# Study on Optimization Strategy of Historic Relics Site Protection

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**Abstract:** As an important historical relic and ruins, architectural sites play a pivotal role in the historical research of an area. In order to protect the building sites better, this paper summarizes several main problems in the process of building protection, and puts forward some corresponding optimization strategies.

Keywords: Historical artifacts; Architectural sites; Conservation strategies

#### 1. Introduction

Historical building sites refer to the sites of ancient human culture with rich remains, various types and outstanding values in cultural heritages, and are precious witnesses to the history of world civilization. Large Historical building sites are an important part of them [1]. Historical building sites are an important part of human cultural heritage, especially those with large scale and outstanding value in social and cultural heritage. They have formed a richer and more complete value system in terms of cultural value, social value and ecological value in addition to the noumenon of the remains in historical changes and related environments [2]. In the long history of change, these historical building sites and the background environment between the gradual formation of the indivisible value of the whole. At the same time, as the carrier of value, the historical building ruins often take up a large area, and the protection and utilization of the ruins and the social resources of the place where the ruins are located form a sharp contradiction with the needs of contemporary human survival and development. In the contemporary context of rapid urbanization, they are under unprecedented pressure [3]. Particularly in China, where human-land relations are far from being tense, on the one hand we must address the needs of contemporary human survival and development; on the other hand, the irreplaceability of cultural resources and the imminent crisis of their disappearance require the urgent protection of those significant cultural heritage of exceptional value [4]. Therefore, it is an important way to realize the protection of heritage and the sustainable development of social economy by correct understanding and value evaluation of historical building sites and taking reasonable protection strategies. Under the background of the continuous improvement of the awareness of cultural relics protection, this paper puts forward corresponding optimization strategies to solve the problems existing in the work.

## 2. Necessity and Urgency of the Protection of Historical Building Sites

The importance and uniqueness of important historical and architectural sites lie not only in their value at the social, spiritual, historical, artistic, aesthetic, natural, scientific or other cultural levels, but also in their important connections with the physical, visual, spiritual and other cultural contexts.

The generation and development of historical relics and architectural sites have never existed in isolation. From the beginning of ancient Chinese city site selection, an inseparable geomantic pattern has been formed with the surrounding natural environment elements such as mountains and rivers. Their common reflection is the ancient Chinese city building ideas, etiquette system and the symbiosis between man and nature of a harmonious world outlook, preservation has constituted a unique macro cultural landscape. Therefore, historical building sites and their background environment formed an integral relationship between the indivisible, and will jointly determine their heritage composition and outstanding value. As mentioned above, the protection of historical building sites should be based on the comprehensive consideration of the existing sites and their systems, ethnic groups and related landscapes. In order to preserve the authenticity and integrity of the cultural heritage, the value of the historical building sites should be evaluated from the value of the remains to the value of the interaction between the sites and the environment. Therefore, although many historical building sites have been preserved to this day, it is not only necessary but also urgent to protect them as a whole under the background of population burden and land shortage. In the process of rapid urbanization, we should protect and manage the surrounding environment by planning and other effective means in order to harmonize the cultural connotation of historical building sites with the surrounding landscape, and make them play an active role in the contemporary and future "use value" of cultural heritage, and become a living segment in the continuous history of human development.

## 3. Analysis of the Existing Problems in the Protection of Historical Relics and Building Sites

In the new era, the development of science and technology has provided a reliable support for the protection and restoration of historical relics and architectural sites, showing certain results. But the actual investigation results show that the protection and restoration of historic buildings are still affected by some factors, such as natural factors, social factors, financial factors, and so on. After analysis and integration, the following will be on the historical heritage building protection and restoration process of the impact of factors analysis and research. First, natural environmental factors. Wood, brick and stone are the main materials of Chinese traditional architecture. Although these materials can meet the needs of architecture, with the passage of time, the erosion of natural environment will become more and more serious, such as weathering, corrosion, mildew, moth and other damage problems, which greatly affect the ornamental of historic buildings, or even directly lead to the inability of historic buildings to maintain their integrity, so that the display life of historic buildings is greatly shortened. Second, social factors. With the continuous progress of urbanization, people's lives have been significantly improved, and more and more villages present a modern development state. But under this tendency, the protection of historical relic buildings is threatened to some extent. In order to present the modern development, some villages demolish the historical relic buildings, which leads to the rapid reduction of the number of historical relic buildings in China, and more and more historical relic buildings disappear from people's sight. Third, financial factors. There is a relatively high demand for funds for the protection and restoration of historical and cultural buildings, but the actual survey results show that the restoration and protection of most historical and cultural buildings are unstable in fund supply, which leads to the failure to smoothly promote the protection and restoration of historical and cultural buildings, and the inability to guarantee the efficiency

#### 4. Optimization Strategies for Promoting the Protection of Sites of Important Historical and Cultural Relics

and quality of work.

After analyzing the problems existing in the protection of historical and cultural relic buildings, the following optimization measures will be put forward on the basis of the natural conditions, social conditions and actual conditions

### 4.1. Strengthen overall planning and overall management

It is necessary to strengthen the overall planning and overall management of cultural relics in the work of cultural protection of historical and cultural relic buildings. During this period, the awareness of regional protection of historical and cultural relic buildings may be raised by means of publicity of cultural knowledge of historical and cultural relic buildings, so that the general public can fully realize the importance of protection of historical and cultural relic buildings. In addition, it is necessary to construct a perfect system with the help of the protection and association of historic buildings in the region, so that the overall planning can be strengthened under a more complete design plan. In the process of actual operation, the awareness of the whole society on the protection of historical and cultural buildings may be raised through the publicity of knowledge on the protection of cultural relics, TV programs, broadcasting and other ways, and the necessity of the protection may be realized. In this regard, we can strengthen the integrity and integrity of the protection of historical and cultural relic buildings by means of the region's historical and cultural relic buildings, so that the whole system becomes a system. Admittedly, when carrying out the work of protection of specific historical and cultural relic buildings, comprehensive protection programs can be designed in advance to improve the overall management effect.

At the same time, in the management, we should treat different types of historical relics and architectural sites differently, and scientifically transform their functions. As a special form of cultural heritage, different from other cultural relics and historic sites, the protection of cultural relics and architectural sites should not only remain in a single preservation, but should actively inject new use functions into modern urban life on the basis of preserving the unique spatial characteristics of its architectural environment and the historical information carried by it. At the same time, we should not blindly imitate some practices of other places or foreign countries, but rebuild or protect the original ecology according to the characteristics of the city and the specific site, so as to avoid developing its commercial value only.

## **4.2.** Improving the application of testing technology for historical and cultural buildings

After the implementation of the overall management plan, we can strengthen the use of detection technology in modern historic buildings, so that it can observe the basic situation of the internal structure of historic buildings with the support of new technology, so as to provide a basis for the subsequent restoration and protection, and thus better enhance the restoration effect of historic buildings. Three-dimensional stress wave tomography is an efficient testing equipment derived from the new era. It is mainly used in the testing of the wood structure of historical relic buildings to detect the defects in the wood structure of the historical relic buildings and carry out the corresponding maintenance and treatment. The 3-D stress wave tomography is composed of sensors and calculation system, which can be used to check and calculate the stress fluctuation of the wood structure by knocking, so as to calculate whether there are corresponding defects in the wood structure and guarantee the effective maintenance and treatment of the wood structure of the historical relic building in the later period. At the same time, the tester in the department of historical relic building should strengthen the control of the system calculation to ensure that the data can be comprehensively and reasonably analyzed by the computer, so that the speed of stress wave between sensors can be effectively controlled, and the stress image of 3D wave fault made by the computer accords with the actual situation of the detected historical relic building, so as to ensure the effective detection of 3D stress wave fault and its application effect.

## **4.3.** Optimizing the quality of restoration of historical and cultural buildings

Wood materials are mainly used in the maintenance of historic buildings. Therefore, the selection of wood materials should be based on the actual characteristics of the cultural relics to avoid wood rot. In particular, the quality of building materials will directly affect the safety of the entire project structure, therefore, the quality of materials is the premise to ensure the quality of construction. In view of this situation, we can guarantee the material quality from three aspects. The first is to control the procurement process, select the best procurement personnel, train the procurement personnel, and ensure that they have the skills and ability to identify the quality of materials; at the same time, it is necessary to collect material information comprehensively and select the most appropriate regular supplier according to the procurement needs. Second, do a good job in quality management of transportation and storage. For transportation and storage of materials, transport mode and storage method shall be selected according to the type and nature of materials. After warehousing, the material statistics and inspection. Thirdly, a strict system for the use of materials shall be established to clarify the various provisions on the use of materials; the supervision and control of the quality of materials shall be strengthened, and the entry inspection shall be conducted strictly to ensure the quality. In the repair of historical and cultural buildings, the relevant regulations and operating rules must be strictly implemented, and the materials must be taken in strict accordance with the norms so as to ensure the quality of the repair of historical and cultural buildings.

#### 4.4. Improve the laws and regulations on the protection of sites of historical relics and buildings

Although the protection of sites of historical and cultural relic buildings has received extensive attention, there are only a handful of cities that have formulated relevant protection measures, more administrative measures at the city and national levels have not been formulated, and laws and regulations are seriously lacking, which makes the protection of historical and cultural relic buildings unruly. The relevant departments shall perfect the system of protection of historical and cultural buildings as soon as possible, formulate relevant laws and regulations so as to rely on the system and coordinate the relationship between urban development and the protection and utilization of historical and cultural buildings.

## 4.5. Strengthen publicity and education and give play to the role of the media and the public in supervision

We shall, through various channels, intensify the publicity of historical and cultural buildings, actively mobilize the masses, guide and mobilize social forces to participate in the protection of historical and cultural buildings, and give full play to the positive role of social forces in the identification, protection and utilization of historical and cultural buildings.

#### 5. Conclusions

With the rapid development of the city, the protection and reuse of industrial heritage is imminent. One-sided protection and single reuse mode are not advisable. According to the local urban planning, industrial heritage should be endowed with new functions to make it a unique and attractive part of the city. In a word, historical relic buildings are of great significance for reference to modern architecture. However, due to the fact that historical relic buildings are mainly made of wood, they will be easily influenced by natural factors, man-made factors and social factors after being exposed for a long time, so that the protection effect of historical relic buildings will be affected. Therefore, it is necessary to do a good job in unified planning and management, and integrate modern testing and repair technology into the protection of building cultural relics, during which we need to control the professionalism of repair personnel and the quality of materials, so as to achieve the goal of improving the restoration rate of historic buildings.

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