

Study on the Development Model of Tourist Spots-Axis along the Yellow River in Shaanxi Province

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Abstract: The construction and transportation of Shaanxi along the Yellow River Highway, linking the scenic spots along the Yellow River in Yulin, Yan'an, Hancheng and Weinan, is known as the most beautiful “Highway 1”, which makes the integration of tourism development along the Yellow River in Shaanxi feasible. Based on the point-axis development theory, the spatial distribution of tourism resources, tourism traffic structure and tourism development structure in the area along the Yellow River in Shaanxi Province are analyzed. On this basis, the location quotient index is used to determine the first-level and second-level tourist node cities, and the first-level axis and second-level axis of tourism development are defined, and the development model of “two-level point axis, three major tourist areas” along the Yellow River in Shaanxi Province is constructed. The research conclusion can provide theoretical support and scientific guidance for Guanzhong region to promote the integration development of northern Shaanxi region along the Yellow River Highway and the construction of Shaanxi provincial tourism demonstration.

1. Introduction

Shaanxi along the Yellow River has a large number of high-quality tourism resources, such as Hukou Waterfall of the Yellow River, Huashan, one of the five mountains, Dangjia Village, the first bay of the Yellow River under heaven, and Baiyun Mountain, a Taoist holy place. The potential of regional tourism development is enormous. On August 20, 2017, the 828-kilometer-long Shaanxi Yanhuang Highway was officially opened to traffic, and the tourism resources on the west bank of the Yellow River in Shaanxi were connected in series, which brought practical feasibility for the integrated development of tourism along the Yellow River in Shaanxi. The integration of tourism development along the Yellow River in Shaanxi is the key to solving the current “one body” of Guanzhong to drive the development of the “one wing” of northern Shaanxi. It is of great significance to the construction of the Shaanxi Provincial Tourism Demonstration Province.

Chinese scholar Lu Lu first proposed the theory of point-axis development in 1984, and in 1985 used this theory to guide the layout and development of the Yangtze River Basin industry [1, 2]. In the theory of point-axis development, the point refers to the central towns at all levels along the axis. The axis can be a solid linear infrastructure, or a dense belt of economic development. The points and axes are a whole, which together constitute the area. The core of development [3]. The point-axis development theory breaks the traditional static location theory thinking, emphasizing the unified integration of central points and axes at all levels, which is more suitable for regional development under limited resources than growth pole theory and central land theory. With the improvement and development of this theory, it has gradually been applied to various fields, and the research on the point-axis model of regional tourism development has gradually increased. Zumureti Maihemuti, Zibibra Simayi and Pashagu et al. (2010) based on the point-axis theory, put forward the development model of Railway Tourism Resources in southern Xinjiang [4]. Gao Nan, Ma Yaofeng and Li Tianshun (2012) constructed the point-axis spatial structure of tourism development in Shaanxi Province [5]. Cheng Xiaoli and Zhu Yawen (2013) defined the point-axis development model of the tourism spatial structure of the Southern Anhui International Tourism Demonstration Zone [6]. On the basis of a large number of empirical research results, Sun Dongqi and Liu Weidong (2016) further reviewed and explained the theoretical significance and application value of the point-axis theory, and pointed out that the point-axis development is the best path of

regional development under the condition of limited resources in China [3].

Shaanxi along the Yellow River highway construction and traffic, so that the Shaanxi along the Yellow River region has the integrated development of tourism transport axis, the application of point-axis development theory. It can integrate the axis along the Yellow River Highway with the urban nodes along it, and jointly promote the integrated development of regional tourism. Based on this, this paper uses the location quotient index to determine the tourist node cities at all levels, and defines the first-order axis and the secondary axis of tourism development. Furthermore, the tourism point-axis development model of Shaanxi along the Yellow River region was constructed, which aims to provide theoretical support for the construction of Shaanxi tourism demonstration province.

2. Spatial Distribution Characteristics of Tourism Tourism in Yanhuang Area of Shaanxi Province

2.1 Spatial distribution of tourism resources.

Shaanxi Yanhuang Highway is 828 kilometers from north to south. After 4 cities and 12 counties, there are not only the Loess Plateau, the Guanzhong Plain, but also the Danxia Wetland. It is known as the “highest value” road in China. This scenic road is not only “high in value” but also has a profound cultural heritage. The three cities of Yulin, Yan'an and Hancheng are national historical and cultural cities (Table 1). Yulin is located at the junction of the Loess Plateau and the Mu Us Desert. The nomadic civilization and the loess civilization are here, and there are 17 national key cultural protection units. Yan'an “Sanhuang Yisheng” is well-known in China and abroad, namely Huangdi Culture, Loess Culture, Yellow River Culture, and the Chinese Revolutionary Holy Land. In addition, the quality of the scenic spots in the district is high, with a total of 5A-level scenic spots and 7 4A-level scenic spots. Han Cheng is one of the important birthplaces of Chinese civilization. It is the hometown of Shi Sheng Sima Qian. Qinlong culture in this area has a long history. It has the largest number of cultural relics in Guanzhong area and 15 key cultural relics protection units in China. Weinan City has a good geographical location, known as “Three Qin Road, Eight Provinces Tongqu”, and is also a prefecture-level city superimposed by three national economic zones, namely, Guantian Economic Zone, Shaanxi-Gansu-Ningxia Revolutionary Old Area and Shanxi-Shanxi-Henan Yellow River and Golden Triangle. There are abundant tourism resources in the area, including one 5A-level scenic spot and eight 4A-level scenic spots, which are the cities with the highest level of tourism development in the area along the Yellow River in Shaanxi Province. Shaanxi along the Yellow River Highway is adjacent to the galloping Yellow River, passing through three famous national historical and cultural cities, connecting 71 key cultural relics protection units and 127 high-level scenic spots. It makes the integrated development along the Yellow River region possess extremely high advantages in natural resources and cultural resources.

Table 1 Quantity of high-quality tourism resources in cities along the Yellow River in Shaanxi Province

City	5A Scenic Area	4A Scenic Area	3A Scenic Area	National Historic and Cultural City	China Excellent Tourism City	National Key Cultural Relics Protection Units
Yulin City	0	4	29	1	0	17
Yanan City	1	7	26	1	1	15
Hancheng	0	3	13	1	1	15
Weinan City	1	8	35	0	0	24

2.2 Spatial Structure of Tourism Traffic.

Along the Yellow River Highway in Shaanxi Province, 9 expressways, 13 national and provincial highways, and 80 county and township highways are connected. It is possible to make

the connection between the main development axis along the Yellow Highway and the cities along the line, and to make the tourism integration development along the Yellow River in Shaanxi have a good traffic axis basis.

Yushen Expressway connects the Yuyang District and Shenmu Erlang Mountain Scenic Area, and directly connects with the Yellow Highway. The Jiajia Expressway allows visitors to directly reach the Baiyun Mountain Scenic Area along the Yellow Highway along the Yulin City. The Qingyin Expressway G20 runs through the counties from the east to the west of Yulin, so that Dingbian County, the westernmost part of Yulin City, can be connected to the Yanhuang Highway on the east side of Yulin. The Changyan Expressway G2211 connects the Yellow River and Qiankun Bay Scenic Areas in Yan'an City and Yanchuan County. Qinglan Expressway G22 connects Fuxian County of Yan'an City with Hukou Waterfall Scenic Area of the Yellow River. The Beijing-Kunming Expressway G5 connects Hancheng and Xi'an through many high-quality scenic spots in Weinan and Hancheng. The Shaanxi section of Lianhuo Expressway G30 passes through Tongguan, Huayin, Huaxian, Weinan and other cities, so that tourists can reach Huashan scenic spot in Huayin County directly from Weinan City. The crisscrossing traffic network enables the highway along the Yellow River to connect with the scenic spots in each node city along the line, and makes all scenic spots have traffic accessibility. It provides convenient traffic conditions for Guanzhong region to rely on the highway along the Yellow River to promote the integration of tourism development in northern Shaanxi.

2.3 Structural Characteristics of Tourism Development.

According to the differences of geography and hydrology, Shaanxi Province can be divided into three natural geographical regions: northern Shaanxi, central Shaanxi and southern Shaanxi. Because of the concentration of economic and resources, the level of tourism development in central Shaanxi is higher than that in northern Shaanxi and southern Shaanxi. Yulin City and Yanan City are located in the north of Shaanxi Province, while Weinan City and Han City belong to Guanzhong District. The level of tourism development is not balanced. As can be seen from Figure 1, tourism revenue in Weinan is far ahead of the four cities and is growing at a faster rate. Hancheng was originally a county in Weinan City. In 2012, it was upgraded to the deputy city and department level administrative system. Due to the smallest area, the overall tourism income is the lowest, but the growth rate of tourism income is the highest among the four cities, with an average annual growth rate. More than 40%. From 2012 to 2017, the tourism income of Yulin and Yan'an also showed an increasing trend. However, due to traffic and environment, tourism economic growth did not match the level of tourism resources [7].

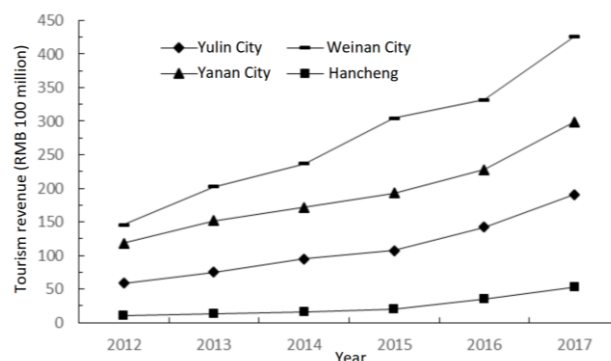


Fig.1. Tourism income difference and development trend of the four cities along the Yellow River in Shaanxi from 2012 to 2017

3. Definition of tourism spatial structure points and axes in the area along the Yellow River in Shaanxi

3.1 The connotation of the point-axis development model.

The point-axis development model is not only a regional development model that emphasizes

points and axes, but also a progressive development model [3]. The combination of points and axes as a whole has more advantages in the region and can drive regional development. However, the combination of points and axes does not unite all the urban nodes and development axes in the region. According to the characteristics of economy, transportation and resources, the nodes and axes in the region are divided into several grades from high to low, forming a combination of points and axes with advantages and differences. The gradual development mode of regional tourism is formed by the high-level points, the low-level points and the axis diffusion. Because of the differences of economic location, transportation location and resource base, the unbalance of regional tourism development is an objective fact. The point-axis development model combines the overall advantages of both points and axes in the region. Following the objective fact of the difference of regional tourism development, it has gradually developed from higher level to lower level.

3.2 Definition of Tourist Node City.

Node cities are the core of agglomeration and diffusion along the axis of tourism integration development along the Yellow River in Shaanxi Province. Therefore, it is necessary to define the level according to the advantages of tourism development of cities.

3.3 Research method.

The comparison of single factor of tourism income between cities can not accurately reflect the real advantages of tourism industry in urban economic development due to the lack of consideration of the overall economic level of the city. The location business index is a measure of relative advantage, which is to reflect the comparative advantage of the tourism economy in the urban economy through the comparison of the tourism economy and the overall level of the national economy. The location quotient is calculated as follows:

$$Q_i = \frac{T_i / \sum_{i=1}^n T_i}{G_i / \sum_{i=1}^n G_i}$$

In the formula, Q_i is the tourist location business of i city, T_i is the tourism income of i city, and G_i is the gross national product of i city. Q_i is greater than 1, indicating that the tourism industry of i city has certain competitive advantages in the region. The greater the Q_i value, the stronger the competitive advantage. If Q_i is less than 1, it means that the tourism industry in i city does not have a competitive advantage in the region. The level of tourism nodes needs to be defined according to the development advantages of tourism industry, that is, the city with the highest advantage should be defined as the first-level node city, while the city with low advantage should be the low-level node city.

3.4 Data Sources.

Since Hancheng was upgraded to the deputy city hall level administrative system in 2012, in order to reflect the comparative advantages of tourism development in the four cities, this paper uses the time series data from 2012 to 2017. The data samples are tourism income and total national economy of Yulin, Yan'an, Weinan and Hancheng, mainly from the Statistical Bulletin of National Economic and Social Development of the four cities from 2012 to 2017.

3.5 Result analysis.

As shown in Table 2, the tourism location quotient of four cities along the Yellow River in Shaanxi Province is greater than 1 in Yan'an and Weinan, of which Weinan has exceeded 2 since 2016. The location quotient of Yulin and Hancheng is less than 1, among which the location quotient of Yulin has been relatively stable for 6 years, between 0.3 and 0.4, while the location quotient of Hancheng has reached 0.97 in 2017, which is close to the average level of regional tourism development. According to the tourist location dealers of the four cities, it can be found that the tourism development advantages of Weinan and Yan'an are obvious and can be regarded as the

first-level node city. The tourism economy of Hancheng and Yulin is relatively weak in the region and should be regarded as the secondary node city.

Table 2 Tourism Locations of Cities in the Yellow River Region of Shaanxi Province from 2012 to 2017

Location quotient	2012	2013	2014	2015	2016	2017
Yulin	0.33	0.33	0.36	0.35	0.37	0.37
Yan'an	1.89	1.88	1.83	1.75	1.62	1.66
Weinan	1.80	1.75	1.79	1.84	2.17	2.10
Hancheng	0.70	0.61	0.58	0.54	0.78	0.97

3.6 Definition of tourism development axis.

The axis of tourism development is different from other economic development axes. In addition to the transportation channel connecting the main tourist node cities in the region, it should also be a landscape avenue. The passage along the Yellow Highway in Shaanxi not only connects the four tourist node cities of Yulin, Yan'an, Hancheng and Weinan, but also along the Yellow Highway itself is a “high-value” landscape avenue, so it can be used as a tourism development in Shaanxi along the Yellow River. Level development axis. The secondary development axis should be connected with the first-level development axis to form a vertical and horizontal network of the tourism development axis in the region, and the secondary development axis should be able to connect the tourist attractions in the cities of various tourism development nodes. This formed a two-level axis linkage development pattern driven by the first-level development axis to the main scenic spots along the Yellow River and the secondary development axis to the tourist attractions in the node city. The secondary development axis of “Yulin-Shenmu-Fugu” connects the tourist attractions of six counties in the north of Yulin and Baiyun Mountain of Jiaxian County along the Yellow River Highway and Qinjin Yellow River Gorge of Fugu. The secondary development axis of “Huangling-Yan'an” combines Huangdiling Mausoleum, Huangling Forest Park, Baota Mountain and Zaoyuan with other scenic spots along the Huangling Highway, Qiankun Bay and Hukou Waterfall. The secondary development axis of “Weinan-Hancheng” makes the scenic spots in Weinan and Hancheng a whole, which is connected horizontally with the scenic spots of Huashan and Dangjiacun along the Huanghe Highway. This crisscross trapezoidal traffic development axis links the tourist attractions along the Yellow River in Shaanxi Province into a whole, forming a linkage development between the first-level point axis and the second-level point axis. It plays an important role in promoting the development of Guanzhong area in northern Shaanxi Province and the construction of a tourism demonstration Province in the whole region relying on the highway along the Yellow River.

Table 3 Tourism Development Axis along the Yellow River in Shaanxi Province, 2012-2017

level	Axis of development	Relying on Traffic Line	Growth engine	Important scenic spot
Primary Development Axis	Yulin-Yanan-Hancheng-Weinan	Along the Yellow Road	Weinan, Yan'an	Baiyun Mountain, Qiankun Bay, Hukou Waterfall, Dangjia Village, Qianchuan Wetland, Huashan
Secondary development axis	Yuyang District-Shenmu-Fugu	Yushen Expressway Shenfu Expressway	Yulin	Heilongtan, Yulin Ancient City, Zhenbeitai, Hongshixia, Hongjiannao and Erlangshan
	Huangling-Yan'an	Bao Mao Expressway	Yan'an	Huangdi Mausoleum, Huangling Forest Park, Baota Mountain and Jujube Garden
	Weinan-Hancheng	Xiyu Expressway	Weinan	Shaohuashan National Forest Park, Hanyang Lake, Lingao Slow City, Yaotou Kiln

4. Three Tourist Areas along the Yellow River in Shaanxi Province

4.1 Agricultural and Animal Husbandry Cultural Tourist Area.

Agricultural and animal husbandry cultural tourist areas mainly refer to the six counties in the north of Yulin, including Yuyang District, Shenmu, Fugu, Jingbian, Dingbian and Hengshan. The northwest part of the area is Maowusu sandy land, and the southeast part is a loess hill covered with thin sand, which belongs to a typical agro-pastoral ecotone. Agricultural and animal husbandry cultural tourist areas rely on Fugu to Yuyang area along the Huanghe Highway, Yushen Highway and Yufu Highway. The tourist attractions such as Zhenbeitai, Hongshixia, Hongjiannao, Erlangshan and Qinjin Yellow River Gorge are connected to form a unique landscape and cultural landscape of the farming-pastoral interlaced zone. The military status of Yulin's "Jiubian Heavy Town" is more vivid in the North Six Counties. The Ming Great Wall crosses the Fugu, Shenmu, Xiangyang, Hengshan, Jingbian and Dingbian from east to west, and is magnificent and magnificent.

4.2 Loess Culture Tourist Area.

The loess cultural tourist area includes the southern six counties of Yanlin and Yan'an City. The Loess Plateau has a distinctive landform and a strong loess culture. The Yellow River rushes from north to south, forming two spectacular Yellow River landscapes in Yanchuan Qiankun Bay and Yichuan County Yellow River Hukou Waterfall. According to the unique landform characteristics of the Loess Plateau, local residents have formed a kind of cave dwelling mode. This "hole-like" dwelling is integrated with the Loess Plateau and is a typical representative of the loess culture in northern Shaanxi. Unique geographical environment, political and economic status here also formed a well-known northern Shaanxi culture, Ansai waist drum, Yulin paper-cut, Suide stone carvings, Zichang Suona and other intangible cultural heritage. In addition, the mausoleum of the Yellow Emperor, which represents the root of the Chinese nation's culture, and the jujube garden and Baota Mountain, which represent the modern red culture, are all located in the Loess cultural tourist area. "Three Yellow and One Saint" culture plays an important role in the Yellow River region of Shaanxi Province. It is the core of connecting agricultural and animal husbandry cultural tourist areas and Guanzhong cultural tourist areas, and plays an important role in connecting the preceding and the following.

4.3 Guanzhong Cultural Tourist Area.

Guanzhong Cultural Tourist Area refers to Weinan and Hancheng cities. Because it is located in the broadest area of 800 Li Qinchuan, Guanzhong has distinctive cultural characteristics. The well-shaped traffic in the region will connect the scenic spots of Huashan Mountain, Dangjiacun and Shaohuashan National Forest Park, Hanyang Lake, Lingao Slow City and Yaotou Yao along the Huanghe Highway. It has formed an extremely high quality area in the scenic spots in the Yellow River area of Shaanxi. The Guanzhong Cultural Tourism Zone is the cultural center of the Yellow River in China and is one of the birthplaces of the Chinese nation. The Guanzhong folk culture is brilliant and distinct. The national intangible cultural heritage of Huaxian Shadow Play, Huayin Laoca, Hancheng Yangge, Hancheng Drum and so on are up to 12 item.

5. Conclusion

The point-axis system theory is applied to the development of regional tourism integration. It can integrate the tourism node and tourism development axis resources, and use the first-order point axis to drive the secondary point axis to realize the tourism in Guanzhong area and northern Shaanxi by means of gradual diffusion. Integrated development. Based on the theory of point-axis development, this study firstly analyzes the tourism resources, traffic structure and tourism development structure along the Yellow River in Shaanxi, and then constructs the development model of "two-level point axis and three major tourist areas" along the Yellow River in Shaanxi. The first-point-axis is a node city between Weinan and Yan'an, with the Yellow Highway as the

development axis. The main function of the secondary point-axis is to realize the connection between the scenic spots of the cities along the Yellow River and the main axis along the Yellow Highway. The secondary city nodes are Yulin and Hancheng, and the secondary development axes mainly include Yushen Expressway, Shenfu Expressway, Baomao Expressway and Xiqiao Expressway. The two levels of point axes have jointly formed a trapezoidal linkage development structure along the Yellow River in Shaanxi Province. The three major tourist areas embody the differences of regional culture along the Yellow River in Shaanxi Province. Each tourist area has a cultural theme. The three themes revolve around the Yellow River culture in Shaanxi Province, complement each other and form a synergistic development advantage. Secondly, each tourist area is basically a combination of the first-level point axis and the second-level point axis, which can form the internal driving force of the development of the tourist area under the development mode of point-axis linkage. The point-axis development model along the Yellow River in Shaanxi Province is a regional development model of resource integration and a gradual diffusion development model, which can provide theoretical support and scientific guidance for the construction of Shaanxi's tourism demonstration province.

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