for example (Zhu, 2012) identifies four stages:

- The first stage, from 1929 to 1949, was a rudimentary and exploratory period.

- The second stage, from 1950 to 1978, was a period of practice, when the first national law was promulgated.

- The third stage, from 1979 to 1999, was a period of open exchange.

- The fourth stage, from 2000 to present, is a period of multi-mode integration.

This method of summarizing each stage of Chinese cultural development is based on the state of social development, politics and economy at each time. Cultural development cannot be separated from economy and politics. From 1929 to 1949, China experienced a period of internal and external troubles. The entire social management system was beginning to take shape, and the protection of cultural heritage was only the starting point. From 1950 to 1978, at the early stage of the founding of the People's Republic of China, new rules were just established for all walks of life in society, as well as industry norms and laws. During this period, the government also issued the first national law on heritage protection. During this period, China experienced the Cultural Revolution (discussed in detail below). The period from 1979 to 1999 saw 20 years of reform and China's opening up. The economy developed rapidly and the relationship with the outside world was very close. Since 2000, China has witnessed an economic boom, and it has also become aligned with international standards in many fields, including cultural integration and export.

Another viewpoint (Luo and Zhou, 2003)divides Chinese heritage management into three periods and three kinds of philosophy:

- The first stage was the traditional management period: before the reform and opening up, management institutions and management mechanisms were established, with passive protection as the mainstay, in a relatively closed state.

- The second stage was the period of institutional transformation: since the reform and opening up, management problems have become prominent and have inevitably been involved in the wave of marketization.

- The third stage is the modern management period: Western modern heritage management can be regarded as the goal of China's future development and the orientation of institutional innovation.

In this way, the state of cultural heritage management in modern China is divided into the past, present, and future in a more macroscopic way, based on the process of cultural development itself. Reform and opening up was a watershed period for China, since it was previously a relatively closed society. After the reform and opening up, with the marketization of the economy, rapid economic development, and the diversification of economic activities, the resulting economic and international status have developed at a rapid rate. However, management structures have not evolved with economic development, and progress and changes have conformed to a single old management model. Industry management regulations are still in a stage that requires improvement. The current European cultural heritage management model is considered by Jiaming Luo as a goal for China's future development. In the ever-changing China, rapid development has caused people to ignore the importance of protecting history, leading to the loss of a large number of ancient monuments. We can only regret the heritage which has been forgotten in the pace of development. During the same period, by contrast, Italy has been able to retain many buildings from hundreds of years ago. Although it also endured war, people consciously protected their cultural heritage, particularly that of the Roman period. European cultural protection has formed a mature and stable system, which is worth learning from, but cannot simply be copied. Because of China's own national conditions and the issue of heritage ownership, such a goal may not be easy to achieve.

Overall, regardless of questions concerning ownership, cultural property is, by definition, an element of public interest, serving the public collective community. Privately owned cultural property must thus also be protected. The European model of cultural heritage management is more in line with the protection and management of part of China's movable cultural heritage. In particular, the digital construction project of cultural heritage information framework is worth studying.

From 1929 to 1949, although China was still experiencing a state of revolution and the War of Resistance against Japan, although diverse and open cultural pursuits were not neglected by artists, writers, educators, due to the political turmoil and unclear government policy many cultural relics were been stolen and a large number left China. However, in 1935, the Beiping Municipal Government edited and published the "Outline of Cultural Relics of the Old Capital". In the same year, the "Beijing Cultural Relics Organization Committee" was established to study and repair ancient buildings. The concept of "cultural relics" here included immovable cultural relics. In 1949, it was renamed "Beijing Cultural Relics Management Committee" following the establishment of the People's Republic of China on October 1, 1949.

This was the first professional organization for the protection of cultural relics to be sponsored and managed by the central government in the People's Republic of China. In 1973, it was renamed the "Institute of Science and Technology for Cultural Relics Conservation". In 1990, it merged with the Research Office of Ancient Documents of the Ministry of Culture to form the Institute of

Cultural Relics of China. In August 2007, it was renamed the China Cultural Heritage Research Institute.

In November 1961, the State Council of the Chinese Government promulgated the "Interim Regulations on the Management of Cultural Relics Protection", which was China's first national-level cultural relics protection law. Article 4 of the "Interim Regulations on the Administration of Cultural Relics Protection states: "Cultural administrative departments at all levels must conduct regular cultural relic surveys, and should successively select important revolutionary sites, memorial buildings, ancient buildings, cave temples, stone carvings, ancient cultural sites, ancient tombs, etc., according to their value, shall be determined as a county (city)-level cultural relics protection unit or a province (autonomous region, municipality)-level cultural relics protection unit according to the following procedures". It is worth noting that the hierarchical management model is one of the main management models in China, with a step by step progression from large to small, from important to secondary. The protection of cultural heritage follows this management relationship and is not only used in heritage protection. In tourism management, a regional hierarchical management model is also adopted. The content of the tourism management model will be introduced in detail in Chapter 2.

Every year the State Council releases a report on the development of China's cultural heritage. This series of annual reports is called the blue book. It summarizes and reviews the future of China's cultural heritage and is a guide for cultural workers. At present, there are a series of regulations on the protection of cultural heritage, such as the *Cultural Relics Protection Law of the People's Republic of China*, *Opinions on Strengthening the Protection of my Country's Intangible Cultural Heritage*, and *Notice on Strengthening the Protection of Cultural Heritage*.

In 1980, a national cultural heritage survey was registered. Due to the incomplete records of cultural heritage protection in Chinese history, and their long time span, the scope of this research is mainly limited to the cultural heritage protection policies and measures after the founding of the People's Republic of China.

1.2.2 *Challenges faced by cultural heritage during the Cultural Revolution*

This section discusses a particular historical period, seen as the darkest decade in the cultural field. During this period, all things "old" were given the title of "dregs", and they were seen as objects to eliminate. A great purge of what was seen as feudal and superstitious culture also pulled "cultural relics" into this struggle. Due to the efforts of some cultural workers to protect them, however, many cultural relics avoided destruction. To learn to protect cultural heritage, it is important to understand the reasons for the destruction in order to treat the symptoms and address local problems. Therefore, it is also necessary to discuss the opposite of protection - i.e., destruction.

He Qiang's "What is the Protection of Cultural Relics?" divides Chinese cultural heritage into three periods of severe destruction lasting for more than a century.

The first period was one of prolonged wars and looting by foreign cultural relic dealers. Since this occurred before the founding of the People Republic of China, it is not within the scope of discussion, but it should nevertheless be noted that Dunhuang, the subject of this study, was also looted during the war (see chapter 3 Chinese cultural relics plundered by other countries before the founding of the People's Republic of China).

The second period saw the destruction of cultural heritage during the Cultural Revolution. Unfortunately, it is not easy to find complete information about the 10-year Cultural Revolution. It seems that people have habitually avoided mentioning the events of this period, which seems to have become somewhat of a taboo topic for the Chinese, but it is only by looking back at history and summing up experience that we can more accurately grasp a direction for the future. During the period of Mao Zedong, personal freedom and private property were not protected, let alone cultural heritage. This was a period of rapid economic development, progress towards modernization, and rejection of the old culture. Due to the intolerance towards the old culture and its products, unfortunately many cultural relics were damaged at that time. Throughout Xi'an, one of the most powerful and prosperous cities around 1,000 years ago, there were hundreds of Buddhist buildings. However, after destruction by the Red Guards there were very few left (Sofield and Li, 1998).

From 1950 to 1978, the early days of the People's Republic of China, was a period of post-war recovery. It was also a stage of establishing norms for all walks of life. In 1950, China carried out the first national cultural heritage survey and registered the first national law. But in 1966, the People's Republic of China embarked on a campaign to eradicate the "Four Olds" and literally smash remnants of bourgeois, counter-revolutionary thought, and substance in the Great Proletarian Cultural Revolution (Harrell, 2013).

The slogan of the "broken the four olds", meant to get rid of all old ideas, old culture, old customs, and old habits. In essence, this kind of thinking was similar to the change of dynasties in the past, in terms of the urge to destroy history, but this time the movement involved a wider area and a deeper degree of destruction. This revolutionary movement was the darkest decade for cultural heritage.

The old ideas refer to all the classical ideas of the past, including Confucius, Zhuangzi, Zhu Xi, and more recently Hu Shi, Liu Shaoqi, etc.; old culture refers to the past etiquette system, literature and art, etc.; old customs refers to food, clothing, housing, and festivals that have been passed down through history; old habits refer to long-term norms of behavior, etc.

The concept of "breaking the four olds" was almost a spiritual denial of all philosophical classics in history, and countless cultural relics were destroyed during this period. These included mausoleums, ancestral halls, residences of ancient celebrities, and the ruins of Yuanmingyuan that

had survived the war and artillery fire. Sculptures and classical art were all deliberately destroyed. In the later period, there were even incidents of snatching and occupying private property under the pretext of performing official duties. There is even now a list of destroyed cultural relics circulating on the internet (Xiao, 2008). Some claim that the list is full of errors and omissions, and it is difficult to find convincing proof of exactly what was destroyed.

In peaceful times, ancient monuments that carry historical memories are often the media to condense national strength and enhance a sense of ethnic identity. However, once social conflicts are planned, precious cultural heritage is called a symbol of oppression and is the object of resistance. Violent destruction becomes a direct outlet for public grievances.

This dark period did not last long. Although the Cultural Revolution lasted for 10 years, many cultural workers tried their best to discourage the destruction. On May 14 1967, the Central Committee of the Communist Party of China (CPC) issued the document "Several Opinions on the Protection of Cultural Relics Books in the Great Proletarian Cultural Revolution", requiring state powers everywhere to protect cultural relics. From this time on, although there was still some continuation of the same concepts and some unconscious sabotage, there were no more acts of pure sabotage. Further, another viewpoint is that the period of the Cultural Revolution was not just one of wanton destruction of cultural relics, but also of some major archaeological discoveries such as that of Changsha Mawangdui Fig. 1.1, the Yinqueshan bamboo slips, golden jade clothing and the Xi'an terracotta warriors, all achievements during the Cultural Revolution, discussed below.

The third period of Chinese cultural heritage destruction has been that of large-scale real estate development activities after the reform and opening up.

Figure 1.1: Mawangdui **T**-shaped painting on silk. https://zh.wikipedia.org/

1.2.3 *Archaeological discoveries during the Cultural Revolution*

The tradition of deep burial in China has allowed many fragile cultural relics to be preserved for thousands of years, in the absence of the kind of European collection tradition which has preserved many European artifacts and antiquities. The deeper the understanding of the significance of the protection of cultural heritage, the greater the protection, and the longer the life span of the heritage. This is also the reason why, although few historical buildings remain, a large number of cultural relics survive in museum collections.

As noted above, there was much destruction of cultural heritage by the Cultural Revolution, but during this period some important archaeological discoveries were also made, such as the famous gilt bronze human-shaped Fig. 1.2 lamp of the Han Dynasty (206 BC – 8th century AD). The figure is a maid holding a copper lamp of the time. The ingenious design allows the gas and dust burned in the lamp to be deposited in the maid's body through the maid's right arm and not to be scattered into the surrounding environment. The artifact, buried for around 2000 years, was discovered by archaeologist Bai Rongjin in 1968. It is now in the Hebei Provincial Museum and prohibited from leaving the country, a major discovery which provides evidence about ancient life.

During the construction of a project in Mancheng County, Hebei Province in 1968, a jade garment of gold thread named Jade Clothes Sewn with Gold Wire was discovered in Liu Sheng's ancient tomb Fig. 1.3, an example of the highest specification of funeral garment in the Han Dynasty. Thousands of jade pieces were woven together with gold, silver, and copper wires. The status of the wearer can be distinguished by the number of gold, silver, bronze and jade pieces. Gold thread is generally used by kings. In ancient China, jade was regarded as a noble ritual vessel and a status symbol. It was believed to be able to keep human corpses from decay. The excavation of jade garments with gold thread informs us about an-

Figure 1.2: Gilt Bronze Human-Shaped Lamp.
Source: http://collection.sina.com.cn/

cient social hierarchy and pursuit of immortality. At present, there are more than 20 pieces of gold jade garments found nationwide. At the time of the discovery of Jade Clothes Sewn with Gold Wire, the struggle between the two parties in China was very intense. According to Zheng Shaozong's memories, he traveled from Shijiazhuang to Manchuria. Although the road to the ancient tomb

Figure 1.3: Jade Clothes Sewn with Gold Wire, the highest standard of funeral mourning clothes in the Han Dynasty. Source: https://new.qq.com/

of the city was only 200 kilometers away, it was extremely difficult to travel and because the two parties at that time only allowed vehicles of their own faction to pass, the license plate had to be continually changed to avoid attack. Even though the central government had already issued an order to protect the cultural relics found, its execution was still very difficult during that chaotic period.

At the time of its discovery, there were still many carts, horsehead bone pottery tripods, wine jars, piles of pottery, etc. in the Han Dynasty tomb. Liu Sheng's jade suit with gold strands is now in the National Museum of China in Beijing. The repair of jade garments is a complicated and tedious project. The size and thickness of the jade pieces varies. Some are 3.5 cm long, 2.5 cm wide, and about 0.2 cm thick, but the shape and size of different parts of the body are also different. The length and width of some are only about 1 cm. The jade pieces were generally connected with gold wires of different thicknesses, threaded through the holes on the jade pieces as shown in Fig. 1.4.

A bronze running horse was unearthed in 1969, and is now in the Gansu Provincial Museum. The mausoleum of Qin Shi Huang Fig. 1.5, the first emperor of China, built between 246 BC and 208 BC, was discovered in 1974. It was assessed as a World Heritage Site in 1987 and is renowned as one of the greatest discoveries of the 20th century. The reign of Emperor Qin Shi Huang was highly significant, unifying writing, currency, weight measurement, digging canals, and building the Great Wall of China. The terracotta warriors and horses of Qin Shi

Figure 1.4: Detail view of Jade Clothes Sewn with Gold Wire.
Source: https://image.baidu.com/

Figure 1.5: Terracotta Warriors and Horses in the Mausoleum of Qin Shi Huang.
Source: https://pixabay.com/

Huang's mausoleum were based on real people, and they are sometimes called "a thousand people with a thousand faces". The excellent workmanship and the large number of pottery warriors and weapons are thought to have been produced by some kind of early mass production in molds, combined with hand-carved detailing (Glancey, 2017).

In the severe drought in Shanxi in 1974, local residents dug wells to collect water and accidentally discovered fragments of terracotta warriors and horses. The villagers said that the fragments of the terracotta warriors and horses were brightly colored at first, the colors preserved intact for more than two thousand years. This demonstrated that the tomb of Qin Shi Huang was previously undisturbed. When archaeologists excavated the figures, the color disappeared within a few minutes, leaving only the color of the oxidized clay that can now be seen. The tomb of Qin Shi Huang has not yet been fully excavated. Archaeologists believe that opening the tomb and exposure to the air would cause catastrophic and irreversible damage. According to the record of the mausoleum of Emperor Qin Shi Huang by the historian Sima Qian in the second century BC, a river filled with mercury surrounds the tomb, and crossbowmen guard the entrance and passage of the tomb. Modern detection technology also shows that the tomb is still full of extremely high concentrations of mercury, making it a place where robbers dared not approach.

Although a large number of cultural relics (tangible cultural heritage) were destroyed in the first year of the Cultural Revolution, the central leadership quickly took measures to avoid continued destruction and issued as order to protect cultural relics. This attracted attention to the protection of cultural heritage, and was followed by such archeological discoveries.

In February 1978, Deng Xiaoping protested at the Second Plenary Session of the Eleventh

Central Committee that some people in the literary, publishing, and cultural relic circles had become profit-oriented businessmen. Although the cultural undertakings of that time had attracted the attention of the top leadership, they could not contain the ambitions of businessmen who tried to use cultural heritage for their own benefit.

Despite the success of the Communist revolution in transforming state and society, the relationship of the new order to the traditional historical and cultural legacy remains uncertain and deeply ambiguous.

1.3 Management of cultural heritage in China

1.3.1 *The founder of Chinese cultural heritage protection*

This section introduces the status quo of contemporary Chinese heritage protection, and focuses on the founder of Chinese heritage protection – Xie Chensheng. It also briefly outlines the challenges that heritage work faces in an era dominated by economic development.

The watershed proposal for "reform and opening up" in December 1978 was led by Deng Xiaoping, the second-generation supreme leader of the People's Republic of China. It was a major turning point in the history of the development of the People's Republic of China and ended the economic and social closure of the 30 years since 1949.

The protection of cultural relics is as important as excavation. An important figure in the development of China's cultural relic protection was Xie Chensheng (known as a living history of cultural relics protection in China). He participated in the collection of cultural relics during the early days of the founding of the People's Republic of China and presided over the drafting of the first *Law on the Protection of Cultural Relics of the People's Republic of China*. On the occasion of the "distress" of cultural relics, he wrote a proposal to protect them, explaining that cultural relics were not included in the "four olds", and drafted an official document to protect cultural relics for the then central government. He pursued the protection of cultural relics for more than 60 years, experiencing the years of the Anti-Japanese War, the Cultural Revolution, the reform and opening up, and today's economic take-off and era of rapid development, and guiding the direction of cultural relics protection. His own evaluation of the state of cultural relics during the Cultural Revolution is that "There was both destruction and gratifying achievements". ("92-year-old Xie Chensheng talks about the destruction of cultural relics: the fundamental issue is money in command-Culture-People's Daily Online," 2013). In an interview in 2018, Xie Chensheng's work was called an example of "fire-fighting with a pen", because he was the main author of the cultural relic regulations in the early days of the People's Republic of China, and in doing so protected much cultural heritage.

In fact, at that time Premier Zhou Enlai fully supported the protection of the heritage, so the

negative impact of the Cultural Revolution was limited. However, since the 1980s, the destruction of cultural relics through activities aimed at profit has been more difficult to stop. The tomb robbery that faded with the founding of the People's Republic of China, made a comeback and became more serious. If tomb robbery previously was caused by ignorance, then the conscious tomb robbery and lack of supervision in the later period was even worse and the damage to cultural heritage even more serious. Because tomb robbery and smuggling can earn large amounts of money, this kind of activity, that had been suppressed for decades, has revived since the mid-1980s. In 1987, the State Council issued a notice resolutely cracking down on crimes relating to cultural relics, specifically to combat such activity.

In the late 1980s and early 1990s, with the reform and opening up of real estate development, various large-scale infrastructure projects were undertaken and cultural heritage, as in other countries, suffered in pursuit of development. Social attention was more focused on development, and the protection of cultural heritage through public undertakings that were not profit-oriented required the great perseverance of "grinding an iron rod into a needle", with little gain in the short term. Peng Lanjia believes that in the process of cultural heritage protection, the ups and downs of various countries are similar: protection and development are in a contest between civilization and utilitarianism (Zhang, 2020). Analyzing the problems for the protection of Chinese cultural heritage, this scholar notes that overall planning and continuous implementation are not in place, and the phenomena of "emphasis on application and management" and "emphasis on development and protection" must be corrected. At the same time, China's rapid economic transformation and real estate frenzies, beginning in the 1990s, have made urban demolition a regular sight nationwide and dam construction and other water projects routinely submerge spaces of historical significance (Silverman and Blumenfield, 2013). The rapid economic transformation and real estate boom that began in the 1990s made urban demolition commonplace across the country, and dam construction and other water conservancy projects often flooded historic spaces. The public administration must not operate at a loss: rather, it must achieve good results, both with regard to effectiveness and also to economic efficiency. It is the loss of the value of memory embodied in its history.

1.3.2 *Chinese cultural heritage management agency*

The section discusses the management framework of Chinese heritage. Currently, China adopts a model of the cultural heritage bureau as the main and multi-departmental form of heritage management. The jurisdiction is divided by administrative regions. This section analyses the advantages and disadvantages of this management structure.

In 1988, the State Bureau of Cultural Relics (later the National Cultural Heritage Administration) was established. This organization is subordinate to the Ministry of Culture and is a comprehensive agency for the protection of Chinese cultural heritage. Other authorities, such as the Ministry of

Construction, the Ministry of Culture, and the Administration for Industry and Commerce, Public Security Bureau, Forestry Bureau, Religious Bureau, Tourism Bureau, are also play an important role in cultural heritage protection and management. In China, the existing heritage management mode is mainly government-led (Tang, 2013). Before 2010, heritage was managed by multiple authorities. Specifically, cultural heritage is managed by the State Administration of Cultural Heritage, natural heritage is managed by the Ministry of Environmental Protection, Forestry Administration, Chinese Academy of Sciences, etc., and "scenic sites" or "historical cities" are managed by the Ministry of Construction. For a long time, most government functional authorities in China have implemented the "dual leadership" of local government and higher-level authorities, that is, the competent authority is responsible for the specific tasks and projects, while the finances and other resources are provided by the local government. The disadvantages of this management model are obvious. On the one hand, cultural heritage authorities and local governments have different concerns. The former often places heritage protection in prime position, while the latter may not fully recognize the value of heritage. In order to save costs during infrastructure construction, the protection of cultural heritage is usually abandoned, and the former has to obey the decision of the latter. On the other hand, the cultural heritage authority is subject to funding restrictions, so if the local government cannot provide sufficient funds, the cultural heritage protection project will have to shrink or be terminated. Therefore, this management model weakens the power of the cultural heritage authority to a certain extent. Further, the personnel in these authorities are often not sufficiently expert, which leads to inadequate and ill-thought out approaches to cultural heritage protection. In most provinces of China, heritage governance is a complex and dynamic process with a multi-management framework (Zhu and Li, 2013).

Multi-authority participation in management can draw on various resources, which causes the increasing inseparability of responsibilities and powers. The administrative management system of government replaces the legal rules of property rights of heritage (Tang, 2013). However, there are still some issues for official cultural heritage protection, including a lack of good regulation, and that laws are not fully observed or enforced (Zhang, 2003). In 1990, there was an even more embarrassing and unacceptable act of tomb robbery. In addition, large-scale real estate development has become rampant and is little controlled. There is also confusion in management functions and cases of incorporating cultural heritage into tourism enterprises in the name of the "cooperative office" (Lu, 2002). Some examples include:

- Incorporating cultural heritage directly into tourism enterprises, such as Huaqing Pond, Qianling Mausoleum, Famen Temple, Hanyang Mausoleum, Shaoxing City, etc.;

- Leasing cultural heritage to tourism enterprises, such as the ancient city of Fenghuang in western Hunan and Hongcun and Tunxi old street in Anhui;

- Taking cultural heritage as assets to invest in tourism enterprises, such as Qufu "Three Holes";

- Classifying tickets to cultural heritage sites as operating assets for tourism enterprises, such as the Museum of Terracotta Warriors and Horses;

- In 1998, Zhongkun Company, a subsidiary of China Mayors Association, purchased the 30-year management rights for Anhui Hongcun, a world cultural heritage site.

Decades later, the situation has not improved. Contradictions between ownership rights and management rights still exist (Lu, 2002). The practice of "separation of ownership and management rights" directly impacts the entire cultural heritage undertaking. Contradictions between ownership rights and management rights still exist (Lu, 2002). The practice of "separation of ownership and management rights" directly impacts the entire cultural heritage undertaking. "Separation of ownership and management rights" was proposed in the early stages of reform, based on the business model of industrial enterprises. The business model was directly applied to the heritage business, leading to non-professionals managing heritage businesses that require professional knowledge and skills, a possibly unskilled and harmful form of protection. (Xu *et al.*, 2003) argues that the current cultural heritage administrative management and legal system cannot fully adapt to the development situation of cultural heritage management.

In contrast to a western cultural heritage management system, in China property rights are actually a series of rights rather than a single indivisible right. Property rights can be divided into many domains, such as the right to management, the right to earnings, ownership etc. According to the present legal rules, the ownership of heritage belongs to the State, but the other rights to heritage are not clearly defined. In this circumstance, the executive power of government monopolizes the entire realm of property rights to heritage (Tang, 2013). Departments such as land, tax, and statistics are vertically managed by the central government (Long, 2010). However, unlike other countries, where the central government directly manages cultural heritage, China adopts an administrative management system of territorial management and hierarchical responsibility for cultural heritage (Zhang, 2003), with cross-management of different departments and administrative units at all levels. As a result, powers and responsibilities are distributed unevenly in the heritage management sector, and there is a lack of regulatory systems, management norms, management policy designation and implementation. This confusion of powers arises from the Chinese administrative system, institutional transformation and current social values (Xu *et al.*, 2003). It means that there is always a phenomenon that power is greater than the law in China, and usually local governments and key economic departments have absolute dominance.

China's cultural heritage administration is based on a system of territorial administration and hierarchical responsibility. The national cultural relics administrative institutions are established by the central government. Local cultural relics administration departments are established by

provinces, cities, and counties according to local conditions. With the rapid development of a market economy and urbanization, the contradiction between infrastructure construction, tourism development and cultural relics protection has become increasingly fierce, and the weaknesses and problems of this administration system have become more obvious. The local government shoulders the dual identities of the leader of economic development and the protector of cultural heritage. However, there are inherent contradictions between economic development and heritage protection. Some local governments underrate or even demolish cultural heritage in order to obtain immediate economic benefits. The term of office of Chinese party and government officials is generally 5 to 10 years and economic development (mainly infrastructure construction) is a key indicator to measure their performance during their tenure. However, it is difficult for cultural heritage to create huge economic value in the short term. Cultural heritage protection is a significant undertaking that requires long-term investment. When cultural heritage protection and infrastructure construction conflict, the former will be put in second place. Therefore, incorporating cultural heritage protection into the performance evaluation of relevant institutions and officials is conducive to achieving a balance between economic construction and cultural heritage protection. Furthermore, local governments take multiple responsibilities such as developing the economy and protecting, operating and managing cultural heritage. In addition, as for other industries, there is a serious lack of supervision in the protection of cultural heritage. Further research is required on how to set up a scientific and reasonable institutional system and to achieve a balance of power and responsibility.

A typical case demonstrating the serious drawbacks of the current administration model is that of Mount Emei (Silverman and Blumenfield, 2013). Ma Wenhua served as the deputy secretary and first deputy mayor of Emei City and was in charge of the declaration of cultural relics. After Emei Mountain was nominated as a World Cultural Heritage Site in 1996, he became the administrative leader of the Emei Mountain cultural heritage site and oversaw its management, protection and supervision. The combination of the functions of supervision and management under the same leadership resulted in a monopoly of management, and corruption was also suspected. The close relationship between the Emei Management Committee and Emei Tourism Development Company in monopolizing the tourism development of Emei excluded sufficient public participation in rulemaking and enforcement (Zhu and Li, 2013).

In developed countries, the administration of cultural heritage is generally carried out by independent institutions. In Italy, for example, the Ministry of Culture and Environmental Assets was established in 1957 to manage cultural heritage, previously managed by the Ministry of Education. In Spain, cultural heritage is managed by the Ministry of Culture, and the Historical Heritage Committee is responsible for supervision, consultation, planning and management. In Canada it was first managed by the Ministry of State, and after the 1980s by the Ministry of

Communication. In 1993, the Ministry of Communication was changed to the Ministry of Heritage. Cultural heritage in Australia was managed by the Department of Environment and Heritage, and now by the Department of Climate Change, Energy, the Environment and Water, and in the United Kingdom by the Department of National Heritage. In addition, if we compare the income of heritage sites in the United States and China, we find that tourists' shopping, accommodation, and catering constitute almost all of the operating income of China's famous cultural heritage sites. This phenomenon shows that there are too many auxiliary industries and non-professional services in the management of Chinese cultural heritage, while there are too few professional and knowledge services. It reflects that the fact that the current mode of operation is not oriented towards the priorities of non-profit protection and cultural value.

In addition, the current cultural heritage management mode follows a specific principle of hierarchical allocation, with its management is divided into different levels. For example, heritage is divided into different levels according to its financial and historical value and is managed and protected by the corresponding administrative department. The establishment of tourist destinations is are based on value and scale, assessed by the national administration institutes, and divided into an international level, national level, provincial level, municipal level, and district level according to importance. The same hierarchical management system is used for natural heritage and other resources: the development of geoparks has been highly valued in China since the early 1980s, and geoparks in China are identified according to four grades, i.e., Global, National, Provincial and Regional Geoparks. A lower grade geopark can apply for a higher grade only when it has existed for more than two years (Wang *et al.*, 2019a).

In 2016, China completed the first national census of movable cultural relics. The total number of state-owned movable cultural relics in the census was 10,815 million pieces/sets, of which 2,661 pieces/sets were registered and filed. The museum system is increasingly improving, with 5136 registered museums nationwide. According to the 2016 China Cultural Heritage Development Report, in the past five years, the national cultural relics resource bank and the "cultural relics ID card" system have been completed, and the National Palace Museum has also made great progress in the digitalization of the establishment of cultural heritage. However, the level of development is not commensurate with the level of economic and social development, the global status of this ancient civilizations, and current expectations in terms of cultural heritage. This is mainly evident in two ways. Firstly, the management cannot deal with ever-increasing challenges due shortcomings in team size, strength of control, and systems. Secondly, reforms have provided only limited momentum to solve current development problems.

In April 2018, the Ministry of Culture and the National Tourism Administration were merged to form the Ministry of Culture and Tourism of the People's Republic of China, an independent department of the State Council. The purpose of merging the two institutions of the Ministry

of Culture and the Tourism Administration is to better coordinate the development of cultural undertakings, cultural industry development and tourism resource development, in order to promote economic development. The responsibilities of this department include formulating policies and measures, drafting regulations, formulating tourism market development strategies, being responsible for the protection of intangible cultural heritage, etc. The National Cultural Heritage Administration has become a direct agency of the Ministry of Culture and Tourism, assisting in drafting regulations and dealing with specific administrative affairs. As a branch of the National Cultural Heritage Administration, the Chinese Academy of Cultural Heritage has a responsibility to: carry out scientific research on cultural heritage development strategies, management systems, policies and regulations, discipline systems, standardization systems, etc.; construct Chinese cultural heritage sites and preparations; to inventory dynamic information and early warning monitoring system; carry out research on the protection and management of world cultural heritage; carry out survey, design, planning, protection, construction, and supervision of immovable cultural relics represented by key cultural relics protection units in the country; undertake the protection of national cultural relics; foreign aid projects; carry out research on the preservation and protection of cultural relics, carry out the restoration of cultural relics in the collection, the design and implementation of protection plans and the evaluation of their effects, and carry out research on the application of traditional technology and modern technology in the protection of cultural relics; carry out industry qualification training, professional technical training, engineering special training and international cooperation training; carry out research on unearthed documents, archaeological surveys, cultural relics protection standardization and other major basic tasks entrusted by the bureau; undertake other matters assigned by the State Administration of Cultural Heritage.

The power of the Ministry of Culture and Tourism is greater than that of the Cultural Relics Bureau, and that of the Cultural Relics Bureau is greater than that of the Cultural Heritage Research Institute, and provincial or municipal administrative units will participate in the management work. Since cultural heritage is a diverse and comprehensive discipline, the management system in China has become fragmented. The cultural relics and cultural heritage departments, urban planning, tourism and other departments all have some management authority over cultural heritage, so it seems that the cultural heritage department has very limited power. The Chinese Cultural Relics Protection Law stipulates: "The cultural relics administration department of the State Council is in charge of the protection of cultural relics throughout the country. Local people's governments at all levels are responsible for the supervision and management of cultural relics within their administrative areas. Departments of local people's governments at or above the county level that are responsible for the protection of cultural relics shall supervise and manage cultural relics within their respective administrative areas". The National People's Congress published an article

on cultural heritage management models that said: "This hierarchical responsibility system has been formed for a long time based on the basic national conditions. It has played an important role in the autonomy and enthusiasm of cultural relics protection".

The founder of Chinese heritage protection Xie Chensheng has stated in an interview that cultural relics departments remain non-compliant with the law, or only loosely enforce it and fail to bring law-breakers to justice. Although the laws and regulations were published with detailed content as early as 1982, their effect is still limited. An important reason for this is that illegal behaviors are driven by profit, and they are not a problem limited to particular individual organizations or individuals but a broader social problem. Both government and developers break the rules. As for how to solve this situation, Xie Chensheng quotes Chairman Xi Jinping: "Put power in a cage." "Now there is a World Heritage office under the State Administration of Cultural Heritage, the Ministry of Construction has a Scenic Spots office, and the Ministry of Education also has a UNESCO National Committee. Multiple administrative departments easily lead a lack of management at some places." Xu Mingzheng (formerly Shaanxi Provincial Tourism Administration Deputy Director) believes that a special cultural heritage management agency should be established since the protection of cultural heritage is a government responsibility. The protection and management of cultural heritage can only be managed by government departments, and cannot be replaced by any other agency, especially tourism enterprises (Xie, 2013).Increasingly since the mid-1990s, some places have arbitrarily changed the management system of cultural heritage protection, and protection departments that should be managed by the government have been transferred to enterprises for development, causing some serious damage to cultural heritage (Zhang, 2003).

In many cases, cultural heritage management departments are faced with developers with huge financial resources, and local governments lack sufficient enforcement powers and are in a weak position in the existing management system. In response to the problem of non-compliance with the law in the cultural heritage management department itself, Xie Chensheng pointed out that these departments should take more responsibility and actions to protect cultural heritage. A "zero tolerance" policy (i.e., no change is acceptable) is acknowledged to be an unattainable ideal for cultural sites but must be the goal for significant cultural resources since any loss is irreversible (Demas *et al.*, 2015).

1.4 Cultural heritage protection in Italy

Italy has attracted countless tourists with its rich historical and cultural background. A description of Italy as "a large open-air museum" is barely an exaggeration. Large cities such as Rome, Florence, Milan, Venice, etc., are all places where cultural tourists hope to make a pilgrimage,

and even small cities almost unknown to the public have a rich cultural heritage of churches and works from different periods and styles, all of which allow visitors to understand historical changes. Italy is the birthplace of ancient European civilization and the Renaissance. cultural heritage, such as the ancient city of Pompeii, the Leaning Tower of Pisa, and countless historical ancient cities. Its Byzantine, Gothic and Romanesque buildings, sculptures, obelisks, fountains, and arched buildings represent not only the local cultural history of Italy, but also the broader development of human culture. In a magnificent building we hear the sound of history that has been echoing for hundreds of years, and can still feel its lingering power even today. This historical heritage has lasted even for thousands of years because the Italians attach great importance to the protection of historical heritage. This consensus is spread across the country and passed on from generation to generation.

Italy is one of the four ancient civilizations in the world. It is an important place that retains Greek culture, the core of Catholicism, the center of Roman civilization, and the birthplace of the Renaissance. According to statistics from UNESCO, Italy has more than 6,000 archaeological sites, 95,000 church buildings, more than 1,500 monasteries, more than 20,000 ancient castles, and more than 3,500 museums. It is currently the country with the largest number of world heritage sites. The UNESCO World Decade for Cultural Development (1988 – 1997) emphasized the importance of conserving cultural heritage as a means not only of stimulating economic development but also promoting identity and cultural diversity (Richards *et al.*, 2001).

It is worth noting that Italy has so much cultural heritage, not because past buildings has been exceptionally extensive, but because protection work is done well, so that this cultural heritage can be continuously accumulated and preserved. As Lowenthal argues, "heritage, far from being fatally predetermined or God given, is in large measure our own marvellously malleable creation" (Hunter, 1996). Emphasis on cultural heritage and respect for history are the most effective means of protection. For example, as far back as ancient Rome, the key reason why most sites were preserved was the enlightened thinking and excellent management ability of the Romans. Their rulers did not usually destroy a conquered city but gave the local people a certain degree of autonomy. In addition, the influence of the church has also had an important role in the protection of Italian cultural heritage.

1.4.1 *Cultural heritage protection acts*

This section reviews the issuing of some important heritage protection laws in Italian history and important time points for the development of heritage protection. Italy has a long history and the protection of cultural heritage started very early. There were many landmark events in this development process, and only some key events have been selected for discussion.

In the 15th century, the Holy See promulgated the first national decree on heritage protection before the unification of Italy, aimed at preventing the destruction and loss of artworks.

In the 17th century, the Pope issued a decree to regulate cultural artifacts and art trading and export. This undoubtedly protected a large number of cultural relics from leaving Italy, although in 1797, France and Italy signed an agreement which enabled many precious artworks from Italy to be brought back to France and become part of the collection of the Louvre Museum. In Rome, in spite of the countless violations that led to the sale of works of art and archaeological finds to foreign collectors, the English and French especially, and the despoilation of several ancient monuments, such as the Colosseum, the restrictions applied by the various popes succeeded in preserving most of the works, which were seen as property inherited from the past (Domanico, 1999).

Pope Pius VII (August 14, 1742 – August 20, 1823) issued a regulation in 1802 that without the permission of the Pope, it was prohibited to excavate and export artworks, and to encourage the development of archaeology.

The conception of cultural heritage as the permanent property of the state, and consequently of the public, takes this beyond the status of a mere collection of goods and takes us up to the present day by way of a number of important provisions, such as the decree issued by Pope Pius VII in 1802 which, among other things, appointed the sculptor Antonio Canova as 'inspector for the arts' (Domanico, 1999).

Italy promulgated the Cultural Heritage Protection Law in 1820. From 1820 to 1821, it formally confirmed that cultural sites are an integral part of local culture and history, and established the theory of "archaeological restoration", emphasizing that the restoration of historical sites must clearly reflect the differences in the repaired parts. In the same year, Cardinal Bartolomeo Pacca also issued the "Law on the Protection of Historical Relics and Works of Art" regarding cultural heritage in Rome and in the Pontifical State.

Italy was unified in 1860. In 1939, in order to protect the ancient city of Rome, Italy built a new city in the south of the ancient city to assume the urban functions of Rome. The Italian Ministry of Heritage believes that to protect historical and cultural heritage, it is necessary to prevent damage for any reason, including damage caused by economic and tourism development. The protection is embodied in two basic aspects: on the one hand, the protection of the cultural environment surrounding the cultural heritage, such as the ancient city of Rome. It is forbidden to build high-rise buildings, to develop industries, and to establish new areas except outside the ancient city. The second aspect is the specific protection of cultural remains such as ancient buildings. At the same time, it is also believed that the central government must establish a national protection network and implement vertical leadership in order to effectively implement protection. As the capital and international metropolis of Italy, Rome does not blindly pursue novelty, technological progress, or rapid economic development, but is deeply aware of its own historical and cultural value and significance. The monuments of the entire city have been preserved, and even in the capital, economic development must make way for heritage protection. Italy's World Heritage City has

strictly forbidden construction of new buildings within the protected area for many years. Due to this consensus on the protection of all aspects of the city, the style and features of the ancient city have been effectively protected (Zhao, 2003). In fact, in any city in Italy, on any street or corner, a seemingly broken city wall may be preserved. The first Italian law on protection dates from the 1920s, when the concept of 'natural beauty' (Bellezza naturale) was introduced (Benetti and Brogiolo, 2018). Law 364/1909 established the state's ownership of 'immovable and movable things that have historical, archaeological, paleoethnological, paleontological, or artistic interest' (art.1) discovered through excavation (Benetti and Brogiolo, 2018). The Italian national law for the protection of the cultural heritage was approved in 1939, and took up the fundamental principles that had been expressed in the previous laws of the earlier Italian states, in particular those of the Kingdom of the Two Sicilies (Regno delle Due Sicilie) and the Pontifical State (Stato della Chiesa) (Domanico, 1999). In 1967, the commission published its final report of around 3000 pages, eloquently entitled 'Per la salvezza dei beni culturali in ltalia ('For the salvation of the cultural heritage in Italy'). Even though this continued to use the term 'thing' as in law 1089, the modern concept of cultural heritage as an integral part of society, history and the landscape was introduced (Domanico, 1999).

The Italian Ministry of Cultural Heritage, Activities and Tourism (abbreviated as MiBACT) is the government department of the Italian Republic dedicated to the protection of cultural and recreational activities, as well as the protection of cultural, artistic and landscape heritage. Giovanni Spadolini established the National Ministry of Cultural and Environmental Heritage in 1974. Its task was to jointly establish a special department to manage cultural heritage and the environment to ensure organic protection of extremely important heritage nationwide. The organizational structure of this department is very complex and has undergone many updates. It has offices for direct cooperation of ministers, special offices at the central level, and peripheral offices. According to the management system of National Parks defined by the IUCN, cultural and natural heritage properties are public goods and common resources. Instead of being profit-oriented, the heritage agency should insist on nonprofit principles based on the social and cultural mission (Zhu and Li, 2013).

1.4.2 *The Italian model*

This section introduces the Italian cultural heritage management model, its characteristics, and considers which management advantages can be transplanted to China.

Italy's cultural heritage administrative management model is very different from China's. Italy has adopted a vertical management of the central government, while China has joint management of all levels and major departments, even though in terms of administration, the models of China and Italy are somewhat similar, with central government and governments at all levels, Italy

having 20 administrative regions of which there are five special zones. However, Italy attaches great importance to the protection of cultural heritage, and the implementation of the central government's vertical management system is one of the characteristics of the "Italian Model". Since the founding of the country in 1860, the status of cultural heritage has been considered to reflect the fundamental interests of the country, and the central government saw a need to exercise management power in a unified manner, and prevent any interference from the local government. Heritage protection is managed by the central government, with local representatives appointed vertically, rather than direct administrative intervention by the central government. This concentration of power can avoid a passive situation in which some regional governments compromise cultural heritage in order to develop the local economy. As in China, there are big economic and cultural differences between the north and the south of Italy. The southern regions, such as Sicily, even have some Arab cultural elements, while the northern regions are more economically developed and are also closer to other European cultures. The concentration of cultural heritage management power in the central government can prevent local governments from damaging and destroying heritage due to cultural difference, economic development and other needs, and effectively realize the equal protection of different regional cultures. Other European countries also adopt the unified management model of the central government in cultural heritage management. The reason for the formation of the model is that in many European countries, with rich and diverse cultures and a long history, and having experienced many wars, people even of different cultures or different political parties share the same understanding that heritage is part of the common historical memory of all humanity. This is completely different from the tradition of destroying the heritage of predecessors during the change of dynasties in China. Therefore, Italy has retained cultural heritage with a long history, even though not all historical remains can become heritage, and not all heritage is worthy of protection, since space is limited – not only living space, but also psychological space in terms of what people will accept.

A recent phenomenon has been the emergence of over-creation of cultural images. 'That's enough culture' screamed a newspaper headline recently (Glancey, 2017), describing the surge of museum development which saw over €600 million being invested in new cultural attractions in the UK in the year 2000. In Spain, the number of museums has doubled during the post-Franco era (Herrijgers, 1998). According to the European Commission, there are now approximately 200,000 protected monuments in the European Union (EU), and 2.5 million buildings of historical interest (European Commission 1998) (Richards *et al.*, 2001). In the past, only hardened cultural tourists seemed to suffer from 'monument fatigue' , 'overdosing' on museums. As the development of tourism proceeds, so "entire cities and regions, decades and cultures have become aware of themselves as attractions" (MacCannell, 1976). All over Europe there has been a veritable museum explosion (Richards *et al.*, 2001). Many other European regions have constructed museums and

heritage attractions as a means of attracting visitors to less favoured locations (Richards *et al.*, 2001).

Italy's protection measures for historical and cultural heritage are very comprehensive. Not only is the cultural heritage itself fully protected, but the surrounding natural and human environment are also considered. For example, the construction of high-rise buildings, industrial areas and new urban areas around cultural heritage is not allowed. Such rules are intended to preserve the visual unity and coordination between cultural heritage and the surrounding environment. If modern high-rise buildings appear next to medieval buildings and streets, it will inevitably detract from the visual experience of visitors. Such management principles have been adopted by many cultural heritage cities, such as Rome, Florence, and Venice. There are about 900 "legal historical centers" in Italy. Among them, some are historical protection areas located in small cities. For example, the central area of the city of Padua is officially recognized as a historical protection area. It can only be visited on foot and vehicles are prohibited. Such measures prevent the historical preservation area from the invasion of modern culture as much as possible. From a historical perspective, the establishment of world cultural and natural heritage protection particularly developed in the context of the Enlightenment, and the development of modern museums over more than two hundred years. National parks in the United States were born in the late 19th and the early 20th century, so systems of protection have developed over time (Luo and Zhou, 2003).

In 1969, Italy established a major feature of the "Italian model", a law enforcement agency and national police team specifically responsible for combating criminal activities with regard to cultural heritage, such as theft and smuggling. The role of the national squad is divided between the army and the police. It is subordinate to the Ministry of National Defense and funded by the Ministry of National Defense. It is also directly subordinate to the Ministry of Heritage and serves the Ministry of Heritage. The function of the national squad is different from ordinary police. They have professional knowledge and skills of cultural heritage protection and are responsible for handling cases relating to cultural heritage. When handling cases, the law grants them the power to command other types of police to ensure that they can effectively perform their functions and missions. The Comando Carabinieri Tutela Patrimonio Culturale (TPC), better known as the Carabinieri Art Squad, is also responsible for investigating and dealing with counterfeit cultural heritage, so it has an administrative staff with rich professional knowledge and work experience. They are usually university professors, architects, archaeologists and other professionals with a professional background in cultural heritage, who are engaged in the protection, restoration and use of cultural heritage. The cultural heritage protection agencies established by local governments are only responsible for publicity and promotion. Representatives dispatched by the central government in various regions have administrative law enforcement powers. They have the power to punish individuals for destroying cultural heritage, and they have the power to prevent local governments

from destroying cultural heritage. If the individuals or the local government disagrees with the punishment or decision of the representative, the central government makes a ruling. The local government can also file a judicial proceeding to be judged by a court.

On March 31, 2016, an updated version of the 2004 Code of Cultural Heritage and Landscape entered into effect in Italy. The Code provides that the national police assigned to protect the national cultural heritage must be informed of any fortuitous discovery of protected cultural property, whether real estate or movable property (Id. art. 90(1)). The Code exempts from the need to obtain prior government authorization certain activities performed without a profit motive related to the study, research, or free expression of thought and creative expression aimed at promoting knowledge of the national cultural heritage (Id. art. 108(3-bis)).

Since 1994, the Italian government has leased museums and historical sites to enterprises or private management, but the government retains the ownership, development rights, and supervision and protection rights. Important personnel appointments and removals, ticket prices, and opening hours are all determined by the government's Ministry of Cultural Heritage. Such measures are called the "adopter" system, and the "adopter" system is another highlight of Italy's heritage protection work. The government allows the public to profit by claiming and managing cultural heritage, but it also needs to be responsible for part of the protection and management costs. An often-mentioned example is the Italian Finance Building, which is now in use, having been adopted by the Ministry of Finance which is responsible for daily maintenance of the building. The same antique oak desk has been used by successive ministers of finance, and its appearance and value have been well-preserved. Such cases are not only small achievements of Italian cultural heritage protection, but also powerful examples of how to protect and develop cultural heritage, in a way which educates the whole society. Another case is the Presidential Palace Quirinale and the Prime Minister's Palace Chigi, both of which were built in the 16th century but still maintain their appearance hundreds of years later, despite experiencing repairs. Culture has a strong national meaning, and a nation's attention to and development of its own culture can make it attractive. In China, as far as the society as a whole is concerned, the importance of cultural heritage has not been fully realized, so the problem of inadequate protection of cultural heritage often occurs, and the development of cultural heritage has a trend of high homogeneity and over-commercialization. The Italian "adopter" system allows the public to participate in the operation and management of cultural heritage. The maintenance and protection of cultural heritage is not only the responsibility of the government, it reduces government expenditures, promotes the awareness of cultural heritage protection among the public, and enhances the public's sense of cultural belonging. In 2002, Italy established the "Cultural Heritage and Sustainable Tourism Exchange" under the leadership of the Ministry of Cultural Heritage, which further improved the system of private participation in the management of cultural heritage.

Italy has a deep understanding of the restoration of cultural remains, with a strong national aesthetic, built over thousands of years. Italy pays great attention to structural beauty. For example, Rome and Florence retain many large-scale historical buildings. Not only are they large in scale, but almost every part is carefully designed and rich in details. Regarding the restoration of cultural remains, the Italians insist on the principle of only strengthening, not repairing, and not renovating, so that most of the cultural heritage still retains its original appearance. Such a rigorous protection concept is not only reflected in the historical and cultural heritage, but also in the repair of their houses. All buildings over 50 years old are regarded as cultural heritage, and any maintenance activities require a series of complicated approvals.

In 1972, Italy established the Cultural Relics Information Center to collect information on cultural heritage across the country. After 1992, the center upgraded the cultural heritage archives from paper files to electronic files. At present, the center has collected more than 4 million cultural artifacts and artworks, including more than 320,000 paintings. The information collected is very complete, including author, date, size, location, etc. It plays a very important role in the enforcement of cultural heritage protection. From 1970 to 2007, more than 50,000 stolen art paintings were filed nationwide in Italy, and all the items were seized and recovered. In 2008 more than 1.02 million cultural artifacts and art works were stolen. The center also assists in investigating various counterfeit items and recovering stolen works of art from overseas. Italy's cultural heritage protection model is very complete. The unified design, implementation, supervision of related laws, and the use and development of cultural heritage in the market economy, working together, is called the "Italian model".

1.4.3 *Financial management*

Next, we will discuss financial policy in Italian cultural heritage management. Diversified financial sources are an important guarantee for the development of Italian cultural heritage protection, which is worthy of note by other countries.

The protection of cultural heritage requires a large amount of financial support. The Italian central government invests 1% – 2% of its annual budget for the protection of cultural heritage. The investment in protection for tangible cultural heritage and historical sites is more than 2 billion euros annually, and increasing year to year. In 2000, Italy promulgated the "Preferential Law for Funding Cultural Industries", which stipulates that the sponsorship of various social and cultural activities by enterprises can be directly tax deductible, encouraging enterprises to participate in the protection of cultural heritage. In 2004, Italy promulgated the *Cultural Heritage and Landscape Code,* which clearly stipulates that "The Republic of Italy encourages and supports citizens to participate in the protection of cultural heritage in the form of individuals or organizations." Ticket prices for world cultural heritage attractions and national museums are uniformly set by the

central government, and all ticket revenues are turned over to the national treasury for cultural heritage protection. Preferential tax policies are given to enterprises or individuals that invest in the protection and restoration of cultural relics, such as allowing enterprises to directly deduct tax from sponsorship of cultural activities, which undoubtedly increases the enthusiasm of enterprises for cultural protection. For example, the Italian computer company Olivetti sponsored the restoration of Leonardo's "Last Supper" in the church of Santa Maria in Milan, which not only increased the visibility of the company, but also helped the country reduce financial expenditures. This is a very successful case.

All buildings and works of art that have been in Italy for more than 50 years are regarded as cultural heritage. Among them, the central government only owns 400 ancient architectural palaces, and the others are owned by private individuals, companies and local governments. Article 21 of Italian Law No. 490 of October 29, 1999 stipulates that the restoration of cultural heritage can only be carried out with the authorization of the Ministry of Cultural Heritage and Activities (Ministero per I Beni e le Attivita Culturali). Even if the ownership and use rights do not belong to the government, individuals or organizations still cannot change the appearance and structure of a building, including the reconstruction of electrical circuits and sewers, and it cannot be sold at will. If it is sold, the government has the right to priority of purchase. Up to 100% subsidies can be obtained from the government for approved repairs. If an individual or the local government changes the appearance or structure of the building without approval, they are liable to civil and criminal prosecution and punishment, and are liable for any costs to restore the building to its original appearance, as directed by central government experts. Such penalties prevent people from changing these buildings. When conflicts arise between the central and local governments, they are resolved by courts.

In general, Italy's heritage protection does not only rely on the government's financial support, but also other forms of revenue. For example, the government raises funds through lotteries, corporate and private funds, and assistance from UNESCO and the European Union. Thus multiple financial sources support the operation of this huge system. In addition, the government has allowed enterprises to actively participate in heritage protection through tax incentives, forming a social atmosphere of universal participation and practicing the concept of sustainable development.

Since 2008, China has issued a cultural heritage development report (also known as the Blue Book) every year. As a guiding document for the management and protection of cultural heritage, it summarizes the achievements of the management and protection of Chinese cultural heritage in the past one year, analyzes existing problems, and proposes new development goals. The theme of the 2019 Blue Book of Cultural Heritage is: "Response to inadequate and unbalanced development with reforms, so that the protection and utilization of cultural relics will become political achievements".

1.5 The different interpretations of authenticity in the East and the West

1.5.1 *Different interpretations of authenticity*

This section mainly attempts to discuss the different understandings of authenticity caused by the difference of thinking between China and Western countries, which reflects in the actions of heritage protection. The history and culture of the East and the West are very different. Japan shares certain cultural commonalities with Asian neighbors such as China and Korea, in particular Confucianism emphasizing the importance of the group, and self-sacrifice......Without having been nurtured in the Chinese cultural milieu, it is difficult for foreign visitors to enter Chinese places with the same experiential understanding (Bryce *et al.*, 2015). A difference in understanding exists regarding authenticity of cultural heritage. In constructivist ideology, things appear to be authentic not because they are inherently so, but because their genuineness is constructed by beliefs, perspectives, or powers (Wang, 1999). Authenticity also appears to be a flexible notion, and the manipulation of festivals and other cultural events to serve economic interests without due regard to their cultural integrity has resulted in the loss of heritage quality and educational value: spectacle and entertainment seem to be rated more highly (Sofield and Li, 1998).

The notion of "authenticity" (originating from Greek and Latin) means true, honest or original. It was not until the 16th century that this term appeared in Shakespeare's writings, and it was used in the sense of not pretending. The concept of authenticity first appeared in the field of historical architecture research in the "Venice Charter" (Venice Charter 1964), and has gradually been widely recognized in European society. The explanation of "authenticity" was originally in the "action guide", and a more specific explanation was in the 1994 Nara Document (Nara Document 1994). Authenticity is generally recognized to include the form and design of heritage, its materials and the site, use and influence, tradition and technology, location and environment, spirit and feeling. According to (Bruner, 1994), authenticity has four different meanings. First, it refers to historical verisimilitude of representation. This is an authentic reproduction which resembles the original and thus looks credible and convincing. For instance, the 1990s New Salem resembles the 1830s New Salem where Abraham Lincoln lived. Second, authenticity means a genuine, historically accurate, and faultless simulation. In both the first and the second sense it involves the nature of a copy or reproduction rather than the original. Museum professionals use authenticity primarily in the first sense, but sometimes in the second. Third, authenticity can mean the original, as opposed to a copy; but in this sense, no reproduction could be authentic, by definition (Bruner, 1994). Four, the term refers to authority or power which authorizes, certifies, and legally validates authenticity. For example, New Salem is authentic, as it is the authoritative

reproduction of New Salem, the one legitimized by the state of Illinois. There is only one officially reconstructed New Salem, the one approved by the state government (Bruner, 1994; Kim and Jamal, 2007). Over the last decade, authenticity in the sense of "original" or "real" has been increasingly refuted by social constructivists, who see reality as being socially constructed through negotiated meaning-making and agreement. From this perspective, authenticity is subject to cultural selectivity and/or interpretation and the hegemonic voices of cultural marketers, scholars, local authorities, and more. For general cultural tourism, objective authenticity refers to tourists' perception of scenic architectural shapes, decorative features, and landscape patterns. (Zhou, 2013) analyze the meaning of authenticity, and most cases in China belong to the fourth type, based on the authority or right to authorize, prove and legally verify authenticity in the same way as New Salem, which is authorized to legally rebuild, being approved by the government, conforms to this meaning of authenticity. Japanese temples belong to the first type, which are real, historically accurate and faultless simulations. (Harrison and Hitchcock, 2005) would ask, does it matter if they are not authentic? Holtorf observes that "Heritage is often less valued for its literal than for its metaphorical content, that is, stories about the past that are much more so stories about the present. As a consequence, it matters little for the story-telling potential if a heritage site has been meticulously repaired, faithfully restored, or entirely reconstructed—as long as it gives a believable total impression" (Silverman and Blumenfield, 2013).

In October 2008, the International Council on Monuments and Sites (ICOMOS was established in 1965) adopted the document "Cultural Heritage Interpretation and Display Charter", for cultural heritage protection and management. Seven main principles have been established for this purpose:

- Principle 1: Access and Understanding

- Principle 2: Information Sources

- Principle 3: Attention to Setting and Context

- Principle 4: Preservation of Authenticity

- Principle 5: Planning for Sustainability

- Principle 6: Concern for Inclusiveness

- Principle 7: Importance of Research, Training, and Evaluation

Principle 4 indicates that authenticity, as well as material remains, is a concern important to human communities. The design of a heritage interpretation programme should respect the traditional social functions of the site and the cultural practices and dignity of local residents and associated communities (ICOMOS, 2008).

The concept of authenticity did not exist in early research on Chinese heritage protection. Scholars returning from studying abroad in the 1990s have introduced new concepts, such as "authenticity", "historical information", and "minimal intervention", surprising local Chinese scholars because these new concepts were substantially different from the Chinese experience, which emphasized the importance of restoration to the original state or the maintenance of the existing condition (Zhu, 2012).

Xie Gaoning (Director of the World Heritage Research Center of Peking University) proposed that the core of the Convention for the Protection of the World Cultural and Natural Heritage is to maintain the authenticity and integrity of the heritage.

1.5.2 *The cases against authenticity in China*

This section introduces major demolition and construction projects that violated authenticity in modern China. The concept of "Urban Heritage Conservation" proposed by the World Bank and some international organizations is very similar to the concept of famous historical and cultural cities in China. We discuss the theories, methods and practices of urban heritage protection in foreign countries, compare with the actual situation of the protection of famous cities in China, and propose theories and methods for their protection adapted to the characteristics of China. Specifically, we use Dunhuang as a model to study China's tourism management and historical city management. In our nearly 20 years of national construction, we have adopted the method of demolishing and then reconstructing substitutes to protect cultural heritage, ignoring the authenticity of cultural heritage, due to a lack of understanding of this concept.

In the past few decades, many rebuilt cultural relics have appeared in China. A strange phenomenon of contradiction exists in that rebuilding and illegal demolition co-exist in the same cities. For example, Jinan spent huge sums of money to rebuild the old railway station, while at the same time, the residence of the famous architects Liang Sicheng and Lin Huiyin was illegally demolished. It was an immovable cultural relic and considered a national protection project. But in 2011, real estate developers demolished the building without the knowledge of the Beijing Cultural Heritage Bureau. Such events occur all the time. In order to develop tourism, many cities have repaired and reconstructed cultural relics on a large scale, resulting in poor construction of scenic spots and waste of resources. Xie Chensheng has argued that seriously damaged cultural heritage should not be repaired, and should only be reconstructed under certain conditions, such as the survival of original craftsmanship and materials, and with the approval of the local government. If cultural heritage is so damaged that the essence is no longer a cultural relic, its reconstruction has no historical value.

The overnight destruction of old buildings is already very common in some cities eager to see the fruits of development. Local residents in megacities hope that their houses will be expropriated by

real estate developers in order to get generous compensation. Some people became rich overnight, and many others lost their original residences and lived in crowded high-rise buildings. Wu Liangyong, a well-known architect from Tsinghua University, said that such a large-scale demolition is the most economical, but he did not consider the historical value of the historic district and people's historical memory, so it should be resolutely stopped. In 2019, the "Notice on Some Famous Historical and Cultural Cities in Countries with Inadequate Protection" mentioned five examples, including Liaocheng City, Datong City, Luoyang City, Han City, and Harbin City. These cities are all major demolition and construction sites. Real old buildings were demolished, and new fake heritage was built. Cultural heritage gave way to real estate development, and local residents were forced to relocate. It is worth mentioning that Datong is one of the first batch of national historical and cultural cities announced in February 1982. A large-scale reconstruction plan of the ancient city has been carried out since 2008, and the residents and modern-style buildings were moved out. The ancient city of Datong became a "huge construction site" without schools, hospitals and people (Wang *et al.*, 2020b). "Antique" has become the label and characteristic of Datong City, but the authentic cultural heritage is facing the risk of being demolished at any time. (Wang *et al.*, 2020b) summarized one of the reasons why these cities are biased in the protection of cultural heritage: the huge unbalance between the local economic strength and the ability to use heritage. At present, there is a strange phenomenon in the protection of historical cities in China, that is, unprecedented attention and unprecedented destruction coexist. Even valuable buildings designated as "Immovable cultural relics" by the State Administration of Cultural Heritage still cannot escape demolition.

Research on Chinese heritage requires attention to China's property rights system. Take siheyuans in Beijing as an example. As the capital of China and a world-renowned historical and cultural city, Beijing used to have many hutongs (narrow streets) and siheyuans (a characteristic local building complex of Beijing). In the construction of Beijing, not enough attention was paid to their preservation and they suffered man-made damage. According to China.Org (2006), only one-third of Beijing's hutongs have been preserved, and most have been demolished or destroyed. Since the Qin and Han dynasties, Beijing has always been an important town in northern China, bringing together culture and a long history, which were embodied in a series of historical buildings, including imperial palaces, mansions, siheyuans, and hutongs. All these elements contribute to Beijing's unique historical status. The decision to demolish siheyuans was opposed by many scholars at the time, including the famous architect Liang Sicheng. In the early days of the founding of the People's Republic of China, he tried his best to protect the ancient city of Beijing, and even wrote a 25,000-word "Proposal on the Location of the Central People's Government of the Central People's Government." Unfortunately, his proposal was not accepted by the government at the time. There were still more than 3,000 old Beijing hutongs intact in the early 1980s, but this

number dropped to 1,200 in the 1990s. On February 1, 2004, the Ministry of Construction issued the "Urban Purple Line Management Measures", which stipulates the protection scope of historical and cultural blocks in national historical and cultural cities, that is, within a designated area, large-scale demolition and development in violation of the protection plan are prohibited, as are changes in the appearance of buildings and infringement of public green spaces, river systems, etc. This management method provides an important legal basis for the protection of hutongs and siheyuansin the old city of Beijing, but the promulgation of the law still failed to prevent hutongs being demolished. In September 2007 alone, 361 hutongs were demolished in Beijing, even though hutongs and siheyuans constitute the skeleton of Beijing's historical residential buildings, with hutongs considered the second city wall of Beijing and their disappearance gradually obscuring the background of Beijing's ancient capital.

The origin of this destruction can be found in the transformation of the courtyard houses from private property to public property, which were then greatly damaged during the Cultural Revolution, after the founding of the People's Republic of China. However, cases of destruction still occur today, long after the end of the Cultural Revolution. A typical example is the former residence of Liang Sicheng and Lin Huiyin, which was officially protected in 2009 and then demolished in January 2012. This is one of hundreds of buildings considered to be "more valuable to protection than development" (Qiu, 2012). An article titled "The destruction of celebrity's former residence is a painful cultural death" pointed out that approximately 44,000 landmarks have suffered a similar fate. Regarding the siheyuans in Beijing, Luo Zhewen, president of the Chinese Society of Cultural Relics, said that if this ancient city had survived intact it would have been among the most magnificent examples of historic cities in the world, comparable to Paris or Rome. Unfortunately, the reality is that many valuable historical buildings are not well protected. There is even a saying that Beijing was not destroyed by the war, nor by the revolution, but by today.

Zhao Yuan, a researcher at the Institute of Literature of the Chinese Academy of Social Sciences, released an article titled "Everything could be broken: Private Property and Public Property of the Cultural Revolution" (Zhao, 2016). He enumerated many destructive practices of the "Red Guards" during the Cultural Revolution, by which the private property of citizens was seized. These events not only had a terrible impact at the time, but also caused the blurring of the boundaries between public property and private property which remains today. A siheyuan is a courtyard structure designed for family residence, and the property rights had belonged to the family members. This pattern was broken in 1958. Now, there may be several families in one siheyuan. Therefore, the ownership of the courtyard house becomes an important issue. The People's Commune Movement tried to make courtyard houses public, but to this day, the ownership of courtyard houses remains unresolved.

The protection of cultural heritage in China is not only restricted by national economic and
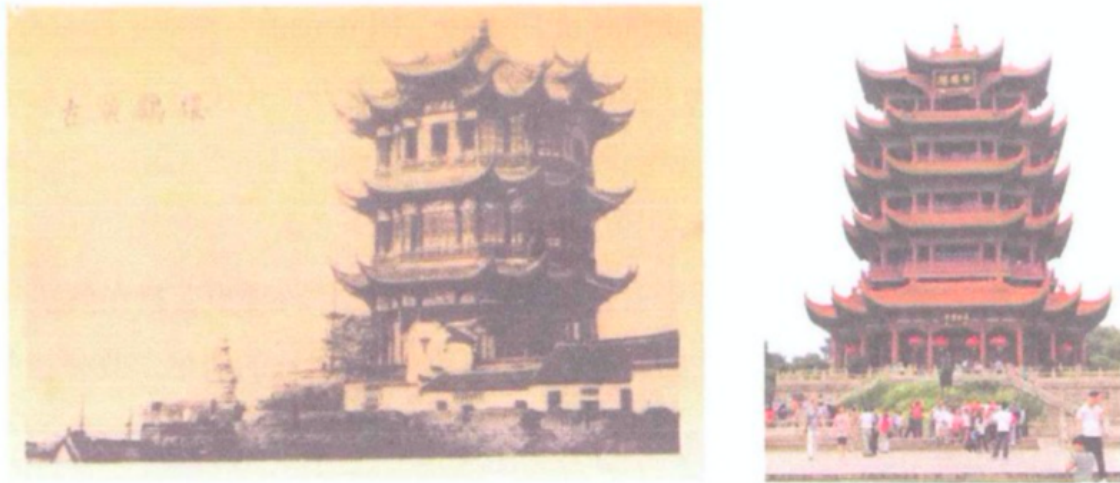
Figure 1.6: Yellow Crane Tower at Wuhan City. The left picture shows the historical Yellow Crane Tower, a three-floor wooden structure; The right picture shows the rebuilt Yellow Crane Tower, a five-floor reinforced concrete building. Source: https://image.baidu.com/

macro policy factors but also influenced by the concept of cultural relic protection, which is partly determined by how we understand the authenticity of cultural relics. Current research on authenticity can be roughly divided into two opposing views. One view is that that the traces of history should be left in order to preserve the authenticity of the heritage, expressed in the Chinese phrase "repair the old as old", which indicates its special character and the need to maintain the integrity of the heritage and to preserve its authenticity. The opposing view is that the old should be repaired as new, that cultural heritage has a place in modern society, and the latest means should be used to make it burst into new life in a new era. The two protection concepts lead to different understandings about heritage protection. This may be an important reason that much architectural heritage encounters "destruction protection", a problem we will explore through three classic cases.

The first example, the Yellow Crane Tower Fig. 1.6, is a famous building in central China, built more than 1,700 years ago. It has been damaged and repaired many times. In 1957, the local government built a bridge on the site. After 20 years, based on historical textual records, the government rebuilt a new Yellow Crane Tower at a new location, about 1,000 meters from the original site. Although this is actually a completely new building, many tourists are ignorant of this fact and see this as the original architecture. But the old one was very different from the new. The original was a three-story wooden building, the new is five-story, built of reinforced concrete. This is a totally new building with a historical background.

The second example is the Leifeng Pagoda. This building has a history of over one thousand years. It used to be a seven-story building representing certain beliefs of the ancient Chinese people.

Figure 1.7: Leifeng Pagoda at Hangzhou City. The left picture shows the historical Leifeng Pagoda; The right picture shows the rebuilt Leifeng Pagoda at present. https://image.baidu.com/

After the war, it was burned down by fire, leaving only the structure of the building, and then it was repeatedly repaired and damaged, and again repaired, damaged, and repaired. However, in 1924, the building collapsed. Fig. 1.7 shows the old Leifeng Pagoda on the left, a building so damaged that its original appearance can barely be discerned, and on the right the newly built Leifeng Pagoda — a brand-new tower. Obviously, copying and rebuilding has lost its true meaning. In trying to repair, maintain, and protect severely damaged valuable cultural heritage in China, it is important to consider what exactly constitutes 'authenticity' before restoration is undertaken. Should the original site be protected, so that it shows the incomplete authenticity in reality? Should current technology be used to protect it from being damaged?

The last example is China's famous royal garden —— Yuanmingyuan.

Originally a magnificent garden, according to historical records it contained 24 classic sceneries and very special landscapes, none of which can now be seen. Its damage is due to wars and poor management by the Chinese royal family. Now, only broken parts remain Fig. 1.8.

In 1950, Zhou Enlai instructed that the ruins should be well protected, and the land should not be allocated, so that it could be restored later. It was planned to locate the Beijing Botanical Garden of the Chinese Academy of Sciences here. However, in the 1960s, most of the land in the garden was converted to farmland by nearby workers and farmers due to rapid population growth. The remaining buildings were demolished, such as the three-hole bridge, material door, seven-hole door in the Changchun Garden, and all remaining garden walls. The only old tree left in the garden

Figure 1.8: Yuanmingyuan Rins at Beijing. Source: https://new.qq.com/

was cut down.

The question of whether to rebuild the Old Summer Palace triggers much controversy in China Supporters believe that rebuilding would reflect China's strength as a country and enhance national self-esteem. Opponents think that it would become nothing more than a pile of fake antiques and disrespect modern Chinese history.

In sum, China has encountered many difficulties in the protection of heritage, including confusion over which heritage is true, which is are fake, which is new, and which is old.

The above three examples represent the peak and characteristics of local architectural technology in a certain period in China. After thousands of years of existence, although they are broken, they are still authentic. Their building materials, namely soil and wood, determine the limits of their existence. There are also material reasons for the Chinese emphasis on restoration or reconstruction rather than preservation. Much of China's traditional architecture is built of wood, which as Dave Barry has commented will not only burn, it will also rot (Harrell, 2013).

For the restoration of wooden buildings, Chinese architects have invented an ingenious method, called a "drop frame overhaul." When the main load-bearing component of the building structure is damaged and needs to be repaired or replaced, the building structure is completely or partially removed first, and then installed in the original state after repair. It is the main means of maintaining the life of a building in the ancient oriental architectural style while maintaining the authenticity of the heritage (Zhou, 2013). At first, some western scholars believed that this method destroys the value of cultural heritage, that is, its authenticity. Before the publication of the "Nara Document", Western scholars believed that "falling frame overhaul" was not repair nor reconstruction, but new construction, which completely destroyed the authenticity of the site itself and the authenticity of its history. However, the publication of the "Nara Document", demonstrated that "falling shelf overhaul" was actually a traditional reconstruction method. For example, Ise Grand Shrine is demolished every 20 years, and strictly identical new shrines are built in adjacent locations. The

Figure 1.9: The painting reflecting Ukiyoe's 1849 reconstruction ceremony from Hiroshige. Source: https://www.jzda001.com/index/index/details?type=1&id=3177

62nd renovation was carried out in 2013, at a high cost. These buildings are considered both new and original. Fig. 1.9 shows the painting by Hiroshige (1849) of the scene of the reconstruction of the temple at that time. The reconstruction operation was also integrated into the history of the building as a ritual and became a part of the history of the building. Since this case has sufficiently preserved the traditional skills of the Nara period, the reconstruction ceremony is also considered to be a part of the Japanese religious culture and tradition, and it also enables Ise Grand Shrine to meet the authenticity requirements of the heritage protection work.

In the field of cultural heritage, China and the West have completely different understandings of reconstruction. The Leifeng Tower, the Yellow Crane Tower, and other traditional Chinese buildings have long been replaced by completely brand-new buildings, and then appear in the public eye with ancient historical stories as if they are authentic. In fact, these buildings are far from the original, built based on the architect's imagination and incomplete information, from reinforced concrete. Such a strategy completely deviates from the principle of authenticity, leading to the emergence of a series of buildings imitating the style of the Tang and Song dynasties, almost like a bizarre real estate development. Unfortunately, such a phenomenon does not result from people valuing their history but from a desire to stimulate the development of local tourism economy. This is demonstrated by the hasty reconstruction of the "Datang West Market" project in China, mostly

completed within only one year, in comparison, for example, with the reconstruction project of the Western District of the Parthenon, begun in 1983 and completed only in 2004. Even taking into account the efficiency of infrastructure construction in China, such a fast construction casts doubt on the construction standards and quality of the project.

The fact that it took China only several decades to accomplish economic and technological developments that required several centuries in other industrialized countries means that many historical processes have been condensed in China (Zhou, 2014). Some people praise China's rapid development and economic growth, but the protection of cultural heritage is still undergoing irreversible damage. Although scholars are aware of the seriousness of the status quo, their appeals are often unheeded by the public.

There are several possible reasons for the difficulties of reconstruction in China. As we have seen, traditional Chinese buildings are made of wood, which is not long-lasting; they have often been destroyed by warfare; China lacks professional teams, and the management personnel are usually government officials, who are not experts in heritage protection and cannot give professional advice in this very specialist field; and economic development is in competition with the protection of heritage. Finally, policy direction is unclear.

In China, cultural heritage protection is closely related to local economic development, which is reflected in the investment in cultural heritage protection. However, some cultural heritage spans different provinces. According to the territorial management system, each province is responsible for the parts within its jurisdiction, which leads to differences in the management and protection of different parts of cultural heritage. An uneven distribution of resources results from very different levels of attention and degree of protection for the same cultural heritage in different jurisdictions. Further, famous cultural heritage sites are highly valued and attract attention, but less well-known cultural heritage is not valued. Dunhuang, the Great Wall, the Forbidden City, etc., use cutting-edge technology to protect cultural heritage, with digital technology for protection and enhancement of tourism. However, less famous sites have not received attention or even been "destructively" protected. For example, the Great Wall stretches across multiple provinces, but only the well-known parts are sufficiently protected. The maintenance of other parts is very basic, and even uses concrete reinforcement, completely ignoring authenticity and historical value.

In the field of Chinese architectural heritage protection, some experts believe that the authenticity of history should be respected—that is, the authenticity of the traces left by history or time on the architectural heritage. The concept of "repair the old as the old" is one approach to architectural heritage protection. Restoration diminishes authenticity and repeated cycles of restoration only exacerbate loss of authenticity (Demas *et al*., 2015).

Other experts believe that the principle of "authenticity" is based on Western architectural culture and is not compatible with traditional Chinese architectural culture. According to this
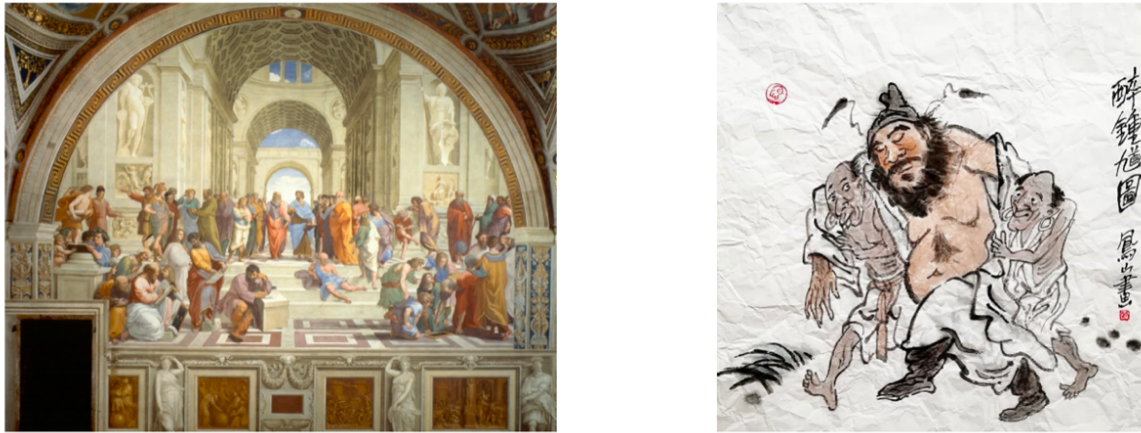
Figure 1.10: Aesthetic difference between East and West. On the left is Raphael's work School of Athens, on the right is the traditional Chinese painting Zhongkui Drunk.

viewpoint, correcting the damaged state of the architectural heritage to maintain its artistic integrity is the main priority, the concept of "repair the old as new". The deviation of these two architectural heritage protection concepts is an important reason much architectural heritage encounters "damage protection" in the practice of protection.

In China, the meaning of a building as representing a particular historical period is important. Protection is not only desirable for the building, but also the core meaning of the heritage, the thinking and spirit the building represents, and to preserve this aspect of heritage. The difference between Eastern and Western thinking in respect to the meaning of things can be explained in terms of artworks.

In the two classic artworks shown in Fig. 1.10, we can see characteristics of art traditions in the East and West:

The Western artwork has a very scientific and rigorous perspective, shades of light and dark, and color. It demonstrates a rational approach to beauty, paying great attention to perspective, light and shadow, structure, etc.

Eastern art aims to convey the meaning expressed by the artist and the work through sensual beauty, with more emphasis is placed on expression, vividness, and abstraction. In the Chinese painting in Fig. 1.10, the feet of the characters are very exaggerated and vivid, rather than realistic. This more abstract form of artistic expression that uses humorous lines to express the artist's feelings and creative intentions, and is a fusion of the philosophy and aesthetics of Eastern history.

According to this traditional way of thinking in China, the meaning of things takes priority, so to rebuild a building as a new one is acceptable, because of its historical story. Adams (Adams, 2013): "It is only intellectual honesty to accord China its own developmental story, at times mirroring, but never mimicking, the dawning and institutional maturation of a preservation ethos in the West".

There are thus two disparate views about authenticity. The first one focusses on how to repair it and is very rational, and the second supports keeping the original heritage in a more abstract way, since nothing can exist forever without any change. According to the latter view, it is better to let time draw a thick stroke through the building, and achieve a more abstract authenticity.

1.6 Conclusion

Cultural products evolve into cultural heritage over time. The richness and preciousness of China's cultural heritage is well known, but inevitably threatened in the process of rapid urbanization. Traditional Chinese culture advocates the harmonious coexistence of man and nature, with no distinction between subject and object, and therefore both natural scenery such as Mount Huang and Mount Tai or cultural heritage can become symbols of Chinese culture (Luo and Zhou, 2003).

This chapter has introduced the management mode of Italian cultural heritage, analyzed the current situation of China's cultural heritage management, and pointed out the current problems in cultural heritage protection. A number of barriers exist to a solution:

1. Lack of experience in cultural heritage management. China's heritage management system took shape in the decades before and after the founding of the People's Republic of China, when the state acted vigorously to develop the economy as its first priority. There was thus a lack of attention to the cultural field, as also has occurred in other developing countries.

2. Insufficient enforcement of cultural heritage management. Although laws and regulations on cultural heritage protection were introduced in the early days of the People's Republic of China, they were not strictly enforced. Xie Chensheng, the drafter of the "China Cultural Relics Protection Law", put forward his views on the issue of lax law enforcement in an interview. He believes that the legal basis has always been there but has not been enforced, and violations of the law are common.

3. Local governments lack awareness of cultural heritage protection. Local governments have prioritized economic development, and there have been cases of cultural heritage being demolished for urban development. Cultural heritage protection has not been included in the annual assessment of local governments, which lack the motivation to protect cultural heritage.

4. Low public participation. The general public are hardly involved in the protection of cultural heritage, and often cannot even see the protected heritage. Cultural heritage sites are generally closed to the public, and people assume that it is a government responsibility to

protect them. In addition, people have no right to share in the economic benefits of cultural heritage, and therefore lack incentives to participate in conservation.

5. The cultural heritage management system lacks regulation. Cultural heritage protection and urban construction are often contradictory or even opposed to each other. Local governments are responsible for both urban construction and cultural protection. Unlike urban construction, cultural heritage can bring huge economic benefits in the short term. Local governments often demolish cultural heritage for urban construction. This behavior cannot be stopped due to the lack of a regulatory body independent of local governments.

6. Insufficient powers of cultural heritage management agencies. Experts in the field of cultural heritage lack sufficient power in debates, and although they have conducted a lot of research, it is difficult to implement this within heritage conservation practice.

7. Insufficient financial investment. China's financial investment in cultural heritage protection is far lower than that of other developed countries.

There are so many interests at stake—national and local, bureaucratic and popular, preservationist and developmentalist—within China, that it is not surprising that China, however much its leaders want to comply with international standards, ends up fudging or partially ignoring such standards when the domestic stakes are so high (Harrell, 2013). In 2003, Zhang Chengyu summed up the most prominent problems in China's cultural heritage sites: 1: Over-artificialization, commercialization and urbanization in the core area of scenic spots; 2: Insufficient protection forces lead to the destruction of cultural relics; 3: Urban construction leads to destruction of cultural heritage.

One strange phenomenon is that local governments spend huge amounts of money to apply for World Heritage listings. When a site has been successfully included in the World Heritage List, the local government frantically develops tourism. In order to apply for the World Heritage listing, the local government spends hundreds of millions of yuan to remediate the environment. It needs to be clear that the purpose of applying for the World Heritage List is to reflect the historical value of cultural heritage, upgrade management and protection, and that economic benefits are not the only purpose. Zhang Chengyu proposed a "pocket strategy", that is, to combine relevant cultural heritage sites together for declaration, which is not only economic for the declaration but also facilitates later management. For example, there are four famous Buddhist mountains in China: Mount Emei, Mount Wutai, Mount Putuo and Mount Jiuhua. Another successful example of the multi-site merger declaration is the Silk Road, an ancient trade route connecting China, Kazakhstan and Kyrgyzstan. It was successfully inscribed on the World Heritage List in 2014. There are more and more cases of such cross-border joint applications, such as the European multi-country joint

application for the hot spring project, Ancient and Primeval Beech Forests of the Carpathians and Other Regions of Europe, which is located in 18 countries.

Although in the field of heritage protection and management, China has many areas to improve, in some cases we can see an orientation of the central government towards heritage protection, which will greatly promote the development of heritage protection. For example, the Forbidden City uses digital technology to build a powerful database, allowing people to watch the collections of the Forbidden City online. The professional design team combines cultural relics with modern design to develop a series of interesting cultural and creative products, bringing considerable commercial income; another example is the one-thousand-year-old Baiheliang site in Chongqing, with hydrological stone carvings. The site only emerges from the water when the tide is low, and is be deeply hidden in the water when the tide is high. Its underwater protection is undoubtedly very complicated. The Three Gorges Reservoir, which was later built in the local area, caused it to sink to 42 meters underwater. Such circumstances gave researchers a great challenge in terms of not only the difficulty of construction or the need for theoretical reference points, but in being an unprecedented problem. The researchers did not simply choose to cut the stone carvings away and transfer the conservation work to the museum because they believed that the relationship between this cultural heritage and the local environment is inseparable. Even when purely physical features are listed (State Council's "State Level Scenic Wonders and Historical Sites" (China State Council 1988), and the "Tourism Regions Scheme" of Hebei University (Shen, 1993), they still cannot be divorced from their place in China's cultural history. The mountains, gorges, rivers, lakes, caves, cand other features are all bound up in the images—pictorial, literary, and philosophical-created by emperors, Confucius, mandarins, poets, artists and philosophers of the past (Sofield and Li, 1998). After three years of research, academic Ge Xiurun proposed the concept of a pressureless container as a solution for the protection of the Baiheliang site. The plan is to build a showroom on the ground, and visitors will pass through escalators on both sides to the underwater museum, and admire the Baiheliang site up close, so the Baiheliang site will become the world's first deep-water museum. This case demonstrates the will and ability to protect cultural heritage. In addition, the "Nanhai No. 1" Fig. 1.11 shipwreck salvage project is a successful case. The ship sank in a 24-meter-deep sea area in Yangjiang City, Guangdong Province, and was loaded with more than 100,000 pieces of Song Dynasty porcelain. In order to preserve the relationship between the remains and their environment, a protection scheme was designed to salvage the entire ship. Specifically, a special box was designed without a base, to enclose the entire hull, and then use giant steel bars to slide across the bottom one by one. In addition, a "Nanhai No. 1" museum was built to create suitable conditions for the study of the remains.

These two examples demonstrate China's current emphasis on cultural heritage, not only limited to the protection of cultural relics themselves, but also the surrounding environment of the site,
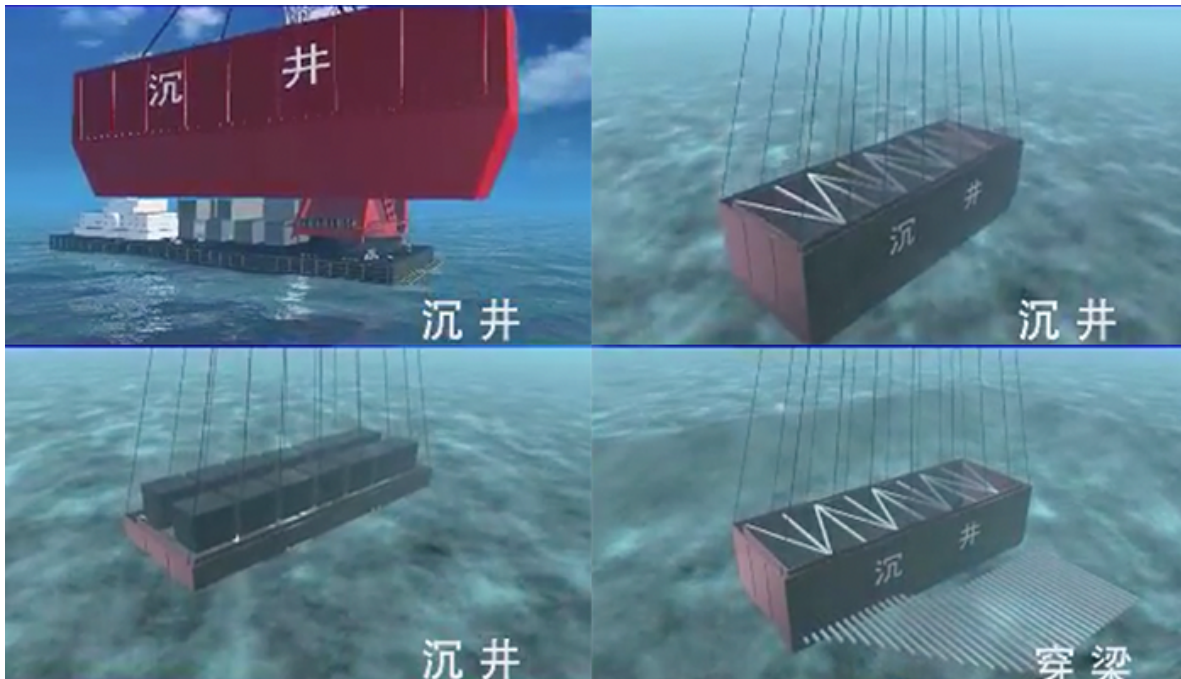
Figure 1.11: The diagram of Nanhai No. 1 salvage process. Source: https://www.cctv.com/

and systematic protection systems. The protection system includes three aspects: how to excavate, how to protect, and how to display. It is a meticulous and complex work that requires many professional talents and sufficient economic investment. An investment of this magnitude shows determination to protect China's heritage. The overall protection concept in the above cases also reflects China's deeper understanding of heritage protection. In spite of past destruction caused by lack of awareness of heritage and local governments' lack of attention to cultural undertakings, generally speaking, the central government has taken a firm stance on heritage protection. Heritage protection work has gradually developed in a more inclusive, standardized and scientific direction, although awareness and professional ability of primary management institutions are still far from sufficient, and China's cultural heritage sites are threatened with destruction from both natural disasters, mainly in the northwest and northeast regions, and urbanization and conflicts between heritage sites and residential land.

Chinese Minister of Culture Sun Jiazheng believes that the most strategic and important thing is to enhance the cultural consciousness of the entire nation and enhance the awareness of all people to protect cultural heritage. Cultural heritage is not only the link between the past and the future but also the genetic code of people's future innovative society. "Cultural heritage provides us with learning opportunities. We shape the future as we study the history." Therefore, China set up a "Cultural Heritage Day" on June 10, 2006 to improve the universal education of the concept

of cultural heritage protection for the whole people. Although nothing lasts forever, disappearance produces rarity, and rarity produces value (Su, 2013). Cultural heritage survives, but surviving is not immortality. Although cultural heritage will eventually disappear, we can still have confidence in the struggle of human ingenuity against the disappearance of cultural heritage. The mummy of Ramses II, the pharaoh of the Nineteenth Dynasty of ancient Egypt, has a history of more than 3,000 years, and with anti-corrosion technology has successfully withstood the test of time. The cultural products of different eras have accumulated a deep history and have survived to this day, providing human beings with the opportunity to enjoy things of the past. This is the charm and value of heritage.

Based on the status quo of cultural heritage protection in China, we make the following recommendations for measures to be implemented:

1. Learning from Italy's excellent cultural heritage management experience: Italy has a long history and very rich experience in cultural heritage management, including excavation, protection and management. In particular, the combination of cultural heritage and tourism increases local economic income along with protection of cultural heritage, forming a development pattern in which cultural heritage protection and tourism promote each other. Such strategies are worth learning from. We should neither lock heritage away in order to protect it, nor should we use it unthinkingly to develop tourism in pursuit of profit.

2. Build a cultural heritage information management system. Except for the cultural heritage management department, other departments and the public have difficulty accessing the basic information about cultural heritage, such as its location, scope, protection level, etc. It is thus difficult for them to participate in the protection of cultural heritage. Therefore, it is necessary to build a nationwide cultural heritage information management system, by which the public can access the information of cultural heritage and play a supervisory role and local governments can take this information into consideration for urban planning. This information can also be used for law enforcement and to counter heritage crime. The China Cultural Heritage Information and Consulting Center is currently responsible for the construction of the cultural heritage management system. It is not an agency of the State Council but a company for heritage protection, with a staff of 28 people and self-financing. In the face of such a huge project, such investment is obviously not enough. The information center does not serve the public, but only serves the State Administration of Cultural Heritage.

3. Increasing enforcement efforts. At present, economic sanctions are the main method for punishing the destruction of cultural heritage, which is far from enough. Compared with the benefits obtained by illegal acts, the scale of fines is insignificant, so they do not serve as a deterrent. Xie Chensheng has proposed that if cultural heritage that has been destroyed

or has been maliciously damaged, the reason for the destruction should be marked on the ruins of the heritage. For example, the "Liang Lin's Residence" was illegally demolished by a real estate developer. Such actions could be recorded on a monument in a conspicuous place around the cultural heritage to warn vandals. The rebuilt "Liang Lin's Residence" should also be clearly labelled as newly built, to inform tourists and the public. Only when the government really pays attention to and implements laws, policies and scientific and rational planning can it truly protect cultural heritage on behalf of the country, future generations, and history (National Cultural Heritage Administration).

4. Including heritage protection in the annual assessment of the local government. Heritage protection is a long-term project that requires continuous attention and investment from the local government. Heritage protection should be part of the local government's annual assessment to enhance the local government's motivation to protect cultural heritage. At present, some provinces have regarded protection as a political achievement. Such measures should be extended to the whole country and with unified standards. Since 2008, China's annual report on the development of cultural heritage (also known as the Blue Book) is a summary and prospect of China's cultural heritage work and puts forward requirements for protection and development. It is a guiding document for heritage workers. The theme of the 2019 Blue Book on Cultural Heritage is: "Reform to address insufficient and unbalanced development, and make cultural relics protection and utilization a political achievement". By the end of 2021, 26 provinces have explicitly included cultural heritage safety in the annual assessment and evaluation system of governments at all levels in the province, accounting for three-quarters of all provinces. (Wang *et al*., 2020b) "Reform Opinions" mention that the reform of cultural relics protection and utilization management system has not broken through the territorial management model, and still continues to allocate "responsibility under layers of responsibility" The entrusted-agent management system of "pressure" did not reflect that "it is also a political achievement" in terms of development ideas, goals and related planning, and it did not give sufficient support to the "power and money" system. At the same time, it is difficult for local cultural heritage departments to supervise local governments at the same level or even lower levels (Wang *et al*., 2020b). Although the level of heritage conservation is uneven across China, the pace of conservation and research has accelerated significantly in recent years. Due to the warning of the Notre Dame Cathedral fire in 2019 and the fire in the National Museum of Brazil, the Chinese government immediately issued the "Guidelines for Electrical Fire Protection of Cultural Heritage Buildings" to enhance the awareness of safety precautions. During this period, not only was a revision of the "Law of the People's Republic of China on the Protection of Cultural Relics" begun but also the revised draft of the "Administrative Regulations on the Protection of Underwater Cultural

Relics" was completed. At the same time, progress is being made on legislation on local cultural heritage.

5. Increase public participation. Carry out cultural heritage education and popularization activities to enhance public awareness of protection. Implement the adopter system, and cooperate with tax reduction, entrust individuals or enterprises to manage cultural heritage to obtain economic benefits, some of which can be used to feed back cultural heritage protection. Since 2019, Shanxi Province, Anhui Huangshan, Jiangsu Suzhou, Zhejiang Jinhua, Guangdong Kaiping have protected a number of cultural relics buildings in the form of the adopter system, by rebulting cultural relics buildings as museums, exhibition halls, Libraries, cultural tourism venues, homestays, etc. It is similar to Italy's adopter system, which not only effectively drives local tourism, but also strengthens the relationship between local residents and local culture. Another similar system is the French "Monuments Conservator", which has 97 famous monuments owned by the country. There are six national monument conservators under the Ministry of Monuments and Collections Conservation. On average, each monument conservator is responsible for 15-20 monuments. The monument conservator can hire staff to form a professional team according to different work needs (Dang and Sun, 2020). Although the adopter system has obvious advantages, it also has some potential problems in a market environment dominated by economic development. In China, practitioners of heritage protection lack sufficient professional training, and ordinary people lack knowledge of cultural heritage protection. If the management authority of cultural heritage is given to adopters, it cannot be guaranteed that they will have enough professional expertise to protect cultural heritage. In addition, commercial speculation and destructive development may damage cultural heritage in pursuit of profit. The most common method is to use cultural heritage to raise local land prices and then develop real estate. Therefore, the introduction of the adopter system must be adapted to the local social environment, otherwise the purpose of protecting cultural heritage cannot be achieved. In China, the current problem of cultural heritage management is the lack of professional competence of managers, overlapping or vacancies in management, and unclear management responsibilities and powers.

China can learn from Italy in encouraging companies to set up funds to protect cultural heritage. In 2021, Bytedance Company, a well-known Internet company, established a special fund for the protection of ancient books. The initial start-up capital was RMB 10 million to fund the restoration and study of precious Chinese ancient books, talent training, ancient book restoration and digitization projects. Specifically, in terms of restoration projects, Bytedance says it will focus on funding restoration of precious national classics such as the "Lake" catalogue of "Yongle Dadian". This is currently the first ancient book protection fund

initiated by an Internet company. ByteDance said that it will use its dissemination platform to promote social resources to participate in the protection of ancient books, the technological and internetization of ancient book protection, and the inheritance and safety of traditional Chinese culture. The participation of enterprises is not only conducive to the protection of cultural heritage, but also enhances the company's own reputation. China can refer to Italy to set preferential tax policies to encourage enterprises to actively invest in cultural heritage protection and promote the sound development of enterprises and public undertakings.

6. Set up an independent regulatory authority. The supervision department of cultural heritage management is subordinate to the local government, and its supervision responsibilities cannot be fully carried out. In view of the great success of the Italian Comando Carabinieri Tutela Patrimonio Culturale (TPC) in heritage protection, China's cultural heritage researchers have been calling for a similar group for many years. In official documents such as the "Thirteenth Five-Year Plan for Cultural Relics" in 2017 and the "Blue Book on Cultural Heritage" in 2019, the establishment of a Carabinieri Art Squad style system has been proposed. In the "Thirteenth Five-Year Plan for Cultural Relics", nine major development goals were proposed, involving the protection of immovable cultural heritage, the protection of cultural heritage in collections, the protection of cultural heritage, the utilization of cultural heritage, the legal system for cultural heritage, talent training, the supervision of cultural heritage law enforcement, the cultural heritage market, and cultural heritage's role in economic and social development.

The cultural heritage law enforcement and inspection system has basically been established, including "national and provincial inspectors, city and county law enforcement, social supervision, and scientific and technological support". The 2019 Blue Book on China's Cultural Heritage Protection proposes that cultural inspections are an important means of cultural heritage protection and investigation of illegal cases. Establishing and improving the inspection system is an important way to improve the level of cultural heritage supervision and law enforcement, and it is also an important means to maintain the safety of cultural heritage (Wang *et al.*, 2020a). The Cultural Inspector does not have an independent law enforcement agency and does not have the expertise and powers of Italy's Carabinieri Art Squad. They are mainly responsible for public security and customs, and they lack professional knowledge in handling cultural heritage cases. Considering China's national conditions, especially at the grass-roots local government level, if an administrative organization is not set up independently, not only may the cultural heritage department be weakened into a small section of a comprehensive large department, but it may also affect the public institutions engaged in this work, setup and staffing (Wang *et al.*, 2020a).

The current inspection system finds it difficult to achieve its goals because it is not independent

of the existing municipal system and is controlled by the local government, in contrast to Italy, where the public are aware of cultural heritage protection which is also overseen by an effective management system.

7. Granting more power to the cultural heritage protection department. The cultural relics protection department needs more power to prevent unreasonable development and municipal construction, provided that these law enforcement officers are professional in the field of cultural heritage protection. Professional researchers should be encouraged to participate in development projects involving heritage in order to avoid destruction.

8. The differences in the level of economic development among Chinese provinces are also reflected in the investment in heritage protection. The investment data on national cultural heritage protection facilities show that the investment varies greatly from place to place. Beijing, Shaanxi, and Shanghai invested 420 million yuan, 195 million yuan and 184 million yuan respectively, while some provinces had no investment. As one of the most economically developed provinces in China, Guangdong Province is expected to have invested 1.5 billion yuan in the protection and utilization of Red Revolution cultural heritage from 2018 to 2022 (Wang *et al.*, 2020a). However, the annual average investment of each provincial protection unit in the country is only 73,000 yuan, which is quite a small amount. Regarding financial issues, some researchers believe that China should imitate to a measure shared by the United Kingdom and Italy, which is the issuance of cultural heritage lottery tickets to raise funds for protection.

China and Italy are very similar in their long history, ancient empires and extensive historical and cultural heritage, but in terms of cultural heritage protection, there is a huge gap between them. Italy has become a model of cultural heritage protection because of its cultural heritage protection system, public awareness, legal policies, etc. In the past two years, China has begun to learn from and introduce some excellent Italian heritage protection policies and measures. In view of the particularity of China's national conditions, these policies and measures need to be modified to suit China's national conditions. In the "14th Five-Year" cultural heritage protection and technological innovation plan, it is proposed that the Ministry of Housing and Urban-Rural Development should take the lead and work with the State Administration of Cultural Heritage to further improve the protection mechanism of historical and cultural cities, towns and villages, blocks, and historical buildings. The participation of the Ministry of Housing and Urban-Rural Development indicates the central government's emphasis on cultural heritage protection. The key to protecting historical and cultural cities or historical and cultural districts is to discover the unique local culture. It is necessary to build a professional team to interpret and develop local culture, focusing on protecting the existing heritage rather than rebuilding new buildings, and

avoiding the homogeneity of attraction construction.

In the context of economic globalization, the exchanges and cooperation between different countries in modern society continue to deepen, which leads to the integration of cultural development and the narrowing of differences. In addition to location, language, nationality, and identity, history and culture have become important symbols for a nation. In the face of a globalizing, mass-communicating modernity, scholars, public officials, and private citizens have felt a need to salvage not only artifacts of the past, but "authentic" traditions for future generations, often by writing them down for future performance (Ashton, 2013).At some less significant sites, repair and replacement of historic fabric may be required, but once again, this would never be a management objective for a cultural site of antiquity and importance (Demas *et al.*, 2015).

China has never lacked experts who devote themselves to studying international conventions or interpreting bills, but experts have no real power and can only make suggestions. However, suggestions are not easy to adopt. Liang Sicheng, Wu Liangyong, Xie Gaoning, Xie Chensheng, Shan Jixiang and other senior researchers are contributing to China's heritage protection cause. Their positions are always contrary to those who demand rapid economic development, but their voices are not always heeded and followed.

Chapter 2.   Tourism

This chapter discusses the origins of the concept of sustainable tourism and compares the extent to which tourism has developed between countries, using their tourism statistics data. The current state of tourism management and tourism in China, the factors that influence the tourism experience and the therapeutic function of tourism are discussed. As a key concept in tourism, the authenticity of tourism is explained in detail. An overview of tourism in China introduces the newly established national park system in China and discusses possible problems in the national park system. A comparative analysis is presented through several examples with similar landscape features but in different management contexts. Finally, an outlook on the future sustainable development of tourism is presented.

2.1   The origin of the concept of sustainable tourism

In 1963, the United Nations International Conference on Tourism was held in Rome. This congress was initiated by the then International Union of Official Tourism Organizations (the abbreviation of its name in English is IUOTO, the World Tourism Organization, or WTO in English). The General Assembly proposed the adoption of a new term 'Visitor'. A visitor is a traveler who leaves the country of his or her habitual residence for another country and whose main purpose is not to earn income. The World Bank defines visitors as international arrivals who travel to a country other than their country of habitual residence, away from their usual daily environment, for a period not exceeding 12 months, and whose primary purpose of travel is not to engage in a remunerative activity in the country visited.

The concept of sustainable development can be traced back to 1980 when the International Union for Conservation of Nature and Natural Resources (IUCN), the United Nations Environment Program (UNEP) and the World Wide Fund for Nature (WWF) published the World Conservation Strategy. Sustainable development was defined in the World Commission on Environment and Development's 1987 Brundtland report "Our Common Future" as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". In 1995, the Central Committee and the State Council of the People's Republic of China

adopted sustainable development as a basic national strategy in order to call on the whole country to actively participate in this practice. Sustainable development is the basis on which people and the environment can coexist in harmony. This thesis explores whether the development of tourism in Dunhuang can coexist in harmony with the local community, and how tourism can be developed in a way that protects local cultural resources and does not affect the original livelihoods of local residents, for a sustainable development of the tourism industry with the participation of local residents.

For the sustainable development of tourism we use the definition described by Butler (1999): "Tourism which is developed and maintained in an area (community, environment) in such a manner and at such a scale that it remains viable over an infinite period and does not degrade or alter the environment (human and physical) in which it exists to such a degree that it prohibits the successful development and wellbeing of other activities and processes" (Butler, 1999).

Sustainable development is of great relevance to all of humanity, but what needs to be addressed and avoided in the practice of sustainable development is over-exploitation and development of tourism. When developing tourism, the experiences and interests of tourists, developers and local residents must be valued comprehensively, but tourism development is more directly affected by local people, who are actively or passively viewed as the transmitters of local culture and the carriers of history in the environment they live in. The environment and its development are closely linked to the lives of the local people. In fact the concept of overdevelopment does not have a long history: More problematic is the fact that the term actually can be considered 'fuzzy' in that it is ill-defined, lacks clarity, and is highly difficult to operationalize (Koens *et al.*, 2018).

The tourism market in Europe is very mature and there are some very successful cases where local people have been able to promote their culture and history and develop their economy through tourism, but there are also areas where the balance between development and conservation has been lost. The overtourism of places like Venice, Barcelona and Reykjavik is one result. Cruise ships disgorge thousands of people for half-day visits that overwhelm the destination but leave little economic benefit (Higgins-Desbiolles, 2020). Although the issue is most prominent in European cities, similar sentiments have been reported in other destinations too, for example tropical islands, backpacker ghettos, or even slums. To describe these tourism disturbances, the term 'overtourism' has rapidly been popularized (Koens *et al.*, 2018). The current UNWTO definition of overtourism is "the impact of tourism on a destination, or parts thereof, that excessively influences perceived quality of life of citizens and/or quality of visitors' experiences in a negative way" (Koens *et al.*, 2018).

All of the above definitions of sustainability and tourism have developed in recent years, whereas the act of tourism seems to have emerged much earlier. Travel is a social behavior that has existed since ancient times in China. The archetypal "travel" figure in China is Dayu (2200 BC), who

visited many places in order to govern the nine rivers and eighteen streams. The famous Chinese thinkers Laozi (604-520 BC) and Confucius (551-479 BC) in the Warring States period deepened and spread their ideas during their travels. Zhang Qian travelled towards the west and reached Iran and Syria. Xuan Zang travelled to India in the Tang Dynasty (AD618-907) in order to obtain scriptures; Zheng led a fleet to the Indian Ocean in the Ming dynasty (AD1368-1644); Xu Xiake (AD1587-1641) wrote a travelogue to record the various phenomena, peoples, geography, flora and fauna he encountered during his travels. The term 'tourism' was first used in China during the Six Dynasties (220-589), by Shen Yue (AD441-513), in the poem 旅游媚年春,年春媚游人 which means that "The best time to travel is in the spring of the year". It referred specifically to a trip of personal volition, mainly for sightseeing and pleasure, as a distinction from other kinds of utilitarian travel.

Since the academic study of tourism has been largely filtered through a western and specifically 'Anglocentric' institutional lens and assumptions up until now, an attempt to broaden its conceptualization to wider frames of thought is necessary (Bryce *et al*., 2015). Although the act of travel has existed for thousands of years, the development of the tourism industry within China has not always been supported. The communist regimes in China from 1949 until 1978/79 were unaccepting of tourism as an appropriate form of economic activity. Both domestic and international tourism were almost non-existent (Sofield and Li, 1998). At the same time, tourism in Europe was developing, Specialist cultural tour operators began to emerge in the 1950s, particularly in the German-speaking countries and the Netherlands (Richards, 2001b). From the founding of the People's Republic until the reform and opening up, tourism in China was forcibly stopped. Like the Chinese cheung nga kau (ivory artifact) in which a series of concentric ivory balls are carved one inside the other, the complexities of tourism development in contemporary China enclose one era after another and may only be understood by delving back into the past. A unifying theme throughout China's long history of tourism is the place of culture and the traditions of heritage tourism and pilgrimage (Sofield and Li, 1998).

A comprehensive definition of the sustainable development in tourism is given by Butler:

"…sustainable development in the context of tourism could be taken as: tourism which is developed and maintained in an area (community, environment) in such a manner and at such a scale that it remains viable over an indefinite period and does not degrade or alter the environment (human and physical) in which it exists to such a degree that it prohibits the successful development and well-being of other activities and processes. That is not the same as sustainable tourism, which may be thought of as tourism which is in a form which can maintain its viability in an area for an indefinite period of time".

It is worth considering that the concept of sustainable development is often mentioned in various different aspects of society, but it is manifested in different ways in different cultural

contexts. In China, the concept of sustainability may not be integrated into the development requirements of every industry, except for education. Chinese cultural expectations are to work hard, accumulate resources and then to invest them in the education of the next generation to help them have a better life in the future. In Europe, the concept of sustainability is more focused on the relationship between humans and nature.

2.2   Tourism economy

This section briefly discusses global economic differences in tourism. We analyse the economic situation of tourism through some key data from China and Italy, including the total tourism revenue of these two countries and the proportion of the revenue of tourism in the country's total revenue. Because of the global outbreak of COVID-19 at the end of 2019, the tourism data from Italy and China are discussed up to 2020. Since the corresponding data for China are available only from 2014 to 2020, we compare the tourism data of both countries from 2014 to 2019.

2.2.1   *Overall data*

The World Bank report provides a useful economic snapshot Fig. 2.1. The shade of the colour reflects the total income from tourism in the region, with a deeper colour indicating higher income from tourism, which reflects the level of development of tourism in the area. While the overall global tourism economy has been steadily increasing year on year, tourism revenues have not always been on the rise in all regions. Some countries have changed more significantly and this may be related to major local events at the time. Looking at the information, it can be seen overall that total tourism receipts in the United States, Australia and the European region are at a stable and higher level than the other countries; Total tourism revenues in Canada were in the higher range in the early years, but show a short-term fluctuation and fell to lower revenues after 2015; The level of Russia's total revenue from tourism has remained stable in the middle of the range since 2005; Most of the countries with higher tourism revenues are developed countries. From the Chinese data, it can be seen that tourism receipts were highest in 1997 and 1998, and lower in the rest of the period. The sudden increase in 1997 and 1998 was probably caused by the transfer of sovereignty over Hong Kong in 1997. The event drew international attention, which is one of the reasons why a large number of international tourists were suddenly attracted to China within those two years.

The image Fig. 2.2 comes from the World Bank (IBRD*IDA) and shows the most important countries for international tourism in 2018; the bar chart shows that in 2018 the most popular country for tourism was France, followed by Spain, in third place was the United States, in fourth place was China and in fifth place was Italy. However, this section is mainly intended to study
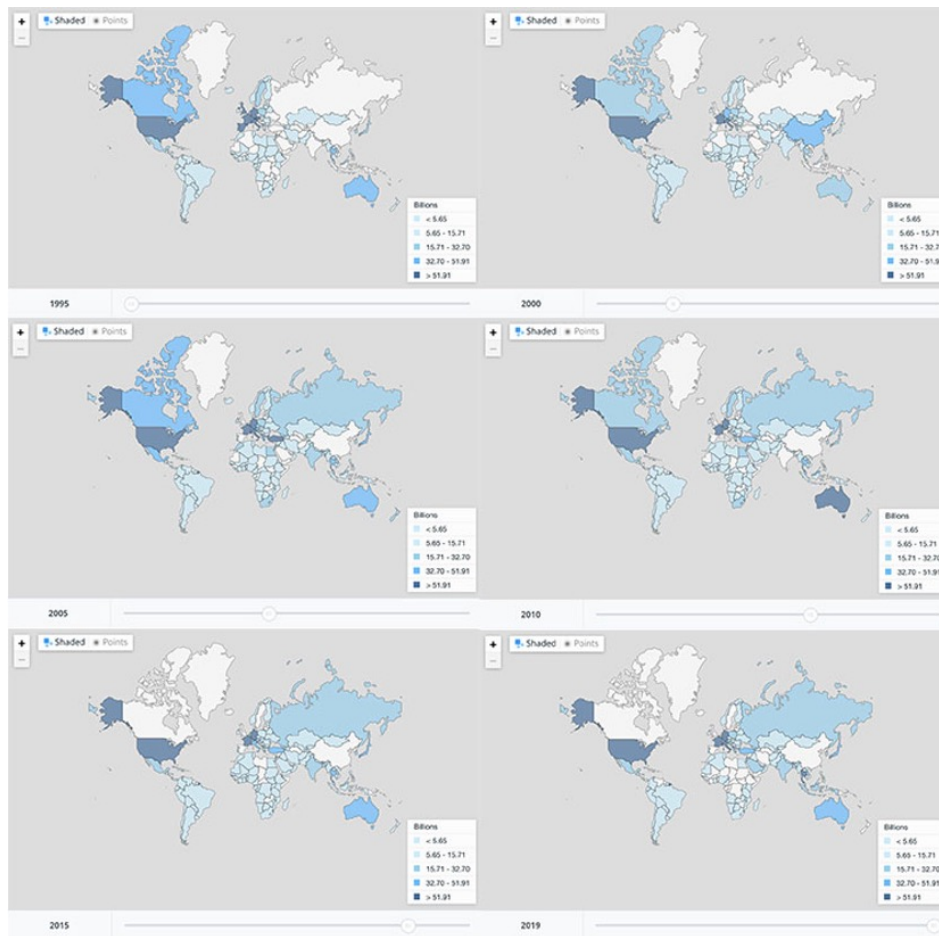
Figure 2.1: The distribution of international tourism arrivals. The heat maps distinguish between different countries in terms of total tourism receipts in different colours, with darker colours indicating higher receipts, for every 5 years from 1995 to 2019. Source: https://data.worldbank.org.cn/.
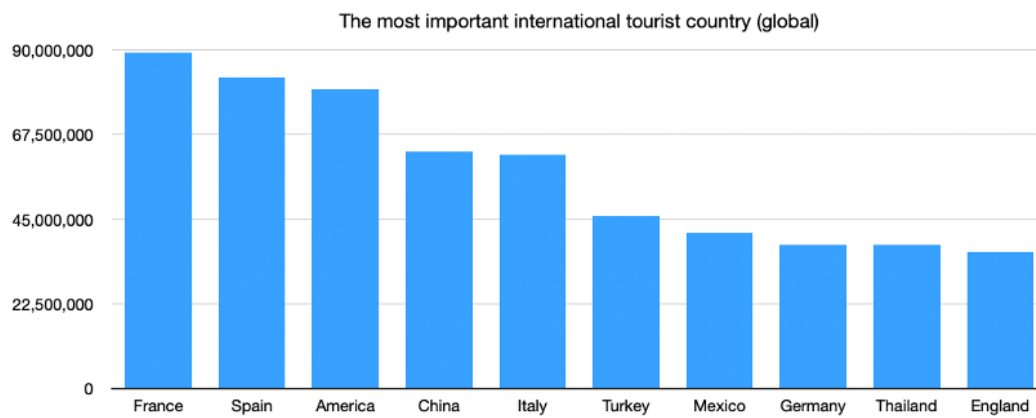
Figure 2.2: The most important international tourist countries. https://data.worldbank.org.cn/
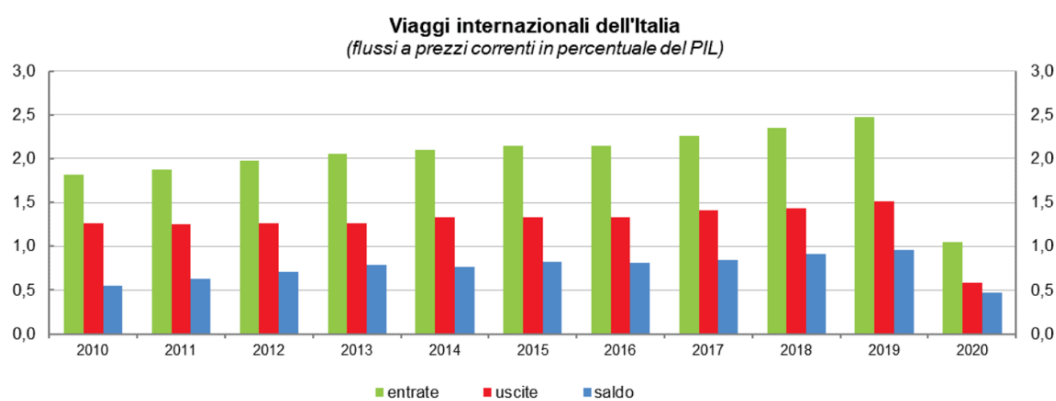
Figure 2.3: The international tourism statistics data of Italy.
Source: www.bancaditalia.it/statistiche/index.html

tourism in China and Italy, so it is only necessary to focus on the data for Italy and China retrieved from the World Bank, the most important international tourist countries in 2018.

2.2.2 *Italian data*

The data shown in Fig. 2.3 is from Banca d'Italia (Banca d'Italia, 2021), published in June 2021. The green bars of the graph represent total tourism receipts and the red bars represent tourism expenditure, and the blue bars indicate tourism balance, from which it can be concluded that total tourism receipts have been increasing steadily up to 2020, when tourism was paused due to the outbreak of COVID-19. As shown in the graph, in 2020 all figures were reduced to almost half of what they were before. The impact of the epidemics on the tourism industry varies from country to country, so it is better to consider the data excluding 2020.

Fig. 2.4 shows the data from Agenzia nazionale del turismo (ENIT - Ente Nazionale Italiano per il Turismo, the Italian Government Tourist Office), excerpted from the total contribution of tourism to Italy's GDP between 2014 and 2019. This image shows a significant increase in the total contribution of tourism to Italy's GDP. The ENIT website records that Italy had 94 million foreign tourists in 2018, the third most visited country internationally, with 217.7 million foreign tourist overnights and a total of 432.6 million visitors. According to Bank of Italy estimates for 2018, tourism directly generates more than 5% of the country's GDP (taking into account indirectly generated GDP of 13%) and accounts for more than 6% of employment.

2.2.3 *China's tourism data*

According to the "Basic Tourism Market Situation 2019" in Table 2.1 released by the Ministry
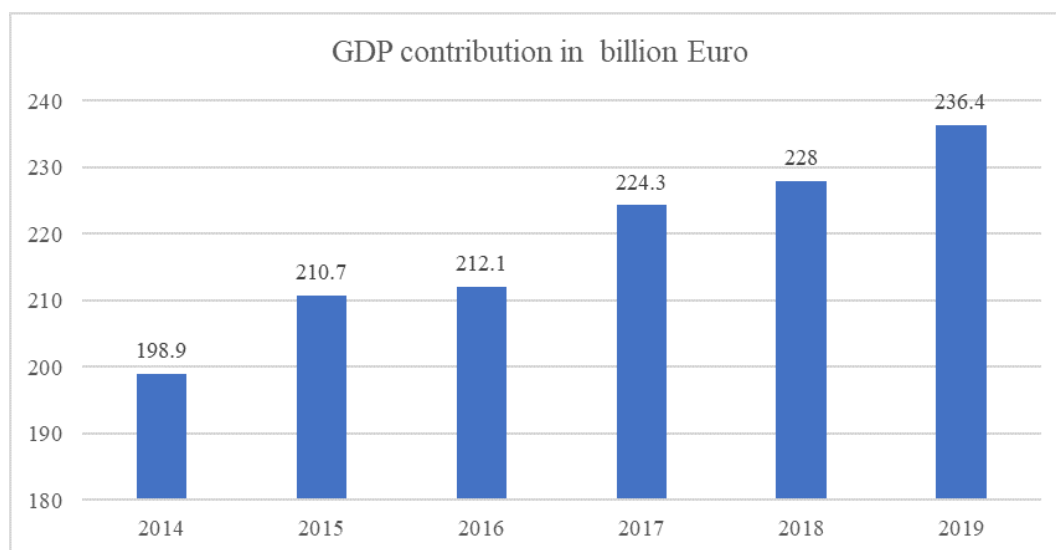
Figure 2.4: Italy's total tourism revenue as a share of GDP. The data comes from the website of the Italian Government Tourist Office (Author's elaboration).

of Culture and Tourism of China, domestic tourist arrivals reached 6.006 billion, with an increase of 8.4% over last year, and the total tourism revenue for the whole year was €850 billion, with an increase of 11% over last year. The comprehensive contribution of tourism to GDP was €1,402.26 billion, accounting for 11.05% of a total GDP. Tourism directly and indirectly employed 79.87 million people, of whom 28.25 million were directly employed, accounting for 10.31% of total employment in the country.

The World Bank provides an interesting index: Adjusted Net Savings (% of GDP), that is the percentage of the net savings to the total income of residents in a country: The average Adjusted Net Savings of Italy is 6.4%, that is far lower than 21.1% of China. The huge gap in the index indicates the different spending habits of residents in the two countries, and the tendency in China to save money and consume more conservatively.

2.2.4 *Conclusion*

The tourism revenue of China and Italy in recent years accounts for a large proportion of the GDP of both countries. Moreover, they are famous for their ancient history and cultural tourism accounts for a large share of tourism. An interesting phenomenon is that tourism revenue in China accounts for roughly 10% of GDP and employment driven by tourism accounts for roughly 10% of the country's employment, even though the majority of residents in China have never felt that tourism is a part of their life. We think the reason for this contrast is inaccurate statistics including hotel spending, which are counted as tourism revenue even though hotel stays are mainly for

year	Domestic tourism numbers billion€	Increase over the same period last year	Total Tourism Revenue billion€	Contribution to GDP billion€	% of GDP	Direct employment million€	Indirect employment million€	Proportion of total population
2019	6.006	8.4%	850	1402.26	11.05%	28.25	79.87	10.31%
2018	5.539	10.8%	765.38	1274.36	11.04%	28.26	79.91	10.29%
2017	5.001	12.8%	692.31	1170.51	11.04%	28.25	79.90	10.28%
2016	4.44	11%	601.28	1050	11.01%	28.13	79.62	10.26%
2015	4.0	10.5%	529.49	425.64	4.9%	27.98	79.11	10.20%
2014	3.611	10.7%	478.21	847.44	10.39%	27.794	78.73	10.19%

Basic tourism market information

Table 2.1: The statistics data of China's tourism industry from the Ministry of Culture and Tourism of the People's Republic of China.

business purposes. The difference in the way tourism revenues are measured must be taken into consideration, when analyzing the role of tourism in the national economy.

2.3 Travel experience

With the advent of the experience economy, tourists travel to gain enjoyable and unique experiences. The central task of tourist attractions is not simply to provide tourist products and services but to shape unforgettable tourist experiences for visitors (Zhou and Wu, 2006). When the tourism experience is ignored, management decisions can weaken the tourism experience. But even when tourism experience is valued, outdated presentation can still leave a bad impression on tourists.

2.3.1 *Travel experience*

The first impression of the destination should be designed to give visitors a visually striking or enjoyable travel experience, because the first impressions of tourists are crucial to marketing. Some scenic spots in China build toll points for their destinations, in order to charge tourist traffic and to bring considerable income for heritage management in a short time. The claimed purpose is to reduce vehicle emissions at valuable spots and protect the environment, although this actually goes against the principles of sustainable development. In addition to these expenses, tourists also

have to pay for public transport which is required. The operation, maintenance and repair of these vehicles require capital investment and result in a waste of resources. For tourists, the mandatory public transport mars their experience and their first impression of the destination. Excessive for-profit projects at the destination are also a significant detriment to the tourism experience and long-term development of the destination. In China, management positions have term limits, so many officials tend to push several big short-term projects as their achievements during their tenure. Therefore, the projects under their leadership are only required to have benefits for a short period. There is a serious rush for quick success, the pursuit of short-term benefits and a one-sided emphasis on attracting investment (Zhang, 2018). The phenomenon is highly correlated with a sociocultural emphasis on maintaining 'face', that is their standing in other's minds. Officials can thus be reluctant to present ideas to persons of higher standing, since preservation of 'face' is critical (Wang *et al.*, 2018a).

Is tourism development related to the level of social development? Is there a relationship between the degree of tourism development and social development in developed and developing countries? For example, in many European countries, tourism development accounts for a large part of the national income, a large amount of money is invested in tourism every year, and the tourism industry is more mature in terms of sustainability. However, the situation is much worse in developing countries. There is a rush to highlight development achievements and invest large amounts of money in projects with short-term visible returns, due to a lack of professional guidance and sustainable development awareness. These projects are often abandoned or replaced by new projects before they are achieved, which results in a huge waste of social resources and seriously contradicts the concept of sustainable tourism development. Tosun argues that in developing countries there is a lack of a contemporary tourism development approach, a structure for the public administration system, emerging environmental problems and over-commercialization, and poor structure of the international tourism system. High personnel turnover rates decrease efficiency, continuity and thus the effectiveness of tourism development plans in particular and state bureaucracy in general (Tosun, 2001). In the event of a dispute over a government concession contract, the lack of necessary risk protection arrangements and the lack of consensus between the contracting parties for long-term cooperation often result in a tendency for both parties to pay attention to opportunities, making the contract impossible to perform and resulting in the project being aborted (Zhang, 2018). For example, in Thailand, the huge Buddha statue at the Golden Triangle Viewpoint is difficult for tourists to access while visiting, due to the poor design of the construction. The dysfunctional presentation of the Golden Triangle vantage point is largely a function of the bureaucratic processes involved in tourism development. Different Thai agencies were responsible for different aspects of the vantage point, with intermittent budgets (Wang *et al.*, 2018a). The landscape and setting of the site are impacted mainly by visual intrusions related

Figure 2.5: Tianzi Hotel at Hebei Province. Source: www.baidu.com

to visitor services (buildings and parking lots), and there is a direct relationship between visitor numbers and the number and size of buildings needed to service them (Demas *et al.*, 2015). While the construction of landmark buildings is an effective means of tourism marketing (Richards and Wilson, 2006), famous architects are sometimes better at creating a unique image for themselves than for the places they build. The landmark building should be integrated into the local cultural identity, otherwise, it is easy to create a "shocking" design. For example, the "Tianzi Hotel" and the "Evergrande Stadium", developers invested a large amount in their design and construction in order to attract people's attention, but their resulting appearance has been widely rejected by the public as unacceptably ugly. Despite this, both projects have been granted land and building permits.

The photo of hotel Tianzi Hotel in Hebei province Fig. 2.5 shows the representation of three characters from the traditional mythology of China, who are regarded as symbols of fortune and good luck. It has been voted as one of the "Top Ten Ugliest Buildings" in China. Wang Mingxian, deputy director of the Institute of Architectural Arts of the Chinese National Academy of Arts, commented on the building: "It is too figurative, exaggerating the folk's obsession with money and power".

Such cases creating gimmicks to attract tourists are more prominent in developing countries where the tourism industry is not fully developed. These approaches are not consistent with the concept of sustainable development and environmental harmony. Finally, failure is inevitable for these projects and results in a series of environmental issues.

When developing tourism, it is important to avoid blind development and incorporate local culture. The local factors should be transformed into tourism resources, to create a form of tourism that is in line with the actual local situation and sustainable development.

2.3.2 *Travel therapy*

In recent years, social pressure is growing as fast as the economy in most of metropolises of China. Travel has been becoming a popular way to release pressure and enjoy life. Researchers believe that travel has an effect on treating depression, and have conducted experiments in Japan. In Yamakita-Cho, Adaigami-gun, Kanagawa Prefecture, a forest therapy called shinrinyoku (forest bathing) aims to improve the physical and mental health of participants by walking in nature. Researchers collect saliva from each participant before and after the walk experience and measure their stress level by the enzymes produced. The therapeutic function of destinations should not be ignored by developers and managers. It enhances the positive traveling experience to a large degree and stimulates the sustainable development of local tourism.

The development of tourism does not only depend on natural resources to attract tourists, even though natural resources are essential factor of tourism. In the era of sustainable development, the very act of depleting natural resources is against the concept of sustainable development. The aim of development work in the tourism sector is to discover unique scenery or places that have undergone a history of human occupation. History has shaped the local area into a unique character, and presents a unique local landscape to tourists. Therefore, it is critical for the management of tourism to adhere to a sustainable development strategy. This section will attempt to summarize the strengths and weaknesses of tourism development in China to provide a more theoretical background on sustainability in this sector (https://trip.pref.kanagawa.jp/).

2.3.3 *Tourism authenticity*

Authenticity in cultural heritage has been studied in Chapter 1 in the context of cultural heritage, and there is also 'authenticity' in tourism. (Richards, 2001a)argues that authenticity in tourism is more akin to ownership: authenticity, ownership of information about authenticity, or ownership of exclusive rights, all provide benefits to the holder. Authenticity is considered both a consequence of the tourist experience as well as an important antecedent due to its ability to motivate, interest and drive tourist visitations (Bryce *et al.*, 2015). Authenticity is important in shaping the visitor experience, and realistic scenes and characters help visitors to develop a quality experience during their visit. Tourist notions of authenticity are largely driven by connection and association with and quality of experience of the site, they are not necessarily responsive to rigid criteria of truth and falsehood (Zhou and Wu, 2006; Bryce *et al.*, 2015).

If the tourism experience lacks authenticity, when the development process of tourism ignores the local culture, expels local people and inputs capital into the operation, then this carefully designed tourism experience is lacking in authenticity and the lack of authenticity is not conducive to sustainable tourism development in the long term. Such an example (Peters, 2013) is gradually taking Lijiang through a transition from a traditional Naxi historic town to a Naxi theme park, which some have more strongly labelled a "themed shopping mall". Cultural heritage sites that lack authenticity and are over-run, even with almost a thousand years of history and culture as a historical backdrop, cannot conceal the fact that the destination has been turned into a "theme park". In order to fully develop tourism, various 'monuments', 'cultural landscapes' or 'theme parks' (with historical and mythological themes) have been replicated or even built indiscriminately on empty land without any resource base, and, driven by the desire for quick success and profit, sometimes ill-conceived actions such as demolishing authentic monuments and building fake scenery can be seen. They are fakes destined to have no credibility and no economic benefit. This is the second type of unsustainable heritage industry development, that is, unsustainable landscape credibility and clientele. At the same time, there is another view (Reisinger and Steiner, 2006b) that focuses on object authenticity, a term used for the genuineness of artifacts and events. It concludes that scholars should abandon the concept and the term because there is no common ground as to their existence, meaning, or importance. Disneyland Fig. 2.6 is one of the famous examples often mentioned when it comes to the issue of authenticity of tourism objects (Wang, 1999; Reisinger and Steiner, 2006b; Cohen, 1988). Under the right conditions, it is possible to use one's strengths to create and design new tourist attractions, it is not always necessary to seek to be 100% natural, and it is possible to create fresh attractions by exercising human initiative. A very successful case in point is Disneyland, and it could be said that the United States has created many superhero images that are very much in line with contemporary preferences. When cultural conditions were not enough to attract many tourists, Lapland built Santa Claus Village, which has become a world-famous tourist attraction. It seems that traditional culture is not always sufficient – popular culture must be added to the product mix (Richards, 2001a).

(Reisinger and Steiner, 2006b) classify the discussions of authenticity in tourism into three main ideologies: modernism/realism, constructivism and postmodernism. Modernism/realism views authenticity as a discernible, objective basis. Constructivism agrees that authenticity is negotiable, subjective and variable. Postmodernism believes authenticity is irrelevant to many visitors. In Chapter 1, we have discussed authenticity and points out that authenticity in the Chinese context is not exactly the same as authenticity in Western countries. A study of Chinese calligraphic landscapes (Zhou *et al.*, 2013a)explains the concept of perceptual authenticity in Chinese culture. For calligraphic landscapes, existential authenticity refers first to visitors immersing themselves in the historical atmosphere of traditional culture, and second to their further appreciating and

Figure 2.6: Disney Castle and classic cartoon characters. The case on Disneyland is often mentioned when discussing the authenticity of tourism, arguing that one should take the initiative to create new attractions. Source: Google Images

enjoying the culture of calligraphy displayed by the couplets, plaques, steles, cliff-side carvings, and in other media. They analyze the impact of visitors' understanding of calligraphy on the tourism experience and aptly explain the concept of perceptual authenticity.

In China's cultural environment, it has been argued (Zhang, 2003) that authenticity in the tourism industry is dynamic, diverse, and complex, and should focus on tourists' experience in the tourism destination from the perspective of a subject rather than simply emphasizing the metrics of the object itself. Scholars (Zhou *et al.*, 2013a) and (Sofield and Li, 2007) present in detail the understanding of nature that entrusts people's thoughts and emotions in the context of traditional Chinese culture. The importance of "atmosphere" in tourist motivations to visit certain destinations has been underlined by a number of other studies (Goedhart, 1997; Herrijgers, 1998). (Richards, 2001a) concludes that the attraction of atmosphere is lacking in China's tourism market. Although atmosphere is a difficult concept to measure, it does matter to the travel experience. We believe that a successful atmosphere requires more professional intervention, for example, in famous Chinese ancient towns, there are always some very incongruous modern elements and shops, which can directly undermine the atmosphere. Therefore, in some specific historical old towns, an effect of visual harmony and balance should be adhered to and commercial aims should not be pursued at the expense of creating a sense of atmosphere.

We believe that the sense of atmosphere is also related to authenticity. When people perceive something to be real, they are more likely to accept the message it conveys and enter into the sense of real atmosphere that authenticity brings.

2.3.4 *Conclusion*

This section presents the importance of the tourism experience, from the authentic experience of the initial impression of the tour, to the visual experience as an important factor in the visitor experience. It also addresses the therapeutic function of tourism, which is also a more deeply functional experience of tourism and well worth developing or exploiting. Especially in a stressful social environment, there is an urgent need to explore in depth the therapeutic function of tourism, which can relieve social stress while highlighting its healing and relaxing functions. Finally, the authenticity of the tourism is discussed, in this case the authenticity of the experience, but physical authenticity can also greatly affect the authenticity of the experience. It is only through scientific management that authentic and experiential destinations can be created and that a positive environment can be created between local residents, destinations and tourists.

In order to explain the tourism experience, this study describes the author's different personal experiences and feelings in tourism of China and various parts of Europe (with a primary focus on Italy) in recent years. The content is presented to provide an understanding of the significant differences in the tourism experience in Eastern and Western destinations.

The European tourism experience is immersive and interactive, created by a range of distinctive landscapes. Taking the world-famous tourist city Venice as an example, the most architecturally striking old city on the water appears as soon as the visitor steps into the area, where every little street may provide an incredible view and every bridge is worth stopping to see. Another typical example is Dolomites, where the characteristic dolomite rocks and unique green meadows are both striking and beautiful. Tourists can obtain a memorable and personal experience because they are able to get very close to these views.

Most tourist destinations in China are rigidly presented and fragmented. The destinations are scattered in location and lack transport links, cultural links, or project links. Many destinations can only be viewed from a specific angle and location, which are those shown in official promotions, and otherwise look very ordinary. This one-sided and incomplete propaganda can easily mislead tourists and violates the principle of authenticity, which may make tourists feel cheated after travel and decrease the reputation of the destination. Authenticity is essential in shaping the visitor experience, and realistic scenes and characters help visitors develop a quality experience during their visit (Zhou and Wu, 2006).

In order to change the negative impression of Chinese tourist destinations, it is important to develop tourism projects with the primary objective of creating a quality tourist experience,

rather than focusing on short-term financial returns. The tourism projects should not have an isolated existence but establish links between the destination and its surroundings, tourists, and the local area. In the urbanization of China, a lot of parks are built in the big cities to providing short-trip destinations, giving parks the role of actualizing the 'gaze' of visitors who come to urban destinations to stare, rather than providing wilderness experiences as understood in, say, the United States. Tourists arrive at these destinations to gaze but not to experience. Strengthening the experience is a direction that needs more thought in tourism development. Self-connection is positively linked to engagement; therefore, tourism planners and managers could encourage and facilitate self-connection between tourist sites and visiting consumers to enhance levels of engagement (Bryce *et al.*, 2015).

China is a vast country with uneven economic development between different regions. The north-western region is vast and sparsely populated, and its economy lags far behind that of coastal cities, but many people living in the big cities aspire to the natural environment of the north-west, and tourism is a way for urbanites to escape the city life.

2.4 The official start of China's tourism industry

2.4.1 *An overview of tourism in China*

This section discusses the formation and the current state of the tourism industry in China. The general characteristics of tourism in China differ markedly from Western contexts. Tourism in China is a recent phenomenon (beginning only in the 1980s) and is overwhelmingly domestic, with foreign arrivals accounting for only a small percentage (Demas *et al.*, 2015). It was not until 1978 that China held its first national tourism conference. In three speeches in 1979, Deng Xiaoping emphasized the importance of tourism for economic development, signifying that politically, tourism was justified for the first time as an acceptable industry (Sofield and Li, 1998). The tourism industry in the early years of the People's Republic was burdened with additional responsibilities in a particular historical context of political turmoil, at a time when tourism was responsible for:

1. Restoration and rehabilitation of destroyed cultural heritage;

2. Supporting the economic development of ethnic minorities;

3. Promoting and disseminating culture and history.

In the 21st century, tourism has a more diverse function in presenting the cultural image of China on the world stage.

Initially, the main market for tourism in China was dominated by the classic group travel model. Chinese tourism has been almost exclusively in the form of packaged, guided tours, organized

mainly by work-units in the 1990s and early 2000s (Demas *et al.*, 2015). In recent years, the development of the e-commerce economy has provided diversified service for tourists. Tourists have more choice and are no longer limited by travel agencies. Young tourists, especially, prefer to arrange their travel themselves, including checking information about the destination, booking transport and accommodation through the internet and preparing their itineraries. The role of travel agencies has weakened increasingly.

Policy support has also led to the rapid development of tourism in China. In 2011, A-class tourism (see definition below) business income reached 265.850 billion yuan, and the proportion of total national tourism revenue continues to increase. China is the world's fourth largest inbound tourism recipient and Asia's number one source of outbound tourism, with a per capita travel rate of 1.5 trips, 13.5 million people directly employed in tourism, and tourism consumption contributing over 10% to social consumption, while tourism also plays a significant positive role in China's economic and social development. Tourism is becoming one of the most popular forms of entertainment globally, but has not been taken full advantage of in many developing countries. Data shows that in 2019 China achieved a total tourism revenue of RMB 6.63 trillion, an increase of 11% from the previous year. The combined contribution of tourism to GDP was RMB 10.94 trillion, accounting for 11.05% of total GDP. Tourism directly employed 28.25 million workers, and tourism directly and indirectly employed a combined total of 79.87 million people, accounting for 10.31% of the total employment in the country (www.gov.cn). According to UNWTO, Asia and the Pacific as a whole was the fastest-growing region for international tourist arrivals with a 9% increase in 2016 compared with 8% for Africa, 3% for Americas, and 2% for Europe (Wang *et al.*, 2018a).

With the rapid growth of the economy, Chinese living standards are rising steadily. As a consequence, the tourism needs of the population have grown immensely in the last 20 years. Although China has several annual public holidays, only three last for one week. Among them, the first week of May and the first week of October (known as 'Golden Weeks') are available for most Chinese to travel Fig. 2.7, while the additional Spring Festival holiday is different since Chinese traditionally reunite with their families instead of traveling. During this period all of China's tourist attractions, large and small, have been criticized for their crowded conditions, poor tourist experience and high expense. China has a large population and a high concentration of famous destinations, which carry most of the travel pressure during Golden Week. In particular, heritage tourism sites, which need to be primarily conservation-oriented, cannot easily handle the instantaneous expansion of visitor numbers. For example, Dunhuang is a cave temple that needs to control the number of visitors, and the influx of visitors creates pressure on the fragile cultural heritage. Often, site authorities find themselves in a weak position in the face of powerful tourism and development forces (Demas *et al.*, 2015). Since 2008, changes to the two "Golden Week"

Figure 2.7: The crowed Great Wall at Golden Week. The photo was taken by CCTV News in 2017 of China's National Day in October, referred as Golden Week. With crowds of people, a scene that is staged at tourist attractions across the country almost every year during Golden Week.

holidays have caused more difficulty in traveling on public holidays. The "Golden Week" in May was adjusted from 7 days to 1 day, and the other "Golden Week" in October was adjusted from 7 days to 3 days, while some one-day traditional Chinese holidays have been added. However, a short three-day holiday is obviously not enough for tourists to travel in such a vast country. The timing of holidays is also a major constraint on travel, which makes the whole country lack feasibility for long-distance travel. The timing of travel is dictated largely by government sanctioned holiday periods of limited duration rather than personal preference (Demas *et al.*, 2015).

The main reason for the adjustments to Golden Week was that it was considered to put too much pressure on the environment and traffic, but such a reason was not acceptable to the public. The cancellation of Golden Week did see a reduction in traffic congestion in the previous month of May, but the introduction of the regulated rest system (replacing the right to rest on regular weekends with Golden Week) then piled up all the pressure into October, a perfect example of "robbing Peter to pay Paul". Although the three days off in October could be adjusted by working hours and rest periods, eventually accumulating a week's holiday, the weekend before and after the holiday would have to be work days. Such a system of swapping rest periods is a drain on morale and is not in line with the principle of sustainability. It disrupts the normal rhythm of work and time off and some people working in small establishments are even deprived outright of their

normal leave. The shorter holiday periods have led to the development of many short-haul tours, with a one- or two-hours' drive around the major cities being a popular location for short-haul tourism development. This type of short trip is very effective in alleviating the concentration of population in more remote cultural heritage sites or national parks and can make tourism more routine.

In fact, in recent decades, as tourism has exploded, there appears to have been poor coordination of policy between the ministries and administrative entities with responsibilities for cultural heritage, natural heritage, and tourism (Demas *et al.*, 2015). It is increasingly common for the operation and management of tourist destinations to be contracted by commercial companies. However, this model tends to ignore the characteristics of tourism resources. As one of the main tourism paradigms, cultural tourism involves the management of a great deal of heritage, and the primary premise of heritage is conservation, which needs continuous and based on sufficient investment. This is a complicated issue and even local governments struggle to balance the relationship between conservation and exploitation. It is undoubtedly risky to entrust commercial companies to manage these destinations. (Xie, 2013) also makes the point that the practice of tourism companies annexing heritage units is not working, is harmful and must be corrected. The two sectors of heritage and tourism must work together, because the preservation of cultural heritage is essential for the promotion of tourism. Such a situation has drawn the attention of the relevant government departments, with the central government restructuring the government bodies managing cultural heritage and tourism, in order to reduce the situation that had previously arisen of "partially unmanaged, partially crowded" sites.

In the tourism industry, there are six aspects that directly determine the tourism experience, including food, accommodation, transport, shopping, travel and entertainment. The industry regulations and standards of these aspects are fundamental to the development of tourism. From the six aspects, this thesis proposes a series of effective suggestions for improving the local tourism industry in Dunhuang, for the purpose of enhancing the tourist experience and serving as a reference for other tourist destinations. Tourism is becoming one of the world's most important activities and it is an area that many developing countries have yet to exploit fully (Durbarry, 2004).

The Silk Road Economic Belt and the 21st-century Maritime Silk Road (The belt and Road Initiative), is a transnational economic belt initiated and led by the Government of the People's Republic of China in 2013. It covers the historical Silk Road and Maritime Silk Road routes through mainland China, Central Asia, North and West Asia, the Indian Ocean Coastal Area and the Atlantic region of South America.

China ranks first in the world in terms of the number of outbound tourists and spending on tourism abroad. According to the latest statistics from the Ministry of Culture and Tourism, the tourism economy continued to grow at a faster rate than GDP growth in 2019. The domestic

tourism market and outbound tourism market grew steadily. The number of Chinese citizens travelling out of China reached 155 million, an increase of 3.3% over the same period of the previous year. Outbound travel is still at a stage of high growth, while inbound travel experienced relatively slow development. The main reason for this is that Chinese tourist destinations lack attraction for foreign tourists. In order to comprehensively develop tourism, the First Session of the Thirteenth National People's Congress on the State Council Institutional Reform Proposal decided to establish the Ministry of Culture and Tourism as a sub-administration of the State Council. The establishment demonstrates the deepening understanding of the inextricable relationship between culture and tourism, that is, culture is essential for the sustainable development of tourism, and tourism is a bridge for cultural exchange. The main official responsibilities of Ministry of Culture and Tourism can be summarized as follows:

- To coordinate and plan the development of cultural undertakings, cultural industries and tourism, to draw up development plans and organize their implementation, to promote the integrated development of culture and tourism, and to promote the reform of the institutional mechanisms of culture and tourism.

- To guide and promote the development of innovation in culture and tourism science and technology, and to promote information technology and standardization in the culture and tourism industry.

- To safeguard intangible cultural heritage and promote the transmission, popularization, promotion and revitalization of intangible cultural heritage.

- To coordinate the planning of cultural and tourism industries, organize and implement the census, excavation, protection, and utilization of cultural, tourism resources, and promote the development of cultural and tourism industries.

The responsibilities of the Ministry of Culture and Tourism are highly related to the development trends of the tourism industry, such as the proposed combination of culture and tourism and the reform of institutional mechanisms. This indicates that the future development of tourism in China should depend on fully exploring cultural connotations and transforming them into attractive advantages, rather than maintaining the low-price strategy and improving traffic transport. The reform of institutional mechanisms demonstrates the government's determination to solve the chronic problems of tourism development. This trend has prompted researchers in this field to focus on the synergistic development of culture and tourism in order to reasonably guide the healthy and sustainable development of tourism.

China has five official grades to evaluate tourist destinations, A, 2A, 3A, 4A and 5A, according to the document Classification and Assessment of Quality Grades of Tourist Attractions. The criteria

for classification are rated on a scale of 1000 points and are divided into transport 140; tours 210; safety 80; hygiene 140; postal service 30; shopping 50; general management 195; and environmental protection 155. These classifications are essential factors in the quality of tourism. However, if the tourist experience is to be enhanced, accommodation should also be counted in the judging criteria, as it affects the visitor experience. Sometimes even the external features of the accommodation can significantly affect the surrounding scenery.

There are significant differences between tourist destinations in China and Western countries. In Europe, most natural resource-based tourist destinations are areas that are not enclosed and are designed to provide an immersive tourist experience for tourists. Therefore, the accommodation buildings inside the destinations need to blend in with the scenery and their appearance aims to match the surrounding landscape. However, most of the destinations in China have distinct regional boundaries but no hotels. Only a few destinations have hotels, mainly run by the management company of the destination. Hotels or homestays run by local residents are rare, resulting in a lack of competition in the accommodation market.

When exploring how to develop China's tourism industry, researchers cannot simply copy the success stories of Europe, because the national conditions of European countries and China are very different, mainly reflected in the level of economic development and social system. In Europe, public utility development plans need to respect everyone's wishes, which results in long-term consultations and the support of the majority for the implementation of development projects. In contrast, Chinese society adheres to the principle of government-led management. This makes it difficult to take into account the wishes of all groups, but ensures that decisions are made and implemented quickly. For example, when the COVID-19 epidemic broke out in 2019, the advantages of government-led management became apparent. However, knowledge transfer is necessary for implementing successful tourism development strategies (Wang *et al.*, 2018a). (Pawson *et al.*, 2018)examine tourism development, management and community tourism in Cambodia. They systematically summarize the Tourism Development Strategic Plan 2012–2020 (Royal Government of Cambodia 2012), and propose five core principles for the development of tourism in Cambodia, including:

1. Free competition for open market enterprises.

2. A clear guiding development policy.

3. Enhanced cooperation between government and business.

4. Community participation.

5. Regulation of tourism.

These principles have guided the rapid development of tourism in Cambodia and promoted the development of tourism in developing countries. As far as China is concerned, Cambodia's experience is more convincing than that of European developed countries, because there are more similarities between China and Cambodia in terms of economic development and social culture, which are very different from European countries. In addition to absorbing successful experience, the development of tourism should give full play to regional advantages, including natural environment and human history. As far as China is concerned, diverse natural landscapes and long cultural history should be integrated into the development of tourism. The conclusion is supported by (Wang *et al.*, 2018a), who argue that core cultural values are inherent in the pattern of inter-organizational relationships involved in tourism. In particular, the shared collectivist high-context cultures of many Asian destinations will require an Asian approach to tourism development. The political system should also be taken into consideration in designing development strategies for different countries. Community members can influence the decision-making process of businesses in developed countries (Spenceley, 2012), while the power of public administration is highly centralized and concentrated into too few hands in developing countries (Tosun, 2001).

2.4.2 *China's national parks*

This section presents an overview of China's tourism industry, which started relatively late. The richness of China's tourism resources not only reflects the appeal of its historical culture and philosophy, but also its rich natural resources, its famous gastronomy, and the convenience of modern urban construction, all of which are important elements in attracting tourists. The establishment of national parks in 2021 marks the high importance China attaches to nature conservation. Sun Yang (researcher at the Development Research Centre of the State Council) pointed out clearly that national parks are not tourist destinations; they are a public welfare for all people and are operated under franchise. Therefore, their development requires protection of the originality and integrity of the ecosystem. The volume of visitors should be limited to within the carrying capacity of the environment. The national park has also become the perfect place to inspire patriotism and foster a sense of national pride (Zhang, 2018). Another factor affecting Chinese national parks that differs from normal Western practice lies in planning regimes. While top-down planning remains the norm, in China's transformation into a more open economy such planning also paradoxically incorporates 'planned competition', which is made yet more complex by incomplete application of regulations (Ma *et al.*, 2009).

On October 12, 2021, China established a number of national parks Fig. 2.8, such as Sanjiangyuan, Giant Panda, Siberian Tiger and Leopard, Hainan Tropical Rainforest, and Wuyi Mountain national parks. Before the concept of national parks was proposed, these destinations were designated as Scenic and Historic Interest Areas on the World Heritage List, which corresponds

to national parks internationally, because most of them are characterized by spectacular natural scenery and profound historical and cultural accumulation (Zhang, 2003). The establishment of China's national park system is significant, marking a huge advance in China's understanding of the importance of environmental protection.

The natural environment has recovered over the past two years as COVID-19 led to global lockdowns and a severe tourism recession. The epidemic caused travel activities to be almost cut off, and the natural environment began to recover during this period. It should be acknowledged that COVID-19 has had an unprecedented impact on all industries, with tourism being the most affected, especially cross-border travel. The environment in all destinations has gradually recovered due to a significant reduction in human activity. In the case of China, COVID-19 was brought under control earlier, tourism recovered faster, and domestic tourism boomed.

China has various types of destinations as options for establishing national parks, including nature reserves, scenic spots, geoparks, and world heritage sites. Nature reserves have particular natural landscapes, biological species and complete ecosystems, such as Jingpo Lake in Heilongjiang Province, Changbai Mountain in Jilin Province, Mount Everest in Tibet Autonomous Region, etc.; scenic spots with unique natural landscapes, geological landforms and historical monuments, such as Guangxi Zhuang Autonomous Region Guilin landscapes, etc.; forest parks with a rich environment, species diversity and beautiful landscapes, such as Shennongjia in Hubei Province, etc.; or rich geological relics with significant aesthetic characteristics and high scientific value, such as Wudalianchi in Heilongjiang Province. In addition, there are some world heritage sites with complete biodiversity, ancient historical relics, intact environment protection and a high global reputation.

Chinese national parks have issues in operation and management, and a series of questions have been raised 2.2, (Zhang, 2018) about the franchise systems of national parks: Why franchising? What is a concession? Who can negotiate? What compromises should be made? In the Study on the Mechanism of National Park Concessions in China, Zhang argues that not all international systems are suitable for China and analyzed four major misconceptions arising from concessions:

The tourism programs of Chinese national parks tend to be homogenous due to the lack of innovative creativity. The glass walkway has been popular in the past few years, because it can provide tourists with a high-level perspective overlooking the beautiful scenery and a sense of excitement. However, a lot of national parks have built glass walkways to increase their attraction to tourists, so this dilutes their original uniqueness. Cities or destinations using similar management practices and offering similar tourism programmes can reduce the uniqueness of cities and destinations, and the unique history and culture between regions can be overshadowed by similar superficial features (David, 1990).

Further, a concept referred as DMU (Ma *et al.*, 2009) introduces a measure of the efficiency of

Figure 2.8: Giant Panda National Park. Giant Panda National Park is one of the first-recognized national parks in China, which preserves 15,000 square kilometers of giant panda habitat, accounting for 58.48% of the country's giant panda habitat. Source: People's Daily

Four major misconceptions from concession	
1	Considering concessions as the main source of income for national parks, distorting and amplifying their functions.
2	Inclusion of implementation within national parks in concessions and blind expansion of their boundaries.
3	Development of operational projects under the pretext of satisfying public well-being and indulging in the rapid growth of operational projects.
4	Viewing product innovation as the soul of concession innovation and deviating from its correct direction.

Table 2.2: Four major misconceptions from concession (retrieved from Haixia, 2018).

investment in a national park. According to this measure, a national park in China could produce the same level of benefit with only 17% of the current investment on average. The proportion indicates that the current operation and management of national parks are undergoing a relatively inefficient stage.

2.5   Different management of similar tourism resources

Tourist destinations with similar natural resources and environments may significantly differ in degrees of development under different management. Some Chinese destinations are very similar in character to internationally renowned tourist destinations, but are far less famous. This section analyzes the reasons for this through several examples.

2.5.1   *Hierapolis-Pamukkale in Turkey and Baishuitai in Shangri-La, China*

2.5.1.1   Hierapolis-Pamukkale, Turkey

Turkey's Hierapolis-Pamukkale, referred to as Cotton Castle Fig. 2.9 , is named for its white stepped appearance. Located in the Turkish province of Denizli, it is 2,700 meters long and has a mostly mild climate. The carbonate-rich hot spring water flows down the slopes, and minerals leaching out of the water over a long period of sedimentation have formed one platform after another on the stepped slope, eventually creating the peculiar terrain we see today. This has made Pamukkale a popular tourist destination in Turkey and it was recognized as a World Heritage Site in 1988 (Özdemir, 2010). Before that, it was not sufficiently valued, so a hotel was built directly on the heritage and the thermal waters were used in the hotel pool, causing danger of depletion of the spring (Tosun, 2000a). It is common for each destination to face unique issues that must be

solved by its management (Somuncu and Yiğit[2], 2010). Although good resource management will never be able to completely solve the problems in conservation of this site, it is equally clear that a better use of natural resources can help avoid worsening an already difficult situation (Dilsiz, 2002).

Figure 2.9: Cotton Castle in Turkey. Source: Chenyuan

After the recognition of the World Heritage Site, the local authorities demolished a large number of hotels and forbade tourists from walking on the heritage site and using soap in the hot springs. These regulatory measures significantly benefited the local environment but hurt tourism in the short term. In 2011, the place attracted a large number of users through promotions on Instagram and Facebook photo, and increasingly became a promotional drawcard for Turkey. The town devoted itself to attracting tourists through the development of other surrounding destinations such as Guney Plateau, one of Turkey's most famous vineyards, and the ruins of Laodicea. These rich tourism products extend the stay time of tourists, and the surrounding scenic spots share the passenger flow, forming a large-scale tourist area and creating a large number of jobs for the local area.

As its popularity gradually rises, more and more tourists lead to over-tourism. In brief, the urbanization of the Pammukkale travertine plateau, and tourists themselves have progressively impaired the attractive environment that visitors come to view (Tosun, 2000a).Even so, it still enjoys great popularity internationally and is to Turkey what the Eiffel Tower is to France. When it comes to Turkey, tourists first think of hot air balloons and Hierapolis-Pamukkale, and Pamukkale still holds top position on the Goturkey tourism website's Top 10 Natural Wonders. Reviews on the

travel website Tripadvisor about Hierapolis-Pamukkale indicate that tourists find the scenery is unique, and the destination offers many tours, but the main point of dissatisfaction is that there are too many people.

There are several tourist destinations in China that are similar to Pamukkale, one of which is the Huanglong Scenic Spot in Sichuan. It covers an area of 700 square kilometers and has been included in the World Nature Heritage List as a national 5A-level site in China. The most recent tourism statistics available are from June 8, 2017, with only some of the data from 2016 to 2017 available. According to the 127 records shown on the official website of Huanglong, daily visitor arrivals fluctuated in the range of 7,000 to 9,000. Despite the lag in the online data, it is clearly well-known at home and abroad. Nevertheless, many other cases have difficulty in gaining visibility due to lack of adequate management. A typical example is Baishuitai in Yunnan, a significant and unique destination but much less well known even to the Chinese.

2.5.1.2 Baishuitai in Yunnan

Known locally as "God's terraced fields on earth", Baishuitai Fig. 2.10 is located at an altitude of 2,380 meters to the southeast of Shangri-La, at the foot of Haba Snow Mountain. In 1933, British author James Hilton described a fictional place where the inhabitants live happily and named it Shangri-la. Later the term became synonymous with utopia and was used as a place name in several provinces. After a dispute over the name among these places, Zhongdian in Yunnan claimed its ownership in December 2001. Baishuitai is characterized by a travertine terrace which covers three square kilometers. Travertine is formed from the calcium bicarbonate in spring water and is known as "the flowers emerging from underground". The mineral-rich blue spring water flows from the top terrace to the bottom, and about 200,000 to 300,000 years of carbonate precipitation has formed the present white terraces. Interest in Baishuitai has mainly concentrated on geological research, and tourism has not been fully exploited due to a lack of attention in the tourism market. Yet Baishuitai has unique natural and cultural resources, and its tourism industry could develop into the leading economic industry in the area (Dai *et al.*, 2002). As early as the Ming Dynasty, Baishuitai was famous for its unique landform and recorded in poetry, but currently it is only ranked a 3A scenic site with a 30-yuan ticket price. In 2002, Dai analyzed the problems for tourism in the region:

1. Poor management, severe damage to terrace surfaces.

2. Difficult to manage, water inflow from the source decreases sharply.

3. Lack of investment and inadequate infrastructure.

Although Baishuitai has been receiving increasing attention, it remains a poorly developed and poorly managed situation. For a long time, due to the lack of awareness of the protection of the

Figure 2.10: Baishuitai in Yunnan. Source: Baidu.com

Baishuitai scenic area and the fact that the local economy is based on small farming, the protection and development of the scenic area is not adequate, with significant damage to and waste of the resources of the whole scenic area (Li *et al.*, 2002).

In terms of landform features and natural environment, China's Baishuitai is highly similar to Turkey's Pamukkale. However, the former is far less well-known internationally than the latter, and is only rated as a 3A-level scenic spot even in China. Although the tourism resources here are rich and could be very beneficial to developing the tourism economy, tourism development here is slow, lacking even the essential official website, and tourists have to obtain information through third-party tourism websites. The comments of tourists on these websites reflect the deep-seated reasons behind the low popularity of the scenic spot, which can be summarized as follows:

1. Poor public transportation facilities. It is difficult for tourists to access to the site by public transport. Even self-driving is not feasible because of the poor road conditions. Therefore, joining a local small-scale tour group is the only option, but the service quality is always not satisfactory.

2. Poor public infrastructure. The necessary public facilities, such as toilets and parking lots, are often closed. Tourists have to go to places of consumption, such as shops or restaurants, to find private facilities, and feel obliged to buy something after using the private toilets. Villagers also charge for parking.

3. Illegal and unreasonable charges. Many tourists complained that the price of tourism was too high. Some said they had experiences of being forcibly charged by local residents, who suddenly demanded payment for taking a photo.

4. Lack of diversified tourism programs. Tourists can only enjoy the scenery from several designated viewpoints and perspectives, lacking suitable hiking routes and cycling routes for immersive tours. Therefore, tourists find the experience disappointing in relation to the high transport cost to get there.

These factors explain why such as special site is not popular in the tourism market. Based on above analysis, we present several suggestions to improve the tourism industry of the Baishuitai. First, it is necessary to create an official website and provide comprehensive tourist information to increase promotion efforts; to guide local residents to regulate tourism projects to create a healthy tourism environment; to increase infrastructure construction, including toilets, parking lots and transport, and to facilitate self-driving. On the other hand, construction should be well designed to avoid the ecological damage, especially traffic construction. The construction of tourist transportation includes both external and internal traffic to the site. Traffic construction brings materials that are different from the local soil matrix, cuts the native surface interface, changes the direction of water transport and destroys native vegetation, thus causing environmental damage. However, if we do not build roads, the ecological damage maybe even more significant if motor and pedestrian traffic is uncontrolled (Zhang, 2006). The site could also link several famous attractions around the area to form a large circuit of self-drive tourism through well-designed road system. More excursions with multiple levels of difficulty could attract different tourists to stay for a longer time.

2.5.2 *Rainbow Mountains in Peru and Danxia Landform Geological Park, China*

The second case of comparison is between the Rainbow Mountains in Peru and the Danxia Landform Geological Park, China.

2.5.2.1 Rainbow Mountains in Peru

Located in Cusco, Rainbow Mountain Fig. 2.11 is another significant site in Peru besides Machu Picchu, called Vinicunca or "colored mountain" by the locals. The Rainbow Mountain was covered under glaciers until 2015, when the region's glaciers melted, due to global warming. It is an emerging and already well-known destination, having become the first option for international tourists to Peru with an average of 1,500 tourists a day. Taking advantage of travel agencies and multiple social media, such as Facebook and Instagram, the local administration has promoted it so effectively that its unique scenery is widely known all over the world. A part of the Andes Mountains, Rainbow Mountain is composed of red sandstone and presents colorful landscape. The landform of Rainbow Mountain, referred as the Danxia landform in China, is characterized by steep colored cliffs at more than 5,000 meters above sea level. It gets plenty of sunshine but the

Figure 2.11: Rainbow Mountains in Peru. Source: Baidu.com

weather is dramatically changeable and often switches quickly from sunshine to cloud and rain throughout the day. To see the magnificent panorama of colorful mountains, tourists need to walk to the top from an altitude of 4,900 m and this takes about 5 hours each way. Tourists have two ways to get the summit, hiking or riding a horse. Horses and hiking equipment can be rented from local residents at the camp. The trekking poles are made of wood and this tool contributes to the local characteristics of the experience.

The development and management of tourism at Rainbow Mountain has experienced fluctuations. The site suffered rather serious damage as a result of the largely uncontrolled development of tourism. This situation was alleviated after one year, when the local administration began to pay full attention to it (Tomczyk and Ewertowski, 2018). With the increasing number of tourists, the local administration has to consider how to protect the natural resource from damage. The empowerment of local residents has been explored as a way to promote the comprehensive development of local tourism. In 2017, uvenal Callo Delgado noted (Callo Delgado, 2017), in his study on the quality of tourism services and tourist satisfaction in Vinincunca, that the local travel agencies provided only scarce or outdated information, misleading tourists. However, this had limited impact on the growth trend of tourism and was significantly improved in 2021, when official website for Vinicunca was launched (https://www.rainbowmountainperu.com). The website provides essential information for tourists, including basic information on the destination, transport information, and safety warnings. The local administration has also successfully promoted the local folk culture, which has become the second highlight of the site. The locals dress in a unique way, and their

Figure 2.12: Danxia Landform Geological Park. Source: photo by Author, 2017

colorful hats are especially popular with tourists. They retain the traditional transportation of horse riding and they a provide riding service for tourists which increases their income.

2.5.2.2 Zhangye Danxia Geological Park

Located at Northwest China, Gansu Province, Zhangye Danxia Geological Park Fig. 2.12 contains one of the most famous red (in Chinese "Danxia") landforms in the world. Located in a typically dry climate region, trade in vegetables and tourism are growing as the local pillar industries, both having the advantages of saving water and reducing poverty (Yao *et al*., 2020). In the arid northwest, Zhangye's precious natural resources are an advantage for tourism development. Zhangye has a long history and has tourism resources unmatched by other cities, and in July 2020, it was awarded the title of UNESCO World Geopark at a UNESCO conference in Paris and was ranked a 5A scenic spot in China. Yet its tourism development has been slow (Zhao, 2011).

The cretaceous red formation, dating from 135,000 to 6,500 years ago, has been shaped by nature over thousands of years and presents colorful hilly landscape. Its appearance is highly similar to the Rainbow Mountains in Peru, both of them being referred as "God's palette" by tourists. It is a document of geological change, just as cultural heritage records the evolution of human history. Established in 2008, Zhangye Danxia Geopark covers an area of 536 square kilometer,

including caves, grottoes, ravines, stone pillars, stone towers and other landforms. Compared with the Rainbow Mountains, it covers a bigger accessible area and has a more stable climate for tourism development. The site was crossed by the ancient Silk Road and is rich in history. The official website provides comprehensive travel information but there is no English version, although the site is recognized as 5A level.

Despite being one of the top tourist destinations, the management and operation of Zhangye Danxia Geopark still need to be improved. In recent years, Zhangye Danxia Geopark has been becoming increasingly popular in the domestic tourism market, while globally it is not as well-known as the Rainbow Mountains in Peru. Many visitors to the Geopark are local tourists, with limited spending ability, and there is a lack of long-stay visitors, thus leaving many tourism-related industries without corresponding development (Mao, 2010). On the other hand, the Geopark lacks attraction for long-stay travel, due to inadequate traveling programs. One popular attraction is a hot air balloon, but unlike the famous Turkish hot air balloon, which can take tourists on flights over a long distance, the hot air balloon at the Geopark is anchored to the ground by a long safety rope, and thus can only take tourists into the air but cannot fly horizontally. This satisfies most tourists, providing them with a high-altitude perspective for taking pictures. The rise of social media has changed the Chinese people's concept of travel. For them, taking amazing photos and posting them on social networks has surpassed the travel activity itself, becoming a very important aspect of their travel experience. Tourists can also enjoy helicopter rides and low-altitude sightseeing services by paramotors. Inside the Geopark, several observation platforms have been built but they are connected by concrete pavement. The ugly concrete pavement is quite incompatible with the surrounding environment, resulting in a considerably reduced visual effect. In addition, tourists are restricted to taking a toll bus to access the observation platforms. An an additional attraction, the Geopark holds dazzling light shows at night , but due to the lack of comprehensive design, the color of lighting is abrupt and monotonous. Poor management and operation have developed tourist programs in the wrong direction.

The development of entertainment programs should be based on the advantage of local environment and tourist experience. For example, the Geopark is far from bug city and is easy to avoid the pollution at night is from artificial light. Such environment is suitable for stargazing activities, in which tourists can enjoy peaceful experience. In conclusion, Zhangye Danxia Geopark and the Rainbow Mountains have similar landscape even similar tourists' comments and promotional photos on social media. Both of them need to improve their management and operation.

2.5.3 *Plitvice Lakes National Park in Croatia and Jiuzhaigou Valley Scenic and Historic Interest Area in China*

The third case study for comparison is that of Plitvice Lakes National Park Fig. 2.13, Croatia

and Jiuzhaigou Valley Scenic and Historic Interest Area, China.

2.5.3.1   Plitvice Lakes National Park, Croatia.

The largest national park in Croatia, Plitvice Lakes National Park was founded in 1949 and was selected as a World Natural Heritage Site in 1979. The most attractive highlight of the park is the spectacular color change of the lakes from blue to green, due to the mineral elements inside water. The park is also rich in animals and plants. However, UNESCO threatened to remove Plitvice from the list of World Natural Heritage Sites in July 2016, because of the overdevelopment of tourism. The data shows the rapid increase of tourist numbers in the past two decades. Plitvice had 238,401 tourists in 1996, and the number rose to 1,367,304 by 2015. According to the official website, the site has 15 service centers and 6 hotels at present. More hotels are planned to accommodate more tourists, despite the evident fact that the number of tourists has far exceeded the capacity of the space. The concentration of tourists burdens the space and the environment, with corresponding effects on all aspects of sustainable development of the protected area (Marković Vukadin *et al.*, 2013). It indicates that tourism development is based on maximizing profit regardless of the sustainability, as proven by lack of operational management plans to determine carrying capacity (Marković Vukadin *et al.*, 2013). The World Heritage Committee has appealed for a halt to current development projects, due to the vulnerability of the groundwater. Excessive tourism development threatens the sustainability of protected areas and timely and planned policies and measures to minimize and prevent the adverse impacts of development are urgently needed (Mandić and Petrić, 2021). Mandić and Petrić (2021) stress the importance of establishing development goals for natural attractions as well as identifying desired visitors and their preferences to provide intended visitors with their preferred surroundings (Mandić and Petrić, 2021).

2.5.3.2   Jiuzhaigou Valley Scenic and Historic Interest Area

Jiuzhaigou Valley Scenic and Historic Interest Area Fig. 2.14, a 5A tourist destination of China, was listed as a World Natural Heritage Site in 1992 and was included in the World Man and Biosphere Reserve in 1997. It covers an area of 72,000 hectares at an altitude of 4,752 meters and is situated in the north of Sichuan province. It contains 108 alpine lakes and more than 2,000 species of plants. The virgin forest there is an important habitat for giant pandas and Sichuan takin, and there are well-preserved quaternary glacial relics. Jiuzhaigou has a rich diversity of tourism options, offering cultural experiences with a distinctive ethnic flavor, an excellent ecological environment, and has valuable geographical research value. Therefore, the state and governments at all levels have issued comprehensive laws and regulations for its protection and management, such as the Sichuan Province "Sichuan Province World Heritage Protection Regulations" and "Sichuan Province Aba Prefecture World Heritage Protection Regulations Implementation Regulations". However, the

Figure 2.13: Plitvice Lakes National Park. Source: Baidu.com

increasing number of tourists is growing to be a serious challenge for conservation, and measures are needed to control human activity (http://whc.unesco.org/en/list/637/).

The tourism management of Jiuzhaigou is an example of success in the tourism industry. In the early stage of tourism development, great importance was attached to building a cultural brand based on local conditions. To capture the attention of the tourism market, the place was named according to its local geographical characteristics, where nine beautiful villages are scattered on both sides of a river. The name is liked by local people and enhances their cultural identity. In the tourism market, the name has gradually become popular and attracts a large number of tourists every year. The management practices of Jiuzhaigou have been recognized as successful and sustainable, because local people are involved in site management, such as creating innovative policies and regulating tourism. It was included in the official document "Practical Heritage Capacity Building Strategy" as one of the best cases of cultural heritage management, issued by the World Heritage Committee in 2011.

Jiuzhaigou implements a successful online promotion strategy. The official website of Jiuzhaigou supports multiple languages and provides tourists with up-to-date information about the destination. The website offers a variety of recommended tour itineraries, such as folklore tours, photography tours, Tibetan culture tours, ecological tours and science tours. Comprehensive information on special animal and plant species are included on the website to attract tourists. According to the statistics shown on the website, the average number of tourists in off-season is 6,000 per day and the maximum capacity is 30,000 per day. Key information on management is also available on

Figure 2.14: Jiuzhaigou Valley Scenic and Historic Interest Area. Source: Baidu.com

the website, including progress of construction projects and public notices about procurement projects. This transparent management process encourages the residents' participation in the sustainable development. In response to worldwide travel restrictions in 2020, the administration of Jiuzhaigou launched an advanced internet publicity program to provide a live broadcast of the scenery at the sites. Although most people had to cancel their travel plans due to the threat of COVID-19, they could thus enjoy the scenery through the internet.

The construction of Jiuzhaigou adheres to the principle of sustainable development. A severe earthquake of Ms7.0 magnitude struck Jiuzhaigou and led to 29 deaths, 1 missing person, 543 injuries and direct economic losses of approximately US$1.257 billion. After the disaster, the conservation and restoration were immediately conducted with the guidance of experts and the involvement of professional institutions such as the Chinese academy of Sciences and the School of Architecture at Tsinghua University. Five principles were adhered to in the restoration and reconstruction:

- Respecting nature and giving priority to ecology

- Adhering to a people-oriented approach

- Adapting to local conditions and scientific reconstruction

- Adhering to bottom-line thinking and ensuring safety

- Adhering to innovative mechanisms and strengthening safeguards

These five principles regularized the development within a sustainable model, in accord with the with unique natural conditions. Jiuzhaigou has become one of the most famous tourist destinations in China, giving rise to the saying "When you return from Jiuzhaigou, you will not want to visit any other destination any more".

2.5.4 *Uyuni Salt Flat in Bolivia and Caka Salt Lake in China*

2.5.4.1 Uyuni Salt Flat

Located at an attitude of 3,653m above sea level, Bolivia's Salar de Uyuni Fig. 2.15 is known as the world's largest salt flats, covering almost 12,000 sq km. With an area larger than more than 150 countries in the world, including Jamaica, Qatar and the Bahamas, the flats contains 10 billion tons of salt, of which 25,000 tons are extracted annually. During the dry season hundreds of conical mounds are dotted across the flats, awaiting exportation. The salt is sold in Bolivia as well as being shipped all over the world. Originally part of the prehistoric Lake Minchin, which covered most of Southwest Bolivia, formation of the flats began some 40,000 years ago as a result of the Andean uplift. As the high Bolivian Altiplano emerged, Lake Minchin eventually dried up, leaving behind the salt deposits for which the area is now famed. Today, two modern lakes - Poopó and Uru Uru - remain, as well as the two major salt deserts of Salar de Coipasa, and the larger Salar de Uyuni. During the rainy season, a combination of increased rainfall, plus an overflowing Lake Poopó, creates a wholly unique environment, where the sky is magnificently reflected. Photos of the phenomenon cannot convey its beauty. At Colchani, a town nearby, the fewer than a thousand residents. have been working the salt flat as salt miners for a century and a half. The salt marshes are visited by around 60,000 people each year, and during the dry season from July to October, visitors can travel by car across the Uyuni salt marshes.

However, there is a lack of tourist accommodation around the area, and there is no public transport to reach it. As a result, local tour operators mainly conduct tours on chartered buses or in groups. This famous tourist destination does not have a dedicated official website, and tourist information is not easy to find. Most of the problems reported by visitors on the internet are that the local accommodation is not particularly good and that travelling by car can be a challenge, requiring the help of a local travel agent. Despite its rich natural resources being very conducive to tourism, the local tourism industry has been slow to develop, with a lack of tourism management, an incomplete network system, an inadequate transport system and inadequate accommodation for tourist needs. In addition, the high altitude and lack of easy access make it challenging to reach

Figure 2.15: Uyuni Salt Flat in Bolivia. Source: https://www.sina.com

the area for tourism, but surprisingly these inadequate conditions have not affected its popularity on social media at all.

Salar de Uyuni has a historical and cultural prestige, which is conducive to the development of local tourism. Bolivia is a developing country with a great disparity between rich and poor and uneven development, but there are rich lithium deposits in Salar de Uyuniyou, with an estimated 40% of the world's known reserves of up to nine million tones. In 1544, the local people accidentally discovered the silver mines of Potosi. For hundreds of years after this, the area was over-exploited until the silver mines were depleted in the early 19th century, when mining activities ended. There are many stories of hard labor, exploitation and deaths in the mining process, and it is a grim fact that up to eight million local people and some slaves from Africa lost their lives in the mining operations. The city became a United Nations World Heritage Site in 1978 because of this history and its colonial architecture, and it is because of this history that the Bolivian government has treated the lithium mines here with great care in order to avoid a repeat of the tragedy and the destruction of the salt lake.

2.5.4.2 Caka Salt Lake

Located in northwest China, Tibet's Caka Salt Lake Fig. 2.16 is a 4A tourist destination at an altitude of 3,199 m above sea level, covering an area of 105 sq km. This tourist destination is set

Figure 2.16: Caka Salt Lake. Source: Mafengwo.com

up with a ticket office and is only accessible by land transport, either self-drive and public transport. It is popular in the tourism market, even though the official website of Caka is rudimentary, and the only useful information offered is the location of Caka on a digital map. Tourists even cannot find a photo of Caka on the webpage. This fact indicates that motive for building the website might be for participating in the national scenic sites rating but not for the convenience of tourists.

The operation of Caka has been criticized by tourists for a long time. To start with, tourists can choose to drive by themselves to reach the entrance, where a large parking lot was been built for tourists. However, this is far from the destination itself, and until the recent building of a new entrance, private cars could not access the destination except by a bus provided by the management company. Tourists visiting the destination can now access the new entrance and take a shuttle bus to get to the site, and the previous carpark is not used any more. This still affects tourists' traveling experience significantly and has been criticized widely. The management company is suspected of artificially creating difficulty in accessing the destination in an attempt to charge tourists and make a quick profit. Staff at the Salt Lake confirm that the mandatory shuttle service has caused much discontent among tourists. In fact, charging tourists through a mandatory shuttle service is short-sighted and harms tourism in the long term. Destinations which are rendered easier to access are visited by a higher number of visitors in the long run (Tverijonaite *et al.*, 2018).

2.6 Conclusion

This section has given an overview of statistical trends in tourism around the world, showing

that countries with developed economies usually have a more developed tourism industry. We have compared tourism data from Italy and China, arguing that the development of tourism plays a positive role in the national economy. China's tourism industry has developed relatively lately, and data in recent years have shown the great potential of tourism in the future. Factors influencing the tourism experience have been discussed, including visual coordination, traffic convenience and authenticity. This thesis advocates research into the development of the therapeutic function of tourism to enhance a stress-relieving tourism experience. The importance of management in the use of tourism has been highlighted by analyzing four destinations with similar landscapes but in different management contexts. However, the development of the tourism economy in economically underdeveloped regions comes more from the quality of the tourist attractions, while the tourism economy in economically developed provinces is less influenced by the quality of the attractions (Zhu and Maags, 2020). This section proposes several easily achievable recommendations beneficial to tourism development.

- Developing information collation and management systems.

  To improve the efficiency of management and execution, every destination should develop a robust place to provide necessary information for tourists. With the rapid development of international tourism, multiple languages should be supported. Most of current tourism websites and promotions only support Chinese, which limits their use by international tourists. Commonly only brief websites provide no more than contact information (Buckley *et al.*, 2018). Many developed countries have official national tourism websites for their famous destinations to provide tourists with travel information. For example, every Nordic country has a specific and well-structured tourism website, covering all the essential travel information, such as food, accommodation, transport and weather. Every tourist destination has dedicated web pages to outline its characteristics and promote the local culture. However, most Chinese tourist destinations have a weak awareness of website development. This leads to insufficient and out-of-date information, even some websites where information has not been updated for several years. Tourists have to seek information through other, non-official tourism companies' websites, where the information is unverified. In the e-commerce space, many internet enterprises such as Owl, Ctrip, Flying Pig and even Tmall and Meituan, are seizing the travel market by providing tourists with information and booking services. This active market competition drives the rapid development of tourism, meanwhile, some low-quality services are provided to tourists. Due to market competition, enterprises pursue economic interests and ignore sustainable development, which can easily lead to the destruction and uncontrolled development of tourism resources. Therefore, it is necessary to put enterprises under government-led management. In terms of inadequate development of a tourism network service, China should learn from the Scandinavian countries, whose

comprehensive network service provides international visitors with valuable information on travel.

- Adjustment of official evaluation criteria.

Official evaluation can provide practitioners and operators with the direction for project development. The evaluated level is an important guideline for tourists in purchasing services. There are two aspects where the current evaluation criteria need to be updated. The first, as one of the most important factors that influences travel experience, is that accommodation is not included in the current version of "Administrative Measures for the Quality Grade Evaluation of Tourist Areas". Accommodation conditions should be treated as one of key factors deciding the quality grade of the destination. Secondly, the importance of transport conditions is not stressed in the criteria. Higher weight should be given to encourage destinations to prioritize this. Enormous competition in China's tourism market means that it inevitably manipulated by commercial concerns. Therefore, comprehensive and well-considered criteria are necessary for the sustainable development of the tourism market.

In China, low-quality accommodation has become a critical restricting factor in tourism development. For a long time, the accommodation experience has not been considered an important part of the travel experience. The construction of tourist destinations does not pay enough attention to the construction of homestays and hotels. Tourists tend to complain about poor accommodation services at destinations. The situation is worse in western and northern China, where the lack of access to the sea, isolation and remoteness from international markets lead to poor infrastructure and poor economic performance. Although many spectacular natural landscapes are located there, tourists are only willing to stay there for a few days because of the poor accommodation. In recent years, the popular website Air BnB has provided an effective platform to connect accommodation services to tourists, on which some excellent homestays and hotels can be found and accessed. The tourism industry has begun to realize the bottleneck caused by lack of accommodation services and to invest more to improve them. Some remote areas even aim to build accommodation in keeping with the local natural environment, to revitalize local tourism. It is time to introduce official regulation for the development of the accommodation industry.

Inaccessibility and lack of transport has been another crucial factor restricting tourism development. With rapidly growing demand for tourism, the tourism market is expanding into remote areas, where the unique natural landscapes are more attractive than the modern artificial buildings in central areas and coastal areas. However, their inaccessibility and remoteness from the large eastern cities has long contributed to the marginalization of this

tourism region. Tourists need to take long flights or trains over several days to get there, and the high time cost has a negative influence on tourists' travel experience. Furthermore, in recent years a new phenomenon has emerged of destinations building extra entrances dozens of kilometers away from their current entrances in order to force tourists to purchase shuttle services. Tourists thus have to spend even more money and time on transportation. This tactic has received much negative feedback from tourists and is not compatible with the destination transport guidelines in the Destination Classification and Rating (DCR). The document involves five standards and accessibility is a critical variable in tourism development planning (Tverijonaite *et al.*, 2018).

A business-friendly environment can contribute to the prosperity of the tourism industry. Since Chinese tourists very much value saving travel time, (Zhu and Maags, 2020) predict that they will choose lesser-quality destinations and abandon higher-quality but more inaccessible ones, thus expanding tourism in places with lesser-quality destinations to the detriment of locations with higher-quality scenic spots. At the same time, she believes that high passenger volumes generate high traffic to the destination and that the revenue from transport is also part of the tourism revenue. The point can be illustrated by the comparison between Xi'an and Guangzhou, two cities of central China. The number of tourists in Xi'an is much larger than that in Guangzhou, while the tourism revenue of the former is much lower than that of the latter, as Guangzhou's services, commerce and urban hospitality are far more functional than those of Xi'an. However, excessive commercialization results in the loss of authenticity, completeness and diversity for tourist destinations, which is very detrimental to the development of the tourism industry. In fact, excessive commercialization is a common problem in the current Chinese tourism market (Wang *et al.*, 2020b). Therefore it has been argued (Ma *et al.*, 2009) that compared with European destinations, Chinese destinations focus more on achieving economic goals than providing an excellent traveling experience.

- Establishing link between destinations, culture and local communities.

Whereas tourism in Europe has a region-wide character, in China it is fragmented and isolated. Isolated destinations, with no other destinations close to them, inevitably raise the cost of the itinerary, in terms of both time and transport. In the absence of enriching tourist activities such as skiing and swimming, tourists rarely stay long at such destinations. The development of region-wide tourism by building transport links between isolated destinations can enhance tourism benefits for the whole region. When heterogeneous destinations (that is destinations based on different morphologies or bio-diversities) are clustered complementary effects will arise and their attractiveness will be improved through an "external economy" (Ma *et al.*, 2009). In addition, the links between destinations and local cultures should be strengthened, which is essential for creating unique travel impressions. The famous Italian

city of Verona is a successful example of this. Through its romantic love stories paired with unique architecture and scenery, this ancient city makes a special impression on the minds of tourists. Furthermore, for cultural heritage destinations, culture as a key focus for tourists directly affects the travel experience (Richards, 2001a). According to the World Tourism Organization, nearly 40% of tourism involves heritage and culture (Wang *et al.*, 2020a). Therefore, it is vital to establish a strong link between culture and the heritage environment, that is the heritage environment should be harmony with the theme of culture and culture should endow the environment with uniqueness (Richards *et al.*, 2001). Tourism authorities are aware of this and have issued documents to guide the development of cultural tourism (Xie, 2013). The link between the destination and the local community should be also valued. Involvement of the local community is essential for the innovative management of the destination, as will be discussed in Chapter 5.

Chapter 3.   Dunhuang

3.1   Introduction

Situated in northwest China, Dunhuang is famous for its long history and abundant historical monuments. Dunhuang is strategically located at the westernmost end of the Hexi Corridor, which has traditionally been a major transportation route linking north-western and central China. Dunhuang, the most influential city on the Silk Road, is one of the four oases in Gansu Province and is renowned for the Dunhuang Caves and Dunhuang Murals. It was selected as one of the 2012 Top 200 Charming Cities with Chinese Characteristics in 2012, and is a cultural capital of East Asia.

Dunhuang's most remarkable cultural heritage site, the Mogao Grottoes, consists of the largest surviving and most architecturally rich group of Buddhist caves in the world (Fan, 2003). Considered to be a concentration of Dunhuang's artistic values, the Mogao Grottoes are an amalgamation of the three arts of architecture, sculpture and frescoes. Built over several dynasties, the cave architecture can be divided into more than a dozen categories, each reflecting the artistic style of the era in which it was built. According to legend, the first grotto was built in AD 336 by a monk called Lezun for the purpose of Buddhist meditation. From that date, more grottoes were built over 10 dynasties and a period of more than 1,000 years, making it the most chronologically extensive grotto complex in the world. For this reason, the Mogao Grottoes, also known as the 'Caves of a Thousand Buddhas', now contain 735 caves spread over a cliff wall of more than 1,700 meters, with 45,000 square meters of frescoes and more than 2,400 painted clay sculptures.

Over China's 5,000-year civilization, each dynasty and generation left behind a rich cultural heritage. The Dunhuang Caves are a stage where East meets West, on which different dynasties, different peoples, different costumes and different cultures played their parts, unified by a common faith and pursuit. Countless skilled artisans, men and women, high and low, played their roles through the millennia in a performance of praise to Buddha, leaving behind a heritage of sacred culture for humanity. The cave complex has a variety of architectural structures, the character of which has evolved over time. The early caves were built in a distinctly Indian style, while some of the later ones incorporated local artistic styles. The central pagoda cave at Dunhuang, for example,

has a square roof structure, whereas in India a round one would be used. Archaeologists believe that the evolution of the architectural style reflects the integration of the Buddhist culture into Chinese culture. The Mogao Grottoes contain a large number of clay sculptures which have been painted in color, known as the "colored sculptures". The pigments are taken from natural minerals and the colors are brilliant and remain unchanged through the years. These painted sculptures are usually located in the middle of the main hall in the main body of the cave, featuring a statue of Buddha or Bodhisattva, while the four walls and ceiling are decorated with frescoes. Despite the age of their construction, these sculptures show great artistic attainment and are rated as the pinnacle of Chinese Buddhist sculpture. The largest statue in the Mogao Grottoes, known as the Great Northern Statue, was built in AD 695 on a hill. The second largest statue, 26 meters tall, was built during the Tang Dynasty, its majestic body leaning against the cliff, its face looking down slightly, with a rather infectious smile. The builder has ingeniously scaled the body of the sculpture according to the visitor's viewing angle in order to achieve a better visual effect, so that when visitors look up at the statue its furthest points do not appear smaller than the closer ones due to their perspective.

As one of the most precious artistic gems in the treasury of Chinese culture, the Dunhuang murals are a perfect expression of ancient Chinese traditional aesthetics, with their superb techniques, unique structural shapes, smooth and natural pictorial dynamics, and embedded cultural connotations. With its extremely rare techniques and magnificent scale, Dunhuang frescoes have made a remarkable contribution to the longevity and profundity of traditional Chinese culture. These murals are of various styles and are sorted into 5 main categories according to the subject matter, including sutra paintings, patron paintings, paintings of immortals, story paintings, and landscape paintings. Sutra paintings are paintings that interpret a sutra with a single image, the most famous of which is the Yakushi Sutra painting created in the Tang Dynasty. This painting exhibits a typical oriental art form, showing all objects on a two-dimensional plane without regard to three-dimensional spatial relationships. The patron was the investor in the excavation of the cave, so the figures in the patron paintings are usually the patrons themselves and their relatives, with the purpose of seeking good luck. The painting shown in Fig 3.1, created during the Tang Dynasty, shows a beautiful court lady, known as the Lady Dudu worshipping Buddha. This painting reflects the fact that during the Tang Dynasty the culture of the Middle Kingdom had already penetrated to Dunhuang. The famous flying nymph Fig. 3.2 with fluttering cuffs creating a sense of flight, is typical of the abstract expression of Eastern art. A masterpiece of story painting is the picture of Zhang Qian's mission to the West, which was created in the social context of the introduction of Buddhism into China during the Eastern Han Dynasty. The story of Zhang Qian facilitated the process of localization of Buddhist culture. Despite the large number of the murals, they are beautifully detailed without any repetition, and many were also created during the Tang

Figure 3.1: Lady Dudu worshipping mural. The original work has been severely damaged, and now we see a copy of Duan Wenjie, the former director of the Dunhuang Academy https://www.dha.ac.cn/
On the right is a portrait of a lady by Zhou Fang, a famous Tang Dynasty painter. Now in the collection of Liaoning Provincial Museum. http://www.lnmuseum.com.cn/

Dynasty, when the Mogao Grottoes reached a peak of artistic excellence. The change in artistic styles reflects the development of Buddhism in China.

A significant portion of Dunhuang's murals were created before the Tang Dynasty, a period from which very few paintings survive, and they represent the pinnacle of classical Chinese painting. The Mogao Grottoes are thus an important repository of classical Chinese painting, and they bear witness to the history of the development of classical Chinese painting. History has given Dunhuang a tremendous artistic status, and this destiny has been determined by its special geographical location. For a thousand years, Dunhuang has flourished and enjoyed a unique status as an outpost guarding the westernmost regions of the empire, protecting trade and facilitating the flow of goods and knowledge between the Chinese hinterland and the west (Demas *et al.*, 2015).

In addition to works of art, the grottoes preserve a large number of ancient sutra scrolls, relating to Buddhism, Taoism, Persian (Nestorian) Christianity, and Zoroastrianism. For example, a Bible in

Figure 3.2: The Flying Nymph mural in Cave 329, restored by Shi Dunyu
Source: the book Restoration of Dunhuang Murals.

Syriac was discovered. The most recently created sutra scroll dates back to AD 1002 and is now in the collection of the Institute of Oriental Studies in St. Petersburg. Thus, sutra scrolls had been preserved in the grottoes for more than 900 years. As to why they were stored in the grottoes, one speculation is that it was motivated by the overthrow of the Ü-Tsang state. The Ü-Tsang state was a Western Buddhist kingdom that flourished between 232 BC and AD 1006, and was a major stronghold of trade along the Silk Road. At the time of its destruction, Buddhist monks sealed the precious scriptures from the Sanjian Temple in the cave of the Grotto to preserve them from warfare. In addition to the scripture scrolls, the caves of the grottoes contain a large number of books that record the social landscape and the lives of the people of the time, and they provide crucial evidence for the study of Chinese history.

The severe lack of conservation awareness led to serious damage to the Mogao Grottoes in the early 20th century. The Mogao Grottoes had existed for thousands of years until the accidental discovery of the cave where the scriptures were hidden brought it to the attention of the outside world. A Taoist monk named Wang Yuanluo discovered the dusty sutra scrolls from the collapsed

cave, and he immediately notified the local government. Contrary to the indifferent attitude of the government of the time, foreign enthusiasts travelled thousands of miles to Dunhuang after learning of the antiquities of the Mogao Grottoes, but their aim was not to preserve but to steal them. In 1907, an Englishman named Stein, who pretended to be a Buddhist, entered the Mogao Grottoes and stole 24 boxes of sutra scrolls and 5 boxes of artwork, most of which are now on display in the British Museum. His actions were emulated by other scholars and became the beginning of the looting of Dunhuang.

The French archaeologist Paul Pelliot systematically classified and selected the scripture scrolls at Dunhuang, then took away a large number of valuable ones. Upon his arrival at Dunhuang in February 1908, he began a meticulous investigation, measuring and photographing the grottoes after numbering them. In March of the same year, he obtained permission from the monk Wang Yuanluo, by paying 500 taels of silver, to enter the cave where the scriptures were preserved, systematically sorted all the scriptures and selected some of high value to take back to Paris, which are now on display in the Bibliothèque Nationale de France. Based on the investigation, he published the six-volumes of "Les Grottes de Touen-Houang" in 1914-24, which have become important historical sources for the study of Dunhuang. An expedition from Japan stole a large amount of antiquities, and their theft caused serious damage to the grottoes because of a lack of archaeological knowledge. The Russian expedition led by Oldenburg arrived at the Mogao Grottoes in 1914, and his expedition team photographed, drew, painted, mapped, cleaned, excavated, and documented the cave's murals and painted sculptures, drawing a plan of the cliff face of Mogao Grottoes, in arguably the first comprehensive archaeological study of the caves. Of course, he took a number of artifacts from Dunhuang, which are now housed in the St. Petersburg branch of the Oriental Institute. By the time Langdon Warner of the United States arrived in 1924, there were few sutra scrolls and silk paintings left in the Mogao Grottoes. He targeted the murals and painted sculptures and bribed the administrator Wang. He used glue and cloth to peel the murals off the walls, causing irreparable damage to the walls. In this crude manner, he took the Tang Dynasty murals in Caves 320, 321, 323, 328, 329, 311, 335, and 372 of the Mogao Grottoes 3.3. In addition, he cut out two painted statues from Cave 328 and Cave 110, now in the Sackler Museum at Harvard University. Wallner came back to Dunhuang to obtain more antiquities in 1925. But this time he did not get what he wanted, due to their protection by Chen Wanli of Peking University and the locals. This conservation initiative became the beginning of Dunhuang's preservation, ending its history of looting.

The behavior and academic achievements of these men have long been controversial, especially about Stein and Pelliot. In the Chinese perception, the actions of these men were a plundering of Dunhuang and contrary to international ethics. The famous English sinologist Arthur Waley (1888-1966) also supported such a view. The alternative view sees them as researchers and recognizes

Figure 3.3: The Mogao Cave 335, South Wall, Fresco on the Head of the Buddha, Tang Dynasty. Size: 37*43.5cm (Collected in Harvard Art Museum).

their scholarly achievements. Hansen comments that Stein's discoveries there secured him both a knighthood in Britain and "lasting infamy" in China (Hansen, 2017). However, the controversy remains over their actions in taking away heritage, some scholars argued that it was an act of purchase, because Stein and Pelliot had paid Wang money for the antiquities. This argument not accepted in China, because the ownership of heritage belongs to the state, and Wang was only a guardian of Dunhuang without the right to sell this heritage. Another misunderstanding is that Wang permitted the heritage of Mogao Grottoes to be taken away to obtain money. In fact, Wang was a devout Buddhist, and all the money he received was spent on repairing the caves. Therefore, the destruction suffered by the Mogao Grottoes should not be attributed to Wang's greed for money, but rather to the local government's lack of awareness and negligent management. Another perspective claims that since the heritage was removed it has been better preserved and displayed, while that remaining in place has suffered severe damage or been misappropriated by past officials. The different methods of acquisition have determined the locations of Dunhuang's heritage, now scattered around the world, with the largest quantity in England, the highest quality remains in France, the most diverse in Russia, the most mysterious in Japan, and the most fragmentary left in China. As a carrier of history and culture, heritage is part of the common wealth of all humanity, but the ownership of the heritage itself should belong to the country or the people living in the land

where it was made. As has been argued, cultural heritage can only be shared, not co-owned (Xie, 2013). It is important to distinguish between spiritual wealth and ownership of cultural objects: a technology can be applied worldwide, yet its intellectual property and products belong to a single country or individual.

For thousands of years, Dunhuang has been a precious and fragile pearl in the desert and it can still be appreciated today owing to generations of protectors. One of the most prominent of these is Shuhong Chang, who was not only the first director of the Dunhuang Academy but is also known as the patron saint of Dunhuang. Pursuing his fascination with Western painting, Shuhong Chang studied in France and was one of the first Chinese artists whose works were collected by the French National Museum. His interest in Dunhuang was sparked when he came across a copy of Pelliot's "Les Grottes de Touen-Houang" at a second-hand bookstore in France. He went to Dunhuang and initiated conservation work in 1943, while China was at war both internally and with Japan. Unlike the superbly painted scrolls he had seen in France, in Dunhuang itself he was confronted with broken walls, which had endured the ravages of wind, sand and human destruction. Sediment from the Ming Sha Mountains had piled up in the caves, and the walls of the caves had been randomly punched through, and damaged by traces of smoke remaining. In this context, he launched the history of Dunhuang protection.

3.2   The historical background of Dunhuang

This section introduces the history of Dunhuang, its record in ancient texts and its early inhabitants. There are three important periods in the history of Dunhuang, the first of which is the Western Han Dynasty, during which the written history of Dunhuang begins. The second period is the Wei (a central Asian dynasty from AD 220-266), Jin Dynasty - during which the monk Lezun dug the first cave (AD 336) - and finally Northern Dynasty. The third period was the Tang Dynasty, when unprecedented economic and cultural prosperity led to the peak of Dunhuang's development.

As a place, Dunhuang is first recorded in the second volume of the ancient book Shanhaijing as "Dun Hong", in the words "又北三百二十里曰敦薨之山，……敦薨之水出焉而西流注于泽，处于昆仑之东北隅，实惟河源", meaning roughly: "There is a mountain called Dun Hong 320 kilometers away from Youbei, and the water on Dun Hong Mountain goes westward and enters Aoze." It also appears in the first volume of the Water Classic, an ancient book written in the Wei Dynasty, which records more than 1,000 ancient Chinese rivers: "敦薨之山，"敦薨之水出焉，而西流注入泽", meaning: "Dunhuang is the source of water, which flows westwards and finally reaches Aoze." The scholar Li Zhengyu (Li, 1997) believes that the "mountain called Dun Hong" refers to Qilian Mountain, and "the water on Dun Hong Mountain" refers to the Dang River, which remains a crucial water resource for Dunhuang to the present day.

In the vast region of northwest China, between the northeastern edge of the Tibetan Plateau and the southwestern edge of the Inner Mongolian Plateau, a long corridor stretches from southeast to northwest for more than a thousand kilometers, known as the Hexi Corridor. Throughout China's history, its special geographical position has made it a major transportation route connecting China with Central Asia. The famous Silk Road leads from Xi'an to Central Asia via the Hexi Corridor. Dunhuang is located at the westernmost end of the Hexi Corridor and is known as the "Pearl of the Silk Road".

The written history of Dunhuang can be traced back to as early as the Xia Dynasty (2070 BC – 1600 BC), when the oldest surviving records mention a group called the Qiang Rong, described as descendants of the Three Miao tribe, who are recorded as having migrated to Dunhuang after losing a war with the tribes of the Middle Kingdom. They made a living by hunting, then gradually mastered farming techniques and flourished in the area. According to archaeological findings, however, the earliest inhabitants of the Dunhuang area were the Fire Burning Gou culture in Yumen, about 3,700 years ago. A large quantity of colored pottery, stone, bronze and silver vessels of the Huoyuegou culture have also been unearthed at the city of Yumen in Dunhuang area (Ning and Hao, 1993). At the beginning of the Warring States period (475 – 221 BC), Dunhuang is said to have been inhabited by the Great Moon Clan, the Wusun and the Sacae. The Great Moon Clan gradually became stronger, overcoming the original Qiang Rong, and eventually driving out the Wusun people and the Sacae, and occupying Dunhuang until the end of the early Han Period.

3.2.1 *Western Han Dynasty (202 BC – 24 AD)*

In the early years of the Western Han Dynasty (206 BC), the Huns invaded the area of the Hexi Corridor, defeating the ancient local tribe of the Dayue (recorded in an ancient book) and forcing them to migrate westward to the Syr and Amu River basins. As a result, the entire Hexi Corridor, including Dunhuang, was occupied by the Huns. After Emperor Wu's accession to the throne in 156 BC, he adopted a proactive military strategy to deal with the threat the Huns posed to the empire. He also sent an emissary, Zhang Qian, to the Western Regions (a region approximately equivalent to Central Asia) to establish political and commercial relations with the Western countries.

The trajectory of the Han Dynast's flourishing trade activities with Central Asian and European countries gradually converged into customary trade routes, through which silk, porcelain and metal products from the Central Plains were shipped in large quantities to Central Asia, West Asia, and beyond to the West. The goods traded were mainly silk or silk fabrics, hence China was called Serica and this trade route was known as the Silk Road Fig. 3.4. Buddhism, which originated in India, was spread into China via the Silk Road during the Han Dynasty. The Silk Road started in Chang'an (now Xi'an), passed through Jincheng (now Lanzhou), Wuwei, Zhangye, Jiuquan and reached Dunhuang. From Dunhuang, it split into the southern route and the northern route.

Figure 3.4: Route map of the Silk Roads from UNESCO.
Source: https://en.unesco.org/silkroad/about-silk-roads

The southern route went through Yangguan to Shanshan in the Tarim Basin, westward along the northern foothills of the Kunlun Mountains to Shache, over the Onion Ridge to the Dawan and Anzhi states, and then westward to the Great Qin (the Roman Empire. The northern route went the Yumen Pass to the former royal court of Cheshi (present-day Turpan), westward along the southern foothills of the Tianshan Mountains to Shule (present-day Kashgar), northward over the Onion Ridge to the Dawan and Kanju states, and then westward to the Great Qin. These two routes were the main land routes connecting the East and the West, with Dunhuang being an essential point of intersection.

From the Han Dynasty to the Tang Dynasty, Dunhuang has been a transit point for trade between China and the West, and is considered the western gate of China. Its special strategic location made it the meeting place of Chinese and Western cultures. For this reason, it was historically known as the "The meeting capital of the Hua and Rong", a city where Chinese and ethnic minorities or Westerners lived together, the word "Hua" referring to Chinese and the word "Rong" referring to ethnic minorities or Westerners.

The documented history of Dunhuang began during this period. In the Western Han Dynasty, Dunhuang County came under the jurisdiction of six counties, namely Dunhuang, Ming'an, Xiaogu, Yuanquan, Guangzhi, Longle, the scope of which was roughly west of the Shule River and east of Yangguan and Yumenguan. Today is part of Dunhuang City, Anxi County and Subei Mongolian Autonomous County (Ning and Hao, 1993).

3.2.2   *Wei, Jin and Northern and Southern Dynasties (AD 220 – 589)*

The Wei, Jin, Southern and Northern Dynasties were some of the most complex and varied periods in Dunhuang's history, with frequent regime changes, including successively the Cao Wei, the Western Jin, the Qian Liang Zhang, the Qian Qin Fu Shi, the Hou Liang Lu Shi, the Western Liang, the Northern Liang Qu Shi, the Northern Wei, the Western Wei, and the Northern Zhou regimes. Under the Western Liang regime it was chosen as a capital for the first time in its history. The jurisdiction area of Dunhuang fluctuated several times during this period, and reached its largest in history during the Northern Wei Dynasty. Dunhuang's economy and culture developed significantly during this period, including the creation of the Mogao caves in AD 366, which marks the beginning of Dunhuang's cave art.

At the beginning of the unification of the north, the Northern Wei did not have the strength to control the Hexi Corridor. Cao Pi, the Emperor of Wei, eliminated the separatist forces in the Hexi Corridor by military force and established a governor. Cangci was a prominent governor of Dunhuang who undertook reform measures to control the gap between rich and poor and stabilize social order. He encouraged intermarriage between ethnic minorities and Han Chinese to consolidate the regime. He also encouraged the reclamation of wasteland and the development of trade. With the spread of advanced farming techniques and production tools, Dunhuang developed over the years into an important commercial town and food production base on the Silk Road, which lasted until the Western Jin Dynasty.

In AD 366, a monk named Lezun first arrived at Dunhuang and, believing that he was inspired by the light of Buddha, thought this was a holy place. Prompted by this, he recruited people to excavate the first of the Mogao Grottoes. In fact, the golden light and thousand Buddhas that Lezun saw could have been a mirage, a natural phenomenon formed by the refraction of light in the atmosphere where there are large temperature fluctuations. Soon after Lezun opened the cave, a Zen master named Faliang travelled from East to West to reach Dunhuang and opened another cave. Since caves in Dunhuang were first opened by these two monks, they were most likely dedicated to their practice (Ning and Hao, 1993).

In AD 400, Dunhuang became the political center of a separatist regime led by Li Hao, but in AD 421, Dunhuang suffered heavy losses during the war. However, the society was deeply influenced by Confucianism at that time, and great attention was paid to respecting and protecting scholars. Scholars who had sought refuge in Hexi and the Central Plains were respected and protected by the rulers of Dunhuang and Hexi during the Sixteen Kingdoms Period of this region, and were supported to teach locally. This allowed the classics otherwise lost due to the war to be preserved here (Ning and Hao, 1993).

In AD 448, most of the Western Regions were controlled by the Northern Wei Dynasty. The Silk Road was opened again, and merchants from the Western Regions came to trade.

In 524 AD, Emperor Xiaoming ordered the town to be changed to a state, and the name of Dunhuang was changed to Guazhou because of its rich melon production. During this period, Dunhuang did not receive much attention, and the focus of the political power struggle was in the Central Plains. Local officials worshiped Buddhism and carried out activities to repair the statues of the caves. At that time, the supreme ruler advocated Buddhism, which restored Buddhism to prosperity. This atmosphere promoted the development of Buddhism in Dunhuang, and they brought the culture and art of the Central Plains to Dunhuang. Great changes took place in the style of the statues of Mogao Grottoes.

3.2.3 *Tang Dynasties (AD 618 – 907)*

The Tang Dynasty was the heyday of ancient Chinese society and a golden age in Dunhuang's history. At that time, socio-economic development was unprecedented, wealth increased greatly, and society became relatively stable, with the state government located in Dunhuang.

After the establishment of the Tang Dynasty, Turkic groups were still very powerful, invading Hexi many times. After several battles, the Tang Dynasty achieved a decisive victory in 630. For more than 100 years in the early Tang Dynasty, great importance was attached to the governance and operation of Dunhuang and Hexi. The administrative management and the economy of Dunhuang and Hexi was strengthened, and agricultural production fostered. Nearly half of the Mogao Grottoes were excavated during the Tang Dynasty, including the Great Buddha Cave (Cave 96), where the largest statue of Maitreya Buddha, a four-story structure built on a hill, is said to have been carved because the ruler at the time, Wu Zetian, believed in Buddhism.

The Tang dynasty went from strength to decline after a rebellion broke out in the interior of the country in AD 755, but the political turmoil did not really affect this frontier land far out in the desert, so Mogao Grottoes continued to be built during this period.

After the Tang Dynasty, records about Dunhuang become increasingly rare, but fortunately the rulers of the Yuan Dynasty (1271 – 1368) revered Buddhism, so the history of Dunhuang's heritage continued, and about 10 Yuan Dynasty caves are still in existence.

Dunhuang's cave-building activities continued until 1524, when the Ming Dynasty ordered the closure of the Jiayuguan defensive gate and the abandonment of two key strategic points in the control of the region, Dunhuang and Shazhou. For the next two hundred years, Dunhuang drifted without a unified regime, its people were displaced, and Dunhuang never again reached the same prosperity and importance.

These are the main points in the history of how Dunhuang became a "Pearl of the Silk Road", from its first documented existence to the excavation of its first caves, and finally to the Tang Dynasty, when the art of Dunhuang reached its heyday.

3.2.4 *Conclusion*

Dunhuang is a treasure trove of Chinese painting surviving from the Tang and pre-Tang dynasties, a gene bank of classical Chinese art. The historical lineage of Dunhuang begins in the Western Han Dynasty, when Dunhuang had become a major transportation hub for Chinese and Western trade and was established as a county, the beginning of its recorded history. Next, in AD 336, Lezun began excavating the first Cave of Mogao, at a time when Dunhuang was valued not only as a trade and transportation center, but also as the beginning of an artistic chapter. The final pivotal period was the Tang Dynasty, the height of Dunhuang's artistic development, both in terms of the number of caves excavated and the style of artistic creation within the caves. These elements form the basic historical context of Dunhuang.

3.3 Geographical environment of Dunhuang

This section focuses on the geography of Dunhuang, with the main types of landforms being yardangs, Gobi, and desert, the geographic context for Dunhuang's title of "Pearl of the Silk Road". Using Google Maps imagery to compare changes in Dunhuang's surroundings over the decades, one of the most obvious is that Dunhuang's greenery has doubled in size over the decades, with one reason for the rapid expansion of planted areas being the building of the Dang River Dam. The Dang River Dam provides Dunhuang with enough water for irrigation, while at the same time the construction of the Dang River Dam has had a negative impact on the nearby Yueya Spring. In order to combat the declining water level of the Yueya Spring, the local government divided the Dang River into two to build reservoirs in the middle of Dunhuang with the aim of providing sufficient groundwater to keep the spring alive. From the building of hydroelectric stations and then in recent years the building of Solar Power Station a few kilometers away from the city, providing eco-friendly energy to the community, it is obvious that Dunhuang is moving in a more environmentally friendly and sustainable direction. We will also examine how the climate and topography are both factors that influence the caves. Because of its location in the desert, where sand can damage the frescoes, analysis of the surrounding environment is beneficial to understanding and preserving the materials of the Mogao Grottoes. Moreover, since the purpose of this research is to discuss the impact of tourism development on cultural heritage sites in the local area, it is necessary to study and analyze the living environment of local residents, which is the purpose of this section.

3.3.1 *Dunhuang's climate*

Dunhuang has a warm-temperate, arid climate. The climate is extremely arid and is character-

ized by drought, intense sunshine, and frequent sandstorms (Wang *et al.*, 2019b). The average annual precipitation is only 39.9 mm, but evaporation is as high as 2486 mm, making the evaporation more than 60 times the precipitation. Dunhuang has four distinct seasons, with an average annual temperature of 9.4 °C. The highest average temperature in Dunhuang is 24.9 °C in July, and the coldest month is January when the average temperature is -9.3 °C.

3.3.2 *The Environment of Dunhuang*

Dunhuang is located in the farthest part of Asia and Europe from the ocean, and was called the heart of Asia by American geographer Huntington Ellsworth. Dunhuang is part of Gansu Province in northwestern China, the intersection of Gansu, Qinghai and Xinjiang Provinces, east of Anxi County, south of Su Bei Mongol Autonomous County and Aksai Kazakh Autonomous County, west of Xinjiang Ruoqiang County, and north of Xinjiang Hami City. In ancient China, Dunhuang and its surrounding cities were called the Western Regions, and Dunhuang was the most important transportation hub on the Silk Road.

Dunhuang's geological environment: Dunhuang is bordered by the Three Wei Mountains to the east, the Ming Sha Mountains to the south, the desert to the west and connected to the Taklamakan Desert, and the Gobi to the north. The terrain is high in the north-south and low in the middle, sloping from southwest to northeast, and the central part is the lower alluvial fan belt of the Dang River and the alluvial plain of the Shule River, on which the residents lived. The snow water from the northern and southern mountain ranges nourishes this desert and irrigates Dunhuang into an oasis surrounded by the desert Gobi landform type, ultimately creating Dunhuang's unique landscape characterized by endless deserts clustered around large oases.

Using the timeline feature in Google Earth, we observed changes in Dunhuang between 1984 and 2020 from Fig 3.5. The overall changes were quite significant, with the main changes focused on the area where people live. Dunhuang's greenery (outlined in red) has nearly doubled in size during this 40-year period, and the expansion of local greenery relies heavily on irrigation from newly constructed reservoirs. Dunhuang's water comes mainly from the Dang River, which relies on water from glacial melt, springs, and atmospheric precipitation, with glacial melt being the most dominant. The Dang River, a tributary of the Shule River, an inland river in China, has its source in Subei Mongol Autonomous County, flows through the Mingsha Mountains and Dunhuang Oasis, and finally flows into the Shule River. The middle and upper reaches of the Dang River are relatively rich in hydropower resources, with large slopes and rapid currents, and contain a large power generation capacity to supply the surrounding power needs. In the lower left corner of the image Fig. 3.5, it is easy to see the extensive solar base (outlined in blue) that has been built next to the city. The largest molten salt solar thermal power plant built in China, with 12,000 solar panels known as "super mirrors" (circled in green), was completed in December 2018 and
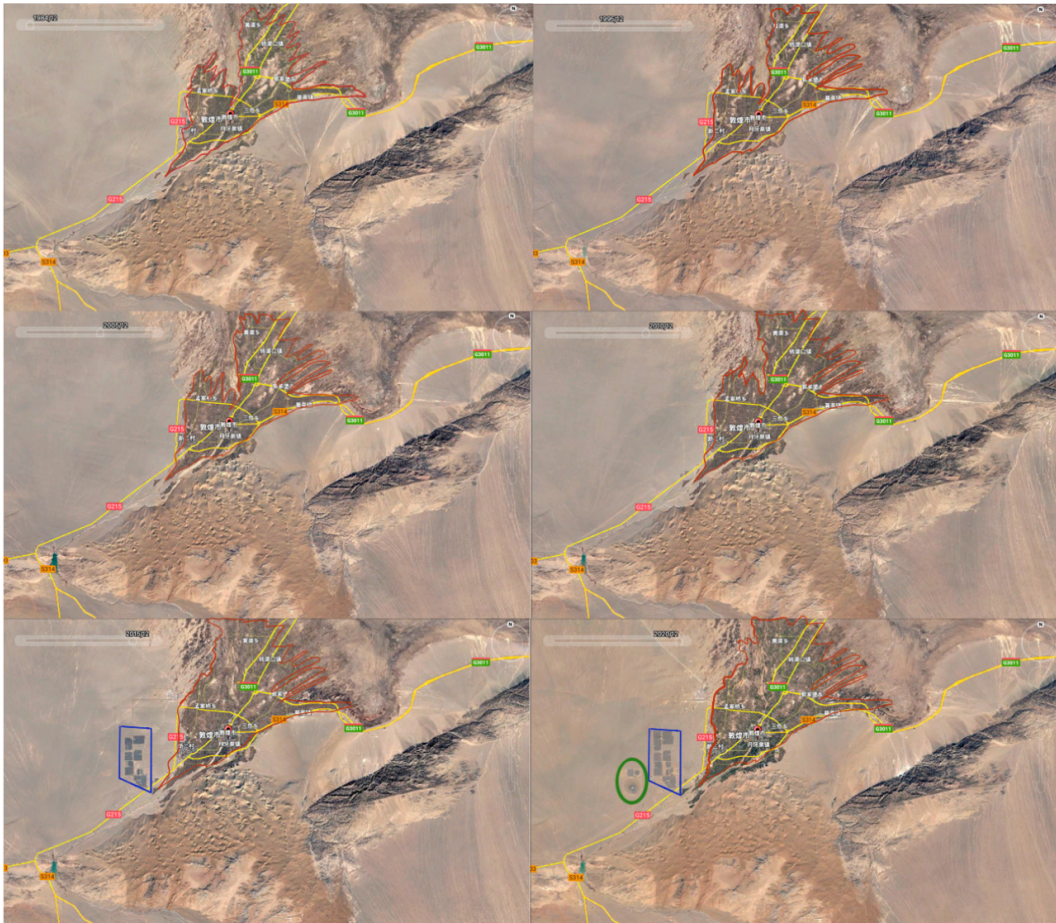
Figure 3.5: Landform changes in Dunhuang from 1984 to 2020.
Source: https://www.google.com/maps/

is capable of generating 390 million kilowatts of electricity annually. Solar energy is converted into clean electricity, supplying the surrounding area. The pressure on the environment caused by other types of power generation is reduced.

The Dang River Dam was built in 1975 for the development of hydropower stations to meet the growing demand for electricity, but it also brought some negative effects. After the Dang River Dam was built and water stored, the Dang River was cut off, resulting in a drastic reduction in groundwater seepage renewal, and as the area of the Dunhuang irrigation area expanded, the volume of water in the Dang River is decreasing. Since the late 20th century, it has been difficult for the water of the Dang River to reach its confluence with the Shule River.

The highly influential Crescent Lake is located just southeast of Dunhuang, at the foot of the Mingsha Mountain. A crescent moon-shaped lake, about 100 meters in length, its deepest part is only 5 meters. In the center of the desert, where sand and wind are constant and water is scarce,

it has existed for hundreds of years without drying up, and there are even some trees growing around the lake. Considered a wonder of the desert, the lake was a tourist attraction as early as the Han Dynasty and is now one of Dunhuang's eight most famous attractions.

The main reason for the perpetual vitality of the Crescent Lake in the desert is the low terrain and the high surrounding terrain, which creates a natural low-lying area of land that can overflow with underground water. As Dunhuang's population increased, the cultivated area expanded, groundwater extraction increased, and the Party River Reservoir was built, the Crescent Lake, which relies solely on groundwater recharge, was greatly affected, and the water source was drastically reduced and even dried up at one time.

In 2000, the locals began artificially adding water to protect this desert wonder, and the local government spent a lot of money to build a series of water control projects as illustrated in Fig. 3.6 to prevent the water level of the Crescent Lake from dropping. In 2016, the Crescent Lake Restoration and Replenishment Project began, and construction was completed in 2018. The riverbed of the Dang River in the center of city is divided into two parts vertically in the middle, the side near the Crescent Lake is the Crescent Lake's reservoir, and several reservoirs have been built on the side of the river as shown in the image, which is different from directly adding water to the lake, in order to ensure that the Moon Spring continues to draw groundwater and stay alive. This has also caused conflicts, with opponents arguing that many rivers in the world have also disappeared and that over-investment should not be forced in order to curb its demise, and that the declining water level is not the only challenge faced by the Crescent Lake, which is also facing the threat of the surrounding Mingsha sand dune mountains which are gradually moving towards it.

3.3.3 *Dunhuang Caves geological structure*

The location of the Mogao Grottoes is 25 kilometers southeast of downtown Dunhuang city, at the eastern foot of the Mingsha Mountains. In front of the grottoes is the wide Dangquan River, formed more than a thousand years ago from a collection of springs from the Three Wei Mountains, but unfortunately the Dangquan River has now almost dried up. As the Mogao Grottoes are still some distance from Dunhuang city, an ancient transportation hub, but because the surrounding mountains are sheltered and have a certain degree of seclusion, and there is ample water supply, there are excellent conditions for cave excavation Fig. 3.7.

Since the spread of Buddhism, many cave temples have been excavated, and most of the cliffs where these caves were opened are composed of glutenite, a coarse sandstone or gravelly rock, composed of a sedimentary cementation of fine gravel. The rough sand and gravel rock is suitable for excavating the caves, but not for carving and not as a base for frescoes. The basic practice for the statues in the Mogao Grottoes, Dunhuang, is shown in Fig. 3.8: a wooden frame is made, secured with reed grass, coarse soil is covered with grass, fine soil is layered on top, then clay

sculpting begins, a layer of white powder is applied, and finally color painting is followed. The base of the frescoes is fine mud and sand obtained from the Dangquan River and used to cover the walls in the caves. The fresco production process at Dunhuang is briefly depicted in Fig. 3.9. The frescoes that visitors see are actually the third layer of the surface, and the innermost layer is the stone wall of the cave structure itself. The second layer is the dizhang layer, shown by analysis by Guo Hong and Li Zuixiong (Guo *et al.*, 1999) to have been made with water and sedimentary clay from the Dangquan River in front of the cave. The purpose is to make the rough wall surface smooth by covering it with a fine powder layer. The third and most superficial layer is the pigment layer, which is the fresco that visitors see. Since the glutenite is an extremely permeable medium and the dizhang layer is a porous medium, which water can easily penetrate. The Chinese dry fresco approach differs from the European wet fresco one, such as the wet frescoes by Giotto preserved in the Cappella degli Scrovegni in the center of Padua, which have the advantage of allowing the colors to seep into the walls and not easily peel off.

The above is a discussion of the local environmental changes in Dunhuang, the reasons for the major changes in the urban landscape and the potential connections between several of these changes, as well as the reasons why the local caves were chosen as sites for excavation in relation to the local rock characteristics. The coarse gravel rock was easy to excavate and the water source in front of the cliff provided fine silt that could be used as a base medium for the murals, and the site was at a distance from the city area so that it was not too much affected by outside wars or dynastic changes.

3.3.4 *Conclusion*

This section has described the geographic features of Dunhuang, and mapped how the city's development has changed in recent decades. Located in the northwest of China, where water resources are in extremely limited supply, Dunhuang has built a dam to guarantee local water. The construction of the dam has had a series of impacts on the local area, directly affecting the decline of the water level in the famous tourist attraction, the Crescent Lake. The Dang River was "split in two" to provide groundwater for the Crescent Lake, and finally, in recent years, a large-scale solar power plant has been built near the city of Dunhuang to bring green energy to the area, in line with sustainable development. As described, Dunhuang's climate is dry and rainless. Finally, we have shown how the Dunhuang Caves are carved from gravel rock, not suitable for sculpture and direct painting, with drawings to represent the structure of the Dunhuang frescoes and clay sculptures, and to explain how such a structure is one of the reasons why it is prone to attrition. The next section will explain in detail how its characteristics are not easily preserved.

Figure 3.6: The changes of the Dang River from 2007 to 2019, observed by the images from Google Earth. Source: https://www.google.com/intl/zh-CN/earth/

Figure 3.7: The excavation of Dunhuang Grottoes. Source: imagined and drawn by author.
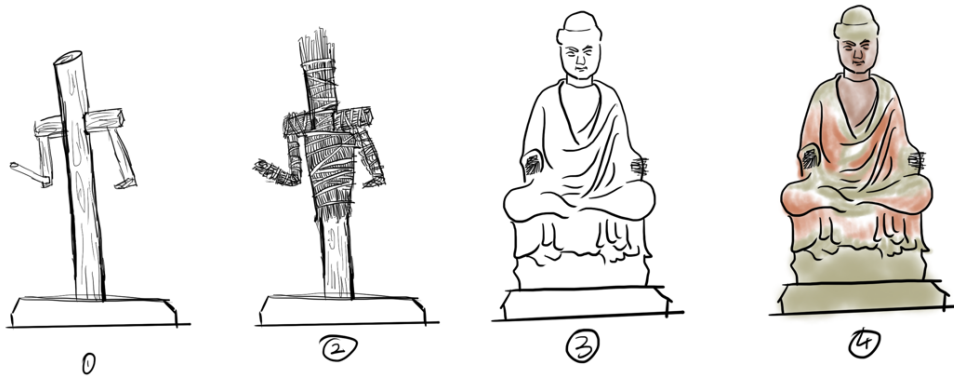
Figure 3.8: Diagram of the process of clay sculpture. Source: drawn by the author, inspired by a program by Fan Jinshi explaining the art of Dunhuang. Modern sculptor Sun Jiyuan uses local traditional methods to make clay statues can prevent the clay sculpture from cracking due to drying, using local clay from Dunhuang, adding 30% fine sand in the soil to prevent drying without cracking, and later to prevent shrinking plus cotton, hemp, wheat grass, three materials which may also be Dunhuang one of the reasons why the colorful sculpture is not damaged for many years.

Figure 3.9: Layers of Dunhuang Cave frescoes, the character is a flying celestial being from Cave 158. Source: drawn by the author

3.4   Dunhuang's "SWOT"

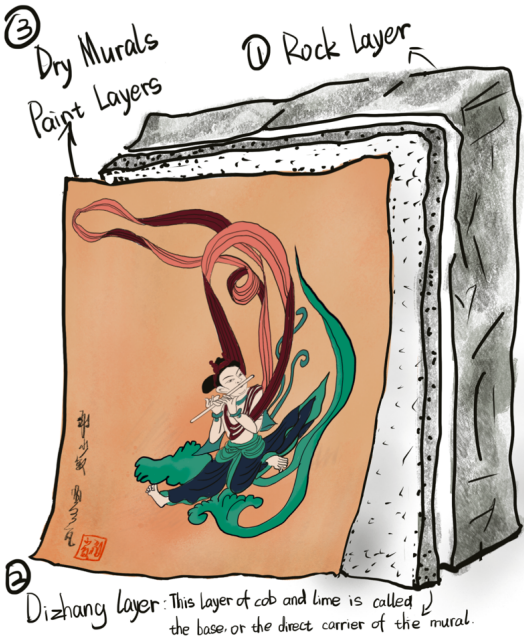This section focuses on the ability of the Dunhuang Caves to face tourism development using the SWOT (Strengths, Weaknesses, Opportunities, and Threats) method, and considers how Dunhuang City and the Dunhuang Caves should respond to the expanding tourism industry.

3.4.1   *Strengths of Dunhuang*

Dunhuang's strengths include the following: ancient history and multiculturalism, excellent location, the Grottoes' advantageous location away from the busy areas, and easy access to transportation.

Dunhuang's ancient history and multiculturalism: Confucianism took root in Dunhuang in early times, before Buddhism was introduced to the city, and the two cultures intersected and blended, laying the groundwork for it to become a multicultural arena. Mr. Ji Xianlin (1911 – 2009, Chinese linguist and professor at Peking University) once said: "There are four cultural systems in the world with ancient histories, vast territories, self-contained systems and far-reaching influences: Chinese, Indian, Greek and Islamic. And the only place where these four cultural systems converge is the Dunhuang and Xinjiang region of China". This is a recognition of Dunhuang's diverse cultural mix and rich history, as evidenced by the style of the paintings in the Dunhuang Caves, which were deeply influenced not only by Indian Buddhist art, but also by art from the Central Plains. It has witnessed a long history of over a thousand years of excavation, making it a unique treasure trove of classical Chinese art. Chinese paintings from the Tang and pre-Tang dynasties are hard to find, and only Dunhuang has preserved a large number of classical paintings from these dynasties, one of the reasons for its unique status. The history of cave excavation here also reflects the history of the development of the Central Plains region, witnessing the countless historical changes and prosperity of the ancient Chinese people and the vast Central Asian region. The uniqueness and singularity of its art makes it of incomparable value and irreplaceable, a living dictionary of Chinese classical art.

Dunhuang's geographic location: in the ancient period, before navigation flourished and the Maritime Silk Road was developed, Dunhuang's geographic location in central Asia Dunhuang made it a place where Chinese and Western commerce cooperated and where cultures mingled, the only hub for Chinese and Western exchanges in ancient times. The location of the Mogao Grottoes was even more advantageous, almost laying the basis for its later achievements. The Dunhuang Caves are located 20 kilometers from the heart of Dunhuang city's transportation hub, on a cliff at the foot of Mount Mingsha and Three Wei Mountains. Across the cliff is the Dangquan River, a river with just enough flow to nourish the people who have been digging caves here for millennia, and the sand and silt washed by the river is the perfect base for the murals and clay sculptures in

the caves. The distance of 20 kilometers from the prosperous transportation hub has allowed it to escape some of the warfare so that it can be preserved today. Far from the city area, it is easy to manage and protect.

Convenient transportation: There are three main ways to visit Dunhuang: by road, by rail, and by air. The closest railroad station to Dunhuang before 2006 was the Liuyuan Railway Station, 128 kilometers away from Dunhuang City, and the completion of the railroad has improved railroad gaps. The airport in Dunhuang was officially opened to traffic in 1982 and four expansion projects were carried out over the next 40 years. In May 2020 Dunhuang Airport became an international airport, which in the future may restore Dunhuang's status as an important transportation hub in Northwest China. However, ease of transportation is limited to traffic arriving in Dunhuang from other places, and transport within Dunhuang itself is difficult.

3.4.2 *Weaknesses of Dunhuang*

Dunhuang is located in northwestern China, where the economy is not as developed as the coastal areas of China. Dunhuang's climate is also relatively harsh, surrounded by the Gobi Desert, its material resources are relatively scarce, and the living environment of local residents is not agreeable.

Dunhuang's geographic location: Dunhuang's geographic location has transformed into a disadvantage in modern times. Dunhuang was a transportation hub during the period when the maritime and aviation industries were not yet developed. However, in the present society of easy transportation, it has instead become a relatively isolated area, far from the coast, lacking communication from abroad, and economically backward. In the 2020 GDP ranking of China's provinces, the 2020 GDP of Gansu Province, where Dunhuang is located, was just 9016 billion yuan, which is equal to about €120 billion, ranking fifth from the bottom, in contrast to Guangdong Province, which ranks first in 2020 GDP, with about 110760 billion yuan, which is equal to about €1.5 trillion. The huge economic disparity makes it difficult for Dunhuang to receive sufficient support or adequate attention when building culture-related infrastructure projects.

Lack of water resources: The local landscape is characterized by Gobi and desert, and lacks water resources. According to Chinese meteorological data, the average annual precipitation in Dunhuang is only 39.9 mm, while evaporation can reach 2,486 mm, making it a water shortage area and also an ecologically fragile area. Evaporation is much higher than precipitation, leading to a dependence on rivers for water resources. From the urban changes in Dunhuang in recent decades observed in the map above, it can be seen that some of the larger projects have revolved around water resources, such as building dams, reservoirs, and other such changes. There has been need to constantly overcome the water difficulties of this area. Gansu Province Water Resources Department Director Zhu Jianhai noted that more than 70% of the area of Gansu is located in

arid and semi-arid areas, with the most shortage of water resources in northwest China, the most fragile ecological environment, and among the most urgent water conservation needs.

Lack of international communication: Dunhuang is not well connected to international communications, and the only exchanges are in the academic fields of Dunhuang caves and Dunhuang studies, but in other parts of the city or people's lives, the opportunities for international exchange and integration are less than in coastal cities.

Lack of professional personnel: Dunhuang's caves require a large number of professionals to participate in conservation work, but fewer and fewer researchers are willing to go here to do research work, compared to other coastal areas which attract talent with economic resources. Dunhuang is not attracting enough talent. Although it offers archaeological, art and history majors, and many other professionals and technicians around conservation, so it is a national leader in conservation, it lacks tourism professionals, and the tourism resources it already has are not well exploited. For example, there are other tourist resources in Dunhuang, but several tourist destinations are not conveniently connected to each other and do not form a convenient enough transportation network.

Limited types of tourism: Dunhuang tourism development has focused resources on cultural and geological tourism, but due to the vulnerability of its resources it is not recommended for tourists to stay within the attractions, so most tourists are simply spectators, and there is a lack of other activities. Tourism revenue comes from tickets and short-term overnight stays, and the money from tickets and overnight stays is not enough to cover the entire Dunhuang heritage conservation effort. An economic cycle has not been established between tourism and heritage conservation, and it is difficult to drive revenue from other sectors.

Lack of linkage of tourism resources: the type of tourism here is not abundant and the locations of the destinations are scattered and there is a lack of linkage between them, including transportation links and cultural links. Transportation between tourist destinations is inconvenient, tourist accessibility is low, generally only in self-driving mode, or in charter mode, and public transportation is lacking. Tourism destinations lack cultural links, and tourism development here does not deeply explore the advantages of culture and use it to link scattered attractions.

3.4.3 *Opportunities for Dunhuang*

Dunhuang's opportunities are mainly reflected in the development of tourism using the natural resources of the area, as well as heritage conservation efforts that are already in line with international standards, and the international attention received by the successful bid for the heritage site, and finally the support of national policies that will greatly benefit the development of Dunhuang.

Tourism development: Dunhuang is surrounded by large areas of desert and Gobi, where natural resources have not been damaged by too much human activity. Using its own environmental

features, Dunhuang has transformed the uninhabitable Gobi and desert landscapes into a tourism resource, creating a Dunhuang UNESCO Global Geopark - Yardang, also known as Devil City, which is an important part of Dunhuang's westbound tourism area. With its diverse morphology and yardang bodies in various stages of development, Dunhuang has also become a natural research site for studying the formation and evolution of yardang landforms, a natural classroom for popularizing geological knowledge, and a destination for viewing scenery.

Academic international exchange: Because of Dunhuang's artistic status, Dunhuang has actively cooperated with other international heritage conservation institutions, making Dunhuang's conservation knowledge and techniques up-to-date. In 1998, in cooperation with Northwestern University in Chicago, the Dunhuang Research Academy introduced methods for digitizing murals, a method known as one of the major management highlights of Dunhuang today. The idea of digitizing the Mogao Grottoes is in line with the concept of the Memory of the World (MOW), which was initiated by UNESCO in 1992. The project states: to digitize cultural heritage at different levels worldwide using modern information technology in order to enable permanent preservation and maximize public access to cultural heritage in an equitable manner. The introduction of this concept marks the advent of the digital era in the field of conservation and utilization of world cultural heritage, with information technology as the main means.

Successful bid for the World Heritage List: On December 11, 1987, the UNESCO World Heritage Committee found that the Mogao Grottoes met the six criteria (i), (ii), (iii), (iv), (v), and (vi) for inclusion on the World Heritage List according to the World Heritage selection criteria. The only World Heritage sites that currently meet all six criteria are the Mogao Grottoes and Venice. This affirms the irreplaceable value of the Mogao Grottoes, which have become a source of pride not only for the locals, but also for the work of Dunhuang researchers. Such international visibility in the tourism industry can add a great deal to its competitiveness compared to other destinations.

Policy support: 1. Western Development: As early as 1999, Jiang Zemin (General Secretary of the Communis Party of China (CPC) Central Committee) proposed the "Western Development", with the aim of "using the remaining economic development capacity of the eastern coastal areas to improve the economic and social development of the Western Regions and consolidate national defense". This means policy benefits and financial investment to narrow the gap between the economic development of the East and West and to improve the comprehensive economic strength of the central and western regions. This new development concept and promotion of high-quality development was. implemented until 2020. 2.The Belt and Road (BandR): the Silk Road Economic Belt and the 21st-Century Maritime Silk Road is a cooperative initiative proposed by President Xi Jinping in September 2013. The New Silk Road Economic Belt includes the ancient Silk Road within Dunhuang. This series of development policies was proposed to benefit the economic development of the Dunhuang region. 3. The newly formed Ministry of Culture and Tourism officially launched

in 2018 also provides a management structure conducive to the unified management of cultural heritage tourism destinations.

3.4.4 *Threats to Dunhuang*

The greatest threat to Dunhuang is the fragility of the heritage itself, including the many deteriorations of the frescoes, which are threats within the caves themselves, and the increasing number of tourists, which are threats from outside.

Heritage vulnerability: The occurrence of natural damage to Dunhuang's frescoes has caused deteriorations of the frescoes. As noted above, Dunhuang's frescoes differ from wet frescoes in Europe that adhere directly to the walls and have pigments that seep into the walls. Dunhuang's frescoes are attached to the rough wall by a layer of fine clay sand, before the final layer of pigment, which eventually forms a thin color layer covering the surface of the wall. One of the reasons for deterioration is the inevitable gap that forms between the three main layers of the entire mural: the rock layer, the dizhang layer, and the paint layer, and this gap is prone to moisture entry. Moisture enters the porous stone, mixing with the salts to form saline, which then penetrates the outer layer of the frescoes. When the water inside evaporates, it causes contraction which, over time, leads to various processes of deterioration affecting the frescoes. Dunhuang's frescoes have serious and diverse deterioration problems, with some dizhang layers no longer attached to the walls, forming a very thin layer of brittle fresco mud. The dizhang layer is detached from the stone layer in serious cases by up to more than 30 cm. Without the support of the stone layer, the frescoes are in danger. Some smaller size of the frescoes may still be preserved through protection, but if large frescoes fall off a large area, they are difficult to save.

Conditions of deterioration affecting Dunhuang's frescoes are: 1, buckling: the surface of the pigment layer is curling piece by piece. 2, pimpling: a bulging bubble forms on the surface of the fresco. 3, gaping: detachment of the dizhang layer from the stone layer. 4, mould: As Dunhuang is surrounded by desert Gobi, the wind blows sand into the caves and attaches to the frescoes, covering the exterior with sand so that when the interior of the frescoes has moisture it cannot evaporate in time, and over time the frescoes become moldy. 5, flaking: such a situation is usually found in the lower, more wet caves, and this is known as the "cancer" of frescoes, from which it is difficult to save them.

Overload of tourists in core scenic areas: The phenomenon of overloading key scenic areas such as the Mogao Grottoes, and the contradiction between the fragile environment and the increasing number of tourists. This fragility includes that of the cultural heritage such as the Dunhuang Caves, but also the ecological fragility of special natural landforms, such as the yardangs.

3.5 Dunhuang from conservation to openness

This section focuses on the recent history of conservation of the Mogao Grottoes in Dunhuang, some important figures in this history and their chronology, some conservation measures, and finally Dunhuang's Digital Future project.

3.5.1 *The Protectors of Dunhuang*

The development of conservation at Dunhuang can be seen as a stirring history of heritage conservation, and its conservation journey is closely linked to several individuals. The Mogao Grottoes have been revived in the desert by generations of managers: the researchers of the Dunhuang Academy (DA). Among them, the work of Chang Shuhong and Duan Wenjie on the Mogao Grottoes has even been described as "baishouqijia", meaning building from nothing or a very poor foundation. There are also other people who have contributed greatly to their conservation, sharing the same persistence in this cause. This persistent spirit is also known as the "Mogao spirit", and the group acting to protect the Dunhuang caves is respectfully termed the "Protectors of Dunhuang".

3.5.1.1 From zero to everything – Chang Shuhong

The history of modern Dunhuang conservation began with Chang Shuhong, the first director of the DA, and marked the end of the history of neglect and looting of the Mogao Grottoes. In 1942, responding to experts' calls, the Ministry of Education the established the Dunhuang Research Institute, with Chang serving as deputy director, which began a new conservation chapter.

When he first arrived in 1943, the Dunhuang which Chang Shuhong saw was completely different from that portrayed in photographs by Pelliot in "Les Grottes de Touen-Houang", a book he had seen in Paris. In front of him was a giant desert ruin Fig. 3.10, far from the art treasures he had envisaged, and the task of preservation was imminent. The first work was to clean the sand from the cave, because on the lower level of the caves, in the southern district alone, hundreds of caves had been buried by shifting sand. Then he saw the looted Cave of the Hidden Scriptures, now dilapidated and empty. The 96th cave had also become a nine-story building after being built many times throughout history. The colors of the frescoes were now different from those of the silkscreens he had seen at the Musée national des Arts asiatiques-Guimet in France, and were even buried in sand in some places. Still, in Chang's autobiography, This Life is Only about Guarding Dunhuang, he speaks highly of the Mogao Grottoes, arguing that each of the caves has a stunning artistic appeal. Chang worked on the restoration of Dunhuang. Although the task of restoring the caves was huge and the environment was harsh, the researchers persisted with their artistic research work in this desert. The work of preserving, excavating and recording the art through

Figure 3.10: Chang Shuhong's first view of Dunhuang, where many of the caves have been buried by sand. Source: National Memory program of https://tv.cctv.com/

making copies continued until the founding of the People's Republic of China in 1949, when artistic research on the caves hit obstacles. With the policy pursued at the time of the founding of the People's Republic of China being negative toward religion, it was clear that the conservation of the Dunhuang Caves, a treasure trove of art constructed almost exclusively by religious believers, would not be supported. Local monks, Taoists, nuns, and others were also asked to return to secularization, and during this period Dunhuang art researchers were also asked to clear the land for labor, and art research was briefly halted.

During his tenure, Chang led artists at Dunhuang in copying the Dunhuang frescoes, initially without even the funds to purchase the necessary tools. Chang benefited from having learned to use materials which were not ready-made during his study in France, and to make them himself. So under these harsh conditions, Chang Shuhong taught others to make yellow and red color pigments by using yellow and red clay from outside the grotto, soaking it and then filtering and adding a bit of binder. For the paper, they used the local paper used for window repair. In such an unpromising environment, the researchers created their own materials for whatever the workforce lacked, starting with the creation of each tool Fig. 3.11. The conservation of Dunhuang began with the creation of each small tool. Conservation measures had to not only aim at protecting and repairing the inside of the caves, but also to address the impact of the outside environment. After unsuccessfully seeking help from the local government, Chang Shuhong led the researchers and locals to build a kilometer-long earthen anti-sand in just three days. in order to prevent sand from blowing into the cave.

In 1951, Chang served as director of the DA, and in April an exhibition of Dunhuang artifacts was held in Beijing, exhibiting 3,655 works copied by all the researchers, which received praise and recognition from the Central Government leaders, and continued to be exhibited abroad. Such
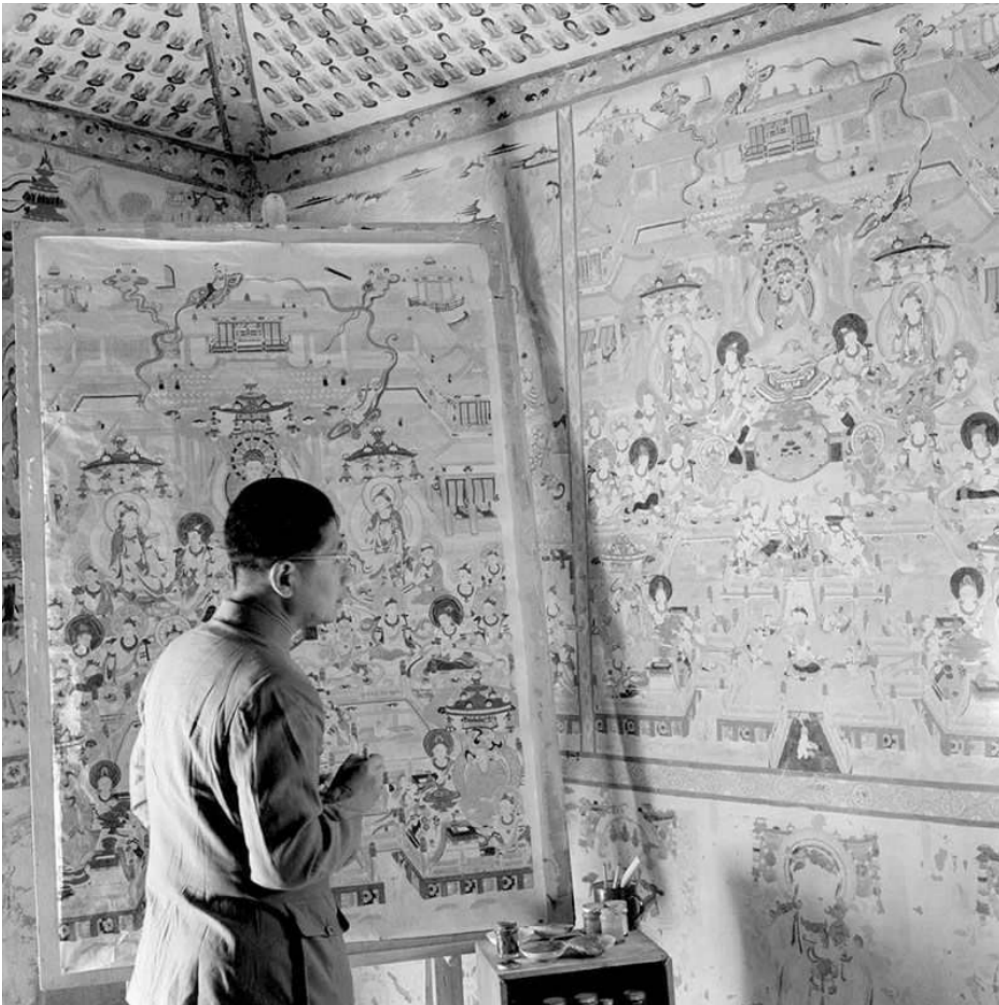
Figure 3.11: Chang Shuhong was copying in Cave 369 of the Mogao Grottoes at Dunhuang in October 1955. Source: the book Chang Shuhong's autobiography, "A Life for Dunhuang", p. 8.

opportunities allowed Dunhuang's heritage to be gradually taken more seriously, but such a stable situation did not last long. When the Cultural Revolution broke out in the country between 1966 and 1976, Dunhuang – which had escaped the wars of more than a thousand years – did not escape this baptism of fire. At the beginning of the Cultural Revolution, Chang Shuhong and his wife were beaten as "anti-revolutionaries" at a criticism meeting and then required to stay at the DA to work. In the last part of his autobiography, he writes that this was the most difficult time of his life.

To conclude, the main contributions of Chang's work at Dunhuang were cleaning caves, repairing, excavating, and promoting Dunhuang. The cleaning consisted mainly of clearing the sand from the caves. From the end of 1947 the numbering of the caves and statues became a key part of their work, and in 1948 it was announced that the number of caves in the Mogao Grottoes was

465. The restoration mainly consisted of the restoration of some frescoes, but also included the reinforcement of the entire cliff wall. Excavation consisted of distinguishing some valuable cultural artifacts (documents or silk paintings) during the process of cleaning, for example, in a clean-up of a nearby temple there were found several clay statues in the base of which were hidden scripture fragments, their chronology revealed by the words "Northern Wei" and "Six Dynasties". Later, scripture scrolls were found in earthen bricks next to the clay sculptures, with a total of 79 pieces in double copies and 32 pieces of new writing fragments, another important discovery in the Mogao Grottoes after the Cave of the Hidden Scriptures. During a routine cleaning of the cave sand, the walls of Cave 220 were dislodged due to the mud slabs on the surface, and they discovered the early Tang Dynasty cave (although originally identified as a Song or Western Xia temple-style cave), bringing to view the early Tang Dynasty frescoes that were originally sandwiched within the walls. In addition, not only did he focus on the restoration and preservation of the caves themselves, but Chang also made a significant contribution to the promotion of Dunhuang to the public, primarily through the exhibition of numerous excellent copies of the works and the publication of related literature, which showed Dunhuang's artistic appeal to the outside world.

In his later years, when the Cultural Revolution ended, he was reinstated as director of the DA in 1978, and the caves were officially opened to the public in 1979. He spent the next decade on numerous exchanges in Japan, providing a broader perspective on the conservation of Dunhuang.

3.5.1.2 Pioneers of Dunhuang Art History – Duan Wenjie

Duan Wenjie came to the Mogao Grottoes in 1945, and during his decades of artistic research he copied a total of more than 340 frescoes from different periods, a total area of more than 140 m², and the number of copies he made at Dunhuang has still not been surpassed. But his accomplishments were not just highly quality copies of numerous frescoes; he also distinguished himself in the field of scholarly research on Dunhuang Buddhist art, and in the late 1970s and 1990s he published more than 50 papers on Dunhuang art and the book Dunhuang Costume, a monograph on the costumes of the figures in the Dunhuang caves. He organized experienced Dunhuang researchers to compile and publish all the results of research on Dunhuang, and the Dunhuang Academy produced an average of the equivalent of 40 years of research per year between 1982 and 1997, a period also known as the "Duan Wenjie Period" at the DA. Since the 1980s, international cooperation has been organized and national international symposia have been held. He also founded the scholarly journal Dunhuang Studies, an essential reference for scholars of Dunhuang both in China and abroad. Since then, he has hosted four major international conferences on Dunhuang. Since the Duan Wenjie period, the "Dunhuang in China, Dunhuangology overseas" dilemma has been resolved and international attention to the Dunhuang Caves was increased.

Among them, his masterpiece of recovered works is the scene of Lady Dudu worshipping

Figure 3.12: The copy of Lady Dudu worshipping Buddha. The original work has been severely damaged, this is a copy of Duan Wenjie, the former director of Dunhuang Academy.
Source: https://www.heritagemuseum.gov.hk/

Buddha Fig. 3.12, a highly restored work, which was recovered after four months of research and study of Tang Dynasty paintings and Buddhist art. The copy accurately reproduces the detail of the original, and the restoration painting itself has become a protected cultural object. Before it was copied, the fresco was already so severely damaged as to be almost illegible Fig. 3.13, but the scene is vaguely recognizable in a photograph taken by Luo Jimei in 1943. By the time Sun Zhijun took other photos of the frescoes 40 years later, they were so faded that the details were almost invisible. Duan Wenjie's successful restoration of this fresco allows the audience to see more visually the expression of art by the ancient people, and even to associate directly with the scenes expressed in paintings, and to understand the artistic expressions of the time.

At the beginning of the People's Republic, almost every scholar had to face the cultural catastrophe that was the Cultural Revolution. The Dunhuang Caves did not escaped this cultural holocaust because they are located in a far-flung area, and Duan Wenjie experienced very dark years during
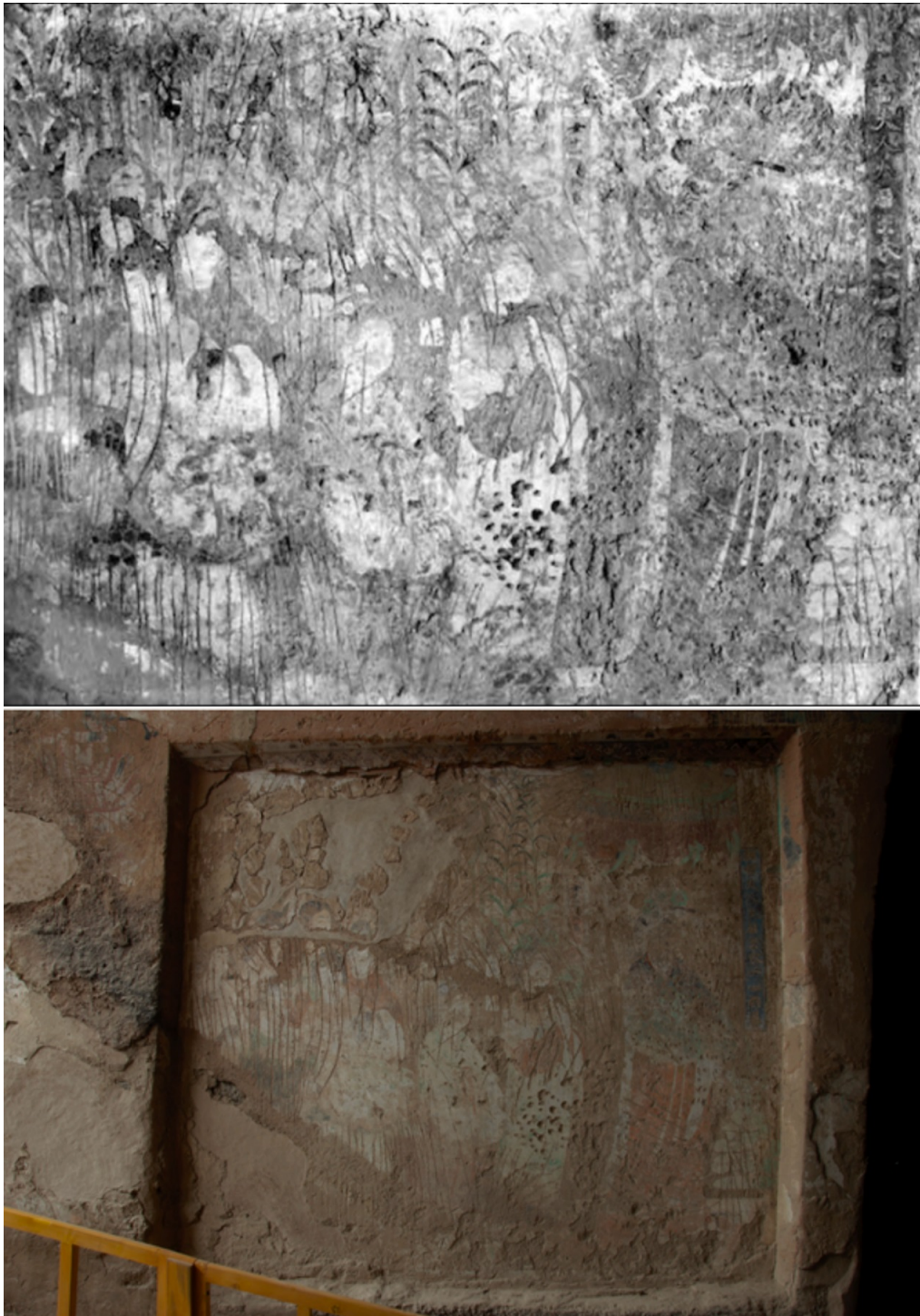
Figure 3.13: The damaged Lady Dudu worshipping Buddha. The photo above was taken in 1943 by Luo Jimei, the below one is taken now. Source: https://www.sohu.com/

this period, but unfortunately authentic accounts of this period are not easily found.

It wasn't until after the reform and opening up that the Dunhuang Institute of Cultural Relics was expanded into the DA in 1984, and Wenjie Duan became the second director of the DA. Due to the conservation work that started in 1943, then the academic research under the leadership of Duan Wenjie, a strong foundation was built. In 1987, when the Mogao Grottoes in Dunhuang successfully applied for World Intangible Cultural Heritage status, the link between the Mogao Grottoes and the rest of the world was truly established, and real international cooperation in their conservation began, laying the foundation for later international cooperation between the Mogao Grottoes and other organizations.

3.5.1.3   Fan Jinshi, the creator of Digital Dunhuang

In 1962, Fan Jinshi arrived at Dunhuang as an archaeology student for an internship and began to participate in cave archaeology and conservation work by studying the cave murals to determine the age of the caves. Fan Jinshi was the third director of the Dunhuang Academy in 1998, and is known as one of the "Patrons of Dunhuang" along with Chang Shuhong and Duan Wenjie. Her most notable achievements are the construction of Digital Dunhuang and the Sand Control Project, which focuses not only on preserving the past but also on the future development of Dunhuang. (She is often referred to as "Mr. Fan" in books or reports. The term "Mr. Fan" is a literary term used in China to refer to women who have made great achievements in cultural endeavors or outstanding contributions to society. In the early years of China, teachers were called "Mr.", but in modern times there are some people who question this as a sign of inequality between men and women).

The biggest problem facing frescoes at the time was deterioration, which would have hastened their demise. To solve this problem, the DA first worked with the United States to test the environment, including the temperature and humidity, and concluded that it needed to treat shifting sand. Since Dunhuang is on the side of the Gobi, whenever there is a slight wind, the sand from the top of the mountain will pour down the Gobi like a waterfall. During this period, Fan worked with the American Heritage Conservation Corporation on several occasions to study the desert surrounding the Mogao Grottoes. The measures taken were first to lay sand control nets, that is, to cover the sand with specially made nets to reduce some sand activities. Then came the planting of a 2-kilometer-long anti-sand forest with short to tall plants, which would prevent plants that were too tall from being broken when they encountered strong winds and plants that were too short from being ineffective in preventing wind and sand. Finally, an "A" shaped spinning tent was built to divert the sand blown by the wind to the two sides of the Mogao Grottoes. After more than 20 years of sand control projects, this most difficult sand problem has been diverted from the hills behind the Mogao Grottoes Fig. 3.14.

Figure 3.14: Sand control project at Mogao Grottoes. In the middle of the picture is double 2km-long anti-sand forest strips planted with sand plants such as Haloxylon and Shaguai Jujube, as well as "A"-shaped high vertical nylon anti-sand nets. Source: Google Earth

In collaboration with Northwestern University in Chicago, USA, a complete set of instruments and equipment for cave photography have now been developed. A track was laid inside the cave to carry a camera up and down, left and right, and multiple photos were taken of each fresco with a high-definition camera and front lighting angle, and finally the photos were stitched together to produce a complete fresco, in order to ensure that every detail of the fresco was accurately and carefully represented.

Fan's conservation philosophy insists on conservation first and development second and she has repeatedly prevented commercial development of the Mogao Grottoes. The year 1998 saw a sudden surge in visitors to the Mogao Grottoes, as China began a long holiday system, which made the preservation of the caves even more difficult than it already was. The total number of visitors to the Mogao Grottoes in 1998 was 200,000, and in 2001 the total number of tourists reached 310,000. The extremely rapid increase in visitors has led to rapid increases in carbon dioxide levels, temperature and humidity in the caves. When the local government proposed listing the Mogao Grottoes for commercial development in the face of the rapid increase in tourism, Fan strongly discouraged profit-oriented commercial development. She insisted on the fundamental position that Mogao Grottoes, the heritage of Dunhuang, should be protected before being utilized. To this purpose, experiments were also done to determine the caves' visitor carrying capacity, which was determined to be a maximum of 3,000 visitors a day, as a way to limit the number of visitors to the

cave and protect the stability within the cave.

Building a database was begun, and in 2008 investment began in the construction of the Dunhuang Digital Exhibition Center. Designed a visitor itinerary, when visitors arrive at the Mogao Grottoes, they first watch a film about the excavation of the caves at the Digital Exhibition Center, then enter the Dome Cinema for an introduction to the caves, and then take a public bus to the caves for a tour. This orderly organization can be very effective in making visitors more aware of the caves, also controlling the time people spend in the caves, and also managing the behavior of visitors, reconciling the contradictions between tourism development and heritage conservation. The Mogao Grottoes began a new era in September 2014, with the application of modern science to make permanent preservation a reality, a fine example of cooperation between heritage and digital technology.

3.5.1.4 Fresco restorer – Li Yunhe

Li Yunhe is a restorer of Dunhuang murals and has restored a total of more than 4,000 square meters of murals and more than 500 statues during his decades at Dunhuang. His daily work is to fight against the damage to frescoes at Dunhuang. There are various conditions that can damage the frescoes, as briefly described in the previous section, which he has been working on for decades. Buckling refers to the curling and warping of the paint layer of the fresco. Flaking is when particles of salt ooze from the surface of the mural. In order to find out the cause of these conditions, he made a series of experiments, starting with the use of mud and sand from the Dangquan River, making the base of the frescoes in the traditional way, and then simulating the environment of the cave. The work of restoring the murals was so tedious that he was able to repair less than 0.1 square meters per day at most, but amazingly, after two years of restoration, Cave 161, an extremely damaged Tang Dynasty cave, blossomed into new life.

In the early days of conservation, resources were short, and he was only able to use tools he made himself. The adhesive used for the restoration of the frescoes was also successfully made by him through continual experiments, using a blend of polyvinyl acetate emulsion and polyvinyl alcohol, and in this way he successfully solved the problems of buckling and flaking of the frescoes Fig. 3.15. In Cave 130, serious gaping problems occurred, that is, the separation of the dizhang layer and the stone layer, and these problems threatened to cause the frescoes to fall off over a large area of more than 300m². Faced with this urgent problem, Li uses a method of hidden rivets, with more than 300 in Cave 130, to address the bulging frescoes, selecting the frescoes without characters or patterns, and this method of fixing the frescoes has now been maintained for more than half a century. He was the first person in China to use the "rivet fixing method" to reinforce frescoes. He also had an even bolder idea. Since the frescoes at Dunhuang are multi-layered, he separated the whole fresco intact so that the bottom layer could also emerge. This solution was
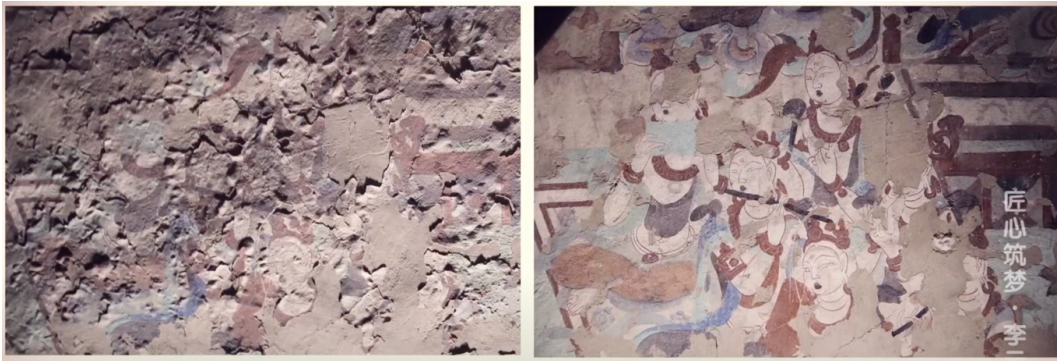
Figure 3.15: The flaking murals before and after Li Yunhe's restoration.
Source: https://graph.baidu.com

implemented in Cave 220, where the entire surface fresco of the pathway was moved two meters toward the entrance, revealing the frescoes that would have previously covered the interior, and allowing both layers to be displayed.

3.5.1.5   Painter of Dunhuang – Zhang Daqian

Zhang Daqian, a well-known painter in modern China, conducted art research at Dunhuang from 1941 to 1943, laying the basis for the copying of other art researchers. Because of the large number of caves and the endless number of frescoes, he organized a working team to start copying work together, and inspected the Mogao Grottoes and numbered the caves. His most notable contribution was the copying of 276 works in several of Dunhuang's major caves, including, during his final visit to the Yulin Caves, several of the largest frescoes in Cave 3. Although his team copied many works which were of value as reference material for later research work, Zhang's method of copying was later subject to some criticism. He adopted the copying method of Tuolin, which means that he used transparent paper to cover the surface of the fresco directly and pressed pins into the fresco to fix the paper, and then traced directly on it with ink, which also caused some damage to the fresco. The main accusation by posterity is that he stripped away some frescoes: since Dunhuang's frescoes were painted continually over more than 1,600 years, some of the later works were painted directly over the older ones, so the phenomenon of multiple layers of painting emerged. One theory is that Zhang Daqian, when faced with the most superficial layer of paintings that were too fragmented to identify, peeled off the surface frescoes so that the underlying ones would be exposed. For example, when he was copying Cave 20, he was confronted with a fresco that was created during the Five Dynasties but was severely damaged, and since the crumbling surface revealed that there was still another painting underneath, he peeled off the Five Dynasties frescoes that covered the surface to reveal the brilliantly colorful works of the Tang Dynasty. Such

an approach has received mixed reviews, with some arguing that the surface layer was already seriously damaged and that stripping the surface layer allowed the underlying fresco to be exhibited, and some arguing that it should have been kept in its most original form. What is certain, however, is that his method was later completely forbidden.

3.5.1.6 Conclusion

The Dunhuang National Research Institute was established in 1942, renamed the Dunhuang Institute of Cultural Heritage in 1949, and expanded to the Dunhuang Academy in 1984. Because the history of Dunhuang's conservation in the modern era is so closely tied to individuals, the work of these individuals is the direct basis of the development of Dunhuang's modern conservation history. These people laid the foundation of the current state of conservation at Dunhuang in the modern period. The arrival of Chang Shuhong ended the history of Dunhuang's wanton looting and destruction and began the great work of conservation and restoration. Duan Wenjie pushed artistic and academic research in cave conservation to its zenith. Fan Jinshi embarked on the digital future of Dunhuang, starting with the management of the surrounding environment to preserve the caves. Li Yunhe's inquisitive approach addressed the problem of fresco deterioration in the Dunhuang caves. The above are among the many researchers who have preserved and restored Dunhuang's murals, and there are many others who have made outstanding contributions not described here.

3.5.2 *Fresco conditions and protection measures*

Dunhuang has identified 112 caves at four risk levels. Only 8% are risk level 1, the lowest risk and open to the public. Level 2, which accounts for 52% of the total, is a category of caves that are open to visitors but require regular monitoring. Level 3 caves with a high risk rating, 21% of the total, are conditionally open to visitors, and will be closed when the humidity is too high. Level 4 caves (19%) are at the highest risk, and these caves are so fragile that visits are prohibited.

Sand, salt, and water are the major causes of deterioration of the frescoes in the Mogao Grottoes, so the main efforts to protect them are focused on these agents of deterioration Fig. 3.16. The main measures to control sand (mentioned in the previous section on Fan Jinshi), such as planting anti-sand forests and anti-sand nets, are very effective. Measures address the salt generally require the use of water, which dilutes the salt and drains it from the interior of the fresco. The moisture in the caves are now generally believed to have three sources: moisture from the rock itself moving to the surface of the frescoes, moisture from the outside environment of the caves, and the increased humidity of the air inside the caves as visitors increase.

Dunhuang's frescoes are different from the wet frescoes of Europe, since grass and mud were used as a medium to cover the walls, and then a thin layer of white powder was applied to smooth the surface for painting and bring out the color of the pigment, which is just a very fragile layer on

Figure 3.16: The site of the restoration of Cave 130 in the 1960s.
Source: https://www.youtube.com/watch?v=35VTgJTcWdwandt=516s

the very surface of the wall. This layer of white powder used as the base of frescoes was usually mixed with slaked lime, gypsum, kaolin, etc., and is exactly where the salt is most likely to gather. Under the influence of time and environment, this layer of pigment is easily affected by various conditions. At present, most of the Mogao Grottoes murals have various problems such as buckling, pimpling, gaping, flaking and peeling, and solving each of them needs a very careful series of operations, introduced in the next section.

The study of mural damage began in 1988, when a survey team from the DA, together with a survey team from Tokyo, Japan, began monitoring Cave 53 and concluded that the temperature in the cave varied significantly with the seasons. The humidity varies greatly from late March to September, and during this period the temperature inside the cave is higher than the temperature outside the cave. Members of the investigation team concluded that the moisture in the rock and the activity of water was the key factor affecting the frescoes, and that flaking was caused by the evaporation of moisture from the surface of the rock or the lower layer of the rock in contact with the dizhang layer. The moisture in the rock and the soluble salts dissolved in the water are considered to be the basic cause of the flaking of the frescoes, and some research has proposed that the moisture may come from the Dangquan River and the watering of the trees in front of the caves (Jia *et al.*, 2022; Demas *et al.*, 2015).

The biggest problem with frescoes is salt, so reducing salt content is an essential part of the

restoration and conservation process. One discussion (Guo *et al.*, 2016) explores in depth the attacks of water and salt on mural paintings in the Mogao Grottoes. In China, research on fresco conditions began in 1989 when Duan Xiuye discovered that the cliff composition contains a large number of soluble salts, which can enter the dizhang and pigment layers with moisture during humidity changes and eventually lead to fresco deterioration. This insight was applied to the treatment of gaping by controlling the moisture content, in which the moisture was absorbed from the outside with cotton paper, and the soluble salt was extracted from the inside of the mural with the absorbed moisture. Zhang Mingquan, Zhang Huyuan, and others, through the investigation of caves, found that some caves, despite the high salt content, did not suffer from the effects of moisture, and their frescoes were intact. They concluded that it is the combined effect from water and salt which causes fresco deterioration. In contrast, Guo Hong and Li Most Xiong demonstrated that two soluble salts, Na_2SO_4 and $NaCl$, were the main salts responsible for the flaking of the Mogao Grottoes murals, and that the combination of the two was far greater than the effect of each one. Chen Gangquan and Su Bomin have experimentally concluded that changes in cave humidity have a greater impact on the deteriorating parts of the murals. From the above findings, it can be concluded that the deterioration in the Mogao Grottoes murals is due to a combination of soluble salts and water changes, and therefore moisture control is an important means of addressing salt attacks on the murals.

In addition to sand control in the overall environment, it is thus also important to control water and salt inside the caves. The main work of protecting the caves and restoring the murals revolves around this water and salt control. For example, controlling the number of visitors controls humidity, which means controlling water, and the main work to manage the deterioration of the murals is removing salt from the interior of the murals, which means controlling salt.

Gaping: this refers to when the dizhang layer that carries the mural has separated from the rock, and so grout is used to secure the detached part back to the rock. The water brought in during the grouting activates the salt in the dizhang layer, at which point the salt will start to concentrate on the mural. When the water in the grout has not completely evaporated, a salt-absorbing board is used against the wall surface, which can absorb both the water and salt inside to the board. After observing the grouted area, and waiting for the repaired part to become dry, the desalting paper is replaced according to the dampness of the mural and the salt content absorbed by the desalting board, a salt absorption method used for larger areas. During the drying process, some white salt will appear on the concave surface of the mural. To partially absorb the salt, the surface of the mural is covered with cotton paper, using a water mist at a temperature of 50 degrees to continuously make the cotton paper wet, so that the salt in the mural will be absorbed into the cotton paper. After drying, the cotton paper carrying the salt is put on a scale to measure the total weight of the absorbed salt. The same step is repeated and the paper weighed every day, until the

paper no longer carries any salt weight, then the "salt absorption" is complete.

Flaking: this is known as the "cancer" of frescoes. The main reason for the flaking of the frescoes is that the salt in the rock and dizhang within the caves moves when it encounters water, and eventually the salt moves from the rock to the dizhang layer. Due to changes in the humidity in the cave, the expansion of salt after dissolution and contraction after crystallization leads to changes in the internal structure of the frescoes, which finally leads to the occurrence of flaking and pimpling, so the most important thing to manage them is to control moisture change. In response to the flaking condition of the Cave 94 murals, polyvinyl acetate emulsion $(C_4H_6O_2)n$ was used in the restoration process. The flaking part was reinforced with 1.5% emulsion until the dizhang layer was completely penetrated, and then several injections of 3% emulsion were made to increase the hardness of the dizhang layer.

Buckling: there are several types of buckling. Buckling of the pigment layer can be caused by an incorrect ratio of the binder used to blend the pigment when drawing, so that the picture does not adhere enough, and finally leads to the pigment layer buckling. Another kind is when the pigments in the frescoes and the base are sticking together, due to the activity of water and salt, which causes the surface layer of the frescoes and the dizhang layer to crack and then become scaly and curled. Such a situation also tends to appear in multi-layered frescoes, when frescoes were created by painting another layer of white powder directly onto the original fresco and then coloring it, forming a multi-layered fresco. In the frescoes of different periods, the earlier binder has aged and cannot adhere to the new binder, so it will lead to the separation between the underlying frescoes and the overlying frescoes, and in serious cases, the frescoes even fall off, resulting in the loss of the paintings.

Pimpling: as in the case of flaking, this is also due to the action of water and salt in the underlying layers of the fresco. When the salt within the fresco encounters moisture, a process of dissolution and crystallization occurs, which makes hollows between the pigment layer and the underlying layer, so many protruding small bubbles appear on the surface of the mural. After a period, the frescoes tend to peel off.

In addition to the above problems, which are the most frequent in the Mogao Grottoes, there are other conditions that seriously affect the conservation of the cave paintings. For example, fresco shedding, referring to the shedding of a large area of fresco caused by gaping, which has occurred in 65 locations, affecting a total area of more than 800m^2 of frescoes. In the Mogao Grottoes, which were once used as a place for people to live and in which they cooked, serious traces of smoke have damaged the frescoes, for example in Cave 56. There is also mold, generally found in unattended and lower caves, where the walls are more humid, and the earliest caves have often encountered burial by sand, which, if they are not drained in time, will produce mold.

To address the problem of mural damage, the DA, with the support of the Ministry of Science

and Technology's Eleventh Five-Year Plan Science and Technology Support Project, conducted "Key Technology for Desalination of Ancient Frescoes", a multidisciplinary collaboration that resulted in more specialized technical support for the "desalination" of the Mogao Grottoes murals. This multidisciplinary collaboration has resulted in more specialized technical support for "desalination" of the Mogao Grottoes frescoes.

Finally, the ballooning increase in visitors has put more pressure on the conservation of the Mogao Grottoes. Zhang Congjun, Wang Baoyi, and Zhang Guobin conducted experiments on the effects of tourists and caves, concluding that the entry of tourists increases cave temperature, humidity, and carbon dioxide content, and arguing that the number of people entering the caves and the time of day should be limited to alleviate the changes in humidity inside the caves, which would reduce the migration of salt when it encounters water. Fan Jinshi has also carried out in-depth research on the carrying capacity of visitors in the caves and has determined that the capacity of the caves is 3,000 people in one day. Such a capacity is clearly very small compared to China's population, which is the reason for the development of "Digital Dunhuang".

3.5.3 *The digital future of the caves*

The Dunhuang Caves took more than a thousand years to build, and after another thousand years of neglect, the preservation of the cave art has become a challenge due to the influence of both the natural environment and human activity. In seeking how to preserve the Dunhuang Caves for another thousand years, or even longer, Digital Dunhuang is an important initiative. The next section introduces the idea of Digital Dunhuang, its establishment and utilization.

Digital Dunhuang: The Dunhuang Academy's early experiments with cave digitization coincided with the UNESCO Memory of the World project launched in 1992. Project requirements are digitization of cultural heritage at different levels around the world, suing modern information technology in order to enable permanent conservation and maximum public access to cultural heritage in an equitable manner. The introduction of this concept marks the advent of the digital era with information technology as the main tool in the field of conservation and utilization of world cultural heritage.

The establishment of Digital Dunhuang: In 1998, the Dunhuang Academy worked with Northwestern University in Chicago, USA, to introduce methods for digitizing murals, using cameras for image capture and then stitching together the captured images, completing digital images of 22 caves with 75 DPI (Dots Per Inch) accuracy Fig. 3.17, and creating 5 caves for virtual roaming. In 2006, Dunhuang began to form a professional work team, set up a digital center, and collaborated with domestic and international research institutions to establish an accurate, colorful and high definition "Digital Dunhuang" resource library. The difficulty in collecting images was compounded by the fact that the size of the caves varied from cave to cave, and the surface of some of the

Figure 3.17: The detail views of fresco at different DPI precision.
Source: https://tv.cctv.com/lm/zgjjdjt/index.shtml

murals was not completely flat, while there are also some Buddha statues of different shapes that make it even more difficult to collect images. To solve these difficulties, the team designed four different sizes of slidable tracks for carrying the camera specifically for caves of different sizes, and used the orthographic projection shooting method for complete acquisition of murals in the order of left to right and top to bottom, setting fixed-point automatic shooting to improve the accuracy and efficiency of the acquisition. It was not until 2010 that it was finally possible to achieve high definition and high color reproduction levels. By using a high-definition camera, each mural is photographed and recorded at the same distance, and the photographed data is transmitted wirelessly to a computer, where the quality of the images is checked according to standards and then entered into a database.

The digitization of Buddha statues, reliefs and Buddhist niches is more difficult than the digitization of murals. The research team developed a 1-billion-pixel camera for the photographing of Buddhist niches, which is capable of restoring all the details of niches, including all the details of the sculptures and frescoes in them, in a single photograph with a guaranteed image resolution of 300 DPI. 3D reconstruction technology is also used to display the Buddha statue in its entirety. The statue is photographed in 360 degrees, and custom-developed software is used to calculate the pictures in three dimensions and reconstruct the structure and details of the statue. Using this method, more than 40 colored statues have been reconstructed in 3D. Using 3D printing technology, some Buddha statues were replicated and exhibited in other places, solving the drawback that sculptures cannot be moved for display. The use of 3D reconstruction technology is not only applicable to the Buddha statues in the caves, but also to the reconstruction of a 3D model of the entire Mogao Grottoes site, which can be used not only for online tours, but also to provide a variety of rich and informative information data for cave conservation. In the process of researching the conservation of Dunhuang's heritage, standards have even been established for the specification of

Figure 3.18: A cartoon character of a popular smartphone game published by Tencent Company, inspired by a classic flying figure from Dunhuang's murals.
Source: https://pvp.qq.com/cp/a20180906dhtheme/meet.html

similar research work that can serve as a guide for the conservation of similar heritage.

Development and Use of Digital Dunhuang: After more than 30 years of exploration, the Digital Dunhuang repository (https://www.e-dunhuang.com/) went live worldwide in 2016. Now through the internet, viewers can enjoy high-definition digital content and panoramic roaming of 30 caves, marking the opening of the Dunhuang Caves digital era. This represents the perfect confluence of heritage and technologies, highlighting the attraction of new heritage trends. In 2017, the DA entered into a strategic partnership with Tencent, meaning that the heritage conservation sector is working with an Internet technology company. Tencent is playing a "translator" role in this collaboration. The company is using pop music, games, comics, dance and other innovative forms to give people a more direct experience of Dunhuang art. The design of the character in the popular game Glory of Kings is a close replica of the classic image of the "Flying Nymph" in the Mogao Grottoes Fig. 3.18. Injecting youth and vitality into the ancient fresco heritage hidden deep in the caves also allows the heritage to burst into infinite life in modern times. A painting contest featuring Dunhuang art was also held to promote the beauty of Dunhuang art.

The significance of "Digital Dunhuang" is as follows: 1. The establishment of "Digital Dunhuang" supports the conservation of the Dunhuang caves, providing an accurate basis and reference for the daily monitoring and protection of the murals, clearly recording the details of the murals and their condition. The "Digital Dunhuang" repository provides important information resources for the study of Dunhuang, allowing researchers to use the online Dunhuang archives to zoom into

the details of the images, many of which are not readily apparent to the naked eye. For example, the textile textures of the costumes on the Dunhuang fresco figures are shown in their entirety. Too large a picture is also not conducive to enjoying the panoramic effect, as in the case of Cave 61's Wutai Mountain, which is 13.6m long and 3.8m high, making it difficult to see the panoramic effect of the painting in a small environment and to observe all the details. Finally, by stitching together the complete picture with 4780 photos, people can see the panoramic effect and also zoom in on the details of the frescoes, which is more conducive to scholars studying Dunhuang art. 3, Digital Dunhuang also provides great convenience for the copying of murals, which constituted a large part of the early conservation work. In the early period, Zhang Daqian used paper to directly copy the frescoes with the highest degree of accuracy but also with accompanying damage to the frescoes. Later, all copying was carried out by viewing the frescoes, which prevented damage but allowed errors to be made. With Digital Dunhuang, frescoes can be copied directly from a printed manuscript with a high degree of accuracy and no damage to the frescoes. 4. "Digital Dunhuang" plays a big role in promotion. Digital Dunhuang's high-definition movies and dome theaters reduce the time visitors spend in the caves and ease the pressure on visitor capacity, effectively achieving a win-win situation for both conservation and openness. Using the data from the Digital Dunhuang repository to hold exhibitions around the world also provides easier access to and the promotion of Dunhuang art.

A series of simulated caves have been built to preserve cultural relics while allowing visitors to see the superb paintings and sculptures up close. Visitors to the simulated caves can see masterpieces of art that are not open to the public or take an immersive online tour of the caves.

In 2020, during the outbreak of COVID-19, there was a widespread global lockdown and people began to take precautionary measures such as social distancing or working from home. To enable people to view the art of Dunhuang at home, the Dunhuang Academy integrated digital resources to create the "Cloud Tour of Dunhuang" application in February 2020. The applet presents frescoes from the Dunhuang Caves by displaying different art types, periods, or colors. Various new forms of experience, such as online exhibitions and live broadcasts, have also been introduced to make it possible to see Dunhuang without leaving home.

3.5.4 *Conclusion*

This section has introduced the history of Dunhuang Caves conservation through several representative figures, examining them in chronological order. Under the leadership of each of these representatives, different stages in the conservation of Dunhuang can be clearly seen. For example, Chang Shuhong, who opened the chapter on conservation, and Duan Wenjie, who was at the pinnacle of his art, to Fan Jinshi of Digital Dunhuang, each marked the course of Dunhuang's conservation development. We have also examined the main conditions of deterioration of the

Dunhuang murals and their causes, as well as some ways to treat them. Finally, we have seen how the presentation, establishment and utilization of Digital Dunhuang represents the integration of heritage with the zeitgeist, and the dissemination of Dunhuang's heritage through new media brings it to youthful life in a new era.

3.6 The state of tourism in Dunhuang

This section focuses on cultural tourism in Dunhuang. It introduces the current state of tourism in in Mogao Grottoes World Heritage Site, briefly describes the development of tourism in Dunhuang from the beginning of its opening to tourists to the present, and the changes brought about by the development of tourism, as well as the overall tourism profile of the city of Dunhuang, and provides an outlook on the future of tourism in Dunhuang.

3.6.1 *Tourism in Dunhuang*

China's tourism industry started late, with the country's first national tourism conference held in 1978. Tourism only began to gain acceptance in 1979, when the Dunhuang Mogao Grottoes were opened to the public and tourism began to grow, with a total of 112 caves open to the public. Before that, the Mogao Grottoes were in an emergency conservation phase, with the main impacts and damage coming from environmental pressures and their own fragility. Since opening to the public, the environmental changes inside the caves brought about by the increase in visitors are also one of the key factors affecting the conservation of the caves.

From 1979, when tourism first began to develop, there were not many visitors to the Mogao Grottoes, especially foreign visitors. But in recent years there has been a jump in tourism to the Mogao Grottoes, and this rapid development, mostly due to policy support and economic growth. In recent years, in order to mitigate the economic disparity between the inland and coastal regions, the Chinese government has implemented many policies that are conducive to supporting the economic development of the northwest region. For example, in 1999, Deng Xiaoping proposed the development of western China, and the "One Belt, One Road" policy of 2013 has given the Mogao Grottoes more opportunities for development.

The DA has been recording visitor numbers and information since 1979, and the number of visitors to the Mogao Grottoes has changed as shown in Fig. 3.19. The total number of visitors to the Mogao Grottoes was just over 20,000 in 1979, and as the caves were listed as a World Heritage Site in 1987, the number of tourists grew. In particular, China introduced the "Golden Week" holiday system in 1999, which was seen as a way to stimulate domestic consumption and the first "Golden Week" alone had 28 million travelers nationwide. In 2000, the total number of visitors to the Mogao Grottoes approached 300,000, and this sudden spike in the number of visitors to the
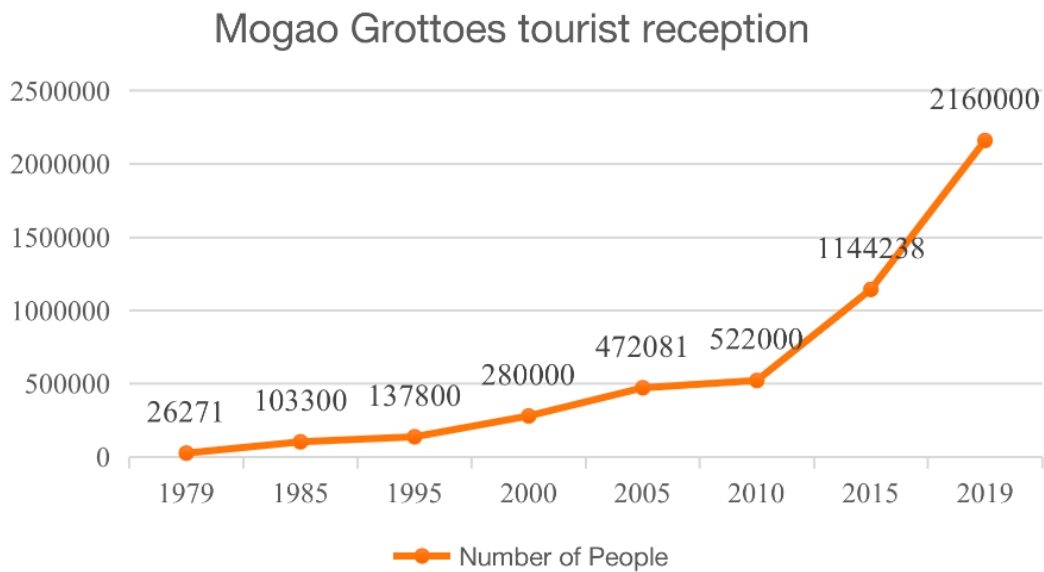
Figure 3.19: Number of visitors visiting Mogao Grottoes 1979 – 2019.
Source: Dunhuang Academy.

caves was related to the Golden Week. Because Dunhuang is located in an inland city in China, and residents of coastal cities, the main consumers, take longer to reach Dunhuang, longer vacations are necessary for visitors to arrive at Mogao Grottoes. As we can see in the chart, the curve has been on an upward trend, but in 2008 and 2009 there was a decline in the number of tourists for two main reasons: firstly because of the global financial crisis which affected the tourism industry; and secondly due to the cancellation of the Golden Week in 2008, discussed in Chapter 2, which impacted on the tourism industry in remote areas of the Northwest. Overall, demand for tourism within China is growing, and in 2015, the number of visitors to the Mogao Grottoes surpassed one million for the year while the number of tourists in 2019 exceeded two million.

The Dunhuang Research Institute experiments have determined the maximum capacity of the caves to be 3,000 visitors. The peak season for tourism in the Mogao Grottoes is from July to October each year, and the number of visitors to the caves varies widely from month to month. During some holidays and peak seasons, peak visitation can reach 5,000 – 6,000 people per day, and after the opening of Dunhuang Railway Station in 2008, the number of visitors sometimes reached 7,000. During the holiday season in October 2012, the number of visitors in one day was as high as 18,000, and the same number of visitors occurred in 2013. The number of tourists has already exceeded the capacity of the grottoes themselves and seriously threatens the conservation of their frescoes.

The number of tourists puts pressure on the conservation of the grottoes, but it also generates significant revenue for the city of Dunhuang. With a total of 9 million visitors received by the

entire city of Dunhuang in 2017, and a gross domestic product of 10 billion yuan (RMB) in 2017, the tertiary industry alone reached 6.6 billion yuan (RMB), so better tourism management has a very important role in Dunhuang's economic development. Of the 9 million tourists, there were 8.95 million from China and only 45,000 from abroad, so we can see that Dunhuang's main source of tourists is still China, with a low proportion of international visitors. The low percentage of international visitors may be related to local inconveniences. Inconveniences include lack of tourist-friendly local information, such as road signs, or availability of foreign language services in hotels. Also, the foreign language level of the local residents is not as high as that of the residents in coastal areas, which makes it difficult for foreign tourists to experience the local human environment, and the only available food culture does not always meet the needs of foreign tourists. Further, although the Mogao Grottoes are already a famous heritage site, this fame seems to exist only among cultural heritage conservationists and they have not become a world-famous tourist attraction like Venice.

Due to incomplete tourism data from the early years, and because the tourism industry almost came to a halt in 2019 when COVID-19 exploded globally, only data from 2015 to 2019 are compared Fig. 3.20. Dunhuang City received 10.773 million visitors in 2018, with a tourism revenue of 11.5 billion yuan, an increase of 25.92% year-on-year, and another record high in comprehensive tourism benefits. In 2019, Dunhuang City's annual tourist reception reached 13,373,300 and tourism revenue exceeded 14.9 billion yuan. Dunhuang has 478 accommodation units, 13,531 rooms, 25,586 beds and about 4,300 tourism employees in the city, including only 26 star-rated hotels with 2,600 employees (data source Jiuquan Local Situation website for 2018 http://www.jqdqxx.com.cn/). From the above data, it can be seen that Dunhuang provides a relatively small percentage of the total accommodation in terms of star-rated accommodation. The number of star-rated hotels with specifications only accounts for one-twentieth of the total number of hotels, while the number of employees in star-rated hotels is half of the total number of all hotel employees. This means that probably most other zero-star guesthouses are of uneven quality and have fewer staff available to provide the service. It also reflects the fact that the hotel industry driven by tourism in Dunhuang does not bring many jobs to local residents.

3.6.2 *Tourism in the future of Dunhuang*

The future of tourism in Dunhuang should be restored to its status as the Pearl of Silk Road, given its tourism resources, not just its cultural heritage, but also its unique natural beauty. The fragility of Dunhuang's cave paintings is such that it should not be used as the only attraction to boost local tourism, and more projects should be developed locally, providing visitors with a greater experience than just being observers. Dunhuang, on the other hand, can simply act as a desert art museum without taking on all the functions of a tourist destination, which would effectively reduce the threat to cave art from long stays by tourists. Dunhuang's tourism market currently attracts
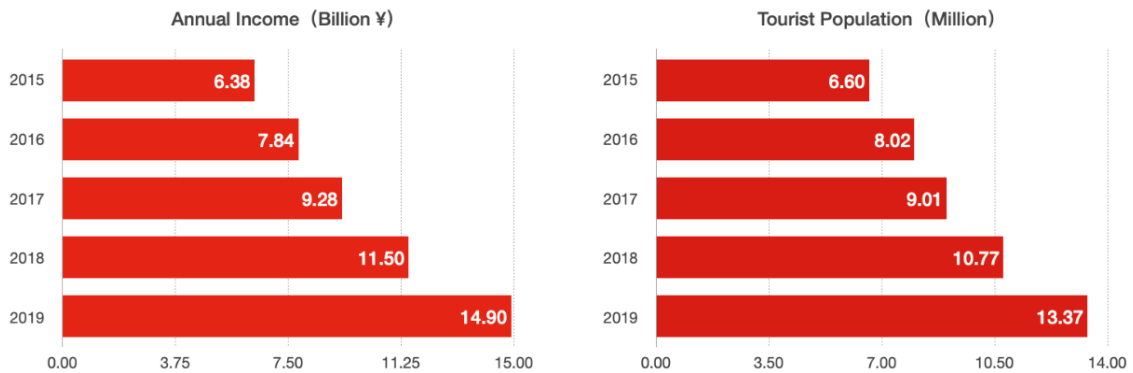
Figure 3.20: Annual income and tourist population of Dunhuang tourism 2015 – 2019.

more internal tourists and is not yet very well known internationally, so how can it increase its visibility in the tourism industry? Having a unique tourism city can be a big drawcard for tourists, and building the future of Dunhuang can be done in several ways.

The art drawcard: The art of Dunhuang represents the art of China during the Tang Dynasty and pre-Tang Dynasty, and is the gene pool of classical Chinese art as well as a resource base for Buddhist art. This unique feature should be capitalized on through the creation of a Dunhuang art experience center, which would provide specialized art education, including art history and classical Chinese painting techniques, to facilitate the export of Dunhuang art to the world. The Buddhist art paintings could also attract Buddhist followers from all over the world to worship and experience Buddhist art here. By providing teaching by specialist art teachers, it could also improve the employment rate of such teachers. Professional teachers from professional institutions could provide different experience modes of different lengths, for example, visitors could experience the painting process for a day, a week, a month and so on. It could also provide different levels of experience modes, such as for children, general interest or professionals, so that visitors could choose the painting experience activity that best suits them. Professional painting camps could also be offered to art colleges and universities bases to bring more professional painters to study classical Chinese painting in order to make the art of Dunhuang not just a heritage within the caves, but to give it infinite vitality and continuity in this modern era and into the future. The local sand could also be used to create large-scale installation art, as at Keukenhof National Park, which is open every year in the Netherlands for only two months, but has become a place that tourists consider a must-see when they go to the Netherlands. Sand could also be used for this concept, with local and foreign artists invited to create large-scale art, open regularly and with different themes every year, and this could become an annual desert art festival, with a program similar to the Burning Man Festival in the United States, attracting domestic and foreign tourists.

The geological drawcard: Dunhuang is located in northwestern China, surrounded by not only cultural heritage and a number of historical monuments, but also a wealth of natural tourism resources to take advantage of. It is important to develop some locally appropriate experiences, for example, tourists will want to go to far Northern regions to see the Northern Lights, to Turkey for a hot air balloon ride, to Dubai for skydiving, to Switzerland for skiing, and so on. Unique projects could also become a tourism drawcard in Dunhuang. Dunhuang and the surrounding areas should take advantage of the local desert, Gobi, Yadan and other geographical features, and could develop some special activities, such as sand skiing or desert star-gazing. It is important not to pursue the construction of large-scale projects such as the "Tang Custom Area", because this type of attraction is costly and lacks authenticity, presenting fake heritage. (Demas *et al.*, 2015) contrasts the Mogao Grottoes Visitor Center and Dunhuang Railway Station, arguing that the architectural design of the Visitor Center is very harmonious with the local landscape, while the Dunhuang Railway Station's architecture is very discordant with the surrounding landscape, using traditional Chinese elements but failing to stand up to scrutiny and lacking in aesthetic quality. Taking advantage of the local landscape characteristics and vast territory to create a themed park would bring tourists but spread them over a wider area, reducing the pressure of tourists on any single scenic spot. An example is Iceland, where only basic roads are paved to protect the pristine landscape and camping sites are built at certain distances, replacing hotels with camping sites to reduce the environmental pressure around large buildings. Even though local accommodation is poor, building hotel chains is still not the optimal choice for developing tourism. Because of the seasonal character of Dunhuang tourism, the number of tourists varies greatly between the high and low seasons, as hotels tend to be undersupplied when in high season, but if more hotels are built, the daily maintenance costs of the hotels are higher in the low season, and the hotel industry needs huge resources to support it, such as water. Too many large hotel constructions would also affect the surrounding environment. Since there is little local transport, it is recommended that Recreational Vehicle (RV) tourism should be developed. RV tourism could effectively utilize the advantages of Dunhuang's tourism resources, reducing the disadvantages of Dunhuang's underdeveloped local transport and the need for construction of local hotels.

Academic drawcard: Dunhuang is a meeting place of ancient civilizations and the birthplace of Dunhuang art and culture, which has generated a dedicated discipline, Dunhuang Studies. Since the founding of the DA, the pattern of "Dunhuang in China, Dunhuangology overseas" has been shattered, and decades of Chinese academic research and heritage preservation mean that Dunhuang Studies no longer only exist in other countries. This shows that the area of Dunhuang also has extraordinary academic value, and that Dunhuangology, or other academic studies, such as the study of classical Chinese or Buddhist art, should be promoted. Specific measures can be taken to host more academic international conferences in Dunhuang to raise international awareness

and create a signature of Dunhuangology in Dunhuang, as well as to establish an art academy as a specialized institution for independent study of classical Chinese art, so that the transmission of Dunhuang art is no longer the sole task of conservationists.

The future of Dunhuang should be a desert capital filled with an atmosphere of classical Eastern art, ancient culture, Buddhism and other heritage, and surrounded by many new and vibrant tourism projects to bring more vitality and economic support to the northwest.

3.6.3 *Conclusion*

This chapter has focussed on the historical background of the city of Dunhuang through three important periods, from when the name Dunhuang was first recorded in history, to when the first Dunhuang caves were excavated, and when Dunhuang reached its peak of cave building during the Tang Dynasty. The city's development was then analyzed by observing the changes in Dunhuang's landscape in recent decades through the timeline feature in Google Maps. Introduction was made to the geographical features and climate of Dunhuang, as well as the structure of the Dunhuang Caves, and analysis of the surroundings of the Dunhuang Caves. Dunhuang's SWOT was also introduced to analyze its potential strengths and weaknesses in the face of tourism. Conservation efforts at the Mogao Grottoes were documented, including recent efforts focused on external sand control and internal water and salt control, to preserve the heritage for the future. The causes of the fragility of Dunhuang's frescoes due to their special structure and local geography, and some of the ways to treat fresco damage were noted. This section has also introduced the development and application of digital technologies at Dunhuang. Finally, we have analyzed the tourism data of Dunhuang Caves from the time it was opened to the public to the present. The data showed an extremely rapid rise, but the management of tourism has not been coordinated or coalesced into a broader brand image.

The beauty of the art, its spiritual, religious and artistic attributes, and the striking landscape have drawn visitors for decades to this desert oasis, but now pressures from an increasingly mobile population with money to travel and from local and regional government and business interests who are eager to exploit the economic potential of tourism threaten what is most valued about the site (Demas *et al.*, 2015). Finally, based on the above, we make a few suggestions.

1. The penalty should be increased for malicious destruction of cultural heritage. Some artifacts included in this study in the Dunhuang Caves, and the surrounding Yadan landforms, are very fragile, the result of long years of formation. Any damage will cause irreversible consequences, difficult to recover from, so the malicious destruction of cultural relics and natural environment should be recorded in the personal credit record, affecting loans and social behavior.

2. The electronic economy has recently become a means of environmental protection. For example, Alibaba launched a program in 2016 called Ant Forest, raising awareness of the concept of environmental protection. By directing people to reduce carbon emissions by walking, paying online (reducing paper waste), using public transportation, cycling, and working online, it helps to reduce carbon emissions. When people do so, a corresponding amount of "water drops" appear in the user's Alipay (a payment program), and after a certain amount "water drops" have been collected, users can choose to plant a real tree in Northwestern China, making a leap from the virtual world to reality. Most of these trees have been planted in Gansu and Inner Mongolia. As of August 2019, the number of users of Ant Forest has reached 500 million, and a total of 122 million trees have been planted in Gansu and Inner Mongolia in this way, reducing carbon emissions by 7.9 million tons. This project also won the 2019 UN Global Climate Action Award, and is a great advance for China, because in recent decades, due to the large amount of energy invested in economic development and also immaturity of technology, the development of some remote areas and the protection of the environment have been neglected. Chinese society has now started to promote the importance of environmental protection, and Ant Forest is no longer a token act, but a real implementation of environmental protection. The vegetation is not planted in the center of the desert, but around its edge, to ensure that the cities around the desert area will not be in danger of urban desertification. Such a concept could also be applied to heritage conservation by promoting sustainable tourism, replacing the concept of tree planting with mural restoration, applying pooled funds to heritage conservation, and increasing people's sense of a real experience in heritage conservation by rescuing a certain amount of "fresco pieces" through energy-saving behaviors.

3. Buildings should be required to conform to the characteristics of the local landscape, and some reference guidelines for construction should be issued. Some high-end art hotels could attract tourists by a design specifically for the local area and in line with the local geographical landscape. Some reference guidelines would be fundamental, so that project development has a guiding document to be based on, and not just the pursuit of commercial development. Thoughtful planning of self-driving routes, construction of fully functional RV campsites within a certain distance, and elimination of unregulated commercial construction would be desirable.

4. Adjust public holidays and restore Golden Week, because tourism in Northwest China takes more time, and if we want to use tourism to drive the economy of Northwest China, enough vacation time is needed. Because the Northwest Territories are vast and not a destination that can be accomplished with a three-day vacation, additional vacations are a necessary precondition for expanding tourism to stimulate the economy.

Chapter 4.   Italian comparison

4.1   Introduction

This section focuses on three classic tourist regions within Italy, selected as reference points with which to compare Dunhuang's tourism development and discuss what practices are transferrable. These three regions have been chosen because all three are similar in some way to Dunhuang. The first example - the Dolomites - is not a single place, but a regional concept, and the Dolomites have a unique geographical environment, but are far less accessible than major cities such as Milan, Bologna, Rome and Venice. However, the inconvenience of access has not affected the development of its tourism industry at all. The second example is Florence, which, like Rome, is a city steeped in history and filled with artistic and cultural heritage, with many heritage sites located in the city, and which has been well-exploited and converted into wealth by the tourism business, with the emphasis on developing tourism while preserving cultural heritage. Since the two Italian cities are similar, only one has been chosen here as a case study for discussion. The last case is Pompeii, a famous archaeological site which is less accessible than Florence in central Italy and far less economically developed than the previous two examples but has unique and valuable cultural heritage and in its situation is most similar to Dunhuang in China, the main reason for selecting it as a case study.

In the 2018 IBRD (World Bank) publication of the most important countries for travel, Italy is ranked fifth and is therefore one of the most popular countries to visit, a destination which is a symbol of fashion, art, culture, and freedom. The analysis of tourism data from ENIT - Agenzia Nazionale del Turismo in Chapter 2 shows that in 2018 Italy's tourism industry generated 5% of GDP directly and 13% indirectly, contributing approximately €237.8 billion to Italy's GDP in 2019, with the sector directly generating more than 1.7 million jobs, which means that tourism in Italy makes a significant contribution to the Italian economy and is a pillar industry of the country. The success of the tourism sector is due to Italy's innate strengths in tourism development and its scientific approach to tourism management. Abundant in heritage resources and rich in human resources, they are all based on a philosophy of excellence in management and conservation in order to be sustainable and create more value. We will also briefly overview the advantages of

tourism in Italy, with case studies of the different ways in which different types of tourism are managed.

Italy's geographical position:

Italy covers a total area of 301,000 square kilometers and is mainly located on a peninsula in the south of Europe, while also including the islands of Sicily, Sardinia and many small islands scattered around the Mediterranean Sea. The mainland area and the island of Sicily form a shape similar to that of a boot and a football. Its narrow shape, stretching from north to south and surrounded on three sides by the sea give Italy the resources of an extraordinarily long coastline. Italy's climate is Mediterranean and the weather is perfect for beach activities. The three main territorial waters of Italy are divided into the Adriatic Sea in the north-east, the Tyrrhenian Sea in the south-west and the Eastern Mediterranean in the south, with a rich coastline, blue sea and clear skies combining to make Italy's beaches a popular choice for European and American tourists in summer. Italy's natural resources are of particular interest not only for the long coastline, but also for the mountains, which are a famous tourist destination. The northern part of Italy is surrounded by the Alps, forming a huge mountain range of snow-capped peaks, the highest point of which is the famous peak of Mont Blanc at 4,810 meters. With a total number of 60.36 million people as of 2019, Italy is one of the more populous countries in Europe, and also has two microstates within its borders, San Marino and the Vatican.

Cultural history:

The Roman and Etruscan cultures of Italy inherited much of Ancient Greek civilization, becoming the cradle of European culture through the Roman Empire, and Italy was also the birthplace of the Renaissance, considered to be one of the greatest European intellectual movements. It is no coincidence that the Renaissance originated in Italy, where a positive humanistic atmosphere of freedom, openness, enthusiasm and focus on exploration pervaded the region. This long history and cultural heritage has made Italy famous for its cultural tourism, which attracts many people to the country's ancient cities every year and has greatly contributed to their development.

Management experience:

Europe attaches great importance to tourism infrastructure. In addition to the many famous natural resources that nature has given to Europe, such as the Alps and the Amalfi coastline, the region also attaches great importance to the preservation of cultural heritage, such as the maintenance of churches, palaces and sculptures. Keen awareness and advanced technology have enabled most of the cultural sites here to be well-preserved despite hundreds or even thousands of years of use. In the streets of Italy, it is not difficult to find a nameless building that may be well over a hundred years old. It is also common to see old buildings under maintenance, even giving the impression that there is always a building under repair in an old Italian town. And here, unlike in China, the historic buildings are normally also conservation areas, and in most cases also

still function as the city center and are not fenced off as antique buildings for viewing only. It is interesting to note that when the old buildings in the city are being repaired, some are covered with a reproduced image the same size as the original building, giving a superficial impression as if the building is actually there in sight.

Art and design:

Italian cities are so filled with art that they are sometimes called open-air galleries, with artistic achievements not limited to the outstanding Renaissance painters and sculpture. There are also many musicians, and today, when walking through the streets of Italy, there are exhibitions of paintings and performances by street artists everywhere, creating a vibrant street art scene. Italy not only has a long history and a rich cultural heritage to show visitors but is also a country that leads the way in terms of fashion. Milan is known as the international capital of fashion and creativity, where many prestigious international events are held each year, such as Milan Fashion Week and the Venice Film Festival. Unique artisanship, famous fashion brands and the production of luxury products, also make Italy a shopping destination.

The case studies will analyze Italian tourism resources and management models, which can serve as a reference for Dunhuang tourism, and for other tourism destinations of the same type.

4.2   Dolomites

The Dolomites were recognized as a UNESCO World Heritage Site in June 2009 for their aesthetic and landscape value and their scientific importance in terms of geology and geomorphology. The nine mountain systems form a series of mountain landscapes of extraordinary natural beauty that are unique in the world. The spectacular peaks are high, pale and cold, resembling natural sculptures of various shapes and sizes. This section of the Italian Alps came to be known by the name of the French mineralogist Déodat Gratet de Dolomieu, was the first to identify the particular rock to be found in these mountains. Its value is not only its aesthetic and landscape value, but also its very important in geological value, where the number and concentration of carbonate strata are extraordinary and have undergone the largest destruction of time ever recorded, providing geology with a treasure trove for the study of marine life in the Triassic. It is also a well-known tourist destination. This section focuses on the tourism model and current situation in the northern Italian mountains of the Dolomiti (Dolomites, in English) by analyzing the geographical background, the economic background, the tourism model and the current state of development.

4.2.1   *Natural conditions in Dolomites*

More than 200 million years ago the Dolomites was lying at the bottom of the sea and were gradually uplifted by the compression of the African and Eurasian continental plates to form
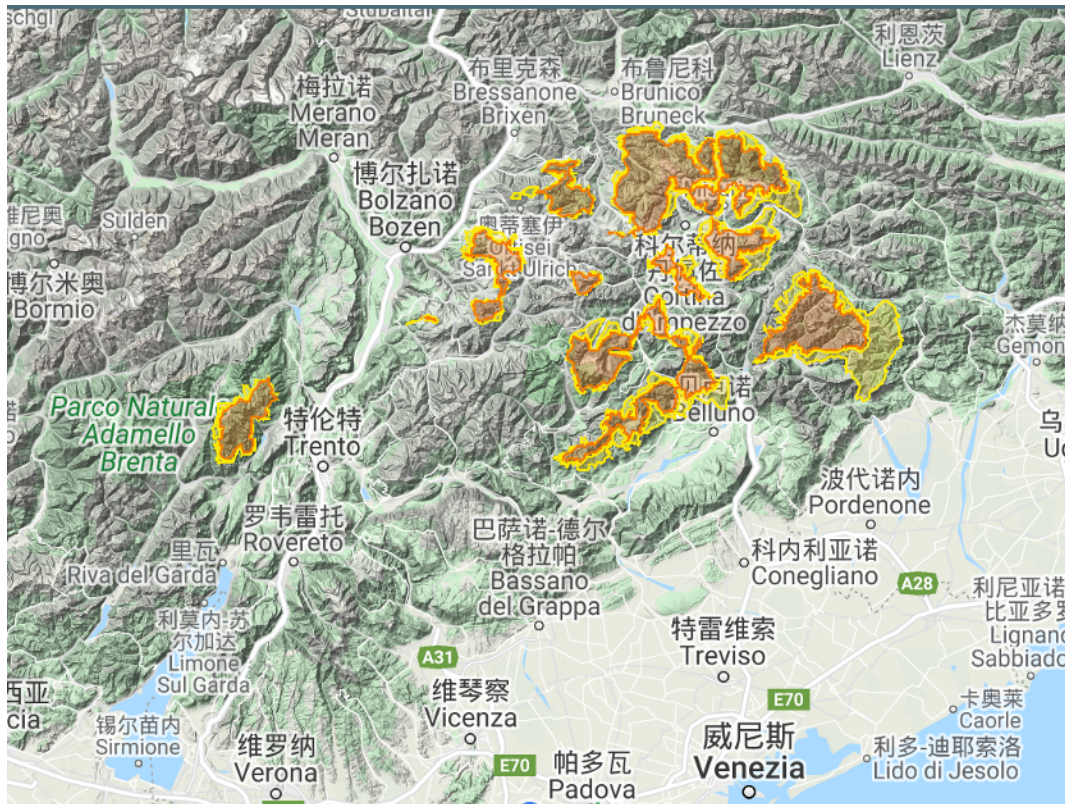
Figure 4.1: Tourist destinations distributed in Dolomites, marked by yellow color.
https://www.dolomitiunesco.info/

mountains, which gave it a unique landscape unlike any other mountainous region, with white mountain colors rising from the flatlands, while it has also become an irreplaceable geological treasure. The Dolomites are a part of the Alps and geographically straddle north-eastern Italy, with most of their area spread over the provinces of Belluno, Bolzano, Pordenone, Trento, Udine and the two regions of Friuli Venezia Giulia and Veneto respectively. The Dolomites are a group of nine hills separated by valleys, rivers and other mountains displayed in Fig. 4.1. With a total of 18 peaks above 3,000 meters, covering 142,000 hectares, the mountains have been described by many visitors as "God's garden" because of the beauty hidden between the mountains.

The average annual temperatures in the Dolomites range from -12 °C to -6 °C in the coldest months of December to March and from 4 °C to 11 °C in the warmest months of July and August. Sunshine hours range from a minimum of 8.5 hours in December to a maximum of 15.5 hours in July, according to data provided by NOAA (National Oceanic and Atmospheric Administration). The temperatures provided by NOAA are averaged over the entire mountain range, including large valleys, plains, plateaus and high peaks, many of which are snowy all year round, so this average temperature includes all terrain. The temperature here is characterized by a clear vertical

Figure 4.2: Parco Naturale Delle Dlomiti d'Ampezzo. Source: Author draws

distribution, with a gradual decrease in temperature as the altitude increases. The people live in the plains and valleys where the climate is milder, thanks to the high mountains that keep out the cold currents from northern Europe and the moderating effect of the lakes. Such temperatures make it an option for people to come here in summer to escape the summer heat and in winter it becomes a world-renowned ski resort.

The Dolomites have jagged ridges and steep cliffs, and the high peaks of the rolling mountains are often covered in white snow Fig. 4.2. In these mountainous areas, wildflowers and cows are everywhere in the summer, adding to the beauty of the hiking routes that spread across the landscape. There are many small villages scattered across the mountains and some larger ones have cable car lines, which are excellent for the steep climbs and reduce environmental damage and construction costs by getting visitors to the heart of the trekking area quickly and reducing the need for many paved roads, not only avoiding the environmental damage caused by building the roads, but also reducing the environmental pollution caused by a large number of cars crowding into the core landscape areas. Countless hiking trails are interwoven throughout this mountain range, with hikers and cyclists everywhere in the summer, and the tourist routes are endless and scenic, a haven for travelers, adventurers and photographers.

The seasons influence the type of activities and destinations available in the Dolomites. In winter, the area boasts a variety of experiences themed around skiing, with cross-country, skiing, climbing, sledging, ice skating, ice skate walking, dog sledding and much more. In the summer there is also a wide range of activities, including hiking, cycling, paragliding, rock climbing, etc. It

has even spawned a hotel that offers a range of services specifically for sports enthusiasts, of which some details will be covered in the interviews in Chapter 5.

The area has quality snowfields for snow sports and has attracted many international winter events to the area. In 2019 the Val di Fassa in the Dolomites hosted the World Junior Alpine Ski Championships, and before that also hosted the 1956 Winter Olympics, the 1985 University Games and will co-host the Winter Olympics with Milan in 2026, a world-class stage that will allow for more investment in the renovation of local equipment and the maintenance of venues, helping to increase the visibility of the mountains, attracting more permanent residents and reversing the trend of population decline in the region.

4.2.2 *Economy of Dolomites*

The country of Italy is divided into 20 administrative regions and 101 provinces, with Rome as the natural dividing line between the north and south. The north of Italy is more economically developed, the south is more economically underdeveloped. The combined area of central and northern Italy is 178,200 square kilometers, accounting for 59.16% of the total Italian area, of which 39.79% in the north, 19.37% in the center and 40.86% of the total area of Italy is in the south. The central and northern regions have an average annual population of 39,789,000 people, accounting for 65.94% of the total population of Italy. The GDP of the Central and Northern regions is US$155,979,980 million, accounting for 77.85% of Italy's total GDP, of which the Northern GDP is US$112,853,600 million, accounting for 56.32% of the total. Data from 2019 alone shows that Italy's GDP per capita reached approximately €29,700, but there are significant economic differences between the north and south, the region with the highest total GDP in Italy being Lombardy, where 16.73% of the country's population contributes 22.39% of GDP. The region with the highest GDP per capita is Trentino Alto Adige, with a GDP per capita 46.25% higher than the national one, and even the autonomous region of Bolzano in the north-east, with a GDP per capita of 48,000 euros Fig. 4.3, is 62.08% above the Italian average. The Dolomites are located in these areas where GDP is well over the Italian average, so it is not only a great natural environment, but also a very developed economy.

The Dolomites are very well-developed in agriculture and livestock, producing fruit, wine, dairy products, timber, cattle, horses, honey, handicrafts, etc., with honey accounting for 20% of the country's production. At the same time, tourism generates a very high income for these places.

4.2.3 *Tourism management in Dolomites*

The Dolomites were inscribed on the UNESCO list in 2009. The Operating Networks (permanent working groups coordinated by the provinces within the UNESCO Dolomites Natural Property), to which the regions, provinces and parks belong, have the task of disseminating the objectives

Gross domestic product (GDP) per capita of Italy in 2019, by region (in 1,000 euros)

Region	GDP per capita
Province of Bozen	48.1
Lombardy	39.7
Aosta Valley	38.8
Province of Trento	38.8
Emilia-Romagna	36.7
Lazio	34.2
Veneto	33.7
Liguria	32.3
Friuli-Venezia Giulia	31.9
Tuscany	31.9
Piedmont	31.7
Marche	27.7
Umbria	26.2
Abruzzo	25.1
Basilicata	23.1
Sardinia	21.3
Molise	21.1
Apulia	18.9
Campania	18.9
Sicily	17.9
Calabria	17.3

GDP per capita in thousand euros

Source
Istat
© Statista 2021

Additional Information:
Italy; 2019

Figure 4.3: Italy's Gross Domestic Product (GDP) per capita in 2019.
Source: https://www.statista.com/

and implementing strategic actions regarding landscape heritage and protected areas, geological heritage, tourism and mobility, promotion, education and research equally throughout. The UNESCO Dolomites Foundation has developed a development strategy for the Dolomites, which is based on four "pillars": Heritage, conserving the outstanding universal values for a territory that meets World Heritage standards; Experience, enhancing visitor experiences for sustainable tourism that meets World Heritage standards; Community, raising local awareness for a community working for World Heritage; and System, coordinating management activities for governance that meets World Heritage standards. Every six years the UNESCO World Heritage Centre monitors the state of conservation and the management of the site, calling on a team of experts from IUCN (The International Union for Conservation of Nature). The purpose of this assessment, which includes on-site visits, is to check the degree to which the goals set out in the multi-year plan have been achieved and to examine the way the property is being managed and its state of conservation.

The origins of tourism in the Dolomites date back to the 1930s, when the first lifts were built to create the ski village of Val Gardena, which was adapted over time to suit the needs of tourism. By changing the accommodation and service structures, this village was transformed from a rural to a tourist economy (Vanzi, 1999). The economic transformation has effectively increased employment and in this way has solved the problem of migration away from the villages and helped to maintain the economy of the mountainous areas. Such a concept is suitable for grafting on to the concept of tourism in remote and mountainous areas, where it offers economic development opportunities and retains people so that the area does not become an empty region. Tourism in remote areas not only brings about economic transformation, but also provides a more convenient infrastructure. This is one of the major problems that needs to be solved in remote areas of China at this time - the outflow of people due to slow economic development. The management of tourism in the Dolomites retains and respects to a large extent the participation of the local population and does not pass the baton of development to speculators, thus ensuring that the cultural identity of the local population is fully preserved and that the development of the area is linked to the inhabitants, whose pride and participation greatly enhances the local tourism experience.

When it comes to tourism in the Dolomites, one institution has to be mentioned: Dolomites Superski was founded in 1974 and today presides over 450 lifts and 1,180 kilometers of skiable pistes. These are then managed by 150 companies that have no more than 60 employees and which are able to maintain their autonomy whilst managing investments (Vanzi, 1999). It manages all marketing activities throughout the the Dolomites area together with the Tourism Association Fig. 4.4.

Dolomites Superski manages 12 valley consortiums, which, through 150 companies, are responsible for the management of equipment such as lifts and pistes throughout the ski area, as well as for the development strategy and service levels of the entire ski area, and finally for the
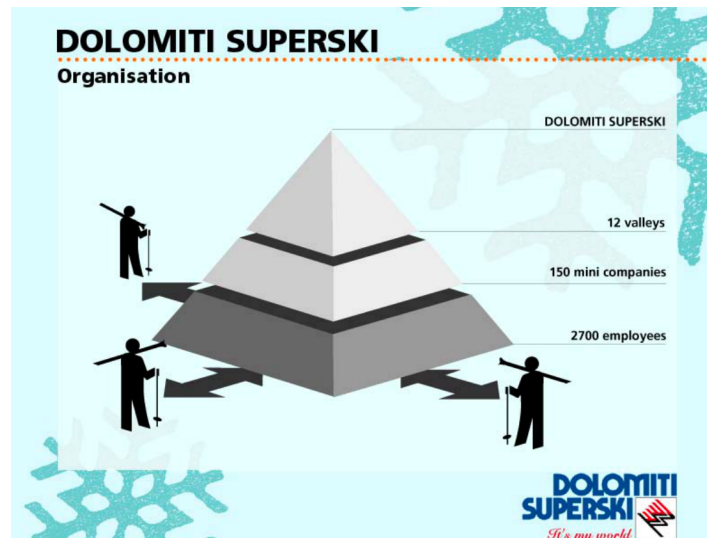
Figure 4.4: Tourism management framework for the Dolomiti area.
Source: Dr. Gerhard Vanzi

management of the ski passes and revenues that are distributed to the 150 companies under their umbrella, to the tune of $200 million per season.

The mountains of the Dolomites use a pass model, allowing skiers to move freely between ski areas with a single pass, an idea that emerged in the 1970s. The Dolomites is a huge ski area in winter and Dolomites Superski has introduced a ski pass which gives visitors access to the 450 lifts in the area. The lift line links 44 different towns in 12 valleys, allowing not only the sharing of resources between the different towns and achieving economic harmony, but also linking the people and cultures of the different towns. The importance of the cable car in the Dolomites is clear, and it has succeeded in achieving a close link between the fragmented tourist areas.

According to Dr. Gerhard Vanzi (Vanzi, 1999) (Marketing Director of Dolomiti Superski), of the total number of winter ski tickets sold between 1988 and 1999, 85% were tickets valid for 2 to 28 days, 8.2% season passes and 6.7% one-day tickets. Of those selected for 2-28 days, 36% were valid for 6 days, indicating that the type of tourism in the Dolomites falls into the category of several days, bringing overnight tourists and conditions for the development of the local hotel industry. It has also been noted (Basile, 2015) that 85% of the hotels in Trentino are owned by local families and that hotel entrepreneurship is common in this region. The hotels in Trentino are of small to medium size, with an average of 59.5 beds, and the hotel environment is in good condition due to the timely attention and maintenance given by the managers, resulting in a high level of customer fidelity. 87% of these hotels include restaurants and mountain huts, which together belong to the same family unit, thus guaranteeing the quality of the services provided and the continuity of the hotel style. In fact, not only Trentino but also the whole of the Dolomites are home to 10,000 small

family-run hotels or guest houses, providing a total of 200,000 beds for visitors, and many of the family-run bed and breakfasts also offer a hotel-like quality of service. Retaining family-run hotels allows for a high quality of accommodation while preserving the cultural diversity and richness of the area. Family style hotels not only allow visitors to get closer to the local culture and customs, but also truly involve the local residents in the development of tourism. Standardized management norms and models help local people to participate in development efforts in an organised manner, something that China should be aware of when developing tourism and opening its markets, which need reasonable norms and standards before they can be better managed. The introduction of multi-day tours in tourism management will not only give visitors a better understanding of the local culture, but will also give a stronger impetus to other sectors, most directly in the hotel and restaurant industries. The more days a visitor chooses to stay, the more it will drive the local economy. An example of the opposite is the day trip to Venice, where many tourists arrive but do not choose to stay overnight in Venice, but go to other surrounding cities to stay, so that the income of the Venice hotel industry does not fully equate to the number of tourists, and the local population bears the burden of the most crowded city without enjoying equivalent economic benefits. It has been suggested (Franch *et al.*, 2011) that the type of tourism in the Dolomites is related to the structure of the local tourism market, such as the fact that the local tourism system consists of numerous family-run small and medium-sized companies, and that travelers to the area choose to organize their own holidays and reach their destinations in their own way, with travel agents and tour operators playing only a minor role. The Dolomites' model of tourism is one of regional unification and resource sharing, with a unified approach to management, which has the advantage of consolidating the resources of a number of small areas and unifying them into a larger industry, thus creating an influential tourism brand. The independence and autonomy of all managers involved, supported by the ability of tourists to plan their own activities, creates a very high-quality tourism market. The relationship between all the companies is more collaborative than competitive, relying on providing the best service to the consumer rather than just trying to gain a competitive edge on price, so the overall travel experience here is superior and there is rarely a difference in quality of service provided between regions. This is also due to the fact that, although divided into 150 small companies, all share the same outlook on development: customer satisfaction is more important than making a profit. This philosophy is probably at the root of the excellent service this place can provide.

4.2.4 *Tourism in Dolomites*

The Dolomites are generally accessible by public transport, public buses or trains, and many people choose a self-driving trip. A high proportion of visitors come from Europe and the United States with a high level of travel experience. These types of visitors show more autonomy and
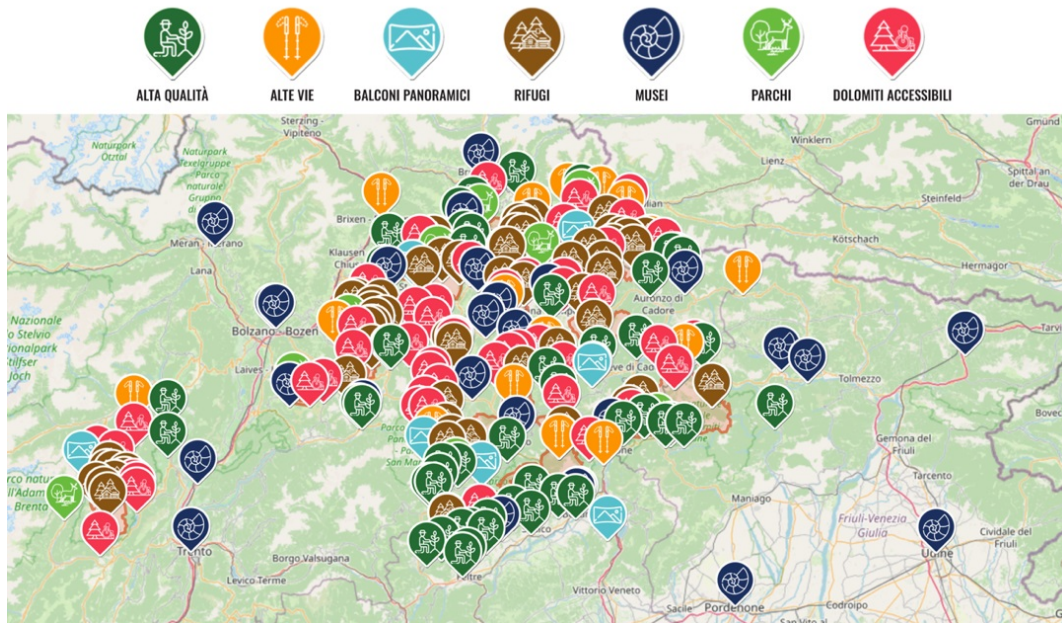
Figure 4.5: The Dolomiti Destinations Map. Source: https://www.visitdolomites.com/

manage to plan their own trips, also of course because there is enough information available to visitors (https://www.visitdolomites.com/). Visitors can also find a wealth of information on tourism on the official website provided by the Dolomites UNESCO, where all destinations are classified and displayed on the map Fig. 4.5 provided on the website. The map not only contains information on the usual tourist attractions, including 10 nature reserve parks, 7 locations known as panoramic balconies offering panoramic views of the most extraordinary scenery in the Dolomites, and many of the 66 mountain huts set up by UNESCO in the area, but more interestingly in the map are the local organic farms marked in dark green, where visitors can click on the dark green tabs to find information on local organic farms and go to buy their products, which is certainly a good way to promote their products for the local population. In addition to this there are even a number of accessible routes, as Dolomite UNESCO sees the Dolomites as a heritage that belongs to all and an extraordinary Dolomite view should be enjoyed by everyone.

The study (Franch *et al.*, 2011) concluded that the highest number of visitors to the Dolomites during the summer and winter months were between the ages of 30 to 35 Fig. 4.6 and that the educational level was much higher than the national average, with nearly half of the guests holding a high school degree.

The clientele is mainly Italian (73.5% in summer and 67.8% in winter), and mainly from Lombardy, Veneto, Lazio, Emilia Romagna and Tuscany, with only 2% of non-European visitors in both seasons. The type of travel is mainly family Fig. 4.7, but there is a significant difference in
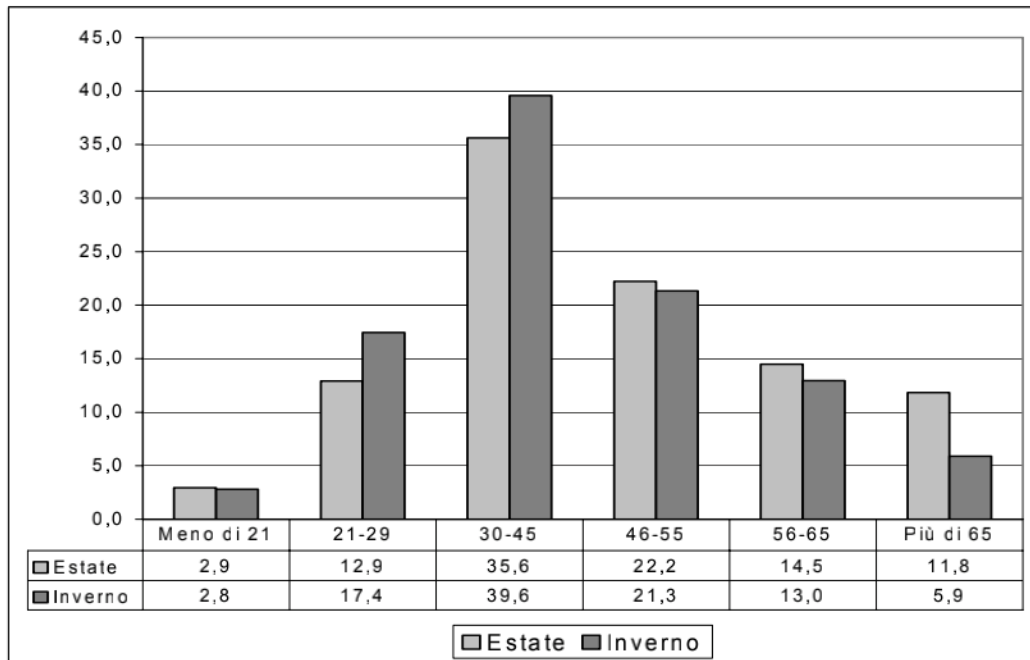
Figure 4.6: Age distribution of tourists to the Dolomites (summer and winter).
Source: (Franch *et al.*, 2011).

family travel in winter and summer, with people travelling as a family in summer more than in winter, and visitors travelling as a group of friends in winter more than in summer. Group travel accounted for a very small proportion of trips in each of the two seasons, and individual trips were more stable in both seasons, proving that personal trips are less influenced by the season.

Visitors who choose the Dolomites as their destination often come more than once, with 25% of visitors holidaying in the Dolomites more than once, and many have been choosing the Dolomites as a holiday destination for many years. In a study by (Franch *et al.*, 2011), it was suggested that over 80% of guests showed a high level of loyalty and would recommend the place to a friend. More than 90% of respondents thought that a holiday in the Dolomites was a very exciting idea. The excellent satisfaction data is based on the impeccable natural beauty and the high quality service provided. The wonderful natural environment and the unique landscape, the relaxing experience and the abundance of sports are the main factors that attract visitors to the area. Improving existing infrastructure and building necessary new facilities has become one of the objectives of tourism development, in the context of balancing the need to provide the high quality tourism services required by tourists with the tourism pressures carried by the environment. We believe that tourism operators in the Dolomites need to reinforce the uniqueness of the area in order to differentiate it from the holidays offered by other Alpine destinations, in order to stand out among the wider tourist destinations.
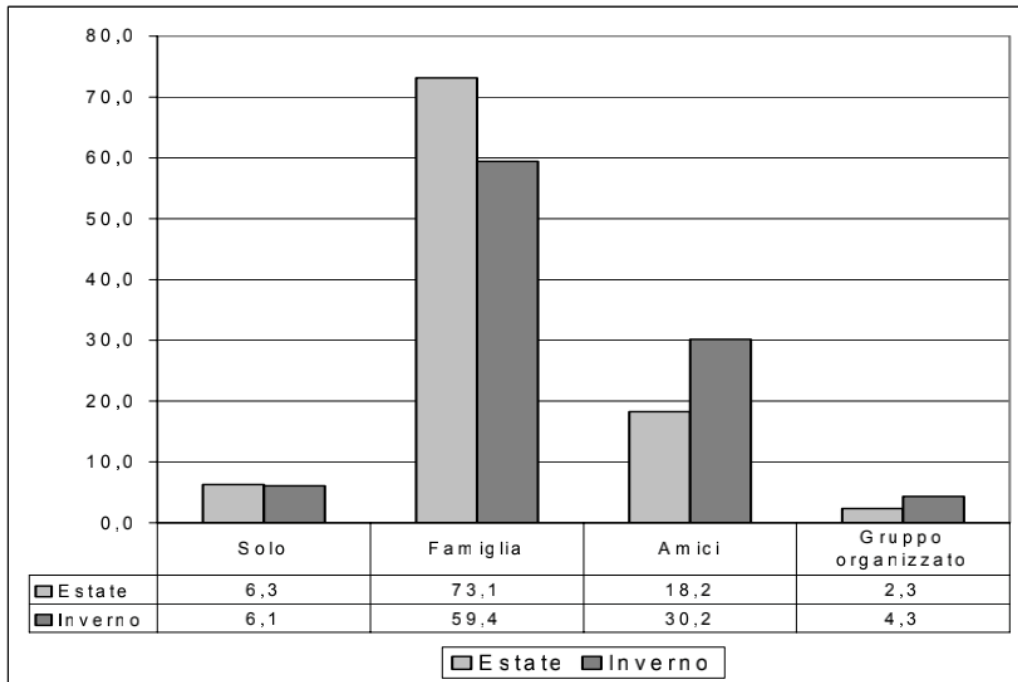
Figure 4.7: Distribution of visitors choosing different patterns to visit Dolomites.
Source: (Franch *et al.*, 2011)

4.2.5 *Conclusion*

From the above, it is clear that the cable car serves a great function in the tourism of the Dolomites. The role of the cable car is not only to transport people to the top of the mountain, but also, on a more macro basis, to link up some of the fragmented attractions between areas in mountain tourism. It also allows for the development of a tourism economy, enriching the type of economy in the mountains, reducing the population outflow and preserving the local cultural diversity. However, cable cars are more suitable for smaller areas. China's mountainous areas account for 69.1% of the country's total land surface, with attractions that are very far away, sparsely populated and isolated, making it more difficult to realise the advantages of cable cars in this type of mountainous area. Firstly, the cable car is expensive to operate because it needs constant repair and maintenance. Secondly, most of China's mountainous regions are economically less developed and lack sufficient funds for building basic infrastructure. Finally there is another reason why cable cars cannot be used in most of the mountainous areas of China, as many of the mountainous areas in China have a high emigration of population and do not have enough people to keep the local economy circulating. One of the reasons for the current population imbalance is the huge population flow from the countryside to the coast, resulting in a high population pressure

on the coast and an extremely sparse population in the mountains. The lack of stable economic sources in the countryside and the relatively poor organisation of resources are the current state of China's uneven economic distribution.

It would be worthwhile to refer to the case of the Dolomites in China's tourism management planning efforts. 1: Regional management, which can link otherwise scattered mountain areas, can also effectively integrate weak areas into large overall areas, unifying management while maintaining the sovereign independence of each administrative district. Weakening regional restrictions, creating development links between several regions with insufficient development dynamics, and combining resources can develop the tourism economy in a large area. 2: By attracting more tourists with high quality services, tourism in large areas can be effective in retaining tourists overnight and thus boosting the economy of other industries, but in order to drive the real economic sustainability of the area with tourism, it is necessary to provide high quality services or a better experience. One detail worth noting is the need to develop projects that focus on the authenticity of the visitor experience, rather than using gimmicks to gain attention. False advertising of tourism products and over-consumption of tourists' attention can cause tourists to lose interest in such products and can even affect the tourism image of the destination. 3: Increasing the involvement of residents, in this case the local residents of the Dolomites, who are real participants in the region's tourism industry and not just bystanders is conducive to preserving the cultural diversity of the area and truly fulfilling the purpose of developing tourism in the region, which is to improve the quality of life of the local population. The pride and cultural identity of the local population is important for the sustainable development of tourism. This is covered in more detail in Chapter 5 when discussing local communities. 4: The prerequisite for opening up the market in order to allow more people to participate in development is a scientific regulatory framework and clear guidelines for development. A clear regulatory direction is what will enable all participants to become more involved in development within the guidelines.

4.3   Florence

Florence is a large city in central Italy, known as an 'open-air museum'. Located in the Tuscany region, it was an important cultural, commercial and financial center in medieval Europe and became the capital of Italy after the unification of the country between 1865 and 1871. Florence is considered to be the birthplace of the Renaissance movement, with a richly preserved medieval and Renaissance heritage, the essence of Italian culture and history, numerous streets filled with ancient heritage, and rich collections of museums such as the Uffizi Gallery, built in 1560, the Accademia Gallery, and the Palazzo Pitti. Its rich heritage drives tourism in Florence, making it the third most visited city in Italy, after Rome and Milan. Florence is the second example discussed

because it is the Italian equivalent of Dunhuang in terms of its historical value and artistic status in China. Florence has become a world-famous tourist city and an important choice for people visiting the traces of the Renaissance. With such an important heritage, it is clear that there are many opportunities and challenges to be faced in the conservation and development of Florence. The next section focuses on the development of conservation and tourism in Florence, a useful reference point for Dunhuang, and for other heritage cities of the same type.

4.3.1 *Geography of Florence*

Situated at the foothills of the Apennines, surrounded on three sides by mountains, the city lies in the middle of a flat area with a basin topography. Florence has a Mediterranean climate, but due to the topography of the basin there is a lack of wind in summer, so the months of June to August are hot and humid and the climate is higher than in coastal cities in the Tuscany region, with maximum temperatures reaching 40 °C. Winters are rainy, cold and wet, with lows sometimes below 0 °C. Florence's landscape and tourism projects are not very seasonal, so the tourism industry here is less affected by the seasons.

The city's water system is mainly dominated by the River Arno, one of the most important rivers in central Italy, the waters of which flow through the middle of the city and divide Florence into two major parts, and due to the alignment of the river Florence developed in a long strip built along the River Arno. One part of the city is a historical reserve with numerous museums and art galleries. The other part of the city is dominated by the gardens of the royal palaces and gardens, the viewpoint of Piazza Michelangelo with its panoramic view of the entire city of Florence, and the surrounding boulevards, and the city center. The city center of Florence is the Piazza della Signoria, which is the core tourism development area. The River Arno was seriously flooded in November 1966, causing devastating damage to the old city, including the books in the library, as well as the cultural heritage spread throughout the interior of the city.

Florence's main transport links include air, rail and road. Although the city is located in a well-connected part of Italy, Florence's airport still receives less traffic than other airports of the same size. Activity at Florence's Aeroporto Internazionale di Firenze-Peretola "Amerigo Vespucci" was less than international hubs such as Aeroporto di Milano-Malpensa and Aeroporto internazionale di Roma-Fiumicino "Leonardo da Vinci", with Peretola Airport receiving 2.65 million passengers in 2018, which is below average. In terms of modern traffic, the Arno interrupts the flow of traffic in the city center, tending to increase the pressure of traffic within Florence, as the limited number of bridges across the river makes it difficult for traffic within the city to spread out in all directions and tends to increase traffic congestion. There are also external reasons for crowding, as Florence is located in the middle of Italy, with a dense network of railways and roads linking it to famous cities such as Milan, Rome and Venice and tourists often visit Florence as an articulated destination.

At the same time, it is also a transport center that links the north and south and this access has helped to bring a large number of visitors to the city.

4.3.2 *Culture and tourism in Florence*

Tourism is not a new industry that has only recently emerged in Florence; it seems to have developed throughout the city's history, even to the extent that it has permeated the history of the place and cannot be separated from the history. Florence is one of the major tourist destinations in Italy and its tourist tradition dates back to the era of the Grand Tour (Melotti, 2018). The Grand Tour refers to the traditional practice of travelling in Europe between the 17th and 19th centuries, with Italy as the main destination, mainly for people from the European upper classes who had sufficient income and leisure at the time. The main value of this type of travel was that people could come into contact with the cultural heritage of the Renaissance, and it could also be the only opportunity to watch some specific artworks or listen to particular music. The Grand Tour has played an important role in shaping the image of Florence as a tourist destination that speaks to the artistic and cultural heritage created by the Renaissance.

4.3.2.1 Tourist resources

An important cultural, commercial and financial center in medieval Europe, Florence saw its economic and cultural zenith in the 15th and 16th centuries during what is known as the Medici era. The splendor of its history has led to Florence being home to many historical buildings, works of art, cultural heritage and churches, the most famous of which are the Cattedrale di Santa Maria del Fiore and the Campanile di Giotto. The artistic effect of both buildings composes what is now the most famous scenic view of Florence Fig. 4.8. The most famous individual work of art is David, a sculpture by Michelangelo, now exhibited in the Accademia art gallery. There is a copy standing in Piazza Michelangelo, which was created for tourism. There are also numerous paintings collected in various galleries, including the famous Uffizi, the Accademia, the Museo Nazionale del Bargello, the Galleria Palatina and many others. Florence was also the cradle of the Renaissance because of the many cultural figures who were born or lived here, such as the poet Dante Alighieri, the artists Leonardo da Vinci and Michelangelo and the scientist Galileo Galilei, to name but a few. The historic center of Florence was declared a UNESCO World Heritage Site in 1982, and the most important elements of Florence's cultural heritage are gathered within the medieval city walls. The completeness of the streets and the cityscape as a whole are considered to be one of the most important conditions for Florence to become a World Heritage Site, so that the tourist development of the city must be based on conservation, which means that neither the buildings nor the streetscape of the city must be altered.

Figure 4.8: Cattedrale di Santa Maria del Fiore and the Campanile di Giotto.
Source: photo from author

Florence's tourist image goes beyond the cradle of the Renaissance, as it is also considered a fashion city, due to its world-famous luxury brands such as Gucci and Ferragamo, as well as the excellent design and manufacturing of local leather products. In contrast to the historical and artistic resources that are fully exploited and utilized in tourism, Florence's fashion resources seem to be less fully exploited. In contrast to the historical and artistic resources that are fully exploited and utilized in tourism, Florence's fashion resources seem to be less fully exploited. The leather goods manufacturing industry in Florence has long been regarded as an international center of traditional craftsmanship, expertise and creativity. Florence is globally recognized as being a strategic location for a continuous exchange of experience, knowledge and ideas between skilled craftsmen, fashion designers, and artisans (Lazzeretti *et al.*, 2017). Lazzeretti argues that Florence's fashion image has not been sufficiently exploited and has great potential for development, which should be strengthened. In face of the "museum tired" of tourists and the homogeneity of the handicrafts, more fashionable designs could be added to bring the image of the historical city to a fashionable life.

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For internationally famous tourist cities such as Florence, Venice, Barcelona and Amsterdam, the question of how to use resources to attract more visitors in order to increase revenues has become less of a priority. The conflict between tourism development and heritage conservation is of greater concern because of the need to reconcile the burgeoning number of tourists with local communities and to better manage tourism resources, especially as these places often have irreplaceable World Heritage sites. Moreover, in recent years, the problem of overtourism has become more and more frequent, and anti-tourism campaigns have been staged in all parts of the country, with local residents holding suitcases and chanting anti-campaign slogans in Venice. Places often appear overcrowded, where countless services for tourists have sprung up in the city and where it is difficult to distinguish between the daily consumption of local communities and that of tourists.

4.3.2.2   Protecting local communities

In the whirlwind of rapid globalization, it is increasingly difficult for tourist cities to maintain what is unique and characteristic of their local area. In order to defend local history and identity, in 2016 Florence implemented a policy for the protection of local shops, with the greatest impact on the restaurant sector, such as McDonald's being refused permission to operate a restaurant near the cathedral, in order to protect local food and oppose the assimilation of products brought about by globalization. Because Florence must preserve its local crafts and traditional shops, which are part of the criteria for its inscription on the World Heritage List, the loss of these original traditional shops could cause Florence to lose its authenticity and integrity, thus affecting its heritage status. The huge numbers of tourists stimulate a transformation in the type of local economy that generates a lot of services for tourists and fewer services for locals, and this situation increases the population exodus, which in turn causes a gradual extinction of the demand for shops and local services by the people of the local communities. There is a significant exodus of residents from Florence, with 73,265 Italian residents in the center in 1999 dropping to 52,527 in 2016. The massive shift of inhabitants began in the early 1990s, with 96% of Italians in the historic center in the early

1990s compared to 78% in 2016, according to the Ufficio statistica di Palazzo Vecchio (Old Palace Statistical Office). The decision to move out of their homes after living there for a long time was undoubtedly a difficult one, but the environment is becoming increasingly inhospitable to the local population, and it is difficult to meet the needs of everyday life, such as parking, while public transport has been unable to cover the local demand since 2009.

While these data have now come to the attention of regulators and the protection of communities and the preservation of local identity from globalization is increasingly valued, the arrival of this sense of preserving local identity was late and the proliferation of business models increasingly targeted single types of products (Loda *et al.*, 2020). Today, Florence's city center has long been filled with luxury goods, international chain brands, fast food fashions, and cheap imitations of local handicrafts. Local artistic creations and handicrafts are challenged by the encroachment of mass-produced factory goods, and the city ends up lacking innovation and blurring its original values as it continues to consume its own history. A noticeable phenomenon, for example, is that some shops that serve tourists add "antico" in front of the store name to attract tourists, reflecting tourists' desire to find things with a sense of history and the endless consumption of local history and art, until even some tourists have felt a sense of aesthetic fatigue caused by the emphasis on the past. Although known as the cradle of the Renaissance, the international art city seems to have become slightly tired, but because of its irreplaceable status such historical consumption has not yet stopped, and its historic art and contemporary commerce are so closely linked that they are even difficult to distinguish. In the example of a fashion show in an art museum, or a fashion product in an ancient building, such as the historic building from 1359 that became the site of the Gucci Garden, which is the cultural leader of the era, history or modernity? Who has made whom? Has modern fashion given history new life and new challenges, or has history given fashion its foundations? It is a difficult debate.

Popular tourist cities, especially those with historical areas which have needed much maintenance work over time, are eventually prone to some combination of architectural products of different periods. The famous nine-story pagoda at Dunhuang Caves underwent several repairs before it became the current nine floor structure. The most iconic building in Florence is the Cattedrale di Santa Maria del Fiore, begun in medieval Gothic style in 1296 but topped in 1436 with a dome which is a perfect architectural expression of the Renaissance movement, and which was faced in 1887 with a new facade in white, green and pink marble in the 19th century Gothic Revival style. Every era has left traces in the urban landscape, so should we still pursue its most original and first version? The people who live in the present are the owners of the local area and should not stop for the sake of the past, but an unconscious overwriting of history in order to gain popularity and to increase economic income is also a kind of disrespect to history.

Florence is a famous tourist city and a great number of people visit Florence every year, although

many residents leave the city for a more habitable environment. (Melotti, 2018) argues that there is only a slight friction between the lives of local residents and tourists, as tourism has been integrated into the historical development of Florence. The process of urban renewal in the 19th century has incorporated the perspective and aesthetics of the outside world and is no longer just the face of local historical development. The transformation of Florence that began in the late 19th century was influenced by a large foreign community, including many artists and socialites, who were seen as intermediaries between tourists and residents, a buffer between their opposing needs, and who contributed positively to the reinvention of Florence's identity and laid the foundations for its touristification. Florence is a place showing the cultural change due to tourism and the tourist gaze (Melotti, 2018). As the world begins to raise its voice against globalization, against Disneyfication, against overtourism, Florence is also trying to preserve its history, but the difficulty is that it seems its history has been mixed with the products of tourism development, and it is difficult to distinguish what is the original and what has been altered under its influence.

Italy has about 900 ancient historic centers, the attractions of which are located in the streets of the cities. In 1865 Florence became the capital of the new Italian Kingdom, and in order to compete with other capital cities in Europe, Florence underwent an urban transformation. In 1869 Giuseppe Poggi designed the Piazzale Michelangelo, and the best viewing angle of the city was set on this observation point, changing the perspective from one where the visitor could only see parts of the city to one where the visitor could see the whole of Florence. Melotti (Melotti, 2018) believes that Piazzale Michelangelo can be seen as a metaphor of the touristification undergone by the city and, indirectly, by the whole country.

Florence has been likened to a child's activity mat, where visitors can play with history (Melotti, 2018). Florence has become the Florence of tourists, with fashionable luxury items entering the oldest palaces, luxury items made into cultural products, and modern fashion exhibitions in art galleries, all blurring the limits of history and modernity. Perhaps they have no intrinsic limits, and no one can decide the limits between history and modernity, which change according to time. As the city was already inhabited by many foreign groups in the 19th century, Florence is aware of the experiences that visitors crave the most, facing the choice of history and fashion in a limited time, creating a mixture of effects. Now Florence has created some places that are balanced, in the old buildings that deal with countless luxury products that tourists want to buy, and even on the outskirts of the city a complex of buildings dedicated to shopping and dominated by European architecture, which satisfies the desire of tourists to consume and the cultural tourism experience they seek in the historical center, their minds untroubled by thorny scholarly debates about historical authenticity.

4.3.2.3 Crowded community spaces

(van der Borg *et al.*, 1996) argue that although Florence is affected by a large number of tourists, the social impact of tourists on the area is offset by the large number of local residents. Cities with large and diverse economies are not considered as vulnerable as smaller heritage cities. But as tourism expands exponentially, such effects become increasingly evident, and tourist cities that focus on their historic cores for tourism development become increasingly vulnerable. The growth of tourism in central of Florence has brought to the fore the same problems that other popular tourist cities usually face: traffic and parking problems caused by tourism, pollution, congestion in historic areas, rising consumption, including housing prices, destruction of heritage and the contradiction between the living space of the locals and the space for tourists. The most congested areas of Florence are mainly located near the Duomo, the Uffizi Gallery and the Old Bridge. Specific measures to reduce congestion in the center of the city include the current approach of stopping traffic outside of the historic reserve and converting it to public transport and walking into the city. The most congested areas of Florence are mainly located near the Duomo, the Uffizi Gallery and the Old Bridge. Specific measures to reduce congestion in the center of the city include the current approach of stopping traffic outside the historic reserve and converting it to public transport and walking into the city. While such an approach is effective in reducing traffic congestion within the city, the reduction in downtown congestion also affects those who cannot rely on public transportation and who work and live in the historic center. The construction of a city center parking area was also a topic of discussion between the local government and residents for many years. It is not only the local residents suffering from crowding, but also the tourists feel the crowdedness of the city. In a survey conducted by (Popp, 2012) on the feeling of congestion in Florence, the majority of visitors agreed that the more time they spent in Florence, the worst the experience would be, mainly due to the congestion, and also mentioned the American English used, which they felt would affect their experience of the real Italian atmosphere. There is also an overabundance of backpackers, giving the city a busy atmosphere with nothing else to do but travel. It is clear that for a tourist city, Florence's goal is to extend the stay of visitors, but this is in contradiction with the actual experience at the moment.

Some of the specific measures taken locally to relieve downtown congestion are alternative routes, promotion of alternative attractions, and off season events. The promotion of alternative sites such as Arezzo, a lesser-known but very beautiful city in Tuscany, was one way to evacuate tourists. City officials in Florence oppose directly limiting the number of people who can enter the city each day but argue that the cost of tour buses could be increased to discourage visitors (Henley, 2020). But raising prices does not in fact affect the richer people; it is often the less well-off groups that are affected by prices. Regarding the perennial congestion, it is possible to build underground parking lots or even underground tunnels as the main traffic to connect the city

center to the outside, but of course here there are difficulties in engineering implementation, and the construction must not affect the heritage above ground. For example, the northern Norwegian city of Tromso, a famous tourist city, has many large vehicles due to its tourist pattern, but the well-developed tunnels keep the city's interior free of overcrowded vehicles and the city's image neat and tidy, and also provide the real owners who live there with the convenience they need to live, in line with the concept of sustainable development.

In addition to some specific measures, there are macro developments for the whole city, such as the spreading of its residential center outward. A satellite city built around the historic center of Florence was gradually completed, to accommodate residents who fled from the city center. According to the Italian National Institute of Statistics, 11% of the population left the center of Florence to live in the surrounding satellite cities in the decade 1991-2001 alone. At first the migration of the population spread in the direction of the river towards the edge of the city, then later on the ease of transportation allowed people to move further away and now a mixed functional urban area with a large population has developed away from the city center.

A study of tourism markets and policies in seven popular art cities as early as the mid 1990s (van der Borg *et al.*, 1996) showed that tourism is menacing not only the vitality of local economies, but also the integrity of their heritage and the quality of life of their residents, and that measures should be taken to control and guide the flow of visitors. In this respect, our second case study, Florence, is significantly different from the first case staudy. The Dolomites tourism management is a model that provides high standards and a uniform management model with a certain degree of autonomy. The current state of tourism in Florence is the result of the common efforts of the local government and enterprises, but the main reason for its formation is the free competition of many fragmented enterprises, which finally created a saturated tourism market. Government leadership is not very evident in this case, and the lack of unified institutional management of tourism in Florence suggests that a lack of overall organizational capacity in such cities can have a devastating effect on the development of tourism (van der Borg *et al.*, 1996). It has been argued (van der Borg *et al.*, 1996) that the nature of the physical structure and social functions of a tourist city, with its historical core as the focus of development, makes it necessary for the city to have public institutions which can work closely with the private sector, but such cooperation is almost non-existent in Florence. The public administration is often blamed for designing and implementing public policies in splendid isolation, inconsiderate of the welfare of their citizens (Colini *et al.*, 2009). The unmet needs of residents are evidenced by the fact that more and more local residents are now moving out of the city center of Florence in search of more livable places. There is agreement over the fact that mass touristification may generate different negative impacts on local destinations, causing depopulation, displacement, gentrification, retail banalization and the decline in livability for the community (Loda *et al.*, 2020). Tourism is also an important economic driver and the success of
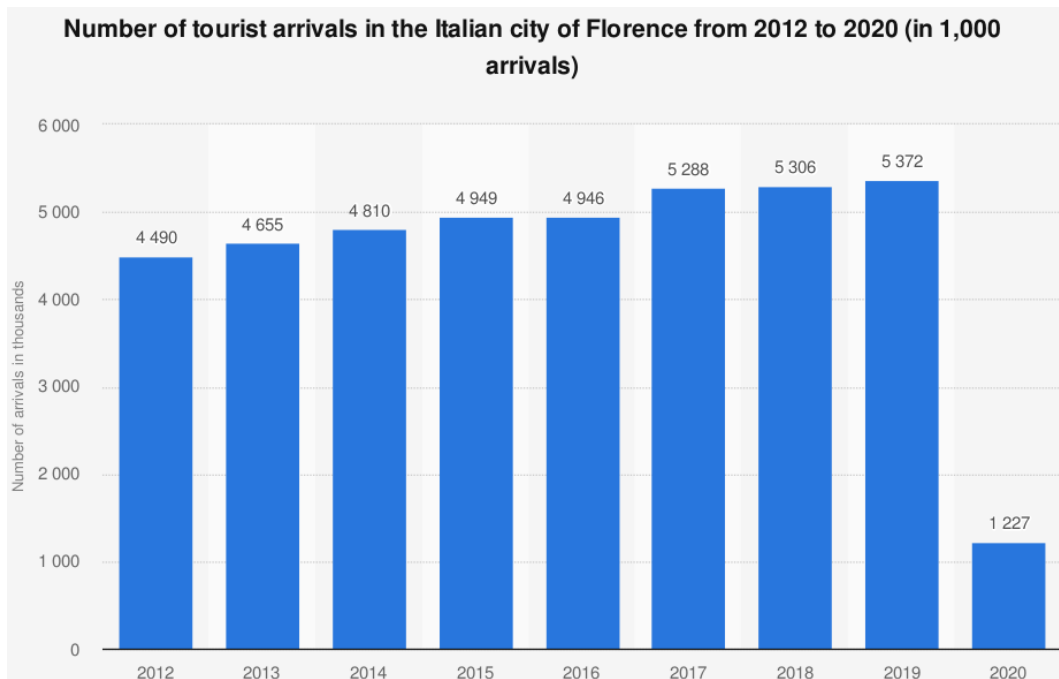
Number of tourist arrivals in the Italian city of Florence from 2012 to 2020 (in 1,000 arrivals)

Figure 4.9: Number of tourist arrivals in Italian city Florence from 2012 to 2020. https://www.statista.com/

Florence has enhanced political discourses emphasizing its role for the country (Melotti, 2018). The crowded environment, constant visitors, unstable living communities, and high prices are causing more and more residents to leave the city center, a phenomenon that has been labeled "de-urbanization" (Loda *et al.*, 2020). This trend makes it more and more like a tourist utopia, the perfect city built for tourism. The title of "open-air museum" is probably the greatest compliment and the most apt irony for this place.

4.3.3 *Tourism data for Florence*

The number of tourists visiting Florence from 2012 to 2020 is shown according to data provided by Statista Fig. 4.9, with only 1.2 million tourists visiting Florence in 2020 due to the COVID-19 pandemic, and a more stable trend of growth from 2012 to 2019, surpassing 5 million tourists in 2017 and topping 5.37 million in 2019. A high proportion of visitors to Florence are foreign, with 71.1% of the 4.9 million visitors in 2015, mostly from the United States, Germany and China.

Since Florence is the cradle of the Renaissance and has an irreplaceable place in history and art, as well as many galleries and museums, large and small, visiting museums and galleries has become one of the most popular ways to travel in Florence, the important reason being that the activity of visiting museums and galleries is considered by tourists to be an effective way to communicate

with Renaissance art. According to Statista data the Uffizi Gallery in Florence received 4.39 million visitors in 2019 alone, the second most visited museum in all of Italy, while the total number of tourists in Florence in 2019 was 5.37 million, which equates to almost 80% of all tourists visiting Florence choosing to visit the Uffizi Gallery. At the top of the list is the Colosseum in Rome, which received 7.61 million visitors, and the Accademia Gallery, which became one of the popular destinations to visit in Florence and received 1.7 million visitors in 2019, particularly due to the iconic sculpture of David held in its collection. Although art galleries and museums usually take more time and are also effective places to hold tourists, due to the easy transport to Florence, some tourists do not necessarily stay in Florence, so the number of tourists visiting Florence is more than expected. Data (Loda *et al*., 2020) show that tourists account for 52% of the restaurant industry's turnover, with regulars accounting for 31% and casuals for 17%, thus suggesting that tourists make a significant contribution to the local economy. In general, it is believed that overnight visitors spend more money than excursionists and bring more revenue to the area from tourism, so in order to understand the tourism economy, in addition to the total number of visitors, it is more important to focus on the number of overnight stays.

Florence offered 13,000 beds for tourism during 1978, reaching 20,000 beds by 1993. Data (van der Borg *et al*., 1996) show that the number of tourists and excursionists in Florence is closely balanced. The number of tourists was 1.96 million in 1991, accounting for 49.6% of total tourism, while the number of excursionists was 2 million, accounting for 50.4% of the total. Excursionists are considered to bring more costs and less benefits to the destination than traditional tourist a view also expressed in (Nevola *et al*., 2022). Such tourists are generally found in popular destinations that are very accessible and where excursionists will only stay for a few hours and make a limited economic contribution. The number of overnight visitors is more likely to bring more economic development to the region, especially in the hotel sector, where the number of overnight visitors in Florence Fig. 4.10, is increasing year by year (although dropping sharply in 2020 from the previous year to only 3.36 million due to the COVID-19 pandemic), with a peak of 15.84 million in 2019. Comparing Fig. 4.9 and Fig. 4.10, it can be seen that between 2018 and the first half of 2019, there is a clear change in the tourism industry in Florence, as there is no significant increase in the total number of tourists, but there is a significant increase in the number of overnight stays, which is considered a good trend, indicating a stable number of tourists bringing more economic income to the area, a benign trend in tourism that needs to be developed in Florence.

Most of Florence's tourist attractions are clustered in the historic conservation area of the city center, which receives much more tourist pressure than the surrounding areas, and more than 25,000 visitors stay in the historic center every night. The large number of hotels and shops that provide services to tourists in the city has greatly increased the cost of renting housing in the area. According to the Statista database, rents in Oltrarno and Centro are significantly higher than in
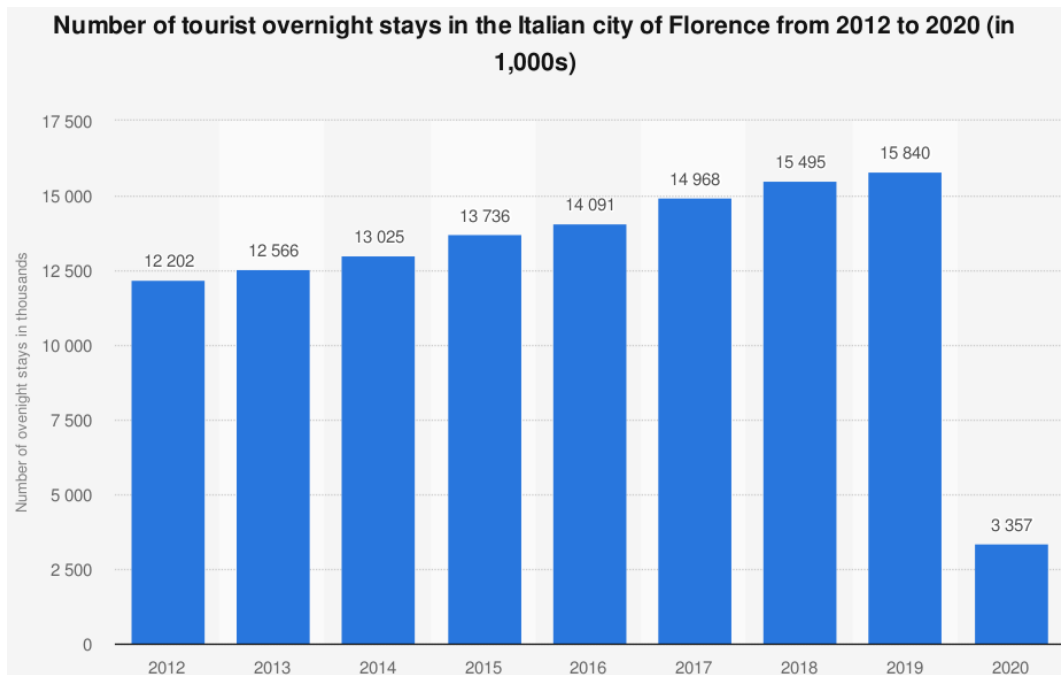
Number of tourist overnight stays in the Italian city of Florence from 2012 to 2020 (in 1,000s)

Figure 4.10: Number of tourist overnight staying in the Italian city Florence from 2012 to 2020. https://www.statista.com/statistics/722442/number-of-tourists-in

other areas, with rents in Oltrarno reaching 16.4 € / m² in 2021, the most expensive housing location in Florence, followed by 15.8 € / m² in Centro, well above the average of 13.4 € / m². In September 2021, the average housing rent in Italy was 11.3 € / m², but there are large regional differences, with the highest rent in the Lombardy region, with an average of 15.2 € / m², and the lowest rent in the Molise region, only 5.7 € / m², while the Tuscany region, where Florence is located, ranks the second highest, with an average of 12.8 € / m². This shows that the rent price in Florence is higher than the regional average, especially in the center of the city, where the rent price is higher than the national standard. Between 2013-2018, 5,000 houses in the historic center have been transformed into bed and breakfasts dedicated to tourists, and one fifth of the houses in the center of Florence are already rented out on Airbnb, which is the highest percentage in all of Italy. Due to the prominence of this phenomenon, a new term "Airbnbization," has emerged to express the changes and tensions in the local housing market (Loda *et al.*, 2020), and it has also been argued that the arrival of Airbnb and the resulting increase in local rents have accelerated the flight of residents. The number of inhabitants of Florence decreased from 457,000 in 1971 to 382,000 in 2017. In the past fifteen years about 20,000 residents have left the historic center, and of course numerous shops have given way to tourism. Jacopo Storni believes that residents convert their houses into tourist homes or sell them, and that usually the buyers will be American, British, Canadian or Chinese, who will prefer to transform the houses with modern furniture or in

IKEA style, which will make the interior of Florence's ancient buildings lose their soul, and the over consumption of local culture and history is not conducive to sustainable cultural development.

4.3.4 *Conclusion*

In general, Florence has a long history of tourism, and the local community is heavily influenced by it, and it would not be sensible to restore the city to a state without tourism, because tourism does bring great wealth to the area. In a crowded environment, the endless pursuit of a historical experience tends to make tourists aesthetically tired, and their enthusiasm will always fade. Florence is not a city that exists for tourism, but a testament to the development of a common human history. And there is much more to Florence than its history. Fast food fashion should not be the master here either, and small traditional businesses should be more protected and supported. Increasing the number of places for daily needs not only relieves the lost atmosphere of life of locals, but also helps to extend the length of stay of tourists, because as tourists stay longer, the enthusiasm and need for sightseeing spots decreases and the need for living places increases, and tourist souvenir shops and similar low-quality products become less desirable. Places that provide a variety of living service functions can help to realize the change of tourists from a short period of sightseeing to a long period of exploring local culture.

At the same time, maintaining authenticity and integrity is the basis for the sustainable development of Florence, which, as the place of origin of the Renaissance, does not need to cater to tourists, because it has a very long history of tourism development and should therefore act as a model and serve as a reference for other cities of its type. The prerequisite for development is conservation, including heritage preservation, and also the protection of local communities, which means that the interests of local residents, who are the "spokespersons" of the city's culture and history, should be preserved. Finally, the importance of safeguarding the interests of local communities will be discussed in Chapter 5.

4.4 Pompeii

The Archaeological Areas of Pompeii were listed as a World Heritage Site in 1997. The sites of Pompeii and Herculaneum near modern day Naples in Italy are unique: "nowhere else is it possible to identify any archaeological site that even remotely stands comparison with these two classical towns" (World Heritage Centre (UNESCO), 1996: 52). This third case can be compared with Dunhuang because both share the same richness of cultural heritage, representing not only the ancient culture and art of the country, but it also frozen in time in their golden age. Through the history and professional archaeology of Pompeii and Dunhuang, people can understand their local history, the life, customs, traditions and art of the ancient civilization in the region, which is

of equal importance to modern society.

There is a clear difference between Pompeii and the previous two cases, as the previous two cases are in very prosperous economic regions, and Pompeii is in a more similar situation to Dunhuang, in a province of the country that is not economically wealthy, one reason to select Pompeii as the third case study. This section briefly describes the history of Pompeii, including its most famous eruption, and overviews several of its main features, including frescoes and urban planning, in an attempt to explain the characteristics of the city. Then we introduce its geographical location, economy, and the status of tourism development.

4.4.1 *The history of Pompeii*

Pompeii is arguably the most important archaeological site of the Roman era in Italy, a window on Ancient Rome. Located in southern Italy at the foot of the Gulf of Naples and Mount Vesuvius, it is now part of the municipality of Naples. Although the time of the city's earliest establishment is still disputed, it is generally believed that Pompeii was founded by the Etruscans around 600 BC. Pompeii was a prosperous commercial city by the bay and before its Roman conquest had already established large and luxurious villas, including the House of the Faun, the House of Sallust and other villas.

In 89 BC, Sulla led the Roman army to occupy Pompeii, which became a Roman city from that time, with the establishment of an amphitheater, a theater, bars, baths, brothels, restaurants and a water system. Merchants and aristocrats began to build luxurious villas here, and the overall construction of the city reflected the Roman-style well-organized town plan and Greek-style decoration, forming a city with not only a grand plan but also a wealth of artistic sense. The prosperity of the cities during the Roman period was the economic basis for the development of art, so the buildings, shops and baths of that time were decorated with a large number of frescoes, the themes of which included mythological stories, decorative motifs, and paintings that recorded the subjects of daily life.

Pompeii experienced a severe earthquake in February AD 62, but an estimated 15,000 to 20,000 inhabitants continued to live there after the earthquake. What really destroyed it was the famous volcanic eruption. In AD 79, after Pompeii had experienced several earthquakes that preceded the volcanic activity, Mount Vesuvius erupted and overnight the prosperous seaport city of Pompeii was covered with volcanic ash.

4.4.1.1 Volcanic eruptions

It is thought that the great earthquake that occurred in AD 62 was a sign of the reawakening of Vesuvius, and that hundreds of sheep died on the slopes of the volcano at the time of the earthquake, probably due to the emission of volcanic gases. In fact, there had been several signs of

the volcanic reawakening long before the eruption and many people left the city (Wallace, 2013). It is possible that the people who were unable to escape had physical problems that prevented them from escaping and eventually made their bodies part of the site.

Of great historical value as evidence for the eruption of the volcano are the two letters of Pliny the Younger (Ep. 5.20, 6.16) in which he describes how he and his foster father Pliny the Elder witnessed the eruption, which began around noon on August 24, AD 79. His foster father even led the Roman army by sea to try to reach the waters around Pompeii after the eruption, eventually stopping at Stabiae, but then died of asphyxiation. According to Pliny the Younger's observations and records, the details of the eruption were as follows: first, a huge column of fire of nearly 27 km rushed into the sky, followed by 18 to 20 hours of lapilli and ash falling like rain throughout Pompeii, with as much as 15 cm of lapilli falling every hour, hitting people and causing great damage to local buildings, eventually covering the entire city. The ensuing lava and heat eventually destroyed the entire city and all life within it. More than a thousand people died in the disaster, indicating that many people had already left the city before the disaster occurred. Ash and lapilli covered the entire city thickly to a total depth of 2.8 meters.

After the city had been buried for roughly 1700 years, it became a tourist destination and early archaeological work began. In subsequent archaeological work, some bones were found to show deformation due to heat, which in turn confirmed the cause of death of these bodies. In the process of archaeological excavation and later tourism development, this place was converted into an open-air museum, which is a feature that distinguishes Pompeii from other indoor museums, which even though it is a large "ruin" allows visitors to immerse themselves in the scene of the disaster, and also in the real Roman era, which is one of the reasons for its irreplaceable status.

There are 54 well-preserved skeletons in a cellar 2 km away from Pompeii, to which they had fled to escape the eruption of the volcano. The skeletons here were clearly divided into two groups, some with money and jewelry. The left side of a bone of one of the most complete skeletons is stained with green, indicating that the person died wearing bronze or copper metal materials. Other skeletons in the same place also have bones showing a similar green color, and around them large amounts of jewelry and of coins were found, so the researchers believe that this group of people were rich. Others were cowered together on the other side of the cave, but no green was found on this group of the skeletons, who were believed to be poorer. Researchers speculate that they fled to this cellar because they had to flee the disaster, bringing all the most valuable belongings of their families.

In addition to the above fleeing people, many others were buried in Pompeii, more than a thousand people. Why did the only remaining thousand people not leave Pompeii? The inhabitants of Pompeii were considered to be a group with an international vision, who should have been aware of the danger of the eruption and that there were multiple signs before the eruption and enough

time to escape. Prof. Frnesto De Carolis (Archaeologist Soprintendenze Archeologica di Pompeii) believes that before the eruption of the volcano, the local people showed hesitation, for example, to take away the most precious things from their homes. Among some of the skeletons found by Prof. Antonino Cascino (Molecular Biologist, University of. Naples) were sick and pregnant women about to give birth, which may be one of the reasons why they could not escape from the place in time. There were no signs of attack on many of the bodies, so the cause of death of these people was ruled out in addition to the collapse of the house and the heavy attack, and there is a theory that the cause of their death was lack of oxygen, and there is also a belief that they inhaled harmful substances.

In addition to these people who fled, more than a thousand people were buried in Pompeii. Why did they not leave the city? The inhabitants of Pompeii should have been aware of the danger of the eruption of which there were warning multiple signs and there was enough time to escape. Prof. Frnesto De Carolis (Archaeologist with the Soprintendenze Archeologica di Pompeii) believes that before the eruption of the volcano, the local people showed hesitation, for example, in taking away the most precious things from their homes. Among some of the skeletons found by Prof. Antonino Cascino (Molecular Biologist, University of. Naples) were sick and pregnant women about to give birth, which may be one of the reasons why they could not escape from the place in time. There were no signs of attack on the bodies, so that cause of death of these people was ruled out, and there is a theory that the cause of their death was lack of oxygen and inhalation of poisonous substances.

Prof. Haraldur Sigurdsso (Volcanologist, University of Rhode Island) has analysed the layers in the deposit at Pompeii, finding that the depth reached a height of about two and a half meters. During the eruption, until the afternoon of August 24th, the ground accumulated a layer of white pumice from the sky, and in the evening when the color of this material turned dark gray. At 3 or 4 a.m. the next day, the first surge reached Pompeii, leaving a layer of darker-colored material on the sediment. Volcanic ash accumulated over a long period of time and Pompeii was buried in ash 4 meters deep. There were several surges during the eruption, each of which left traces in the sediment. The greatest number of corpses were found in the fourth layer, although only five to ten centimeters thick at ground level, they are believed to have choked on hot ash and dusty air and died of asphyxiation.

4.4.1.2 Archaeology of Pompeii

Pompeii has been an important archaeological site for many years, and the archaeological work at Pompeii includes both early amateur archaeology and more recent professional archaeology. During the construction of the underground water passage in 1599, an architect is said to have found ancient walls with traces of carvings and some frescoes depicting erotic content at the place

of construction, but due to religious disapproval of erotic art at the time, these walls were buried again, to be preserved to this day. Later archaeological researchers confirmed that there were places that had been excavated and refilled. In 1748 a large-scale excavation was begun under the patronage of the King and Queen of Naples. When the excavations revealed the LargeTheatre and several other houses, it was discovered that this was the site of an ancient city and Pompeii was rediscovered. The excavations of that period had no professional method and were carried out only to find valuable objects to decorate the palaces of the nobility. The cataloguing of the royal collection taken from the site was finally begun in 1755, notably at a time when Pompeii did not yet allow free access to the site.

Systematic excavation work did not begin until the 19th century, and in 1863 Giuseppe Fiorelli worked as director of the archaeological work, breaking with the past pattern of opening the site only to royal family and people connected with the government, and establishing a system of fees for people to enter the site. From then on, Pompeii began to open to the broader public, and academic research began. Fiorelli excavated whole buildings, consolidated walls, reroofed certain structures and uncovered wall paintings and other artistic material remains for preservation in situ (O'Gorman *et al.*, 2007). Fiorelli also used plaster to fill in the hollows left by human and animal remains, making casts of life at the tragic moment of the eruption. This practice made Pompeii famous, and it has been argued (Kovacs, 2013) that such an approach creates a strong sense of connection between the tragic past and the present audience. However, this approach is also considered to have caused some irreparable damage. New techniques are being used to use transparent fiberglass instead of plaster, so that bones and artifacts can still be seen. Unlike the usual museum display with everything collected in a single building, Fiorelli advocated preserving the site itself in its final state, so that the site itself became a museum. This has successfully shaped its distinctive feature for the later development of tourism, and the site of Pompeii has its own special way of telling its history.

Further sustained and large-scale excavations were subsequently undertaken in the early part of the 20th century, with the aim of uncovering and preserving specific named houses and other structures. In 1924, Amedo Maiuri became the director of Pompeii and Vesuvius, when the excavations were greatly supported by the State and the reconstruction of the site began, with the aim of building a "living museum", respecting the principles of authenticity and integrity and keeping the excavated artifacts in their original state as much as possible. But Maiuri's work is considered by some researchers to be misguided because he has placed the heritage in other locations far from the original location where it was excavated in order to tell the story of the place and reconstruct the site, an act that is considered to ignore the archaeological evidence.

By the latter part of the 20th century, archaeological excavations had a clearer purpose, to understand the local history before the disaster, rather than to discover and restore individual

buildings. In 1980, an earthquake struck Pompeii and many areas were severely damaged. The current management is mainly the responsibility of the SANP (Special Superintendency of the Cultural Heritage of Naples and Pompeii), while the financial and human resources of the area are still under the direct control of MiBAC. In 2011, ICOMOS highlighted six key conservation issues for Pompeii: ordinary decay, inadequate water management, damage from ultraviolet radiation, overgrown vegetation, incompatible conservation and restoration work from earlier generations, and visitor impact (UNESCO, 2011).

Pompeii faces additional challenges, with the rapid deterioration of the site's extensive collection of precious frescoes through neglect, as well as the threat of modern pollution. The most devastating threat is that the site is exposed to the destructive forces of nature, such as earthquakes and volcanic eruptions, which could destroy it again at any time. There is now a monitoring station in Naples that uses satellites to monitor the activity of Vesuvius 24 hours a day so that the hundreds of thousands of people living there can be evacuated in time at any sign of volcanic activity. Conservation here is urgent, just as Dunhuang faces natural threats, and they share a similar vulnerability, which may contribute to their unique historical status.

What remains of Pompeii are the destroyed walls and frescoes, as well as the twisted bodies and the destroyed environment that shows the terrible moments of death at the site. There are many attempts to restore and interpret the moment of the catastrophe 2000 years ago, and there are also many attempts to interpret the life of its people through the site.

4.4.2 Life at Pompeii

According to archaeological research and analysis using advanced technology, Pompeii is seen as a city of great freedom and pleasure, where the rich enjoyed luxurious baths and there were many bars scattered throughout the city. During the archaeological excavations, a typical Roman bar called Amaranthus was found in the south of the city, with a display case made of masonry to showcase the wine and a bar made of marble. Dice can also be found in the remains of the bar, and it is speculated that the people living in Pompeii liked to gamble, with even children using nuts to gamble. Although there were laws at the time to restrict such activities, it semes that they were not well enforced, so gambling was a normal part of life. After exercise and relaxation at the baths, people would head to the bars for drinking and gambling. Due to the local climate, abundant water and the fertile volcanic soil, wine was also produced here and wall-paintings depict the winemaking process.

Regarding food, bread was clearly a staple at the time, as 30 bakeries have been found in Pompeii. The frescoes also show scenes of the bakery, with round loaves stacked on top of each other, people going to the bakery to buy bread, and ovens made of masonry specifically for baking bread. Researchers also found round-shaped carbonized bread in the oven in the ruins, its shape

still intact and identical to that of the bread in the frescoes. Not only bread, but also remains of walnuts, eggs and other foods enrich our understanding of ancient Roman life.

Slavery and the clear social hierarchy in Pompeii can be identified from the size of the theater seats, from the different scale of the houses, and from the evidence of the 54 skeletons found in the cellars, constant reminders that this was a place of inequality. However, women had independent wealth, and literacy seems to have been widespread. Pompeii was a city with wide connections, and imported objects such as jewelry demonstrate Pompeii's communications with the outside world. Pompeii absorbed much of its culture from Greece, so the artifacts here present much of the Greek style.

4.4.2.1 The frescoes of Pompeii

The Pompeii frescoes are rich in color, with materials using many minerals as pigments. The base of the frescoes also used multiple layers of plaster as the medium between the pigments and the walls, and made extensive use of a red color, perhaps because red materials were more readily available near the volcano, which later became known as Pompeii Red. The frescoes on the walls of Pompeii are rich in themes, depicting not only religion but also local daily life, which is very useful for the study of the social life of the time. The details of life are carefully drawn in the pictures, and the murals appear in abundance decorating bars, shops, and houses. Some show shops with products hung up for sale Fig. 4.11, just as they are in the streets of modern Naples.

There was also a step-by-step process of polishing on the very surface of the fresco, using substances like wax and oil to protect the surface, which is probably one of the reasons why its color is still preserved. However, such an approach is now considered to do more harm than good, as it would seal in moisture inside the frescoes, and the frescos have been damaged over time. Scientists aim to use modern technology to clean the accumulated material attached to the surface of the frescoes, so that the original frescoes below can be re-displayed and more details of the frescoes can be found, refining our knowledge about Roman life.

All this evidence is useful for the research and restoration of Roman life, attesting the richness of urban life in ancient times. The artistic achievements alone reflect its economic prosperity, with a material base allowing the development of art.

4.4.2.2 Pompeii's Baths

The archaeological site of Pompeii is a rich record imagination of the life of the Romans at that time, such as the use of baths. Despite the clear social hierarchy, the common man and the rich coexisted in these havens of pleasure, which were not only a place for socializing among the great men of the time, but also used by people of different classes, rich and poor. In the heritage site baths with multiple areas divided by different functions have been found, including entrance halls

Figure 4.11: The frescoes in the stores of Pompeii. Source: Odyssey - Ancient History

with small wall niches for oils, creams, perfumes for massage. Bath users enjoyed the relaxing experience of heat and cold, and enjoyed the ornate decoration of the building's interior, massaged by slaves while gazing at the beautiful carving on the ceiling. After the tepidarium, they enjoyed the caldarium, or hot room, heated by hot air from a furnace flowing through its double walls and the floor was supported by pillars. There were also saunas and the cold bath, which was designed to make the muscles strong and help the body's circulation. The pivotal role of bathing culture in the Roman era is evident in the archaeological site of Pompeii. With the expansion of the Roman Empire, this bathing culture was also brought to other countries on the European continent, and remained part of the European heritage, with the later spa resorts of 11 towns in 7 countries also inscribed on the World Heritage List in 2021.

4.4.2.3 The Streets of Pompeii

Pompeii is not only characterized by the aforementioned frescoes and its bathing culture, but also by its complex aqueducts and water supply system, with over 40 fountains in the city and even running water in some larger houses. Water flowed continuously into the fountains at street corners, flowing along the street, and the water inside the houses also flowed into the street through drainage outlets, this water constantly washing the street. Since this was waste water, the water flowing in the streets was unsanitary and unclean. For the convenience of pedestrians, steppingstones are placed in the middle of the road to allow pedestrians to reach the opposite side of the street without obstructing the passage of vehicles and to keep their feet and robes from

Figure 4.12: Pompeii's transportation system. Source: Professor Eric Poehler

getting wet, and they are usually found at intersections and important road crossings. The streets of Pompeii are exceptional, very well planned, neatly arranged horizontally and vertically, with the characteristics of a modern street and in the form of a multipurpose infrastructure, which is related to the character of the city at that time. The street had to accommodate the passage of vehicles while also functioning for human passage, and it also needed to allow the passage of water, as the water generated inside the houses at that time would flow into the street. The stones paving the roads were very strong, but despite this there are many traces of wheels, as this was a rich commercial city with frequent use of vehicles.

Professor Eric Poehler of the University of Massachusetts Amherst (Poehler, 2006) found that the stones to the right of most intersections in Pompeii have marks indicating that they were rubbed by wheels, while those on the left do not have such traces, and concluded that where there was two way traffic vehicles drove on the right. After recording and analyzing this detail and movement data, he simulated an image of the traffic system in Pompeii Fig. 4.12, showing a clear trend of one-way traffic, and demonstrating that the traffic here at that time already followed rules or patterns similar to a traffic network in our modern cities.

The amphitheater of Pompeii is the oldest known amphitheater and the first building in Italy made entirely of stone. It has a seating capacity of 20,000 people, but since in fact Pompeii did not have that many inhabitants, this huge amphitheater is thought to have served people from other cities as well. Researchers found that there are different sizes of seats, to distinguish people's rank, with women and slaves usually sitting in the seats further back. Some of the graffiti on the walls of

the theater shows that gladiatorial shows were held here, and depicts the armor and the weapons they used, coinciding with other evidence for these professional Roman warriors.

4.4.2.4 Literature about Pompeii

Today, Pompeii attracts countless tourists and researchers, due to its rich history and artistic works, and perhaps the huge contrast between the catastrophe that befell the place and the erotic and luxurious places under the ruins captures the public imagination, its warning that honor is only temporary and that cities, like people, die out, or simply because modern people are curious about the culture of the Roman era. It has inspired much modern literature and art, including the characteristic decorative style of Pompeii found everywhere in the interiors of 18th and 19th century European neoclassical houses. Its artistic charm has long attracted the attention of many cultural figures. The artist Johann Joachim Winckelmann's "Letter and Report on the Discoveries at Herculaneum" (Sendschreiben von den Herculanischen Entdeckungen), published in 1762, brought this unknown area to widespread attention. The prints in the work "Le Antichità di Ercolano Esposte" Fig. 4.13, which began to be published in 1757, are mainly a record of the archaeological work carried out under the patronage of the king of Naples in the Bay of Naples, including Pompeii, and the high quality of the prints and texts provide an insight into the high quality of the king's collection of articles from the site at the time. The publication of this work drew much attention to Pompeii and people began to visit the site with great enthusiasm. In 1787 Goethe visited Pompeii and published his "Italinische Reise". The sculpture "Flight from Pompeii", created in 1873 by Giovanni Maria Benzoni, vividly represents the moment when the people of Pompeii faced disaster, representing the how the history of Pompeii has been an inspiration to stimulate later artists. Its mystique has attracted not only Italian artists, but also the literary scholar from China, Zhu Ziqing (head of the Department of Chinese Literature at Tsinghua University). He published an essay about Pompeii in 1932, in which he described it in the words: "Pompeii is highly cultured, as can be seen from the roads, buildings, frescoes, carvings, utensils, etc". He noted the sex culture of Pompeii, manifested everywhere in sculptures, frescoes, and artifacts, which has parallels in the East in ancient Indian statues. Some connect this sexual culture with Roman concepts of masculinity and strength.

Pompeii is like a three-dimensional photograph that depicts history in a prosperous era, the living conditions of the people at that time captured at a single moment, complete with its food shops, bars, inns and theaters. From its wreckage, we can witness the splendor of its time, as Zhu Ziqing described "从整齐划一中见伟大，正中古罗马人的长处" Although the road is in ruins, its neat arrangement and scale reflect the prosperity of ancient Rome and their characteristic lifestyle Fig. 4.14.
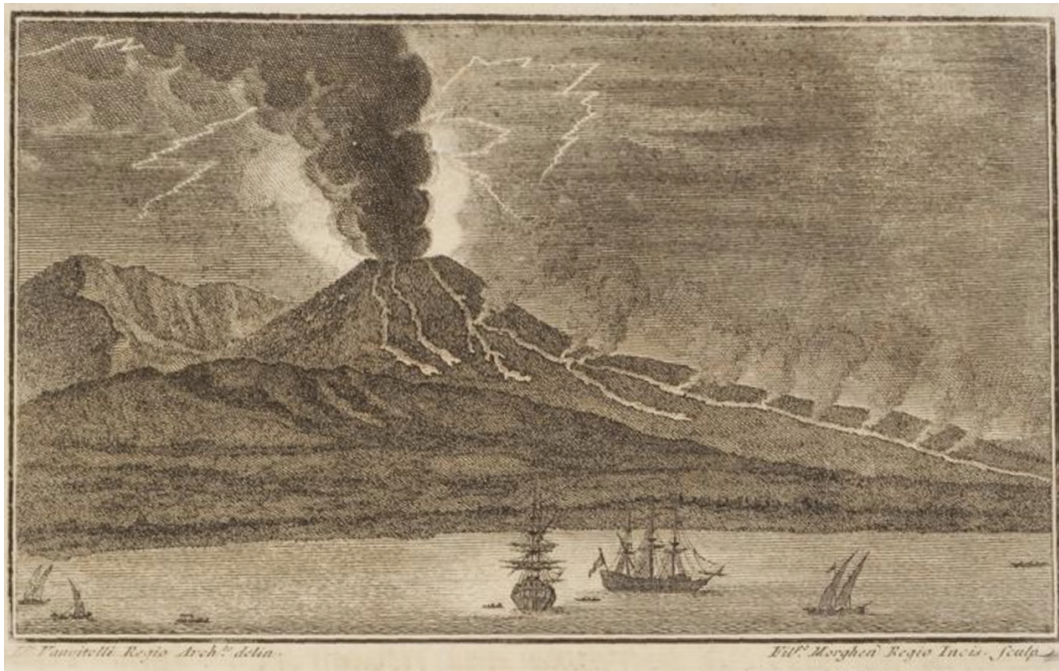
Figure 4.13: Le Antichità di Ercolano Esposte Volume 1, depicting the eruption of Vesuvius. Source: Ercolanese Academy, https://www.accademiaercolanese.it/la-nostra-storia/

4.4.3 *Pompeii's tourism economy*

Pompeii is in the Campania region of southern Italy, a region that has long experienced the threat of earthquakes and slow economic development. Although the soil at the foot of the volcano is enriched with minerals from volcanic ash, and the abundance of sunlight and water makes this one of the most fertile lands in Italy (the reason for its abundance of wine), according to the 2019 Italian gross domestic product (GDP) per capita shown earlier Fig. 4.3 the Campania region has the third lowest GDP per capita in Italy, just 18,000 euros, its GDP is almost a third of that of the province of Bolzano, which is one of the more economically underdeveloped regions in Italy. It thus has similarities to Dunhuang not only terms of artistic value but also degree of economic development.

The imbalance in economic development between the North and the South is also evident in the Campania Region, especially in the distribution of tourist facilities. Tourism resources are concentrated in Naples, the local coastline and the most famous cultural site of Pompeii, and for this reason 40.28% of tourist facilities are concentrated in Naples. The National Museums and Archaeological Areas of Naples account for almost 90% of the total revenue of the museums in the Campania Region. In 2018, cultural attractions in Naples generated revenues of around 50.4 million euros and in the following year, 2019, Pompeii generated 41.04 million, ranking second

Figure 4.14: Archaeological site of Pompeii. Source: photo from author

in the country in terms of museum revenues, from which we can assume about 90% of the total revenues of Naples museums come from Pompeii, showing the important impact of Pompeii on the tourism economy of the region. But despite this Pompeii's development also faces the problem of insufficient overnight stays for tourists, many of whom choose to spend the day in Pompeii due to the ease of access, with overnight stays in Naples, which offers a more complete living environment.

Tourism in this region varies seasonally, with March to October being the busy season and November to February an off-season, as indicated by monthly museum visits in the region for tourism in 2019, according to Statista. The highest number of visitors to the museum was 1.2 million in April, and the lowest number was 440,000 in February, with usually twice the number of visitors in the high season than in the low season. This is related to the characteristics of the local tourism resources, as they are natural resources such as the coastline of the Gulf of Naples and the most famous cultural heritage is the open-air site of Pompeii.

Pompeii received a total of 3.8 million visitors in 2019, with paid ones accounting for 2.8 million. The total number of visitors in 2020 dropped to 569,000 mainly due to COVID-19, so this data are not included in the analysis. There were 3.38 million visitors in 2017 to 3.63 million in 2018, an increase of 7.78% in numbers. It has been observed (Cortese *et al.*, 2019)that although the number of tourists has increased considerably, the average overnight stay has remained 1.9 nights.

Pompeii has no significant advantage in providing tourist accommodation in its area, because of its proximity to Naples, which offers more tourist services, so Naples is chosen as the hotel location by many tourists visiting Pompeii. According to data provided by Statista, in the 2019 ranking of the highest-grossing tourist attractions in Italy, Pompeii ranked second in all of Italy with a total of €41.04 million in gross revenue, just behind the Colosseum in Rome with €57.56 million, while the Uffizi in Florence ranked third with €35.64 million. According to the Italian Ministry of Cultural Heritage and Tourism, the archaeological site of Pompeii is the second most visited cultural site in Italy. The fact that even though Pompeii is much less well-connected than Rome and Florence, which have a very high international reputation, a mature tourist market and a wealth of resources, Pompeii still attracts many tourists and generates a huge tourist income, is proof of the tourist potential of Pompeii. Tourism is an important part of Naples' economy, with the public service sector accounting for 30.7%, and the hotel trade sector which accounts for 3.7% of Naples' GDP. According to Statista, the population dynamics of the Campanian region shows negative growth, with more deaths than births, but mainly due to population shift, with about 130,000 people moving to other cities in 2016, while only about 110,000 immigrants arrived in the region. Usually, the loss of population is more likely to exacerbate economic decline, and this population has most likely moved to more economically developed cities such as Rome and Milan in search of jobs, which may eventually increase the overcrowding of these cities.

4.4.4 *Tourism management in Pompeii*

Religious tourism is one of the oldest forms of non-economic tourism, and according to the UNWTO (United Nations World Tourism Organization), a great number of tourists visit religious and pilgrimage sites every year, so pilgrimage sites are beginning to be considered a tourist resource. In fact, Pompeii's cultural resources go beyond the Pompeii archaeological site. Pompeii is also home to an important shrine of the Virgin Mary, which attracts around 2 million worshippers every year, most of whom are of Italian origin, while the Pompeii archaeological site area attracts a large number of foreign tourists. Although the two destinations are located close to each other, they are not much related due to different tourist motives, and only 20% of the tourists visited both destinations or established an interactive relationship between them. It has been pointed out (Cortese *et al.*, 2019) that the Pompeii area offers a variety of unsystematized attractions that ultimately meet only the specific needs of tourists and do not take into account the different needs of varied types of visitors.

The earliest tourist activity here is thought to be the Grand Tour in the 18th century. More popular tourism about Pompeii began in the mid-nineteenth century, with the opening of the railroad in 1839 bringing many tourists to the city, and the unique tourist experience where people could pay to watch the archaeological excavations on site. An analysis of the tourism data for

Pompeii based on TripAdvisor reviews (Cortese *et al.*, 2019) concluded that Pompeii is considered to be a tour product that can be visited in one day. Many private operators offer tourism activities with the theme "Pompeii in a day". This could be altered by emphasizing the natural environment, such as the volcano Vesuvius, when creating a tourism product for Pompeii, as well as the cultural resources. It could also be explained (as suggested in (Cortese *et al.*, 2019)), when presenting the site and explaining its value, that Pompeii is an active archaeological site, not just a "city frozen in time".

In November 2010, the collapse of the Schola Armaturarum building attracted a great deal of attention to the management of the archaeological site of Pompeii. The collapse has been tied to a variety of causes: unusually heavy rain falls, inadequate maintenance, and previous conservation work that is incompatible with the ancient material (UNESCO, 2011). In terms of site management, some lessons could be learned from the management of the Mogao Grottoes in Dunhuang. Although not in the open-air as is Pompeii, the nature of the artifacts in the Mogao Grottoes make them more vulnerable in the face of the pressure of the number of visitors. Because the frescoes are vulnerable to carbon dioxide exhaled by large numbers of visitors, the Mogao Grottoes have implemented strict scientific management to control the number of visitors each day through unified, professional guided tours and to evaluate the situation inside the caves in real time. The scientific management model of the Mogao Grottoes is worthy of reference for other fragile cultural heritage sites of the same type.

In interviews with visitors to Pompeii conducted by researchers (Wallace, 2013), a number of visitors said that they often encounter areas that are not open to the public, and that the parts of Pompeii currently open to the public are not fixed, being based on current security status of the buildings. Visitors did not know which sites would be open or closed that day, wasting their visiting time and putting crowd pressure on the site. There is also insufficient signage to protect the site, and there are some warnings that are not clear enough for visitors to be sure if they are allowed to pass. Faced with this problem, and in order to save visitors' time and reduce congestion, Pompeii could register the opening hours of specific sites on the tickets sold daily. As at other sites, tourists in Pompeii can be irresponsible, causing damage and degradation of the heritage, and sometimes this is related to the management of the site and the lack of guidance, which could be addressed with better signage and warnings.

As Pompeii is a historical site, visitors would get more out of their visit if they knew more about the local history. The current tours are still mainly privately operated, mostly either self-guided tours or private tour guide led models, with no uniform visitation guidelines. It is suggested that more selectivity could be provided, such as adding more expert explanation, or a short historical film before entering the site, as at Dunhuang's dome theatres, so that the historical knowledge enhances visitors' appreciation of the value of the Pompeii site before they visit, and may reduce

unconscious vandalism.

Cultural heritage endures wear and tear from the outside world over long periods of time, and it is difficult to stop nature from affecting heritage sites, but at least we can reduce the damage to heritage from human actions. Development should not be the cause of more pressure on cultural heritage. Cultural, historical and religious resources, like other physical resources, should not be exploited and used endlessly to the detriment of sustainable development.

4.5 Conclusion

This chapter has focused on three very representative Italian cities in an attempt to analyze management methods in different contexts and to compare this with how tourism in Dunhuang should be developed. The first case study is the Dolomites in the Northern Alps, one of the most privileged environments in the world, with high quality services, a favorable economic context and a high degree of participation of the population. In this region, people's lives are not too much affected by the development of tourism, and there seems to be a very harmonious relationship between the local area and the development of tourism, a good example of co-development. Its scientific and unified management model is worthy of reference for many tourist regions with larger areas. Moreover, its tourism model is relatively free, making full use of its natural resources, developing a rich tourism program, and developing the most suitable sports for all different seasons despite the great changes in seasons, thus increasing the participation of tourists. One of the advantages of this case is not only the natural environment, but also its superior hotel environment. The tourism model of offering a variety of sports, also, is a very effective way to increase the probability of tourists staying overnight, and encouraging many tourists to make repeat visits for leisure, so this model is very effective in driving the tourism economy. Moreover, the unified management model makes the tourism market of the whole region more harmonious, with less unhealthy competition. Such a management concept could also be applied to the development of tourism in Dunhuang, where a large regional tourism model like this could be developed for the northwest, with unified management and attention to tourism quality, and expanding to a larger regional tourism that would also disperse more widely the dense tourist population of the Dunhuang caves.

The second case study is the world-famous cultural tourism city of Florence, whose development also represents the situation of many cultural heritage sites. The interests of residents and tourists are in conflict, the interests of residents are somewhat threatened, and the local government does not seem to play much of a role. When the local residents of a tourist city leave the city, then the city loses its soul and part of its authenticity, generating problems that are difficult to solve, such as lack of parking, streets filled with luxury shops, a large number of fast food restaurants, and

the transformation of residents' homes into hotels. Such a transformation makes tourism more convenient, and brings many tourists who fill the city, even (as in Florence) the whole city, but it also loses some of its unique character, being drowned in mass tourism, which is not sustainable development model. The large number departure of population from Florence to make way for tourism, and tourists' own aesthetic fatigue, provide some warning of the dangers of excessive tourism for the future of Dunhuang.

The last case study is the most similar to Dunhuang. Both Pompeii and Dunhuang are located in less economically developed areas of the country, but their historical value is truly unique in that they both preserve intact areas that represent the very ancient culture and art of the country. The richest heritage is located in economically backward areas for conservation and management, and they face the same challenges, such as the difficulty of investing large amounts of money in conservation, the need to rely on tourism development to drive the economic development of the area, and the tendency to a contradiction between economic development and conservation. In fact, the economic benefit they bring is very significant, and the balance between economy and cultural heritage preservation is the most important issues to be considered. The history of Pompeii is similar to that of Dunhuang in that they both represent a certain period of civilization and art, which Pompeii shares with Herculaneum, just as the Mogao Grottoes shares its place with the Yulin Caves and the less well-known grottoes of Dunhuang around them. Dunhuang similarly faced a frenzy of plundering from the outside world in its early years. They both face similar of overcrowding of the most iconic sites, which tourists visit because they are the best examples of each type of heritage or the best preserved, and the pressure of the number of visitors can make the conservation of the site more difficult. The unevenness of visitors also causes sites to receive different levels of conservation attention, with those buildings that are more popular for tourism being susceptible to more research attention, and other areas that are not of interest to visitors easily overlooked in conservation efforts, or neglected (Wallace, 2013). In both regions, heritage is in an exposed state due to the past excavation of the buildings without adequate protection, resulting in the site being at risk of erosion, and fading of the frescoes exposed to the air.

They represent the high civilization and art of the past, a moment of history, and serve as a window for communication with history, connecting the modern and the past, but also play the role of warning for the future. They signal that all splendor will fade from the stage of history.

Chapter 5.   Residence context

5.1   Introduction

This is the last and most important part of this research, which, having discussed heritage conservation, tourism development, and a comparative analysis of Dunhuang and three Italian cases, will now in this final part examine the participation and empowerment of local communities in the tourism development process. We will analyze the current situation of the local population at some cultural heritage sites in Italy and in Dunhuang, China, and the impact on the population of rapidly growing tourism in the local community, the attitude of the residents towards tourism, and how to achieve sustainable development and valorization of the community.

Most research and news about "tourism" is from the perspective of tourists. In the article published by Freya Higgins-Desbiolles 2019, "tourism" is redefined as: The process of local communities inviting, receiving, and hosting visitors in their local community, for a limited time duration, with the intention of receiving benefits from such actions. This definition places a new emphasis on the dominant position of local residents in tourism, and also shows that listening and respecting the real feelings and opinions of residents is a democratic way of studying local communities. The local history and culture and the lives of residents are part of the outside world's impression of local tourism, and even part of the attraction for consumption. The identity and character of an urban area lie at its heart (Therond and of Europe, 2000).

According to the Ceballos-Lascurain definition (Scheyvens, 1999), ecotourism has been defined as environmentally responsible, enlightening travel and visitation to relatively undisturbed natural areas in order to enjoy and appreciate nature (and any accompanying cultural features both past and present) that promotes conservation, has low visitor impact, and provides for beneficially active socioeconomic involvement of local populations. According to this definition, ecotourism can involve both cultural and environmental tourism and, in addition, benefits to the local population should be an integral part of the activity.

From a development perspective, ecotourism ventures should only be considered 'successful' if local communities have some measure of control over them and if they share equitably in the benefits emerging from ecotourism activities. Meanwhile community involvement in development

is generally considered to be in line with the concept of sustainable development, so if tourism is to have a sustainable future, we need to reorient our focus and put the well-being and interests of local residents at the forefront (Vettorazzo *et al.*, 2009).

Ecotourism frequently develops in more outlying areas that are still the traditional home of local communities (Zeppel, 2007). From the perspective of international tourism development trends, the human landscape consisting of the culture, life and production methods of local residents is the best complementary resource for tourist places based on natural scenery. Local residents are also part of the tourism resources, and even ethnic tourism handicrafts are seen as a "materialized" ethnic culture with cultural identity, which is discussed in the following section on tourism in remote areas. (Fong *et al.*, 2015) argue that local communities are the people who are familiar with tourists and local cultural activities, and their participation and support are crucial to success and development, so research on residents is indispensable in the tourism development process.

Discussing the premise that residents in China realize value requires examining theories of community participation and empowerment, because in China and other developing countries, lack of power and lack of participation is one of the important reasons that prevent residents from realizing community value. Unfortunately, there is not enough theoretical information on community participation and empowerment in developing countries, and there is very little published material on participatory tourism development. As the main object of our study, the development of participatory tourism in China not only lacks sufficient theoretical support, but its actual situation deserves more attention. The reasons for this outcome are often attributed to a lack of participation among the local communities in rural tourism due to paternalism, racism, clientelism, lack of expertise, and lack of financial resources, which all hinder the process of community participation. At the same time, it has been observed that the deeper reasons are also the limitations of the political system, and that participatory empowerment theory has failed to take hold in developing countries, firstly, because the theory itself is based on the democratic systems of developed countries in Europe and the United States, and secondly, because developing countries have many significant differences in political systems and policies compared to developed countries. These systems and policies are largely responsible for the failure of the participatory approach. In this section we focus on community involvement in China (introduced in Chapter 2), where tourism entered the country relatively late. Participatory tourism is a new and complex topic, and the research in this area is not standardized, not sufficient, and practice cases are rare, so there is not enough information available to cover all the current issues in this area. However, this also means that there is room for much new research in China. In this study, we will use some Chinese cases and analyze the policy context, with the aim of finding the essence of the problem and suggesting practical and effective suggestions or solutions to resolve it.

5.2 Community participation and empowerment in tourism development

In order to discuss the valorization of community involvement, it is necessary to examine the key concepts of local community, participation and empowerment. The next section discusses the importance of local community participation and empowerment, and the practicalities of implementation. The following questions will be answered: Who are the owners of the community? Why develop community tourism? Why community participation? What does empowerment mean?

5.2.1 *Ownership of the community*

The community is a key stakeholder in tourism development (Tse *et al.*, 2018). Based on the definitions that are used for sustainability and sustainable tourism development four distinct groups are identified: the present visitors, future visitors, present host community, and future host community. The host community can be further divided into residents, business owners, and government officials. In most studies on tourism and community relations, several large groups of stakeholders are often talked about: tourists, local residents, tourism industry workers, local government, etc. that is, stakeholders, who are the main stakeholders? Who are the owners of the community?

Residents are the main stakeholders and owners of the community and therefore they should be the ultimate beneficiaries of tourism development and enjoy the right to use and benefit from the community's tourism resources on a priority basis. Community residents are the carriers of local history and culture, and their words, actions, attire, customs and beliefs carry a profound folk culture, and these local intangible and tangible resources form an exclusive local tourism resource. The importance of the inhabitants is also recognized internationally by UNESCO, and the World Heritage Convention has become the focus of efforts to recognize and accommodate indigenous peoples' rights and interests in their cultural heritage (Vrdoljak, 2017).

Whatever the region and its unique historical and cultural heritage, it is not owned by speculators or any person in power, but by all stakeholders, and above all by the local residents, who are the most important stakeholders, and that is why the interests of the local residents in the development process are always emphasized.

The host community can be further divided into residents, business owners, and government officials (Byrd, 2007). Often, local residents are forgotten in the pace of tourism development, even if the reason for the initial development of tourism was to drive the local economy and improve their quality of life. At some scenic spots in China, local residents have even been moved to develop tourism, which violates the original intention of developing tourism and the economy. This is

obviously not a good basis for the development of tourism.

5.2.2   *Community tourism*

While there is no doubt about the status of tourism as a sustainable industry, it is not only a powerful outlet for culture and a long-term driver of economic development, but it also has important implications for communities. Community is a concept of regional scope, referring to a group united by the same type of cultural background or an administrative division. The majority of tourism destinations in China are in rural areas, and tourism is considered an effective way to drive rural economic development in these communities.

Anderson (1991) provided one of the earliest definitions of community-based tourism, emphasizing its potential to not only increase local incomes and jobs, but also to develop skills, institutions, and bring about empowerment of local people. Tourism is therefore a key industry for facilitating greater growth, equity, and poverty alleviation. In addition, benefits from tourism are seen by many as a key tool for building local support for conservation and sustainable natural resource use (and a sustainable tourism product) (Pawson *et al.*, 2018).

This makes clear the importance of community participation in tourism development and, as identified by the UNWTO (2008), there are four arguments as to why community participation in tourism development and management is essential: firstly because a top-down or insular approach has previously failed to address issues arising from tourism and associated development at the community level; secondly, because involving the community will enhance social and human capital that will be required to tackle further problems; thirdly because the community will have the ability to better control large tour operators and developers, in turn avoiding the negative consequences of mass tourism; and lastly because the community will be able to better identify and address developmental needs at a grass-roots level and moreover examine ways in which tourism may be able to address these needs (Pawson *et al.*, 2018).

From a national perspective, sustainable and responsible tourism is important for the national economy, but it is even more significant for the local communities. Sustainable and responsible tourism is based on the premise that respect for local communities makes it possible to achieve truly sustainable development. The development of sustainable and responsible tourism actively contributes to national development: the preservation, protection and conservation of cultural, historical, and natural resources, and mitigation against climate change (p. 1) (Royal Government of Cambodia, 2012). From a regional perspective, if properly managed, sustainable tourism is an economic tool that can contribute to and benefit local communities and sustainable livelihoods (Mandić and Petrić, 2021).

Tang Shuntie (Tang, 1998), who divides tourism into traditional tourism, ecotourism and community tourism, believes that community tourism offers a new way to seek to achieve sus-

tainable tourism development. A progression can be seen from traditional tourism to ecotourism to community tourism. According to his classification, most of China's tourist destinations are still in the stage of traditional tourism, where maximum economic benefits are the main goal and discovering landscape attractiveness is the main development principle, while the relationship between residents and tourism development is irrelevant or passive. In terms of ecotourism in China, environmental protection is only beginning to be taken seriously and residents are encouraged to participate, but in reality this still seems to exist only as a token call to action, and policies that respond to conservation needs and calls for participation are not aligned. In contrast, community tourism aims at economic, environmental and social benefits, and local residents are the main force behind tourism development, which should be the ultimate development goal of many tourism destinations.

The importance and significance of tourism to communities has been well researched, but some of the negative impacts of tourism development on local communities are also worthy of study by researchers. There are some scholars in the field of Chinese tourism anthropology who believe that tourism is a negative force that accelerates the decline of ethnic traditional culture, and for this reason, some scholars argue that vulnerable hosts do not have the power to protect themselves and lose their traditional culture in the wave of touristification (Yang, 2014). In the case of cultural heritage sites, it seems that by becoming a tourist destination, the area becomes a shared resource and the power of the local population to master the area is weakened. This sense of diminishment will follow the degree of tourism development inversely: the more prolific the tourism, the less the sense of ownership of the inhabitants. Particularly in cities that are selected as World Heritage sites, while tourism does bring a significant amount of economic resources to the area, there is also a loss of some rights, perhaps local social security, or perhaps local ownership. Such a situation is not uncommon, arousing opposition. Calling it "UNESCO side", the Italian writer on urban development Marco d'Eramo (D'Eramo, 2014) has said that whenever a city is named a heritage site, it "dies out, becoming the stuff of taxidermy, a mausoleum with dormitory suburbs attached" (D'Eramo, 2014).

In addition to bringing jobs and economic development, the development of mass tourism will inevitably have some impact on local communities, and may even cause irreversible damage to cultural heritage sites, but the main body of the community is the local residents, who should have the right to decide whether or not they want tourism, which brings us to the next section on participation and empowerment. This study supports the idea that professional researchers should only document and preserve existing heritage and should not restrict the development of residents in the name of preservation.

5.2.3 *Community involvement*

This section focuses on the involvement of community residents in the tourism industry. There has already been much research on community participation in Western countries, with some scholars (Tosun, 2000a) arguing that the concept of community participation has been a component of the political dynamics of the post-industrial era. It has also been argued that since the 1970s, in many ways, community participation has become an umbrella term for a supposedly new genre of development intervention (Tosun, 2000a).

By the time of the Third World Congress on National Parks, held in Bali in 1982, it was recognized by advisory agencies for protected areas that ways had to be sought to overcome local resentment towards national parks by incorporating human welfare needs into planning and policy-making, in addition to conservation needs. This also means that when developing tourism, human needs are put within the objectives of policy making. Murphy first introduced the theory of community participation into tourism research in 1985, after which community-based participatory tourism development has remained a matter of vigorous debate. (Chavarria Arnau and Brogiolo, 2019) provide a novel perspective on bringing the idea of community participation into heritage projects. Taking part in heritage projects also has positive effects on community wellbeing, including outcomes on social relationships, sense of belonging, pride of place, ownership and collective empowerment.

The community participation aspect of tourism development is of great importance, and the community has an important role in constituting authenticity, because of the power and core competence of the inhabitants as carriers of local cultural history. As in the case of Florence in Chapter 4, a process of loss of authenticity can occur, as residents continue to move out of the city while the local streetscape becomes "touristy". This point was also mentioned in the AAP (AAP, 2016) news release on SBS that the branding associated with UNESCO World Heritage Listing invites tourism development. Residents move out as prices escalate or seek new business opportunities. Unfortunately, this hastens the loss of the authentic character of place. Where the sense of historical community is lost there is no interest in preserving heritage (Chavarria Arnau and Brogiolo, 2019). When residents no longer have the right to participate and are no longer involved, the place will lose its authenticity and the incentive to preserve the history of the place will be diminished. (Tosun, 2006) explains that, by contrast, participation by the community would facilitate the implementation of sustainable practices because of the opportunities created for the community to gain more equitable benefits from tourism development (Pawson *et al.*, 2018). In order to study the sustainable development of Dunhuang, in China, elements of involvement in management, and valorization and empowerment of local residents are particularly important.

Involvement is considered useful and necessary, and the way in which it is done is worth discussing and studying. Different places have different political and historical backgrounds, so

it is difficult to adapt to the same set of implementation standards. Involvement is not a specific approach and alone does not ensure absolute fairness. The integration of different perspectives is an ever-present challenge, but each region can have a unified development goal, and the choice of that goal can come from decision-makers based on the development needs of that place. Stakeholder participation can be facilitated or implemented in different forms, both informal and formal (Ellyard, 2006). It can also be through direct or indirect participation to achieve this purpose. No matter what approach is taken, it is important to understand that stakeholders should be involved throughout the entire planning and management process, not just the initial stages (Gunn and Var, 2020). Since the involvement of residents is an important part of the development process, it is also the basis and ultimate aim of development. Without stakeholder involvement, the term sustainable development would just be a marketing slogan or, at best, a topic for theoretical debate (Byrd, 2007). To be sustainable, tourism should not threaten the cultural heritage or the local identity (Bazzanella, 2019). Stakeholder involvement is a pre-requisite for the concept of sustainable development.

In the participation process, not everyone must be a management decision-maker. In community participation, in addition to the constraints of the governing class on resident participation, the actual circumstances of the residents themselves can affect their level of participation. The enthusiasm for participation is somewhat limited by the extent of residents' sense of pride and belonging. It is also common that residents do not recognize the value of local heritage and are not aware of heritage conservation and management. This is a situation that is more likely to occur in developing countries or regions because of the lack of adequate education on the historical value of cultural heritage and the lack of an atmosphere of heritage protection in society as a whole, and the weak awareness of the population about protection of their cultural heritage. There are also problems of practical implementation, governance structures, and cultural constraints to community engagement which are often more deep-rooted and intractable in developing countries, and often reflect the prevailing political, economic and cultural structures. However, these limits may change over time (Tosun, 2000b).

Residents' own limitations affect the way that they participate. Most local residents are aware of heritage only in terms of old objects and are hardly as familiar with the value of heritage as archaeologists. In tourism development, it is difficult for residents to maintain a long-term perspective once local resources can be directly converted into tangible benefits. With insufficient knowledge of the value of the site, the importance residents place on local heritage often needs to be tempered by the attitudes of outside visitors. When heritage is sought after by tourists, residents are certainly more proud of it, but if local heritage does not reap much outside enthusiasm, then local residents also seem more lukewarm. According to one view (Dwyer *et al.*, 2009), as values become more complex, so heritage management becomes a philosophical issue as well as a technical

one. The lack of awareness of local history among the inhabitants of historic sites can have a negative impact on the sites. Giving local residents the right to decision-making will be important in addressing issues such as ignorance of individual cultural heritage rights (Liu, 2013). In sum, apathy and low levels of awareness in host communities in developing countries are among the main limitations to a participatory tourism development approach (Tosun, 2001).

It is indisputable that lack of power limits resident participation. In many regions, the local people do not have the power to make actual decisions, do not participate in the development process, do not have the tools to regulate it, do not have enough connections to their own history and culture, and are not aware of the history of the past, just as they are not clear about the future direction of development. The external cause of the growing alienation of local residents from their local area is that they do not own the local resources. For residents, ownership is the bargaining chip for their participation, and not having ownership also means not having a voice. In addition to the ownership of objects granted by law, there is also the ownership of the emotional identity of the entire historic town. Orbasli (2000: 2) argues that in the urban environment, culture and heritage present a question of ownership. The physical relics of history, including buildings are 'owned' whereas the historic town as an entity is not, but represents ownership to the local community through attachment and belonging. As mentioned earlier in Chapter 4, in the case of Florence, in the process of tourism development, the living space of its inhabitants became more and more crowded, the city became less livable, and Florence no longer belonged to the local population. Shops selling tourist goods are occupying stores that are supposed to provide services to residents, residents' demands are not being met in the city building process, and residents' sense of belonging is being weakened, so that the ownership of the historical town is being diluted. The acceleration of globalization is increasingly blurring the boundaries between regions and localities, but because of this, in order to maintain plurality, it is all the more important to strengthen the distinctive features of regional cultures and to avoid some local cultures being forgotten in the process of globalization.

Resident involvement is important but they are not the only important group; there are other groups whose needs remain important. The importance of participation was emphasized in the previous section, arguing that not every resident must have the right to make decisions and that it is difficult and unnecessary to make everyone a decision maker. The urban development process does not only affect local residents, but also other stakeholders. As with resident participation, all stakeholders do not need to be involved equally in the decision making process, but it does require that all interests are identified and understood (Donaldson and Preston, 1995). The interests of every group associated with the community should be respected and considered in the development process, and their demands should be heard.

Participation can be in the form of pre-practice opinion inquiries, participation in decision-

making during the development process, or participation in small projects. Even small-scale events attract many stakeholders, including local residents, who can play an important role in all organizational phases (Bazzanella, 2019). For example, in 2006, the reintroduction of the alpine marmot in Dolomiti Bellunesi National Park was an initiative for wildlife conservation and stimulation of natural resource management that helped to increase environmental awareness, participation and acceptance by the population. Through various channels of publicity, and a call for people to name the released animals, this led to the participation of residents, and finally enhanced the residents' awareness of environmental protection, so that more people joined the team for heritage conservation and environmental protection. This kind of small-scale everyday activity is a worthwhile preliminary before developing large-scale projects, to mobilize people's participation and obtain the support of local residents in order to achieve more sustainable development. As Professor Chavarría has noted, both top-down and bottom-up approaches are important, but since this study is primarily intended to discuss community engagement in Dunhuang in a Chinese context, where top-down is currently the norm and where bottom-up is rarely seen, this study will focus more on the importance of bottom-up. This is because a single emphasis on top-down management can easily lead to a weakening of community ownership and a diluted sense of belonging (Antons and Logan, 2017). It also creates a perception among residents that all management, conservation and development efforts are only the preserve of government personnel. This not only increases the responsibility and work of the government, but also means that the residents or other stakeholders do not feel any sense of participation. As described by (Vettorazzo *et al*., 2009), communication activities should be multilevel and multipurpose. At a local level, the aim is to involve the local inhabitants through direct contact, informing them about the activities concerning their common heritage, so that these actions are not just those of a distant bureaucratic machine, sometimes perceived with suspicion and unconcern.

Obviously sustainable development will not necessarily be accomplished even if there is community participation. Community involvement is a prerequisite for sustainable development, but it does not mean that development is guaranteed to be successful if there is community involvement. There are some examples of public participation that did not work well. For example, the transformation of the ancient town of Lijiang supported the short-term interests of local residents, but did not in any real sense to help them to master the ability to use their local resources in a scientific and sustainable cycle, and the end result has been that a large number of residents of Lijiang moved out, and it has become a famous case of commercial tourism. There are other historical towns where it is hard to find local residents anymore, and there is no shortage of cases where the locals were given some money to move to the area during the development of the city. Such cases are not only found in China, but also in Thailand and other Asian regions such as Angkor, Hampi, and Hue, which highlight the incomplete interpretation of sustainable development in local tourism

management, and also reflect the local pursuit of economic quick success. Tosun believes that this also relates to misunderstandings arising from states parties interpreting the UNESCO Convention and Operational Guidelines in their own way, as a result of language barriers, and many examples demonstrate that community participation is not a single solution for successful management: "if the planned goals of management are not achieved, the reason is often explained by inadequate public participation" (Tosun, 2000a). However, lack of participation does not seem to explain all the problems that arise in the development process.

The necessity for participation does not need to be further debated, but what deserves more attention is the way that residents participate. There is an old saying in China that in helping others, it is better to teach someone the skill of fishing (meaning mastering the skill in order to transform it into a lasting benefit) than to give them fish directly (in this case, transient subsistence or benefit). In community engagement, this can be understood as the value of teaching residents to discover their own skills that can be integrated into local sustainable development, rather than just providing them with some direct benefit. Giving residents direct benefits ignores motivation and process and focuses only on results and the illusion of quick results. Giving some unsustainable help or support can only present visible achievements in the short-term, but cannot be sustainable. Community participation is an important motivation, a key component and the ultimate goal of tourism development, and should not be satisfied with only short-lived achievements.

The lack of empowerment in Chinese communities is obvious. Involvement and empowerment are the prerequisites for community valorization, and valorization is the purpose and result of involvement and empowerment. But ultimately, it is through the realization of community empowerment that the residents' own self-value is increased.

5.2.4 *Empowerment theory*

In 1976, American scholar Barbara Solomon introduced the concept of "empowerment", in the context of black minorities in American society and suggested that social work should be devoted to their empowerment. Kieffer (Kieffer, 1981) proposes that the concept of empowerment has three main elements: the ability of citizens, socio-political cultivation, and the ability to participate in political capacity. He considers the attitude of active participation, the knowledge and ability to critically analyze, and the ability to implement and cooperate as the basis for the three elements of empowerment. That is, it is not only their own will or pressure from the outside that limit residents' participation, but also their own ability, as in the previously mentioned view. In 1987 (Swift and Levin, 1987) it was proposed that empowerment: 1) refers both to the phenomenological development of a certain state of mind (e.g., feeling powerful, competent, worthy of esteem, etc.) and to the modification of structural conditions in order to reallocate power (e.g., modifying the society's opportunity structure), in other words, empowerment refers both to

the subjective experience and the objective reality; and 2) is both a process and a goal (Swift and Levin, 1987). Others believe that empowerment is simply a process. Empowered outcomes refer to operationalizations of empowerment that allow us to study the consequences of empowering processes (Rappaport, 1987). Empowerment is a pervasive positive value in American culture. The concept suggests both individual determination over one's own life and democratic participation in this life. Rappaport suggested that empowerment is a process, a mechanism by which people, organizations, and communities gain mastery over their affairs.

(Levin, 1975) hierarchical model of the sequence of feelings of empowerment has three main developmental stages, the first of which focuses on awareness and understanding of one's own benefits and status, the second on feelings about others or groups (with special emphasis on feelings of dissatisfaction), and the last on conative purposiveness toward changing the social distribution of power so as to improve one's social condition and advance one's self-interests to greater parity. And it is worth noting that in each of these three stages, the previous one is a necessary prerequisite for the subsequent stage, while the sufficient condition for a sense of empowerment is the combination of the three stages. (Swift and Levin, 1987) even argue that those who do not have both cognitive awareness and affective energy are unlikely to undertake or participate in empowering activities.

An article which summarizes many studies on empowerment and the main arguments advocated by scholars (Perkins and Zimmerman, 1995) points out that they cover different areas or have different concerns. The distinction between the process of empowerment and the outcome is crucial, and the process of empowerment is achieved through individual participation, collective decision-making, and collective activity.

While most previous empowerment theories were based on sociological and psychological perspectives, Akamal (Akama, 1996) was the first to propose the need for community tourism empowerment in 1996. Most relevant to the theme of tourism development in this study is the theory of empowerment proposed by Scheyvens (Scheyvens, 1999) based on Friedmann's theory of empowerment. Applying empowerment theory Fig. 5.1 to ecotourism, it argues that the 4-dimensional empowerment structure of economic empowerment, psychological empowerment, social empowerment and political empowerment is still the mainstay of tourism empowerment research in recent years. In empowerment theory, power is considered as the dominance and influence that an actor or institution has, while empowerment refers to the gaining of power of an actor or institution and its perception of power through external intervention and assistance, thus reducing the sense of powerlessness of its processes. Empowerment theory assumes that rights can develop and change, and that the purpose of empowerment is to enhance the ability to access resources and confidence in using rights by stimulating the potential of vulnerable groups and weakening external barriers to rights. When the four dimensions of empowerment theory are applied to economically underdeveloped tourism areas, the relationships among them are not

Framework for determining the impacts of ecotourism initiatives on local communities

	Signs of empowerment	Signs of disempowerment
Economic empowerment	Ecotourism brings lasting economic gains to a local community. Cash earned is shared between many households in the community. There are visible signs of improvements from the cash that is earned (e.g. improved water systems, houses made of more permanent materials).	Ecotourism merely results in small, spasmodic cash gains for a local community. Most profits go to local elites, outside operators, government agencies, etc. Only a few individuals or families gain direct financial benefits from ecotourism, while others cannot find a way to share in these economic benefits because they lack capital and/or appropriate skills.
Psychological empowerment	Self-esteem of many community members is enhanced because of outside recognition of the uniqueness and value of their culture, their natural resources and their traditional knowledge. Increasing confidence of community members leads them to seek out further education and training opportunities. Access to employment and cash leads to an increase in status for traditionally low-status sectors of society e.g. women, youths.	Many people have not shared in the benefits of ecotourism, yet they may face hardships because of reduced access to the resources of a protected area. They are thus confused, frustrated, disinterested or disillusioned with the initiative.
Social empowerment	Ecotourism maintains or enhances the local community's equilibrium. Community cohesion is improved as individuals and families work together to build a successful ecotourism venture. Some funds raised are used for community development purposes, e.g. to build schools or improve roads.	Disharmony and social decay. Many in the community take on outside values and lose respect for traditional culture and for elders. Disadvantaged groups (e.g. women) bear the brunt of problems associated with the ecotourism initiative and fail to share equitably in its benefits. Rather than cooperating, individuals, families, ethnic or socio-economic groups compete with each other for the perceived benefits of ecotourism. Resentment and jealousy are commonplace.
Political empowerment	The community's political structure, which fairly represents the needs and interests of all community groups, provides a forum through which people can raise questions relating to the ecotourism venture and have their concerns dealt with. Agencies initiating or implementing the ecotourism venture seek out the opinions of community groups (including special interest groups of women, youths and other socially disadvantaged groups) and provide opportunities for them to be represented on decision-making bodies e.g. the Wildlife Park Board.	The community has an autocratic and/or self-interested leadership. Agencies initiating or implementing the ecotourism venture treat communities as passive beneficiaries, failing to involve them in decision-making. Thus the majority of community members feel they have little or no say over *whether* the ecotourism initiative operates or *the way* in which it operates.

Figure 5.1: Framework for determining the impacts of ecotourism initiatives on local communities (Scheyvens, 1999).

only interrelated and mutually influential, but also show a progressive relationship. Economic empowerment is the most basic empowerment, which is the material guarantee and economic prerequisite for other empowerment. The realization of economic empowerment can effectively promote psychological empowerment, and only after both psychological and economic empowerment are secured can social empowerment be developed, and the realization of social empowerment can achieve the sustainable development of society, and so finally political empowerment can be realized.

In the field of research on tourism empowerment, European and American studies have placed more emphasis on the two approaches of information empowerment and education empowerment. The different levels of importance of empowerment are related to the level of social development. In more economically developed regions more attention is paid to spiritual empowerment, while

in less economically developed regions more attention is paid to economic development. The topic of empowerment in China, for example, seems to exist only among a few researchers and scholars. Community empowerment does not seem to be often talked about in the course of social development, a situation which is related to China's own historical and political context.

Although the idea of empowerment has spread to many regions and many fields, the spread of empowerment theory in China is patchy. The reason may be mainly due to the time of introduction, the historical characteristics of China, the atmosphere of social opinion, and the political framework. When the theory of empowerment was developing rapidly abroad, China was still in its early stages of post-war recovery, and was experiencing the Cultural Revolution, a destructive period for creativity and even more so for foreign theories, so this chronological context hindered the successful adoption of the concept of empowerment in China. China has also experienced a class system rooted deep in people's consciousness over thousands of years as an imperial civilization, which was not broken until recent times, and it was difficult for a while to popularize and import a modern theory based on the empowerment of ordinary grassroots groups. The underlying groups are still accustomed to being coerced and and subordinated to arrangements, and do not recognize that equality for all is a basic human right. Another reason is the lack of supportive public opinion. So far, the theory of empowerment has not been much discussed in China, because the groups that need empowerment are usually vulnerable themselves, or are treated as such. The voices about empowerment are very weak, and although empowerment of women, the poor, disadvantaged groups and farmers has been raised, the debate has been muted compared to that in European and American countries, and thinking is still based on early empowerment theories from elsewhere, without deeper development. The empowerment of communities in tourism development is a new concept in China and the unfavorable political framework makes it difficult to achieve true community interest. In addition to the theory not being firmly rooted in the academic field when it was first introduced, in practice, communities are even more distanced from empowerment because they have long played a powerless and voiceless role, with community ownership of tourism development firmly in the hands of the government or developers. The next section examines the case of empowerment theory in China.

In 2003, Professor Chen Shuqiang (Chen, 2003) commented that although the study of empowerment has been a hot topic in sociological research for the past 30 years, social work research in China has not caught up with this trend and there is still a lack of systematic introduction to empowerment theory. He argues that empowerment is closely related to power and powerlessness, and that unequal access to resources can cause a sense of powerlessness and can make the community or family system not function well. At the same time, he believes that power manifests itself both as an objective existence and as a subjective feeling, that is, a sense of power, which can enhance people's self-concept, self-esteem, sense of dignity, sense of well-being and sense of importance.

Conversely disempowerment is not only a state of lacking capacity or resources, but also a process of internalization that culminates in a sense of powerlessness, and it is because of this sense of powerlessness that people devalue themselves and fall into a vicious cycle of disempowerment. He believes that the most important function of researchers working on empowerment is to help people identify the link between personal problems and social dynamics. Finally, he notes that evaluating empowerment practices is complex because empowerment is both a process and an outcome. The evaluation of empowerment is usually qualitative and must evaluate whether the needs of the empowered person are addressed and whether they are empowered on three levels: within themselves, interpersonally, and in the community.

Professor Wang Ning (Wang, 1999) believes that empowering communities through education and information is necessary, but of limited use. This is because when the government, developers and residents are not on equal footing, residents are usually in a vulnerable position and their individual rights are more liable to infringement. He believes that in order for both sides to have their demands expressed and respected, the legitimacy of community empowerment should be legally and politically supported and granted, and a formal system should be established to guarantee community participation, changing the traditional "top-down" approach to a "bottom-up" legal form of empowerment.

The introduction of tourism empowerment theory into China is considered to have begun with scholars such as Bao Jigang, Sun Jiuxia, and Zuo Bing. Taking ethnic tourism communities as an example, they argued that the empowerment of tourism communities should be guaranteed by clarifying land ownership, clarifying tourism resources, and using the land ownership system. It has been argued (Zuo and Bao, 2012), that the reasons for the failure of community participation are power failure, opportunity failure, and lack of capacity, and that in addition to theoretical research on disempowerment not being well established, the state of land property rights in China determines the contradictions in the distribution of tourism gains. It is difficult to break through the dilemma of community participation and research if the source of power is not explored in depth. In this article, it is pointed out that the current laws, institutions and public policies do not really recognize the power of community participation, which is an institutional powerlessness, and that the only way to solve this institutional powerlessness is through institutional change, that is, reform of the land system. Community participation is concerned with the distribution and management of the benefits that result from the transformation of tourism resources into assets or even capital. Take for example the "Dai Nationality Garden" in Yunnan Province, where a 1999 private development project employed local residents to run "ethnic tours". This was initially considered a successful case of cooperation between a company and farmers, until a conflict of interest between the business and the community emerged due to the defects in the land ownership system (Zuo and Bao, 2012). Since the development process did not recognize the "subjectivity" of

the villagers from the beginning, although the villagers were the owners of the land, their rights and interests were not taken into account in the development process by the company They were unable to defend their rights, which ended in failure of participation.

The reason why the discussion of empowerment should analyze the land system is because ownership is a bargaining chip for villagers when they participate in development. For indigenous people and residents, land rights are an absolute prerequisite for sustainable development. The current land system in China leads to frequent conflicts between landowners and developers. In 1956, the Land Administration Law recognized a delegated agency system in which the collective had the right of ownership, use and management of land, and the local government acted as an agent for the village collective in exercising the right of disposition. In fact, this deprived the subjects of collective land of the right to dispose of it in law and in practice. In the land leasing process, although there is a distinction between public land and family land, in practice, only the local government has the right to dispose of the land for either public or family land, and the local government represents the village councils and villagers in the area, which means that the developer only needs the local government to negotiate. Such a model obviously excludes the villagers, and the local government acts as an agent for the villagers, but the agent and the principal do not easily maintain the same stance. For the sake of local economic development and personal performance goals, it often happens that the actual value of the land is ignored to attract investment, thus indirectly causing the interests of the villagers to be harmed. Such a problem is also in frequent contradiction with China's current economic development.

Such institutional problems are well demonstrated in the conflicts after the development of Dai Yuan (Zuo and Bao, 2012), where the contract signed between the local government and the developer ignored the interests of the villagers, who lost the right to exercise the land they originally owned, and at the same time were not in a position to negotiate. At the later stage of the development, the unequal distribution of profits intensified the villagers' dissatisfaction. To express their dissatisfaction, the villagers refuse the benefits provided by the development company and built many intrusive buildings, thus destroying the tourism image established by the development company. By refusing benefits and deliberately destroying the local tourism image to express their opposition, it can also be inferred that the villagers not only lacked the right to participate and make decisions, but also had no avenue to complain and object through legal channels.

Zuo Bing (Zuo and Bao, 2012) believes that the issue of property rights causes an inherent deficiency in the allocation of resources within communities and becomes the biggest obstacle limiting community participation in tourism. In some countries the right of communities to participate in and directly profit from tourism is even guaranteed through formal laws and regulations: for example, researchers (Wang, 2012) mention among others that in Banff National Park in Canada, only local residents can provide accommodation for tourists, while foreign homebuyers are not

allowed, as a way to protect local residents. Another example is a rule in Dubai that requires foreign investors to work with locals to open companies there, although this requirement was cancelled in 2020 with the aim of attracting more investors. As previously noted, Tosun believes that restrictions will change over time (Tosun, 2000a) and argues that the collaboration and assistance of NGOs, international travel agencies and multinational corporations is indispensable in making difficult political choices and logical decisions based on cumbersome socio-economic environmental trade-offs. The development and implementation of a participatory approach to tourism development requires sweeping changes in the socio-political, legal, administrative and economic structures of developing countries.

5.3 Community participation and empowerment in Chinese context

After a thousand years of absolute monarchy in China, it was not until the Xinhai Revolution led by Sun Yat-sen in 1911 that the imperial system of more than 2,000 years was truly broken. It seems that neither those in power nor the people have completely shaken off this ruler and ruled mindset in the 100 years of modern times, and society as a whole is still accustomed to listening and implementing a top-down management style. The reason why the implementation of empowerment in China is not yet widespread may also stem from a lack of awareness of empowerment. The concept of empowerment is currently not popular in many parts of China, where economic development is defined as the primary goal, and it is not easy for some destinations that are not economically developed to accomplish even the most basic economic empowerment, and there are yet more places where full economic empowerment is difficult to achieve. The difference in stages of development also explains well the clear difference between the discussion of empowerment in Europe and the United States and the empowerment practiced in Chinese regions.

Most of the areas in China that need significant tourism development to drive their economies are located in economically marginal areas, and these areas often have less educated residents, including limited levels of local government. Among the four aspects of empowerment, economic empowerment is less difficult, while psychological empowerment takes longer to achieve, and social empowerment can be achieved only gradually, after economic and psychological empowerment. The effect of political empowerment can only be highlighted when all aspects are more mature. For a sovereign state that has been ruled by authority for thousands of years, the hardest part is the policy reforms necessary for political empowerment.

Next, the actual situation of participation and empowerment in China is discussed through some cases, and Scheyvens' empowerment principle will be applied to evaluate the empowerment situation and development direction of Chinese destinations.

5.3.1 *The situation of empowerment in China*

Community participation in the tourism development process has emerged and been refined in the context of developed countries (Tosun, 2000a). Many developing countries, such as India, Mexico, Thailand, and Turkey, have strong central governments that exert administrative direction over local governments. Such a custodial approach is seen as preventing the emergence of responsive, effective and autonomous institutions at the local level. It leads to non-participation, inability to participate, and pretending to participate in local affairs by the local population. Such a system of public administration is often seen as too bureaucratic and usually not effective or efficient in reflecting public needs. In these political contexts, top-down is always the rule. The political economy of tourism suggests that tourism development itself is a reflection of the political economy of the industry and broader historical, economic and political relations among regions, countries, and classes (Tosun, 2001). Developing countries and regions are still far from true civil society, which is a deep reason why community participation is difficult to practice and has been questioned (Sun, 2009).

In many developing countries, although semi-democratic structures exist in some, such as Thailand and South Korea, democracy in these countries is usually limited to business elites and state elites, and democracy does not exist everywhere. Democracy is a prerequisite for participation, and participation is a manifestation of democracy. So when discussing participation, it is difficult to avoid discussing the topic of democracy and human rights. The constraints of community-based participatory tourism development in developing countries are considered to be mainly operational level constraints, structural constraints and cultural constraints. In contrast, in China's tourism development, residents are in a state of being decided, packaged, expressed, and presented (Sun, 2009).

The relationship between involvement and empowerment, and ultimately the valorization, is a progressive one, with involvement as the foundation and process, empowerment as the end and means, and a valorization as the result and goal. Empowerment in China seems to involve more sensitive topics, because the prerequisite for empowerment requires effective participation, and it is often assumed that empowerment of the community means that the original power holder needs to give up power, which is obviously unrealistic. Under more centralized regimes like China's, community empowerment is not only about the way it is implemented, but also about many issues of ownership. However, it has been argued (Swift and Levin, 1987), that the viewpoint of a "zero sum game", where one person's gain is necessarily another person's loss, is an obstacle to understanding and practicing empowerment. Swift gives the example of an infant growing up, arguing that people can be empowered without diminishing the power of others, and that infant growth involves empowering the child without the parents or mentor losing power throughout the process.

The concepts of institutional empowerment and individual rights in the theory of empowerment are related to the prevailing property rights system in Western countries, such as in indigenous territories where government interference is constrained. The political empowerment referred to in Scheyvens' theory emphasizes the rights of residents to regulate themselves. In Western countries, it is tacitly assumed that all regional residents already have some ownership rights themselves and are protected by law. In China, however, the situation is quite different, as constraints on ownership are faced before participation and empowerment can begin. The law provides for collective ownership of rural land, but there is a lack of substantive interpretation of the concept of collective, which in reality becomes a gray area where local residents have no basis to refer to when defending their rights, and all levels of government and the collective economy can intervene and even manage the land, effectively depriving local residents of their property rights.

It has been argued (Therond and of Europe, 2000), that bottom-up decisions are important. In fact, there are many different regimes in the world that run the country in different ways, and it is clear that a single approach cannot be adapted to all types of countries or cultures (Perkins and Zimmerman, 1995; Rappaport, 1987). Even within the same country, it is difficult to achieve the same effect in different regions, because it may depend on the level of social development, economic development, and education of the population in the region itself. The implication is that different approaches are needed between regions, respecting local traditions and histories, refining policies according to economic and educational realities, and ultimately finding the most appropriate way to engage the local population.

In the face of different countries, different regions, residents with different levels of education, and different economic bases, different management approaches should be used according to the uniqueness of each place, supporting different ways of participation and developing diverse means of participation. Empowerment without translation, adaptation, and contextualization will only become a narrow theory. Democratic market-friendly strategies will sooner or later break up on the rocks of their own internally generated economic inequalities and escalating political strife, especially in premature democracy (Leftwich, 1993).

5.3.2 *Involvement in China*

A discussion follows of the characteristics of Chinese participation, the importance of community participation, and finally an analysis of the ways in which Dunhuang should engage the community to achieve sustainable development in tourism in the context of Chinese society. Such case studies and interpretations can be useful for participatory research in other similar areas.

In terms of public participation, there is a clear difference between China and Europe and the United States. In Europe, there are many non-governmental organizations, as well as trade unions, which can be a channel for people's voices to be heard. In terms of personal experience, having

lived in Italy for several years, we have witnessed many public marches, such as during Covid-19 on the use of the green pass, and in 2022 about the war between Russia and Ukraine. In Europe, marches are a very common form of expressing popular will, people march through the streets with slogans, regardless of gender or age, in such a way that even people without any rights can join the ranks. It is because the whole community in which one lives has this kind of atmosphere that fosters a strong sense of participation and people are more or less able to make their voices heard. Even if others disagree with the viewpoints of the marchers, they can directly express them, in line with Voltaire's famous phrase: "I disapprove of what you say, but I will defend to the death your right to say it". Such an approach is explained in terms of the institutional performance of democratic government in Italy in Putnam's 1993 book on democracy.

Understanding the social atmosphere helps to interpret policies and phenomena. The emphasis on collective interests over individual interests in the Chinese context differs from the emphasis on equality for all in some European countries. Equality for all defends and respects the right of each individual to speak, as it is seen as a manifestation of human rights. In Asian countries, however, there is less of this kind of expression, and more of the propaganda is based on collective interests, so people are usually weak in their awareness of human rights but do have an excellent collective consciousness. The same is true in Indonesia, where leaders have supremacy and are assumed to make wise decisions, respecting the traditional hierarchy. The needs and aspirations of individuals are subordinated to the stability and prosperity of the nation, i.e., the collective good takes precedence (Cochrane, 2007). It has been argued (Antons and Logan, 2017) that the collective rights of minorities are even less guaranteed than individual rights in Asian countries. Individuals from ethnic minorities and communities belong to minority groups, and they usually have even less voice.

Participation in China always seems to carry a special character, with participation as an expression of democracy at its core. The government claims that China upholds a process of democracy in which all people participate. The subject of participation in democracy is the whole people, not a part of them. And an institutional system has been established for the people to be the "masters of their own house", aiming to guarantee the broad participation of all people in national governance. The system of People's Congresses in theory grants the entire people the supreme right to make decisions and the ultimate right to supervise, intended to make the people the masters of the country. However, in reality, the People's Congresses seem to be very distant from the people, and although the deputies are elected by voters, many people have never seen a ballot. This form of governance is also often cited by foreign anti-China organizations as a platform for attacking the Chinese government for its lack of democracy or pseudo-democracy. Yang (Min, 2005) argues that a mature set of techniques for mobilizing mass participation developed in 1949, after the founding of the People's Republic, but that this kind of popular participation is different

from citizen involvement as practiced in Europe and the United States. Mass participation is not about involving the masses in direct decision-making processes and developing the capacity to monitor and check the power of the state, but about mobilizing popular support for the state's control and governance of society. The function of mass participation is not to involve the masses in political decision-making processes that directly or indirectly affect their interests, nor to question and check the bureaucracy, nor to learn to institutionalize the expression and defense of individual legitimate rights and interests through learning the political process. Rather, they learn a set of party ethics and communist ideology, and identify with and support the existing system. Through participation, participants become part of a disciplined mass, rather than rights-conscious citizens. Without commenting too much on the politics involved here, it is clear that democratic participation in China differs significantly from that in Europe and the United States.

It is contended that although community participation in decision-making for tourism in the sense of Western paradigms seems to rarely occur in developing countries, it may not be right to claim that local people's involvement does not happen at all (Tosun, 2001).The sense of involvement in modern Chinese society is weak, but the concept of involvement existed in history. The "water and boat" metaphor is often used in China to refer to the relationship between the people and the government. About 2,500 years ago, Chinese philosopher Xunzi, writing about governance, compared the relationship between the people and the government with water and a boat, indicating that although it is the government that rules and manages the people like a boat, maintaining the direction of progress, the people are like the water, and without the buoyancy of water the boat cannot sail. This expression of the mutual relationship between the people and the government has been passed down through thousands of years of Chinese thinking.

Civic participation is also common in Europe through the trade union system, where workers can express their opinions and grievances through unions. Occasional strikes are collective actions organized by unions to defend the interests of employees in certain industries and are a direct way of expressing workers' attitudes. It is furthermore important to note that union involvement is not only an expression of de facto collective labor rights; it is also a central form of citizen engagement (Isaksson and Kotsadam, 2018). China's policy support for participation is not strong, and relying on a single government force is not enough to ensure the participation of the population. China has not ratified the core International Labour Organization (ILO) conventions of freedom of association and collective bargaining. Currently, only the All-China Federation of Trade Unions (ACFTU) is legally recognized in China, which means that workers are not free to form or join a union of their own choice. In practice, the ACFTU is so distant from people that it is not a common way for people to seek union assistance when their rights have been violated.

The Chinese style of centralized power operation does not only have an effect within China, but also spreads to other neighboring countries. For example, when China helps build other countries

in its neighborhood, it sometimes has unintended effects. In 2013, China proposed the "One Belt, One Road" project, an initiative to revive the ancient Silk Road, and the "Dunhuang" site under study is also an important key point in this project. The "One Belt, One Road" has led to the economic development of cities along the project route, but has also highlighted some problems, such as the contradiction between economic development and the harmonious coexistence of local residents. Wang Xiaojun, Wade Dessart (Wang and Dessart, 2020) argue that "China must listen to those directly affected by its belt and road projects to do the most good".

In this article, which documents a large number of affected local residents in Belt and Road countries, the lack of communication between the affected communities and Chinese investors and companies is one of the most prominent complaints. Some of the examples include the different attitudes towards the impact of infrastructure construction on residents depending on their location, such as the construction of dams, where residents in urban areas can enjoy the change in their lives, while in remote areas near the dams, local residents suffer the resulting sound pollution. A local fisherman lost his fishing job due to the construction of the port and said that communication with the government was ineffective. In spite of the positive intention of these projects, real people-to-people connectivity can only happen when Chinese policymakers and investors walk into the villages and listen to people's real expectations, concerns and preferences.

The news and information presented in the Chinese media about the "Belt and Road" is usually positive and uncritical. However, in spite of its positive achievements, this view is not comprehensive. Bazzanella notes cases where, when researchers visited the local population, it was clear that there were not-so-harmonious viewpoints, and that although the government had gathered many professional opinions before building this mega-project, there was a lack of listening to opinions of the local population. The views of the local population are no longer taken into account in the local government. It is easy for the local government to see the economy as a whole and to ignore the experience of individual residents. These projects also bring together many professional researchers, but it is probably the engineering and construction professions that are given more weight. While these are expert, they are fairly fragmented and mainly focus on a single factor or process (Bazzanella, 2019). The Chinese staff is responsible for providing infrastructure construction work to help other countries' economic development, but when it comes to remote areas, every place is different and the same methods for developing the economy cannot be applied everywhere. Therefore, there needs to be communication about the development of specific regions between the government of each place and the local residents in order to make the construction of infrastructure serve more people. China's construction efforts in other less developed regions have been met with some skepticism, and Chinese firms operating in Africa are often accused of violating international labour standards and not adhering with national labour laws (Isaksson and Kotsadam, 2018). Isaksson and Kotsadam have systematically studied the

impact of Chinese projects in African aid countries on local unions. It is argued that aid is unevenly distributed and even contributes to local corruption in recipient countries. The results show that Chinese development projects tend to reduce union participation rates in the region.

Community involvement in regional development in the form of decision-making is not satisfactory in developing countries. A study of the limitations to public participation in the decision-making process of tourism development in developing countries through public participation (Tosun, 2000b) found that the community approach to decision-making in tourism is rarely found in developing countries. In many cases, as seen in the Jiuzhaigou Biosphere Reserve (JBR), community participation was via employment as workers or as small business operators, rather than participation in the decision-making process, which has been recognized to help local people receive more than economic benefits (Tosun, 2000b).

Community participation is an expression of democracy. In modern democratic governments, planners and politicians have difficulty in gaining public support after the voting process if the elected representatives fail to represent the grassroots (Tosun, 2000b). The construction of democratic politics and the path to democratization in China has attracted discussion among many researchers. Even through village committees elected by villagers, there is a high degree of monopoly of public power, and villagers' self-governance remains more in the electoral process. The democratic decision-making, democratic management, and democratic supervision that follow the elections remain in a stagnant state. Another challenge is the interpretation of participatory decision making, which in China often takes the shape of a centralized approach at the grassroots level, in which people of authority, especially local elites, make the decisions without collaborating with the local population (Nitzky, 2013a). Chinese government policy, unfortunately, emphasizes top–down decision making, which, as we have seen above, leaves little room for the locals to express their grievances (Peters, 2013).

As mentioned earlier, community participation is not simply a matter of giving all power to residents, nor is it the same as having every resident actually manage the local development, but rather every resident is in a position to be able to participate in the development process. Not all members of the public have the capacity to participate in management, and it is generally considered that a good level of education or knowledge is needed to be more conducive to assuming the responsibilities of a manager. The main premise and purpose of development is to preserve the local culture and history, as well as the local people themselves, who are the bearers and carriers of the local history, and to preserve the local people themselves is to respect the local history. Overcoming obstacles to participation in sustainable practices is an area that requires further investigation (Wang *et al.*, 2018b). In China, administrative institutions are divided into each level from top to bottom by region, central, provincial, municipal, district, and township (town) governments, and especially by street or community. There are also village (resident) committees

(the 1982 Constitution of the People's Republic of China confirmed the legal status of villagers' committees, providing a legal basis for villagers' self-governance). Village committees are not national grassroots power organizations, government, or an organ dispatched by the government. The village committee is a grassroots mass self-governance organization. Village committees are a common way to achieve resident participation in China, with the township (village) government carrying out its work and the village committee assisting in its work. The state mobilizes the residents through the residents' committees, but the committees have no real power and are only responsible for reflecting the residents' opinions and demands. Due to their dependence on the grassroots government, the committees will avoid reflecting the villagers' political interests, which means that the residents' real needs and opinions still receive little attention.

According to Chen Chunbin (professor at Chiayi University, Taiwan), villagers are under the pressure of the township government, and their degree of autonomy also depends on the result of power plays between the local government's decentralization and the people's collective. Professor Zhang Xiaojun of Tsinghua University admits that "in most cases in China, we see Canjia, not Canyu": this means that, for the most part, residents join in the development of their local communities, in the sense that they participate in activities or witness development as bystanders, but are not able to influence the decisions. Village councils are responsible for areas that are street or community based, and there may be some element of resident participation at this level, but the managers usually have a great deal of power and do not usually fully represent the wishes of the community. In sum, the real problem is that the communities have not been consulted or involved in the decision-making processes, and are rarely listened to when they voice concerns or complaints (Peters, 2013). Some government departments have a tendency to be entrepreneurial in their "government-led" tourism development, focusing on economic revenue and creating a sense of distrust among community residents about their actions. So rather than solely relying on management by the social elite, both bottom-up or top-down involvement is useful and necessary in projects (Chavarria Arnau and Brogiolo, 2019).

There seems to be a long way to go for local residents to participate in decision-making. However, the most urgent issue is how to make residents understand their local cultural values and develop a scientific awareness of conservation and management, especially the concept of sustainable development. Adequate knowledge and a scientific view of conservation and development are important prerequisites for residents to participate in decision-making. Education often takes a long time to develop, so strengthening knowledge and skills is an urgent task. However, lack of knowledge and skills should not be an excuse for residents' lack of participation, because residents are the owners of the community and they should enjoy the power to dispose of resources. It has been argued that even though heritage often has regional or even national value, the local or state government should only assist the local people in managing and developing heritage sites, but not

direct their activities, and certainly not against their wills (Zhao, 2013). The involvement talked about here mainly refers to the involvement in the process of developing tourism, encouraging economically underdeveloped areas to use the resources of the place to develop tourism in order to bring income. Referring to the case of tourism in Bali, it is argued (Richards *et al*., 2001) that while tourism must become cultural to be acceptable to the residents, culture must become touristic in order to be marketable to tourists. Especially for the economic development of cultural heritage sites, tourism is a sustainable way of development.

5.3.3 *Cases of involvement*

The relationship between residents and tourists is delicate in tourism projects where local residents are directly involved. When the residents are the main participants, tourism is just a way to create economic development for the residents. Residents and tourists can present a mutually assisting relationship, stemming from their mutual needs; tourists can generate wealth and income for the local residents, providing the impetus and economic basis for local development, and residents can enhance the authenticity of tourism, ensuring that the region's tourism is perpetually humanistic and dynamic. Because of the cultural authenticity that local residents naturally carry with them, many tourists are willing to learn about the lives and cultures of local people, just as people prefer to choose shops with "antico" when they arrive in Florence, Italy. However, residents and tourists are sometimes in competition with each other, as they must share the only cultural and spatial resources available to them. When tourists are the main focus and when the pursuit of the economy outweighs the needs of residents, residents are also used as development tools. To enhance the visitor experience, residents in some areas are even used as role players for the tourists. Residents act themselves to show the local culture to tourists and cater to the cultural authenticity that tourists believe in. One case is that of the indigenous Yagua from the Peruvian and Colombian Amazon who were relocated by tour operators to places more accessible to tourists, and began to assume the role of actors in order to play themselves, away from their original ways of life, and eventually even developed health problems (Scheyvens, 1999).

Implementation of participatory development approaches in developing countries is likely to meet obstacles usually associated with the operational procedures of the task (Tosun, 2000b). Some of these obstacles include the centralization of public administration of tourism development, lack of co-ordination between involved parties and lack of information made available to the local people of the tourist destination. Any change to the community may impact their experience positively or negatively. Positive changes can come in the form of better infrastructure, more knowledgeable staff, higher quality services, and so forth. Negative changes could include loss of historic buildings, crowding, host community resentment, and so forth (Byrd, 2007). Next, the actual situation of residents in participation is discussed through some case studies, revealing how

sometimes the residents are in a vulnerable position but sometimes the residents are the source of problems.

5.3.3.1 Playing themselves

When the main status of residents is not given enough importance, sometimes they are used as tourist props.

It has been argued that "third world" tourism is built by agreement between foreign image makers or investors and local elites, without the involvement and consultation of the host people in shaping the phenomenon (Tosun, 2000b). In popular tourist destinations, some locals have been forced to move out, while others have moved out on their own initiative. For example, Lijiang, which became a World Cultural Heritage Site in 1997, has seen rapid tourism development over the next few decades, with the proportion of the local population becoming smaller and smaller, and more and more businessmen entering the place where tourism is booming. This ancient town, formed nearly 1,000 years ago, has been filled with a strong commercial atmosphere. According to local government estimates, the percentage of outsiders reached over 90% in 2010. For many, the town is no longer a place for the locals, rather it is under the control of migrant businesspersons who provide goods and service for tourists (Su, 2013).

It has even been stated (Huang, 2009) that the China Principles, unlike other international codes and charters, have "avoided... stakeholder involvement in conservation planning". The article mentions that in China, local communities are often relocated, en masse, as part of urban renewal or conservation projects without giving much thought to how this might have weakened and dissolved the connectivity of the communities and their living culture.

The phenomenon of becoming a living dictionary of local culture through the employment of local people is a growing trend in China's traditional ethnic tourism regions. In Yunnan, Tibet, Qinghai, etc., whenever cultural tourist attractions involve ethnic minorities, it seems that they always provide a convincing façade for tourists, and ethnic minority residents dress up in traditional dress for tourist visits, even though they no longer wear such traditional costumes on a daily basis. It may be that the costumes inspire the tourists' to imagine that they are experiencing authenticity, so in only a short time most of the minority regions have developed similar tourism services allowing tourists to take pictures and also sometimes providing traditional costumes for tourists to dress up in. Eventually, the culture and customs among ethnic groups can be abused without examination, and the same customs applied to the tourism of different ethnic groups in different regions, eventually leading to the distinct cultural features of different regions becoming less and less obvious and the tourism features becoming more and more clear.

Du Xiaofan, an expert from UNESCO's representative office in China, also expressed concern about "ethnic tours", mentioning that in any of the ethnic sites in southwest China, there are

Figure 5.2: Tulou at Fujian province. In order to preserve the style of ethnic tourism that people imagine, Tulou has turned into a stage for ethnic tours.
Source: Song Xianglin https://whc.unesco.org/en/list/1113/gallery/

almost identical ways of entertaining tourists, with long table meals and singing and dancing performances, which have formed a customary "performance culture". Du Xiaofan gave an example of how villagers in Fujian Province's Tulou Fig. 5.2 were asked not to install air conditioners because they were a modern product, and modern products would make visitors feel they had lost their "sense of authenticity. More interestingly, they are not even allowed to keep chickens and ducks inside their homes, as some tourists have complained about stepping on chicken droppings.

In addition to being used as tools, residents are more often excluded from the development process. For example, in 2006, China's "Scenic Area" regulations emphasized consultation with property owners and users, as well as the establishment of tourist areas where revenues should be used for the management and protection of the area, and compensation for losses to owners and users. In the example of the Li River region, a famous tourist destination, the Li River was originally a source of income for local residents through fishing, but because of the need to develop tourism associated with the river, fishermen had to change from fishing to farming. The local government only gave subsidies to the local residents for the ecological public welfare forest, and did not use the revenue generated by tickets to the scenic area to compensate the local people for the loss of their livelihood. The local government, as a stakeholder, is also a manager and a supervisor, making it difficult to achieve real equity. Such a model is just like that associated with

the problems of heritage conservation and development in Chapter 1, where the local government is a manager and a supervisor at the same time. It is the enforcer of conservation and the leader of development, leading to a situation where development is the main focus and conservation is neglected, especially because there is also a lack of regulatory channels, so the residents' interests are not protected in the slightest under such circumstances, and they cannot raise objections, just as cultural heritage is not protected enough. There are many examples of local residents being relocated, in some cases losing their jobs after being forced to move, and in others receiving large sums of money to migrate as a result of urban development and demolition. All of these examples highlight the inequality of distribution, which some see as a system failure.

In order to find their place on the fast track of tourism development, the unskilled local residents passively play the role of what tourists consider to be a "local resident" in order to meet the demands of the tourism market. This reveals the ambition to develop a tourist-driven tourism, and such a form of tourism is considered to be contrary to the principle of psychological empowerment. The arbitrary relocation of residents who lack a voice and the disregard for their ownership is evidence of the fact that residents are often vulnerable in educationally and economically backward destinations. A holistic relocation that is built on layers of illusions will not only force thousands of people leave the home and the land they have been living and nurturing for hundreds of years, but will also greatly impair the local culture that grew out of this landscape (Zhao, 2013).

5.3.3.2 Residents' involvement constrains development

The emphasis on community participation is not a panacea, and when the emphasis is on the subjectivity of residents above all else, ungoverned residents can be transformed from vulnerable groups to problem creators. In a case study of community participation in tourism in Yangshuo (Sun and Bao, 2006), local residents realized the benefits of tourism and were strongly motivated to participate in tourism development. Visitors began to arrive in 2000, and residents provided programs and meals for the benefit of visitors. Since there was no unified organization and planning, the villagers became competitors with each other and often clashed in order to compete for tourists. Initially the residents participated spontaneously, and later the government led the development, but due to the mismanagement of the local government, the site developed from a rustic tourist destination to a commercial one in a very short period of time Fig. 5.3. In 2003, a serious conflict between the villagers resulted in an armed fight. The villagers even directly destroyed tourism resources when they were not satisfied with profits. This case reminds the researcher to emphasize that participation should not be only directed to individual benefit. It also shows that even though some residents have lived in the area for generations they do not always understand and respect the value of the local heritage, and even if they do understand its value, they do not always have a concept of sustainable development. Such cases are not exceptional, but are more likely to

Figure 5.3: The uncontrolled management of Yangshuo tourism. The motivation of Yangshuo residents to participate in tourism is strong, their competition is infinitely magnified and their conflicts increase rapidly, due to the absence of management. As a result, the river is filled with boats and tourists' travel experience is discounted drastically.
Source: Zhang Yuanbai https://web.archive.org/web/20161026015654

occur in areas where the government lacks management experience and the population has a low socio-economic and educational level. This is the norm in developing countries, so one cannot hope for a harmonious and coexistent tourism market that can be formed spontaneously without outside help.

In another example from Yangshuo (Sun and Bao, 2006) the contract for the first development was signed by the local government and the tourism development company without a public opinion survey being carried out. The premise, however, was that the area was considered to be of no tourism value at the time, so no compensation agreement was signed. Under the subsequent operation and management of the tourism company, tourism in the area has grown significantly. At the same time, the residents' desire and demand for participation grew, and at a later stage they continued to make requests to the tourism company rather than to the local government. The tourism company has also provided a lot of employment opportunities for the local residents and has issued many company policies to protect the local residents. Although the villagers acknowledge that the tourism industry developed by the company in the area is of great benefit to the area, there are always villagers who want a piece of the action and there are often unreasonable expectations

for compensation. From these cases, the researcher argues that the community residents' desire and ability to participate is cultivated by following tourism development. In these cases, the villagers' vulnerable posture disappears. Instead, the villagers manifested endless desires and demands. The tourism development company received up to 15 visits from villagers in three months. making demands. The company director exclaimed "The farmers' problems are killing the scenic spot!" In fact, it has been argued (Bao *et al.*, 2001) that planners need to pay extra attention to the less powerful but more interested stakeholders, which include local residents and non-governmental organizations, to ensure that they get adequate information about tourism development, otherwise they will resort to unorthodox and uncooperative means such as protests and underground markets to exert their influence. In practice, the most common conflicts between villagers, companies and government are about how to distribute benefits, how to satisfy desires, and whether endless demands should be satisfied.

In the case study of the company and farmers in Dai Yuan (Sun, 2009), the company model and the farmer model are discussed. The company model is primarily an ethnic tourism destination based on an elaborate design called Dai Lou. Sun Jiuxia explains the cooperation and benefit distribution of the many stakeholders behind the elaborate hospitality offered to tourists, revealing that many of the folklore activities are elaborate commercial arrangements for tourism, and even those playing the roles of the "ethnic minority" are Han Chinese or outsiders. Metal jewelry is consumed by tourists in the scenic areas of artificial ethnic tours, and although it is mandated to inform tourists that it is an artifact (not real gold or silver), the local residents working in the company do not want the guides to inform tourists, fearing that it will affect their income. A more harmonious local model is explained in this article through the case of the farmers. Compared to the commercialized ethnic tours in the Dai Lou, the Dai Family Tour offered by the surrounding residents is much more harmonious, with the local residents actually hosting the tourists in their own homes, so the tourists can stay in local homes, chat with the locals, communicate about the different cultures, and make a real emotional connection. In contrast the company-run Dai Lou is a commercially charged minority theater. The different models resulted in two different outcomes for ethnic tours of the same areas, because one was a company-led format and the other was a result of spontaneous involvement of residents. Among the responses to a survey of the tourist group's willingness to return to Dai Lou, 25% said they would be returning, 27% said they would not visit the site again, and nearly half said they were not sure. Another type of active participation by local residents received more positive responses, with only 6% of visitors saying they would not return. In this case, it also appeared that the Han Chinese guide misunderstood the local traditional culture, for example, the sating that in the Dai tradition, males lived in females' homes after marriage, while the villagers themselves indicated that in fact it was generally females who follow males. It is difficult for people from other places to fully understand the local history, and it turned out that

local residents were the best local guides. The other concern here is not to emphasize the need to reorient development from a tourist-oriented position, but rather because tourist satisfaction with a destination can affect sustainable development. In fact, tourists are far more likely to engage in sustainable tourism practices and environmentally conscious behaviors when they feel favorably about that particular destination.

The above examples seem to show that in most rural areas of China the education level of the villagers is an obstacle in the way of participation such as that in developed countries. In the case of Yangshuo mentioned earlier, in which villagers organized disturbances, the education level of one of the villagers was only the third grade of elementary school, and an elementary school education level may be the education level of the majority of villagers who remain in rural areas. In such a context of educational attainment, resident participation in decision seems to be another utopia. This further highlights the contextuality of tourism: no two communities are the same and therefore, a generalized 'one size fits all' solution cannot be effective in the dynamic, complex situations of community life (Jaafar *et al.*, 2017).

Participatory tourism development is exceptionally difficult in undeveloped areas: depending on the actual situation of each place, its inhabitants may have different levels of education, and different management styles and development directions. Designing an exclusive program for each and every place is not something that can be achieved in the short term. But no matter which region, the basic concepts must be observed, that of a people-oriented, sustainable development, contractual spirit, and respect for the inhabitants.

5.4   Local resident interviews

In community participation in tourism development, community residents are the main participants in the development and the main stakeholders. Community residents involved in tourism development are the owners of the destination, part of the tourism resources, and also the providers of human resources (Sun, 2009). Tourism stakeholders can strategically act as 'future makers' rather than 'future takers' (Ellyard, 2006). (Pawson *et al.*, 2018) go further, commenting that local participation becomes an essential ingredient if tourism is to be used as a catalyst for national development.

Residents are seen as natural ambassadors for local brands. In the city brand communication model developed by Kavaratzis (2004), it is argued that city perception is formed by three types of brand communication:

i. The primary communication, which could be described as the city's actions themselves, including the architecture and real place offerings as well as the city's behavior;

ii. The secondary communication, which includes formal communication like all forms of

advertising or public relations;

iii. The tertiary communication, which refers to the word-of-mouth generated by the residents of a city.

What follows is a collection of interviews with residents of Dunhuang and the Dolomites in northern Italy. Due to COVID-19, many international flights were cancelled and almost all international flights in China were stopped, thus face-to-face interviews became impossible. As a result, the planned 2021 Dunhuang expedition was cancelled and finally the interviews had to be online. During the search for interviewees, the residents exhibited different attitudes. During the process of trying to contact the local residents of Dunhuang at the start, most of them showed that they did not care and were not very willing to be interviewed, and not much valid information was obtained in the end. Those who were interviewed generally felt that academia was far away and would not make a real difference in their lives. Although we expected that the language limitations would make it more difficult to conduct the interview part of the study in the northern Italian mountains, in fact, these interviewees were very enthusiastic and willing to sit down and express their opinions in their free time.

Method: Structured in-depth interviews were used. Given the exploratory nature of this research, a qualitative approach based on semi-structured in-depth interviews was adopted to explore some views. In a combination of questionnaire and free conversation, a questionnaire was prepared before the interview in order to get more relevant information on the topic.

For this interview section of the study, which has examined three case studies, the Dolomites region in northern Italy was selected because of the high-quality management and the concept of sustainable development, which deserves to be used as a reference case for tourism development in a large region. Its management model can be used as a reference for the future development of the Dunhuang region, so the actual situation of the residents' attitude towards tourism is worth discussing and studying. Nowhere else in Italy, apart from the Dolomites, has yet invested in the preservation and valorization of natural resources and protected areas through the new managerial approach of the Networks of Reserves. This management approach has been shown to address a number of obstacles to the development process, including low levels and poor quality of public participation, inflexibility of government agencies, and lack of consideration of regional specificities. A study (Martini *et al.*, 2017) has concluded that the residents were satisfied with the activities of the reserve, that the dialogue between the local associations and the government played an important role, and also that many felt that the communication between residents had increased. The participants were clearly seen to be involved in development decisions, with more than half of the respondents mentioning the involvement of the local business community and residents. Therefore, the local residents' perception of tourism in this case is relevant to the study, and after the field contact it is considered that the residents of the Dolomites stand out in terms of participation,

empowerment and valorization.

5.4.1 *Dunhuang*

The interviewees' numbers 1 – 6 are used instead of their names. Three of them are managing BandBs, one is an employee of a restaurant, one is a tour guide, and one is a delivery person. Based on their stories, we can start some more specific discussions. In preparation for the interviews, in 2019 the author visited Dunhuang as a tourist. At that time, we already had the contact information of two locals, and when it was determined that we would not be able to return to China for a face-to-face interview in 2021, we began contacting locals who were willing to be interviewed and were introduced by the first two locals. Although a total of nine people were contacted, only six were willing to share their stories.

Of those interviewed in Dunhuang, five were in the service industry. When asked about visitors' awareness of the conservation of the landscape, most felt it was average or poor. When it comes to the impact of tourism on life, this issue does not seem to have occurred to residents. Two indicated that tourism has changed their habits, their way of working and their living environment. For example, the 6th interviewee indicated that he had originally worked exclusively on a farm, but then he had more homestays, his living habits changed somewhat, and he is more satisfied with this change.

During the interviews Fig. 5.4, most people expressed support for local tourism development because they thought they would get more job opportunities as a result. Government support, location, transportation, and a large number of visitors were mentioned as strengths of the area, while no one mentioned an abundance of talent. Almost everyone is proud of the attractiveness of the area. In terms of relationships with neighbors, half felt no change, while two felt it had changed for the better, as they introduced each other to visitors to support each other's projects and cooperation over the projects made them more connected. One of the respondents also felt that their relationship with their neighbors was not as harmonious as before because they had a competitive relationship with each other. On the topic of rising prices, almost all felt that both prices and house prices had risen and felt that the pressure had increased. Most felt that public transportation conditions had become better as a result of tourism development. On the suggestion of limiting the number of people during the tourist season, two felt that they did not understand it, while others felt that there was no need to limit the number of people, believing that more people would bring them more income. In terms of tourism affecting law and order, most felt that it had stayed the same or got worse.

The first interviewee, the owner of a BandB, is labelled Interviewee 1. She is from Yunnan Province and followed her husband to Dunhuang after they got married. She runs a BandB at the foot of the Mingsha Mountains and sells some of their own processed produce, including Dunhuang

A questionnaire survey of local residents' perceptions and attitudes towards tourism impacts in cultural heritage areas	A	B	C	D	E
1. What is your job? A. Primary industry (Agriculture) B. Secondary industry (Industry) C. Tertiary industry (Service industry)	1		6		
2. What do you think of tourists' awareness of the protection of scenic spots ? A. Have a strong sense of environmental protection B. General C. Lack of environmental protection awareness	1	3	2		
3. Which aspects of your life do you think the tourism industry has affected (multiple options are available)? A. Lifestyle B. Working methods C. Living environment D. No effect	2	4	3		
4. What do you think of the role of the government in the development of local tourism A. Large enough B. Relatively lack C. Not at all	1	3	2		
5. Are you involved in local tourism development? A. Yes B. N0	3	3			
6. What is your attitude towards the development of tourism in the local area? A. Support B. It doesn't matter C. Objection	5	1			
7. What do you think is the advantage of local tourism development? A. Strong government support B. Perfact location C. Convenient transportation D. Ample tourist market E. Rich culture and history F. None of above	1	1	2	2	
8. You feel proud that many people come to travel A. Proud B. Not proud C. No feeling	6				
9. Because of competition for tourists and other issues, now my relationship with my neighbors A. With cooperation, the relationship is more harmonious B. Become less friendly C. No change	2	1	3		
10. After the development of tourism, the prices of local commodity have risen significantly and the cost of living has increased A. Yes B. No	6				
11. After the development of tourism, local housing prices have risen A. Yes B. No	5	1			
12. Tourism development has improved road traffic conditions A. Fully agree B. Agree C. Unclear D. Disagree E. Totally disagree	5	1			
13. During peak tourist seasons, the number of tourists should be limited A. Fully agree B. Agree C. Unclear D. Disagree E. Totally disagree	2	4			
14. Tourists will make the local public security environment? A. Better B. Worse C. No change	1	3	2		

Figure 5.4: Attitudes of Dunhuang residents towards tourism. Source: author.

red dates, which are of high quality, and sea buckthorn juice, which is made from local buckthorn. She introduces her products to every tourist who stays in her house, and she also connects with her guests through a cell phone program and sells her products online. However, only visitors who have stayed at her BandB can see information about these products, so sales are not high. They also work with a tour guide, Interviewee 2. She recommends the desert tent program run by Interviewee 2, and visitors can find the desert tent program by contacting the BandB directly. This type of program is usually only offered during the hottest months. Due to the seasonality of Dunhuang tourism, their income is not very stable, and because they are located in the northwest, charges cannot be as high as other popular tourist cities, so she said it is not easy to live here. She believes that there is a gap between the education of inland cities and coastal cities, and that her children will go to coastal cities in the future to receive education and stay in large cities.

Interviewee 2 is a desert tour guide in Dunhuang. His team of three people is responsible for the daily procurement of supplies, cleaning of the premises, and traveling to the different BandBs to get information about his customers. He will personally transport tourists staying in local hotels to the desert campsite, while self-driving tourists will drive themselves to the campsite. Each night there are about 20-30 people in a group, and when you arrive at the camp you can find other similar camps around you, with their own operating areas, within a desert activity area with clear boundaries. Once visitors arrive at the desert camp, they can experience the exciting desert motorcycle program, where he and his team will lead visitors on a motorcycle ride through the slopes of the dunes. To leave a lasting memory for visitors, campfire parties are held in the evening. The parties are held as part of the event and usually require a lot of effort on his part. He needs to lead the tourists to sing, dance around the campfire, gather for dinner, and afterwards distribute tents for the tourists before his work is over. He feels that such work cannot be carried out for a long time, due to the emotional and physical drain of generating an enthusiastic and convivial atmosphere, including alcohol consumption. Although he is famed on the internet among tourists, he thinks that this is not a sustainable job.

The third respondent, who is the owner of a larger hotel, is a local to Dunhuang. Although he runs a hotel with about 40 rooms, he does not get a lot of income from this. He said that his hotel is more simply decorated, the prices are lower than other BandBs, and he has to employ cleaners because there are so many rooms. He complained that customers often make the rooms dirty and there is no other source of income other than providing accommodation. He said that now that there are countless BandBs around the food streets throughout Dunhuang, the competition he faces is even more pronounced.

The fourth interviewee, a young man, was an employee of a barbecue bar in a food street. In the interview process, he showed his lack of engagement with the interview, believing that the researcher's work is only useful for books and only for other researchers. He came from a small

town near Dunhuang and came to work in Dunhuang because his relatives opened a barbecue restaurant in the food street and business was very busy. He only had a junior high school education and on graduation had only worked in a car wash before he came to Dunhuang. He was more than satisfied with his condition and when asked what he thought about the future, he said he hoped to also find a good location in the food street and run a small store. About whether there is a sense of participation, the employee said he had no idea about this, he only knows that he is not highly educated, and is not willing to leave Dunhuang for a big city as others have. Although he feels that this life is very ordinary, he does not want to change anything, and his dreams would be fulfilled if he could run a small store himself.

The fifth interviewee is a delivery worker, a young man with a high school education, who has a more positive attitude than the other interviewees. He has joined a team providing takeaway food, an industry has ballooned in China in recent years, and says he likes the job because the hours are flexible and he can save some money. He is more aware of the numbers of tourists than others, because sometimes he needs to work from morning to night, taking food from the restaurant to the hotel for tourists. If there are few tourists, then his work day is very free. When the work is less, he goes to help in the nearby farmland as a part-time worker.

The sixth interviewee is an older man who runs a family BandB with only five rooms. The cleaning of the BandB is done by his wife, and their BandB brings in little income, but just enough for their living costs, and they also have some farmland. They love their work at the BandB, which they began after 2010. At that time, Dunhuang was becoming more and more tourist-centred, and their children were going to university in the big cities far away, so they converted their existing house into a BandB and built three additional rooms to accommodate tourists. They said they often receive tourists on self-drive tours, usually young people with a lot of travel experience. The uncle expressed that contact with these tourists usually provides more information about the outside world, and he is happy to have young tourists staying at his house.

5.4.2 *Dolomites*

Preparation before the questionnaire and interviews:

1: Drawing postcards as gifts to local residents who helped complete the questionnaires. The gift is two original paintings printed in advance, one a pen drawing depicting the cityscape of Padua, and the other a watercolor painting of Venice.

2: Because of the impact of COVID-19, we prepared basic questionnaires (English, Italian), pens, stationery bags, and also brought disinfectant wipes to reduce the probability of respondents contracting the virus through the use of pens.

Due to the impact of COVID-19, there were very few tourists at this time. In the interview, we learned that this period is a holiday for the entire Dolomites and many hotels are closed. A total of

10 valid questionnaires were obtained. When interviewing, some respondents chose to check two or more options, so the total number of responses to each question was not limited to 10, but they are all reflective of the position of local residents on related issues.

The 10 interviewees Fig. 5.5 all work in the service industry. Some are hotel managers, some are waiters in famous local bars, some retirees chose this place to enjoy their leisure time, and some are staff at the tourist information center. Although they hold a wide variety of jobs, their occupations are generally centered on tourism services.

Regarding tourists' awareness of the need for adequate protection of the scenic area, the interviewees varied in their opinions. More than half of them think their awareness is normal. Two people think that tourists have strong awareness of environmental protection, but two people think tourists lack environmental protection awareness. Most of the tourists in this area come from the surrounding European and American countries, and the level of education is generally high. Although the area promotes the harmonious coexistence of people and the environment, in fact, the locals believe that the environmental awareness of tourists is only at an ordinary level, and that tourists do not have a very strong environmental awareness. It seems that the locals who provide the services to tourists are not satisfied by their environmental awareness. During the interview, all interviewees expressed the view that tourism had an impact on their lives, and most believed that tourism had an impact on more than one aspect of their lives. Their living habits, work styles, and even living environment are all affected .

Regarding whether the government plays a role in the development of the local tourism industry, the interviewees' attitudes are divergent. Half of the respondents believe that the government has an effect, and the other half believe that the government does not affect the industry. However, in the sample interviewed, a new understanding of the degree of government involvement has been gained. According to a conversation with a local famous star hotel manager, the government does not play many roles in the development of local tourist resort hotels. There is no excessive interference in management, but the importance of banks to the development of local hotels is far greater than people imagine and the hotel manager said that this is the source of stress. In the following content, this key point will be discussed in detail.

When asked whether they have participated in the development of tourism, the answers of the interviewees were the same. They all believed that they had joined the team to promote tourism development. Regarding whether their attitude towards tourism is support or opposition, most people choose the response that they support it, or "it doesn't matter", while only one chose "opposition". But in the process of the interview, three interviewees separately also mentioned that although they support the development of tourism in their local area, they are worried about too many tourists and over-exploitation. This is also one of the goals of studying the harmonious coexistence of tourism and the local area, that is sustainable development: to find a balance

A questionnaire survey of local residents' perceptions and attitudes towards tourism impacts in cultural heritage areas	A	B	C	D	E
1. What is your job? A. Primary industry (Agriculture) B. Secondary industry (Industry) C. Tertiary industry (Service industry)			10		
2. What do you think of tourists' awareness of the protection of scenic spots ? A. Have a strong sense of environmental protection B. General C. Lack of environmental protection awareness	3	6	2		
3. Which aspects of your life do you think the tourism industry has affected (multiple options are available)? A. Lifestyle B. Working methods C. Living environment D. No effect	5	7	6		
4. What do you think of the role of the government in the development of local tourism A. Large enough B. Relatively lack C. Not at all	4	5			
5. Are you involved in local tourism development? A. Yes B. N0	9	1			
6. What is your attitude towards the development of tourism in the local area? A. Support B. It doesn't matter C. Objection	7	3	1		
7. What do you think is the advantage of local tourism development? A. Strong government support B. Perfact location C. Convenient transportation D. Ample tourist market E. Rich culture and history F. None of above	3	5	3	1	3
8. You feel proud that many people come to travel A. Proud B. Not proud C. No feeling	6	1	3		
9. Because of competition for tourists and other issues, now my relationship with my neighbors A. With cooperation, the relationship is more harmonious B. Become less friendly C. No change	5	2	4		
10. After the development of tourism, the prices of local commodity have risen significantly and the cost of living has increased A. Yes B. No	8	1			
11. After the development of tourism, local housing prices have risen A. Yes B. No	8	1			
12. Tourism development has improved road traffic conditions A. Fully agree B. Agree C. Unclear D. Disagree E. Totally disagree	2	7	1	1	
13. During peak tourist seasons, the number of tourists should be limited A. Fully agree B. Agree C. Unclear D. Disagree E. Totally disagree	2	4	1	2	
14. Tourists will make the local public security environment? A. Better B. Worse C. No change	5	4	1		

Figure 5.5: Attitudes of Dolomites residents towards tourism. Source: author.

to ensure that the lives of local residents are not disturbed while promoting local economic development.

When answering the question about the local tourism advantages of the Dolomites, five interviewees thought it was a superior geographical location, showing that this unique location (described in detail in Chapter 4) is also recognized by local residents. The government's strong support, convenient transportation, and rich culture and history were also selected as advantages of the local industry. No interviewees saw the advantages as including a large tourist market, and this option was not selected by any of them. This shows that the Dolomites is not a tourist attraction providing photo opportunities to a mass market, but aims at high quality service and facilities for people who are pursuing a travel experience, including senior travelers, and this positioning is also recognized by the local residents, in line with the expectations of the public and also in line with the requirements of sustainable development.

When it comes to local identity and cultural pride, most people express pride. The Dolomites attract many tourists, which makes residents feel proud. This involves local identity and cultural pride. In the interviews, the residents did not yearn for the prosperity of the big city. Instead, they all showed that they liked the tranquility and comfort of nature. They prided themselves on being a local inhabitant of the Dolomites. The residents then influence outside tourists. Through their words, they share the history and culture here, and they are also an indispensable part of the impression that tourists form in the region.

In relation to Scheyvens' proposed economic empowerment, psychological empowerment, social empowerment, and political empowerment, the questionnaire also shows that the psychological identity of local residents in the Dolomites is relatively good. When residents are proud of attracting more tourists to the local area, this is also part of their psychological empowerment, which is very conducive to enhancing their active support and participation in tourism development. Tourism stakeholders can strategically act as 'future makers' rather than 'future takers' (Ellyard, 2006). In the urban brand communication model developed by Kavaratzis (2004), the perception of the city is formed by three types of brand communication: 1. Main communication, 2. Secondary interflow, 3. Tertiary communication, which refers to the word-of-mouth generated by the residents of a city.

The questionnaire reflects that during the process of tourism development, most people increased their cooperation with their neighbors, which has made their relationship more friendly. Two interviewees felt that the relationship with their neighbors was not as harmonious as before. This may also be due to the lack of contact caused by being busy with work.

When talking about the price of living, most people feel that prices are rising because of the development of tourism. The local traffic is also more convenient due to the development of tourism.

One unexpected phenomenon was that, when asked whether the number of tourists should be

restricted during the tourist season, most people actually think that the number should be restricted. This is in line with the local tourism positioning as a high-quality boutique tourism destination providing quality services. Although tourism can obviously bring local economic income, the local residents seem to have the concept of sustainable development. Every resident participates in the sustainable development of local tourism.

The influx of tourists has changed local policing, and most people feel that policing has become better, perhaps because the influx of foreigners has made people aware of policing issues and take them seriously, in conjunction with conscious management. There are many more popular tourist destinations where the policing problem has grown with tourism and the influx of foreigners has made the local policing situation unstable and more complicated. However, as the majority of visitors to the Dolomites are people from developed areas such as Europe and the United States, there is probably a greater sense of respect for the local area, so the foreign visitors do not add to the social problem of policing in Dolomite.

The results show that the residents of the Dolomites are relatively optimistic about tourism, that the Dolomites are doing a better job of sustainable development and that there are many strengths in tourism management that can be replicated in other locations.

The questionnaire was designed to capture the attitudes and positions of local residents in the face of tourism development. In the course of the survey, occasionally we met some residents who are very enthusiastic about sharing details of their lives, and their stories provide a valuable qualitative and realistic picture of the lives of the local people, with insights into why they view tourism development in the way they express. These qualitative findings are recorded in the following Survey Notes.

Figure 5.6: A hotel keeper's day. Source: painted by author.

Survey notes

a) Location: Ortisei

The story of grandma Fig. 5.6 (Hotel keeper).

This hotel is located on the mountainside of Ortisei. It is a traditional Dolomite-style building, with 3 floors and more than 20 rooms in the building. The transportation to and from the hotel is convenient: there is a cable car line next to the hotel, which provides the most popular summer Seceda hiking route. The owners of the hotel are a mother and daughter. The mother helps with some simple cleaning tasks. The daughter is responsible for most of the hotel management. Every day, the daughter needs to prepare a delicious breakfast, bake cakes, croissants, and prepare the famous Italian ham for the guests. When every guest enters the restaurant, the she carefully asks their preferences for coffee or tea, and she is very focused on creating a good accommodation atmosphere for the guests. In the hotel, a lot of orchids are planted by the windows, When the sun shines into the room, the orchids and the green grass outside the house create a beautiful visual scene. We were told that it takes 30 minutes to clean one room, wiping in every corner. Due to COVID-19, the hostess wipes with disinfectant, and it takes longer to clean the room. The hotel provides tourists with tickets for the public swimming pool next to the hotel, which can increase the opportunities for interaction among tourists. When visiting this town, most hotels are willing to provide transportation tickets. You can use transportation tickets to take public transport, because people here pay great attention to protecting the environment, so the natural resources are well protected.

At the end of the conversation, the hotel keeper informed us that the route to the next destination needs to be changed. She and her friends in the Dolomites have an information sharing social team that can get real-time information and know which road is flowing freely. This provides effective assistance to independent travelers, such as information about whether the snow on the surrounding mountains melts and whether the road traffic can pass smoothly. At the same time, the hotel keeper uses the internet to promote her hotel, sometimes uploading pictures of the beautiful surroundings to attract tourists.

b) Date: 11 October 2020

Location: Ortisei

At 11am we found the first person available to do the questionnaire that day,

Figure 5.7: A kind German grandfather. Source: painted by author.

a young woman who works for the local information center, and we found out that she had lived in Ortisei since she was a child. She has chosen to study and work there and does not want to go anywhere else in the future as she enjoys the slow pace of life in her hometown. After driving around the small villages, looking for a suitable interviewee, at 12.26 pm, in Castelrotto, the second interviewee of the day was found, a 19-year-old girl who works as a waitress in a 4-star hotel here. She put in numerous CV's in search of a job here, and talking about her impressions of the local tourists during the interview, she said that tourists can behave somewhat badly during a football match, when the fan's favorite team loses, but are mostly very friendly. She speaks three languages, as she would like to work in more places without being limited by language.

Driving to the next village, we found two more staff in a hotel to participate in the questionnaire.

Stopping at a bar with an attractive view, we met a German grandfather Fig. 5.7 who had lived here since his retirement. According to his account, his wife had lived in this place for 30 – 40 years, and she had built everything in this hotel, which has a stunning view and a great location. When talking about the development of tourism, there was some hesitation on his face, and although he expressed that he felt that the development of tourism was a very good thing and he was very supportive of it, at the same time, he also had some concerns. He was worried about the overdevelopment of tourism, expressed his expectations of this place and that he wanted to keep everything beautiful but also wanted more people to enjoy it. It was surprising and impressive to find that in an ordinary small hotel, a retired grandfather had such a long-term view on the sustainability of tourism and its contradictory pressures.

Other people that we met during the interview could not talk in depth, as they were busy with their work and could not interrupt their job to be interviewed.

A short summary of this day's work is that the people in the area enjoy their work, their lives and have their own opinions about the development of the area.

c) 12 October.

On the way to the next destination, not having met any locals willing to complete the questionnaire, we at last found a local 4-star hotel in Cortina and asked the hotel reception, which was staffed by about 3-4 young people, if they could help with the questionnaire. Surprisingly, however, none of them were local residents.

d) 13 October.

Location : Cortina

In spite of our efforts, many local residents said they were too busy to work. As described above, Cortina is a very famous tourist attraction in the Dolomites. Cortina seems more commercial than the other towns we passed through, most of the staff and salesmen are from other places, such as Verona, and most of them are busier.

A bookshop manager who was interviewed by us completed the questionnaire very patiently.

The shop had a lot of artworks by different artists from different places for sale, all on the same theme, a snow scene of Cortina. As our gift to the interviewee was also a drawing, at first, the manager of the store thought that the gift was an attempt to sell products in her store. This incident is perhaps an indication of how the commercialization of this town is influencing the people here.

Since it is the off-season for travel here and most shops will close at noon, and also because shops have to be temporarily closed due to the impact of COVID-19, the owner is tidying her souvenir shop and completing a questionnaire.

The owner of a souvenir shop is named Barbara Barbie. This time is the off-season of travel here and another reason that stores have to be temporarily closed due to the impact of COVID-19. Most shops will close at noon. Barbara is sorting out her souvenir shop and completing a questionnaire.

13 October, afternoon.

This time of year coincides with the off-season in the Dolomites, a break in the year, when most hotels close for renovation and to update equipment in preparation for the most important tourist season of the year, Christmas. During this time, the Dolomites are the world's ski resort, and many Europeans and Americans choose to travel as a family and stay longer to enjoy the snow and the quality of the ski slopes. Leaving Cortina, we passed through three or four towns in the direction of Ortisei, many of which were already on holiday, and deserted. The Hotel Tofana was the only hotel with its lights on, but without any tourists only managers were left in the hotel. it was managed by a young woman who was kind enough to give us an interview and tell us about the history of the hotel and her family.

It is a family hotel, and according to the manager, they are the third generation to manage it. During the conversation, she said that despite living in what most people see as a holiday destination, their life is not as happy and joyful as one might think. Being located in the heart of the natural region of the Dolomites, with a cold season surrounded by snow and icebergs for a large part of the year and only a short time in the summer for hiking, is a challenge for her, as is the lack of material resources and the fact that almost everything has to be transported long distances from other places, which makes life here a little difficult. But despite the challenges of the cold weather, she still loves life here, and she is one of a younger generation of managers who are sports enthusiasts. Since many of the visitors to the Dolomites are experienced in outdoor sports, the hotel has created a range of sporting packages to cater for the needs of visitors, so that sports enthusiasts can enjoy everything the area has to offer.

We asked how it was possible to build a hotel on this scale, how it was built and how it was made so visually pleasing and in keeping with the landscape of the Dolomites, which must have involved not only hotel management, but also expert architectural design. The young manager said that the good life came with some pressure, and support from the local authorities was not enough to achieve such a project. Their main reliance was on the bank, from which the early

Figure 5.8: An old photo of the hotel, when the 人 shaped roof was still in place. Source: taken by author in the hotel

managers took out a loan, used to build a first, very small chalet building in the local Dolomite style. After many years of business and careful management, when the loan was repaid, then the more substantial hotel was built using another loan from the bank. The scale of the hotel expanded like a snowball, and of course the financial pressure also grew.

We were told a story of this family hotel's past. The current owner is one of two brothers, and when the brothers were children, they disliked the shape of the eaves of their hotel Fig. 5.8, which were short on the left and long on the right, coincidentally shaped like a Chinese character 人. One day, the long part of the roof was removed, and the brothers said it was the happiest day of their lives. The hotel has now been transformed from an old Dolomite wooden chalet into a fully modern, architecturally designed hotel building. The design was inspired by Noa in Bolzano, using a professional team to create a building that fits the local landscape.

Our interviewee said that every manager has to faces the same problem in hiring employees. As the hotels are built for tourism and holidays, and with a marked high and low season for tourism, jobs here are not required all year round. The young employees can only get a short-term and insecure job, so every year managers face the repeated dilemma of hiring staff, and finding the right person is not easy. When hiring a permanent employee, it is necessary to know not only the

employee's ability to work, but also his or her hobbies and even his or her family background, and they will also check for any criminal record. This strict investigation is part of the demands of a hotel with a family legacy to be carefully maintained and passed on, so that the manager needs to be careful every step of the way to avoid mistakes.

This conversation reflects the spirit of inheritance commonly found in Europe, especially in Italy, where some shops or hotels are inherited by families, not purchased by wealthy outside investors. Hotels inherited by families have accumulated a wealth of management experience. Obviously, they are also those who know the place best, know how to offer the best local services for tourists and are most familiar with the history of the area and can introduce it to others.

In conducting the interviews, it was found that the attitude towards tourism is mostly supportive. In terms of involvement, the residents of the Dolomites are more aware and involved than those interviewed in Dunhuang. Fundamentally, all feel proud to have visitors to their community. The issue of rising prices due to the simultaneous impact on tourism was also a concern. There was a clear difference in terms of limits on the number of tourists, with those interviewed in Dunhuang not feeling the need to limit numbers, while residents in the Dolomites were more inclined to limit numbers.

From personal experience, the tourist identity of Italy can be defined as warm and friendly. This lasting impression, which creates a better tourist image, may be related to Italian customs and culture.

5.5   Sustainable development of community-based involvement tourism in Dunhuang

Social sustainability is achieved when a tourism destination manages to preserve its historical and cultural heritage. The sustainability of rural tourism has been classified into Social Sustainability, Cultural Sustainability, Economic Sustainability, and Environmental Sustainability (Fong *et al.*, 2015). These four sustainability indicators are also applicable to measure the sustainability of the Dunhuang community.

A major obstacle to the implementation of participatory tourism development methods in developing countries, according to Tosun, is the lack of expertise in the field of tourism. The first is the lack of sufficient experience and lack of professional individuals. To achieve sustainable tourism development, it is necessary to change the myopic view of tourism development, which is not just tourism growth, not just an economic pursuit, but a way and means of sustainable community development.

In terms of social sustainability, tourism can present some local challenges, but it can also present many opportunities. The social sustainability aspect is demonstrated when tourism can

support the circular development of communities, generating some income through tourism and using it to improve the living environment of local communities. Dunhuang's 2017 economic report shows that the tertiary sector accounted for nearly 60% of the gross product, and in 2018 total tourism revenue was even equal to the gross product in 2017. Tourism has brought great economic wealth to the city of Dunhuang. The unified tourist look throughout the city, such as streetlights designed with elements of the classic Dunhuang cave art, as well as the construction of many roads, more people-friendly facilities within the city, and the use of revenues to build a better city, are all signs of social sustainability.

Regarding the realization of cultural sustainability, the Dunhuang Caves are currently protected by professional researchers, and there is a lack of local participation in passing on their history, which is a missing link for effective community participation even in China as a whole. Cultural sustainability can be achieved in terms of both the transmission of cultural heritage and its modern dissemination. The classical arts of the East face challenges to survival, and the cave art of Dunhuang is no exception. Since classical art is less used in modern work, not many people study and research it, and the classics have less and less room to survive. To alleviate this dilemma, specialized colleges or specialized courses could be offered, encouraging the study of Eastern classical art. Field study courses in classical art could be encouraged in colleges and universities that specialize in the arts, so that more people can learn about the precious heritage that lies deep in remote areas. Another aspect of sustainability is communication, and the Dunhuang Caves have done a remarkable job using modern communication, using modern language to express history in a way that keeps the heritage alive in order to be relevant, for example, through the innovative collaboration with technology companies mentioned in the previous section. Another suggestion for maintaining cultural sustainability is to recruit local people as tour guides, including for the Grottoes. Mr. Fei Xiaotong (One of the founders of Chinese anthropology and sociology, former Chairman of the Central Committee of the China Democratic League) once said, "Cultural self-awareness is a difficult process, and only based on knowing one's own culture, understanding and coming into contact with many cultures, can one be in a position to establish one's own position in a world that is forming a multicultural one". Therefore, it is even more important to increase residents' awareness of the cultural heritage of their local communities and thus enhance their cultural pride. Recruiting local people as teachers will both increase the authenticity of the visitor experience and foster cultural self-awareness among the residents. Their special status makes their stories more compelling, and word-of-mouth stories can move people more than professional broadcasts over loudspeakers. When the people of Dunhuang fully understand their local history and spread this historical information to visitors or to the next generation, culture is passed on to achieve cultural sustainability. It has been said that while history is created in the past and all will disappear, if people keep telling the stories, then the stories will not disappear, and the culture

here will remain alive.

Economic sustainability is achieved when tourism is an environmentally friendly way to develop the rural economy, local resources become a tourist attraction bringing local income, income is invested in protecting local resources, people's living conditions are improved, and the quality of life of the residents is enhanced. Residents are able to acquire skills to ensure that they earn an economic income through involvement, rather than just being short-lived, replaceable workers.

The definition of environmental sustainability is well established: a model of development that meets the needs of the present without compromising the interests of future generations. In the case of Dunhuang, environmental sustainability has received unprecedented attention, especially as manifested in the conservation of the caves, whose fragile character makes their perpetual preservation a most critical issue. For example, the most direct way of slowing down the aging process of caves is to control the number of visitors to the caves, and restore the caves through human intervention, adapting the conservation model to the caves in real time. Dunhuang is using solar energy extensively in its urban construction process, which is a sustainable urban energy source and is in line with the concept of sustainable energy as outlined in the United Nations "Sustainable Urban Energy Is the Future". The choice of energy is important for the sustainable development of the city. Dunhuang's commitment to environmental sustainability is evident in everything from the preservation of the internal environment of specific heritage properties to the preservation of the ecological environment.

Based on the analysis of the actual situation in Dunhuang, Fig. 5.9 offers a graphic explanation of how the dynamics of empowerment of the community can support the goal of sustainable development. We believe that economic empowerment is the basis of psychological empowerment, psychological empowerment is the premise of social empowerment, social empowerment is the promise of political empowerment, and political empowerment can in turn stabilize economic empowerment. The four areas of empowerment interact with each other in an incremental relationship, and some specific recommendations are made based on the actual situation in Dunhuang. Using Scheyvens' model of political empowerment, policy reforms are proposed based on the Chinese situation. Involvement is the process of empowerment, empowerment is the purpose of involvement, community involvement and empowerment are the prerequisites and guarantees of sustainable development, and valorization is the ultimate goal of all measures.

The recommended dynamics of empowerment can be detailed as follows:

Economic empowerment: it is recommended that the residents be given due economic compensation and protection, as a first premise. By adhering to a fair distribution system, the fruits of tourism development will be shared with the residents. As noted (Tosun, 2000b) there must be an explicit and adequate financial commitment to community involvement in the tourism development process. In this regard, goodwill is not enough. The development process should be based on
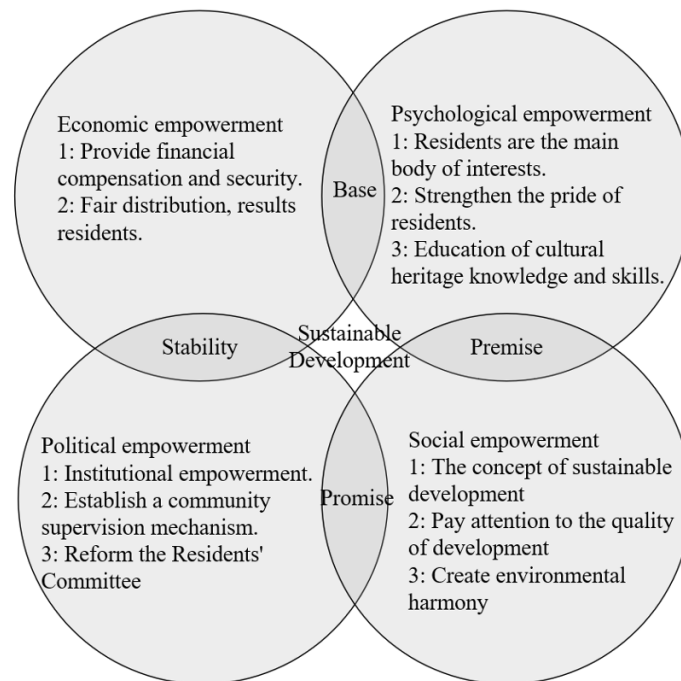
Figure 5.9: Sustainable development of community involvement and empowerment in Dunhuang.
Source: author.

a fundamental respect for local history and culture, and provide some measures that can drive the economic cycle and bring economic growth to the community, ultimately resulting in some practical benefits for all stakeholders, especially local residents, and producing the most direct value-added effect.

In many developing countries, ownership and control is confined mainly to foreign chains and large-scale national business, particularly within the hotel industry. This ensures that only multi-national companies and large-scale national capital reap most of the benefits associated with the industry (Tosun, 2001). This is why the development of community tourism requires some restrictions or regulation of multinational companies and large state capital. The intrusive presence of multinational brands in historic heritage areas can also have some impact on the stylistic coherence of the area, which is why Florence has started to impose some restrictions on such brands. The inclusion of low-cost factory goods can have a huge impact on traditional local handicrafts. There are also large domestic companies with huge capital and near-monopolistic practices that can have a great impact on local industries.

China has been the second largest economy in the world since 2010, but the unbalanced domestic economic development and the big gap between the rich and the poor are largely due to the uneven distribution system. Dunhuang's economic base is weak, so basic economic support should be ensured first to ensure the main interests of the community. Working to balance large

capital and against monopolies will be the road to future development. According to Hapgood, economic growth does not in itself constitute development. Development is "circular": it includes human and institutional change as well as economic growth". While some economic gains are usually experienced by a community, problems may develop if these are periodic and cannot provide a regular, reliable income. In addition, concerns may arise over inequity in the spread of economic benefits (Scheyvens, 1999). Community involvement in tourism development can easily be perceived as providing jobs to local residents or local residents being able to start small businesses, but in fact, when a destination grows to a certain level, there will be some outside capital coming in, at which point it is easy to create strong market competition that pushes out local residents.

Psychological Empowerment: strengthening the subjectivity of the residents is conducive to enhancing their sense of self-identification with their inner values. Tourism planning should not only happen in government offices far from community locations, and informed consent should be generated before empowerment efforts are undertaken. While advocating for participatory work, the intervention itself is not truly empowering, and there are advocates who even work without the consent or knowledge of the empowered, which in itself runs counter to the concept of empowerment.

While employment skills are related to also economic empowerment, in the case of Dunhuang, the employment relationship has a more profound impact on psychological empowerment. If the local tourism industry participates in the development process, local residents are limited to jobs such as cleaners, waiters, dishwashers, gardeners, and so on, jobs that do not create opportunities to accumulate skills and qualifications transferable to other employment areas (Tosun, 2001). When tourism disappears, the jobs also disappear, so employment is not sustainable in the true sense of sustainability.

Knowledge sharing contributes to psychological empowerment: in many regions, especially in many developing countries, tourism data is inadequate, and where it is collected, it is generally only available to internal government staff or researchers, without information being disseminated to residents in a way that they can understand. In regions where education and knowledge skills are not evenly distributed, equality of access to information is even more important, and the public needs to be involved in community tourism development in a more informed way. A very interesting point was brought up in Tosun's research: that low literacy rates in developing countries may require replacing traditional training manuals and written materials to be effective. This suggestion deserves the attention of researchers in the northwest of China or when developing a rural tourism economy. Information empowerment should be premised on knowledge sharing (Fong *et al*., 2015). Knowledge sharing is a time-consuming approach that does not show immediate success and depends on individuals sharing knowledge, time and having a high willingness to allow others to

understand, absorb and use the knowledge. Effective knowledge sharing can combine participants into an organization or collective that is difficult to imitate or replace. Establishing a business or store in a community that employs a certain percentage of local residents or produces a product that uses a certain percentage of local raw materials gives local residents some opportunity for substantial involvement by imposing certain restrictions on the business.

Skills training contributes to psychological empowerment: especially in different areas, residents should be trained or assisted in acquiring skills, depending on the image of tourism or the model of tourism they wish to develop. For example, when developing tourism in coastal areas, residents may need to acquire more knowledge of the sea, or skills in maritime activities. In the northwest of China, residents may need to acquire more proficient driving skills and knowledge of the geography of the surrounding area. With respect to cultural heritage sites, local residents need to understand the history of the area in order to have sufficient knowledge of the value of the local heritage to better introduce it to tourists and thus foster a sense of pride among residents. For Dunhuang, it is more appropriate to develop tourism projects that combine culture and the outdoors. Local residents require not only knowledge of local heritage values, but also some outdoor skills, such as teaching tourists to set up tents or assisting self-driving tourists to repair their cars and bicycles. Mastering certain knowledge and skills can improve the core competitiveness of local residents themselves.

Social empowerment: this entails adhering to the concept of sustainable development, valuing quality, abandoning a race for honor perspective, and creating a harmonious community environment. In the case of Dunhuang, tourism has established the economic foundation for sustainable development, and in Chapter 3, it was also noted that projects with short-term benefits are not conducive to sustainable development. More attention should be paid to the quality of construction, including the living environment of residents.

Political empowerment: in the case of Dunhuang, one important aspect of value-added empowerment is institutional empowerment, improving the rural land ownership system so that rural residents' ownership rights are supported by laws and institutions, which is the fundamental contradiction underlying the current problem. In the context of China's situation, institutional empowerment is an essential condition for Dunhuang's sustainable development, and only with legal and institutional support and affirmation can residents have a firm basis to defend their rights and interests.

The establishment of community supervision gives residents the opportunity to express their needs and opinions in a timely manner so that community managers no longer make decisions in isolation from the residents of the community, increasing the proportion of residents within the residents' committees and weakening the top-down management model.

Among the above four dimensions of empowerment, economic empowerment is the foundation,

psychological empowerment is the initial development, social empowerment is the process manifestation, and political power is the final result. Each type of empowerment is indispensable for a comprehensive empowerment to achieve sustainable development. Community Empowerment and participation combine to realize the value of the community, achieve sustainable development through tourism, and ultimately achieve overall community valorization.

5.6 Conclusion

In China, the tourism market, both domestic and also overseas, has great potential for development. However, a weak theoretical foundation, the imperfections within policies and regulations, and the lack of practical experience, mean that the whole market is not yet mature and lacks a strong theoretical base. Another reason is the difference between Chinese and Western language systems and cultures. Western concepts applied within China need to be transformed into a set of standards in line with people's language and cultural habits, so that the theory can be better understood and applied.

Both within China and in aid relationships with developing countries, China operates with an extreme top-down control. The concentration of power makes the people at the bottom even more disempowered to participate. It seems impossible for those in power to cede and reduce power, but we know that empowerment of one side does not mean that the other side cedes power. So in order to solve or alleviate the conflict between the bottom and the top, the management model can be switched to a cooperative model, or more buffer zones can be created among the managers and the managed. (Swift and Levin, 1987) argue that the disempowered will have more difficulty obtaining resources, services, and a voice in decision-making from a system which is high in structural inequalities and resistant to change than from a more egalitarian and permeable system. Many current participatory efforts in development already present obstacles for residents to join the process of making plans, or to participate in decision-making, or even to monitor them at the end. This is not due to a failure of state decision makers, because full participation of all people in the process has become a basic state policy, but in practice it remains a slogan that is not taken seriously. Some (Sofield and Li, 2007)even believe that this attempt to shift to a more inclusive approach to tourism planning simply does not exist. When people feel they lack competence, they prefer to follow a leader (Swift and Levin, 1987).There is also a lack of progress in the thinking of grassroots cadres and leaders, who still continue some of the attitudes of traditional feudal leaders, and the culture of centralized economic control is still deeply rooted in the minds of many senior officials.

Academics and the tourism industry agree that the policy environment for tourism development in China has improved significantly. The Chinese government recognizes tourism as an important

part of the national economy, has established its status as a "pillar" sector, and is planning tourism on a scale unmatched anywhere else. Establishing a 5 or 10-year tourism plan for the 26 provinces as a long-term development goal, especially in the northwestern provinces, aims at tourism-led economic development. The existing tourism policies do not sufficient to support the cultivation of tourism as a strategic pillar industry of the national economy (Huang, 2020).If the existing policies and regulations are refined and improved so that the people have sufficient legal basis to refer to, the effectiveness of implementation and the speed of development will be phenomenal. Policy weaknesses can be converted into strengths. Planning and management of tourism has been centralised in a way that can contribute to achieving pre-determined governments' objectives (Tosun, 2000b).

Chapter 6.　Conclusion

Overall, this thesis brings together a cross-disciplinary collection of major theoretical concepts from heritage, tourism, sustainable development, governance and economy to a novel multi-dimensional enquiry into the study of innovative heritage management and local community involvement in Dunhuang, for the sake of sustainable tourism and valorization. It applies an innovative comparative framework to illustrate the shortcomings of heritage management in China and proposes solutions for improvement. Through in-depth interviews with residents of World Heritage sites and a review of local policies, it analyzes the constraints on the further development of tourism in China, namely land ownership and the low socio-economic and educational situation of the local population. These findings are particularly useful for informing future heritage management and a local communities involvement process that can pave the way for sustainable and vibrant heritage tourism in Dunhuang, or even more broadly in China. China's tourism industry, which started out as a diplomatic tool and has grown into a pillar industry, still has much potential for growth but its management needs to be improved.

China has an exceptionally rich cultural heritage accumulated over thousands of years of history, as does Italy within its far smaller land area. In an international context, China demonstrates the particularities of its rich resources, its long-standing culture, its authoritarian centralization, and its past closure to communications, but an over-emphasis on particularity implicitly creates a closed character, leading to more new barriers to international communication in addition to those accumulated in the past. After the founding of the People's Republic of China, full-scale international exchange and cooperation began only in the 1980s. Therefore, it is difficult for discussion of China's heritage to fully align with the international discourse over the past 40 years.

The combination of culture and tourism has become a new trend, and as introduced in Chapter 2, cultural tourism constitutes the majority of tourism. Culture is one of the sources of tourism, while tourism becomes a driving force for the dissemination and development of culture. In the past few years, the Chinese government has merged the Ministry of Culture and the Tourism Bureau, which shows the government's expectation to integrate culture industry and tourism industry. As the carrier of culture, the need for conservation of cultural heritage has been highlighted for several decades, and it maintains a delicate relationship with tourism development. On the one

hand, they promote each other and are developed as one. On the other hand, they contradict and constrain each other. Local residents, as the subjects of cultural heritage conservation and tourism development, should be identified as the chief stakeholders. The relationships between cultural heritage, tourism, and residents has been the main concern of this thesis, investigated through the case study of Dunhuang, China.

China's tourism statistics show that tourism generates considerable economic income and provides a large number of jobs, but tourism has developed without adequate balance and planning, as can be concluded from many failed cases. The speed of China's total economic growth in recent decades has been phenomenal, but speed is not the only goal of economic development: the balance of economic development, also known as quality, should be given more attention. High economic growth often comes at the expense of balanced development. For example, the level of attention received by similar tourist destinations varies greatly, due to the different provinces in which they are located. Dunhuang, a treasure trove of classical Chinese art, has received tremendous national attention and is making a name for itself around the world, while it is difficult for many other tourist destinations to be similarly favored by the tourist market.

The most prominent problem in the management of tourism and cultural heritage in China is the domination of management by non-professionals and the lack of a voice for professionals. In the work of cultural preservation, professionals lack the power to carry out management, and in fact specialists in archaeology or history are only able to work in offices remote from the actual sites. Experts who lack managerial authority can only influence management through their words. However, words are powerless to stop private enterprises which are profiting from the tourism and cultural heritage industries. Local governments who do have power often cooperate with building developers to encourage local tourism in order to develop the local economy. In projects where financial gain is the main objective, the appointment of expert advisors becomes a hollow title, unable to stop the wheels of capital from running over historic cities. Failed management is also evident in tourism development in the form of outdated industry standards that are severely disconnected from market demand.

Cultural heritage is defined internationally according to the Convention for the Protection of the World Cultural and Natural Heritage. Many past studies have examined cultural heritage and tourism with little regard for differences in cultural context. Through a comparison with Italy, this thesis analyzes the specific characteristics of heritage conservation and sustainable development of community-based participatory tourism at heritage sites, within the Chinese political and cultural context.

The very definition of cultural heritage in China is different in its origin and use. Cultural heritage in ancient China referred to the personal belongings of the royalty. Against the background of ancient centralized authoritarian rule, the objects to be protected were all privately owned by

the royal family. The term "cultural heritage" is not popular in modern China, because in the Chinese cultural contexts this refers more to specific historical artifacts. Many ancient Chinese buildings were built of wood and could not be easily preserved for long periods of time. Moreover, with each dynastic change, the new king would destroy the buildings of the old dynasty, in order to demonstrate his power over these relics of an old regime. This approach has continued to exist until modern times, so that in the early days of the establishment of the People's Republic of China, there was a big movement to seize and destroy historical and cultural heritage under the name of destroying the old ways. These two reasons have led to the fact that there is very little tangible cultural heritage left in China. Finally, the different definition of authenticity in the East and the West has also been discussed. The West insists on the original, unaltered, physical authenticity. The Chinese understanding of authenticity can be interpreted as a symbolic or spiritual reality, based on some specific story or background, and as long as the metaphysical spirit exists, then physical changes do not affect this spiritual reality.

Cultural heritage conservation has also been uneven and intermittent. As discussed in Chapter 3, for example, in the early days Dunhuang's heritage value was completely ignored, and it took the attention of foreign researchers to make the ignorant officials of the time realize its value. Subsequently, conservation efforts at Dunhuang gradually began, but still lagged far behind international standards for a considerable period of years. Generations of Dunhuang guardians have mitigated the natural damage and man-made destruction Dunhuang has endured through technological conservation and artistic interpretation. However, while some are desperately trying to preserve Dunhuang's heritage, other cities are constantly demolishing heritage for the sake of urban construction, and then building new pseudo-heritage in order to enhance the attractiveness of the city, resulting in a rash of identical "antique" buildings everywhere. The paradox of demolishing real heritage and building new, imitation heritage is played out every day. Developers aiming to build attractive visitor destinations are completely oblivious to the fact that the heritage being demolished is the most remarkable local feature, and that historical heritage is the anchor point of local history and culture. After demolishing the authentic historical heritage, the rebuilt buildings can only be monotonous theme parks that will soon be replaced by the next one.

China's cultural heritage management model and the politics of cultural heritage in China have also prevented professionals from playing a significant role in cultural positions. Conversely, businesses and local governments, which are focused on economic development, continue to create more challenges for cultural heritage preservation. In conclusion, historical reasons and neglect of management are further important reasons for the lack of protection of cultural heritage in China.

Economic imbalance eventually translates into an imbalance of power as well, until people develop self-awareness. The growth of people's thinking and education is far less than the speed of economic development, and management methods have not evolved according to the times. Not

only do those in power not respect the view that the local residents are themselves a valuable and inseparable part of cultural heritage, but residents who lack self-awareness also lack a sense of participation and awareness that they are part of cultural heritage.

We have also seen how the specific context of China dictates the development and current status of tourism in China, particularly in relation to Butler 1993's concept of sustainable tourism: tourism which is developed and maintained in an area (community, environment) in such a manner and at such a scale that it remains viable over an infinite period and does not degrade or alter the environment (human and physical) in which it exists to such a degree that it prohibits the successful development and wellbeing of other activities and processes. Although tourism makes a significant contribution to the GDP of both Italy and China, we have analyzed the impact in China of commercial tourism developers, whose first aim is to generate economic income, do not focus on the visitor's experience but only on short-term economic benefits, and endlessly develop similar tourism projects, exacerbating the rapid loss of local identities. It has also been noted that it is difficult to guarantee a high quality tourism experience that does not respect authenticity. In order to develop the characteristics of different places, some landmarks have been crudely built, and in the pursuit of uniqueness, many shockingly poor quality projects have emerged. More importantly, where cultural heritage is itself a tourism resource, unlimited development of tourism projects and unrestricted growth in the number of tourists can seriously affect the preservation and maintenance of cultural heritage. Finally, by comparing four famous tourist sites in different countries with similar types of scenery but completely different levels of development, it has been argued that it is not only the nature of the tourism resources themselves that determine the final level of tourism development. When tourism resources are similar, different management under different systems can bring about very different development of tourism resources. That is why the investigation of tourism management is important and necessary.

The World Heritage Site of Dunhuang is a treasure trove of classical Chinese art, located in a region which is also of unique natural and historical interest. As we have seen, the inherent structure of the cultural heritage, its natural environment, and its past and prospective tourism development present strengths, weaknesses, opportunities and threats. The development of conservation at Dunhuang is a stirring history of individuals, who since 1942 have acted as its "protectors": from Chang Shuhong, the first to establish the Dunhuang Academy, to Duan Wenjie, who led the conservation of Dunhuang to its artistic peak, to Fan Jinshi, who developed digital Dunhuang, to Zhang Daqian, who is known as the artist of Dunhuang, and Li Yunhe, who made great contributions to the murals of Dunhuang. These individuals represent how the preservation of Dunhuang's heritage has evolved over the decades. Finally, we have discussed the development of tourism at Dunhuang, and how the inherent vulnerability of the caves to destruction has led to a paradox between conservation and local tourism development. In this study, we maintain a

stance in favor of heritage preservation more than development.

The fourth chapter highlights the importance of cultural context through a comparison between tourism development in Dunhuang and three case studies in Italy. The first case is the Dolomiti, which presents similarities to Dunhuang in China as a less accessible geographical location outside a large city. In spite of the size and relative inaccessibility of the region, in the Dolomites cable cars create connections between several areas and link them as a single large regional tourist destination. Tourism development efforts in the Dolomites place an emphasis on providing high quality services and on the visitor experience. The objectives of development are clear and have even been achieved. We have argued that the Dolomiti mindset of broad regional tourism development can be applied to Dunhuang and therefore define it as the future direction of tourism development in Dunhuang. The second case is Florence, which has similar historical value to Dunhuang, but which has become one of the world's most famous and over-touristed cities, and where the local population are squeezed out of their living areas by tourists. This example warns us that Dunhuang should be developed with the local residents in the position of the main stakeholders. The third case is Pompeii, which preserves the ancient art and architecture of Italy, and, despite the fact that it has been severely damaged by natural disasters, remains a distinctive tourism development, displayed in the open air rather than housed in a museum. Science and technology are used to preserve and develop it. Pompeii is located in Campania, a region with a low GDP per capita, and thus an economic status similar to Dunhuang in Gansu Province. Pompeii brings in a huge amount of revenue every year, providing many jobs in the area, and deserves attention as an example of the value of important heritage and how it should be developed in a relatively low-income region.

For successful cultural tourism development, local communities must realize their own value. Drawing on the concepts of empowerment theory, this thesis has argued that local residents should be the primary stakeholders in the development process and that their subjectivity should be respected. However, through an examination of the particular contexts of community tourism and community participation and empowerment in China, it has been argued that community participation is not only inhibited by policies, but also by the limitations of residents' own circumstances. For example, many of the regions in China where development is focused on tourism are areas with low levels of income and education. With tourism as a new industry in China, there is also a lack of management experience, making it more difficult for residents to bring their strengths to bear. Due to the hierarchical character of political and management structures in China, local managers lack the concept that local residents are the main stakeholders and people at the bottom of the hierarchy lack rights. It is difficult for ordinary citizens to participate in management and even more difficult to have the right to vote or even to influence decisions. The theory of empowerment in other countries is based on the premise of democratic state regimes and is difficult to apply in cases where social development is still in its infancy.

Finally, through in-depth interviews with local residents and in the context of local policies, we have discussed the reasons why participatory tourism in China is still in a rudimentary stage where progress is difficult, with fundamental constraints on ownership, and the limitations of community residents' self-empowerment. The recognition of self-worth can only be realized if people are self-aware. In the structured interviews with local residents in Dolomiti and Dunhuang, we found that in comparison with Dunhuang, the residents in Dolomiti are more optimistic about tourism, feel they have a role in local development and decision-making efforts, are satisfied with their lives, and also have a concept of sustainable development. In contrast, stress and busyness were words often mentioned in interviews with local residents in Dunhuang, as well as concerns about the future, but relatively few felt they were involved in decision-making about tourism development.

This study argues that improving heritage management and tourism development in the long term cannot be achieved through a few official policies: it requires the overall development of society, especially the development of self-awareness and empowerment of residents.

Bibliography

AAP . Magical laotian town preserved by unesco, 2016. `http://www.sbs.com.au/news/article/2016/02/23/magical-laotian-town-preserved-unesco?cx_navSource=related-side-cx#cxrecs_s`.

Adams J. The role of underwater archaeology in framing and facilitating the chinese national strategic agenda. In *Cultural Heritage Politics in China*, pages 261–282. Springer, 2013.

Akama J. S. Western environmental values and nature-based tourism in kenya. *Tourism management*, 17(8):567–574, 1996.

Antons C. and Logan W. *Intellectual Property, Cultural Property and Intangible Cultural Heritage*. Routledge, 2017. `https://doi.org/10.4324/9781315714288`.

Ashton C. *Beijing's Museums in the Context of the 2008 Beijing Olympics*, pages 187–203. Springer New York, New York, NY, 2013. ISBN 978-1-4614-6874-5. `https://doi.org/10.1007/978-1-4614-6874-5_10`.

Ban G. *The Book of Han*. 2021.

Bao J., Xu H., and Li L. *Rethought of China's Tourism Plan from the Perspecitives of Guilin Tourism Development plan*. Center of Tourism Planning and Research, 2001.

Basile M. The dolomites walking hotels: Sustainable tourism in the unesco world heritage site. *Turismo e Psicologia*, 1:13–24, 2015.

Bazzanella F. Perceptions and role of tourist destination residents compared to other event stakeholders in a small-scale sports event. the case of the fis world junior alpine ski championships 2019 in val di fassa. *Sustainability*, 11(24), 2019. ISSN 2071-1050. `https://www.mdpi.com/2071-1050/11/24/6909`.

Benetti F. and Brogiolo G. P. Polar opposites: The legislative management of archaeological research in italy and england and the challenge of public participation. *Public Archaeology*, 17(4):176–192, 2018. `https://doi.org/10.1080/14655187.2018.1729651`.

Blake J. On defining the cultural heritage. *International and Comparative Law Quarterly*, 49(1): 61–85, 2000.

Bourdeau L., Gravari-Barbas M., and Robinson M. *Community Empowerment at the Periphery? Participatory Approaches to Heritage Protection in Guizhou, China*. Routledge, London, 2016. ISBN 9781315546322. `https://doi.org/10.4324/9781315546322`.

Bruner E. M. *Abraham Lincoln as Authentic Reproduction: A Critique of Postmodernism*, page 397–415. American Anthropologist, 1994.

Bryce D., Curran R., O'Gorman K., and Taheri B. Visitors' engagement and authenticity: Japanese heritage consumption. *Tourism Management*, 46:571–581, 2015. ISSN 0261-5177. `https://www.sciencedirect.com/science/article/pii/S0261517714001642`.

Buckley R., Winn T., Li W., Winn P., and Zhong L. *River Tourism in China*, pages 231–240. Springer Singapore, Singapore, 2018. ISBN 978-981-10-8426-3. `https://doi.org/10.1007/978-981-10-8426-3_14`.

Butler R. W. Sustainable tourism: A state-of-the-art review. *Tourism geographies*, 1(1):7–25, 1999.

Byrd E. T. Stakeholders in sustainable tourism development and their roles: applying stakeholder theory to sustainable tourism development. *Tourism review*, 2007.

Callo Delgado J. Calidad del servicio y satisfacción del turista en la excursión a la montaña vininkunca 2017. Bs., Universidad Andina del Cusco, 2017. `https://hdl.handle.net/20.500.12557/1237`.

Chavarria Arnau A. and Brogiolo G. Archaeology for local communities in northern italy: experiences of participatory research in an adverse legal framework. *Journal of PostClassical Archaeologies*, 9:101–122, 2019.

Chen S. Empowerment: A new perspective on social work theory and practice. *Sociological Research*, 5(70):83, 2003.

Cochrane J. Ecotourism and biodiversity conservation in asia: institutional challenges and opportunities. *Critical issues in ecotourism: understanding a complex tourism phenomenon*, pages 287–307, 2007.

Cohen E. Authenticity and commoditization in tourism. *Annals of tourism research*, 15(3):371–386, 1988.

Colini L., Pecoriello A. L., Tripodi L., and Zetti I. Museumization and transformation in florence. 2009.

Cortese F., D'Ambrosio I., and Petracca M. A possible synergy between culture and religion for the sustainability of tourism of pompeii. *Sustainability*, 11(8):2231, 2019.

Dai Y., You S., Li Q., and Liu Z. An analysis of the sustainable development of tourism in baishuitai quanhua terrace, yunnan. *CARSOLOGICA SINICA*, 21(3):227–232, 2002.

Dang Z. and Sun B. Evaluation of the reform of the management mechanism of heritage conservation projects. *Report on the Development of Chinese Cultural Heritage (2018~2019)*, pages 177–196, 2020.

David H. *The Condition of Postmodernity : An Enquiry into the Origins of Cultural Change*. Blackwell, 1990.

Demas M., Agnew N., and Jinshi F. *Introduction*, pages 1–9. Springer International Publishing, Cham, 2015. ISBN 978-3-319-09000-9. `https://doi.org/10.1007/978-3-319-09000-9_1`.

Dilsiz C. Environmental issues concerning natural resources at pamukkale protected site, southwest turkey. *Environmental Geology*, 41:776–784, 2002. `https://doi.org/10.1007/s00254-001-0444-4`.

Domanico L. The invisible landscape: Subsoil, environment and the italian legislation on the cultural heritage. *European Journal of Archaeology*, 2(2):159–175, 1999. `https://doi.org/10.1177/146195719900200202`.

Donaldson T. and Preston L. E. The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of management Review*, 20(1):65–91, 1995.

Durbarry R. Tourism and economic growth: the case of mauritius. *Tourism Economics*, 10(4):389–401, 2004.

Dwyer L., Edwards D., Mistilis N., Roman C., and Scott N. Destination and enterprise management for a tourism future. *Tourism management*, 30(1):63–74, 2009.

D'Eramo M. Urbanicide in all good faith, 2014. `https://www.domusweb.it/en/opinion/2014/08/20/urbanicide_in_allgoodfaith.html`.

Ellyard . Societal changes – impacts and opportunities for tourism. *Tourism futures conference 21st century responses to 21st century realities*, 2006.

Fan J. *Build a world-class heritage museum*. 2003.

Feng H., Chen X., Heck P., and Miao H. An entropy-perspective study on the sustainable development potential of tourism destination ecosystem in dunhuang, china. *Sustainability*, 6(12): 8980–9006, 2014. ISSN 2071-1050. `https://www.mdpi.com/2071-1050/6/12/8980`.

Fong S.-F., Lo M.-C., and others . Community involvement and sustainable rural tourism development: Perspectives from the local communities. *European Journal of Tourism Research*, 11: 125–146, 2015.

Franch M., Martini U., Novi Inverardi P. L., and Buffa F. Comportamenti e scelte del turista fai-da-te nelle dolomiti. 10 2011.

Glancey J. The army that conquered the world, April 2017. `https://www.bbc.com/cultur e/article/20170411-the-army-that-conquered-the-world`.

Goedhart S. *'New producers' in cultuurtoerisme*. Katholieke Universiteit Brabant, 1997. `https://books.google.it/books?id=ID2GswEACAAJ`.

Grünewald R. Tourism and cultural revival. *Annals of Tourism Research*, 29(4):1004–1021, 2002. ISSN 0160-7383. `https://www.sciencedirect.com/science/article/pii/S01607 38302000051`.

Gunn C. A. and Var T. *Tourism planning: Basics, concepts, cases*. Routledge, 2020.

Guo H., Li Z., Qiu Y., Xu Z., Tang J., and Yang F. The third study on the mechanism of pasty alkali disease in the frescoes of dunhuang mogao caves. *Dunhuang Research*, (3):23, 1999.

Guo Q., Wang X., Yang S., and Li Z. A study on the source of water and salt in the frescoes of the mogao grottoes in dunhuang. page 203, 04 2016. ISBN 978-7-03-048055-2.

Hansen V. *The Silk Road: a new history with documents*. Oxford University Press, 2017.

Harrell S. *China's Tangled Web of Heritage*, pages 285–294. Springer New York, New York, NY, 2013. ISBN 978-1-4614-6874-5. `https://doi.org/10.1007/978-1-4614-6874-5_15`.

Harrison D. and Hitchcock M. *The politics of world heritage: Negotiating tourism and conservation*. Channel View Publications, 2005.

Henley J. Overtourism in europe's historic cities sparks backlash, 2020. `https://www.theguardian.com/world/2020/jan/25/overtourism-in-europe-histor ic-cities-sparks-backlash`.

Herrijgers C. De culturele stedenreis. Master's thesis, Tiburg University, 1998.

Higgins-Desbiolles F. The "war over tourism": challenges to sustainable tourism in the tourism academy after covid-19. *Journal of Sustainable Tourism*, 29(4):551–569, 2020.

Huang Q. *70 Years of Management Research in New China*. China Social Sciences Press, 2020. ISBN 9787520358026. `https://books.google.it/books?id=kGBgEAAAQBAJ`.

Huang S. S. Cultural heritage management in china: preserving the cities of the pearl river delta. *Journal of Heritage Tourism*, 4(2):173–174, 2009. `https://doi.org/10.1080/17438730 802327526`.

Hunter M. *Preserving the Past: The Rise of Heritage in Modern Britain*. Art/Architecture. Alan Sutton, 1996. ISBN 9780750909518. `https://books.google.it/books?id=d2tnAAAAMAAJ`.

ICOMOS . Charter for the conservation of historic towns and urban areas (washington charter 1987), 1987. `https://www.icomos.org/charters/towns_e.pdf`.

ICOMOS . The icomos charter for the interpretation and presentation of cultural heritage sites, 2008. `http://icip.icomos.org/downloads/ICOMOS_Interpretation_Charter_EN G_04_10_08.pdf`.

Isaksson A.-S. and Kotsadam A. Racing to the bottom? chinese development projects and trade union involvement in africa. *World Development*, 106:284–298, 2018. ISSN 0305-750X. `https://www.sciencedirect.com/science/article/pii/S0305750X1830041X`.

Jaafar M., Rasoolimanesh S. M., and Ismail S. Perceived sociocultural impacts of tourism and community participation: A case study of langkawi island. *Tourism and Hospitality Research*, 17 (2):123–134, 2017.

Jia Q., Chen W., Tong Y., and Guo Q. Experimental study on capillary migration of water and salt in wall painting plastera case study at mogao grottoes, china. *International Journal of Architectural Heritage*, 16(5):705–716, 2022.

Kieffer C. H. *THE EMERGENCE OF EMPOWERMENT: THE DEVELOPMENT OF PARTICIPATORY COMPETENCE AMONG INDIVIDUALS IN CITIZEN ORGANIZATIONS.(VOLUMES I AND II)*. University of Michigan, 1981.

Kim H. and Jamal T. Touristic quest for existential authenticity. *Annals of tourism research*, 34(1): 181–201, 2007.

Koens K., Postma A., and Papp B. Is overtourism overused? understanding the impact of tourism in a city context. *Sustainability*, 10(12):4384, 2018.

Kovacs C. L. Pompeii and its material reproductions: the rise of a tourist site in the nineteenth century. *Journal of Tourism History*, 5(1):25–49, 2013. `https://doi.org/10.1080/1755182X.2012.758781`.

Larsen W., P.B.and Logan. *World Heritage and Sustainable Development: New Directions in World Heritage Management (1st ed.)*. Routledge, 2018. `https://doi.org/10.4324/9781315108049`.

Lazzeretti L., Capone F., and Casadei P. The role of fashion for tourism: An analysis of florence as a manufacturing fashion city and beyond. In *Tourism in the City*, pages 207–220. Springer, 2017.

Leftwich A. Governance, democracy and development in the third world. *Third World Quarterly*, 14(3):605–624, 1993.

Levin G. B. *Crossing Class Lines: Perspectives On Social Inequality And Class Consciousness.* University of Michigan, 1975.

Li Q., Lu H., Jin Z., and Zhao X. Study on the development mode of ecological tourism resources in baishuitai, yunnan. *Journal of Guangxi Normal University (Natural Science Edition)*, 19(4):5, 2002.

Littrell M. *Shopping experiences and marketing of culture to tourists*, pages 107–120. University of Northumbria, 1997.

Liu T.-k. *Re-constructing Cultural Heritage and Imagining Wa Primitiveness in the China/Myanmar Borderlands*, pages 161–184. Springer New York, New York, NY, 2013. ISBN 978-1-4614-6874-5. `https://doi.org/10.1007/978-1-4614-6874-5_9`.

Loda M., Bonati S., and Puttilli M. History to eat. the foodification of the historic centre of florence. *Cities*, 103:102746, 2020. ISSN 0264-2751. `https://www.sciencedirect.com/science/article/pii/S0264275119313186`.

Long Y. New ideas for the conservation of our cultural heritage from the italian and british management models. *Hu Bei Social Sciences*, 7:108–110, 2010.

Lu J. Rethinking the "separation of ownership and management rights of cultural relics units": The relationship between cultural relics protection and tourism utilization. *National Museum of China*, (3):5, 2002.

Luo J. and Zhou H. *Management Ideas of Chinese Cultural and Natural Heritage in the Period of System Transition*. 2003.

Ma X.-L., Ryan C., and Bao J.-G. Chinese national parks: Differences, resource use and tourism product portfolios. *Tourism Management*, 30(1):21–30, 2009. ISSN 0261-5177. `https://www.sciencedirect.com/science/article/pii/S0261517708000782`.

MacCannell D. The past and future of 'symbolic interactionism'. 16(2):99–114, 1976. `https://doi.org/10.1515/semi.1976.16.2.99`.

Mandić A. and Petrić L. The impacts of location and attributes of protected natural areas on hotel prices: Implications for sustainable tourism development. *Environment, development and sustainability*, 23(1):833–863, 2021.

Mao A. The tourism resources research of the western corridor of zhangye based on the swot analysis. *Value Engineering*, 29(23):2, 2010.

Marković Vukadin I., Pejnović D., and Boranić-Žovoder S. Influence of tourism development on sustainability of local communities in natural protected areas, case study of plitvice lakes national park. 06 2013.

Martini U., Buffa F., and Notaro S. Community participation, natural resource management and the creation of innovative tourism products: Evidence from italian networks of reserves in the alps. *Sustainability*, 9(12), 2017. ISSN 2071-1050. `https://www.mdpi.com/2071-1050/9/12/2314`.

Melotti M. *Florence: Tourism, Heritage and Consumption*, pages 97–109. Springer International Publishing, Cham, 2018. ISBN 978-3-319-78553-0. `https://doi.org/10.1007/978-3-319-78553-0_7`.

Min Y. Citizen participation, mass participation and community participation. *Chinese Journal of Sociology*, pages 78–95, 2005.

Nevola F., Coles T., and Mosconi C. Hidden florence revealed? critical insights from the operation of an augmented reality app in a world heritage city. *Journal of Heritage Tourism*, 17(4):371–390, 2022. `https://doi.org/10.1080/1743873X.2022.2036165`.

Ning K. and Hao C. *History and Culture of Dunhuang*. Shenzhou wenhua jicheng. Xinhua Publishing House, 1993. ISBN 9787501121458. `https://books.google.it/books?id=X0p2AAAAIAAJ`.

Nitzky W. *Community Empowerment at the Periphery? Participatory Approaches to Heritage Protection in Guizhou, China*, pages 205–232. Springer New York, New York, NY, 2013a. ISBN 978-1-4614-6874-5. `https://doi.org/10.1007/978-1-4614-6874-5`.

Nitzky W. *Community Empowerment at the Periphery? Participatory Approaches to Heritage Protection in Guizhou, China*, pages 205–232. Springer New York, New York, NY, 2013b. ISBN 978-1-4614-6874-5. `https://doi.org/10.1007/978-1-4614-6874-5_11`.

O'Gorman K. D., Baxter I., and Scott B. Exploring pompeii: Discovering hospitality through research synergy. *Tourism and Hospitality Research*, 7(2):89–99, 2007.

Özdemir G. Photographs in brochures as the representations of induced image in the marketing of destinations. *Tourism and Visual Culture Methods and Cases*, 2:169, 2010.

Pawson S., Richardson S., and D'Arcy P. *Temples, Tuk-Tuks and Orphanages: A Contemporary Examination of Tourism Development, Management and Community-Based Tourism in Cambodia*, pages 125–140. Springer Singapore, Singapore, 2018. ISBN 978-981-10-8426-3. `https://doi.org/10.1007/978-981-10-8426-3_8`.

Perkins D. D. and Zimmerman M. A. Empowerment theory, research, and application. *American journal of community psychology*, 23(5):569–579, 1995.

Peters H. A. *Dancing in the Market: Reconfiguring Commerce and Heritage in Lijiang*, pages 115–140. Springer New York, New York, NY, 2013. ISBN 978-1-4614-6874-5. `https://doi.org/10.1007/978-1-4614-6874-5_7`.

Poehler E. E. The circulation of traffic in pompeii's regio vi. *Journal of Roman Archaeology*, 19: 53–74, 2006.

Popp M. Positive and negative urban tourist crowding: Florence, italy. *Tourism Geographies*, 14(1): 50–72, 2012. `https://doi.org/10.1080/14616688.2011.597421`.

Poria Y., Butler R., and Airey D. The core of heritage tourism. *Annals of Tourism Research*, 30(1): 238–254, 2003. ISSN 0160-7383. `https://www.sciencedirect.com/science/article/pii/S0160738302000646`.

Qiu L. The previous residence of liang sicheng and lin huiyin: a demolition with ambiguous intentions. 6, 2012. `http://old.lifeweek.com.cn//2012/0214/36422.shtml`.

Rappaport J. Terms of empowerment/exemplars of prevention: Toward a theory for community psychology. *American journal of community psychology*, 15(2):121–148, 1987.

Reisinger Y. and Steiner C. J. Reconceptualizing object authenticity. *Annals of Tourism Research*, 33(1):65–86, 2006a. ISSN 0160-7383. `https://www.sciencedirect.com/science/article/pii/S0160738305000897`.

Reisinger Y. and Steiner C. J. Reconceptualizing object authenticity. *Annals of tourism research*, 33(1):65–86, 2006b.

Richards G. *The market for cultural attractions*, pages 31–53. CABI Publishing, Wallingford, 2001a. ISBN 9780851994406.

Richards G., Goedhart S., and Herrijgers C. The cultural attraction distribution system. *CABI Books*, pages 71–89, 2001. `https://doi.org/10.1079/9780851994406.0071`.

Richards G. The development of cultural tourism in europe. In *Cultural attractions and European tourism*, pages 3–29. Cabi Publishing Wallingford UK, 2001b.

Richards G. and Wilson J. Developing creativity in tourist experiences: A solution to the serial reproduction of culture? *Tourism management*, 27(6):1209–1223, 2006.

Richards G. *The experience industry and the creation of attractions*, pages 55–69. CAB International, 2001c. ISBN 9780851994406. Pagination: 259.

Ruan J. Cultural relics are the essence of cultural heritage. *Cultural Relics Doctrine*, pages 20–25, 2010.

Sain . *Cultural Heritages and Cultural Anthropology*. Social Sciences Academic Press (China), 2003.

Scheyvens R. Ecotourism and the empowerment of local communities. *Tourism Management*, 20 (2):245–249, 1999. ISSN 0261-5177. `https://www.sciencedirect.com/science/article/pii/S0261517798000697`.

Shen Y. In china's tourism: Industry policies and associated development. *Regional Policies of the Tourist Industry*, pages 74–105, 1993.

Shepherdv R. J. and Yu L. *Heritage management, tourism, and governance in China: Managing the past to serve the present*. 2013. `https://link.springer.com/book/10.1007/978-1-4614-5918-7`.

Sigley G. *The Ancient Tea Horse Road and the Politics of Cultural Heritage in Southwest China: Regional Identity in the Context of a Rising China*, pages 235–246. Springer New York, New York, NY, 2013a. ISBN 978-1-4614-6874-5. `https://doi.org/10.1007/978-1-4614-6874-5`.

Sigley G. *The Ancient Tea Horse Road and the Politics of Cultural Heritage in Southwest China: Regional Identity in the Context of a Rising China*, pages 235–246. Springer New York, New York, NY, 2013b. ISBN 978-1-4614-6874-5. `https://doi.org/10.1007/978-1-4614-6874-5_12`.

Silverman H. and Blumenfield T. *Cultural Heritage Politics in China: An Introduction*, pages 3–22. Springer New York, New York, NY, 2013. `https://doi.org/10.1007/978-1-4614-687` `4-5_1`.

Sofield T. and Li F. M. S. China: ecotourism and cultural tourism, harmony or dissonance? In *Critical issues in ecotourism: Understanding a complex tourism phenomenon*, pages 368–385. Routledge, 2007.

Sofield T. H. and Li F. M. S. Tourism development and cultural policies in china. *Annals of Tourism Research*, 25(2):362–392, 1998. ISSN 0160-7383. `https://www.sciencedirect.com/sc` `ience/article/pii/S0160738397000923`.

Somuncu M. and Yiğit² T. World heritage sites in turkey: Current status and problems of conservation and management türkiye'deki dünya mirası alanları: Koruma ve yönetimde güncel durum ve sorunlar. 8:1–26, 01 2010.

Spenceley A. *Responsible tourism: Critical issues for conservation and development*. Routledge, 2012.

Su X. *Tourism, Migration and the Politics of Built Heritage in Lijiang, China*, pages 101–114. Springer New York, New York, NY, 2013. ISBN 978-1-4614-6874-5. `https://doi.org/10.1007/97` `8-1-4614-6874-5_6`.

Sun J. *Tourism Anthropology Community Tourism and Community Engagement*. The Commercial Press, 2009.

Sun J. and Bao J.-g. Community participation in the perspective of tourism anthropology. pages 82–90, 2006.

Swift C. and Levin G. Empowerment: An emerging mental health technology. *Journal of primary prevention*, 8(1):71–94, 1987.

Tang S. Community development of destination and study of community tourism]. *Geographic Study*, 1998.

Tang Z. *Does the Institution of Property Rights Matter for Heritage Preservation? Evidence from China*, pages 23–30. Springer New York, New York, NY, 2013. ISBN 978-1-4614-6874-5. `https://doi.org/10.1007/978-1-4614-6874-5_2`.

Therond D. and of Europe C. *Forward planning: the function of cultural heritage in changing Europe : experts' contributions*. Council of Europe, 2000. `https://books.google.it/book` `s?id=eDpENAAACAAJ`.

Tomczyk A. and Ewertowski M. Landscape response to the development of new tourist attraction, Vinicunca (Rainbown Mountain), Cordillera Vilcanota, Peru. In *EGU General Assembly Conference Abstracts*, EGU General Assembly Conference Abstracts, page 10789, April 2018.

Tosun C. Limits to community participation in the tourism development process in developing countries. *Tourism Management*, 21(6):613–633, 2000a. ISSN 0261-5177. `https://www.sc iencedirect.com/science/article/pii/S0261517700000091`.

Tosun C. Limits to community participation in the tourism development process in developing countries. *Tourism management*, 21(6):613–633, 2000b.

Tosun C. Challenges of sustainable tourism development in the developing world: the case of turkey. *Tourism Management*, 22(3):289–303, 2001. ISSN 0261-5177. `https://www.scie ncedirect.com/science/article/pii/S0261517700000601`.

Tosun C. Expected nature of community participation in tourism development. *Tourism Management*, 27(3):493–504, 2006. ISSN 0261-5177. `https://www.sciencedirect.com/scie nce/article/pii/S0261517705000130`.

Tse T. S., Prideaux B., and Chui W. K. Nature-based tourism in a city destination: Balancing planning with sustainability. In *Managing Asian Destinations*, pages 55–71. Springer, 2018.

Tverijonaite E., Ólafsdóttir R., and Thorsteinsson T. Accessibility of protected areas and visitor behaviour: A case study from iceland. *Journal of outdoor recreation and tourism*, 24:1–10, 2018.

UNESCO . Cultural heritage, 2009. `https://uis.unesco.org/en/glossary-term/cult ural-heritage`.

UNESCO . Archaeological areas of pompei, herculaneum and torre annunziata, 2011. `https: //whc.unesco.org/en/soc/354`.

van der Borg J., Costa P., and Gotti G. Tourism in european heritage cities. *Annals of Tourism Research*, 23(2):306–321, 1996. ISSN 0160-7383. `https://www.sciencedirect.com/sc ience/article/pii/0160738395000658`. Heritage and tourism.

Vanzi G. *Dolomiti Superski. 12 valleys united by a single, unique skipass*. Colorado School of Mines. Arthur Lakes Library, 1999. `https://hdl.handle.net/11124/70571`. Congress paper describes the Dolomiti Superski, a unique ski pass widely used in Europe. Ski area operations and ski lifts facilities are influenced. (CFD).

Vecco M. A definition of cultural heritage: From the tangible to the intangible. *Journal of Cultural Heritage*, 11(3):321–324, 2010. ISSN 1296-2074. `https://www.sciencedirect.com/sc ience/article/pii/S1296207410000361`.

Vettorazzo E., Borgo A., and Martino N. Communication activities about alpine marmot reintroduction in the dolomiti bellunesi national park project (italy). *Ethology Ecology & Evolution*, 21 (3-4):349–353, 2009. `https://doi.org/10.1080/08927014.2009.9522489`.

Vrdoljak A. F. Indigenous peoples, intangible cultural heritage and participation in the united nations. In *Intellectual Property, Cultural Property and Intangible Cultural Heritage*, pages 50–66. Routledge, 2017.

Wallace A. Presenting pompeii: Steps towards reconciling conservation and tourism at an ancient site. *Papers from the Institute of Archaeology*, 22:115–115, 2013.

Wang N. Rethinking authenticity in tourism experience. *Annals of Tourism Research*, 26(2):349–370, 1999. ISSN 0160-7383. `https://www.sciencedirect.com/science/article/pii/S0160738398001030`.

Wang Q., Liu J., and Cheng Y. Innovation in the way of heritage revitalization and utilization. *Report on the Development of Chinese Cultural Heritage (2018~2019)*, pages 208–213, 2020a.

Wang Q., Liu J., and Cheng Y. The supporting role of cultural relics protection and utilization in the great rejuvenation. *Report on the Development of Chinese Cultural Heritage (2018~2019)*, pages 197–207, 2020b.

Wang X. and Dessart W., 2020. `https://www.scmp.com/comment/opinion/article/3107132/china-must-listen-those-directly-affected-its-belt-and-road`.

Wang Y. A study of institutional provision-type empowerment of community participation in tourism. *Tourism Science (China)*, 26(3):18–26, 2012.

Wang Y., Wu F., Li X., and Chen L. Geotourism, geoconservation, and geodiversity along the belt and road: A case study of dunhuang unesco global geopark in china. *Proceedings of the Geologists' Association*, 130(2):232–241, 2019a. ISSN 0016-7878. `https://www.sciencedirect.com/science/article/pii/S0016787819300100`.

Wang Y., Wu F., Li X., and Chen L. Geotourism, geoconservation, and geodiversity along the belt and road: A case study of dunhuang unesco global geopark in china. *Proceedings of the Geologists' Association*, 130(2):232–241, 2019b. ISSN 0016-7878. `https://www.sciencedirect.com/science/article/pii/S0016787819300100`.

Wang Y., Shakeela A., Kwek A., and Khoo-Lattimore C. *Asian Destinations: Perspectives on Planning, Management, and Marketing*, pages 3–19. Springer Singapore, Singapore, 2018a. ISBN 978-981-10-8426-3. `https://doi.org/10.1007/978-981-10-8426-3_1`.

Wang Y., Shakeela A., Kwek A., and Khoo-Lattimore C. Managing asian destinations. 2018b.

Willems W. J. H. *World Heritage and Global Heritage: the tip of the Iceberg*. 2013. `https://dialnet.unirioja.es/servlet/articulo?codigo=8301263`.

Xiao T. Incomplete list of precious cultural relics destroyed during the cultural revolution. *Za Wen Yue Kan*, 9:44–45, 2008.

Xie C. Protect and inherit historical and cultural heritage, 2013. `http://culture.people.com.cn/n/2013/1107/c87423-23466767.html`.

Xu S., Zhang X., and Zhang J. *Protection and Management of Cultural Heritage: Progress in Chinese Practice and Theory*. Environment and Development. Social Sciences Academic Press (China), 2003. ISBN 9787801498953. `https://books.google.com/books?id=YdltAAAAIAAJ`.

Yang L. After the westernization: Tourism anthropology in china. *The Ideological Front*, 40(1):9, 2014.

Yao Y., Sun J., Tian Y., Zheng C., and Liu J. Alleviating water scarcity and poverty in drylands through telecouplings: Vegetable trade and tourism in northwest china. *Science of The Total Environment*, 741:140387, 2020. ISSN 0048-9697. `https://www.sciencedirect.com/science/article/pii/S0048969720339097`.

Zeppel H. Indigenous ecotourism: conservation and resource rights. In *Critical issues in ecotourism*, pages 326–366. Routledge, 2007.

Zhang C. *Authenticity and Integrity are the basic principle of heritage protection*, pages 77–91. Social Sciences Publishing House, Beijing, 2003.

Zhang G. Environmental impacts of tourism development in ecologically fragile areas and their countermeasures: Take the strategic planning of tourism in four regions of xinjiang as an example. *Journal of Desert Research*, 26(1):126–130, 2006.

Zhang H. The nature and categories of tourism experiences and developing principles. pages 7–13, 2018.

Zhang R. Protect and inherit historical and cultural heritage, 2020. `http://opinion.people.com.cn/n1/2020/1120/c1003-31937604.html`.

Zhao H. On the positioning of tourism image in zhangye city. *Journal of Hexi University*, 2011.

Zhao W. *Local versus National Interests in the Promotion and Management of a Heritage Site: A Case Study from Zhejiang Province, China*, pages 73–100. Springer New York, New York, NY, 2013. ISBN 978-1-4614-6874-5. `https://doi.org/10.1007/978-1-4614-6874-5_5`.

Zhao Y. All can be destroyed: Private property and public property in the cultural revolution, 2016. `http://www.hybsl.cn/beijingcankao/beijingfenxi/2014-08-14/47741.html`.

Zhou J. *Research on the Protection and Management of Cultural Routes*. 2013.

Zhou Q. B., Zhang J., and Edelheim J. R. Rethinking traditional chinese culture: A consumer-based model regarding the authenticity of chinese calligraphic landscape. *Tourism Management*, 36:99–112, 2013a.

Zhou Q. B., Zhang J., and Edelheim J. R. Rethinking traditional chinese culture: A consumer-based model regarding the authenticity of chinese calligraphic landscape. *Tourism Management*, 36:99–112, 2013b. ISSN 0261-5177. `https://www.sciencedirect.com/science/article/pii/S0261517712002191`.

Zhou T. and Wu L. The nature and categories of tourism experiences and developing principles. *Tourism science*, pages 7–13, 2006.

Zhou Y. Branding tengchong: Globalization, road building, and spatial reconfigurations in yunnan, southwest china. *Cultural Heritage Politics in China*, pages 247–259, 04 2014.

Zhu G. China's architectural heritage conservation movement. *Frontiers of Architectural Research*, 1(1):10–22, 2012. ISSN 2095-2635. `https://www.sciencedirect.com/science/article/pii/S2095263512000106`.

Zhu Y. and Maags C. *Heritage Politics in China: The Power of the Past*. Routledge, London, 2020.

Zhu Y. and Li N. *Groping for Stones to Cross the River: Governing Heritage in Emei*, pages 51–71. Springer New York, New York, NY, 2013. ISBN 978-1-4614-6874-5. `https://doi.org/10.1007/978-1-4614-6874-5_4`.

Zuo B. and Bao J.-g. Institutional empowerment:community participation and changes of land property rights in tourism development. 2:23–31, 2013.

Zuo B. and Bao J. Institutional empowerment: Community participation and changes of land property rights in tourism development. *Tourism Tribune/Lvyou Xuekan*, 27(2), 2012.

Zuo Q. *Chun Qiu Zuo Zhuan*. 2000. `https://books.google.it/books?id=wIV5mXPPpo8C`.

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List of Abbreviations

The Italian Ministry of Cultural Heritage, Activities and Tourism (MiBAC)
International Council on Monuments and Sites (ICOMOS)
Dunhuang Academy (DA)
Memory of the World (MOW)
Cave of the hidden scriptures (CBS)
Jiuzhaigou Biosphere Reserve (JBR)
All-China Federation of Trade Unions (ACFTU)
International Labour Organization (ILO)
Communis Party of China (CPC)
Dots Per Inch (DPI)