Shu Road Villages Based on "Richthofen's China Travel Diary" Research on the Landscape Culture of Folk Houses

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Abstract. With the change of dynasties and historical changes, the specific routes of the Shu Road and the cultural and geographical environment also changed. Richthofen’s field trip from Qin to Shu recorded more detailed geographical science knowledge along the way, and provided important historical data for scholars to study the geographical science knowledge of Shu Road in the late Qing Dynasty. The article mainly uses Richthofen's diary of the Shu Road investigation as the basis of historical data, from the perspective of residential history and geography, to study the geographical landscape culture of the Shu Road villages in the late Qing Dynasty. First, clarify the specific description of the village residential landscape along the Shu Road in the diary; secondly, use the typological method to classify and compare the distribution of the villages along the Shu Road, the types of dwellings, and the specific characteristics; finally, use the phenomenological method to analyze the village dwellings. The main factors for the formation of the landscape, and then the establishment of the cultural core model of the residential landscape of the Shudao village.

1. Introduction
The “Belt and Road” initiative is a great initiative based on domestic and international economic and social development in the new era of my country, further expanding the urgent needs for domestic reform and opening up, and striving to build a “community with a shared future for mankind”. It has practical significance and long-term impact on countries and regions along the “Belt and Road” and the entire world.

Shu Road is the general name of a series of ancient roads that crossed the Bashan Mountains in Qinling and connected the Sichuan-Shanxi region. It has a very long history. According to textual research, its opening time can be traced back to the pre-Qin period. After more than two thousand years of construction and use, it still played an important role in the late Qing Dynasty. As the only way to communicate with the Qin and Shu areas in ancient times, the Shu Road has been attached great importance to in all dynasties and has been frequently constructed and maintained. Because of this, the routes of the Shu Road have been changed, and many branch lines have been derived. The Shu Road stretches for thousands of miles and has gone through more than two thousand years. It has witnessed the history of the exchange and integration of the Sichuan-Shanxi region and the various
processes of the evolution of ancient roads. It and the "Silk Road" are the two most important land-based cultural routes in the ancient history of our country.

2. Research summary

2.1. Richthofen and Shu Road
Richthofen is a German geographer and traveler who has conducted many field trips to most provinces in China. Departing from Xi'an on January 16, 1872, it took 34 days and 24 stops to reach Chengdu, mainly along Baoxie and Jinniu Road in the Shu road network. During this period, Richthofen gave a more detailed description of the geography, landscape, and humanities along the way in the form of a diary, which broke the poetic and pictorial meaning of the past, and was more intuitive, in-depth experience, scientific analysis and data quantification.

2.2. Richthofen's specific description of the geography of the dwellings of Shudao villages
Shu Road landscape is a complex of natural landscape and human landscape. Shu Road is not isolated and single, the road network is complex and grand. The main trunk lines of the existing road network are concentrated in the three provinces of Sichuan, Shaanxi and Gansu. There are mainly Ziwu Road, Tangluo Road, Baoxie Road, Chencang Road in Shaanxi Province, Qishan Road connecting Shaanxi-Gansu, Jinniu Road, Micang Road, Lizhi Road connecting Sichuan and Shaanxi, and Yinping Road connecting Sichuan-Gansu. Because of its long history, profound heritage, and dangerous scenery, he was sent to Hanmo by the motifs of the past generations. He saw his meaning in the chapter and his reputation was autobiography in the latter.

Villages are regional complexes with natural, social and economic characteristics, which are greatly affected by political, economic, and cultural factors at the time and where they are located. Village residential geography also has multiple functions, such as social life, economic production, ecological environment and regional culture can be objectively and truly reflected. In traditional society, the coexistence of villages and towns constitutes the main space for the survival and life of our people. As a long history of the Shu Road, it not only has strong political and military functions, but also has an important function of commercial and cultural exchanges. It is also the way of life for people along the Shu Road. As a geographer with world experience and a writer’s temperament, Richthofen’s description of the village landscape along the Shu Road is not only to observe it from the perspective of human geography, but also to compare his body and soul. At the same time blend into the environment, inject emotions, and then get inspiration. There are not only true descriptions of the ruins of the villages and towns destroyed by the Taiping Army in Shaanxi, but also true praise for the people of Sichuan. To a geographer, traveler, and missionary, it seems a bit unscientific and rigorous. However, the author believes that this is the infection of the environment on people and the relief of human nature to nature.
Table1. The description and arrangement of the residential houses in the villages along the way from the Richthofen Shu Road investigation

| Date | County | Village Types | Folk house Types | Feature description |
|------|--------|---------------|------------------|---------------------|
| 1.1  | Xianyang County | Contiguous cave | Cliff-cave dwelling | "On a steep slope of a hundred-meter-high loess land, there are all the previous cave dwellings, connected piece by piece. Each similar village has a protective wall at the front, and there is a terrace above the village, and there is a terrace on the terrace. Temples. But all this is now destroyed, not even the cave dwellings are spared—they look like abandoned hornet's nests." |
| 1.1  | Xingping County | Contiguous cave | Cliff-cave dwelling | "Xingping is a humble county, and the inn is very poor. The road is still on the plain. We have walked for 30 miles. The villages here have been destroyed, but all the farmland is planted. The other side is in the valley. There are also cave dwellings on the loess walls here." |
| 1.1  | Fufeng County | Contiguous cave | Cliff-dwellings/pit-type cave dwellings | "There are many residents in the loess land, and there are many abandoned old kilns on the earth walls. A hole with a vertical earth wall is dug on a flat surface, and houses are opened in the cave....The inns are very simple, due to the weather from Xi’an. It started to become very cold, so the suffering caused by the inn was everywhere. The house was dark, but the wind was everywhere, and the kang was cold." "The inn I lived in today is a clay kiln, and this place is actually a bunch of inns." |
| 1.1  | Fengxiang County | Small village | Guanzhong Heyuan (Square box) | "In the valleys of Fengxiang Mansion and to the west, there is an invisible yellow land spreading; there are many villages inhabited by few people today. Large closed villages are rare here, and they are usually small villages. Small fortresses, because every small group of houses is surrounded by a circle of high walls. Almost every village is composed of a group of large square boxes, and it is possible that each square box is locked in a family that contains all relatives. Obviously, this area was densely populated before the riots." |
| 1.2  | Baoji County | Cave dwelling | Cave dwelling | "...Maying town. The rebels destroyed everything here, but the people returned from the mountains later and rebuilt the houses with wood and clay as they were. The stone houses are unknown in all these areas, the brick houses It’s a luxury.——Now I’ve been walking along the edge of the valley, passing through several newly-built villages.... The most peculiar thing is the loess wall in the north, which is a cluster of caves from bottom to top. The zigzag road leads from the valley to the heights, connecting all these houses that are like insect nests....Almost every section of terraces has cave dwellings, and the land is planted, so there is no waste of land. Baoji The population around the county is the densest. The city is located on a loess slope and stretches along the slope. Part of the city wall is built on the slope of the loess slope. There are many newly built clay houses and earth kilns around." |
1.2 Lüyang County 
Not clear  
"...Sencha Ridge,... in the gorge to the north, small villages are scattered along the road. There is not much farming on the mountain, but there is a fertile valley basin on the south." "The residents of the valley in the mountains. It seems to be of a different race from the Han people, even though they also wear braids. They are short, with small and round heads, and have earlier beards. However, the majority of people living on the roadside here are Han people."

1.2 Feng County 
Cave dwelling  
"When my people arrived at the Caoliang Post here,...the place where I stayed last night suddenly narrowed down, but it was never narrow enough to become a real mountain gorge-there is still room for the village to exist, In most places, there is still a long, narrow, basically sloping arable land.... In some places, the clay soil has the characteristics of yellow soil and has vertical sections, so there is no lack of cave dwellings. The villages are very poor, but there are small restaurants everywhere. Because pedestrians on the road are one of the main sources of income here."

1.2 Feng County 
Small town  
"Fengxian is a small city surrounded by walls. It is the place where small businesses are thriving here. The people here are extremely kind."  

1.2 Feng County 
Community distribution  
Cave  
"A peculiar phenomenon appeared on the hillside south of Sanchayi for the first time yesterday. It is the caves built in the rocks. They are all built in the most inaccessible places 30 to 125 meters above the valley floor. They are always 20 to 100. They are in groups and distributed very irregularly. They are holes dug in the slate. I don't know the time and purpose of their construction. People here don't know. When the Daping army came, these caves became common people. Sanctuary."  

1.2 Liuba County 
Roadside village  
Humble house  
"The river circumnavigates between the steep mountains, the river course is deep and dangerous, and the gorges beside it are the same. There are villages only on both sides of the road. The road winds along the hillside and often crosses the rocky cliffs... in the only one. The open area is the Liuba Hall-a beautiful surrounding wall with only a few simple houses, and there are a few grocery stores and inns in the small suburbs."

1.2 Liuba County 
Town  
"Madao, our destination, is a market town full of inns and small shops."  

1.2 Liuba County 
Small house  
Temporary building  
The place where I rest is only a small house, there are 4 customer lines, all of which are the smallest. The owner and his wife had to leave their room in order to make room for me. This room was ventilated as if they were in a wilderness. The Taiping Army also destroyed almost everything on this road as far as Fengxian. People began to rebuild and built houses using the old things in the ruins, but the money seemed still not enough to build a better house, and the inn was not comfortable at all.

1.2 Baocheng County 
Town  
Temporary building  
"In Huangsha Town, where I stayed, it happened to be the market, and the street was crowded with people, but we passed through it safely. We stayed in a very simple inn here.... This alluvial valley is densely populated and all large villages,
although The Taiping Army, which has been entangled here for three years, has suffered a lot, but now it has a large population and most of it has been rebuilt. As soon as we leave the mountainous area, houses and streets become dirty."

| 1.3 | Mian County | Market | An empty city with only walls |
|------|-------------|--------|-----------------------------|

"Near the Caiyuanzi, this is a lively street market that is 3 miles long. Because the New Year is approaching, here is a market such as a Christmas market. A bunch of colorful grocery stores are filled with a dazzling array of goods. The door was opened to welcome guests. People behaved very politely. Mian County is located in the most remote corner of the valley, where the Han River is away from the mountain, and it is an empty city with only walls and no houses, because the Taiping Army razed everything to the ground, and in the east gate There was a new town with closed doors nearby."

| 1.3 | Ningqiang County | Kuan Chuanpu Village | Many water mills |
|------|-------------------|----------------------|-----------------|

"Tai'anyi is a lively market, and there are still 8 battalions stationed, that is, a solid barracks with about 4,000 soldiers, all of which are troops from Hunan and Sichuan... After 20 miles, we arrived at Kuanchuanpu Village... Rice is planted wherever possible. Many water mills are also seen here. People are very poor."

| 2.1 | Ningqiang County | Select Jiangping Village | Small house |
|------|------------------|-------------------------|-------------|

The village of Xuanjiangping is made up of a small house in a narrow canyon. From here, the uphill road to Wudingguan Pass, which is 300 meters higher than the village, enters a deep canyon.

| 2.2~3 | Guangyuan County | The village is better | Not clear |
|-------|------------------|----------------------|--------|

"Sichuan’s scenery and characters have so far made people feel impeccable. The scenery is very attractive,...the people behave calmly and politely....The villages here are better maintained than those in Shaanxi, and the inns are no longer as crude as there are."

| 2.5 | Guangyuan County | Guangyuan City | Shops lined up |
|------|------------------|---------------|---------------|

"These mountains straddle the Jialing River.... This area is sparsely populated, especially the vast southern area, which is said to be uninhabited because of wild animals (wild boars and tigers). The crops grown here include wheat, peas, soybeans, and potatoes. People also planted a lot of paulownia trees. Green trees grew everywhere, some of them were broad-leaved trees. Guangyuan was a hub for small businesses in a large area. Between the city wall and the river, there was a lively commercial street with many shops and crowds. , But I didn’t see any particularly attractive products. The people here are as smart as I have seen in the small places I have passed so far, and they are truly exemplary people."

| 2.7 | Zhaohua County | Open the village | Small houses scattered around |
|------|---------------|-----------------|-----------------------------|

"The scenery is beautiful, but the woods are not big and not dense enough.... In China, it is strange that there are no closed villages here. There are only small patches of houses and farms scattered around. This gives a peaceful impression. You can see rice, wheat, barley, millet, tobacco, broad beans, peas, etc. Up to now, there is no opium, and Xu Neng mulberry and tung tree."

| 2.8 | Zhaohua County | Damushu Village | Inn |
|------|----------------|----------------|-----|

"In the embrace of the steep hillside and above the steeper rock face, there is a village called Damushu. It is actually made up of an inn, because this is one of the main sites. We spent our time
| 2.10 | Jianzhou County | Scatterd farms | Individ ual houses | "The outline of the mountain starting from Jianguan looks amazing and peculiar.... Although all the land that can be planted between the numerous rocks and cliffs has been planted, houses and small villages are scattered everywhere, but overall this Although the height of the ice-floe-like mountains is not high, they are quite desolate....All these places are sparsely distributed with hard sandstone boulders, and individual houses and farms are scattered among them. There are few large houses." |
| 2.12 | Jianzhou County | Beautifu l little village | Road paved with flagstones | "...Jianzhou. Because of the lack of a flat valley, this beautiful small city had to snuggle up on the hillside. At the moment, every family is closed, and business and traffic have stopped for the New Year.... The height of the road has been maintained until it approaches Wulian. The place, this is a pretty small village from above, the road descends suddenly from above. The road is as wide as yesterday, paved with flagstones, and there are lush cypress trees on both sides, even the characteristics of this place It’s the same as I described yesterday, except that the ridge is shorter." |
| 2.13 | Zitong County | County seat | Multi-scroll eaves | Zitong County, where I stayed, is beautifully located on the alluvial land, at the foot of the terrace. The city looks very rich, with many scroll-shaped flower decorations on the eaves, and a wide stone road traverses the city. The inn is average, but the people here don't bother us. |
| 2.14 | Zitong County | Scatterd farms | Scatterd houses | Houses and farms are still scattered and rarely constitute closed villages. The residents are exceptionally good, not timid, always so friendly and hospitable-the best people in China. |
| 2.15 | Mianzhou | Scatterd farms | Small group of houses | "It is rare to see enclosed villages in this valley. At first they were scattered farms and small groups of houses. It is very conspicuous that there are always a few trees and a few bushes of bamboo." |
| 2.16 | Luojiang County | Mengjia dian | Mansi on | "... Huangxu Town, and then down the river to a small village Mengjiadian, where we live in the mansion-that's how people call it a place for mules to rest." |
| 2.17 | Hanzhou county | Urban and rural areas | Housin g complexes and individual farms | "This is one of the most prosperous, educated, most civilized, productive and densely populated areas in China. It is a huge paradise with densely populated people. They live scattered in countless housing groups and individual farms. There are almost no villages here, but there are many cities. The urban and rural areas here are completely different! Cities are completely cities, created on their own in order to integrate the trade and handicrafts of the region; while the countryside only farms. Even on the road There are also few single restaurants, grocery stores, etc. in the edge, which are rarer than in the mountains." |
| 2.18 | Xindu County | Not clear | "West Sichuan Linpan " | "The bamboos and broad-leaved trees around the houses are getting taller and denser. Xindu is inferior to those cities yesterday in terms of size and beauty. In addition, we have passed through several beautiful small places today." |
As can be seen from the list, Richthofen recorded his investigation process in the form of a diary, instead of deliberately recording the geography of village dwellings every day or a place, but more scientifically from the perspective of a geographer. Investigation records. As the main part of geography, residential geography is not just a single residential building, but also exists in the environment and grows in the environment. The residential houses used by people live poetically in various places along the Shu Road. As an important carrier of local human settlement culture, traditional villages have important experience value for human society, science and technology, culture, art and spiritual heritage.

2.3. The main types and characteristics of residential geography of the villages along the Richthofen Shu Road survey

Table 2. Classification list of main residential types along the Shu Road

| No. | Village layout type | Village distribution picture | Folk house shape System type | House Shape Picture | Main features of village dwellings |
|-----|---------------------|------------------------------|-----------------------------|---------------------|----------------------------------|
| 1   | Aggregate Guanzhong Courtyard | Guanzhong Courtyard | | | The external form is simple, heavy, dignified, stable, and gorgeous; narrow and long courtyards, single slope roofs, and thick walls constitute a unique architectural form; climate and geomorphology, cultural concepts and heavy history have become the internal genes for the formation of the external characteristics of Guanzhong residential. The people of Guanzhong emphasized poems and etiquette and kept the soil truth-seeking; their residential form was ethical and heavy, and natural from loess. |
| 2   | Aggregate Cliff dwellings/pit cave dwellings | Cliff dwellings/pit cave dwellings | | | Cave dwelling settlements are mainly distributed in the Weibei arid plateau area from the Guanzhong Basin to the Loess Plateau and the hilly and gully area of the Loess Plateau in northern Shaanxi. The pit-type cave dwelling courtyard is lower than the ground level. It is a sunken courtyard surrounded by cave dwellings on all sides. It is generally a single-entry courtyard and is common in the Weibei loess plateau area. The cliff-walled cave dwellings continue the genes of the cave dwelling settlements in northern Shaanxi. The basic characteristics of living on the mountain and spreading along the mountain are integrated with the loess gully and become the continuation of the mountain. Its location, water management, |
### Traditionalized Ganlan Folk House/S-oil Folk House

In the southern foothills of the Qinling Mountains, the construction of residential buildings is more tailored to local conditions. Even the dry fence and the earth-rock structure are quite different due to regional and economic factors. The Ganlan dwellings in Qinling are temporary and embarrassing. The structural forms of traditional village residential buildings in the southern foot of the Qinling Mountains are mainly earth-stone platform beams. Generally, the internal structure is load-bearing. The upper part of the enclosure structure is made of blue brick masonry and the lower part is made of rubble masonry. They are not used as load-bearing structures. The stone masonry wall is the main load-bearing structure, and the purlins are directly placed on the stone gable wall, which has a rustic, rustic, heavy, and dynamic feeling, and has certain similar characteristics with the adjacent western Sichuan residential houses.

### Traditionalized West Sichuan Folk house

The site selection of the building should be adapted to local conditions and strive to be compatible with the natural environment. Fused together. Residential buildings in western Sichuan are scattered and the courtyards are open. Although there is an obvious central axis, it is strictly asymmetric and the layout is free and changeable. The structure mostly adopts bucket-type wooden structure with small cross-section of beams and columns, which saves labor and materials and is suitable for the rainy and humid climate characteristics of western Sichuan. The roof is a two-slope overhanging mountain top, with more long and short slopes, and the front eaves are slightly higher than the rear eaves to prevent excessive rainwater from being discharged into the courtyard. The roof is covered with small blue tiles, without looking board and felt back, good air permeability. Because the structural materials are thin, light and thin, and the roof has far-reaching eaves, it forms a light and delicate style.
Obviously, it can be seen from the above list that the residential landscape of Shudao villages in late Qing Dynasty does not exist rigidly along the Shu Road, but in a dynamic circulation system of convergence and self-renewal. Mainly manifested in:

First of all, the terrain along the Shu Road is complex, especially in the Qinba Mountain area, the geographical environment and climate characteristics are constantly changing due to geology, latitude, and altitude. As the folk saying goes, "Think about change if you are poor, change if you become acquainted, and achieve success if you change." The Sichuan-Shanxi-Gansu adjacent area along the Shu Road is a must-see for military strategists in the past, which is enough to explain its important military and political status. Since modern times, the Qinba mountainous area has become a place where refugees gather and reclaim their land due to the superimposed influence of various factors, such as heavy taxes, heavy taxes, the Taiping Heavenly Kingdom, the White Lotus Uprising, excess immigration, and natural disasters. The Ganlan dwellings scattered in the mountains and forests are mainly built by refugees and extremely poor families, while the civil and brick dwellings are mainly built by older families or families. This is more in line with the people's sense of property and homeland.

Second, the main areas of the Shu Road distribution can be simply summarized as the hilly area of the Guanzhong Plain, the Qinba mountainous area, and the hilly plain area of western Sichuan. From the perspective of historical and geographical evolution and development characteristics, Hanzhong, Longnan, and Guangyuan are the main cities in the adjacent areas of Sichuan, Shaanxi, and Gansu. The Tianbao period of the Tang Dynasty also belonged to Shannan West Road, Jiannan Road, and Longyou Road. It can be said that the area always separates and merges, showing the remarkable characteristics of being in harmony with each other, with me in you and you in me, and harmony but difference. This is just as Richthofen wrote in his diary, from Xi'an to Fengxiang County, rural village houses have square boxes, and there are also cliffs and pit-type cave dwellings along the cliffs and loess areas. In Baoji County, the rebels destroyed everything here, but people later returned from the mountains to rebuild houses as they were with wood and clay. Baoji County has the densest population around it. The city is located on the loess slope, stretching along the slope, and part of the city wall is built on the slope of the loess slope. There are many newly built clay houses and earth kilns around. In Lueyang County, a peculiar phenomenon appeared on the hillside south of Sanchayi for the first time yesterday. It was the caves built in the rocks. They were all built in the most inaccessible places 30 to 125 meters above the valley floor. It is a group of 20 to 100, and the distribution is very irregular. They are holes dug in the slate. I don't know the time and purpose of their construction. No one here knows. When the Daping Army came, these caves became refuges for the common people. In Jianzhou County, although all the land that can be planted between the numerous rocks and cliffs has been planted, and houses and small villages are scattered everywhere, the overall height of this floating ice mountain is not high, but Quite desolate. All these places are sparsely distributed with hard sandstone boulders, among which individual houses and farms are scattered, and there are few large houses.

Specifically, the natural topography and landforms along the line from Qin to Shu can be divided into Guanzhong Plain Natural Area, Qinling North Slope Low Mountain and Hilly Natural Area, Qinling North Slope Alpine and Zhongshan Natural Area, Qinling South Slope Alpine and Zhongshan Natural Area, Qinling South Slope and Low Mountain. There are ten sub-regions including the hilly natural area, the wide valley basin hilly natural area along the Hanjiang River, the low hilly natural area on the northern slope of Daba Mountain, the subalpine and middle mountain natural area of Daba Mountain, the low hilly natural area on the southern slope of Daba Mountain, and the Chengdu Plain natural area. The undulating mountains in the area are mostly in the Qinling Mountains, forming a natural boundary with Henan, Hubei, Anhui, Sichuan, and other provinces, as well as the geographical boundary between my country's north and south. Take the low mountain and hilly natural area on the southern slope of the Qinling Mountains as an example. There are many developed river systems in the region, mostly flowing through or branches of rivers such as Hanjiang and Danjiang. The forest coverage rate is high, the altitude is high, but the per capita arable land area Less, agricultural
production is not developed, and theoretically not the main gathering area of traditional villages. But on the other hand, due to the inconvenient transportation in mountainous areas and less interference from external factors, as long as the self-sufficient small-scale peasant economy is established, the resulting traditional villages can be well preserved. The diversity of terrain has enhanced the ability to defend against natural disasters to a certain extent. Under the combined effect of the above natural factors, although the density of the Qinba mountain area is relatively small, the number of traditional villages is the largest.

It is not difficult to see that the village dwellings in the Qinba Mountains include cave dwellings, earth-stone brick-timber houses, and dry fence houses, which are like the Shudao folk house museum. The rich and diverse types of residential buildings are not only affected by economic factors, but also due to the people's adapting measures to local conditions and the wisdom of local materials. It can be said that the residential landscape culture of the villages in the Qinba mountainous area is a powerful manifestation of the regional culture. It not only has a strong locality, but also has some characteristics related to the folk houses in the middle and the western Sichuan, and has the effect of combining the Qin and Shu cultures. It can be said that the Qinba mountainous area is a comprehensive zone of Qin and Han cultural adjustments, with integration and coordination, and is the core area and symbiosis area of Shu Tao culture.

2.4. Construction of the cultural model of the residential landscape of Shudao villages

The existence of any kind of phenomenon is the result of the final balance of many factors. In a nutshell, the ought to exist in the residential landscape of Shu Road mainly includes three aspects: geographical environment, history and humanities, and economic society.

2.4.1. Geographical environment

The primary factor for the existence of the Shu Road landscape is due to the time and place. Shu Roads are distributed in Piling District of Sichuan, Shaanxi and Gansu Provinces. Mountains include the Qinling Mountains, Daba Mountains, Qilian Mountains, Hengdian Mountains, etc.; mountains, valleys, hills, plains, etc. are interspersed in the area; the Wei River, Han River, Jialing River, Bailong River, etc. merge into the Yellow River and the Yangtze River, which strongly proves that the Qinling Mountains are not only Motherland. The watershed is also the watershed between the Yellow River and the Yangtze River. Whether human beings lived in a hole from the earliest nesting to the Paleolithic era or built a house later, the development and evolution of human habitation cannot be separated from the dependence on the natural environment. The Confucianism of harmony between man and nature and the ecological consciousness of harmonious coexistence play a guiding role in the site selection process of most Shudao villages. In the process of site selection, villages generally choose high places, sheltered places, or close to water sources. The best place to choose a site is to have a back mountain and water and a vast natural hinterland. The spatial layout of the village and the mountain-shaped water potential are as good as possible. As a whole, houses and buildings are combined along the terrain, and the streets and lanes in the village meander along with the terrain.
Although the three elements of sky (air), land (land), and people (residents) are independent of each other, they can transmit energy to each other to form the overall environment, which provides a material basis for the development of village residential landscape. "Guoyu Zou Yuxia Third" records: "Fushan, the gathering of soil. Tau, the return of things. Chuan, the guide of qi. Ze, the bell of water. The dredging is the valley of the river to guide the qi. The Pitang is polluted by the bell for its beauty. The qi is not stagnant, nor does it disperse. It is because the people’s livelihood is useful for money, and death is buried", "The Ten Books of the Yangzhai House · The First Appearance of the House" writes: "Where On the left of the house, there is a flowing water called the blue dragon, on the right there is a long road called a white tiger, there is a polluted pool in front of it called a red bird, and behind a hill is called a basalt, the most expensive place." The villagers and people obtained wealth from the mountains and rivers in nature, and they were formed. The most primitive mountain worship. Based on this simple sense of landscape, the so-called "left green dragon, right white tiger, former Suzaku, and rear Xuanwu" have become an ideal site selection pattern.

2.4.2. History and Humanities
On the Shu Road, the ancient working people shed sweat and blood, and left the footprints of celebrities. Shu Road Not only the natural scenery is peculiar and magnificent, cultural relics are dotted around, but also scenes of mighty and majestic historical dramas have been staged. Such as the plank road in ancient times, the broken city of the Three Kingdoms, the dangerous pass, the magnificent temple, the exquisite stone carvings, the verdant ancient cypress corridor and so on. For ordinary people who have descended in the late Qing Dynasty, traditional villages are more closely related to their production, life and reproduction. As a precious cultural heritage of the Chinese traditional society and the entire Chinese nation, it is a cultural container, and it is also a complex of material and intangible cultural heritage. Courtyard-style houses in the Weihe Plain in Guanzhong, Shaanxi; cave-style, dry-lane, and stone-built houses in the Qinba Mountains; free and beautiful houses in the Chengdu Plain. Although it was built under more restrictive technical and economic conditions, it still has a different style and feelings. Based on the different historical and cultural accumulations, the author believes that the reasons for the formation of traditional villages can be divided into the following aspects. First, the influence of historical figures and events. Second, the impact of specific geographical environment. Third, the rendering of traditional customs and concepts. Fourth, the development of architecture, painting, sculpture and other arts. The traditional villages in the Qinba Mountains and the Loess Plateau are mostly built on mountains and rivers, cleverly using the relationship between man and nature, and creating the landscape pattern required by traditional settlements.

2.4.3. Economic society
The level of productivity is one of the main factors to ensure the development of traditional villages in the historical period. Since the end of Tang Dynasty and the beginning of Song Dynasty, Chinese folk. The social commodity economy has gradually developed and developed. The level of agricultural development in the region has no doubt about the influence of traditional farming society on the location of villages. The quality of agricultural development directly affects the economic status of the traditional society. It is very important to have good agricultural production conditions. The level of agricultural development in areas with long sunshine hours, fertile cultivated soil conditions, abundant water resources, and resistance to natural disasters It is relatively high, the social economy is relatively prosperous, and the number of traditional villages is generally distributed. The Hanzhong Basin and the Sichuan Basin are alluvial plains with fertile land, abundant water sources and suitable climate. They are the main grain producing areas and have been contested by strategists in the past. After the war, the army of the Shuhan Land was able to quickly resume production, self-sufficiency, and sufficient food and materials (tea, silk) to communicate with the outside world through the Shu Road, Han River, Jialing River, Southern Silk Road, Tea Horse Road, and Tang Tibetan Road. Business and
cultural exchanges. The existence of Shu Road plays an important role as a channel and bridge for the communication between the land of Shuhan and the outside world.

As an integral part of the local human settlement culture, the village dwellings also have the laws of their generation, development and innovation. It will follow the development of people's class culture and change. The similarity with cultural theory is that the existing attributes of the regional architecture (such as location) are not only affected by the natural environment, but also by the social environment. In a sense, the natural environment determines the initial emergence of local architecture, while cultural factors such as economy, technology, social system, traditional customs and values have affected the development of local dwellings. The natural environment and social environment have mutual influence and mutual restriction on the production of local residential buildings, but they are constantly updated as the environment changes. It can be seen that the traditional village has long-term cultural connotations and rich cultural relics, but from the perspective of object development, it is a lively human settlement that has a long history of development and will continue to develop now. There will be future, it will continue to develop under the influence of social economic and cultural factors. The development of each village has never stopped since its birth and formation. It is a traditional style that has been presented in the alternation of dynasties, different economies, and policies. Whether it is a modern city, town or village, it is the alternation and collision of the new and the old, and there is more or less a splicing of tradition and modernity. The spatial form and structure of traditional villages will eventually emerge with the continuous development of society. Change and eventually die out is an inevitable trend of historical development.

3. Conclusion and discussion
Most of the houses in the villages along the Shu Road in late Qing Dynasty were made purely by hand, with rich material culture, intangible cultural heritage, and beautiful landscape ecology to form an important human settlement heritage on the Shu Road. It condenses historical memory and reflects social development process. It is not always possible to see the social development and economic status from one node, but from the point of time when Richhoven's Shu Road was inspected, the geographical features of the villages and residences at each node along the Shu Road can reflect the same historical period along the Shu Road. Political, economic, social and cultural phenomena at different nodes. It can be said that from the perspective of historical geography, Richthofen’s investigation diary is an important historical material and cultural heritage for studying the geography of the human settlements of the Shu Road in modern times. It is a bond to maintain social identity along the Shu Road and is the adjacent area of Sichuan, Shanxi, and Gansu. The spiritual home of rural society.

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