Research on "Activation Application" of Industrial Heritage around the World

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Abstract: Industrial heritage is an important part of the World Heritage recognized by the United Nations, and scientific and effective protection and management of industrial heritage has received worldwide attention. However, due to the late start of industrialization in China, there may be certain problems in the process of industrial heritage protection, such as lack of understanding, lack of policies, and lack of capital investment. By analyzing and summarizing the "activation" application strategies of industrial heritage around the world, the article explores some mature and effective implementation plans based on the principles of authenticity, culture, publicity, commerciality and tourism, and is the industrial relic of China. The innovation provides a reference for the formation of an "activation application" road for industrial heritage with Chinese characteristics.

1. Introduction

The "revitalization application" of industrial heritage refers to re-giving it to a new "life" according to the characteristics of the heritage itself and the needs of urban development. The spatial distribution of the world industrial heritage is influenced by the industrial revolution, modern international discourse power, and social, economic, cultural, and political factors. It has a regional group distribution in the spatial distribution, mainly including continental Europe, Asia, Northeast Asia, North America, United States and Australia in Oceania. Among them, Europe has a large industrial heritage with a long history of industrial heritage, and the number of world industrial heritage registrations in Asia has increased significantly in recent years [1].

The article summarizes the "activation application" strategies of industrial heritage in these areas, which follow the five application principles of authenticity, culture, publicity, commerciality and tourism, and promote the creative development of heritage. The principle of authenticity is the fundamental principle of the activation and utilization of industrial heritage. It pays attention to the presentation of the characteristics of the original heritage. They are the witness of history and the carrier of culture. The principle of culture is the first principle, which is mainly reflected in the value of cultural science. It uses industrial heritage as a place to spread historical and cultural activities and show its long history. The principle of publicity has a large degree of openness, and the industrial heritage of each place is used as a place for community and tourism to provide supporting services. The principle of commerciality means that the workshops with a long history and unique crafts will re-own the driving force of their own development through commercial operation. The principle of tourism, through the development of tourism projects to showcase its unique industrial tourism experience, thereby enhancing the city's influence and adding new vitality to urban tourism. On the basis of the above principles, it has been transformed into four means of activation: one is to continue to use the original function of the original remains, the second is to build a special museum for industrial culture, and the third is to serve as a venue for cultural activities (such as Wenchuang Garden). The fourth is to use as a place to provide supporting services for business and tourism.
2. The principle of authenticity - government guidance is the key

The principle of authenticity refers to retaining and restoring various information carried by the industrial heritage to a certain extent, and recording new cultural and economic models in different cultural backgrounds and contexts, and continuously enriching and inheriting industrial heritage on the basis of the original. The original form [2]. Nowadays, the historical significance of excavating industrial heritage has aroused people's memory of national development, national pride and cultural belonging, which are of great significance to China's cultural heritage.

Japan is unique in its reuse of industrial heritage. It is worth learning that the Japanese government is a powerful driving force for promoting the reuse of industrial heritage. During the protection and utilization of the Tomioka silk-making field, government personnel fully recognized the historical value and cultural value of the silk-making field and exerted its social functions through transformation and utilization. In the process of its transformation, the social forces of all parties interested in the protection and utilization of industrial heritage are fully mobilized and utilized, so that the public can understand its motivation, exert its intelligence, use its manpower, and realize the organic combination of the forces of all sectors of society [3]. The Tomioka City Government has also integrated the sites around the silk-making field, completed the overall protection of the silk-making field and its surrounding areas, and built a group of modern silk reeling industry. With the addition of the government, the old industrial heritage that had been lingering has gained new identities in the development of new cities, and the optimal allocation of resources has been completed, so that industrial heritage can be utilized and developed more efficiently. This kind of cluster change cannot be achieved by the power of the people and the enterprise alone.

The activation application of the industrial heritage of Tomioka Silk Field is based on the principle of authenticity, scientifically utilizing the original production plant, and discovering its important values in various fields such as history, economy and society, and also expanding the potential for urban development. Increase urban competitiveness. Japan’s government-led "revitalization and utilization" measures have important implications for the innovation of urban industrial heritage communities in China.
3. Cultural principles - from value discovery to reuse

The revitalization of industrial heritage can show the world a unique industrial culture, open a window to the past culture, and enable the public to learn more about the rich and systematic industrial culture. The cultural principle of industrial heritage has priority, which should be reflected in the choice of the industrial heritage activation and utilization, but also in the display of its historical and cultural value through certain means.

France has rich experience and practice in the application of industrial heritage activation. It adopts a combination of internal and external macro-strategies to protect and utilize industrial heritage, has held several World Heritage Conferences, and actively declares its industrial heritage to the international community. In addition, France also pays attention to the exploration of its own characteristics, such as the corresponding protection and utilization measures for different types of industrial heritage types and levels. And the establishment of "Cultural Heritage Day", for the activation application of different industrial heritage, the country treats differently, has absolute and leading responsibilities and rights.

Fig.2 Visualization of backyard building: art gallery

In addition, South Korea's measures for the protection and utilization of national industrial relics are also unique [4]. First of all, the Korean government attaches great importance to the protection and utilization of national industrial heritage, and has formed a set of strict management systems from the central to the local. Secondly, the establishment of the relevant legal system has achieved the goal of protecting and utilizing national cultural heritage in accordance with the law and achieved good results. Furthermore, the protection of Korean industrial cultural heritage has been participated and supported by the whole people, forming a sense of protection for the entire industrial heritage. In order to realize the industrialization of industrial culture, the Korean government has proposed a strategy of establishing a culture and regards the cultural industry as a strategic pillar industry for Korea's economic development in the 21st century.

Every cultural heritage in our country has its own long history and splendid culture. When France and South Korea built a viable industrial and cultural block, the policy support and the enthusiasm of the whole people, as well as the practical results obtained, have a good reference value for the application of industrial heritage in China.
4. **The Principle of Publicity——Exploration of the Value Sharing Mechanism**

Industrial heritage is a public cultural resource in a broad sense, and its activation and utilization can be either public welfare or operational. The greatest use of industrial heritage is that it has the greatest degree of openness, allowing more people to deeply interpret the industrial heritage culture, making the history that is easily forgotten a permanent memory. The principle is social-oriented, service. Public, not for private or specific people.

Lowell is an important urban industrial heritage site in American history, and its activation feature is a value sharing mechanism. The value-sharing mechanism was formed in the challenges of Lowell's heritage protection. Heritage protection has led to a comprehensive revitalization of urban space, economy and culture. The key point lies in four aspects: First, the policy management mechanism. Emphasis is placed on establishing a multi-dimensional cooperation framework for value sharing by legislation and regulations, clarifying the rights and responsibilities of all parties, ensuring legally compliant and orderly arrangements for capital investment and protection and utilization measures; and second, the element identification mechanism. Emphasis on integrated identification, systematic review of material and intangible heritage, embodying multidimensional information sources and rich elements; third is the value interpretation mechanism. Emphasis is placed on linking inheritance and similarity between heritage and audience, strengthening the public's identity with the principles of authenticity, integrity and inspiration, and stimulating public awareness of protection and participation. The fourth is the interactive participation mechanism. Emphasis is placed on the use of space for shared use and the participation of activities to strengthen the links between heritage and local communities and their audiences, and to promote social bridging and economic recovery through heritage practices.

Advocating the publicity principle of industrial heritage in the process of heritage renewal, through the mixed use of classes and the participation and protection of participation, mobilizing the enthusiasm of different classes, so that industrial heritage truly becomes the common wealth of the whole society. Not only that, today's society needs the concept of value sharing, designing an inclusive and inspiring multi-dimensional heritage development strategy, making the value of industrial heritage easy to be recognized by different people, and guiding people to think deeply and promote different people.

5. **The principle of tourism - Nirvana rebirth of industrial tourism**

The form of industrial heritage activation is rich and varied, and tourism is the main form of utilization. According to the particularity of the positioning of different industrial industries, European countries have brought new ideas to the development of local tourism, and divided the format of their activation and utilization into cultural and creative neighborhoods, leisure and entertainment venues, industrial experience museums and museums. Invalid industrial heritage is activated through the use of commercial + tourism + culture.

The UK is the first country in the world to carry out industrial heritage tourism, the most famous example of which is the Iron Bridge Gorge. The Iron Bridge Canyon is rich in coal resources and is an important driving force for the British industrial revolution. In the second half of the 19th century, the coal industry in the canyon began to decline and the factory was gradually abandoned. After the British government's transformation and utilization of domestic industrial relics, today's Tieqiao Gorge has formed a tourist resort covering an area of 10 square kilometers, including 7 museums and industrial culture memorials, and 285 protective industrial buildings. The annual pick-up volume can reach 300,000.
Also, in this way was the German Ruhr Industrial Zone. The Ruhr Industrial Zone was originally a heavy industrial zone dominated by heavy chemical industry. After the Second World War, the mines and steel mills closed down and the Ruhr industrial zone gradually became ruined. But now the Ruhr industrial area has become a new science park after planning and utilization. Not only has a large shopping center been built on the site of the factory such as a steel mill, but it also has cafés, bars, food courts, various amusement facilities and entertainment centers, and also retains a large number of open green spaces and lakes, enhancing tourism [5].

The principle of tourism is an important form in the process of industrial heritage activation, which can effectively unify the inheritance of cultural heritage and the renewal and development of cities. Revitalized by tourism to let the public know the value of the heritage and encourage the public to protect the heritage in a more positive way. Tourism is essentially a process of seeking differences, and a unique experience is the first choice for tourists. The Ironbridge Gorge in the United Kingdom and the Ruhr area in Germany use the means of tourism to revitalize the original heritage. It can provide intuitive science knowledge, exude a simple atmosphere, stimulate tourists' nostalgic mood, and combine with leisurely and hospitable atmosphere to stimulate tourists' feelings.
6. Commercial Principles - Industrial Relics of Multiple Business Cards

The business model of industrial heritage should be based on the promotion of business as the core, adopting the combination of tourism and accommodation, food and housing, and business promotion, and directly divide the role and status of commercial principles in the activation and utilization of heritage. The promotion of business is to transform some historic buildings of industrial heritage into large-scale cultural facilities construction projects, such as the renovation of the Italian Fiat Auto Factory to the Convention and Exhibition City [6]. The combination of tourism and residence is to transform some historically valuable workshops and private houses and industrial building heritage into characteristic restaurants and boutique hotels. For example, Beijing 798 will transform the original industrial heritage factory into a cultural block or a food street. Based on the game, the old factory building and workshop will be repaired and transformed to create an industrial experience center, so that people can experience the joy of independent production. Business promotion is through the government management department to review the licensing method, allowing private homeowners or renters to carry out business operations according to the requirements of building protection and utilization guidelines and protection programs in the scenic area.

Only by insisting on both hardware and software and strengthening industrial support can we truly make the industrial heritage alive. This will create an integrated business area that combines shopping, business, dining and entertainment with an industrial heritage culture. By then, China's various industrial heritage tribes will become a large-scale special tourism complex covering the purchase, living and entertainment.

7. Conclusion

The process of "revitalizing and utilizing" industrial relics is carried out in all parts of the world. Each city has its own precious historical track in the industrial age. The industrial spirit of each industrial heritage is also different. This paper analyzes the successful practice of industrial heritage activation application at home and abroad from the principles of authenticity, culture, publicity, tourism and commerciality. From these foreign "stones of other mountains", it can be seen that through the discovery of the value of industrial heritage to the guidance of the government, the active participation of the masses has revived the remains of the original ruins and the deadly factories, and also protected the industrial heritage of China. The road brings new impetus.

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