



# Research on the Characteristics, Problems, and Suggestions for the Protection of Urban and Rural Cultural Heritage in China

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**Abstract.** Urban and rural cultural heritage is the precious material and spiritual wealth of mankind, an important outcome of the development and natural evolution of human civilization, and an important carrier to promote exchanges and mutual learning among different civilizations. This paper analyzed the quantity, spatial distribution and change characteristics of China's urban and rural cultural heritage, and summarized the problems existing in the process of urban and rural cultural heritage protection, which is of great significance for promoting high-quality protection of urban and rural cultural heritage. The results showed that the world heritage sites in China are mainly distributed in the east and southwest regions, while the northwest and northeast regions are less. The famous historical and cultural cities are mainly distributed in the east of Hu Huanyong Line and the Silk Road belt. The famous historical and cultural towns and villages are mainly distributed in the eastern region; The national key cultural relics protection units are mainly concentrated in the middle and lower reaches of the Yellow River, the Yangtze River economic Belt and the coastal areas of Fujian and Zhejiang; In the process of protecting urban and rural cultural heritage, there are some problems, such as inadequate understanding, lack of protection lists, large human disturbance of natural protected areas, insufficient exploration of cultural heritage value, serious lag in relevant planning and inadequate implementation supervision, and lack of funding and resource support. Based on this, Based on this, the article proposed corresponding countermeasures and suggestions.

**Keywords:** Urban and rural cultural heritage, Quantity status, Spatial distribution, Policy suggestion.

## 1 Introduction

For a long time in the past, the protection of urban and rural cultural heritage was neglected. In the process of economic development, many urban and rural cultural heritage and a large number of ancient buildings have gradually disappeared, causing huge losses[1]. China has always attached great importance to the protection of its urban and rural cultural heritage. Urban and rural heritage is an important outcome of

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the development and natural evolution of human civilization, and an important carrier to promote exchanges and mutual learning among different civilizations[2]. It is our common responsibility to protect, pass on and make use of these precious treasures, and it is an inevitable requirement for the continuous development of human civilization and the sustainable development of the world.

China's urban and rural cultural heritage is rich in quantity and variety. As of November 24, 2020, the State Administration of Cultural Heritage had surveyed and registered 767,000 immovable cultural relics[3]. From the perspective of spatial planning, urban and rural cultural heritage mainly focuses on the development, utilization and protection of world heritage sites, famous Chinese historical and cultural cities, towns and villages, historical and cultural blocks, and cultural relics protection units.

## 2 Research methods

### 2.1 Descriptive statistics

Through descriptive statistical analysis, analyze the total amount, structure, and layout of various types of urban and rural cultural heritage, in order to understand the basic characteristics of urban and rural cultural heritage.

### 2.2 Gini coefficient

The Gini coefficient is calculated based on the Lorenz curve. The larger the Gini coefficient, the more significant the difference in the degree of agglomeration of urban and rural cultural heritage between regions. The specific calculation formula is:

$$G=A/(A+B) \quad (1)$$

In the formula, G is the Gini coefficient; A is the area enclosed between the absolute mean curve and the Lorenz curve; A+B is the total area below the diagonal of the Lorenz curve.

### 2.3 Kernel density

Kernel density can be used to calculate the density of target elements in the surrounding neighborhood, which is an indicator of the degree of agglomeration of target elements. Therefore, kernel density can be used to calculate the degree of agglomeration of urban and rural cultural heritage. The calculation formula is:

$$D = \frac{1}{nh} \sum_{i=1}^n K\left(\frac{x-x_i}{h}\right) \quad (2)$$

In the formula, D is the kernel density, and h ( $h>0$ ) is the bandwidth; n is the quantity of urban and rural cultural heritage in the surrounding neighborhood;  $x-x_i$  is the

distance from the valuation point  $x$  to the national key cultural relic protection unit point  $x_i$ .

### **3 Status of protection of urban and rural cultural heritage**

#### **3.1 Overall characteristics of urban and rural cultural heritage**

From the results of kernel density analysis, it can be seen that the middle and lower reaches of the Yellow River, the lower reaches of the Yangtze River, and the upper reaches of the Yangtze River are the concentrated distribution areas of urban and rural cultural heritage resources in China. These gathering areas are historical and cultural densely populated areas formed by the continuous deposition of human cultural activities in Chinese history.

#### **3.2 World heritage site**

World Heritage is a rare, world-class, irreplaceable and non renewable resource recognized by UNESCO and the World Heritage Committee. World Heritage is divided into natural heritage, cultural heritage and mixed natural and cultural heritage[4]. China has a total of 57 World Heritage sites, ranking second in the world, including 14 natural heritage sites, 39 cultural heritage sites, and 4 natural and cultural mixed heritage sites.

The 57 World Heritage sites are distributed in 27 provinces, and some provinces and cities have multiple World Heritage sites, such as Beijing with the Great Wall, the Forbidden City, the Peking Man Site in Zhoukoudian, the Temple of Heaven, the Summer Palace, and the imperial tombs of the Ming and Qing Dynasties. Beijing is also home to one of the trans-provincial World Heritage sites, the Grand Canal. Beijing has the most World heritage sites, while Sichuan has five. In addition, Shanghai, Liaoning, Heilongjiang, and Ningxia provinces do not have World Heritage sites.

In general, the distribution of world heritage areas in China is uneven[5], mainly distributed in the eastern and southwest regions of China, and less in the northwest and northeast regions. World cultural heritage is mainly distributed in the Yellow River basin, Beijing and its surrounding areas, Yangtze River Delta and other areas; The World natural heritage is mainly distributed in the Yangtze River basin and southwest China.

#### **3.3 Famous historical and cultural cities, towns, and villages**

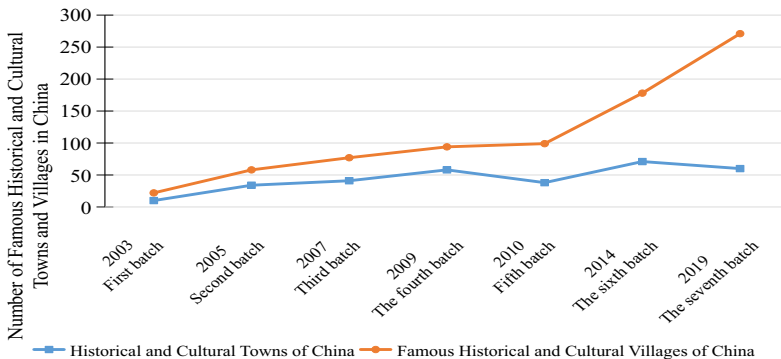
A famous historical and cultural city refers to a city with rich preservation of cultural relics and great historical value or revolutionary commemorative significance. In 1982, 1986 and 1994, The State Council announced three batches of national historical and cultural cities, a total of 99. Since then, it has been continuously added, and by 2022, there are 138 national historical and cultural cities. Among them, 93 cities at or

above the prefecture level and 45 county-level cities (including county-level cities, counties, districts, etc.).

The distribution and population characteristics of historical and cultural cities are similar, mainly distributed east of the Hu Huanyong Line and along the Silk Road. There are significant regional differences, with 54, 35, 42, and 7 historical and cultural cities in the eastern, central, western, and northeastern regions, including 39, 22, 26, and 6 cities at the prefecture level and above, and 15, 13, 16, and 1 city at the county level.

Overall, the number of county-level national historical and cultural cities is small, with small administrative divisions and scattered distribution. National historical and cultural cities at or above the prefecture level are densely distributed in the eastern and central provinces of China, characterized by the formation of high-density distribution areas of blocky and sheet-like famous cities.

Historical and cultural towns and villages refer to towns and villages that are particularly rich in preserved cultural relics and have significant historical value or commemorative significance, and can fully reflect some traditional styles and local ethnic characteristics of the historical period. At present, seven batches of historical and cultural towns and villages have been announced, totaling 799. There are 312 historic and cultural towns and 487 historic and cultural villages. From the first batch in 2003 to the seventh batch in 2019, the number of historical and cultural towns slightly increased, from 10 to 60, and the number of historical and cultural villages significantly increased, from 12 to 211 (see Fig. 1).



**Fig. 1.** Number of Famous Historical and Cultural Towns and Villages in China by Batch

There are 160, 59, 61, and 32 historical and cultural towns in the eastern, central, western, and northeastern regions, with 273, 90, 38, and 86 historical and cultural villages respectively. The number of historical and cultural towns and villages in the eastern region is the highest, exceeding half. The western region has the least number of famous villages, accounting for only 7.90%, but famous towns account for 19.55%. In contrast to the western region, the northeast region has fewer famous towns and more famous villages.

From a provincial perspective, Sichuan and Jiangsu have the highest number of historical and cultural towns, reaching 31, followed by Zhejiang with 27. Ningxia

does not have any historical and cultural towns, while Beijing, Tianjin, and Qinghai only have one. Shanxi has the highest number of historical and cultural villages, reaching 96, followed by Fujian with 51. Heilongjiang does not have any historical and cultural villages, while Tianjin, Chongqing, Jilin, Liaoning, and Ningxia only have one.

By using the Lorentz curve, we can more intuitively observe the concentration and distribution of famous historical and cultural towns and villages in China. It can be seen that the cumulative proportion of historical and cultural famous towns in seven provinces, including Sichuan, Jiangsu, Zhejiang, Chongqing, Fujian, Guangdong, and Shanxi, exceeds 50%, while the cumulative proportion of historical and cultural famous villages in four provinces, including Shanxi, Fujian, Zhejiang, and Jiangxi, is close to 50%. At the same time, the Gini coefficient can accurately determine the degree of balance of historical and cultural towns and villages in geographical zones. The Gini coefficient of historical and cultural towns is calculated to be 0.43, and the Gini coefficient of historical and cultural villages is calculated to be 0.59. Based on the discrimination criteria, it can be considered that the spatial distribution gap of historical and cultural towns in the country is relatively large, while the spatial distribution gap of historical and cultural villages in the country is extremely uneven[6].

### 3.4 Historical and cultural district

Historical and cultural districts refer to areas with a certain scale that have been approved and announced by the people's governments of provinces, autonomous regions and municipalities directly under the Central Government and are particularly rich in preserved cultural relics, with concentrated historical buildings that can reflect the traditional pattern and historical style more completely and truly. Historical and cultural block is an important part of a famous historical and cultural city. A famous historical and cultural city should not only have excellent historical and cultural relics and important cultural relics, but also have historical and cultural blocks.

At present, there are 610 historical and cultural districts in 138 historical and cultural cities, covering an area of 35,400 hectares. There are 338, 104, 134 and 34 historical and cultural streets in the eastern, central, western and northeast regions, accounting for 55.41%, 17.05%, 21.97% and 5.57% of the country, respectively. The areas of historical and cultural streets in the eastern, central, western and northeastern regions were 22,400 hectares, 0.3,300 hectares, 0.76 million hectares and 0.200 million hectares, accounting for 63.31%, 9.45%, 21.47% and 5.78% of the country, respectively.

By province, Guangdong, Zhejiang and Jiangsu have the largest number of historical and cultural districts, with 67, 56 and 51 respectively, while Ningxia and Qinghai have the least, with only 1. Beijing has the largest area of historical and cultural districts, reaching 8,288.5 hectares, followed by Shandong with 4,206.6 hectares and Shanghai with 4,100 hectares. Ningxia has the smallest area of historical and cultural districts, only 3.2 hectares. It can also be seen from the Lorentz curve that the total number of historical and cultural blocks in six provinces, Guangdong, Zhejiang, Jiangsu, Shanghai, Sichuan and Shandong, is close to 50% of the country. The Gini

coefficient of the number of historical and cultural blocks in the country =0.42, according to the criterion, it can be considered that the spatial distribution gap of historical and cultural blocks in the country is large.

### **3.5 Cultural relic protection unit**

According to the law on the Protection of Cultural Relics, immovable cultural relics such as sites of ancient culture, ancient tombs, ancient buildings, grotto temples, stone carvings, murals, important modern and modern historical sites and representative buildings can be designated as cultural relics protection units based on their historical, artistic and scientific value.

In March 1961, February 1982, January 1988, November 1996, June 2001 (updated three times later), May 2006 (updated once later), May 2013 (updated once later), and October 2019, The State Council announced eight batches of key national cultural relics under protection. At present, the total number of key cultural relics under protection in China has reached 5,058. From the first batch in 1961 to the seventh batch in 2013, the number of new key cultural relics under national protection increased steadily, from 180 to 1,944, and the eighth batch in 2019 decreased slightly, to 762.

By region, the eastern, central, western and northeastern regions have 1,668, 1,747, 1,583 and 328 key cultural relics under national protection, accounting for 31.32%, 32.80%, 29.72% and 6.16% of the country's total, respectively. In general, the national key cultural relics protection units are most clustered in the middle and lower reaches of the Yellow River, the Yangtze River Economic Belt and the coastal areas of Fujian and Zhejiang.

From a provincial perspective, Shanxi and Henan have the highest number of national key cultural relics protection units, with 538 and 429 respectively, while Tianjin, Hainan, and Ningxia have the lowest number, with only 34, 37, and 38 respectively. Through the Lorentz curve, it can also be seen that the total number of national key cultural relics protection units in 8 provinces, including Shanxi, Henan, Hebei, Zhejiang, Sichuan, Shaanxi, Jiangsu, and Hunan, exceeds 50% of the national total. The Gini coefficient of national key cultural relics protection units is 0.34, and based on the discrimination criteria, it can be considered that the spatial distribution of national key cultural relics protection units in the country is relatively reasonable.

## **4 Problems in the protection of urban and rural cultural heritage**

### **4.1 Insufficient protection consciousness**

In the current process of urbanization development and new rural construction, due to the lack of protection awareness, the traditional features of some nature reserves, historical and cultural cities, towns and villages, and cultural relics protection units are still suffering varying degrees of destruction. Problems such as "demolishing the

old and building the new" and "abandoning the old and building the new" are prominent.

#### **4.2 Lack of protection list**

China's urban and rural cultural heritage is large in number and variety, and each type of heritage has different protection systems and different departments to manage it. The concept of urban and rural cultural heritage is not clearly defined, resulting in an indefinite number of urban and rural cultural heritage, such as general ancient buildings, whether historic urban areas that are not included in the scope of protection are cultural heritage? Therefore, the lack of urban and rural cultural heritage protection lists in our country is not conducive to unified protection.

#### **4.3 Large human disturbance**

The population flow in some protected areas is too dense, and some development and construction activities such as the construction of roads and tourism facilities have seriously damaged the urban and rural cultural heritage.

#### **4.4 Shallow value mining**

On the one hand, the protection of cultural heritage is insufficient. Due to natural damage, urban and rural construction, and other reasons, some cultural heritage has gradually disappeared. The current status of the protection and preservation of existing cultural heritage is also not optimistic. Due to untimely management and maintenance, some cultural heritage, especially ancient buildings, cultural sites, ancient tombs, etc., have been severely demolished, damaged, and corroded, posing a serious threat to the protection of cultural relics and the safety of the surrounding environment. On the other hand, the value mining is not deep enough, and the development and utilization are inefficient. At present, in the protection and utilization of cultural heritage, emphasis is placed on material carrier protection rather than value excavation. The maintenance, protection, or restoration and reconstruction of some cultural relics only rely on their commercial value for tourism development, which is only a display of objects. It is difficult to feel the profound historical and cultural connotations and the value significance contained in them.

#### **4.5 Lagged protection planning**

In the past, planning related to the protection of urban and rural cultural heritage was not compatible with national spatial planning. In some places, protection plans have not been formulated in a timely manner, and there is a lack of necessary basis for protection, rectification, and construction development, resulting in high arbitrariness; Although some places have formulated protection plans, the depth of the content is

not enough, often focusing only on the protection of "points" and neglecting the protection of the entire spatial structure of "lines" and "surfaces".

#### **4.6 Inadequate supervision of the implementation of protection planning**

Due to inadequate management, planning and protection measures are difficult to implement, resulting in frequent occurrence of constructive damage. In some places, urban and rural cultural heritage is developed as ordinary tourism resources, and even the entire ancient village is sold to tourism enterprises for operation, moving out the indigenous people, resulting in the loss of cultural connotations in the entire village.

#### **4.7 Lack of funding and resource support**

The protection of urban and rural cultural heritage requires a large amount of funding and resource support, including human, material and financial resources. However, at present, the protection funds and resources in many areas are still insufficient, which restricts the development of cultural heritage protection.

### **5 Countermeasures and suggestions**

#### **5.1 Attaching importance to conservation work**

On the one hand, it is necessary to raise awareness of the importance of the protection of urban and rural cultural heritage. China has paid increasing attention to the protection of urban and rural cultural heritage and issued a series of policies. Faced with severe problems in the protection of historical and cultural heritage, all localities should protect historical and cultural heritage as if they cherish their own lives. On the other hand, it is necessary to strengthen the responsibility and mission of the protection and utilization of historical and cultural heritage, and establish and implement scientific concepts. Local governments need to raise awareness that protecting urban and rural cultural heritage is an important responsibility of leaders.

#### **5.2 Compiling the protection list**

Clarify the types of urban and rural cultural heritage protection at the national level. Clearly define the protection responsibilities of governments at all levels, and effectively compile protection lists for urban and rural cultural heritage at all levels and types. Having a clear protection catalog is conducive to the protection of urban and rural cultural heritage.

#### **5.3 Strengthening supervision and protection**

Government departments should strengthen the supervision and management of urban and rural cultural heritage, and conduct real-time monitoring and guidance on the

development of resources within and around the heritage. Construction activities that illegally damage, occupy or violate urban and rural cultural heritage shall be strictly stopped and investigated. It is suggested to formulate a system of "archaeology first, land sell later", and improve the corresponding supporting policies. To ensure that the land where historical and cultural relics may exist is reasonable. After the completion of archaeological investigations, exploration and excavations in accordance with the law, the land shall be rationally utilized to ensure that possible historical and cultural relics are developed and protected.

#### **5.4 Preparing and supervising the implementation of protection planning**

Incorporate the protection of urban and rural cultural heritage into the compilation and implementation supervision of national spatial planning. Promote the standardization of massive data, timely monitor and analyze data on cultural heritage protection and utilization, evaluate the status of cultural heritage protection, and contribute to the economy and society. From a holistic perspective, protect and develop urban and rural cultural heritage, effectively implement the protection of urban and rural cultural heritage, and deeply explore the value of heritage.

#### **5.5 Increasing capital investment**

Local governments should increase financial support for the protection of urban and rural cultural heritage, taking into account local financial and economic development conditions[7], and provide preferential policies such as subsidies and tax exemptions for urban and rural cultural heritage protection projects. In addition, moderate value mining and cultural tourism income can serve as one of the sources of funding for the protection of urban and rural cultural heritage.

## **6 Conclusions**

The protection of urban and rural cultural heritage is necessary for national spatial security and quality. This article analyzed the quantity and spatial distribution characteristics of world heritage sites, nature reserves, historical and cultural cities, historical and cultural towns and villages, historical and cultural blocks, and cultural relics protection units. The results indicated that the total amount of urban and rural cultural heritage in China is abundant, with obvious clustering characteristics and significant regional differences. In the process of protecting urban and rural cultural heritage, there are some problems, such as inadequate understanding, lack of protection lists, large human disturbance, insufficient exploration of cultural heritage value, serious lag in relevant planning and inadequate implementation supervision, and lack of funding and resource support. Based on this, the article proposed countermeasures and suggestions from the aspects of emphasizing protection work, compiling protection lists, strengthening supervision and protection, preparing and supervising the implementation of protection planning, and increasing capital investment. The re-

search results can provide information and data support for the protection of urban and rural cultural heritage in China, which is conducive to coordinating and arranging the protection of urban and rural cultural heritage in national spatial planning.

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