

A Study on the Conservation and Utilisation of Industrial Heritage along the Daoqing Railway

Yan Mao^{1,a}, Jiaming Chai^{1,b}, Mengmeng Lin^{1,c}, Lu Wang^{1,d,*}

¹School of Architecture and Art Design, Henan Polytechnic University, Jiaozuo, China

^a312003861@qq.com, ^b17739040811@163.com, ^c464886691@qq.com, ^dwlu980645@hpu.edu.cn

*Corresponding author

Abstract: The Daoqing Railway, the first railway in Henan Province, was constructed under the leadership of the British-owned Fook Company and represents a significant historical case of interaction between colonial capital and local resources in modern China. This study combines literature review and field investigation to examine its construction history, historical significance, and influence on urban spatial evolution and socio-economic development, while systematically surveying its remaining industrial heritage. The results indicate that: (1) surviving railway sections in urban centres create linear barriers in road networks and land use, and related facilities are subject to damage, encroachment, and environmental degradation; (2) a comprehensive inventory of heritage sites along the railway has been established through data integration and fieldwork; and (3) conservation efforts face challenges such as fragmented ownership, limited public awareness, and inadequate funding. Accordingly, this study proposes conservation and adaptive reuse strategies based on institutional coordination and public participation.

Keywords: Daoqing Railway; industrial heritage; conservation and utilisation

1. Introduction

In January 2015, China Railway Corporation issued the 'Interim Measures for the Protection and Management of Railway Cultural Heritage', which clearly defined the categories of immovable railway cultural heritage and the requirements for their protection, thereby providing a legal basis for the systematic conservation of railway heritage. Construction of the Daoqing Railway began in 1902 under the leadership of the Fook Company, a multinational corporation established in China by British investors in 1897. Operating in China for a considerable period (1897–1956), the company had a wide scope of operations and engaged in numerous business ventures; it was a major British commercial enterprise known as the British Fook Company or simply the Fook Company.

The Daoqing Railway serves as a microcosm of the struggle between colonial capital and indigenous resources in modern China ^[1]. It is the only railway built by British imperialists that runs entirely within the borders of Henan Province ^[2]. As the first railway in Henan Province, it stands as a testament to the Qing government's surrender of national sovereignty and a testament to foreign powers' scramble for spheres of influence and resource extraction in China ^[3]. The construction, operation and management of the Daoqing Railway have had a profound and far-reaching impact on the political, economic, social and natural environment of northern Henan. Over the decades, serving as the backbone and lifeline of the Fuguang Company's sales network, the Daoqing Railway expanded the domestic market for Henan coal, established commercial links between Henan and the outside world, and played an extremely important role in the modernization of Henan ^[2]. The construction of railways has driven the spatial evolution of towns and cities along their routes, thereby fostering cultural exchange and economic interaction along these corridors, strengthening ties between different regions and ethnic groups ^[4], and making a significant contribution to socio-economic development and the advancement of human civilization.

As a result of transport transformation and industrial restructuring, a large number of railway facilities have fallen into disuse, creating underutilised urban space. Affected by a decline in functionality and inadequate management, the areas along these routes face significant challenges in terms of spatial integration and environmental quality, making them a key and difficult area for the governance of public spaces. Overall protection of existing railway tracks and related heritage sites is weak, with widespread issues of environmental disorder and unauthorised occupation; historic station

buildings also lack systematic conservation.

1.1. Research Overview

The main focus of this study includes: a comprehensive review of the formation process and historical evolution of the Daoqing Railway; an in-depth examination of its unique value; and a systematic analysis of the significant impact and role played by the construction of the Daoqing Railway on the development of towns along its route and on social progress. Furthermore, the study conducts a detailed survey and in-depth analysis of the current condition of the industrial heritage sites associated with the Daoqing Railway. This study aims to provide a systematic theoretical exploration, offering insights and guidance for the effective conservation and rational utilisation of the Daoqing Railway's industrial heritage. Furthermore, it provides valuable theoretical guidance and practical lessons for the conservation and adaptive reuse of other similar linear heritage sites and railway industrial heritage.

1.2. Research Method

1.2.1. Literature Research Method

In the field of academic research, a literature review refers to the process whereby researchers draw upon domestic and international research papers, academic monographs and historical archives to form a comprehensive and in-depth understanding of the research topic. By studying relevant papers, researchers gain insight into past research experiences and achievements in the field of heritage conservation, learn about the concepts of heritage corridors and master the methods for their construction, thereby laying a solid theoretical foundation for subsequent in-depth research. At the same time, by consulting historical documents and other materials, researchers gain an initial understanding of the spatial distribution, historical development and current status of industrial heritage within the study area, thereby providing essential guidance and support for subsequent fieldwork.

1.2.2. Field Survey Method

Based on the collected and collated literature, a field survey was conducted on the industrial heritage corridor resources of the Daoqing Railway. The survey primarily covered the current state of the railway line, buildings along the route, the surrounding natural environment, built environment features and transport conditions. The research mainly employed photography and written records, combined with the geolocation of heritage sites and interviews. Finally, the survey results were categorised and their characteristics analysed.

2. Analysis of the Construction and Impact of the Daoqing Railway

2.1. The Construction and Development of the Daoqing Railway

The Daoqing Railway was originally named the Daoze Railway (running from Daokou Town in Henan Province to Zezhou Prefecture in Shanxi Province). Construction began in August 1902, and the entire line from Daokou to Qinghua was completed and opened to traffic on 19 January 1907, with a total length of 154 km, plus 28.4 km of sidings and 2.44 km of branch lines. The Daoqing Railway originated in Daokou Town (Anyang City) and terminated at Qinghua (now Qinghua Town, Boai County, Jiaozuo City), before being extended to Chenzhuang. Spanning northern Henan, it traversed seven counties: Jun, Hua, Ji, Xinxiang, Huojia, Xiuwu and Henan (Qinyang City, Henan Province). The single-track line featured a total of 20 stations (Qinghua Station, Baishan Station, Changkou Station, Lifeng Station, Jiaozuo Station, Lihe Station, Daiwang Station, Xiuwu Station, Shiziying Station, Huojia County Station, Dazaoying Station, Xinxiang Station, Youjiafen Station, Xinxiang County Station, Bailu Station, Ji County Station, Liyuantun Station, Liwei Station, Wangzhuang Station, Daokou Station) ^[1].

Based on the history of the Daoqing Railway's construction and the historical context, its development can be divided into three phases:

(1) 1898 to 1937 marked the initial construction phase of the Daoqing Railway. In 1898, the British firm Fook Company secured the rights to construct the railway; construction commenced in 1902, and the entire line was opened to traffic by 1907. Subsequently, in 1927, the British withdrew entirely from China, and from then until 1937, management of the railway remained in state hands. During this

period, the Daoqing Railway underwent a process of development, from its planning in the late Qing dynasty to its arduous early years in the Republic of China. Despite being subject to foreign capital control, warlord conflicts and political instability, the Daoqing Railway played a significant role in China's early railway construction and economic development, laying the foundations for the transport of resources and economic ties between Henan and Shanxi ^[5].

(2) 1938–1949: A period of construction marked by a cycle of destruction and restoration. As the Daoqing Railway was originally constructed with narrow gauge tracks, the Japanese, after occupying it, carried out standard-gauge conversion and technical upgrades on certain sections to facilitate connection with the Pinghan Railway (now the Jinghan Railway). This was done to enhance transport efficiency and meet their needs for resource plunder and military transport. During their occupation, they also built bunkers along the line to monitor railway operations. In 1938, Japanese invaders occupied Xinxiang Station. To accelerate the plundering of resources, they transported materials dismantled from the eastern section of the Daoqing Railway to the construction site of the newly opened railway ^[6].

(3) From 1949 to the present: Following the founding of the People's Republic of China, railways became a key driver of economic recovery and industrialisation. In the early 1950s, the Daoqing Railway was restored after wartime damage, with upgrades to tracks, bridges, and stations to improve transport capacity. It played an important role in the transport of coal, grain, and other resources, supporting regional industrial development. Over time, the railway underwent repair, modernisation, and partial replacement, becoming integrated into the regional railway network centred on Jiaozuo. With the expansion of coal exploitation and the advancement of industrialisation, its freight functions were gradually superseded by newer lines such as the New Jiaozuo Line, the Taiyuan–Jiaozuo Line, and the Jiaozuo–Zhicheng Line, while some sections of the original line were incorporated into the evolving network.

2.2. The Impact of the Daoqing Railway on Cities along Its Route

Constructed by the British-owned Fook Company, the Daoqing Railway primarily served the outward transport of Jiaozuo coal and catalysed the transition of Jiaozuo from an *الزرا* agrarian region into a modern coal-based industrial city, accompanied by the development of mechanised mining and related industrial facilities. The railway accelerated regional resource circulation, integrated northern Henan into the national market, and, by linking the Beijing – Hankou Railway with resource-rich areas in Shanxi, reshaped its economic geography. It also promoted the commercialisation of agricultural products and facilitated the transformation of Daokou Town into a major commercial hub ^[7]. Stations were mainly distributed in county towns, economically active areas, and mining regions, with an average spacing of about 10 km—reduced to 6 km in the Jiaozuo section to meet coal transport demand. Key nodes such as Xinxiang and Jiaozuo emerged as regional centres, while freight stations and marshalling yards became important logistics hubs, driving industrial expansion and functional differentiation of urban space ^[8].

The extension of the railway branch line into the heart of the mining area spurred the clustering of supporting industries such as coal-washing plants, power stations and coking plants. By around 1930, Jiaozuo had developed an integrated industrial system encompassing 'coal mining, processing and transport', becoming a major energy base in northern China. Prior to the opening of the railway, Jiaozuo was merely a remote village under the jurisdiction of Xiuwu County. Following the opening of the railway, an urban area centred on Jiaozuo Station (now Jiaozuo North Station) rapidly emerged, with miners' housing estates and railway workers' communities at its core ^[9]. By 1945, Jiaozuo had developed into an industrial town with a population of 50,000; having been a township under the jurisdiction of Xiuwu County in 1938, it was established as an independent city in 1945, separating from Xiuwu County. Following the founding of the People's Republic of China, the main railway lines in the Jiaozuo region linked major mining areas such as the Lifeng and Wangfeng mines, whilst branch lines extended deep into the industrial estates, forming a 'T'-shaped industrial corridor. Facilities such as warehouses, coal yards and workers' clubs were distributed along the railway line, constituting the typical fabric of an industrial city; traces of this spatial pattern remain in the old town of Jiaozuo to this day ^[10].

The intersection of the Daoqing and Jinghan Railways at Xinxiang marked a turning point in the transport system of northern Henan, forming a rare cross-shaped junction and driving significant spatial-economic transformation. It elevated Xinxiang from a canal-based trading post to a regional hub linking Shanxi and Henan and connecting north–south markets, while reshaping the regional

distribution network; by 1930, freight throughput at Xinxiang Station reached 3.2 times that of the Wei River canal. The junction also stimulated the emergence of a station-centred industrial belt ^[11]. This hub has demonstrated strong long-term resilience: in the 1950s, Xinxiang Station was upgraded to a major marshalling yard, serving as a key node for coal transport and agricultural exports, and its 2024 renovation further enhanced multimodal integration while preserving its historical and urban significance.

The transport of coal resources via the Daoqing Railway facilitated the development of related mineral processing industries in the Xinxiang region. The railway spurred the clustering of modern industries such as mechanical maintenance and warehousing and logistics. For instance, the establishment of the Jiaozuo Railway Locomotive Repair Works (Henan's first modern locomotive repair facility) provided technical support for Xinxiang's industrialization. By the 1930s, Xinxiang had become the commercial and trade centre of northern Henan, supplanting the economic status of the traditional 'Three Prefectures' (Weihui, Zhangde and Huaiqing), and in 1949 it became the capital of Pingyuan Province ^[12]. Of the 20 stations along the Daoqing Railway, Youjiafen Station (now Xinxiang Station) became the core of the city's development. Commercial districts and workers' communities rapidly formed around the railway station, whilst Dongguan and Beiguan Streets in Xinxiang's old town developed into bustling commercial hubs due to the demand for rail freight.

2.3. The Impact of the Daoqing Railway on Social Development

As a central pillar of the modern transport system, the railway network plays a fundamental and strategic role in the functioning of the national economy. Through the continuous improvement of the railway network layout, the enhancement of transport service quality, and the promotion of technological innovation, rail transport is steadily reinforcing its backbone status within the integrated transport system, thereby injecting sustained momentum into high-quality economic and social development. The railway is not merely a mode of transport; it is a symbol of an era and one of the great achievements of the industrial age, having profoundly transformed traditional methods of human transport and driven far-reaching changes in the political, economic, military and cultural spheres ^[13].

The construction of the Daoqing Railway significantly promoted regional economic development and accelerated the socio-economic transition from traditional to modern modes of life. By reshaping transport systems, the railway established a modern network connecting northern Henan with national and international markets. The development of stations fostered emerging towns and station-centred economic catchment areas. Within five years of its opening, commercial outlets around major stations increased by over 300%, while annual freight throughput grew by an average of 45%. Connections with resource-rich areas such as Jincheng, Qinyang, and Jiyuan facilitated coal transport exceeding 200,000 tonnes annually, nearly doubled iron product exports, and expanded the distribution of regional agricultural products to the Beijing–Tianjin region. Overall, these improvements enhanced resource allocation efficiency and supported the integration of the regional economy into the national market ^[14].

Driven by the railway, resources such as coal from northern Henan—particularly the Jiaozuo area—were rapidly transported to markets across the country and even internationally, breaking down the previous regional barriers. Coal from Jiaozuo was transported via the Daoqing Railway to places such as Xinxiang and Daokou; from Xinxiang Station, it connected with the Jinghan Railway, swiftly channelling the abundant resources of northern Henan to the rest of the country. It was also shipped directly to Tianjin via the Sanliwan Wharf in Daokou, from where it was exported to markets worldwide. With the opening of the Daoqing Railway, products from northern Henan—such as coal, ironware and bamboo goods—were transported by rail to wider international markets, driving growth in international trade. Goods from northern Henan were exported to all corners of the globe via ports such as Tianjin, greatly boosting the development of the local economy.

3. The Current State of Industrial Heritage along the Daoqing Railway

The conservation and adaptive reuse of the industrial heritage along the Daoqing Railway must be grounded in a systematic understanding of its current state. This railway artery, constructed in the early 20th century, once linked the economic lifeline of northern Henan through 20 stations; today, more than half of these stations have been swallowed up by overgrown grass or urban development. Of the seven operational stations that remain, Xinxiang Station continues to serve passenger traffic, whilst five others—including Jiaozuo North Station and Daiwang Station—have been relegated to freight hubs (Fig. 1). This functional decline precisely reflects the practical challenges facing the conservation of

industrial heritage. Through the cross-verification of archival records and field surveys, we have been able to summarise the current state of the industrial heritage associated with the Daoqing Railway (Fig. 2).

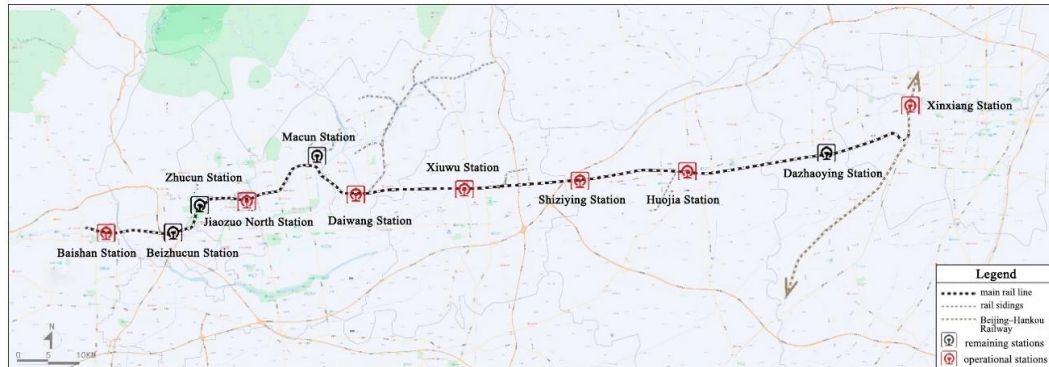


Figure 1: Map showing the current distribution of surviving stations on the Daoqing Railway

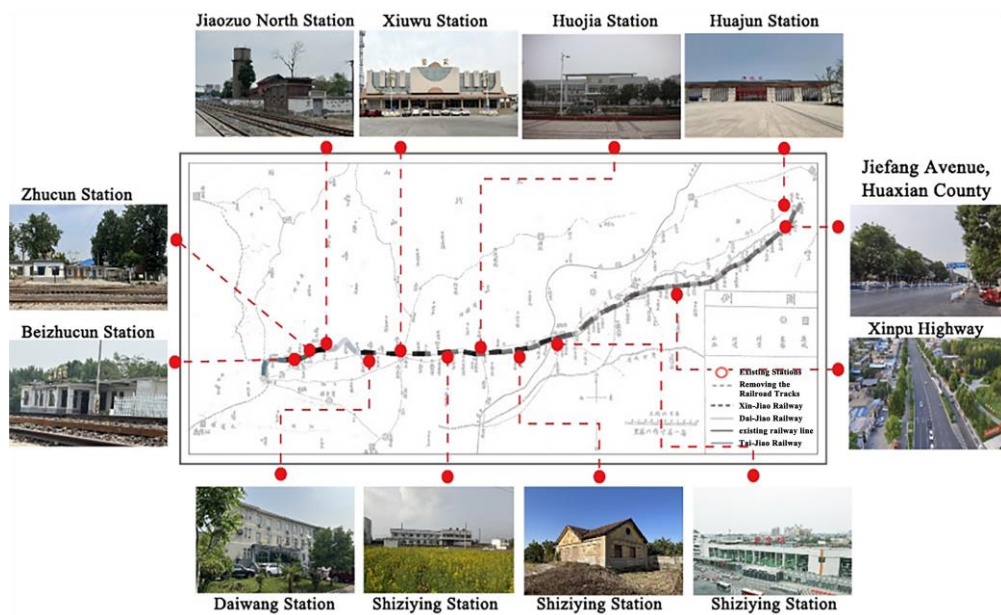


Figure 2: Map showing the current route of the Daoqing Railway

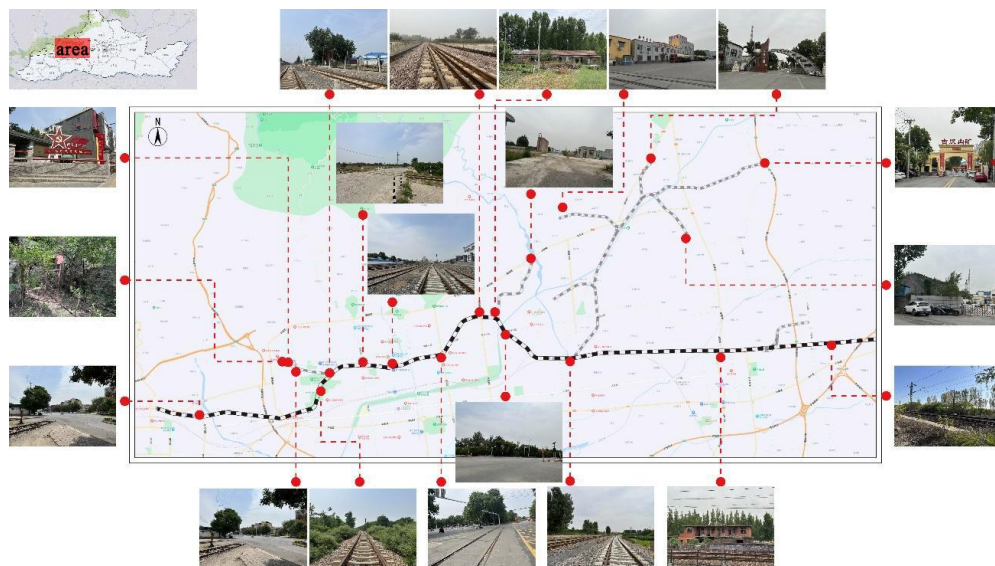


Figure 3: Map showing the current condition of the remaining railway tracks on the Daoqing Railway

The remaining sections of the Daoqing Railway track are confined to the central urban area of Jiaozuo, spanning approximately 12 km (Figure 3). These remnants run right through the heart of Jiaozuo, severely hampering the city's overall development. The railway line between Xinxiang and Daokou was not fully restored after the founding of the People's Republic of China. This was primarily because Daokou's economy was in gradual decline at the time, the Wei River no longer served water transport functions, and the transport role of the Daokou area was gradually diminishing. Concurrently, the Jinghan Railway—a major north-south artery traversing Henan Province—and the Longhai Railway—a key east-west transport route—gradually became Henan's vital transport arteries, leading to a gradual decline in interest in the reconstruction of the eastern section of the Daoqing Railway.

Due to the depletion of coal resources in Jiaozuo, the branch lines that once led to the mining areas have gradually ceased to serve as freight transport routes. As resources dwindled, the role of these branch lines and their associated stations has also gradually diminished. At present, freight operations on these branch lines continue at locations such as Jiaozuo Qianyue Cement, the Guhan Mountain Mine and the Fengying Company Power Station; a 60-centimetre-wide narrow-gauge track remains within the grounds of the old Fengying Company Power Station, whilst most of the other freight branch lines have been largely dismantled. Through on-site surveys and data collection along the route, a catalogue of industrial heritage sites along the Daoqing Railway has been compiled (Table 1).

Table 1: List of Industrial Heritage Sites along the Daoqing Railway

	Name	Category	Geographical location	Protection level
1	Xinxiang Station	station	Pingyuan Road, Weibin District, Xinxiang City	Currently in operation
2	Dazhaoying Station	station	Dazhaoying Village, Dazhaoying Town, Xinxiang City	Unprotected
3	Huojia Station	station	Yingbin Avenue, Huojia County, Xinxiang City	Currently in operation
4	Shiziying Stati	station	Shiziying Village, Huangdi Town, Huojia County	Currently in operation
5	Xiuwu Station	station	Xingfu Road, Xiuwu County, Jiaozuo City	Currently in operation
6	Daiwang Station	station	Daiwang Road, Machun District, Jiaozuo City	Currently in operation
7	Jiaozuo North Station	station	Zhanxian Street, Jiefang District, Jiaozuo	Unprotected
9	Zhucun Station	station	Chang'an Road, Jiefang District, Jiaozuo	Unprotected
10	Baishan Station	station	Keji Road, Boai County, Jiaozuo City	Unprotected
11	Ma Cun Station	station	Jiefang East Road, Shanyang District, Jiaozuo City	Unprotected
12	Qiangbei Transport Station	Freight station	Shanyang District, Jiaozuo City	Unprotected
13	Remaining railway tracks	railway track	Jiaozuo City, Jiefang District	Unprotected
14	Daqing–Qingdao Railway	Railway station sign	Xinhua Street, Jiefang District, Jiaozuo City	Migration protection
15	The site of the former locomotive water tower	Train water replenishment equipment	Jiaozuo City, Jiefang District	Municipal-level cultural heritage site

	Name	Category	Geographical location	Protection level
16	The site of the former locomotive water tower	Train water replenishment equipment	North Xin Dian Timber Road, Daokou Town, Hua County	Migration protection
17	Water tower	Train water replenishment equipment	Dazhaoying Village, Dazhaoying Town, Xinxiang City	Unprotected
18	Water tower	Train water replenishment equipment	Keji Road, Boai County, Jiaozuo City	Unprotected
19	Water tower	Train water replenishment equipment	Shiziying Village, Huangdi Town, Huojia County	Unprotected
20	Majian Bridge	Railway track bridges and culverts	Jiefang West Road, Jiefang District, Jiaozuo City	Municipal-level cultural heritage site
21	Tianjian Bridge	Railway track bridges and culverts	Muye Road, Jiefang District, Jiaozuo City	Municipal-level cultural heritage site
22	The site of the Seventeen-Arch Bridge	Railway track bridges and culverts	Shangtun Village, Boai County, Jiaozuo City	Unprotected
23	bunker	Ancillary building	Wenhua Road, Boai County, Jiaozuo City	County-level cultural heritage site
24	Daqing-Qingdao Railway Munitions Depot	Ancillary equipment	Martyrs' Street, Jiefang District, Jiaozuo	Municipal-level cultural heritage site
25	Staff break room	Ancillary equipment	Daiwang Street, Zhouzhuang Town, Xiuwu County	Unprotected
26	Wangfeng Mining Area	Ancillary industrial building	Ruifeng Road, Zhongzhan District, Jiaozuo	National-level cultural heritage site
27	Mining Machinery Factory	Ancillary industrial building	Jiaodong Road, Shanyang District, Jiaozuo City	Renovation
28	The former site of the Xiaoma Village mining area	Ancillary industrial building	Yinhe Avenue, Shanyang District, Jiaozuo City	Unprotected
29	The former site of the Guhanshan Coal Mine	Ancillary industrial building	Wuliuyan Township, Xiuwu County, Jiaozuo City	Unprotected
30	The former site of the cement works	Ancillary industrial building	Anyangcheng Subdistrict, Macun District, Jiaozuo City	Unprotected
31	The former site of Fengying Power Station	Ancillary industrial building	Fengying Subdistrict, Macun District, Jiaozuo City	Unprotected
32	The former site of the British-owned Fu Machinery Factory	Ancillary industrial building	Xinhua Street, Jiefang District, Jiaozuo City	National-level cultural heritage site
33	Site of the Daoqing Railway Strike	Ancillary building	Jiefang Middle Road, Jiefang District, Jiaozuo City	Henan Provincial Cultural Heritage Site

4. Strategies for the Conservation and Reuse of the Daoqing Railway

4.1. Guided by policy and planning

Given the uneven distribution of regional resources, inter-city collaboration can maximise overall benefits. Local governments should establish information-sharing platforms to disclose project data, reduce inefficiencies caused by information asymmetry, and mitigate conflicts through timely communication. In addition, coordination mechanisms—such as joint meetings—can support alignment in planning, target setting, scheduling, and responsibility allocation.

The development and management of the Daoqing Railway Industrial Heritage Corridor involve multiple sectors, including railway administration, cultural heritage protection, and land management, whose differing priorities often lead to conflicts. To address this, a unified management body integrating these sectors should be established to enhance communication and coordination. Such collaborative governance enables information sharing on a common platform, improves the handling of complex tasks, and reduces inefficiencies associated with fragmented management. Through coordinated operation, it can enhance overall efficiency and maximise the value of the heritage corridor.

4.2. Fostering a sense of public responsibility

We should conduct in-depth research and exploration into the historical, technical and cultural value inherent in industrial heritage, and, drawing on the intrinsic value of industrial culture, develop unique and attractive tourism products to engage as wide a public as possible. The distinctive functions of railway stations and the historical significance of railway structures endow these heritage elements with specific cultural imagery and symbolism. Driven by mass media and the internet, tourism at railway heritage sites has evolved from niche cultural attractions into 'must-visit' destinations popular among young people. Through various formats—ranging from industrial site tours and industrial-themed study trips to hands-on experiences of industrial craftsmanship—visitors can immerse themselves in the charm of industrial civilisation.

Within the framework of historical and cultural heritage conservation, local residents—as the bearers of the city's collective memory—play an irreplaceable central role in the revitalisation and utilisation of heritage resources. Residents are not only the guardians of the city's historical memory but also key nodes in the network of cultural transmission. For visitors from outside the area, the daily lives of local residents offer the most authentic means of interpreting the culture, and their level of engagement directly influences the quality of the cultural experience at heritage sites. When local residents are able to participate directly in the construction, management and development of heritage corridors, this provides significant support for planning and construction, the holistic development of heritage resources, and the improvement and enhancement of tourism service facilities.

5. Conclusion

In summary, this paper takes the Daoqing Railway as its subject of study and conducts a systematic analysis across three dimensions: historical context, spatial pattern and the current state of heritage sites. It clarifies the railway's foundational role and cultural significance in the region's industrialization process and urban development. The research demonstrates that the Daoqing Railway not only shaped the resource-transportation-oriented industrial and urban systems of northern Henan, but has also, through its long-term evolution, formed a linear industrial heritage system characterised by continuity and integrity. However, against the backdrop of changing modes of transport and industrial transformation, these heritage sites are generally facing issues such as functional decline, spatial fragmentation and a lack of protection mechanisms, necessitating a coordinated response from a holistic perspective. This paper emphasises the need to promote a shift from the fragmented protection of heritage resources to integrated, coordinated management through policy coordination and multi-stakeholder governance mechanisms. At the same time, by fostering public participation and the translation of cultural values, it aims to facilitate the transition of industrial heritage from static preservation to dynamic revitalisation, thereby achieving the synergistic development of historical continuity and functional regeneration.

References

- [1] *Daoqing Railway Travel Guide*. Lithographed edition, 1933.(in Chinese)
- [2] *Railway Yearbook*, Lithographed edition. 1933.(in Chinese)
- [3] Wang, Z. Q. Inheritance and development of historical culture: Planning along the Daoqing Railway. In *New Normal: Inheritance and Transformation—Proceedings of the 2015 China Urban Planning Annual Conference (Urban Culture)* (p. 8). China Urban Planning Society, 2015:8.
- [4] Sui, Y., Zhang, L., The effects of Dao-qing Railway on the social and economical lives of people along the railway[J].*Journal of North China University of Water Resources and Electric Power(Social Science Edition)*, 2005(3):70-72.
- [5] Editorial Committee of History of Railway Construction in China. *History of Railway Construction in China*. Beijing: China Railway Publishing House, 2003.
- [6] Editorial Committee of Xinxiang County Gazetteer. *Xinxiang County Gazetteer*. Beijing: SDX Joint Publishing Company, 1991.
- [7] Editorial Committee of Huaxian County Gazetteer. *Huaxian County Gazetteer*. Zhengzhou: Zhongzhou Ancient Books Publishing House, 1997-04.
- [8] *Retrospect of China's railways*. Map, 2003, (02):10-11+3.
- [9] Editorial Committee of Jiaozuo North Station Gazetteer. *Jiaozuo North Station Gazetteer*. Zhengzhou: Zhengzhou Railway Bureau., 1992.
- [10] Cheng, F. *Jiaozuo Cultural Compendium: Economic Volume*. Zhengzhou: Zhongzhou Ancient Books Publishing House, 2018-08.
- [11] Editorial Committee of Xinxiang Municipal Gazetteer. *Xinxiang Municipal Gazetteer (Vol. I)*. Beijing: SDX Joint Publishing Company, 1994.
- [12] Policy Research Office of the CPC Xinxiang Municipal Committee. *Xinxiang City Profile*. Zhengzhou: Henan People's Publishing House, 1988.
- [13] All-China Railway Workers' Union. *Chronology of the Chinese Railway Workers' Movement (1881–1949)*. Jinzhou: Printing Plant of Shenyang Railway Bureau, 1988.
- [14] Editorial Committee of Jiaozuo Coal Mine Gazetteer. *Jiaozuo Coal Mine Gazetteer*. Zhengzhou: Henan People's Publishing House, 1996.