

Transformation and reuse of Industrial Heritage from the Perspective of Cultural value ——Taking the Transformation and reuse of Harbin Industrial Heritage as an example

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Abstract: From the outbreak of the industrial revolution, through the social development and changes in the industrial era, to the advent of the post-industrial era, many industrial cities have entered a new stage of reform and development, and are faced with the common problems of industrial heritage transformation and reuse. The development of industrial heritage protection and transformation in China is relatively late, and the research and discussion on industrial heritage transformation is more focused on several successful cases. Taking the protection of industrial heritage in Harbin as an example, this paper probes into the transformation and reuse of industrial heritage from the cultural value and function of industrial heritage, probes into the relationship between urban culture and the development of industrial heritage culture, and puts forward some corresponding countermeasures for the transformation and reuse of industrial heritage.

Keywords: Cultural value of Industrial; Heritage; UrbanCulture

In the 1860s, from the beginning of the first industrial revolution initiated by Britain, human society entered the era of replacing manual tools with machines. The development of industrial economy changed people's life and social form. In the process of more than 200 years of development, the industrial revolution has also experienced four stages of development: mechanization, electrification, automation and intelligence, and then entered the development stage of the post-industrial revolution. In the process of urban development and economic transformation, the original layout and mode of production of old industrial sites have seriously limited the pace of urban development, a large number of traditional industries have declined, have gone bankrupt and closed down, industrial sites, industrial equipment, industrial buildings and so on have been gradually abandoned, resulting in many environmental and social development problems. However, although the traditional industry has gradually stepped out of the stage of history, the historical and cultural values precipitated and condensed by the industrial heritage are the spiritual wealth that can not be ignored in the process of the development of human civilization and culture.

I. The Cultural Value of Industrial Heritage

1. History and Culture

The industrial bases of different countries and cities bear a certain historical mission and important production tasks in a specific historical period. The industrial plants formed by the layout and development have created brilliant economic value in the historical period at that time, completed the development strategy of the country and the city, and also formed the historical imprint of social development and change in the process of industrialization, which has the characteristics of the times and regions. As a historical product of an era, these old industrial heritage contains not only the land resources and product value it occupies, but also an important part of human history and culture, as an important carrier of industrial civilization, and also a historical cultural relic produced in the process of the development of industrial society, which has a very important cultural relics value. Those eliminated industrial facilities and equipment, dilapidated industrial buildings and so on have recorded the historical traces of the development and progress of science and technology. The historical and cultural value of the accumulation and precipitation of industrial heritage makes it an important non-renewable resource. It inherits and remembers the development of spiritual culture, architectural culture, industrial culture, artistic culture and urban culture of a country or region, and has very important historical and cultural value.

2. Industrial Culture

The industrial buildings, industrial equipment, facilities and industrial products produced in the traditional industrial period all have the value and connotation of the spiritual level in the process of the development of the times. The production and life process of people in the industrial era has obvious characteristics of the times, the production and life of the industrial age needs a lot of repetitive work, repetitive work can create the skilled industrial technology needed for industrial production, this kind of work mode will form a strong memory impression, and it is difficult to forget. The industrial environment, such as industrial architecture, industrial equipment and facilities, has become the carrier of the memory impression, forming a strong industrial atmosphere, giving people shock, solid, heavy and other feelings, coupled with the exquisite technology and artistic expression, exudes the industrial culture flavor and forms the spiritual connotation. For example, the abandoned locomotive landscape of Harbin Aijian Square has been retained in the square, forming an element integrated in the public environment, so that urban residents and tourists can understand the development and changes of means of transportation and the historical background of Harbin vehicle Factory, which not only has ornamental value but also transmits industrial and cultural information.

3. Artistic and Cultural Connotation

The development of industrial economy is accompanied by the development and change of human society, which records the great changes of industrial development and social change, and is an important place for human social activities. Art originates from people's production and life practice, but also higher than life, the development of industry has led to the prosperity of social economy, but also promoted the development of art and culture. The development of art and culture is not only reflected in the architectural aesthetics of industrial buildings in different periods, but also in the production equipment and facilities and industrial products related to industrial activities in the industrial era. In the process of industrial production development, industrial science and technology continue to improve, new industrial technology means and more and more precise industrial products have also formed a unique industrial art and culture. The change of shape outline, the scientific design method, the precision of structure combination, the unique rough texture of industrial products and the strong visual impact show people the beauty of industry, marking the level of industrial development in the process of industrialization and showing the style of the times.

II .Urban Cultural Elements that Can not be Ignored in the Transformation and Reuse of Industrial Heritage

The development of urban culture, as a higher stage of urban development after the construction of production and public facilities in the process of urban modernization, is the process of urban branding. Culture is the sum of material wealth and spiritual wealth created by human beings in the process of social and historical development. The city is the center of national or regional economic and social development and the concentrated embodiment of culture, and the city itself is a kind of culture. In the process of its formation and development, the city has created its own urban culture, which plays a very important role and function in urban construction and development: 1. Urban cultural image can increase the popularity of the city. 2. Urban cultural image reflects the historical extension of urban natural geography and urban culture, reflects the inherent cultural character and charismatic character of a city, is the appropriate expression of the cultural image of the city, has a profound urban cultural image and produces good feelings in the minds of the public, the city often becomes the focus of the world, leading the world economy and cultural trend. Urban cultural image makes urban competition have monopoly resources. Under the condition that the means, methods, contents and forms of urban competition are more and more the same, urban cultural image is an excellent means for cities to seek differentiated competition and pursue attention economy, especially in the era of cultural economy, the influence of urban image is more important than ever. Cultural industry becomes the decisive factor of industrial talent technology and investment in urban development, which is the most key factor in the competition of cultural industry. A good urban cultural image is like a huge magnetic field to attract talents and investment. Through re-optimizing the combination to form a strong core competitiveness, so as to promote the overall and coordinated development of the city. 2. The urban cultural image itself is an intangible asset that can improve the value-added ability of the city. Urban cultural image is the materialization of intangible wealth on the basis of the development of urban cultural resources, and the marketing and promotion of urban cultural image is not only an industrial force but also determines the quality of urban development. A good urban image can improve the cohesion of the city and optimize the urban structure while promoting the economic and social development of the city. The construction of urban cultural image can achieve the integration of urban political, economic, cultural, social and psychological elements to form an overall unified communication mechanism and identification mechanism, and finally achieve the optimization of urban economic, political, cultural and social elements. The urban cultural image can promote the development of the unique products, services and even industries of the city, and provide great support for the local enterprises to open up the market to lead the city to obtain the development advantages of various cultural resources. The image of urban culture can also form a consensus with consumers in the spirit, reach resonance with consumers, promote consumers' buying behavior and gradually cultivate a group of consumers loyal to local urban culture to form urban cultural brands so as to obtain sustainable and differentiated competitive advantage. 3. Urban cultural image can guide the construction of urban cultural space and protect the cultural rights and interests of urban residents. Public cultural space is one of the important criteria for the level of urban modernization. The layout and construction level of urban cultural space are closely related to the cultural rights and interests of urban residents. Under the guidance of urban cultural image, the construction of urban iconic cultural space with distinctive characteristics can meet the needs of modern people to enjoy culture in museums, art galleries, libraries, concert halls and other places, and touch the unique temperament of a city. The inner need of looking for a sense of belonging cultural industrial park and urban cultural complex is a new urban cultural space in recent years. This kind of cultural space changes the spatial pattern of the city so that the agglomeration and development of cultural and creative industries can be well combined with the original cultural ecological environment and people's way of life, and gradually highlight the cultural charm of a city. 4. The image of urban culture is conducive to carrying out foreign exchanges and improving the level of urban internationalization. The development of modern city has entered the stage of "people-centered" personality development. The individualization and unique historical and cultural characteristics of the city not only meet the individualized needs of human beings, but also become the new needs of competition and development of modern cities. The unique urban cultural image can not only increase the cultural attraction of the city, but also lead the city out of the country and to the world. And then lead urban enterprises, products, brands and tourism resources out of the city to the world. In the process of carrying out foreign exchanges, the successful urban cultural image is easier to set up a platform for exchange and cooperation

between the city and other countries in the world, so as to reduce cultural friction and achieve cultural identity to win the understanding of the international public, stand out among many cities, and win the first opportunity to develop by attracting large foreign companies and financial institutions. In the international scope to promote more capital flow, talent flow, information flow to improve the level of internationalization of the city. 5. The image of urban culture is conducive to the integration of urban and rural cultural spirit to promote the development of urbanization in China. In the cultural sense, the process of urbanization is the integration of urban culture and rural culture, and the symbiotic coexistence and co-prosperity of more modern urban culture and more emotional rural culture. The comprehensive generalization of urban cultural image on the basis of urban multiculturalism is helpful to enhance the residents' sense of urban identity and form a strong internal cohesion of the city.

In the process of the development of the industrial era, the birth and development of the old industrial base has promoted the urban layout and economic and social development, to a large extent, the industrial heritage has been branded with the brand of urban development, with indelible urban cultural imprint, telling the process of the formation of urban culture for many years, which is also a very valuable historical and cultural value of industrial heritage. In the process of protecting, reforming and reusing the industrial heritage, we should fully consider the urban cultural construction and development plan of the city where the industrial heritage is located, fully unify the cultural value connotation of the industrial heritage with the urban cultural construction in the industrial heritage transformation and reuse scheme, and promote the urban cultural construction with the reuse of the cultural value of the industrial heritage. At the same time, the cultural and historical value of industrial heritage transformation is reflected by the characteristics of urban culture.

III. Transformation and Reuse of Industrial Heritage Based on Harbin Urban Culture

1 Harbin Urban Cultural Background

Harbin, as the capital of Heilongjiang Province, is located in the middle reaches of Songhua River in SONGLIAO Plain. Harbin is the political, economic and cultural center of northeast China. It is a famous historical and cultural city and tourist city in China, and it is a famous historical and cultural city in northern China. With Middle East Railway Construction, industry and commerce and population began to gather in Harbin. By the time the Middle East railway was built, Harbin had formed the embryonic form of a modern city. At the beginning of the 20th century, Harbin has become an international commercial port. More than 160000 overseas Chinese from 33 countries have gathered here, and 19 countries have set up here .Consulate. Meanwhile ,Chinese nationalityCapital also made great progress, and Harbin was established in BeiMan at that time .Economic centerAnd international urban status. Harbin has a long history, which not only brings together the history and culture of ethnic minorities in the north, but also is a famous city with the integration of Chinese and foreign cultures. Harbin Wen Temple and Jile Temple reflect each other with western classical architecture and strange Orthodox, Catholic and Christian churches. They are known as "Oriental Little Paris" and "Oriental Moscow" by the world.

In Heilongjiang, Harbin and its surrounding areas once became an advanced industrial base in Asia. As an important industrial base in China, Harbin's machinery manufacturing, food processing, medicine and high-tech industries have begun to take shape. Harbin is a regional aircraft and aerospace supporting production base in the national planning, is a famous capital of northern medicine, and is also known as the hometown of power, the hometown of tools, and the hometown of flax.

During the first five-year Plan period, 156 were built in Harbin with the aid of the former Soviet Union and invested directly by the state.

Thirteen of the 13 key construction projects (150 actual construction projects) are now famous throughout the country for their "three driving forces", shaft and quantity, which are located in Xiang fang District of Harbin City, etc., all of which were born during that period. Harbin Boiler Factory is one of the largest thermal power generation equipment manufacturing enterprises in China; Harbin Steam Turbine Factory is a large backbone enterprise producing power station steam turbines in China; Harbin Electric Machinery Factory is the largest power station motor production enterprise in China; Harbin bearing Factory is the backbone enterprise of bearing industry in China; Harbin measuring tool cutting tool Factory is a national comprehensive large-scale tool manufacturing enterprise. In addition, the large and medium-sized state-owned enterprises that were built and put into production one after another, and Harbin flax factory was the second largest flax factory in the world and the largest flax factory in Asia at that time. The tarpaulin used in aircraft and artillery during the War of Resistance against the United States and Aid to the DPRK was almost all canvas produced by Harbin flax factory. Harbin Construction Machinery Factory is a large backbone enterprise of crane industry in China. It is the only professional production of four series of products: truck crane, off-road tire crane, port tire crane and tower crane.

Over the past few decades, Harbin's industrial development has contributed to the economic construction and development of New China. Harbin has a variety of industrial types and rich resources. It records the brilliant course in Harbin's industrial history, represents the past of Harbin, and has made contributions to socialist construction. Nowadays, there are few national capitalist enterprises left, and most of the foreign-funded enterprises have only left behind the buildings, but it is precisely because these architectural cultures with western characteristics have cast the unique charm of Harbin, and the former Soviet Union aid construction industry during the first five-year Plan period

condensed the course of modern industrial development in China, and also has rich value and representativeness, which is an indispensable symbol of Harbin.

2. Cultural Inheritance in the Industrial Heritage Reconstruction Project of Harbin Machinery Factory

The "birthplace" of Harbin Machinery Factory is not in HaXi, but on the south road outside the road. In 1953, 17 small iron plants, such as "RenChang" and "Concorde", outside the old road, joined forces to form Harbin Machinery Factory and then moved to HaXi Industrial Zone. In the difficult years when the industrial foundation was weak at the beginning of the founding of the people's Republic of China, the group of workers in the United Machinery Factory created the "skillful ant" building block machine tool to carry out production, outstanding completed the task entrusted by the Republic, and was praised as the spirit of "small ant gnawing bones", which was famous all over the country at that time. For Harbin, an important part of its urban culture is industrial culture, which represents the spirit and appearance of the city. In this city, the corporate culture of one old industrial building also affects the generation after generation living here, forming the perseverance of Harbin people will never give in. These spirits have an irreplaceable position and significance for Harbin people, promote the development and prosperity of Harbin urban culture, and become an important part of urban culture.

The transformation of the industrial heritage project of Harbin Machinery Factory has fully considered the cultural connotation of the original industrial heritage and the development of Harbin urban culture, and has become an innovative commercial ecological platform of Hongbo West City Red Square Commercial complex, with a total area of 128000 square meters and a total construction area of 400000 square meters. The city culture dissemination center integrates the six business forms of "production, study, commerce, art, health and travel". The old industrial factory building of 100000 square meters in Xicheng Red Square is composed of four "red houses" retained by the original machinery factory, which preserves the brilliant history of the old industrial zone and shows the future brilliance of this area. These tall factories are the historical witness of the industrial development of Harbin after the founding of the people's Republic of China, and are also the memory of an era in Haxi area.

Red Square regional functional planning is clear, Red Square 1 is a quality cultural district, after operation will become a high-end clubhouse, provide business exchange and information dissemination platform, hold business activities, lecture forums and so on from time to time. Red Square 2 for the performing arts cultural district, one after another held a number of performances, famous car launch and other high-end fashion cultural activities. The future Red Square 2 will set up the Ice City impression Theater. In addition, Red Square 2 also brings together international brands flagship stores, western-style meals, animation and entertainment city and other commercial sectors. Red Square 3 is a creative cultural district, will be built an area of up to 2000 China's largest Taiwan show, and equipped with the most advanced international sound and optoelectronics and other equipment, many brands can be released and displayed immediately. Hongbo Business fully integrates resources, such as gold leopard and other high-end catering, slow shake bar, red wine shop, Prada bar, punk bar, Starbucks, COAST coffee and so on into Red Square 3. Red Square 4 is an experience cultural district, divided into two floors, the first floor is a large outdoor supplies mall, a collection of high-quality sports, tourism brands, to attract outdoor enthusiasts to supplement and upgrade equipment. The second floor is the children's early education center, handicraft workshop. The Industrial Culture Expo Corridor, which is about 200 meters long, connects the old factory building with the new business and is an important link for Red Square in Hongbo West City. The Industrial Expo Promenade displays physical objects, models, drawing boards, photos, as well as cars, pliers, milling, and other industrial equipment, becoming a centralized display base and educational base of industrial culture.

Now the big ant in front of the West City Red Square Mall seems to be an art sculpture, in fact, it contains a wealth of historical and cultural connotation, representing the tenacious and unyielding spirit of the older generation of industrial workers in Harbin.

Some industrial equipment can be retained, although the abandoned equipment has lost its production function, but still, with its valuable cultural value to play its waste heat, the old gear with the imprint of history, to show people that can not be forgotten history, shaping and inheriting Harbin urban culture and urban spirit.

The development of the industrial era affects people's thought and behavior, and shapes the spiritual outlook of a generation. The urban development of Harbin in the industrial era is the pride and glory of the people of Harbin, and naturally this history should be preserved forever. These history records the change of Harbin urban development and the spiritual sustenance of Harbin people. Without these historical wreckage, Harbin urban culture will also lose its unique luster. To a large extent, the transformation project of ICFTU Machinery Factory retains the cultural value contained in the industrial heritage. The slogans of the times and the propaganda posters of the background of the times can be found everywhere in the new projects, and the urban culture of Harbin is distributed everywhere and plays a spiritual guiding role.

From the point of view of the objectives and functions of the project planning, the Xicheng Red Square has also perfectly achieved the ideal goal of promoting the construction and development of urban culture. Since the operation of Xicheng Red Square, more than 400 influential and diverse art and cultural exhibitions and activities, such as "French E Times Photography Exhibition", "Russian Modern and Contemporary Art Exhibition" and "Chinese painting Biennale", have been carried out, which have greatly improved the standard of urban art and culture, demonstrated the tension of urban art, and become the center of urban cultural promotion. In particular, Harbin Fashion week, hosted by Xicheng Red Square, has been successfully held for 8 consecutive sessions, with more than 1300 designers from more than 70 countries and regions gathered here to become a veritable global fashion show and a platform linking world

friendship, sharing global resources, leading international fashion and achieving win-win cooperation, and creating a unique attractive international fashion IP, to promote Harbin to become a fashion highland on Belt and Road Initiative.

At present, Xicheng Red Square has been awarded "China Industrial Heritage Alliance governing Unit, Chinese Garment New Fashion release Base, Chinese Garment Autumn and Winter Industry Promotion Alliance, Heilongjiang Province key Promotion Cultural Industry Project, Heilongjiang Province Cultural Creative Industry key Project, Heilongjiang Province female College students Entrepreneurship Base, the first Qingchuang Community in Northeast China, Harbin Cultural Industry demonstration Base, Harbin International Fashion week venue "and other honorary titles and industrial achievements, Harbin Fashion week has been successfully held for seven sessions, becoming another fashion business card in Harbin.

To sum up, in the process of industrial heritage transformation and reuse, fully excavating its cultural value and considering the regional and urban cultural development factors of the heritage can not be ignored to promote the successful transformation of industrial heritage, at the same time, the successful transformation of its project will also promote the construction of urban culture and activate the regional economic development.

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