

On the Reuse Planning of Industrial Heritage from the Perspective of Urban Context--Taking Huaxin Textile Factory in Tangshan as an example

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ABSTRACT. Industrial Heritage shows the historical appearance of a city's or even a country's industrial culture, and it is the witness of urban development and urban civilization. Therefore, the value of protecting industrial heritage for the continuation of urban context is self-evident. This paper attempts to analyze the current situation and the dilemma of reusing industrial heritage of Huaxin Textile Factory in Tangshan City, sort out the composition of its urban context, and put forward a positive reuse planning strategy to provide a new research method and a perspective for the protection and inheritance of industrial cultural heritage.

KEYWORDS: urban context industrial; heritage reuse planning; tangshan huaxin textile factory

1. Introduction

City is the result of human society when productivity reaches a certain level. Each city has formed a unique cultural context due to different geographical and climatic factors and different historical development processes. This kind of cultural context with clear continuity in the dimension of time and space can be called "urban context". Urban context is the root of a city, which enables different cities to show different styles. Urban context is the soul of a city, influencing the life of citizens and the temperament of the city. With the continuous development of urban industrialization, industrial heritage also comes into being. They form an integral part of the urban context. Industrial heritage is the spiritual core of a city's survival and development. Abandoning it will undoubtedly cut off the relationship between the city's historical accumulation and social reality, cut off the relationship between the city's cultural heritage and the development of the times, and cut off the relationship between economic development and the adjustment of industrial structure. If industrial heritage is not properly protected and utilized, it will cause irreversible damage to urban context. Based on the issue of inheriting the urban context and protecting the industrial heritage, the academic community mostly interprets it from a macro perspective. At present, the author has not found a case study of Tangshan Huaxin Textile Factory. Considering this, this paper intends to take Tangshan Huaxin Textile factory as an example to discuss some ideas from the perspective of urban context in order to teach the local people.

2. An Overview of Tangshan Huaxin Textile Factory

2.1 Historical Evolution of Tangshan Huaxin Textile Factory

Tangshan Huaxin Textile Factory is located in the southeast of Tangshan. It is adjacent to Jingfeng railway to the South and Douhe River to the West. If we take Douhe river as the vertical axis and Jingfeng railway as the horizontal axis, TangChang is located in the third quadrant. Formerly known as TangChang of Huaxin Textile Co., Ltd., it is one of four factories of Huaxin Textile Co., Ltd. (Tianjin factory, Qingdao factory, Tangshan factory and Weihui factory), founded by Zhou Xuexi, a famous industrialist. Huaxin Textile Co., Ltd. was established during the first World War. Zhou Xuexi, then the finance minister of Beiyang government, together with Li Ximing, the general manager of Qixin gray company, Wang Xiaoting, the assistant manager, and so on, set up Huaxin Textile Co., Ltd. in Tianjin. The company was established in 1918, with Tianjin factory, Qingdao factory, Tangshan factory and Weihui factory established one after the other. In 1923, all 24000 spindles of Tangshan Huaxin were put into production, becoming the first modern machine textile factory in Hebei Province. After the September 18th Incident in 1931, Japan occupied the northeast of China and began to destroy the national textile industry in China. In 1936, Tangshan Huaxin Textile Factory was seized by Japanese

businessmen. After Japan's surrender, Tangshan Huaxin Textile Co., Ltd. took back the right of operation and management, and its production and operation were maintained in the current situation. After the liberation of Tangshan in December 1948, Huaxin Textile Factory obtained an unprecedented peaceful and stable development environment and made remarkable achievements. In 1979, Tangshan Municipal government decided to change Huaxin Textile Factory from one factory to two factories. Huaxin Textile Factory was relocated to Fengrun New District for reconstruction, and the original site of the old factory was rebuilt to build Tangshan cotton textile factory. After the mid-1990s, the cotton textile industry entered an extremely difficult period after the gorgeous time, especially after entering the 21st century, Huaxin factory was even more difficult, the production and operation was deteriorating, and it was forced to declare bankruptcy in 2006.

2.2 Difficulties in the Protection and Reuse of Tangshan Huaxin Textile Factory

The lack of protection awareness caused by the lack of self-awareness of the value of Huaxin Textile mill is an important obstacle for its reuse. After the bankruptcy of the enterprise, part of the old factory was sold to Tangshan steel works, and the other part was used for greening, and Huaxin Park was built. The workshops were not preserved, and the workshops in Fengrun new area were used for other purposes. What's more, the industrial equipment in the early stage of the construction of Tangshan Huaxin plant almost disappeared due to the factors such as earthquake, the construction of the plant in other areas, equipment renewal and the policy of limiting production and smashing ingots. Other machinery and equipment were auctioned after the bankruptcy of the enterprise, and they were also not preserved. There are not many human resources left in Huaxin Textile Factory. At present, there is a large copper clock weighing 100 kg, a panoramic picture of the company's front door taken in 1920, a trademark of Sanyan in 1929 and some archives of enterprises. Due to the earthquake, relocation and other reasons, the archives of enterprises are seriously lost. In addition, after the bankruptcy of Huaxin Textile Factory in Tangshan, some archives were damaged due to the improper storage in a period of time. Huaxin company once requested Tangshan Municipal government to transfer the archives. After several setbacks, the enterprise archives were finally taken over by Tangshan Municipal Archives Bureau.

It can be seen that the current situation of the industrial heritage of Huaxin Textile Factory in Tangshan is worrying and in a precarious situation. If it is not protected and utilized in time, the industrial heritage of Huaxin Textile Factory will disappear in the near future.



Figure.1 Picture of the Front Door of the Factory (Source: Archives of Tangshan Archives)

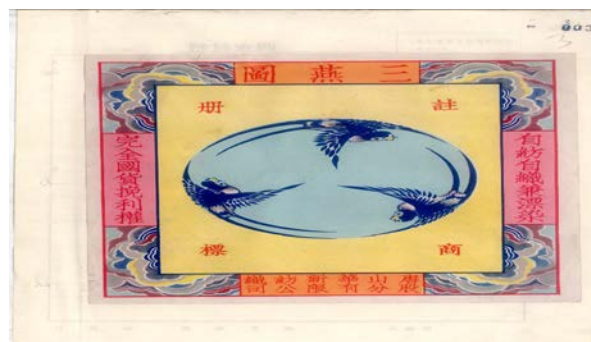


Figure.2 Trademark of Sanyan (Source: Archives of Tangshan Archives)

3. Composition of Context Elements of Tangshan Huaxin Textile Mill

Context continuity “provides a middle way between the two dangers of excessive juxtaposition, which destroys the continuity and blinds obedience of context, and solidifies context in a specific historical period.”. Industrial heritage can be divided into two categories in the process of urban context continuation: dominant factors and recessive factors. Dominant factors refer to industrial landmark buildings and industrial production equipment, while industrial archives and industrial spirit and other human resources belong to recessive factors. They constitute a dimensional, full and real industrial heritage.

3.1 Hidden Context Elements

3.1.1 Historical Memory

Tangshan Huaxin Textile Factory was built in 1919 and went bankrupt in 2006. It has gone through nearly a hundred years. In terms of historical context, Tangshan Huaxin Textile Factory has gone through the period of Beijing government, Nanjing National Government, Japan puppet period, the initial stage of the founding of new China, cultural revolution and reform and opening-up period, with obvious traces of the times. During this period, the company accumulated millions of capitals and went through hardships and frustrations. Tangshan Huaxin was built and put into operation in 1923. By the early 1930s, the enterprise developed into a comprehensive textile factory integrating spinning, weaving and dyeing. In 1936, Tangshan Huaxin Textile Factory was forced to cooperate with Japanese merchants, and its management power was controlled by Japanese. After the liberation of Tangshan at the end of 1948, Huaxin Textile Factory made great progress. Especially since the reform and opening up, the output value, the output, profits and taxes of the enterprise reached a new record. From 1982 to 1986, the total output value of the enterprise reached 342.93 million yuan, the output of cotton yarn was 45423 tons, the output of cotton cloth was 1494 million meters, the profits were 26.1 million yuan, the profits and taxes were 31.15 million yuan (except 1982), and the export earnings were about 30 million yuan. The products were well-known at home and abroad. Cotton cloth was exported directly or indirectly since 1985, and was sold well in Europe, America and Asia. Unfortunately, in the middle and late 1990s, because of the strong impact of domestic and foreign economic environment and the adjustment of national industrial structure on Tangshan Huaxin Textile Factory, and a series of problems existing in the enterprise itself, such as poor product structure adjustment, insufficient production technology, insufficient innovation ability and design ability, the enterprise fell into a dilemma and eventually went bankrupt. We can compare it to a picture of the industrial history that has witnessed the glory and disgrace of China's cotton textile industry for nearly one hundred years. She tells us the glory at the beginning of the enterprise, the difficulties during the Japanese puppet period and the takeoff after the founding of the people's Republic of China, as well as the dilemma and helpless ending after the adjustment of the industrial structure. After a hundred years of baptism, Huaxin factory has become a part of the historical memory and humanistic features of this famous industrial city. If we erase it, we will artificially cut off the memory and context of the city.

3.1.2 Human Needs

Huaxin factory faithfully recorded the rise and fall of Tangshan textile industry and technological changes in the past century, and witnessed the historical process and social development and change of Tangshan's urban industrialization. Huaxin once had a group of excellent industrial workers with high quality and a surge of labor models. Han Guihua was a spinner in Huaxin Textile Factory. She set the highest number of spindles in the country. From 1952 to 1954, she was rated as a model worker for three consecutive years in Hebei Province and received by leaders such as Mao Zedong and Zhou Enlai. In 1952, Li Fenglan, who was also a spinner, was named as the national model of textile industry. In 1978, Zhang Yufeng, a young female weaver in the weaving workshop, was awarded the title of “national new Long March Raider” and “national labor model” by the organization department. It can be said that Huaxin factory bears the glory and dream, enthusiasm and passion of several generations of Huaxin people, and embodies the vigorous youth and hard struggles of Huaxin people. Huaxin factory was the workplace for them to devote their efforts and realize their self-worth, the environment for generations of industrial workers and their families to work and live for a long time, and the spiritual home of Huaxin people, as well as a place for their emotional comfort and culture identity.

3.2 Dominant Context Elements

3.2.1 Architectural Form

After extracting and analyzing the context of industrial buildings of Huaxin Textile Factory in Tangshan, we can know that most of the buildings of Huaxin Textile Factory are brick structure houses, and some of the office buildings are equipped with arcade form verandah, which have the characteristics of European style and the architectural form of the Republic of China (Fig. 3, 4, 5). Although only part of the graphic materials can be preserved in these architectural remains, they reflect the architectural style and structural techniques of the early stage of industrialization in China, and also reflect the aesthetic needs of different times. These are the important carriers of Tangshan architectural history and art history, which will have an important artistic impact on the continuity of Tangshan's city context.

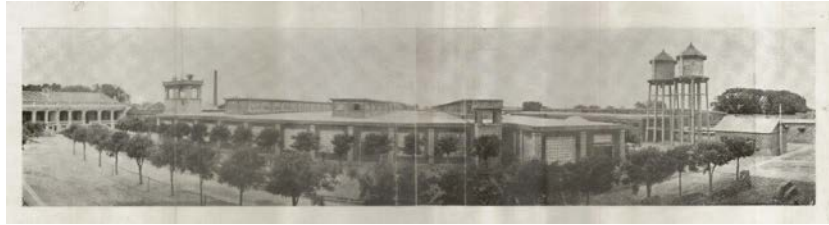


Figure.3 Panorama of the Old Site of Huaxin Factory

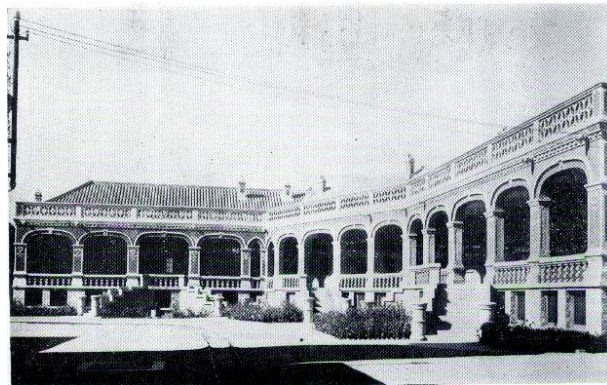


Figure.4 Office Building at the Former Site Source: Archives of Tangshan Archives

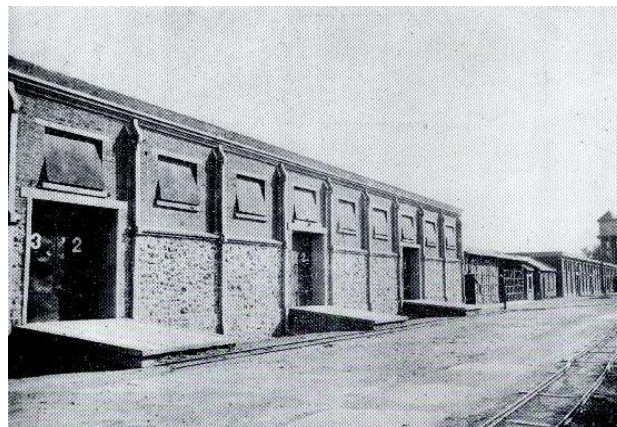


Figure.5 Factory Building At the Former Site

3.2.2 Economic Value

Tangshan is known as the cradle of modern industry. Kailuan Mining Bureau, Qixin cement factory, locomotive and rolling stock factory and Huaxin Textile Factory were four pillar enterprises in modern Tangshan. In terms of protective development, Kailuan National Mining Park, Qixin 1889 cultural and creative industrial

park and the earthquake site park based on the former site of locomotive and rolling stock factory are successful examples of Tangshan industrial heritage development. The economic benefits are also very considerable. The author believes that Huaxin Industrial heritage will also play a role in the social and economic development. If the former three and successful precedents at home and abroad are compared and used for reference to build Huaxin Textile Museum and open up industrial and cultural street, it can be driven and dependent on each other with the scenic spots such as “Qixin 1889” cultural and Creative Industrial Park, Kailuan National Mine Park and address site park. It will be an effective way to boost the development of Tangshan tourism economy if the four scenic spots are gathered together to produce agglomeration effect and radiation effect. Therefore, the reasonable development of the industrial heritage of Tangshan Huaxin Textile mill will become a huge potential to promote the development of Tangshan’s tourism economy.

3.3 Evaluation of Context Elements of Tangshan Huaxin Textile Factory

The dominant and hidden context elements are complementary. These two elements influence the formation and embodiment of urban characteristics through tangible urban function orientation and intangible public aesthetic orientation. Combined with the comprehensive analysis, it can be seen that the hidden context elements of the industrial heritage of Huaxin factory in Tangshan city are relatively complete, and the role of the hidden context elements should be explored in the industrial heritage protection and utilization ahead. On the other hand, in the past few years, the dominant cultural elements of the industrial heritage of Huaxin Textile Factory in Tangshan are not given enough attention to and protected, resulting in the destruction and loss of a large number of dominant cultural elements. The author believes that we should establish regulations for the protection and reuse of the industrial heritage of Huaxin Textile Factory as soon as possible, retain the industrial civilization which is about to disappear, and treat Huaxin well so as to give full play to its historical and human values.

3.3.1 Fully Tap the Hidden Context Elements

Tangshan Huaxin Textile Factory contains unique cultural connotation and regional characteristics. These hidden cultural elements play a very important role in the value promotion and effective reuse of industrial heritage. Through the refinement of these cultural symbols and connotations, the historical scenes that once happened in the site can be reproduced in front of the world through exhibitions, explanations and other ways, which can enhance its cultural atmosphere. For the taping of recessive context elements, it is necessary to put the authenticity and integrity of regional culture in the first place. On this basis, it is appropriate to combine cultural transfer, symbol extraction and other inheritance modes, so that historical context elements can be better integrated into the modernization construction and play a greater role in cultural transmission.

3.3.2 Continuation of Dominant Context Elements

In order to protect and develop the industrial heritage of Huaxin Textile Factory, we should extract cultural elements such as architecture, material and color with artistic value, translate them and apply them to the design and construction of public environment and new buildings in the heritage area, so as to make the dominant cultural elements of industrial heritage intact in the new environment

At the same time, the artistic reprocessing of the abandoned equipment in the industrial heritage area can effectively continue and inherit the dominant carrier of cultural elements.

4. Reuse Pattern Planning Based on Context Elements

Based on the composition of cultural elements of the industrial heritage city of Tangshan Huaxin Textile Factory and the concept of “industrial heritage + cultural and creative industries + urban life” put forward by the government to stimulate urban vitality, stimulate urban consumption and warm urban memory “, the author finally puts forward several planning modes for the reuse of industrial heritage of Tangshan Huaxin Textile Factory.

4.1 Educational Mode of Exhibition – the Establishment of Huaxin Textile Museum

Tangshan Municipal government is striving to build Tangshan into a “city of Chinese museums”, expanding the influence of a group of museums with distinguish features such as Kailuan Museum, Tangshan Industrial Museum, Qixin Cement Industrial Museum, Ceramic Museum, China Pingju Museum, luanzhou shadow puppet Museum. The author thinks that we should take the advantage to build a museum for Huaxin Textile Factory. In

the original Huaxin plant site, a small “zigzag building” (Huaxin Textile Factory's landmark building - zigzag side facade) will be built to display Huaxin's cultural heritage resources, such as the retained bronze bell, panoramic photos of the company, trademark patterns and enterprise archives, so that the public can appreciate the corporate culture and the spirit of Huaxin factory, and we will strive to turn Huaxin Textile Museum into a base for popular science and moral education.

In the museum, a corporate culture exhibition hall is set up, digital interpretation media is introduced, the historical context of Huaxin Textile Factory is displayed by using sound and photoelectric technology, the development history of the enterprise for more than 80 years is explored from the archives of Huaxin, and it is completely presented in the form of words and photos, which will display the pictures, operation scenes and equipment of industrial technology development level in different historical periods, the photos of workers, the great historical contributions that enterprises have made to the country and the materials that give back to the society. We will document the development of textile technology or make it public so as to increase the public's experience of the cultural connotation of textile industry, and let the public fully understand the profound industrial history and urban context of Huaxin Industrial Museum.

Zhou Xuexi (1866-1947) is the founder of Tangshan Huaxin Textile Factory, whose name is Zhian. His ancestral home is Jiande county (now Dongzhi County), Anhui Province. At the end of Qing Dynasty, Zhou Fu, the governor of Liangjiang and the fourth son of Nanyang minister, was the chief financial officer of Beiyang Government. He devoted his whole life to the industry and was honored as the father of industry in North China. He and Zhang Jian, a famous industrialist in Nantong, called Nanzhangbeizhou. In the early 20th century, Zhou Xuexi established an enterprise in North China, which includes coal mine, cement, textile, financial insurance and machine manufacturing. Kailuan, Qixin and Huaxin Tang factories, the leading enterprises of the group, are all located in Tangshan. Zhou Xuexi has made great contribution to the development of modern industry in Tangshan. Therefore, it is necessary to set up an exhibition hall for Zhou Xuexi. In the exhibition hall, Zhou Xuexi's contribution to Kailuan, Qixin and Huaxin, and his contribution to the industrial development of Tangshan and even modern China are displayed to the public, which is also an effective way to protect the industrial heritage of Tangshan Huaxin Textile Factory.

4.2 Model of Industrial Heritage Tourism Area - Opening Up 6 + 1 Industrial Culture Street

Tangshan is rich in industrial heritages. The banks of Douhe River and the surrounding areas of Dacheng mountain are the gathering areas of modern industry. Douhe river is called the mother river of Tangshan people, and Dacheng mountain is regarded as the birthplace of Tangshan city. Douhe river runs through the whole territory of Tangshan. Because of the convenient transportation and water resources, many enterprises in modern Tangshan were built near the Douhe river. Tangshan Locomotive and rolling stock factory, Tangshan old railway station, Tangshan Ceramics Factory, Kailuan coal mine, Qixin Yanghui company and Tangshan Huaxin Textile Factory are gathered along the river. Qixin is located on the West Bank of Douhe River, while Huaxin is located on the East Bank of Douhe river. At present, the development of industrial heritages such as Kailuan and Qixin is based on the industrial civilization, which is also the driver for the industrial tourism. The mining subsidence area of Kailuan is transformed into Nanhu Park, a public leisure landscape park, through ecological means and landscape design scheme, realizing the transformation of mining wasteland with serious ecological problems into a mine park with beautiful ecological environment. Kailuan National Mine Park is built with industrial heritage such as industrial square, mining rail, abandoned roadway and mining equipment. The former site of Qixin cement plant has been transformed into China Cement Industry Museum and Qixin 1889 cultural and creative industry park. The park gives full play to the characteristics of the combination of industrial heritage protection and cultural creativity. The industrial park is built by the reconstruction of the old buildings such as 4-8 kiln system, wooden structure platform, old power plant and bath room built before 1943. It can be seen that the protection and reuse modes and Strategies of Kailuan, Qixin and other industrial heritages in the region have achieved considerable results.

The author thinks that we should integrate all kinds of industrial heritage resources in this area, add them into the tourism industry, and carry out a unified planning and design. We should take Dacheng mountain as the horizontal axis and Douhe River as the vertical axis, and in the third quadrant, build the industrial heritage gathering area along the Douhe River into an industrial heritage tourism area, and open up the industrial culture street. Specifically, based on “Qixin 1889” cultural and creative industrial park, Kailuan National Mine Park and earthquake site park, we will build the industrial culture street running through six industrial sites along the Douhe River, including Huaxin. The industrial culture street has been built into a comprehensive area integrating tourism, catering, shopping, entertainment and leisure. We will take Dacheng mountain as a link to connect several major landscapes, connecting tangtao, Qixin and Huaxin from west to East, and connecting urban

planning exhibition hall, Tangshan Museum and Fenghuang mountain from east to west. Thus, we will create a high-quality line of industrial heritage tourism, promote the transformation and upgrading of tourism products, improve various business services such as surrounding culture, tourism, entertainment, shopping and leisure, and strive to build it into a new business card of Tangshan urban landscape, so as to achieve a win-win situation of social and economic benefits in its urban development.

4.3 Public Leisure Space Mode -- Transformation of Huaxin Theme Park

Tangshan Huaxin Textile Factory has gone bankrupt and part of the site of the enterprise has been built into Huaxin park. According to the author's field survey, Huaxin park has not integrated Huaxin spirit and carried out Huaxin context. Apart from the four characters of "Huaxin Park" in the front of the park, there is no landscape reflecting Huaxin culture and textile spirit in the park. The purpose of carrying on industrial context has not been achieved, and the scale is not large, the differentiation is very low, there is no theme and characteristics, and there are few people. It seems that it has been forgotten by the public. (see Figure 7 and figure 8 for details) In view of this, the author believes that the park should be transformed into a theme park with a real Chinese new context and spirit.

Build monuments and statues in the park. First of all, a monument in the shape of a spinning machine is set up in the park, which is placed in front of the landscape stone, 50 meters away from the main gate of the park. It is engraved with the centennial history of Huaxin, recording the Centennial honor and disgrace of Huaxin. Secondly, the achievements of the predecessors should be displayed and remembered. They set up statues for the founders of Huaxin, such as Zhou Xuexi, Wang Xiaoting, Yang Shounan, Li Ximing, Zhou Shuchen, and attached with biographies to commemorate their contributions to the development of modern industry in Huaxin and even Tangshan. Thirdly, LED display is installed in the pavilion to display the names of the past directors of Huaxin Textile Factory and the employees who have made outstanding contributions to Huaxin Textile Factory. Finally, the important textile machinery and equipment are modeled and placed in Huaxin park. In a word, let the park truly become a park that concentrates the history and spirit of Huaxin, and let the industrial civilization of Huaxin pass on from generation to generation and last forever.



Figure.6 Gate of Huaxin Park(Source: Selfie)



Figure.7 A Corner of Huaxin Park (Source: Selfie)

4.4 Memorial Mode: Naming Some Streets after Huaxin Pioneers

At present, Tangshan Municipal government is combing the industrial historical celebrities in Tangshan, naming a number of Park squares and road blocks with historical celebrities. The author believes that Zhou Xuexi, Wang Xiaoting, Yang Shounan, Li Ximing and Zhou Shuchen, the pioneers of Huaxin, should be included in the list. At the beginning of the 20th century, Zhou Xuexi, then the finance chief of Beiyang government, took Tangshan as the base camp and started to establish Beiyang industry. In 1919, Zhou Xuexi together with Li Ximing, the general manager of tongqi xinyanghui company, and Wang Xiaoting, the assistant manager, founded the Tangshan factory of Huaxin Textile Co., Ltd. Under the mastermind of Zhou Xuexi and other elders, the enterprise has made great progress. In addition, Zhou Xuexi, Wang Xiaoting, Li Ximing and Zhou Shuchen also served as directors of Kailuan and Qixin, making great contributions to the development of Kailuan and Qixin. Their name is not only to inherit the new industrial context and industrial civilization of Tangshan, but also to commemorate their outstanding contributions to the industrial development in Tangshan and Kaifu.

5. Epilogue

Industrial heritage is not only the remains of industrial civilization in the process of urban modernization, but also a kind of special cultural heritage resources. It is an important link connecting the past and the future of the city. It has important historical and cultural, social and economic values, as well as the value of science and technology, environmental art, urban memory and so on. As a traditional resource-based industrial city, Tangshan is experiencing the continuous transformation of the industry and the rapid development of urbanization. Urban renewal has become an irresistible historical trend. Industrial heritage is also inevitably facing the crisis of decline or extinction. Based on the perspective of continuation of urban texture and the heritage of historical context, the protection and reasonable development of industrial heritage are also put on the agenda. Taking Huaxin Textile Factory in Tangshan as an example, this paper discusses the historical and cultural values, social and economic values, scientific and technological values, environmental and artistic values and urban memory value of industrial heritage. On this basis, it puts forward several models of industrial heritage protection and reuse: Museum model combined with exhibition, science and education, tourism model combined with integration of regional industrial heritage landscape, the theme park model combined with the ecological environment, and the memorial mode of naming some streets of Tangshan in the name of the pioneers. This can make Huaxin Industrial Heritage resonate with the times again, keep distinct historical and cultural characteristics in the development and utilization, improve social and economic benefits, bring about economic perks and promote historical culture, and create positive and effective Cultural and economic benefits.

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