

A Study on the Conservation and Application of the Silk Industry in Nanchong City, Sichuan Province, China

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Abstract: 40 years had passed since China implemented its iconic Open Policy and reform. In the past 40 years, the proportion of tertiary industry in large cities like Beijing, Shanghai and Guangzhou has surpassed that of the primary and secondary industries. Even small and medium cities are currently transitioning from the primary and secondary industries towards the second and tertiary industries. Following this transition, the old industrial edifices and buildings are gradually abandoned and neglected. This paper examines the feasibility of Nanchong's transformation from the textile industry to tertiary or service industry through a comprehensive survey of the status, conservation and application of Nanchong industrial heritage, and explore the new direction for China's industrial heritage.

Keywords: *Nanchong; Silk industrial heritage; conservation and protection; Northeast Sichuan*

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1 Introduction

The Silk Road was coined by the German geographer and scientist Baron Ferdinand von Richthofen in 1877. Von Richthofen came up with the term "Silk Road" to describe the path taken by silk traders during his study of Chinese silk trade in Europe. The term was later adopted by Chinese scholars and subsequently used in a wide variety of publication. In September 2013, Chinese president Xi Jinping proposed an initiative to develop the "New Silk Road Economic Belt", and

a month later announced a project to develop the 21st Century Maritime Silk Road, together referred to as the "Belt and Road" initiative (BRI). Through the project, the Chinese government aims to develop infrastructure and invest in 152 nations and international organizations in Asia, Europe, Africa, the Middle East, and the Americas. Following the announcement of the initiative, China has opened up its door to larger foreign collaboration, ties, and economic relations.

Nanchong, a city in northeastern Sichuan, is a city famed for its silk production since ancient time. According to archaeological discoveries and historical records, there were two silk roads branching out from China towards Europe, one of which began from Nanchong through Jialing River, towards Luzhou, along the Yangtze and Lanchang rivers, through Dagan, Nanzhao, Myanmar and various south Asian nations.

2 Silk industry heritage of Nanchong

2.1 The background of Nanchong City, Sichuan

The city of Nanchong is situated in the north eastern region of Sichuan. It is one of the oldest cities in China, with over 2000 years of history. Today, the city is the central city of Sichuan Province and the National Regional Centre of China. Nanchong is also considered one of the main cities for the BRI initiative due to its historical role as a centre of silk industry in China.

2.2 Industrial heritage

Industrial heritage refers to products or remnants of an industry that have significant historical, cultural, architectural, technical, aesthetic, and research values. Industrial heritage can be divided into two main categories: material and non-material heritage^[1]. In recent years, industrial heritage from past eras have

gradually receive wider attention from the general public and governments and thus, management and conservation. Preserving industrial heritage of a city serves as a reminder of our past civilization, historical contribution and cultural heritage which reflect the colourful history of a city, and acts as a touristic attraction.

2.3 The history of silk industry in Nanchong

Nanchong is famous for its thousand-year-old silk industry. The silk industry in the city is the culmination of centuries of mulberry, silkworm and silk cultivation by Nanchong's residents. The tradition has been recorded in historical records, cultural relics, scriptures, poetry, songs and plays, art, architectures, films, crafts, urban corporate sculpture, silk painting, customs, silk products, almanacs and legends. Nanchong silk culture is an important part of Chinese silk culture. It is a concentrated expression of Southwestern silk culture and has its distinction and regionality.

Due to the scale of its silk industry, the city has become one of the major players in the Chinese silk trade throughout history. Shao Bowen, a Song Dynasty governor and poet, wrote of the silk industry in Nanchong: "flickering lights from ten thousand homes, ten li of silk under the night sky". The passage written by Governor Shao shows the popularity and scale of the silk industry in Nanchong. Facing the looming opportunity under the BRI, the 3000-year-old southern Silk Road will once again be covered with glory.

2.4 The current status of Nanchong industrial heritage

Fast forward to present day, there are two major industry historical sites remain in Nanchong: silkworm cultivation centre or the silkworm farm; and the Liuhe silk factory. The silkworm cultivation centre is located at No. 116 Renmin North Road, Shunqing District. The centre was built during the early days of the founding of the People's Republic of China, and the poorly preserved bricks and wooden structure have aged significantly. The Wenbao building is in a state of derelict and in dire need of protection and care. On the other hand, the Liuhe Silk factory is located in the Dujingsifang Industrial Park, Gaoping District. The factory was founded in 1912 by Mr. Zhang Wei and Mr. Sheng Keqin. At a century old, the factory is the longest-standing functional silk factory in China. Most of the buildings within the factory compound are in

good condition and most workshops are still performing production functions.



Figure 1. Liuhe Silk Factory Production Line. Workers work at their individual station to produce silk products. Source: Nanchong Daily

3 Conservation method for the Nanchong silk industrial remnants

3.1 Conservation policy

The first step towards a comprehensive conservation effort is to establish a silk industry heritage resource rating and segregation system. This allows for the proper delegation of human resource for the protection of individual artefact. This way, fragile items can be separated accordingly to allow for proper protection. Besides, the excavation of historical items should be coordinated alongside conservation effort so functioning artefacts can be re-used. The rating and segregation system should be divided into three major categories:

- 1)Architecture: buildings, edifices, factories, offices, campus and dormitories. The buildings can be re-used for modern functions.
- 2)Roads: road networks and names should be retained for their historical values
- 3)Environment: the environment around the silk factory should be redesigned to cater to modern-day requirements. Care should be taken to preserve any element that contains historical values.

After rated and segregated, the entire inventory should be categorized accordingly to allow for appropriate conservation effort to take place:

- 1)Class 1 industrial heritage—cultural relics protection units, cultural relics protection points. Forced retention and strict adherence to relevant cultural relic protection laws and plans.

2)Class 2 industrial heritage—historical architectures. Steps should be taken to preserve the major framework and characteristics of the edifice. Appropriate restoration works should commence to restore the basic functionalities.

3)Class 3 industrial heritage—common heritage architectures. Steps should be taken to preserve the major framework and characteristics of the edifice. Appropriate restoration works should commence, after which the buildings may be allowed to be re-used.

3.2 Conservation model and requirements

There are several types of conservation models that can be applied to the silk industrial heritage:

1)Creative Industry Park—this type of heritage building has a large space that can be divided and combined, re-designed, and re-used to allow artists to engage in creative endeavours.

2)Museum, exhibition centre—the commercial hall, canteen or large offices in the old silk factory may be converted into historical museum or exhibition centre for the exhibition of related items. This can inculcate an appreciation for history in the future generation aside from preserving the historical artefacts.

3)Open-air space within the city—specific buildings and architectures can be utilized alongside existing development plans to develop additional urban green space. The refinery site and the silkworm farm may be used as urban parks with industrial civilization theme. These parks can also be transformed, given that the original industrial features are retained, to become an open-air green space within the city to serve the general public^[2-4].

4 Conservation method for the Liuhe Silk factory

4.1 Current status

The Liuhe Silk Factory was built in the early 20th century, and remains one of the few functional historical buildings in China. The buildings in and around the factory compound are well-maintained and most are still functioning well.

1)Age of buildings

There are close to ten historical buildings within the factory compounds, some of which are close to a century old. There is a 100-year-old courtyard house in the historical and cultural district of Liuhe Silk Factory. There are two brick warehouses built during the early

20th century, four bricks and wooden houses and staff quarters built in the 1950s, and other office buildings of different ages. The edifices can be categorized into those over a century old, those over six decades, buildings over three decades and those below three decades.

2)Historical status:

The original site of Liuhe Silk factory is itself a municipal-level cultural relics within the city today. The surrounding area of the historical heritage are relatively large and well preserved, which reflects the quality of the industrial heritage of silk factory. This can be exploited to become a tourist attraction for the city.

3)Height of buildings:

The current industrial plants, warehouses and office buildings are 1 to 3 stories, while the northern residential area comprises of several 4 to 7 stories buildings. The tallest building within the compound is a 13-storey office building.

4)The built quality:

The old Liuhe Courtyard is a wooden structure, while the warehouses and staff quarters of over 60 years are mainly made of bricks. The rest of the factories and warehouses are mostly steel and frame structures that have been properly preserved.

5)Main features of the buildings:

The production workshops, warehouses, office buildings and dormitories have retained their historical features and characteristics since the establishment of the factory, reflecting the historical and tourism value of the silk industry.



Figure 2. Liuhe Silk Factory Office Building. Source: Li Zhiming

4.2 Function emphasis:

Conservation effort should emphasize on the exhibition or showcase of industrial silk production. The showcase should focus exclusively on the history of Nanchong silk industry, silk culture and historical status.

Moreover, tourism agency should create initiatives to collaborate with the local government to help to promote tourism based on the history of Nanchong silk industry. Comprehensive tour packages that covers a tour around the original silkworm farm, the old factories and the new offices could help generate economic benefit for local residents and businesses.

4.3 Main conservation points:

For existing historical and cultural buildings within the factory compound, conservation effort should be focused on building restoration, with emphasis on preserving the exterior features of the building and strengthening the framework of the entire building to adapt to its new role as tourist attraction.

1)Construction of control area

The buildings within the Liuhe factory compound should emphasize on restoring its past glories by redesigning and optimize the looks of the factory, warehouse and others.

2)Restoring the traditional design and style

Effort should be made to redesign the architecture style to match the relevant era of the factory. This aims to avoid major conflict and to coordinate the overall sense of design for all the buildings within the factory compound.

5 Conclusion

Following the increasing emphasis on the BRI by the

Chinese government, the development of cities along the Silk Road has ushered in new opportunities. Using Nanchong, a central city in northeastern Sichuan as an example, this paper proposes that the preservation effort of Nanchong silk industrial heritage should include the establishment of a silk industry heritage resource assessment system, implement a heritage classification and protection plan, combine both conservation effort and surrounding development, and the re-utilization of the silk industrial heritage for tourism purposes. The discussion of this empirical case is hoped to encourage more discussion on the conservation and protection of other historical heritage in other cities in China.

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