

From Ancient Silk Road to Contemporary Belt and Road: Different Cognition on Transportation Corridor Driven Regional Development

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Abstract As an important connection between the West and the East, the Silk Road has greatly promoted the cooperation between countries and regions. Transportation infrastructure plays a key role in the economic development and cultural exchanges, which has promoted the development of regions and cities along the Silk Road. Based on previous literature, combining the comparative advantage theory in economics with the transportation corridor and regional development theory, this paper divides the evolution of the Silk Road into three historical periods, and explores the economic motives for the development from the ancient Silk Road to the contemporary Belt and Road, as well as the impacts of transportation construction on the regional and urban development along the Belt and Road. The paper concludes that transportation infrastructure has a positive impact on the development of regions along the Belt and Road, which also influences the rise and fall of cities along the road. The paper comprehensively applies the theory of the comparative advantage and the theory of transportation and regional development, and proposes that economical mutual benefit and integration of transportation construction and regional development will play a key role in the implementation of the Belt and Road Initiative.

Keywords the Silk Road; the Belt and Road; comparative advantage; transportation corridor; regional development

1. Introduction

The proposal of the Belt and Road Initiative by China in 2013 has brought about a new wave in the studies on the ancient Silk Road and the contemporary Belt and Road by Chinese and foreign scholars, which has formed a huge and complicated literature system covering economic, political, historical, and cultural fields. However, current studies are characterized by the interweaving of fragmentation and localization at both macro and micro levels. Due to the differentiation between the East and the West, there are very different understandings and cognition of the Silk Road studies. What were the reasons for the rise of the ancient Silk Road? What supportive elements will be needed for the cooperation framework under the current Belt and Road Initiative? Based on these two core issues, this paper analyzes related literature on the Silk Road and the Belt and Road Initiative, and explores the different cognition of regional and urban development driven by transportation infrastructure along ancient and modern Silk Roads in both China and foreign countries.

The Silk Road is one of the best examples of transportation corridor driven regional development. Starting from the theory of comparative advantage, this paper explores the economic driving force for the formation and development of the Silk Road by analyzing the interaction between the eastern and western business activities and the rise and fall of cities in three historical periods. The Silk Road, which was formed in the Han Dynasty and flourished in the Sui and Tang dynasties, was an important link between the East and the West in ancient times. This ancient arterial road and its branch roads had connected the ancient Chinese civilization in the Yellow

River basin, the Central Asian civilization in the Tigris-Euphrates valley, and the famous ancient Roman culture and Persian culture (Cheng et al., 1981). The Silk Road has become a link between different countries and regions and has created a number of routes for commercial and cultural activities, which has made this transportation corridor the longest road running through the entire “Old World” (Hedin, 1992). The physical location of the Silk Road was the first concern of Western scholars in their cognition of this road. The “Silk Road” was proposed and named by the German geographer Ferdinand von Richthofen in the “Report on Henan and Shaanxi” in 1870, which drew the attention of Western scholars. Most scholars believed that the Silk Road had never been a straight avenue, but a transportation corridor consisting of a series of changing paths and unmarked footprints. Travelers almost always needed guides or changed their route when they met with obstacles (Hansen, 2015). The Silk Road has a very special and important position in the social sciences in the West. For example, the famous British historian Peter Frankopan called for attention to the historical status of the Silk Road and insisted that it had greatly promoted the integration of Eastern and Western civilizations (2015). Other scholars believed that the exchange of goods and ideas across Eurasia from ancient times to modern times, even to the contemporary era of globalization, had shown not only the difference in quantity but also a kind of importance equal to that of political, economic, and cultural fields (Millward, 2013).

The Belt and Road Initiative was proposed on the basis of the Silk Road. Starting with the theory of transportation corridor and regional development, this paper discusses the changes in the transportation routes of the Silk Road in various historical periods, and

explores the interaction between the road and the rise and fall of regions and cities along the Silk Road. From the perspective of historical evolution, the Silk Road has never died out, and the Belt and Road Initiative has just extended it to a wider space. At present, the related studies on the Belt and Road are made mostly from the perspectives of economics and politics, and there is no attention paid to the development of regions and cities from the spatial perspective, nor emphasis attached to the “bi-directional” research approach studying the social and cultural differences between the East and the West. From a spatial perspective, the Belt and Road is featured by multiple spatial connotations and diverse scales (Liu, 2015), rather than a simple linear spatial structure. From the perspective of the comparative advantage theory, the needs of countries along the Belt and Road for transportation infrastructure development are strongly complementary to China’s strong and well-developed construction capabilities. Judging from the feedbacks and evaluations of different countries on the Belt and Road Initiative, the countries in Central and West Asia, the Southeast Asia, and the Central and Eastern Europe have shown strong interests, but some researchers in the West are still skeptical and cautious about this Initiative, regarding it the “Marshall Plan of China” in the 21st century (Gallagher, 2014).

Applying the comparative advantage theory as well as the transportation corridor and regional development theory, this paper aims to explore the interaction between transportation and areas along the road in the context of the ancient Silk Road and the contemporary Belt and Road, so as to provide reference to the practice of integrating transportation infrastructure to promote coordinated transportation driven regional development.

2. Literature review on the regional development along the Belt and Road

With the proposal of the Silk Road, a large number of studies have been conducted in the fields of history, economy, politics, and culture both in China and abroad, which has formed a huge literature system. Based on the relevant literature of the ancient Silk Road and the contemporary Belt and Road, this paper sorts the literature according to the frequency of citation, which is supported by using the comparative advantage theory of economics as well as the transportation and regional development theory. At the same time, the paper also reviews the Chinese literature related to the Belt and Road since 2013 and examines the recent research fields and key topics, in the hope of revealing the differentiated cognition of the East and the West on the regional and urban development driven by transportation infrastructure.

2.1 The comparative advantage theory and spatialization

The comparative advantage theory in economics provides a theoretical basis for trade activities along the Silk Road, and also explains the driving force for the formation and development of the Silk Road. In the classical school of economics, it is generally believed that expanding the market is conducive to exerting the comparative advantage and achieving a win-win situation, which has also become the theoretical cornerstone in the international trade field. On the basis of Adam Smith’s theory of absolute advantage, David Ricardo put forward the theory of comparative advantage, holding that even if the endowments of two countries were similar, a win-win situation could be achieved through trade exchanges by following the principle of “selecting a better one after weighing the two advantages, and selecting a minor one after weighing the two disadvantages” (Ricardo, 1817). Differences generate trading demands, while trading demands generate profits. It is just because of the theory of comparative advantage and the concept of win-win trade that Western countries spare no effort to explore trade opportunities in the East along the Silk Road (Von Richthofen, 1907).

In the 19th century, the publication of the book *China* by Richthofen unveiled the mysterious East. The book highlighted the special status of silk in the East-West trade and the road that ran through the Central Asia, and named the road the Silk Road, which also aroused a “China Craze” in the continent of Europe (Tang, 2018). The regions and cities along the Silk Road were developed due to the East-West trade, and the establishment of the ancient Silk Road promoted economic prosperity at both ends of the continent. Currently, under the framework of the Belt and Road, developing countries in the hinterland along the Belt and Road need to rely on and exert their own comparative advantages, so as to establish their own competitive advantages and to maximally promote their economic development (Lin and Li, 2003).

Based on the comparative advantage theory of economics, some scholars began to pay attention to how this theory could be applied to spatial analysis, that is, the spatialization of the comparative advantage theory. In fact, the spatial entity on which the comparative advantage theory relied included two parts: the transportation corridor itself, and the hinterland where the regions and cities along the Silk Road were located. Some areas with good conditions and a few well-developed industries along the transportation corridors can be cultivated as economic growth poles, which could promote the development of surrounding areas through trade exchanges with the areas that have different endowments (Perroux, 1950). In history, Isidore’s *Stathmoi Parthikoi* was an important document for

the study of the early Silk Road, which described in simple words the difficulties in crossing the Mesopotamia region and climbing the Caucasus Plateau. At the same time, it also described in detail the characteristics of cities along the Silk Road and the types and prosperity of goods that were traded (Yu, 2007).

According to the European records about the Eastern Roman Empire, the Persians had a monopoly on the silk from the East, and silk could be traded at the same price as gold in the European market. Due to the large price differences of silk and pepper in the Eastern and Western markets, trade and business exchanges became the first important driving force for people to conduct business on this uneven road (Kuzmina, 2015). Therefore, according to the spatialized interpretation of the comparative advantage theory, the reciprocal effect can drive the development of relatively poor and backward areas, because transportation infrastructure can promote trade and reduce the cost brought by spatial distance, which thus makes it a more long-term and mutually beneficial way. The Silk Road provided a spatial carrier required by business transactions in the comparative advantage theory, and promoted the development of regions and cities along the road by taking advantage of their own central location, convenient transportation, rich energy resources, and promising market.

2.2 Transportation corridor and regional development theory

From the perspectives of transportation corridor and regional development, the development of both the ancient Silk Road and the contemporary Belt and Road cannot be separated from the support of the corridor. Transportation infrastructure has important abilities in providing guidance and support for regional development, and its scope of influence involves the spatial expansion of regions and cities, the optimization of spatial structures, and the development of urban agglomerations, metropolitan areas, economic zones, economic belts, etc. (Jin et al., 2008; Meng et al., 2013). In view of the impact of transportation infrastructure on regional and urban spatial patterns, the construction of transportation reduced the damping impact of spatial distance, which then drove the development of urban centers and formed the urban spatial pattern based on urban transportation road networks (Lan, 2004).

Transportation infrastructure, as a link between city and region's activities, is not only a spreading path for economic development and trade activities, but also an important spatial unit. While as a spatial carrier of population flow, material flow, capital flow, technology flow, etc., the transportation corridor has become not only a link for regional economic connections and an important support for

the construction of urban agglomerations, but also a key framework for the orderly development and reasonable organization of urban agglomerations (Ye, 2006). Looking back on the history of regional and urban development, we can find that there is a strong correlation between the evolution of urban spatial forms and the development of transportation facilities (Mao and Yan, 2005). At the same time, the impact of transportation on regional development is long-term. Good connectivity and accessibility are necessary conditions for population growth and economic prosperity (Glaeser, 2012).

Regional transportation corridors will have different impacts on urban development modes due to the difference in the means of transportation in different historical periods. For example, in history, through in-depth inspections of natural geographical conditions, the West began to have a more thorough understanding of the topography, landforms, and comprehensive conditions of the Silk Road. They found that the camels showed more advantages when crossing desert areas than horses, which made it possible to cross the plateaus, deserts, and Gobi regions in the Central and West Asia (Kuzmina, 2015). Another example, port cities and water transportation-based industrial cities were formed in the era of water transportation, such as Liverpool in the United Kingdom and the Great Lakes region in the United States (Allmendinger, 2002). The rise of the maritime Silk Road and the decline of the land Silk Road in the Ming Dynasty also resulted from the changes in transportation means – the cost of ocean transportation was less and the scale of it was larger than land transportation, which then promoted large-scale commercial exchanges and the development of seaport cities. The subsequent development of railroad, highway and air transportation also brought about great changes to the development of urban agglomerations and metropolitan areas (Wei, 2006).

In the study of the relationship between transportation and regional development, the spatial imbalance of the transportation system is a main factor causing the difference in the regional economic development. Therefore, improving the integrated transportation system is an important way to accelerate regional economic growth and reduce regional gaps (Guan et al., 2014). The symbiosis between urban-regional development and transportation construction is also reflected by the interpenetration and irreplaceability of these two research fields (Newman et al., 1996). In terms of the research on the relationship between transportation and city, Chinese scholars focused more on the influence of transportation at the national level or that within cities, and studies on regional effects of transportation systems on urban agglomerations or interregional areas were rare (Zhang and Hu, 2014).

2.3 Review on existing studies in China

Since China launched the Belt and Road Initiative in 2013, a great amount of research has been conducted in various fields in China, and the number of relevant papers has increased rapidly. According to the statistics of the most frequently cited 300 papers related to the Belt and Road as provided by CNKI, it can be seen that the research on the Belt and Road is mainly focused on such fields as transportation and infrastructure construction, economic development and industry, regional cooperation and spatial development, energy and resource, diplomacy and politics, culture and education, and the country's overall development strategy and the development characteristics of different provinces (see Figure 1). In these fields, the research on economic development and overall national strategy accounts for 57% in total, being the most concentrated and most accumulated topics in the literature. At present, research on transportation infrastructure construction is rare, and related papers account for only 5%. This shows that compared with the rapidly growing demand for transportation infrastructure construction, the literature and data for regional and transportation development are still insufficient and are mainly centered on macro policy interpretation and qualitative study.

While the amount of related literature has increased in recent years, there is still a lot of work to be done in the research related to the Belt and Road in terms of global vision, overall scale, and interdisciplinary perspective. For example, most of the literature focuses on the interpretation of a particular period, region, or event, which has made readers, especially those outside China, understand the Belt and Road Initiative in an incomplete and fragmented way. In this context, this paper attempts to summarize the laws for the development of regions and cities along the Silk Road driven by transportation construction by analyzing the Silk Road related literature across different historical periods and at a macro scale, in the hope of giving an overall view from the ancient Silk Road to the contemporary Belt and Road. Based on the comparative advantage theory and transportation

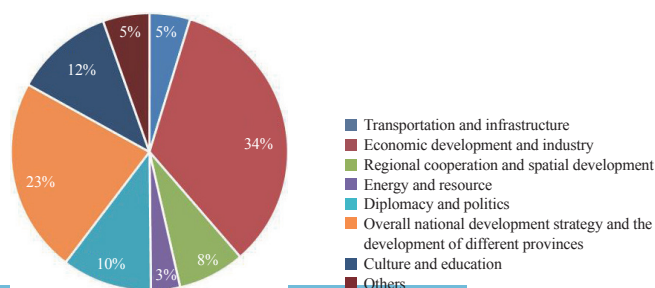


Figure 1 Proportion of papers related to Belt and Road Initiative between 2013 and 2018

corridor theory, the discussions in the second and third parts of this paper analyze the changes in the transportation routes along the Silk Road in three historical periods and explore the rise and decline of regions and cities along the road. At the same time, the paper also attempts to establish a future-oriented cognitive framework for regions and cities along the Belt and Road with a global mindset.

3. Past and present of the ancient Silk Road under the comparative framework between China and the West

In reviewing the evolution of the ancient Silk Road and its historical contributions, according to the different development processes of the East and the West, this paper conducts periodized comparison, i.e., to conduct comparison in three historical periods: the Han Dynasty – the Roman Empire, the Sui and Tang dynasties – the Byzantine Empire, and the Yuan Dynasty – the Middle Ages. The paper analyzes the trend of the Silk Road, the main cities along the road, and the main traded goods, so as to explore the regional and urban development laws in the change of transportation routes.

3.1 The Han Dynasty – the period of Roman Empire: the beginning of the Silk Road

In history, the Silk Road was generally believed to have been started in the Han Dynasty. Since Zhang Jian's exploration into the Western Regions, trade links had been established with the Central Asia and as far as with the Roman Empire (Hou, 1982). At that time, camels and horses were main means of transportation, so the Silk Road was not a fixed linear road but a "complex post road network" (Bentley, 1993). According to the *Shi Ji · Da Yuan Ji* (the Record of Dayuan in the *Historical Records*), the Silk Road was divided into north line and south line. The eastern section of the Silk Road started from the area between Chang'an (now Xi'an) and the Hexi Corridor of Dunhuang, and from Dunhuang the Road began to be divided into the south line and the north line. The south line went past Loulan, crossed Congling Ridge (i.e., Pamirs Plateau) to Anxi (i.e., Parthian Empire), and reached westward to Daqin (i.e., the Roman Empire); the north line went past Gaochang and Qiuci, crossed Congling Ridge and Dayuan (Ferghana Valley), and reached Daqin. At that time, although the route of the Silk Road itself was not stable due to war, weather, and other factors, the courier stations along the route became relatively fixed places for trade and cultural exchanges in the complex road network of the Silk Road, which then became the early forms of towns. Along the trade route of the Silk Road, some key towns for trade and military defense that flourished at that time were formed, that is, the four counties of Hexi: Wuwei, Zhangye, Jiuquan, and Dunhuang (Han, 2015).

While the Han Dynasty continued to make its way to the west, the Roman Empire, on the other end of Eurasia, was also making efforts to explore a route to go across the Central Asia to the Far East. After continuous campaigns, the Roman Empire unified the Northern Africa and the entire Mediterranean region. For the purpose of military expansion, the Roman Empire built a large number of Roman military cities and Roman roads with uniform styles (Liu, 2010). As regional infrastructure, the Roman road system had the functions of draining off water and marking mileage, with the road width ranging from 1.1 meters to 7 meters, which was considered to be the prototype of modern highways. According to the differences in road hierarchy, the roads were divided into three levels: *Viae publicae* (public road), *Viae privatae* (private or agricultural road), and *Viae vicinales* (rural road), with ox-driven and horse-driven carriages as the main means of transportation (Elsner, 2000).

The Roman road system has had profound impacts on both the urban planning and transportation construction of the countries along the Silk Road, and has also formed the proverb “All roads lead to Rome.” Although the Roman roads were originally used for military expansion, they later became important infrastructure for national political stabilization and economic and trade exchanges (Skaff, 2009). The goods imported in the period of Roman Empire, in addition to the silk costumes adored by the nobles, also include spices such as pepper. When silk was brought to Europe after a long journey, its price sharply increased, also comparable to gold of the same weight, which thus became the earliest important economic driving force for the trade along the Silk Road.

3.2 The Sui and Tang dynasties – the period of Byzantine Empire: the development stage of the Silk Road

By the time of the Sui and Tang dynasties, the Silk Road had gradually reached its climax in Chinese history. The economy had been unprecedentedly prosperous, and the road system had continued to expand and develop. Compared with the Han Dynasty, the route of the Silk Road was gradually fixed, and business activities became more frequent. During the Wei, Jin, and the Northern and Southern Dynasties, the Silk Road was broken off due to factors such as natural disasters and war. In the Sui and Tang dynasties when the Silk Road was resumed and rerouted, some cities along the old roads were declined (Ebrey, 1999).

From a spatial perspective of regional development, in order to avoid wars in the Central Plains and the Western Regions during the Northern and Southern Dynasties, the cities along the Hexi Corridor further developed into safe places in troubled times. After wars and block-

age of the Silk Road during the Northern and Southern Dynasties, the reign of Emperor Taizong of the Tang Dynasty imposed stronger control upon the military and political affairs in the Western Regions, which resulted in a gradually maturing and fixed courier station and post road system (Skaff, 2009). Since the middle of the Tang Dynasty, three main routes had gradually been fixed in the Silk Road, i.e., the south line, the north line, and the middle line (Han, 2015).

In the long history, due to changes in the natural geographical environment and the influence of war, the route of the Silk Road had undergone several changes. While a number of new cities emerged, some cities have disappeared with the changes in the route. Loulan, which was quite renowned in the archeological world, and the Jiaohe Ruins in Turpan, were typical cases of city extinction. Jiaohe once flourished in the Tang Dynasty as the capital of the former Jushi Kingdom which was one of the 36 kingdoms in the Western Regions. It was gradually abandoned due to war and other factors, leaving the entire city site with very complete and rare “earthen buildings” (see Figure 2).

On the other end of the continent, the Byzantine Empire (395 – 1453 AD), i.e., the Eastern Roman Empire, lasted for thousands of years, which had spanned the Chinese dynasties including the Wei, Jin, Northern and Southern Dynasties, Sui, Tang, Song, and early Yuan dynasties. During the flourishing period of the Byzantine Empire, as the territory of the Tang Dynasty had expanded to the Western Regions, the Empire further strengthened the connection with China through the Silk Road on land. It was said that during the period of Justinian the Great (527 – 565), the Byzantine Empire sent two monks as commercial spies to China to bring back two silkworm eggs and silkworm cultivation techniques, thereby mastering the techniques for hatching silkworms and spinning silks (Silk Road Archived, 2013). Constantinople, the capital of the Byzantine Empire, was located in the key position on the Eurasian Bridge (now Istanbul in Turkey), which played a supportive role in publicizing the importance of the Silk Road to the European continent. The Byzantine



Figure 2 Complete city pattern of Jiaohe Ruins

Empire also occupied the silk market of the European continent through localized production technologies, thus breaking the monopoly by the Persians on the European market for centuries (Howard et al, 2012; Azarpay, 1981).

At the same time, due to the western expansion in the Tang Dynasty, the Western Regions became geographically closer to the eastern territory of the Byzantine Empire, which resulted in a gradually fixed direction and location of the Silk Road. The Byzantine Empire could bypass the Sogdians and directly trade with China, leading to more frequent and effective trade exchanges (Luttwak et al., 2009). Meanwhile, the Maritime Silk Road, starting from Zhangzhou and Quanzhou, had gradually emerged, and new sea route linking the East and the West begun to be developed, which also marked the advent of Great Navigation Era.

3.3 The Song and Yuan dynasties – the Middle Ages: the boom and decline stage of the Silk Road

As the commodity economy in the Song Dynasty was unprecedentedly prosperous, the frequency of contacts was further increased on the original route of the Silk Road. By the Yuan Dynasty, the westward expansion provided a stable political foundation for the consolidation of the Silk Road. The nomadic mobile lifestyle facilitated the further development of commercial cities and transportation system throughout the Central Asia.

In this period, the exchanges between China and Europe that had clearly written records began to increase. For example, Mongolian diplomat Rabban Bar Sauma visited the European court from 1287 to 1288 and wrote a detailed report on European economy, culture and life (Waugh, 1999). Another example, *The Travels of Marco Polo* by Marco Polo, a Venetian explorer, opened a window in the form of literary works for the West to understand the society, economy and culture of the Far East. Marco Polo used vivid and widely accepted language to portray in detail the marketplace, culture and life of China (Chen, 1981). Although Marco Polo was not the first explorer to arrive in the Far East, his travel notes aroused the interest of western people in the mysterious East and generated cultural recognition and empathy, thus leading to an unprecedented “China Craze” in Europe.

From the 8th to the 13th century in the late Middle Ages, the golden age of Islamic civilization came, and it became a new hegemon in western Asia. Influenced by Islamic culture, round plan cities appeared in western Asia (Li, 2012). According to the plan, a city has four gates in four directions respectively, with temples and the pal-

ace being located in the center and the residents living around the temples. Temples and city walls, as important praying and religious spaces, had become unique urban form of Islamic culture (Wiet, 1971). This kind of city form of “temple-centered dwelling” also spread to the Far East along the Silk Road (Markus et al, 2000).

It can be seen from the above that the exchanges between the West and the East in ancient times developed in the alternation of peace and war, and the Silk Road also experienced evolution in the route. The Silk Road was a complex network of trade routes that brought people the needs for trade and cultural exchange (Bentley, 1993). Connected by the Silk Road, cities and regions along the road had achieved mutual benefits through trade exchanges, which had become the main reason for the formation and continuous development of this road. Cities along the Silk Road substantialized the needs for exchanges in the form of space, which became a spatial carrier for the direct encounter and dialogue between Eastern and Western civilizations.

4. Transportation and urban-regional development under the contemporary Belt and Road Initiative

In 2013, on the basis of the ancient Silk Road, China proposed the Belt and Road Initiative and took it as a national strategy. In light of the theories of transportation corridor and regional development, from the ancient Silk Road to the contemporary Belt and Road, transportation infrastructure plays a key role in driving the development of surrounding regions and cities. The six economic corridors proposed in the Belt and Road Initiative can be seen as further extension and development of the ancient, grassland, and maritime Silk Roads. At present, to connect the urban agglomerations along the Belt and Road through the transnational transportation infrastructure has become an important spatial development policy that can promote regional economic and cultural exchanges.

As mentioned earlier, the cognition of Chinese and Western scholars shows that the Silk Road has never been a straight road, but rather a complex transportation system. The contemporary Belt and Road Initiative proposed to build six economic corridors, which made transportation modes and routes more diverse and the network more complex, showing the characteristics of interweaving of multiple transportation modes, high density, and high frequency. Through integrated transportation by sea, on land, and by air, each economic corridor does not rely on a single transportation route but forms a comprehensive transportation corridor and a transportation infrastructure backbone system that extends in all directions. The

development of these six economic corridors has played a significant role in driving the development of regions and cities along the Belt and Road (Liu, 2015). From the perspective of regional integration, transportation infrastructure has promoted inter-city and regional trade, thus supporting the development of regional economic integration (Chen, 2015), which indicates that improving transportation construction has a positive impact on regional integration. From a macro perspective, these economic corridors can be divided into two major directions – land and maritime – based on the routes of the ancient Silk Road according to the main connection directions between the regions and cities along the Belt and Road (see Figure 3 and Table 1).

Among the six economic corridors, the China-Mongolia-Russia Economic Corridor is based on the ancient grassland Silk Road and the north line of the Silk Road. It is now connected by two major railways, linking China’s Bohai Bay Rim Economic Circle with the Eurasia Economic Circle. It focuses on strengthening cooperation in the fields of energy and minerals.

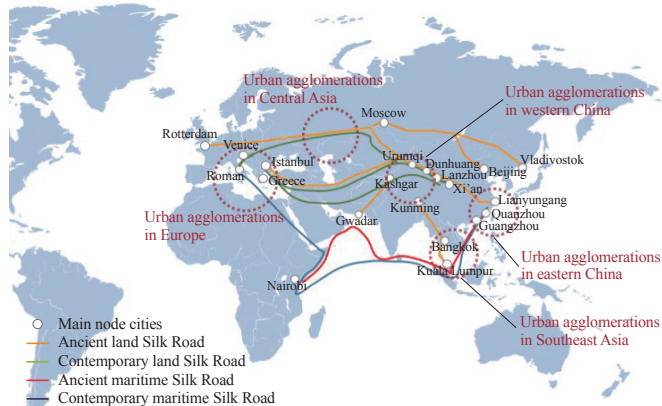


Figure 3 Comparison between the routes of the ancient Silk Road and the contemporary Belt and Road Initiative

The New Eurasian Continental Bridge Corridor is a westward extension of the north line of the traditional Silk Road. It reaches the westernmost point of the continent of Europe and ends in Amsterdam. This corridor links the well-developed high-speed railway network in Europe, and also connects the Pacific Rim Economic Circle in China and the Western Europe Economic Circle. The middle hinterland includes the vast area of Central and West Asia. The focus of this corridor is to promote the logistics of European freight trains and to push forward the construction of cooperation zones along the corridor, so as to drive the further opening up and development of China’s central and western regions.

The China-Central Asia-West Asia Corridor is another economic corridor that connects the continents of Europe, Asia, and Africa. It is also a modern transportation corridor closest to the traditional Silk Road. It makes use of the Longhai-Lanxin Railway in China and passes through Xi’an, Lanzhou, Urumqi, and other cities, and goes westward out of China through Ala Mountain Pass. It then goes through five countries in the Central Asia as well as Iran and Turkey, and reaches the Arabian Peninsula. This corridor covers the urban agglomerations in eastern and western parts of China and many cities in Central and West Asia and Europe. Its focus is put on the energy cooperation of oil pipelines and natural gas pipelines between China and the Central Asia, as well as the business cooperation on the import and export of bulk commodities.

The China-Indochina Peninsula Corridor and the Bangladesh-China-India-Myanmar Corridor overlap with the south line of the ancient Silk Road. The China-Indochina Peninsula Corridor connects Nanning, Kunming, Hanoi, Vientiane, Bangkok, Kuala Lumpur, Singapore and other central cities along the corridor, aiming to promote the exchanges between the central cities through railways and highways. The China-Thailand Railway and the Eastern

Table 1 Main cities and key development fields along the six economical corridors

Economical corridors	Main cities	Key development fields	Connected economic circles
China-Mongolia-Russia Economic Corridor	Beijing-Tianjin-Hebei Region, Dalian, Shenyang, Ulan Bator, Manzhouli, and Chita	Energy, mineral, transportation infrastructure	Bohai Bay Rim area- Eurasia Economic Circle
New Eurasian Continental Bridge Economic Corridor	Lianyungang, Xi’an, Lanzhou, Urumqi, Moscow, Minsk, Rotterdam	Operation of freight trains, building of trade cooperation zones, construction of the Continental Bridge	Yangtze River Delta-European Economic Circle
China-Central Asia-West Asia Economic Corridor	Lianyungang, Xi’an, Lanzhou, Urumqi, Almaty, Tehran	Energy channels, oil, and gas	Yangtze River Delta-European Economic Circle
China-Indochina Peninsula Economic Corridor	Nanning, Hanoi, Phnom Penh, Bangkok, Singapore	Railway construction, trade exchanges	Western China-ASEAN Economic Circle
China-Pakistan Economic Corridor	Kashgar, Gwadar Port	Construction of ports and industrial parks, development of transportation and energy fields	Northwest Economic Zone-Pakistan Economic Circle
Bangladesh-China-India-Myanmar Economic Corridor	Kunming, Bombay, Naypyidaw, Dhaka	Emphasizing port construction (the preliminary plan is unclear)	Southwest Economic Zone-India Economic Circle

Malaysia Corridor currently under planning and construction will strengthen the ties with the countries of the Indochina Peninsula. It will also promote the new town construction surrounding Bang Sue in Bangkok which is the starting point of the China-Thailand Railway and the largest transportation hub in Southeast Asia, as well as driving the development of port cities like Kuantan along the east coast of Malaysia. The strategic significance of this transportation corridor lies not only in the commercial and trade cooperation with Southeast Asian countries, but also in breaking the traditional monopoly of the Malacca Strait as an entry to the Indian Ocean.

The China-Pakistan Corridor connects the Silk Road Economic Belt to the north and the Maritime Silk Road to the south, which plays a transitional role between these regions. It aims to provide an onshore corridor that directly connects western China with the Indian Ocean by pushing forward the construction of Gwadar Port in Pakistan. The focus of this corridor is put on the development of transportation and energy fields as well as the construction of industrial parks along it.

The preliminary plan of the Bangladesh-China-India-Myanmar Corridor is unclear at present, but it still tries to break the barrier of Hengduan Mountains through the development of transportation. This corridor aims to bring into play the effects of economic concentration and radiation in southwestern China, and act as a connection between the Pearl River Delta Economic Circle and the India Economic Circle.

5. Conclusion

From the ancient Silk Road to the current Belt and Road, the development of regions and cities along the road cannot be separated from the economic reciprocity and mutual benefits as well as the support of transportation infrastructure. By means of literature analysis, based on the comparative advantage theory and the theory of transportation corridor driven regional development, this paper examines the evolution of the Silk Road and the rise and fall of cities in various historical periods, as well as the impacts of transportation corridors on regional and urban development. Through the review on Chinese and Western literature, it is found that transportation infrastructure not only improves the connectivity of the Silk Road, but also influences the spatial pattern of urban development. Camels, horses, courier stations, and the Tea-Horse Road on the ancient Silk Road connected the vast Western Regions into a whole, which facilitated the formation and development of more ancient towns, cities, and courier stations, thus providing a possibility for the connections between the West and the East.

Nowadays, with the deepening of globalization, the connections between countries and regions are closer. The spatial evolution of transportation corridors will have more profound impacts on the shaping of urban and regional forms. In the context of China's Belt and Road Initiative, based on the rapid development of road, rail and sea, the transportation corridors can strengthen the trade exchanges between regions, and drive the development of surrounding areas via the radiation effects of central cities along the corridors. Meanwhile, they can promote the local economic development by increasing the infrastructure investment and construction in developing countries, thus strengthening the economic ties and interconnection between the countries along the Belt and Road.

From the ancient Silk Road to the contemporary Belt and Road Initiative, the transportation infrastructure and the regional and urban development will play a more important leading role in the implementation of the mutually beneficial policies. In this context, it becomes the major topic in the construction of cultural communication and cooperation mechanism about how to better coordinate the transportation and the urban and regional development, how to gain recognition from countries and regions along the Belt and Road, and how to bring about tangible development benefits to countries along the road. Economic development and cultural exchange should be mutually beneficial. Facing the future, in the context of the Belt and Road Initiative, it will become a focus of policy makers to consider how to apply the comparative advantage theory and spatialize and substantiate it to make transportation infrastructure construction play a better role. □

(This paper is based on a presentation made on the Belt and Road Session of the 13th IACP Conference. This work is supported by the Fundamental Research Funds for the Central Universities (KAJB16007536).)

Translated by Li Caige
Proofread by Mao Qizhi

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