Research Article

The Analysis of the Basic Types and Specific Characteristics of the Qinba Mountain Village Landscape along the Shu Road in the Late Qing Dynasty Based on IOT

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The Internet of Things is a huge system that collects and transmits real-time information. The smart space location is a part of IOT that collects location information, and on the other hand, it is an important tool to analyze the internal relationship of information and help users better understand its laws. As an integral part of the geographical landscape, human settlement environments have the main characteristics of both physical and cultural geography. The human settlement environments in the area along the Shu Road in the late Qing Dynasty (1840–1912) have important historical and geographical features. The main route of the Road to Sichuan takes the basic pattern of “Four in the north and three in the south,” with extensive coverage and overflow range; its complex landform brings diverse climate types and vastly different scenery as there are many factors related to the three cultural regions of Guanzhong, Qinba, and Shudi involved. In the application of the Internet of Things in geography, through high-frequency active monitoring, the situation changes can be grasped in a timely manner, the law of changes and trends can be discovered, and the geographic information of mountain village landforms can be provided to the public in a timely manner.

Based on Ferdinand von Richthofen: Tagebücher aus China and Hand Drawing of China: Record of the History of Chinese Architecture in Japan, by retrospective restoration, on-site investigation, comprehensive application of relevant theories, and methods in historical geography, architectural typology, art phenomenology, and aesthetics, this study attempted to reasonably divide, scientifically classify, thoroughly analyze, extract the characteristics from, and improve the culture of the village landscapes in the Qinba Mountains along the Shu Road in the late Qing Dynasty from the perspectives including the size types and site relationship, building types and form structures, construction materials and decorative arts, general style, and aesthetic characteristics. It intends to revitalize the culture of village landscapes in the Qinba Mountains along the Shu Road in the late Qing Dynasty.

1. Introduction

The overall protection philosophy of global cultural heritage is centered on the cultural route of Europe and the heritage corridor in the US. As both a heritage protection philosophy and a heritage type, cultural routes are based on the important human activities in history and integrate multiple heritage elements from the time dimension, spatial dimension, and cultural dimension, which fully demonstrate its cultural diversity and overall value and align with the overall conservation trend of heritage. They offer a new angle into the cross-regional conservation and utilization of large cultural heritage as a whole and play an irreplaceable role in exploring national identity and local common memories, extending the local culture, and promoting regional development [1].

Traveling records should be used as an important cultural heritage to evaluate the cultural routes and one of the basis to define their scope and nodes. When evaluating the authenticity of cultural routes, it is essential to focus on the
physical forms and incorporate the historical information and spiritual characteristics they carry [2]. Most of the literature on the human settlement environments along the Shu Road is scattered in historical records, poetry collections, poetry anthologies, and travel records. As for the systematic, consistent, and scientific literature, Ferdinand von Richthoven: Tageb¨ucher aus China is the top recommendation. The Tageb¨ucher records his findings along the Shu Road in the form of diaries, offering comprehensive descriptions of the social landscape there. Hand Drawing of China: Record of the History of Chinese Architecture in Japan by the Japanese scholar, Ito Chuta, is recently published in China. The Record thoroughly and specifically studies the architectural art along the Shu Road. In light of this, the paper looks into the characteristics of human settlement culture in the village landscapes in the Qinba Mountains along the Shu Road.

2. The Basic Situations and Analysis of Village Landscapes in the Qinba Mountains

Although historical value is generally considered the primary value of immovable cultural heritage, there are two sources of historical cognition that dominate the understanding of historical value and heritage interventions. First is fabric-originated historical value, referring to the historical cognition that gives rise to this value gained from studying the physical fabric from the past, which thereby attributes historical value to the material remains. Second is the symbol-originated historical value, which is the historical cognition for this value that does not derive from the physical fabric in the sense of forensics but from other information sources. The historical value of fabric is recognized as symbols associated with other information sources [3].

Culture is spatial [4]. The three cultural regions Guanzhong, Qinba, and Shudi along the Shu Road are with apparent features, mainly resulting from the differences in cultural development and inheritance (Figure 1). Based on the basic definition and characteristics of cultural routes specified by ICOMOS, the “urban-rural continuum” proposed by the famous anthropologist, G. William Skinner, and the related theories in cultural geography and typology, the routes taken by Ferdinand von Richthofen along the Shu Road are classified into three sections, namely, the “Plain Section in Guanzhong” (Xi’an–Fengxiangfu), which corresponds to the Guanzhong Culture, the “Mountainous (Hill) Section in Qinba” (Fengxiangfu–Mianzhou), which corresponds to the Qinba Culture, and the “Sichuan Basin (Chengdu Plain) Section” (Mianzhou–Chengdufu). A multidimensional method to extract, filter, sort, and compare the main type of human settlement environments, village landscapes, is used to analyze the historical background, geographical environment, main types, and specific features, thereby explaining the cultural significance and contemporary value of their existence. Specifically, it uses genetic analysis methods to analyze the cultural characteristics of traditional settlements based on morphology, types, and architecture, reveals their patterns in terms of spatial forms and structures, and reexamines their cultural characteristics.

The “Qin” and “Ba” in “Qinba Region” refer to the Qinling Mountains and Dabashan Mountains. This Region covers Qinling, Dabashan, and their adjacent area, spanning across Gansu, Sichuan, Shaanxi, Chongqing, Henan, and Hubei, its main part being Southern Shaanxi and Northern Sichuan. Among these, the south of Guanzhong is called the Qinba Mountains in Southern Shaanxi, where the Qinling Mountains and Dabashan Mountains span from the south to the north, creating a vast expanse of forests on a landscape with countless mountains and gullies, known historically as the Old Forest in Nanba. The Qinling Mountains lie south of Guanzhong, meandering from Fengxian and Lüeyang to the east, through Baoji, Meixian, Zhouzhi, Yangxian, Ningshanting (now Ningshan), Xiaoyiting (now Zhushui County), Zhen’an, Shanyang, Xunyang, to Yunxi in Northwest Hubei, known as the Old Forest in Nanshan. The Dabashan Mountains lie between Sichuan and Shaanxi, running northwest-southeast, stretching east from Ningqiang (Shaanxi) and Baocheng, through Nanjian, Bazhou, Tongjiang, Taiping, Kaixian, Fengjie, Daning, and Wushan in Sichuan, and Dingyuanting (now Zhenba County), Ziyang, Ankang, and Pingli in Shaanxi, to Zhushan, Zhuxi, Fangxian, Xingxian, and Baokang in Hubei, known as the Old Forest in Bashan. The Old Forest in Nanba is fit for all kinds of crops, rich in metal, precious stones, and fruit and vegetables. Its vast territory and sparse population have made it a historical habitat for the unemployed. The residents in the mountains then consisted of 10–20% of indigenous people and 80–90% of migrants. Since the Qin and Han Dynasties, migrants began to swarm into the mountains where they reclaimed the lands. During the reign of Kangxi in the Qing Dynasty, the Governor of Sichuan and Shaanxi, E’hai, recruited the migrants from the borders to reclaim the lands. Many of the migrants were poor and broken peasants recruited from the Old Forest in Nanba. After the 37th or 38th year under the reign of Qianlong, poor harvest was seen in Sichuan and Hubei, so the peasants and handcraftsmen “came here with their families to seek refuge with their relatives and reclaim the mountains.” According to the statistics from the six counties, Pingli, Xunyang, Baihe, Ziyang, Shiqian, and Hanyang, the number of people who migrated to the Old Forest in Nanba was more than 100,000. In addition to the migrants from Sichuan and Hubei, “a great many peasants from Henan, Jiangxi, and Anhui also flooded into here with their family to reclaim the lands.” Millions of migrants moved into the Old Forest at that time [5].

2.1. Village Landscapes in the Qinba Mountains as Described in the Tageb¨ucher. “Walking along the edge of the valley past several newly built villages. Wild geese, wild ducks, red ducks, and egrets were romping in the paddy field.” “For those who know little about loess, the loess wall in the north is the most peculiar, as it consists of numerous caverns from the top to the bottom. Countless Z-shaped roads from the valley to the high place connect the houses of the people like a trail of insect nests. The soil is 25–40 degrees tilted, but
some parts of it were flattened into terraced land. Almost every level of the terraced land has a cave dwelling. All of the lands were cultivated and not a bit of it was left unattended. The most densely populated areas are around Baoji County. This city is located on the loess slope and stretched on to the edge of the slope where parts of the ramparts stood surrounded by many newly-built clay houses and cave dwellings.” “In the north of the canyon, isolated villages were scattered along the roadside. There were little croplands on the mountain. A fertile basin lies downward in the south at the bottom of the valley.” “The valley unexpectedly narrows at the place where I stayed last night, but not so narrow that it forms a real donga. Villages could still be seen here, and in most places, there was also a largely tilted arable corridor. The clay ground shares several characteristics with the loess ground. There are vertical sections, so many cave dwellings could also be seen. The poor villages had many diners because the business with the passersby was the main income source of the villagers.” “The river, as treacherously deep as the canyons nearby, winds its way through the steep mountains. Villages could only be seen on the roadside. The road winds along the hillside, often over rocky cliffs.” “The Village of Xuanjiangping that lies in the narrow canyon consists of a small cluster of houses. The upward road to the Gap of Wudingguan starts here. The Gaps lies 300 meters higher than the village, followed by a deep canyon.” “However, these people were mountaineers. The pattern started to change once entering the big valleys, as the people in the valley of Hanzhong were beginning to show greater curiosity. The villages here were better maintained than those in Shaanxi, as the hostels were no longer tatty.” “What’s most peculiar about China is that there is no closed village, but only small clusters of houses and croplands scattering everywhere, which is tranquil and peaceful. In the croplands were rice, wheat, barley, millet, tobacco, broad beans, peas, etc., and maybe some mulberry trees and tung trees as well. I have not yet spotted any opium.” “A village named Damushu lies in the steep mountains and the even steeper palisades. It is actually made up of numerous hostels because the village is one of the main stations. We celebrated the Chinese New Year in this peaceful village in the mountains.” “Although the arable land between the countless rocks and palisades were all cultivated, and there were houses and villages everywhere, this floating-ice-shaped mountainous region was disproportionally desolate despite its relatively low absolute altitude. A gradual red clay slope ran out between the mountains. Apart from the natural terraced land, there were also man-made ones, as the low clay slopes for protecting the croplands were also trimmed into a terraced shape. The place was sparsely scattered with hard sandstone boulders, and only several houses and villages were distributed in-between. Few larger houses are seen.” “The road maintained a stable altitude until it reaches Wulian, a beautiful village viewed from above. It was from here that the road makes an unexpected down-turn. The slabbed road was as wide as the one we took yesterday and lined with leafy cypress trees. Even the features here were the same as the place I described yesterday, except that the ridge was a bit lower.” “The Village of Shangtingpu is located at the mountaintop, where accommodation is available. The Grand Temple, a temple for Confucius, is stunning. Partly because it lies in the verdant cypress woods, partly because you can gaze far from here.” “The houses and farmsteads remained sparsely distributed, rarely constituting a closed village. The villagers were not timid, but extremely nice and hospitable, the finest people in China.” “Similarly, there were barely any closed villages in the valley, but only scattered farmsteads and houses. The most notable is the trees and bamboo...
bushes. The temple occupies a beautiful patch in the canyon, making the place exceptionally peaceful and abundant." [6]

2.2. Basic Types of the Village Landscapes in the Qinba Mountains and Their Relationships with the Location. In the late Qing, the majority of the human settlement environments in the Qinba Mountains inevitably presents a pattern resulting from the choices and evolution of the people based on the natural, political, and social conditions. The population in Southern Shaanxi boomed as migrants flocked to the Old Forest. The Central Government changed Xing’an Zhou into Xing’an Fu on grounds of “complex population structure and disproportioned living conditions” to strengthen its rule in Southern Shaanxi. The Xing’anfu Government resided in Hanyin County, governing the former jurisdictions of Xing’an Zhou and Hanyin Zhou. When migrants entered the Old Forest in Nanba, they would settle near their kin. They reclaimed lands, cut trees to build houses roofed with thatch as shelter from wind and rain, and borrowed food grains to seed. They pawned the land in the mountains and built several earthen houses (Figure 2) when they began to harvest a few years later. If the harvest was poor or they became unable to make ends meet, they would, again, move elsewhere. These migrants are called “shack dwellers.” Those who lived here for the long term and reclaimed the land successfully and began their own trades were called “New Residents” by the people in Pingba and Hanxin, and “Guest Residents” by the people in Yunyi [7].

It can be easily seen from the stops made by Ferdinand von Richthofen’s Expedition that the Qinba Mountains along the Shu Road vary greatly both in topography and types (Table 1 and Figure 3). Based on types, the village landscapes in the Qinba Mountains can be classified into raw-earth cave dwellings, clay-and-cave mixed dwellings, shacks, and wooden buildings. Based on their relationship with the sites, they can be divided into mountainous clusters, mountainous scattering, hilly clusters, hilly scattering, and fragmented scattering. Although these village landscapes are located in the “Qinba Mountains,” they cover vast and numerous subcultural regions that span more than 1,500 miles in an elevation difference of nearly 2,000 meters, including Gudao, Lianyunzhan, Baoxiedao, and Jinniudao. Accordingly, the village landscapes in the Qinba Mountains along the Shu Road in the late Qing Dynasty are similar to, yet different from, the three cultural regions of Guanzhong, Qinba, and Shudi, as the adjacent areas blended well with one another. Although there are penetration and inclusion among the subcultural regions in the independent cultural regions, the objects in the cultural field vary due to the distance and geographical conditions. Therefore, the village landscapes in the Northern Qinba Mountains along the Shu Road in late Qing were mostly clusters of loess cave dwellings, clay dwellings, and shacks; and in the southern Qinba Mountains were mostly scattered clay dwellings, earth-wood dwellings, and shacks. Regions in Central China including Hanzhong and Ankang Basin also take on the characteristics of the villages on the south and north sides. Fragmented villages also scattered along the whole route, but varied in building types, materials, and aesthetical features, thus creating different village landscapes (Figure 4).

According to the Tageb"ucher and related historical data, it is believed that the village landscapes in the Qinba Mountains along the Shu Road in the late Qing Dynasty took on the distinct features of mountain valleys. Apart from that the basin of the Hanshui was composed of basins and valleys of various sizes, and most of the other areas in the Qinba Mountains were mountain valleys, ravines, and steep slopes. Although the territory was vast, the population was small. With the increasing tax burdens and social turmoil, a large number of migrants flocked into the Qinba Mountains from Guanzhong, Shudi, etc. Excessive “slash-and-burn” cultivation caused severe damage, water loss, and soil erosion to the forest, and made drought and flood commonplace. The ordinary people then led a life with no security or sustenance. “He who has sustenance has persistence” had become an extravagant hope. Therefore, the villages, although maybe composed of various types of buildings, were all of the small scale and fragmented distribution. The villages were generally located on the high slopes of the mountains in order to avoid natural calamities and man-made misfortunes, and winding roads were built around the mountains. Shacks built with crude wood were also often found in the Qinba Mountains. Because bandits often hid in the woods, shacks were generally built near the hillside or above big trees, where a good view could be used to guard and keep watch. Many of the families had spears or powder shotguns to guard their croplands and families. In the peaceful times, depending on what they could afford, the mountain dwellers would build earthen houses near their “homes,” and the original shacks or cave dwellings would be preserved. Rammed-earth houses were regularly seen in the Central and Northern Qinba Mountains, whereas houses in the Southern part were mostly built of mud bricks and coated with plastered bamboo. This has much to do with local security and economic conditions. After all, residences made of earth and wood require substantially more manpower, than cave dwellings and shacks, as their size, volume, and work amount are much larger. The existing local dwellings and dwelling ruins in the Qinba Mountains still clearly demonstrate the basic location relationship during the construction process. The principles like being located at the back of the mountain and in front of the water where the yin and yang complement each other and the good expels the evil fully demonstrate that "dwellings are the foundation of men. Men live in dwellings and see them as home. A family will prosper only if they dwell well.” [8] is the ideal pursuit of human settlement.

3. Features of Village Landscape Categories in the Qinba Mountains

3.1. Building Types and Structural Features. Historical cultural landscapes are a type of landscape that emphasizes the evolution of the relationship between men and the land, and they also supplement and improve the existing system of cultural landscapes [9]. The cave dwellings in Northern Qinba Mountains are small in size and simple in style. With
small space, there is generally one room under an arch. Multiple rooms under one arch were only seen in rare cases, where conditions allow. Most of the cave dwellings were found below the hillsides and at the foot of the mountain. Z-shaped roads were often created on the hillsides to meet the daily needs. The roads connected and extended to one

Table 1: List of altitude and names of the main locations on the route taken by Ferdinand von Richthofen’s Expedition (Qinba Mountains) (unit: meter).

<table>
<thead>
<tr>
<th>Location</th>
<th>Altitude</th>
<th>Location</th>
<th>Altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baoji Guozhen</td>
<td>549</td>
<td>Mayingzhen</td>
<td>572</td>
</tr>
<tr>
<td>Lüeyang Jianchaling</td>
<td>1139</td>
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<td></td>
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<td>Fengxian Caoliangyi</td>
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<td>County capital</td>
<td>1062</td>
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<td></td>
<td>Zibaishan</td>
<td>2415</td>
<td>Nanxing</td>
</tr>
<tr>
<td></td>
<td>Nanxing</td>
<td>1289</td>
<td>Yulinpu</td>
</tr>
<tr>
<td></td>
<td>Sanchayi</td>
<td>1295</td>
<td></td>
</tr>
<tr>
<td>Liuba Mado</td>
<td>722</td>
<td>Qingjiaopu</td>
<td>675</td>
</tr>
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<td></td>
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<tr>
<td>Mianxian Jitouguan</td>
<td>752</td>
<td>Huangshazhen</td>
<td>535</td>
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<td></td>
<td></td>
<td>Caiyuanzi</td>
<td>555</td>
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<tr>
<td></td>
<td></td>
<td>Xinpuwan</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Tai’anyi</td>
<td>681</td>
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<tr>
<td></td>
<td></td>
<td>Kuanchuanpu</td>
<td>828</td>
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<td></td>
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<td>Wudingguan</td>
<td>1289</td>
</tr>
<tr>
<td>Ningxiang Xuanjiangping</td>
<td>684</td>
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<td></td>
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<td>Guangyuan Qipanguan</td>
<td>694</td>
<td>Jiaochangba</td>
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<td>County capital</td>
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<td>Damushu</td>
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<td>Zhaohua County capital</td>
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<td>Jiange Zhigongsi</td>
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<td>Jiaoguan County capital</td>
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<td></td>
<td>1095</td>
<td>County capital</td>
<td>564</td>
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<td></td>
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<td>Wulianyi</td>
<td>495</td>
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<td>Zitong Shangtingpu</td>
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<tr>
<td>Mianyang Zhou capital</td>
<td>460</td>
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</table>

Source: developed by the authors.
another, thus forming a distinct village landscape. Shacks were not often found in the region, as most of these were built by the people as temporary postwar dwellings when they returned from the woods to grow crops and others being clad-coated makeshifts built upon the roadside village wrecks to maintain a livelihood and make money by offering passersby simple accommodation. These types of dwellings are close to the primitive state. Their structure is simple and flexible and only has the basic form. Most of them are straight shaped, varying only in scale and size. It was rare to find a dwelling that consists of “three rooms, one of which being the lobby and the other two being chambers.” In most cases, a dwelling only consists of one or two rooms.

In the central part of the Qinba Mountains also lay tile-roofed houses of simple structure. The straight and L-shaped layouts were more regularly structured. Some even had makeshift shacks for storing miscellaneous items and raising livestock built near the main structures. But the volumes remained small compared with towns. In times of social stability, the mountain dwellers would also use platforms in the mountains to build kilns to provide building components and materials for housing construction. They would collect and knead soil, mold, and fire it into tiles. The tiles varied in size and specification because of the regional difference. The central part covers Hanzhongfu and Xing’anzh’u. Hanshui River was the largest tributary of the Yangtze River and one of the main routes for migrants in the early Qing. During the mid and late Qing Dynasty, this region began to communicate more with the commercial ports on the Yangtze River. The language, personality, customs, and houses of Hanzhong and Ankang became quite close to those in Sichuan, owing to the population boom caused by years of natural disasters and migration in Sichuan, and similar geographic factors including both being in the Qinba Mountains and sharing the same river. The historical heritage of men’s wisdom and hard work is the reflection of the cultural thinking, construction culture, and value and pursuit of the ordinary people, among which the village landscapes and historical buildings are the most prominent.

The Southern Qinba Mountains mainly lie in Baoningfu and Mianzhou, Sichuan Province. This region is the northern part of the Sichuan Basin, and the mountain dwellers here differed greatly from the migrants from Northern Qinling. The migration policies in the Qing Dynasty were a major stimulus to the economic and social development of the Sichuan Basin. The population boom resulting from growing migrants led to frequent conflicts, driving many of the migrants into the deep mountains where there was a vast territory with a sparse population. Therefore, “People from Huguang flocking in Sichuan” not only brought population mobility but also triggered the transformation in living customs and building construction culture. Dwellings of distinct Hakka style could be found everywhere in Sichuan, while some of the other dwellings bore typical characteristics of southeast Huguang. The residents in this region migrated, struggled, and settled, and during this process, characters of independence, self-improvement, resilience, and open-mindedness began to take shape in them, which could be also seen from the building construction. The straight type was the most common in the earth-wood houses and shacks, both in the deep woods and the hilly areas. They were scattered, with each house kept at a certain distance and roads connecting one another. The type of houses not only conformed to the structure and layout of traditional dwellings but was also in line with the environmental psychology and construction ethics of “a house located near the mountain and by the river and consisting of three rooms, one of which being the lobby and the other two being chambers.”

3.2. Construction Materials and Decorative Art. Construction materials were the pillars of building construction in traditional society. In the late Qing Dynasty, where there was low productivity, social turmoil, inadequate transportation, and poor living standards, the unprivileged population had to adapt to local conditions and make use of what they had in hand. Therefore, the construction materials and techniques of the village dwellings varied greatly in the north, center, and south despite being in the same Qinba Mountains, eventually resulting in different landscapes.

Specifically, in the Northern Qinba Mountains where the winter was long, cold, and snowy because of the geographic conditions and evergreens were rare, raw-earth cave dwellings became the ideal construction forms to shelter from wind and cold, as raw earth has the thermal conductivity properties that keep warmth in winter and coolness in summer. Cave dwellings on the hillside were more difficult to spot than earth-wood dwellings and shacks, thus offering greater security. ”The tree that stands tallest in the forest is the first to be destroyed by wind.” This had become even more prominent in the late Qing turmoils. “The Law of the Jungle” took deeper roots in the local society. In the northern part, a few existing earth-wood dwellings were built upon foundations made of river sand, cement, and lime with dressed stones and pebbles, and the walls were mainly mud bricks and rammed earth. Mud bricks were made by mixing mellow soil with straws, and they could be used for construction after molding and drying. Some of the walls were coated with straw-mud mortar as protection from rain.
erosion and weathering. Others kept the original buildings, with the mud bricks laid staggered to offer a sense of decoration. It is true that the residents back were not particular about the construction techniques from the perspectives of decoration and aesthetics, rather, they focused more on the solidity of the buildings. Rammed-earth walls were built by mixing and molding mellow soil with stout twigs, presenting obvious wood patterns and demonstrating the beauty of mechanics and simplicity. The wooded parts of the earth-wood dwellings mainly included door frames, door leaves, windows, and rooftops. The doors and windows were a bit coarse, as they were not made by the sawing, planning, chiseling, engraving, or carving of carpenters. Rather, techniques like chopping, sawing, chipping, framing, and tying were more dominant. The rooftops adopted the basic pitched structure. As the rooftops were made of thatch,
factors including melting snow, rain leakage, and thatch decomposition had to be considered. Generally, overhanging gable roof was used, and clearance was left between the walls and rooftops for ventilation. The entire house was of timber structure, connected by simple mortise and tenon joints and iron claws, and the top beams and rafters were tied with nails, gabions, and vines. A great many loess cave dwellings and earth-wood thatched cottages were also common in the Northern Qinba Mountains in the late Qing. The Tagebücher contains relatively few accounts of the mountainous village landscapes in the region. But it did record that “crops were grown all the way to the mountain-top in sloping farmland. Rice was planted where ever possible. Water mill were also commonly seen. But the people were impoverished. Every inch of the earth was planted with crops all the way to the highest place. There were plenty of fruit-bearing orange trees.” [6] This affirmed that plenty of residents resided, worked, and lived here. The climate in the central and southern Qinba Mountains is similar, resulting in similar products in the two regions. The dwellings were mostly shacks, earth-wood dwellings, and wood-brick dwellings. In the vicinity of the Hanzhongfu and Baoningfu Government, where people were more particular about the structure and decoration, the houses were mostly earth-wood type and brick-wood type. Whereas in the high-elevation mountains, the houses were mainly rough shacks. Earth-wood dwellings can be classified into earth-wood shacks and earth-wood tile-roofed houses. Classification of brick-and-stud tile-roofed houses includes bamboo-on-brick roofs, brick-on-bamboo roofs, and brick walls with tile roofs. These houses made the village landscapes sharply different as they varied in construction sites, construction materials, construction techniques, and roof structure, but fundamentally speaking, it was because of the different locations and economic conditions. The authors discovered in the field research along the Shu Road that there were cave-dwelling-like vertical caves behind the houses in the mountains and hilly areas, known locally as “cellars,” where people store supplies like potatoes and sweet potatoes. We reckon these caves were also their shelters during the times of turmoil. In the mountains in Jianzhou, Qing dynasty Sanheyuanes were also found. They were made completely of cypress in Chuandoumu structure. The walls were inlaid with cypress boards. The scarring on the boards served as a kind of decorative design. Auspicious patterns were carved on the windows and doors. We expect that this building was constructed after Ferdinand von Richthofen’s Expedition to the Shu Road, which explains why this was not recorded in the Tagebücher. As we all know, the economic base determines the superstructure. In the late Qing Dynasty, people in the Qinba Mountains simply “could not cook a meal without rice.” But in no case would these mountainous residents do better than the displaced migrants who traveled with mats on their backs. The ancestors of these mountain dwellers also drifted to the Qinba Mountains for the same kind of reasons, where they resided, reclaimed, settled, farmed, and raised their children.

4. Overall Features and Aesthetic Characteristics

With the increasing popularity and deepening of such history, people generally believe that specific historical forms and styles have important significance to support their recovery or reconstruction [10]. Cultural landscapes, as a type of cultural heritage, address the dynamic interaction between men and nature, and they evolve with time. This demonstrates the characteristics of synchronicity and diachronism [11]. For the local residents in the Qinba Mountains, the choices of construction type and materials depend mainly on the family’s financial conditions. In the Qinba Mountains along the Shu Road in late Qing, the poor were many, but the rich were few. This is why, when building a house, “they could not cook a meal without rice.” The challenge for them was the social turmoil and poor natural conditions. The discrepancies in village landscapes and aesthetic characteristics of the dwellings among the northern, central, and southern Qinba Mountains along the Shu Road were not a historical accident, but an inevitable consequence.

From the perspective of spatial distribution, the village landscapes in the Qinba Mountains varied and blended horizontally, and were vertically strong at high altitude and weak at low altitude. Specifically, in the Qinba Mountains, the population density in low altitude was high, with more villages and richer landscapes, presenting a strong village landscape style, whereas the population in the high-altitude area was small, consisting mainly of ethnic minorities and migrants from the later stage, with many bandits, villages sparsely distributed, few houses, poor decoration, and aesthetic attributes. The densities of the villages in some areas adjacent to the prefectural capital were higher, and there were more residential buildings, mainly earth-wood dwellings and wood-brick dwellings. People there paid more attention to the architectural style and aesthetic effects of the buildings, enhancing the village landscape style. The northern Qinba Mountains are adjacent to the Loess Plateau and Guanzhong Basin, with a dry and cold climate and sparse vegetation. The village residences were mostly raw-earth cave dwellings, located generally near hillsides and terraced land. They had no distinct features, instead, the dwellings there blended with the landscape. They were even less conspicuous than the crops in the mountains, analogous to that “the lesser hermit would live in seclusion in the woods” because they demonstrated more wisdom in survival and renovation. The central Qinba Mountains mainly lie within Hanzhongfu. The climate there is humid. With rich vegetation, it is also known as “Little Heavenly City,” and “Little Jiangnan.” Compared with the villages made of raw-earth cave dwellings and shacks in the northern part, the village landscapes in this region were more abundant in types and aesthetics. Although when Ferdinand von Richthofen arrived, most of the city and villages had already been destroyed, the reconstructed dwellings in the mountains and valleys remained a beautiful view. Ferdinand von Richthofen spoke highly of the landscape in the vast southern area.
(Jinniudao). Entering Sichuan, he seldom saw settlements as large as the one he saw in the North. As villages in Sichuan were open and scattered, people did not often live in heyuans. Their dwellings were generally straight-type houses with their own courtyards, located either in the mountains or on the hillside, just like Hokkaido, Japan. The amazing scenery and friendly people in Shudi spoke for themselves. The features and aesthetics of the village landscapes in the southern Qinba Mountains seemed to more closely resemble the poetic pastoral scene where "woodcutters and tillers were busy rushing in and out of the picturesque scene."

5. Conclusion

In brief, nature and culture transitioned from the dichotomy to the recognition and practice that are diverse, integrated, and holistic both philosophically and practically. In the ultimate sense of environmental philosophy, the sustainable development of the human society and the relationship between men themselves, and men and nature, have become the new common topic [12]. Now that the cultural route has gone beyond the scope of mere heritage conservation, a trend to explore and commemorate the communication and exchange history between the ancient regions, revitalize the contemporary social civilization identity, and promote economic exchange and cooperation have emerged internationally. This is in line with the basic principles of world heritage protection and is widely recognized by the international community [13]. The Tagebücher recorded in detail the natural geography, local characters, local produce, market trade, and social interaction of the human settlement environments in the Qinba Mountains along the Shu Road in the late Qing. It can be found that, combined with the related historical data, the human settlement environments originated in the country, prospered in the city, merged in the rural-urban continuums, and subsided in the diverse Shu region. They were the result of the combined effects of many factors such as geographical environment, political environment, economic environment, social environment, and human settlement environment [1].

Data Availability

The datasets used and analyzed during the current study are available from the corresponding author on reasonable request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

References