

# Improved Publicity-oriented Regeneration of Railway Heritage Community

## Case Study of Xujiapeng Community attached to Wuchang North Station

**Liu Jun Chen**  
Tongji University

**Miao Sun\***  
Tongji University, Corresponding Author

### Abstract

**Railway industrial heritage is a special type of industrial heritages in China's industrialization, while the railway workers' community played a significant role. Taking the Xujiapeng Community attached to Wuchang North Station in Wuhan as the research object and outlining its background and challenges firstly. From the perspective of publicity, analyzing the current outflow of public space, public activities and public identity within the community.**

As a conclusion, three suggestions have been proposed for residents based on the guidance of improved publicity:

**1) integration and promotion of public space, 2) conformity and enrichment of public events, 3) reshaping and strengthen of public identity, to provide a reference value for future renewal research and practical work. Acknowledgement: Thankfully, this paper is subsidized by the NSFC project. (Authorized number is 51678412).**

### 1. Introduction

In China, railways have influenced the country's development over the past century. As industrialization is more closely linked to localities, it bears the lifestyle and historical memories of local communities. Therefore, today, when the economic structure begins to transform, the value of railways as an industrial heritage is increasingly valued (TICCIH, 2012). However, the fact is that the protection and reuse of railway industrial heritage can easily be regarded as a matter of material

transformation or cultural protection. For social challenges, such as how to adjust the social structure, reduce the aging of the population, improve the living facilities of the community, and enrich the public activities of residents, there are limited related research. This article raised the question: how to realize the integration of the railway industrial heritage and its surrounding communities through updates from the perspective of improving publicity?

### 2. Preservation and Regeneration of Railway Heritage

#### 2.1 Connotation and Value of Railway Heritage

The railway heritage is of rich connotation: it includes both the railway and its urban and rural areas, and the tracks, bridges, tunnels, and stations along the railway, as well as related buildings, facilities, equipment, and sketches. At the same time, the social, economic and cultural elements associated with railways are also important components of connotation. As a systematic heritage category, railway heritage has important historical, spatial, economic, and aesthetic significance, and also carries the role of community cultural symbols and social cohesion generators.

The renewal value of railway heritage is mainly concentrated in three aspects: 1) from the perspective of industrial archeology, railway heritage records the production and living behavior of humans in the industrial era; 2) from the perspective of culture, railway heritage and its surrounding villages, cities, communities and other communities are closely connected, and new cultural elements are continuously produced based on dynamics and

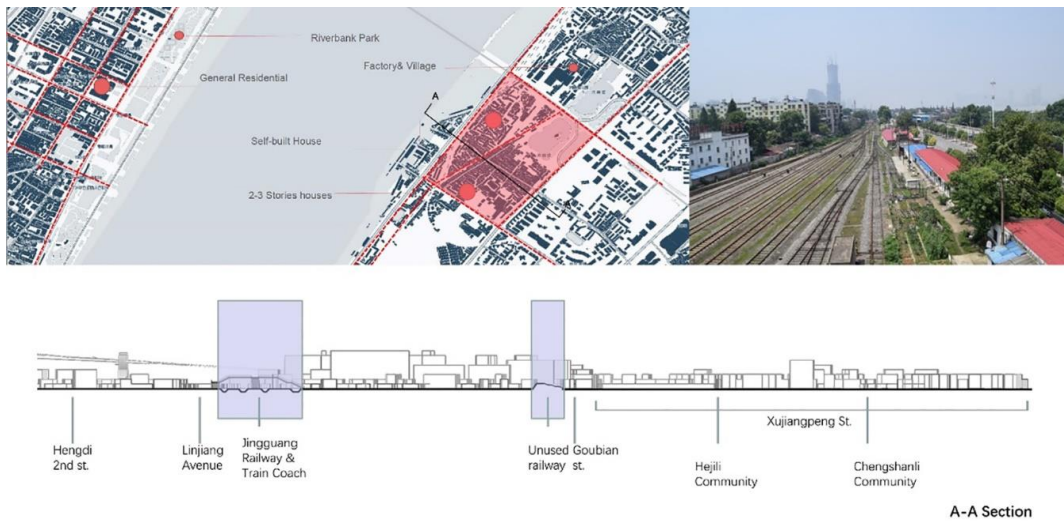


Figure 1. Overview of Wuhan Xujiapeng Railway Heritage. Drawing by author.

historical context; 3) From the perspective of industrial heritage, it has multiple meanings such as scientific research, education, and history (Tang, 2014). The above value assertions not only clarify the scientific, educational, tourism, cultural, economic, and social values of railway heritage but also emphasize the importance of railway-affiliated worker communities, as well as special social structures and social activities.

### 2.2 Patterns and objects of Preservation and Update

The current protection and renewal work of railway heritage mainly includes two aspects. First, the railway, locomotive, equipment, signs and other movable objects (Orbaşlı, 2008) are placed in the museum as exhibits in scientific, educational, and aesthetic values, such as the York National Railway Museum in London. Secondly, integrating stations, tunnels, and other immovables into a linear landscape system, using the clear spatial boundaries of the railway and a significant external radiation capability (Tang, 2016) as a gathering place for urban tourism and leisure activities, such as the High Line Park, Shanghai Songhu Railway Site Park, etc.

The above case mainly discusses the transformation of railway heritage, but less discusses the worker communities along the route, which poses a threat to heritage protection (Erkan, 2012). On the one hand, not

all railway sections gather a large number of worker communities; on the other hand, the cost of rebuilding workers' communities is much higher than that of the railway itself, with limited returns. Therefore, with the decline of railway transportation capacity, the railway worker community gradually loses its vitality, and the frequency of residents' participation in public activities continues to decrease, which seriously affects the community's confidence and sense of belonging.

In China, "units" were once the social units of urban development (Wang, 2008). A large number of new railway "units" have been planned to be located in suburban areas, and workers' communities are organized and constructed around stations, supporting community centers, vegetable markets, businesses, schools, hospitals, and entertainment. Therefore, the working and living lives of these working classes are more dependent on railways and alienated from their cities. By the end of the 20th century, under the policy guidelines of "retreating from two to three", "state-owned enterprise reform", and the national strategic background of the upgrading of the railway system, a large number of old railways were left idle, residents were removed from the worker community, and the built environment became increasingly degraded. It is difficult to meet the requirements of contemporary urban living and living and is facing the crisis of overall demolition.

Status of Railway Heritage Community



Figure 2. Status of Railway Heritage Community. Drawing by author.

### 3. Status of Wuhan Railway Heritage

#### 3.1 Overview of Wuhan Railway Heritage

The Xujiapeng community is a good example of the above sample located in Wuhan. Wuhan is a hub city and is one of the birthplaces of modern industries in China, with the traffic lifeline of countries such as the Beijing-Guangzhou Railway running through. The Xujiapeng community was born around

the Xujiapeng railway station. Due to the opening of the Wuhan Yangtze River Bridge, the function of Xujiapeng Station began to withdraw from the 1970s, and became an industrial "enclave" in the urban environment because of isolated location. The community attached to the station has been facing huge risks of demolition and reconstruction over the past two decades (Figure 1).

### Loss of the Public in Xujiangpeng Community

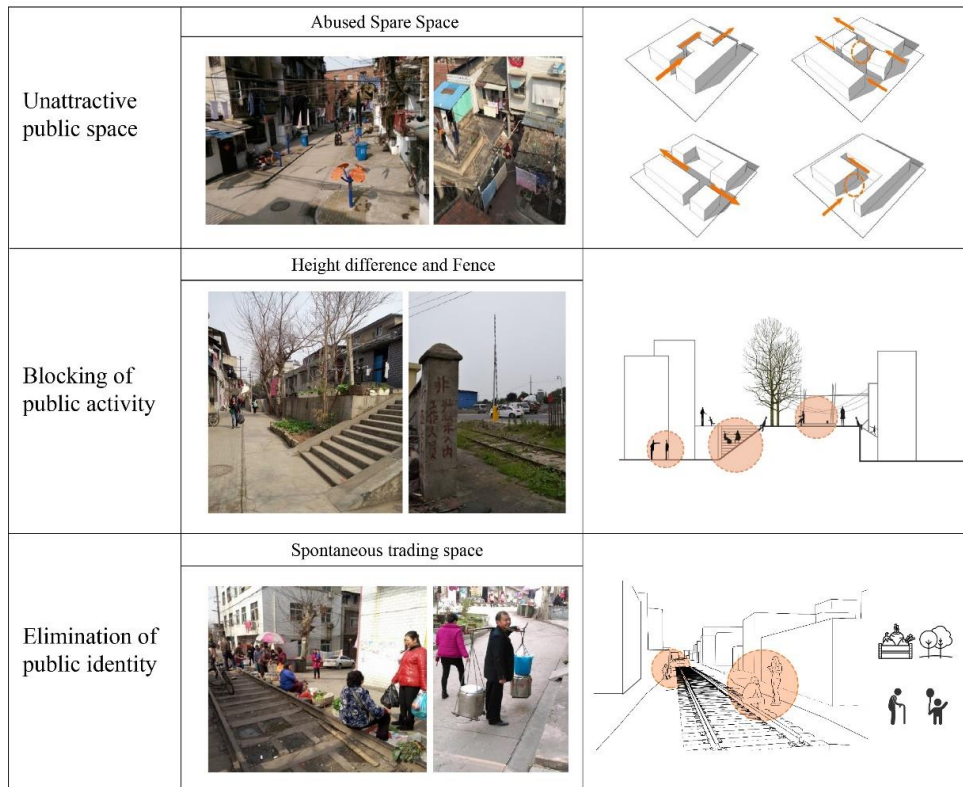


Figure 3. Loss of the Public in Xujiapeng Community. Drawing by author.

The Xujiapeng community covers an area of 10 square kilometers with the population of 110,000, mainly employees of railway factories. The road network in the community is sparse, public transportation is inadequate, and accessibility is poor when railways isolate it from the city. Buildings along the river beach and railroad tracks develop freely, and the layout is tight and scattered. The construction quality is relatively poor, mostly built in 1970s, mainly 2-3 floors of self-built houses in brick-concrete structures, some of which were abandoned due to uninhabited living. The loss of population leads to the loss of publicity: the lack of attractiveness of public space, the isolation of public activities, the dissatisfaction of residents' public identity, and the positive effects of railway heritage are gradually diminishing (Figure 2).

#### 3.2 Loss of the Public in Xujiapeng Community

Public spaces are unattractive. On the one hand, the layout of the public space in the Xujiapeng community is scattered, with service infrastructure covering small range of the population. On the other hand, the types of public activities are single, mainly for the education, shopping, municipal services, community services, as well as supporting activities such as chess and card, communication and fitness. There is no other place for residents to exchange except for the community southern vegetable market and commercial street. Dissatisfactory public spaces have given rise to spontaneous places, such as the formation of "markets" along the railway, farmers sell agricultural and sideline products and snacks, and dry clothes. However, due to the lack of effective organization and management, public space can neither be fully utilized nor attract tourists, which has a limited impact on revitalizing the local economy (Figure 3).

Blocking of public activity. Raised roadbeds are located along the perimeter of the rails. For safety reasons, a high-level separation zone has been built in recent years. This measure divides the community into two parts, blocking the communication activities of the residents of the community spatially and psychologically, which leads to problems such as social network structure differentiation and reduced walking accessibility. The isolated area of the railway site has gradually evolved into a "discarded zone" and a blind supervision zone in the city, which is apt to breed social problems during the demolition of the old city. This "industrial stigma" reduces residents' willingness to participate in public activities.

Elimination of public identity. The exit of the industry gave birth to the outflow of young labor, and the Xujiapeng community developed into a gathering place for older workers. The research showed that more than 30% of the elderly in the region are over 60s. At the same time, the community lacks supporting facilities for elderly people. Most residents hope to move to improve their quality of life. Besides, residents have fewer sources of income, most rely on state subsidies and small commodity sales to support their livelihoods, and some migrant workers live temporarily. The traditional social structure has disintegrated, and the public identity with the community has gradually dissipated.

#### 4. Regeneration Strategy of Railway Heritage Based on Public Improvement

Facing the loss of publicity, this article proposes to improve the publicity of communities relying on railway heritage without large-scale redevelopment of workers' communities: optimizing the quality and attractiveness of public space; connecting and enriching public activities; and strengthen the public identity of railway heritage, realizing the value of economic, social and cultural through design (Li, 2017). Specific suggestions include transforming abandoned railways into community-sharing belts that take the functions of public events and landscape corridors into account to meet internal needs and attract tourists to participate. Comb the network of key public space nodes, break the isolation of the railway from the community, strengthen the publicity of industrial heritage, and deepen the community's public identity (Figure 4).

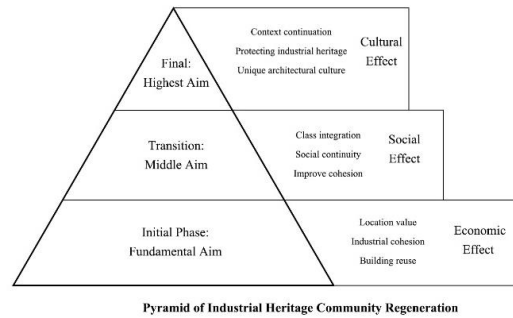


Figure 4. Pyramid of Industrial Heritage Community Regeneration. Drawing by author.

#### 4.1 Integration and Promotion of Public Space

Three levels of public spaces are established based on the relationship between railways and buildings: 1) Open space: Renovate community park and public vegetable plot in the original railway station as a railway theme park with historical value, forming an integrated farming-picking-selling space. The track can be combined with the surrounding space to serve as a place for residents to dry clothes and entertain. 2) Semi-open space: These spaces are mainly in area that buildings are facing the rails. The abandoned train cars can be transformed into fixed stalls of local vendors, providing community shopping places, and serving as a window for the sale of community agricultural products. 3) Semi-private space: It is recommended that some cars be transformed into chess and card rooms and activity rooms for local residents, to supplement the lack of space for activity communication in the base. Some carriages can be connected to the building to provide residents with semi-outdoor event venues.

#### 4.2 Conformity and Enrichment of Public Events

In response to the characteristics and needs of residents, establish a public activity system that is suitable for the elderly and tourism. On the one hand, some of the idle old houses are transformed into nursing homes, nursing homes, and elderly universities to provide social security and enrich cultural life. At the same time, an emergency response mechanism shall be established to equip medical facilities and community services in a balanced manner

Regeneration Strategy - Based on Railway Heritage

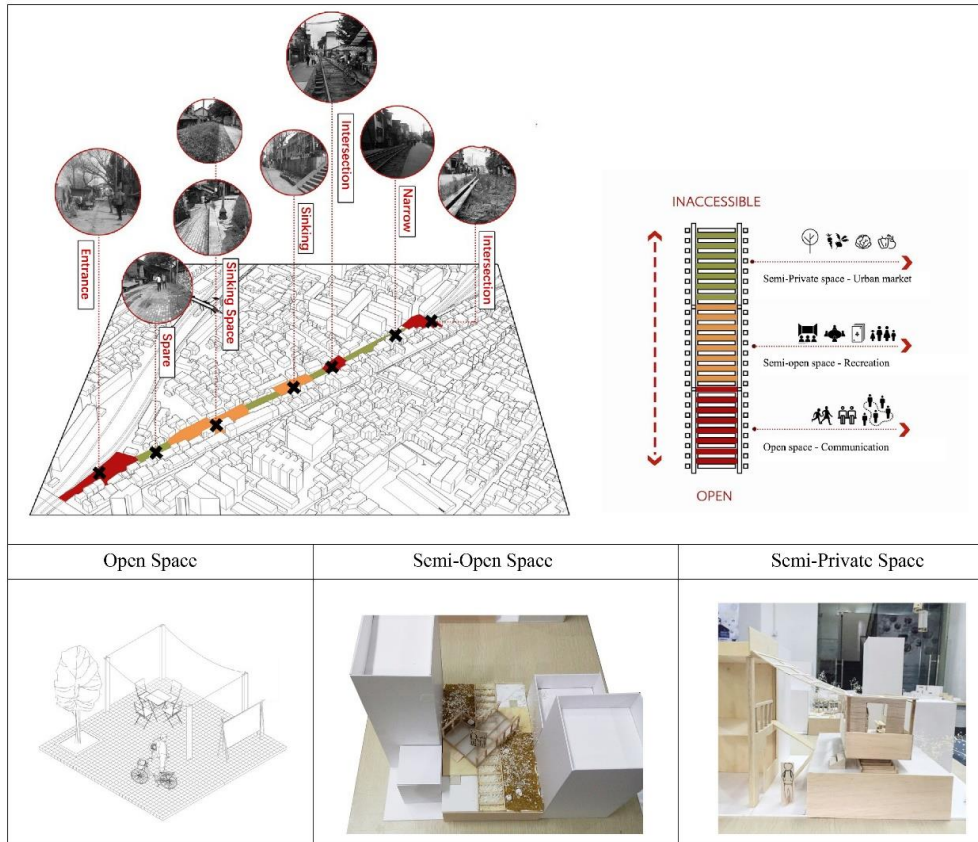


Figure 5. Regeneration Strategy – Based on Railway Heritage. Drawing by author.

and provide clear guidelines and signs. Besides, it is necessary to make full use of the numerous and well-accessible micro public spaces in the base, establish a "pocket park" fitness and leisure venue system, and use the linear space of the railway to set up green corridors and railway fairs; Investment, systematically improve the accessibility of public transportation inside and outside the community, upgrade the municipal infrastructure, optimize the public health environment, establish a public toilet network, and combine the tourism industry and spatial structure with local foundations, such as transforming guesthouses along railways. At the same time, train residents as tourism practitioners, create local employment and characteristics (Figure 5).

4.3 Reshaping and Strengthen of Public Identity

Reshaping the community's public identity with stations and railways is also one of the important goals. The station was once a regional center, and the community was laid out along the railway. The special spatial texture is an irreplaceable community feature. Local residents have a strong feeling and belonging to the "train station". Therefore, it is recommended to strengthen the role of the space center of the railway station, on the one hand, combine public activities, optimize the public environment, and increase infrastructure to reconnect residents' behavior with the station; on the other hand, based on the heritage and cultural background of the railway, retain the main railway trunk line and build along the line The historical street life belt, through the railway renewal to improve the living environment and economic conditions of the community residents, so that the regeneration of the railway and the community regeneration are closely linked, and reshape the identity of the residents proud of the "railway".

## 5. Conclusion

The railway industrial heritage was once the center of public production in the worker community. After the withdrawn of production and transportation functions, the preservation and regeneration of railway heritage should have an important influence on the publicity of the community. This study is proposed to integrate public space, enrich public activities, strengthen public identity, rebuild the confidence of the worker community, and gradually promote the upgrading and upgrading of the railway heritage and the railway worker community, which provide value for further investigation.

## Endnotes

1. Chairatudomkul, Sayamol. "Cultural Routes as Heritage in Thailand: Case Studies of King Narai's Royal Procession Route and Buddha's Footprint Pilgrimage Route." Thailand: Silpakorn University (2008): 14.
2. Erkan, Yonca Kösebay. "Railway heritage of İstanbul and the Marmaray Project." *International Journal of Architectural Heritage* 6, no. 1 (2012): 86-99.
3. Zhenyu, Li, and Miao, Sun. "Introduction to the Research on the Community-based Renewal Technology System of "City in the City" in the Yangtze River Delta Region." *Journal of Architecture*, no.8(2017):82-88.
4. Orbaşlı, Aylin, and Simon Woodward. "A railway 'route' as a linear heritage attraction: The Hijaz Railway in the Kingdom of Saudi Arabia." *Journal of Heritage Tourism* 3, no. 3 (2008): 159-175.
5. Tang, Qi, and Chen, Yi, "Analysis of Railway Heritage Protection." *Housing Technology*, no.34 (2014): 21-24.
6. Taylor, Tamarind, and Chris Landorf. "Subject-object perceptions of heritage: a framework for the study of contrasting railway heritage regeneration strategies." *International Journal of Heritage Studies* 21, no.10 (2015): 1050-1067.
7. TICCIH P. The Nizhny Tagil Charter for the Industrial Heritage[S]. TICCIH XII International Congress, 2003.
8. TICCIH P. Taipei Declaration for Asian Industrial Heritage[S]. The Fifteenth TICCIH General Assembly, 2012.
9. Conlin, Michael V., and Geoffrey R. Bird, eds. *Railway heritage and tourism: Global perspectives*. Vol. 37. Channel View Publications, 2014.
10. Wang, D. and Chai, Y. "The jobs-housing relationship and commuting in Beijing, China: the legacy of Danwei." *Journal of Transport Geography*, no.17(2009):30-38.
11. Yang, X., Xu, H. and Wall, G., 2019. "Creative destruction: the commodification of industrial heritage in Nanfeng Kiln District, China." *Tourism Geographies*, no.21(2019):54-77.