

Investigation and Research on the Historical and Cultural Heritage of the Qionglai Section of the Southwest Silk Road

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Abstract: The Southwest Silk Road was an important bridge for cultural exchange between ancient southwestern China and South Asia, Southeast Asia, and Europe. It played an irreplaceable role in promoting regional economic and trade cooperation, facilitating communication with foreign countries, and strengthening broader external exchange. Relying on two ancient trade routes linking the Central Plains hinterland and the southwestern frontier, it formed an intercontinental trade network represented by routes such as the Lingguan Road, the Wuchi Road, the Qianzhong Road, and the Yongchang Road. Despite the passage of millennia, a large number of valuable cultural remains have survived, including ancient architectural complexes, archaeological sites, grotto art, and religious monuments, all of which continue to influence local social life and future development. This paper adopts literature analysis, field investigation, comparative research, and inductive synthesis to examine the distribution and transformation of the historical and cultural heritage along the Qionglai section of the Southwest Silk Road. Existing materials are systematically reviewed and combined with on-site investigation. According to the characteristics of the sites, the remains are classified into several categories, and a number of representative sites are selected for comparative analysis, with particular attention paid to distinctive remains such as Qiong kiln ceramic production and salt and iron industry sites. The study shows that these material remains are not only historical witnesses to commodity exchange and ethnic integration during the Han and Tang dynasties, but also reflections of the cultural origins of certain regions. At present, the protection difficulties and developmental challenges facing the cultural heritage of the Southwest Silk Road have also become major research concerns. This paper proposes a range of measures, including strengthening the living transmission of heritage and promoting the integrated development of culture and tourism, so as to provide decision-making references for Qionglai's effort to build itself into a world-class historical and cultural city while enhancing regional cultural soft power and the level of openness to the outside world.

Keywords: Southwest Silk Road; historical and cultural heritage; Qionglai; cultural heritage protection.

1. Introduction

[1].Research Background

The Southwest Silk Road was an ancient trade and cultural network linking China with its southwestern frontier as well as South and Southeast Asia. Its main routes included the Lingguan Road, the Wuchi Road, and the Yongchang Road, and it had already taken shape as early as the pre-Qin period [1]. Throughout history, it served as a hub for the transportation of goods, population migration, and cultural exchange. With the cross-regional circulation of silk, tea, salt, and mineral resources as its main bond, it promoted the mutual development of the Central Plains dynasties and the societies of the southwestern frontier. At the same time, diverse regional cultures converged and interacted along this route, giving rise to a highly plural heritage system and a distinctive form of regional civilization. Qionglai, historically known as Linqiong, occupies a strategic geographical position connecting the Chengdu Plain with the Yunnan–Guizhou Plateau. Owing to its locational advantage as “the first prefecture south of the Heavenly Kingdom,” it became the primary node on the route westward from Chengdu along the Southwest Silk Road. Since the Tang and Song dynasties, Qionglai has preserved rich historical and cultural heritage, including Pingle Ancient Town, the Qiong kiln site, and the cliff carvings at Huazhi Temple. These remains are not only physical testimony to ancient trade and population movement, but also evidence of the mutual influence and integration of architectural forms, artistic styles, and craft techniques across regions along the route. The Southwest Silk Road brought Qionglai both economic vitality and cultural diversity, while Qionglai, as a key hub, provided a solid material and cultural foundation for the smooth operation of the route and the spread of civilization.

[2].Research Objectives

Against the background of the Southwest Silk Road, this paper takes the Qionglai section, historically known as Linqiong, as a key nodal area and studies the historical and cultural heritage it carries [2]. Through a review of relevant literature and detailed field investigation, the study seeks to develop a clear understanding of

the geographical location, historical evolution, settlements, transportation facilities, and cultural remains associated with this ancient route. As this route served for centuries as an important corridor for migration and material circulation among Sichuan, Yunnan, and Tibet, it fostered the formation and development of Qionglai's distinctive cultural heritage. This paper therefore focuses on its role and significance in promoting regional socioeconomic exchange, the transmission of building techniques, and cultural integration. On the basis of a scientific evaluation of the current condition of these precious heritage resources and a deeper exploration of their value, this study aims to provide effective strategic recommendations and theoretical support for the scientific protection, adaptive reuse, and sustainable development of historical and cultural heritage in Qionglai, thereby revitalizing the cultural vitality and contemporary significance of this Silk Road node in the new era.

[3].Research Significance

The Southwest Silk Road was an important bridge for trade between ancient China's southwestern frontier and South and Southeast Asia, and also a key site of multi-ethnic cultural interaction. It possesses major historical and cultural value and may be regarded as an important cultural heritage corridor [3]. The Qilongshan section, in particular, has attracted scholarly attention because of its relatively good state of preservation, which also reflects the continuity of historical development along this route. Although Chengdu was the starting point of the Southwest Silk Road, Qionglai played a central hub role because of its abundant salt resources, active tea and horse markets, and significant strategic position; it was also one of the most important nodes in this wider network of cultural transmission. By analyzing immigration culture, traditional architectural styles, and related aspects of Qionglai, this study explores the rich cultural connotations and academic value of the region. Theoretically, the research offers a comprehensive investigation, organization, and interpretation of the historical and cultural heritage along the Qionglai section of the Southwest Silk Road. Its main purpose is to deepen understanding of historical and cultural routes in southwestern China and to fill the gap in scholarship on Qionglai as an important node on the Silk Road. This section extends for about 69.4 kilometers and partially overlaps with the traditional Tea Horse Road. Various types of cultural remains are distributed along it, including ancient sites, historic buildings, cliff inscriptions, and tombs. The Qiong kiln site and Pingle Ancient Town are two especially representative locations: the former reflects the uniqueness of ancient ceramic production and the historical continuity of cultural transmission, while the latter presents a vivid picture of social interaction and integration among different ethnic groups in the region. These cultural relics possess major artistic and aesthetic value, while also revealing features of transportation construction, trade exchange, and religious dissemination in ancient society. Through the study of this typical case, it becomes possible to understand the influence of ancient transport networks on changes in regional settlements, while also contributing new perspectives and practical examples for cross-cultural communication research. This study therefore has both solid academic foundations and strong practical value. Because the cultural heritage along the Qionglai section of the Southwest Silk Road embodies distinctive local features and profound historical depth, both its protection and its resource development are of great strategic importance. It has also been identified as a unique mountain hiking corridor in China. The research findings can provide systematic data support and decision-making references for the scientific management, precise restoration, and diversified development and utilization of heritage resources in the region. Through comprehensive investigation and evaluation of extant heritage remains, the study proposes effective scientific measures to prevent heritage decline. A careful analysis of the cultural and historical values embedded in these remains can also promote the development of local cultural tourism, help establish a regional cultural brand, enhance public cultural identity, and explore ways to achieve harmonious coexistence between heritage transmission and sustainable socioeconomic development in the new era.

[4].Research Content and Methods

1.4.1 Research Content

This paper takes the historical and cultural heritage of the Qionglai section of the Southwest Silk Road as its research object and establishes a systematic framework for investigation and analysis. By combining historical textual research with Geographic Information Systems (GIS), it conducts a comprehensive study of the spatial distribution, developmental changes, and structural characteristics of the ancient route, with particular emphasis on its nodal role and strategic significance as the "first stop west of Chengdu." On this basis, the study carries out a classified survey and detailed documentation of material cultural remains, focusing on road structure, building materials, preservation condition, and related aspects. It also analyzes the regional spatial layouts of ancient towns and interprets the cultural connotations and artistic expressions of major remains such as the Qiong kiln site and cliff carvings from the perspectives of architectural craft and artistic style.

This paper also explores the living transmission of intangible cultural heritage in practice, reviewing the transmission history and current development of representative local traditions such as Linqiong tea culture and

bamboo weaving. By selecting several representative cases for fieldwork and in-depth interviews, the study investigates the patterns of historical evolution, cultural meanings, and roles of these heritage forms within the Silk Road trade network. Drawing on field survey data, it comprehensively assesses the degree of damage caused by environmental change and human activity, while seeking pathways for value transformation and innovative protection methods. Ultimately, against the background of spatial characteristics, accumulated cultural depth, and improved protection mechanisms, the paper constructs an overall framework for understanding the historical and cultural heritage of the Qionglai section of the Southwest Silk Road and proposes academically rigorous yet practically feasible strategies for its protection and development.

1.4.2 Research Methods

This study establishes a multi-angle, multi-level research framework and adopts methods including literature review, field investigation, and comparative analysis. It systematically compiles local gazetteers, historical maps, and academic monographs from different periods to examine the historical development, spatial distribution, and special function and strategic status of the Qionglai section of the Southwest Silk Road as the “gateway of the Shu roads,” thereby laying a solid theoretical foundation and providing reliable empirical data for subsequent research. In practice, field investigation is used to document in detail the material and intangible heritage within Qionglai, including ancient post roads, traditional villages, and cliff carvings. Through on-site surveying, GIS-based spatial positioning, and interviews, the study develops an overall understanding of the current state of the heritage, the ecological environment, and the effectiveness of existing protection measures, while further exploring the mechanisms of living transmission [4]. To highlight regional cultural characteristics more clearly, a cross-regional comparative perspective is also employed. The Qionglai section is compared with neighboring regions and similar heritage types in terms of architectural techniques, artistic expression, and cultural value, so as to identify both commonalities and differences. On this basis, the collected materials are systematically organized and logically interpreted. From a macro perspective, the paper analyzes how heritage in this region is spatially distributed, how it adapts to ecological conditions, and what deeper cultural meanings it contains. It also explains the role it has played in promoting regional economic interaction, cultural exchange, and social integration over the course of historical development. This approach deepens understanding of specific heritage types, broadens overall knowledge in related fields, and provides crucial theoretical support and practical guidance for future heritage conservation work.

[5].Research Findings

Based on historical documents, local gazetteers, ancient maps, and related materials, this study systematically organizes and verifies the historical evolution, geographical distribution, and spatial structure of the Qionglai section of the Southwest Silk Road, while also examining its strategic significance and cultural value as the “first stop west of Chengdu.” On the basis of field investigation, the research team documented in detail the road morphology, material composition, and preservation condition of ancient route remains. Combined with the relationship between ancient town layouts and the environmental setting of cliff carvings, this work helped establish a foundational regional heritage database covering multiple dimensions. Through horizontal comparison with other sections of the Southwest Silk Road, the study focuses on the settlement patterns, architectural techniques, artistic forms, and regional cultural markers unique to the Qionglai section, identifying its role in promoting trade, ethnic interaction, and the transmission of civilization. Based on these findings, inductive reasoning is used to summarize the cultural connotations and socioeconomic influence of this route, thereby offering a new academic perspective. In addition, drawing on field data, the study proposes scientifically grounded and operational protection and development strategies, emphasizing not only the conservation and restoration of cultural relics but also the transformation of cultural resources into social value. In this way, it seeks to promote a positive interaction between heritage protection and economic development, enhance regional cultural soft power, and support the realization of sustainable development goals.

[6].Key and Difficult Issues of the Research

1.6.1 Research Focus

This paper mainly conducts a comprehensive and systematic investigation of the historical and cultural heritage distributed along the Qionglai section of the Southwest Silk Road. After combining fieldwork with documentary review, the study records and codes these heritage remains using an archaeological classification system. On this basis, representative sites are selected for detailed comparative analysis and overall interpretation through interdisciplinary methods and theoretical tools. The purpose is to uncover the cultural meanings and social functions embodied in this regional heritage from a historical perspective, and to explore how its value may be transformed and applied in contemporary society, so as to provide new theoretical support and empirical reference for related academic research.

1.6.2 Research Difficulties

The main difficulties encountered in this study concern the completeness of the samples and the ways in which they can be obtained. As an important node on the Southwest Silk Road, the Qionglai section is affected by its special geographical conditions and the cumulative impact of historical change. In many places, the ecological environment is harsh, and a large proportion of the ancient routes have long been abandoned and are now covered by vegetation or have disappeared entirely. This greatly constrains the feasibility of field investigation and also affects the systematicity and accuracy of data collection. Influenced by terrain, climate, and human activities, heritage sites along the route have suffered varying degrees of damage and deterioration, making the original structures harder to identify. These objective conditions make it difficult to carry out large-scale and systematic fieldwork and partly explain why existing scholarship still cannot achieve comprehensive coverage. Under conditions of limited resources, it becomes especially necessary to study the available materials in a more rigorous and scientific manner so as to improve the reliability of the research conclusions.

[7].Research Innovations

Current scholarship on the Southwest Silk Road has largely remained at the macro level, focusing on route verification and general historical narration, while relatively little attention has been paid to micro-level empirical studies of specific regions. This is especially true in the case of Qionglai, where the systematic organization of historical and cultural heritage and the deeper meanings embedded within it are still at an exploratory stage. Although Sichuan contains many transportation remains related to the Southwest Silk Road, there is still a clear lack of specialized studies centered on regional characteristics. By taking the historical and cultural heritage of the Qionglai section of the Southwest Silk Road as its main object, this paper offers a new perspective through comprehensive field investigation and interdisciplinary analysis. The study not only contributes another achievement to the field of regional heritage studies but also represents a significant step toward filling the gap in research on the cultural heritage of the Southwest Silk Road in Sichuan. In addition, it provides rich micro-level empirical materials that lay an important foundation for understanding regional cultural history. Through detailed field investigation and documentation, the research seeks to reconstruct the spatial pattern of the ancient transport network and to examine how it has transformed in modern society and what significance it still holds for cultural transmission. Ultimately, the study aims to provide scientific evidence and practical examples for the protection and sustainable development of cultural heritage in other regions along the Southwest Silk Road, thereby promoting deeper research and broader application in this field.

2. Literature Review

[1].Overview of Research on the Southwest Silk Road

Research on the Southwest Silk Road has a long history, and scholars have already produced many important findings. Early studies mainly concentrated on tracing the route at a macro level and examining its historical geography. Through the analysis of documentary materials and field investigation, researchers gradually clarified the general direction of this ancient corridor linking the Central Plains, southwestern China, and South Asia, as well as the distribution of its main nodes. As research deepened, academic understanding expanded from viewing it as a single trade corridor to recognizing it as a multidimensional network of cultural exchange. Duan Yu argues that from the pre-Qin period to the Wei, Jin, and Northern and Southern Dynasties, the Southern Silk Road was not only an important medium for commodity circulation [5], but also a major channel for cultural transmission in the Bashu region. The route's complex network structure had a profound impact on social transformation along its course. Scholars generally hold that this route did not exist in isolation but rather formed a composite transportation system composed of many branches, playing an important role in promoting the integration of the Chinese nation. In recent years, with the deepening awareness of cultural heritage protection, the scope of research has become increasingly broad and has begun to involve the interaction between humans and the environment. Elias H., for example, reexamined the mechanisms of cross-border movement of cultural objects in early southwestern China from the perspective of artistic exchange and investigated the developmental trajectory of regional aesthetics [6]. Other scholars have systematically analyzed the spatial distribution patterns of traditional settlements in Sichuan and their cultural connotations. Kan Aike and colleagues used GIS technology to demonstrate that most of these villages were located in accordance with topography and water systems, reflecting the ancient inhabitants' tendency to adapt to nature [7]. In the field of heritage protection, some researchers have also explored technological innovation by tentatively applying advanced digital methods such as virtual reality and three-dimensional modeling to improve the conservation of traditional sites, while also acknowledging the risks involved, including information distortion and system compatibility problems. Existing studies are of major value for understanding the historical development of the Southwest Silk Road. However, many gaps remain, especially in regional spatial structure, interdisciplinary

research methods, and the mechanisms through which intangible cultural heritage interacts with material heritage. These gaps require further field investigation and theoretical innovation.

[2].Current Research on Historical and Cultural Heritage in the Qionglai Region

Scholarly attention to the historical and cultural heritage of Qionglai has a long history. Early studies mainly focused on archaeological excavation and textual verification, but with the development of heritage studies, research perspectives have gradually shifted toward the living protection of heritage and the interpretation of its spatial value. In the field of material cultural heritage, the Qiong kiln, as the most representative historical remain in Qionglai, has been studied not only in terms of kiln-site distribution but also through scientific analysis of ceramic technology and the evolution of artistic style. From the perspective of intangible heritage innovation and cultural-creative design, scholars such as Yang Yiming and Zhi Jiangliu have reexamined the transformation potential of the Qiong kiln's floral-rim forms and decorative art in contemporary contexts [8]. At the same time, significant progress has also been made in the study of Qionglai's grotto and cliff carvings. Wang Lu and others, through the interpretation of inscriptions and pigment analysis of the carvings at Huazhi Temple and Shisun Mountain, revealed the transmission characteristics and localized evolution of Buddhist art along the Southwest Silk Road [9]. In the field of settlements and architectural heritage, Lu Manxi and others conducted detailed field investigation of cultural heritage in Chengdu, which also provided strong support for the transmission of Qionglai's bamboo weaving techniques and helped preliminarily construct the spatial and material foundation of Qionglai as the "first city of the Silk Road" [10]. With regard to intangible cultural heritage, scholars such as Wang Xiaodun and Liu Yishan carried out in-depth philological and origin studies on the unique "bamboo-hemp work chant" and papermaking techniques of Pingle Ancient Town [11], forming a systematic discussion of the transmission of traditional handicrafts. In addition, research on the intangible heritage protection of Wenjun liquor culture has further enriched the cultural connotations of Qionglai. In terms of heritage protection and utilization, recent studies have shown a clear trend toward digitalization and holistic approaches. Scholars such as Xu Xin and Shen Guihua have explored sustainable development paths for the historical and cultural heritage of the Qionglai section from perspectives including integrated heritage-corridor utilization, digital preservation, and AI-enabled heritage protection, thereby providing important theoretical support and practical reference for this study [12].

[3].Studies on the Relationship Between the Southwest Silk Road and Cultural Heritage

Academic research on the relationship between the Southwest Silk Road and cultural heritage has evolved from simple route verification to the exploration of human-land interaction mechanisms and the key characteristics of cultural ecosystems. Most existing studies treat this corridor not only as a physical route, but also as a complex cultural system rather than a mere belt of material remains. Regarding the relationship between geographical factors and settlement layout, researchers have examined housing forms and distribution patterns in the Bashu region from the perspective of migration history and concluded that topography has had a major influence on the siting of towns and their spatial structure along the route. Jiang P. further argues that ancient villages in the Qionglai section mostly formed functional settlement systems by relying on historic trade routes and water networks [13]. Studies of ethnic interaction and cultural dissemination have shown that from the pre-Qin to the Han dynasty, transregional migration brought about close integration between Bashu civilization and South Asian cultures. This integration was reflected not only in architectural style, but also in sculptural techniques and everyday customs. The coordinated development of material and intangible cultural heritage has also become a major research concern. Taking the Tea Horse Road as an example, Chen Na and others point out that while traditional ancient route sites have characteristics of static protection, their internal vitality comes from forms such as Pingle Ancient Town's "bamboo-hemp work chant" and handmade papermaking, both of which reflect the cultural innovation driven by economic needs generated through long-term trade activity [14]. It is thus clear that the cultural heritage of the Southwest Silk Road is in fact an interactive historical witness system jointly shaped by many factors. This theoretical framework provides an important reference for the present paper's analysis of the spatial structure and modern transmission of heritage in the Qionglai section from the perspective of environmental design.

3. Current Investigation of the Historical and Cultural Heritage of the Qionglai Section of the Southwest Silk Road

[1].Overview of the Qionglai Region

As one of the most important transnational transport networks in ancient China, the Southwest Silk Road originated in southwestern China and extended southward and northward to South Asia, Southeast Asia, and Central and West Asia from the pre-Qin period through the Tang and Song dynasties. Its development spanned thousands of years, beginning with early human migration and resource exchange, and gradually becoming a

major link connecting the Central Plains, the southwestern frontier, and the South Asian subcontinent. This complex transnational logistics network not only carried traditional trade but also played a crucial role in regional political change, economic integration, and cultural interaction. It mainly consisted of routes such as the Lingguan Road, the Wuchi Road, the Qianzhong Road, and the Yongchang Road. Among them, the Lingguan Road passed through Qionglai and split into western and southern branches, while Linqiong was one of the starting points of this important route and occupied a major position among the transport hubs along it.

Qionglai was one of the places of origin of both the ancient Southern Silk Road and the Tea Horse Road. Since the reign of King Huiwen of Qin in 311 BCE, when a city was built at Linqiong, the settlement has continued uninterrupted for more than two thousand years. It is one of the four famous historical and cultural cities in Sichuan Province and, together with Chengdu, Pidu, and Jiangyou, forms an important economic core within the Sichuan–Chongqing region. Geographically, Qionglai lies on the southwestern edge of the Sichuan Basin, between the Chengdu Plain and the western Sichuan alpine plateau. Its terrain is highly diverse and includes mountains, hills, and plains, with the overall elevation descending gradually from west to east. Its lowest point is 453.5 meters above sea level. The Baimo River runs through the city, while the Tiantai mountain range extends upward from the northwest. Benefiting from a subtropical monsoon climate, abundant natural resources, established water-conservancy facilities, rich agricultural conditions, and ample labor resources, the region has a strong basis for sustainable socioeconomic development.

After King Huiwen of Qin conquered Shu in 316 BCE, large numbers of cities were built across Sichuan in order to strengthen political control and military defense. Linqiong, because of its fertile land, rugged mountains, and abundant iron ore and natural gas resources, became an important strategic node. In 311 BCE, Zhang Ruo, the governor of Shu, built the grand ancient city of Linqiong [15]. According to historical records, this city was located in present-day Linqiong Town in Qionglai. In its early period, it was primarily constructed with timber structures, and its internal commercial layout was orderly and well organized. After entering the Han dynasty, the policy of state monopoly over salt and iron was implemented, and Linqiong, relying on its abundant local salt and iron resources, quickly became a nationally renowned center of iron smelting and salt production, leading to a significant increase in economic strength. Archaeological discoveries show that by the Western Han period Linqiong had already begun using natural gas in brine extraction and salt production. Large quantities of iron fragments found at the modern excavation of the Tiehua Lane site further confirm this historical fact. Since ancient times, the Qionglai region has produced many talented figures, and many outside ethnic groups migrated into the area, creating a situation of ethnic integration and flourishing cultural dissemination. Settlements had already appeared here as early as the pre-Qin period. With the establishment of Linqiong County and the construction of city walls during the Qin dynasty, the region was formally incorporated into the administrative system of the central state, promoting the transition of surrounding groups from scattered habitation to more settled forms of civilization [16].

[2].Current Routes and Nodes in the Qionglai Section of the Southwest Silk Road

Historical textual research and field surveying show that within Qionglai the Southwest Silk Road was characterized by “a connected main route with major nodes distributed in an orderly way.” Centered on the ancient city of Linqiong as its transportation hub and strategic stronghold, the route extended westward along the Baimo River valley [17], passing through important stations such as Zhenxi Mountain Pass, Pingle, and Huojing before reaching Lushan County in Ya’an, thereby forming a strategic transport line linking the Chengdu Plain and the western Sichuan plateau. Most surviving remains were built in accordance with the terrain, taking natural conditions as the design basis and creating a complex and winding road network. Many sections still preserve typical Ming- and Qing-period flagstone foundations and horseshoe-shaped wheel-rut traces. In particular, the section from Jinjigu in Pingle to the Jinhua mountainous area reaches a width of 1.5–2 meters in places and is paved with locally sourced red sandstone slabs, reflecting the remarkable ability of early inhabitants to adapt construction to local conditions. Along the route are scattered post stations, passes, and related remains, among which the Kongming garrison site and the old and new wharf facilities nearby are especially notable. These vividly demonstrate that this trade corridor possessed both economic and military functions. Although the development of modern transport systems has affected its original appearance to some extent, GIS technology combined with traditional cartographic data still makes it possible to reconstruct its historical course with reasonable accuracy and carry out zoned delineation. Overall, this section was an important branch of the Southwest Silk Road. It played an irreplaceable role in promoting exchanges among early civilizations and also reflects the special way in which linear cultural heritage developed in coordination with the local ecological environment.

The present condition of node protection along the Qionglai section of the Southwest Silk Road shows clear levels of difference and diversity, well reflecting both the adaptation of the ancient transport network to the regional geographical environment and its distinctive design logic. Linqiong Ancient City, as a key node, still

preserves part of its historical street pattern and traditional architectural character amid modern urban renewal, and has formed a unique historical-cultural image system through such symbols as the city wall remains and Wenjun Well. By contrast, Pingle Ancient Town and Huojing Ancient Town are secondary nodes, where the original spatial structure and functional zoning have been relatively well preserved. The scale of the streets has basically remained unchanged, while typical bridges and traditional ferry crossings continue to play important roles. A large number of finely carved timber residences built during the Ming and Qing dynasties fully demonstrate the architectural craftsmanship characteristic of western Sichuan. Many ancient sites have suffered varying degrees of damage due to long-term weathering and human destruction, yet when considered together with archaeological excavation results, they can still clearly reveal the historical missions they once fulfilled and the way they operated. Overall, the degree of preservation differs across various nodes, but through systematic field investigation and comparative analysis of local details, it is still possible to reconstruct the principal components and operating logic of this major ancient trade route.

[3].Classification and Current Condition of Historical and Cultural Heritage

The heritage in this area includes ancient roads, ancient bridges, ancient temples, site complexes, wells, ancient towns, and various historical remains. As an important node on the Southwest Silk Road, Qionglai contains abundant and diverse historical and cultural remains. Through systematic field investigation and data collection, this study explores in detail the core value and historical significance of heritage related to the Southwest Silk Road in the Qionglai region [18]. Statistical analysis based on existing documentary sources shows that the major categories of extant cultural heritage in Qionglai include: first, ancient roads and ancient towns; second, ancient bridges and post stations; third, ancient tombs and ancient sites; fourth, grottoes and cliff carvings; fifth, historic buildings; sixth, temples and Taoist structures; seventh, ancient pagodas; eighth, ancient wells; and ninth, garden landscapes. In this paper, a “post station” refers to a small transport stop or inn providing services for travelers. At present, only the Xiaomadian site survives, while the other small way stations have disappeared.

3.3.1 Ancient Roads and Ancient Bridges

The surviving ancient road remains of the Southwest Silk Road within Qionglai are mainly concentrated in Linji, Tiantai Mountain, Jiaguan, Youzha, and surrounding areas, with a total length of about 30 kilometers. This section focuses on the most representative remains around Pingle and Qilong Mountain.

The Pingle Qilong Mountain Ancient Road is located in Group 10 of Qilong Village, Pingle Town, Qionglai City, Sichuan Province, and is known as the “Jiannan Road” because of its geographical setting. It runs across the hinterland of Qilong Mountain in Pingle and extends eastward to places such as Linji and Jiaguan. Because it is mainly distributed in areas covered by primeval forest and has been relatively little affected by human activity, it is now one of the best-preserved and most continuous historical heritage remains in the Qionglai area. The surviving section is about 1.4 kilometers long, has an average width of 4 meters, and shows a ridge-like profile. The center of the road is lined in a straight line with large pebbles, while the two sides are paved with smaller pebbles forming a narrow border. Along the roadside stands a pebble retaining wall about 1.4 meters high, serving defensive, flood-control, and road-reinforcement functions. The route was planned in accordance with changes in terrain, fully embodying the wisdom of adapting to local conditions. Research indicates that the Pingle Qilong Mountain Ancient Road includes flagstone, stone-block, and gravel sections, and had already reached an initial scale during the Han dynasty. This is supported by important relics such as Wuzhu coins discovered 40 centimeters below the surface during village repair work in 2005. Although the road has suffered long-term weathering and some human damage, its principal appearance remains relatively intact. Road-surface characteristics from the Song dynasty to the modern period can still be clearly distinguished, and the retaining walls on both sides have basically remained in their original condition [19]. The Pingle Qilong Mountain Ancient Road was an important post route linking Chengdu and Yazhou and was also one of the military roads used by the Tang general Wei Gao in his northern campaign against Tubo. Precise measurement and analysis of the site show that the actual width of this section ranges from 1.5 to 3 meters. With its undulating overall form, it possesses considerable technical and artistic value. These findings not only deepen academic understanding of ancient transport systems, but also provide valuable insights for contemporary urban and rural planning [20].

Many important bridges survive in the Qionglai section of the Southwest Silk Road, among which the “First Bridge in Southern Sichuan” has attracted wide attention because of its uniqueness and outstanding historical value. Although most of its inscriptions and the main body of the bridge date to the early Qing dynasty, its crucial location and broad influence have made it an important node on the Silk Road, especially during the transition from the traditional silk trade route to the Tea Horse Road. The bridge was originally built in the twelfth year of the Daoguang reign of the Qing dynasty (1832), destroyed by flooding and rebuilt in the

fourteenth year of the Guangxu reign (1888), and now survives as a thirty-three-arch stone bridge reconstructed in the twenty-fifth year of Guangxu (1899), financed jointly by the local government and the public. The cultural and historical value of the “First Bridge in Southern Sichuan” lies not only in its role in regional transport development, but also in the way it reflects changes in the ancient road network over time.

The bridge extends from northeast to southwest and spans the South River. Its original design length was 240 meters, with a clear width of 6 meters and a clear height of 3 meters. Along the riverbed beneath the bridge’s central axis, red sandstone slabs were laid in alternating end-on and lengthwise arrangement; both embankments were constructed with stone blocks and lime mortar to form stable retaining walls. In the middle section of the river, thirty-two evenly spaced diamond-shaped, or spindle-shaped, piers were set at intervals of about 10 meters. Each pier is about 2.6 meters high, 1.5 meters wide at the base, and 7 meters long at the top, with a boat-like form. Between the embankments and the piers, the bridge deck was built by layering stone slabs fixed with lime mortar. Renovation and upgrading of the bridge deck began in 1958, and reinforcement of the entire bridge was completed in 1963. After cement prefabricated slabs were added, the total length of the bridge increased from 236.8 meters to 240 meters, its width expanded from 8.8 meters to 9.6 meters, and its maximum span grew from 4.4 meters to 4.8 meters. It thus officially became one of the largest and most functionally complex ancient bridges in the Qionglai region [21].

As an important transport artery in the Qionglai section of the Southwest Silk Road, the First Bridge in Southern Sichuan possesses major geographical and strategic significance as well as a long and rich cultural history. As a connecting line between the Chengdu Plain and the western Sichuan plateau, it was not only an indispensable part of the ancient transport network, but also a major passage for cultural exchange. Its origins can be traced back to the opening of the Southern Silk Road in the Qin and Han periods. With the flourishing development of the Tea Horse Road during the Tang and Song dynasties, it became a hub linking Chengdu’s tea, Shu brocade, and other specialties with broader regional exchange, thereby promoting trade and cultural interaction among different ethnic groups along the route. At the same time, the regional market system that formed around the bridge provides an important case for studying the economic geography of ancient frontier regions. The bridge was not only a major channel through which Central Plains agrarian culture spread to frontier areas, but also an important platform for ethnic and cultural exchange, exerting a profound influence on local cultural identity. As a historical monument, it has great academic and practical value for understanding the mechanisms of multicultural interaction in southwestern China, promoting cross-regional cultural exchange, and transmitting local cultural heritage.

3.3.2 Ancient Towns and Ancient Post Stations

The prosperity of ancient towns was closely connected with the development of ancient routes. The two influenced one another and jointly promoted regional economic and cultural growth. As important nodes of population movement, ancient routes facilitated commodity circulation and economic exchange along their course, while the development of ancient towns further coordinated and enhanced the growth of trade and culture in the surrounding areas. At present, six traditional ancient towns remain within the jurisdiction of Qionglai City: Linqiong Town, Pingle Town, Jiaguan Town, Datong Town, and Chayuan Town. Because Linqiong Town and Pingle Town preserve a relatively large number of historical buildings from the Ming and Qing periods as well as distinctive street layouts, they enjoy clear advantages in heritage protection. This study selects two representative cases for in-depth analysis. Field investigation shows that many of the region’s traditional post stations no longer exist, leaving only the Xiaomadian site in need of focused protection and research.

Pingle Ancient Town is located in the southwestern part of Qionglai City, Sichuan Province, about 18 kilometers from the city center. It covers a total area of 70 square kilometers, of which the core urban area occupies 1.28 square kilometers. As an important cultural monument in western Sichuan, its most distinctive feature is the complete preservation of a traditional building complex dating from the Ming and Qing dynasties, with a total surviving architectural area of more than 235,400 square meters, clearly reflecting rich and concentrated local cultural connotations. The so-called “Nine Ancients” have become one of the most representative symbols of Pingle Ancient Town. The area is situated in a basin-like landform, low in the middle and surrounded by hills, which is why it was historically called “Pingluo.” During the construction of ancient water conservancy works, the Feisha Weir was built to effectively separate the inner and outer branches of the Baimo River, improving the irrigation system, benefiting agricultural production, and supporting population concentration, thereby laying the social foundation for settlement development. Historical records indicate that the history of Pingle Town can be traced back to the Western Han dynasty, giving it a continuous history of more than two thousand years [22].

Pingle Town has long persisted in cultural heritage protection and preserves many historical remains reflecting regional cultural characteristics, including ancient streets, temples, bridges, old trees, and traditional

courtyard compounds. The thousand-year-old banyan trees along the Baimo River and the hanging-foot wooden buildings together form a distinctive natural and human landscape. During the Ming and Qing dynasties, the layout of local shops and Leshan Bridge together embodied the characteristic combination of waterborne and land-based trade in western Sichuan. The post-road remains built during the Qin and Han periods were among the major transport routes from Chengdu to southwestern regions, and about one kilometer of flagstone road still survives today, demonstrating the engineering level of that time. The Huguang Guild Hall and Jiangxi Guild Hall reflect the cultural exchange and integration between Sichuan and Chongqing from the late Qing dynasty to the early Republican period, and also bear witness to the prosperity of the commercial economy. Historical records show that in the Song and Yuan periods the papermaking industry in Qionglai developed rapidly. Supported by abundant bamboo, timber, and straw resources, various kinds of handmade paper were produced, gradually forming a specialized marketing network centered on Pingle. The Pingle paper market became extremely prosperous, and the saying “most straw paper in Shu comes from Pingle” quickly spread. The “Private Elopement Wharf” also became famous because of its association with the love story of Feng Qiu Huang. According to legend, the Han dynasty woman of talent Zhuo Wenjun fled family opposition together with her beloved Sima Xiangru and embarked from this place for Chengdu in pursuit of true love. Although freight shipping on the Baimo River has now declined, the site still preserves some of its original features for visitors. While the reconstruction of modern shipping channels may be constrained by objective conditions, reasonable planning and adaptive renovation could transform it into a comprehensive open scenic area oriented toward sightseeing and leisure experience.

Linqiong Town is the core area of Qionglai City. The name “Linqiong” derives from its geographical proximity to the ancient settlement area of the Qiong people. Geographically, it extends about 16.5 kilometers from east to west and about 14.5 kilometers from north to south, with a total area of 12,400 hectares. Centered on the ancient city of Linqiong, its history begins in 311 BCE, when Zhang Ruo, governor of Shu under King Huiwen of Qin, supervised the construction of Linqiong City. Since then, it has a history of more than 2,300 years and has continuously served as the political center of administrative units at or above the county level. It is a historic city with profound cultural depth, rich connotations, and a strong historical presence. It is recognized as one of China’s famous historical and cultural cities and the foremost among the four cities of the Bashu region. Located on the southwestern edge of the Chengdu Plain, about 75 kilometers in a straight line from downtown Chengdu, it combines natural scenery with historical-cultural value, and its traditional pattern has been well preserved [23]. The spatial system of “ding, shi, and wells,” together with the historic street structure of “one ring, two streets, six courtyards, and twenty-seven alleys,” remains clearly identifiable. Linqiong Ancient Town has attached great importance to the restoration of Dabeijie, a provincial-level protected heritage site. Stretching 510 meters in length, Dabeijie is one of the best-preserved ancient commercial streets in Sichuan, and most of the buildings along it display the typical characteristics of Ming- and Qing-period western Sichuan residences. The street was not only a key point on the Southern Silk Road and the Tea Horse Road, but also a major distribution center for commodity circulation, lined with antique shops, folk culture exhibition halls, traditional theaters, and other commercial and cultural venues. Wenjun Former Residence, located in the center of the ancient town, is traditionally regarded as the birthplace of the talented Western Han woman Zhuo Wenjun, and preserves the Han-period remains of Wenjun Well. The historical allusion “Wenjun tending the wine shop, Xiangru washing the utensils” is widely known, giving the site the reputation of a “romantic sanctuary of eternal love.” The garden design blends the charm of Jiangnan water towns with the regional features of the Sichuan Basin, producing an elegant and refined layout. The North Gate Tower, rebuilt on its original site, employs traditional techniques of red sandstone walls and green-brick roofing. Its upturned eaves and classical aesthetic details are crowned by a stone plaque bearing the characters “Qiongzhou,” reflecting the area’s historical-cultural heritage. Four kilometers outside the city stands the conspicuous Huilan Pagoda, an ancient brick structure built on an islet in the South River. Rising dozens of meters high, it offers a panoramic view of the whole city from its upper levels and stands as a witness to the passage of time. Historically, Linqiong Town relied on its convenient transport network to play an important role in the silk trade, which in turn stimulated the development of iron smelting, Qiong kiln polychrome ceramics, and the brewing industry, forming a distinctive regional economic pattern. Today, the local government is experimenting with innovative approaches such as regular Spring Festival lantern fairs and temple fairs to promote the development of the ancient town and to realize a meaningful integration of tradition and modernity.

Its inner value lies in the fact that it serves not only as an important carrier in the development of Bashu civilization, but also as a systematic reflection of more than two thousand years of urban development in Chengdu. As an important node on the Southern Silk Route, representative sites such as Wenjun Well and Dabeijie vividly testify to trade relations and cultural integration between the ancient Shu region and southwestern China, Southeast Asia, and beyond. They are important historical materials for studying the spatial structure of ancient cities, the functioning of local economies, and the evolution of customs, while at the same

time serving as cultural resources whose communicative functions can be expanded through tourism development. In this way, they inject new vitality into the innovative development of Tianfu culture and help this thousand-year-old city radiate renewed energy.

Located on Dabeijie in Linqiong, Qionglai City, Xiaomadian was an important area for merchant travelers and is now the best-preserved traditional old street block in the city. Historical records indicate that its origins date back to the Qin and Han periods, when it was initially established together with the city's defensive system, and it has continued to the present day. The street extends about 510 meters from Beimen Alley, near the original northern city-wall remains, to the Gulou crossroads, with an average width of about 9 meters. The road surface is mainly paved with bluestone slabs and red sandstone, and it basically retains the typical layout of shops below and residences above. In terms of spatial structure, the street is generally linear, though slightly curved in some sections because of changes in the arrangement of the building clusters, thus forming a principal segment within the typical "main street-side alley" compound road system. Xiaomadian was not only the junction of the Southern Silk Road and the Tea Horse Road, but also the place within the ancient city of Linqiong where cultural accumulation is the deepest and the developmental trajectory the clearest. Functionally, it served as both a major commercial route linking urban and rural Qionglai and an important bridge for local cultural exchange. Historical buildings of educational and practical value, such as ancient city walls and old theater stages, are scattered along the street. Particularly noteworthy is the distinction between the small wayside shops that provided basic services for manual laborers and Xiaomadian itself, which functioned as a higher-end consumption venue offering accommodation, food, horse services, and more. Although most traditional shops have now ceased operation, the area still conveys a strong local atmosphere. It not only preserves the long-standing western Sichuan residential style but also retains some remains of the old city walls. According to historical research, the name "Xiaomadian" derives from the fact that a large inn was once located here [24].

3.3.3 Ancient Tombs and Ancient Wells

The underground remains in the Qionglai area along the Southwest Silk Road are of great cultural significance. These material heritage sites comprehensively preserve important cultural elements relating to historical population migration, social organization, and burial customs in specific periods, and thus serve as crucial physical evidence for analyzing the evolution of regional civilization. Taking the Huangfen Han Tomb as a typical case, this study combines field investigation and documentary research to provide a comprehensive interpretation of its historical connotations and cultural symbolism.

The Huangfen Han Tomb site is located in Yong'an Community, Yang'an Town, Wenjiang District, Chengdu (formerly Quanshui Township). Its mound is distributed in an irregular rectangular form extending east, south, west, and north. It measures 65 meters east to west, 45 meters north to south, with an average height of 3–5 meters, and covers an area of 2,100 square meters. It adopts the traditional residential-courtyard layout concept, with layered spaces such as a front hall, rear chamber, and side rooms, and also includes an underground palace-like interior space. Archaeological identification suggests that it was an imperial-level tomb, carrying strong symbolism of social hierarchy and political authority. One important basis for identifying the tomb occupant is a silver seal engraved with the characters "Liu Yue." High-grade Han tombs of this type generally contain rich cultural relics, among which the most valuable are the exquisite portrait bricks. These depict scenes of salt-well extraction, brewing techniques, carriage travel, and other subjects, vividly reflecting the economic condition of ancient Qionglai as an important node on the Southwest Silk Road, especially its major achievements in iron smelting and salt production, and serving as material evidence for the study of commodity circulation along the ancient Silk Road. The Huangfen Han Tomb is also a typical example of the Han dynasty's policy of ethnic integration. On the one hand, it reflects the influence of Central Plains Han culture; on the other, it demonstrates the distinctive characteristics of Bashu regional culture and its process of interaction with Han culture, making it highly significant in both historical and cultural terms [25].

The religious buildings and related remains of the Qionglai section of the Southwest Silk Road are a microcosm of the region's spiritual beliefs and cultural exchange. Among them, the Haiyun Pagoda, a tomb pagoda of the monk Haiyun from the Ming-dynasty Lingguang Temple, located in Hejiang Village, Shuikou Town, displays typical Buddhist cultural characteristics. It has major academic value for illustrating the historical development of Buddhism in Qionglai and has become key material evidence for studying the spread of religious culture and the evolution of architectural technology along the Silk Road [26].

The tomb pagoda is located in the northwestern part of the Ming-dynasty Lingguang Temple site and is a square, multi-story stone structure. Its base is built of stone blocks, square in plan, with a side length of 4.1 meters and a height of about 1.7 meters. A rectangular doorway is set on the southeast side, fitted with two stone doors. The interior is hollow and originally functioned as a burial space; after excavation, only the coffin platform remains. Floral motifs are carved around it, and the ceiling is decorated with a medallion-pattern caisson. A ring corridor is arranged between the outer wall and the inner wall of the base. Above the first level,

the second and third stories are stacked in sequence. Each level contains four large stone columns, the surfaces of which are carved with scrolling grass or floral patterns, while exquisite stone panels are placed between the columns as partitions. Each of the four corners contains false doors or window frames, with hanging decorative patterns shown one by one, creating a solemn and elegant atmosphere. On the front, the plaque is incised in regular script with the characters "Haiyun Pagoda." The outside of the pagoda body is encircled by broad stone eaves with smooth curved edges and slightly inward-turning corners. Built at the foot of a hill in Hejiang Village, with low hills behind and broad fields in front, the pagoda's location fully conforms to the traditional Chinese geomantic principle of "storing wind and gathering qi." Although no large-scale artificial structures have formed nearby, the quiet atmosphere of the natural ecosystem complements the dignified religious aura of the pagoda itself. Long-term exposure of the red sandstone structure to the outdoor environment has caused a certain degree of weathering; some carved patterns have become blurred, and problems of overall structural stability are gradually emerging. At the same time, with the development of surrounding rural construction, land erosion from agricultural activities and root intrusion from plants are increasingly intensifying the pressure on heritage conservation. The Haiyun Pagoda is a typical Silk Road monument in southwestern China with clear architectural and artistic features, and also a Chinese cultural symbol carrying abundant historical memory. According to documentary records, the Ming dynasty was a period of significant Buddhist development in the Qionglai region, and Lingguang Temple was one of the largest Buddhist temples in the area. The design of its monk's tomb pagoda reflects both local Buddhist cultural characteristics and changes in social influence. Secular decorative motifs such as flowers and cloud patterns on the pagoda body reveal the process through which Buddhist art was integrated with Chinese culture, thereby enriching the artistic development associated with the history of Silk Road cultural exchange. Although the pagoda has now been designated a provincial-level protected cultural relic, actual conservation work still relies mainly on routine maintenance, lacking a systematic professional monitoring and early-warning system as well as a scientific management mechanism. Future research should further investigate material properties and ecological environmental factors so that more targeted and holistic conservation strategies can be proposed, ensuring the sustainable transmission and development of Silk Road cultural heritage.

Among the many ancient well remains currently preserved in Qionglai, Qinshui Well has attracted attention because of its special historical significance and strong representativeness. The well is located near the entrance of the home of Qin Shugen in Group 2, Gongyi Village, Guyi Town. It was originally built in the Qing dynasty as a private water source for the Ma family and is now inherited and used by the Qin family. Structurally, Qinshui Well has a straight cylindrical shaft, while the well wall is hexagonal in section and built vertically with red sandstone slabs, as shown in the figure. A square stone cover is laid over the wellhead, with a circular opening in the center serving as a decorative feature. The well has a diameter of 0.75 meters, a depth of 5.2 meters, and a height of 4 meters above the water surface. The technique of vertically building a six-sided structure with stone slabs appears frequently in archaeological remains from the Ming and Qing periods in the Qionglai region [27].

3.3.4 Ancient Sites and Historic Buildings

Within the heritage system of the Southwest Silk Road, the core spatial structure of the Qionglai section is formed through the combination of ancient sites and historic buildings. Because of long-term agricultural activity, some archaeological layers have been disturbed, and certain sites have suffered structural damage. Historic buildings, by contrast, are mainly threatened by the aging of timber components, termite erosion, and conflicts with surrounding modern architectural styles. In heritage conservation, it is therefore necessary to consider both the authenticity of historical information and the overall coordination of the ecological environment. Field investigation and documentary analysis show that there are many ancient tombs remains distributed around the Pingle iron-smelting site. This paper therefore takes the Pingle iron-smelting site as an example for systematic in-depth analysis and detailed documentation.

The Pingle iron-smelting site is an important industrial remain along the Southwest Silk Road and is closely connected with Pingle Ancient Town as a major commercial center. The site is mainly distributed in Pingle Town and nearby areas. The Tieshiba site, in particular, contains rich accumulations of slag, vividly reflecting the large-scale smelting activity that had continued in the Linqiong area since the Han dynasty. As an important metal-processing node on the Silk Road, its production scale not only promoted regional resource circulation, but also relied on the Baimo River waterway and post-road network to transport products to Yunnan, Guizhou, and even wider Southeast Asian markets, thus becoming one of the important material sources supporting ancient Silk Road trade. With Pingle as a representative example, the development of an integrated chain of "production, transport, and sales" gradually transformed it from a traditional rural settlement into a regional economic center, occupying an important position in the commodity economy of the ancient southwestern frontier. Examining the site-selection characteristics of the Pingle iron-smelting site from the

perspective of spatial structure makes it possible to better appreciate the sophisticated thinking embedded in ancient industrial layouts. Located near a branch of the Baimo River, the site enjoyed favorable conditions for the early application of water-powered bellows and related equipment, while greatly improving the transport efficiency of raw materials and the handling of waste. This fully demonstrates the degree to which early inhabitants understood and effectively utilized the natural environment and water resources. Following the principle of “setting furnaces by the water and building towns according to production,” iron smelting became one of the main driving forces behind changes in the spatial pattern of Pingle Ancient Town. Functional units such as workshops, dwellings, and shops were arranged in mixed fashion, forming typical “shop in front, workshop behind” or “shop below, dwelling above” commercial-residential patterns. Slag deposits gradually became part of the ancient town’s physical foundation, achieving an effective integration of industrial remains and everyday life scenes, and thus creating a distinctive industrial settlement landscape system. At present, however, the conservation of the Pingle iron-smelting site faces many difficulties. The slag layers, having long been exposed to the natural environment, are prone to obvious weathering, while also being affected by surrounding modern construction. In the rapid development of tourism in the ancient town, the cultural value of this industrial heritage has not been fully brought out or reasonably utilized, and its profound historical significance has not been adequately displayed. To address this situation, archaeological investigation should first be used to determine the site boundaries, and protection should then be integrated into the overall development plan of Pingle Ancient Town, incorporating the iron-smelting remains into the regional cultural landscape system. Historical scenes could be recreated through situational reconstruction techniques and interpretive signage, thereby highlighting the site’s status as an important node of commercial and cultural exchange on the Southwest Silk Road [28].

The Shifangtang Qiong Kiln Site is a key material remain of the Southwest Silk Road in the Qionglai region and has significant value for the study of cross-cultural exchange. It is not only an ancient ceramic kiln site, but also an important marker of interregional technological exchange and trade in antiquity. Distributed linearly along both banks of the South River, the site contains six major kiln mounds arranged in sequence. With cultural deposits reaching several meters in thickness, it provides a complete record of the development of the Qiong kiln from the Southern Dynasties to the Song and Yuan periods [29]. As one of the longest-lasting and largest folk ceramic production bases in Sichuan, the invention of Qiong tri-colored underglaze decoration not only opened a new chapter in the history of painted ceramics in China, but also spread ceramic products and technologies to the Yunnan–Guizhou Plateau, Tibet, Southeast Asia, and beyond through the Southwest Silk Road, ultimately becoming an important medium of cultural dissemination alongside silk. From the perspective of spatial layout, the Shifangtang site relied on the water transport system of the South River basin, arranging ceramic workshops along the riverbank and thereby creating an efficient logistics channel for the input of raw materials and the output of finished products. Over time, this gave rise to a typical settlement pattern of “setting kilns by the water and prospering because of kilns.” The kiln structures combined the advantages of dragon kilns and mantou kilns and played a clear role in adapting to the humid southern climate. The use of special kiln furniture such as saggars and setter cakes also reflects the characteristics of large-scale production. This advanced production model laid the foundation for Qiong kiln products to enter international circulation via the ancient Silk Road [30].

Although the Qiong kiln site has already been included in the national archaeological site park system, it still faces problems such as unsatisfactory protection of the heritage body itself and overly limited display methods. On the premise of giving priority to conservation, the site should be sustainably utilized and its comprehensive value enhanced by taking the South River ecological landscape belt as a carrier. Digital technologies can be employed to reconstruct traditional ceramic-making processes, while related heritage resources in surrounding areas, such as Pingle Ancient Town and the Jiaguan iron-smelting site, should also be considered in an integrated way. In this way, a Silk Road cultural tourism corridor centered on “Qiong kiln culture” can be created [31].

The ancient Huojing and salt-well remains at Youzha are located on an earthen bank behind the residence of Xiong Fu’an in Taohua Community, Youzha Township, although their exact distribution range has not yet been finally determined. In 1985, villagers discovered a ceramic water pipe here while building houses. The pipe is grayish white in color, nearly circular in section, with an outer diameter of about 0.1 meters and an inner diameter of about 0.12 meters. It rises about 1.2 meters above the ground and contains a crystalline salt-brine layer inside, suggesting that it was originally used to transport brine, natural gas, or other fluids. Because no precise measurements were taken, it can only be said to extend roughly from northeast to southwest. In 1981, local resident Feng Xinmin unearthed several similar trough-shaped stone implements at his home. These are commonly known as “huocaozi.” Most are made of red sandstone, measure about 0.43 meters in length and 0.11 meters in thickness, are slightly wider at the top than at the bottom and have a groove in the middle of one side together with a perforation about 0.1 meters in diameter and 0.06 meters deep. The function of the “huocaozi”

appears to have been similar, suggesting that such tools have long served for liquid transmission. At present, this site still requires comprehensive and systematic archaeological investigation in order to fully uncover its historical and cultural value and its role in contemporary cultural transmission [32].

The Ning Residence, located on Wenmiao Street in Qionglai City, was built during the Guangxu period of the Qing dynasty. In his later years, its owner Ning Xiang styled himself “Old Man of Yuyuan,” and accordingly named the residence Yuyuan, with the plaque above the entrance also bearing that name. The property covers a total land area of 1,354.3 square meters and a total building area of about 1,192 square meters. It consists of five courtyards and ninety-eight rooms. Its distinctive “ri”-shaped double-courtyard layout is neat and rigorous, and the main buildings employ single-eaved hipped roofs together with the chuandou timber-frame system. The main hall uses a seven-purlin beam design, extends three bays in depth, and covers an area of about 82.3 square meters. The Ning Residence combines the regional features of western Sichuan dwellings with traditional northern architectural style, displaying exquisite craftsmanship within an overall restrained design and vividly reflecting profound historical and cultural heritage. As a typical representative residence in Qing-dynasty Sichuan, it is not only important material evidence for studying local socioeconomic change but also provides an excellent example for the development of architecture in the Sichuan–Chongqing region.

Haiwu was first built in 1933 and completed in 1935. Originally the residence of Qiu Ziwen, it has now become the Erma Museum, integrating relic protection and cultural dissemination. The building is organized along a north–south axis and adopts a two-courtyard “ri”-shaped layout, combining Chinese and Western architectural styles with strong artistic appeal. It covers a total area of 670 square meters, with a building area of about 470 square meters, a total length of 14.5 meters, and a width of 33 meters. Its structure includes a front hall, front courtyard, side rooms, middle hall or passage hall, rear courtyard, and rear annex rooms, thus effectively combining the form of a traditional courtyard house with modern design concepts. Built in response to the natural environment by the stream, the eastern side uses stone steps and retaining slopes, while high retaining banks and hollow brick walls form a composite protective system. The western side achieves an enclosed condition through external connections, fully reflecting its regional character and historical-cultural value.

The Li Family Compound is located in Huaqiu Village, Pingle Town, and was first built during the Qing dynasty. Its overall layout faces south, comprising two major courtyard units and displaying single-eaved overhanging gable roofs together with chuandou timber construction and small gray roof tiles. It covers an area of 2,700 square meters and rises layer by layer along the mountain slope, organically integrating the features of the terrain. The two courtyards are linked through skylit inner courts, enabling both functional continuity and spatial transition. The main courtyard stands on higher ground against the hillside, where retaining walls of red sandstone stabilize the foundations. The southern and northern courtyards occupy sloped ground, with the eastern side of the southern courtyard and the western side of the northern courtyard likewise reinforced by red sandstone walls. The building fully reflects the characteristics and high level of craftsmanship of traditional western Sichuan residences [33].

The Wang Family Compound, also known as the Tiangong Yingwu Courtyard, is located on the western side of the Baimo River. The building complex was completed in 1780 during the Qianlong reign of the Qing dynasty within the residential area of the local Wang family. Its overall plan consists of five successive courtyards, with four skywells along the central axis and side courtyards on both flanks, covering a total area of about 1,200 square meters. The second skywell adopts a connected-corridor design, making it particularly suitable for combining multiple courtyards on a narrow site, with high efficiency in space utilization as well as good lighting and ventilation. The main hall is grand and imposing, while the secondary rooms are refined and elegant. The entire compound is built in solid timber using the chuandou structural system, with most columns made of fragrant cedar and generally over one chi in diameter. The column bases are finely finished, and the doors and windows are carved with traditional opera stories or decorated with floral and insect motifs. The whole structure is richly varied and highly artistic. It fully deserves its reputation as a “treasure of Qing-dynasty residences in western Sichuan,” and its distinctive design concepts and architectural innovations have drawn considerable attention [34].

3.3.5 Grotto Sculptures, Temples, and Taoist Structures

The grotto sculptures, temples, and ancient pagodas of the Qionglai section of the Southwest Silk Road are typical forms of heritage embodying both the spread of religious culture and the integration of regional space. The cliff carvings mainly take Buddhist themes, and their sculptural styles blend features of the Central Plains and Bashu traditions. The arrangement of niches and caves on the cliff face follows the mountain contours, forming a visual order in which sculpture and landscape coexist. This reflects the adaptive evolution of Silk Road Buddhist art in the local context [35]. Temples and ancient pagodas are often distributed at route nodes or settlement centers. For example, the remains of the City God Temple use the mountain terrain to create

a ritual space. Through its three-dimensional form, it becomes a regional spatial landmark that not only meets religious needs but also creates a dialogue with the surrounding mountains, waters, and settlements through architectural scale. These forms of heritage materially carry the circulation of beliefs along the Silk Road, and their spatial layouts and construction wisdom provide key evidence for interpreting the interaction between ancient religious culture and regional environments [36].

The City God Temple, dedicated to the deity believed to protect the city, was located in northwestern Qiongzhou, close to the city wall and adjacent on the left to the former examination compound, at the site of today's Qionglai Middle School. The Qing-dynasty Qiongzhou City God Temple near Pingle Qilong Mountain adopted a layout of two rectangular courtyard compounds. Both the front and rear courtyards contain two rectangular skywells, and a corridor between them leads to the main hall. The Hall of the Ten Kings stands on the left and right of the front skywell, while a stele gallery embedded in the walls flanks the rear skywell. On the eastern side of the wall beside the right-hand passage of the main hall stand several sculptures dressed in Qing-style attire, and outside the front row there is a gilded armored military figure.

The Huazhi Temple cliff carvings are located on the rock face halfway up Huashi Mountain on the northern bank of Xiaobaishu Reservoir (Zhuxi Lake) in Baishu Village, Linqiong Town, west of the city. There was a Tang-dynasty temple here called Huazhi Temple, though local people are accustomed to calling the place Qianfoyan, or "Thousand Buddha Cliff." Thirteen niches with cliff carvings survive today. According to the carved inscription, the sculptures were directed by the Esoteric Buddhist master Monk Ma Cai of Zhangjing Temple and were engraved in the fourteenth year of the Zhenyuan reign of the Tang dynasty (798 CE). The main niches include the "Thousand Buddhas Niche," the "Infinite Life Niche," the "Western Pure Land Transformation Niche," the "Thousand-Armed Avalokiteśvara Sutra Transformation Niche," the "Heavenly Kings Niche," and the "Fifty-Three Buddhas Niche," among which the Thousand Buddhas Niche and the Infinite Life Niche are the most representative. The Huazhi Temple cliff carvings face south with their backs to the north and mainly consist of open-front, flat-roofed niches, as well as single-story and double-story niches [37].

3.3.6 Gardens and Pagodas

The garden and pagoda remain within the Silk Road cultural heritage of the Qionglai section display the diversity of cultural landscapes while also expressing the symbolic spiritual functions of religious belief in particular historical periods. These sites were planned in response to their distinctive natural environments and followed the design concept of "building temples in the forest and integrating temples into the landscape," thereby achieving harmony between religious architecture and ecological vegetation. Such a design model not only provided quiet places for religious practice but also offered convenient resting spaces for merchants and travelers passing along the route. It vividly reflects the cultural meaning of the idea of harmony between humans and nature and embodies the choices and achievements of ancient people in adapting to natural law. Pagodas mainly served to disseminate religious culture and also played a guiding role within the ancient Silk Road network, while carrying traditional folk meanings such as praying for blessings and warding off evil. Because many pagodas have long lacked proper maintenance, they now suffer from structural aging and visual damage. It is therefore necessary to adopt scientific restoration techniques and sustainable strategies in order to recover their historical-cultural and aesthetic value and promote the transmission and development of Silk Road historical memory.

Wenjun Well Garden is located in Wenjun Well Community, Linqiong Town, Qionglai City, Sichuan Province, with its core area at No. 76 south of Wenjun Street, formerly Liren Street. The garden is organized overall along a north-south axis and covers 6,000 square meters. Spatially, the garden sets its main entrance facing the street and uses traditional western Sichuan building techniques, including whitewashed walls, green-tiled roofs, and black-lacquered lintels, while stone door piers decorate the entrance. Although the site is limited in area, it nevertheless presents the typical features of a classical western Sichuan garden. In plan, the spatial organization follows a longitudinal arrangement and is composed of a front court, middle court, and rear court, which are linked into an orderly system by the lotus pond and a winding watercourse. Just inside the main gate, the front court is divided into different functional zones by artificial rockery. Two paths are provided: one leads to the bamboo-lined path on the west side and then to the rear court at the east end, while the other passes through an arched doorway in the eastern partition wall and reaches the Qintai Pavilion by the lotus pond. Qintai Pavilion was first built in the Ming dynasty, restored in the Qing dynasty, and altered several times in the modern period. It now survives as a single-eaved hipped-roof timber structure using the chuandou system, facing north. Its four upturned eaves are decorated with floral ridge ornaments, the roof is covered with small gray tiles, and the eaves are embellished with floral tooth-board decoration [38].

Xingxian Pagoda is located at Tazi Street in Xinjie Community, Mouli Town, Qionglai City, Sichuan, formerly the marketplace of Zhandou Township, about 25 kilometers northeast of urban Qionglai. This glazed-

brick pagoda, approximately 16 meters high, is a hexagonal three-story tower pavilion built in the Northern and Southern Dynasties and imitates the style of timber architecture in its design. The pagoda mainly uses plain ceramic carved bricks, with some areas decorated with colored glazed components, giving it a strong archaic charm. The east, south, and west sides bear inscribed steles detailing the process of construction, the date, and the deeds of important figures, while the north and south sides are decorated with lotus motifs. Xingxian Pagoda is an important part of the historical and cultural heritage of the region and possesses clear heritage value and academic significance [39].

Huilan Pagoda is located on the northern bank of the Great South River in Tazi Village, Baota Community, Linqiong Town, Qionglai City, Chengdu, and was formerly known as Zhenjiang Pagoda. It was first built in the forty-fourth year of the Wanli reign of the Ming dynasty (1616). It is a thirteen-story hexagonal brick-and-timber pavilion-style pagoda with a pointed roof, standing 75.48 meters high in total and with a base side length of 6.1 meters. In terms of architectural composition, the height and width of each story gradually decrease upward, with a very clear tapering transition, giving the whole structure a stepped profile with relatively straight lines. At the top of the pagoda body is a gourd-shaped finial composed of three circular and oval components of different sizes. As the tallest surviving ancient pagoda in Sichuan Province and the third tallest in the country, it has great value for heritage research because of its distinctive architectural style and profound historical-cultural significance [40].

[4].Current Evaluation and Problem Analysis

The protection status of the historical and cultural heritage of the Southwest Silk Road in the Qionglai area shows clear spatial differentiation, which may be broadly summarized as “strong protection in core zones, weaker protection along linear belts, and weak protection across the wider region.” Although major heritage nodes such as the Qiong kiln site and Pingle Ancient Town have already established relatively complete protection mechanisms, the ancient post roads connecting these key nodes and the subsidiary remains distributed among them remain under serious threat. In terms of natural factors, the humid and rainy climate of western Sichuan causes weathering of stone relics, while timber buildings urgently require repair because of aging. Geological disasters such as earthquakes and landslides have also damaged some sections, gradually eroding their original appearance. In terms of human factors, newly built structures introduced during the urbanization process often disrupt traditional layouts, thereby affecting the integrity of the original spatial pattern and the aesthetic coherence of the landscape. With the growth of tourism, commercialization has intensified, limiting the effectiveness of cultural communication and preventing a full interpretation of the significance of Silk Road trade networks and cultural integration. To overcome these problems, coordinated planning and scientifically effective restoration should be implemented so as to maximize the transmission and developmental use of heritage value.

4. Analysis of Representative Heritage in the Qionglai Section of the Southwest Silk Road

[1].Selection and Introduction of Representative Heritage

Following the historical trajectory of the Southwest Silk Road, the Qionglai region possesses abundant cultural heritage. Research on these remains shows that they held an important position within ancient trade networks. Although the traditional ancient routes have gradually disappeared, the commercial economy derived from them has continued and has gradually given rise to a distinctive cultural landscape in which material and intangible heritage coexist.

Papermaking and the bamboo-hemp work chant are among the most representative forms of heritage in Qionglai, and they also stand as emblematic expressions of local folk culture. Papermaking had already been invented in China by the early Western Han period. In the first year of Yuanxing under Emperor He of Han (105 CE), Cai Lun improved papermaking techniques. By the Tang dynasty, paper production had developed further. Oral tradition holds that papermaking had already appeared in Pingle during the Middle Tang period. At first, raw materials such as wheat straw, rice straw, and wild hemp were used, but later locally abundant ci bamboo and white bamboo became the main papermaking materials [41]. During the Two Song dynasties, Pingle profited greatly from bamboo paper, and many workshops equipped with steaming cauldrons and vats were established, allowing papermaking to reach a considerable scale. Historical records state that in the Song period “Pingle Town... had a prosperous market, with the paper market especially flourishing.” In the Ming dynasty, Pingle’s paper industry also remained well developed. During the Qing period, papermaking in Pingle experienced renewed prosperity and continued into the early and middle Republican era. As a renowned center of papermaking in western Shu, Pingle once had, according to field investigation and oral accounts, two to three hundred paper workshops at its peak, along with three to four hundred bamboo-hemp boiling cauldrons and six to seven hundred paper vats for sheet formation. These were mainly distributed across mountain areas, riverbank zones, and several ravines, such as Lugou, Zhaogou, Fangou, Jinjigou Yangwan, Maliuwan, Sunba, Guohetiao,

Liuhetiao, Quhetiao, Guantianchong, and Huaqiuyuan. According to the Republican-era Qionglai County Gazetteer, Qionglai produced varieties such as thin square paper, paired square paper, jintou paper, yuban paper, coarse paper, wrapping paper, large-sheet paper, and black-stock paper, which generally represent the main types of Qiong paper. Oral accounts also suggest that Pingle was already producing window paper, wrapping paper, and sacrificial paper during the Song dynasty. According to differences in production techniques and auxiliary materials, paper was further divided into cooked-stock paper and raw-stock paper. This includes forms such as sacrificial paper and huocao paper [42].

The Pingle bamboo-hemp work chant is an item of intangible cultural heritage in the Qionglai section of the Southwest Silk Road. Its deep value stems from the thousand-year prosperity of the bamboo industry in Pingle Ancient Town. It is a form that combines ancient bamboo-paper production techniques with the art of labor chants. It did not exist in isolation but formed part of a complete industrial-cultural system together with bamboo-hemp processing techniques, water transport on the Baimo River, and paper trade networks extending across Sichuan, Shaanxi, Gansu, Chongqing, and related Silk Road regions. In actual production, changes in the melody of the bamboo-hemp chant directly corresponded to key processes such as raw material treatment, manual pulp making, and Xuan-paper forming. Through vivid lyrics, it expressed the historical trajectory of paper trade in the Sichuan region along the Silk Road as well as details of everyday urban life and may thus be regarded as a “sound history” of ancient handicraft civilization. In geographical terms, the range of its circulation was closely linked to the geo-spatial structure of Pingle Ancient Town. Most papermaking workshops were built by the water, and the resonant, high-pitched singing spread with the flow of the river throughout the town. It merged with the sounds of wind in the sails at the wharf, the noise of passing boats, and the cries of the marketplace to create a distinctive soundscape combining water transport and land-based trade. This system strengthened local communal cultural identity and, through cross-regional commercial networks, helped spread Qionglai’s bamboo papermaking techniques outward, thereby promoting interaction, exchange, and integration among different ethnic cultures along the route. As the traditional bamboo paper industry gradually declined, however, the bamboo-hemp chant now faces the danger of having no successors. Its protection and development should not be limited to isolated performances of intangible heritage; rather, it should be integrated into the overall urban renewal planning of Pingle Ancient Town. Appropriate places such as heritage site clusters and riverfront leisure zones could be equipped with immersive sound devices or digital interactive facilities to recreate the historic atmosphere of “singing to aid labor,” thereby generating fresh momentum for the development of Silk Road cultural industries.

Qiong bamboo is one of the most distinctive ecological resources of the Qionglai section of the Southwest Silk Road. The realization of its value depended on the continuous evolution of three linked dimensions: resource endowment, industrial organization, and trade networks. Produced in the low hills and mountain forests of Qionglai, Qiong bamboo is characterized by sparse nodes, a moist texture, flexibility, and resistance to breakage. On the ancient Silk Road, it was used to make horsewhips, carrying frames, tools, and writing materials, and was exported through the “Shu–Shendu Road” to South Asian countries, thereby forming a cross-cultural exchange network centered on bamboo circulation. This process not only promoted the mutual transmission of technology and culture, but also further strengthened Qionglai’s role as an important distribution center of goods on the Silk Road. In terms of spatial pattern, the development of Qiong bamboo followed a basic model of mountain harvesting, hand processing, and water transport. This both conformed to local topographic conditions and relied on the advantages of river transport to promote the transformation of riverside settlements with resource advantages into important nodes of regional economic development [43].

Qiong liquor is one of the most historically and culturally valuable material carriers in the Qionglai section of the Southwest Silk Road. It has become a compound form of intangible cultural heritage integrating trade, cultural transmission, and emotional attachment, and has played an important role in driving Qionglai’s economic development [44]. Since the Han dynasty, the stable hydrological conditions and favorable ecological environment of the Nanhe and Qiongjiang river basins nurtured a distinctive solid-state fermentation technique based on “mature cellar mud,” producing high-quality liquor characterized by richness, sweetness, and a long aftertaste. Specialty products transported southward along the ancient Silk Road to Yunnan and Guizhou and northward to the Central Plains gradually became indispensable supplies for merchants and travelers, and later also became valuable gifts and tools of social exchange. The trajectory of Qiong liquor’s historical circulation vividly reflects the prosperity of trade along the ancient Silk Road and also reveals the rich cultural connotations of Qionglai as a place where “the fragrance of wine reached the thoroughfares.” The well-known story of Wenjun tending the wine shop endowed Wenjun liquor with intense emotional resonance and a clear cultural identity, further strengthening its role as a bond in Silk Road cultural exchange. It carried both travelers’ homesickness and the literary transmission of local culture across regions through poetry and prose. This interactive mechanism of “promoting trade through wine and enlivening culture through literature” made

Wenjun liquor an important link between past and present, and it still plays a significant role in the transmission and development of Qionglai's Silk Road cultural heritage [45].

[2].Historical Evolution and Cultural Connotations of the Heritage

The cultural heritage of the Qionglai section of the Southwest Silk Road takes papermaking, Qiong bamboo production, and the bamboo-hemp work chant as its main carriers, within which the internal logic of "resource exploitation–craft transmission–commercial interaction" can be clearly observed. Since the Han dynasty, abundant bamboo and timber resources together with high-quality water have fostered the technological and industrial development of papermaking and liquor brewing. In this context, processed bamboo materials and brewed products also became important trade goods along the Silk Road and played a major role in regional economic development [46]. These forms of intangible cultural heritage are not only crystallizations of the wisdom of agrarian civilization, but also important components of commercial culture. As a traditional labor song, the bamboo-hemp work chant reflects the socioeconomic activities and social atmosphere of its time through the emotional communication and cooperative awareness generated in collective production. Papermaking and brewing, by contrast, existed in more tangible form. In their processes of transmission, they promoted technological innovation and experiential exchange, and through commercial networks they strengthened cultural exchange and integration with surrounding ethnic groups. In this way, they highlight Qionglai's historical position as a cultural transfer station linking the Central Plains with the southwestern frontier.

[3].Current Protection Status and Challenges

At present, the protection of Silk Road-related heritage in the Qionglai section faces a dual dilemma at both the material and intangible levels. Although traditional paper made from paper mulberry bark has preserved the core procedures of ancient techniques, the native bamboo resources on which it depended have gradually decreased because of ecological change, and many production spaces now lie abandoned on the edges of mountain forests, facing the risks of natural damage and broken transmission. Qiong bamboo products have seen their market shrink under the impact of modern industrial materials, while traditional weaving techniques are gradually disappearing from everyday life because of a lack of systematic documentation and stable inheritor groups. As a labor chant, the bamboo-hemp work chant has completely lost the performance contexts that once sustained it with the disappearance of traditional bamboo-hemp water transport. Existing materials are mostly scattered recordings and cannot reconstruct its original artistic form. Although Qiong liquor brewing continues today, the traditional cellar environment has been affected by the expansion of modern production, and some old cellar mud microbial communities have shown signs of degradation [47]. Current protection efforts are constrained by insufficient special-purpose funding, making it difficult to fully implement digital archiving and ecological conservation. Together with low public awareness, these living heritage forms that carry memories of Silk Road commerce are now facing the dual challenge of natural erosion and rupture in human transmission.

[4].Protection Strategies and Recommendations

For the living protection of Silk Road cultural heritage in the Qionglai region, it is necessary to establish a multi-dimensional collaborative protection system covering both material and intangible cultural heritage [48]. Ecological conservation zones can be designated around the core areas of traditional papermaking, and vegetation restoration projects can be carried out to protect key species such as paper mulberry and ci bamboo, thereby securing a stable raw-material supply for traditional liquor brewing and related industries. The traditional musical elements of the bamboo-hemp work chant should be systematically collected, and technologies such as virtual reality (VR) and augmented reality (AR) can be used to recreate its historical environment. At the same time, dynamic databases can be established through digital modeling so as to promote the visualized transmission of culture [49]. Modern design concepts should be introduced into traditional crafts, and practical yet culturally meaningful bamboo-paper creative products should be developed in order to expand the commercial applications of intangible heritage. Public participation mechanisms should also be improved by organizing various cultural experience activities, thereby enhancing people's sense of identification with and belonging to local culture and fostering a healthy social atmosphere that values and supports heritage protection.

5. Practical Significance of the Historical and Cultural Heritage of the Qionglai Section of the Southwest Silk Road

[1].Significance for the Qionglai Region

The Qionglai section is an important node of historical and cultural heritage along the Southwest Silk Road. It possesses profound humanistic depth and has had a major influence on the social development of the region in which it is located. These cultural remains not only demonstrate Qionglai's core role in ancient

international trade and cultural exchange but also lay an important foundation for the creation of a modern urban cultural brand. By endowing historical figures such as Zhuo Wenjun with unique symbolic value and excavating the cultural significance of material heritage such as Linqiong Ancient City, it is possible to strengthen local cultural recognizability and improve its communicative impact. In terms of economic development, promoting the integrated development of culture and tourism through abundant and diverse heritage resources has already become another important pathway for rural revitalization. The innovative transformation of traditional handicrafts and the modern reconstruction of folk culture have opened up new points of economic growth, while also combining traditional cultural elements with modern design concepts to enhance the overall competitiveness of regional cultural industries. Through scientifically planned and continuously implemented protection measures, Qionglai is gradually shaping a cultural ecosystem in which antiquity and modernity coexist, strengthening citizens' sense of identification with and belonging to local culture and turning Silk Road heritage into a spiritual driving force for long-term socioeconomic development [50].

[2].Significance for Global Civilizational Exchange

The historical and cultural heritage of the Qionglai section of the Southwest Silk Road vividly reflects the characteristics of interregional civilizational interaction. It served not only as a major route of cultural exchange between East and West, but also as a frontier zone of mutual cultural learning. The cultural remains preserved in this region constitute a vivid record of the mutual contact, learning, and evolution between Central Plains civilization, southwestern ethnic groups, South Asia, and Southeast Asia since the Han and Tang dynasties, and they systematically illustrate the complex processes of technological transfer, artistic encounter, and ideological integration within trade activity. Representative phenomena such as the overseas export of Qiong kiln ceramics, the collective wisdom embodied in the bamboo-hemp work chant, and the dissemination of belief culture through religious sculpture together form a historical picture of multicultural mutual learning and shared prosperity. These remains not only provide important evidence for the study of early globalization but also deepen international academic understanding of the overall cultural value of the Silk Road. In the context of globalization, advocating a spirit of openness and inclusiveness carries strong practical significance, as it can effectively promote cross-cultural exchange and dialogue among civilizations. These heritage resources further highlight China's important role in global cultural interaction and also provide theoretical foundations and practical reference for the strategic vision of building a community with a shared future for humanity [51].

[3].Sustainable Utilization of Cultural Heritage

Relying on the cultural value embedded in the Qionglai section of the Southwest Silk Road, it is possible to establish a pathway that advances both heritage protection and socioeconomic development. After systematically sorting and integrating the material remains within Qionglai—such as ancient post-road traces, kiln-group sites, and cliff inscriptions—together with intangible cultural heritage including traditional handicrafts and folk festival customs, these resources can be transformed into a regional cultural industry with distinctive local characteristics. In the broader context of culture–tourism integration, the cultural connotations of the Silk Road spirit should be deeply explored, and overly commercialized or overly conceptualized development models should be avoided. For example, immersive experience projects based on Qiong kiln ceramic techniques and the folk customs of Pingle Ancient Town could allow visitors to genuinely perceive the historical and humanistic depth contained in these traditions. Paths should also be explored for the integrated development of cultural heritage and modern creative industries by incorporating traditional motifs and classic patterns into contemporary product design and developing culturally derived products with clear regional identity, thereby enabling traditional culture to regain vitality in a new era. Digital information technology can be used to establish a complete heritage database, while virtual reality technology can recreate ancient trade scenes and thus broaden the scope of cultural dissemination. Throughout this process, the principle of giving priority to ecological protection must be maintained, and a sound dynamic monitoring mechanism should be established to prevent tourism development and commercial activity from causing irreversible damage to the heritage body itself and its surrounding ecological environment. In this way, the historical memory, aesthetic value, and social responsibility carried by cultural heritage can be fully preserved, providing strong cultural support for sustainable regional economic and social development.

6. Conclusion

[1].Research Summary

This paper focuses on the historical and cultural heritage of the Qionglai section of the Southwest Silk Road. By combining documentary review and field investigation, it analyzes the major role this section played in ancient cultural exchange and the cultural meanings it contains. The study shows that this region, relying on abundant material carriers such as archaeological remains, historic building complexes, and cliff inscriptions,

displayed a strong transport-network function. It promoted trade, facilitated the dissemination of ideas and culture, and played an integrative role in ethnic and social interaction. Analysis of representative sites further demonstrates that the Qionglai section was a strategic node within the overall structure of the Southwest Silk Road, and that its unique cultural value stands out among the various nodes along the route. At present, however, regional heritage protection still faces many problems, including damage caused by natural disasters, destruction resulting from human activities, and the impact of changing traditional ways of life during urbanization. In response, this study proposes a comprehensive strategic framework combining ecological protection and sustainable development so as to achieve the long-term preservation, development, and utilization of cultural heritage. These findings deepen understanding of the trajectory of civilizational evolution along the Southwest Silk Road and provide empirical support and technical assistance for local governments in formulating scientific heritage management policies. As one of the important nodes linking the inland heartland with the southwestern frontier during the Han and Tang dynasties, the Qionglai section vividly presents the historical process through which diverse cultures interacted and integrated, thus offering an important theoretical reference for the study of the pathways of human civilizational development.

[2].Research Limitations

Although this study provides a preliminary organization and value assessment of the historical and cultural heritage of the Qionglai section of the Southwest Silk Road, several limitations remain. Because ancient documentary records are often incomplete and sometimes contradictory in their descriptions, the exact routes and core node locations of important ancient roads still require further verification, which affects the accuracy of route reconstruction. Constrained by the complexity of the natural environment and by cultural relic protection policies, it has not been possible to conduct field investigation across the entire region, and important sites in remote areas have sometimes been inaccessible, resulting in a degree of incompleteness in the field data obtained. In terms of heritage value evaluation, existing studies still largely rely on experience-based judgments and lack quantified standards, which weakens the scientific rigor and reliability of heritage assessment. Research on intangible cultural heritage also faces problems such as the uncertain authenticity of oral histories and changes in inheritor groups, leading to fragmented living cultural memory and preventing the formation of a systematic theoretical framework. These limitations not only reduce the practical validity of the research findings, but also leave considerable room for deeper future studies.

[3].Future Prospects

Although this paper has made a preliminary attempt to identify the internal mechanisms of cultural development along the Southwest Silk Road, these findings still need to be further tested and refined through both longitudinal extension and horizontal expansion. It is recommended that the research perspective be broadened from the Qionglai region to the entire economic belt of the Southwest Silk Road, using multi-level spatial comparative analysis to uncover the special significance and important role of the Qionglai section within the broader historical trajectory. In terms of methodology, it is necessary to move beyond the limits of a single discipline and establish mechanisms for multidisciplinary collaboration that integrate history, archaeology, sociology, and digital humanities technologies, thereby constructing a more complete system for heritage evaluation and protection. At the same time, greater emphasis should be placed on establishing dynamic monitoring and early-warning systems, carrying out routine investigation into changes affecting both the heritage body and the surrounding ecological environment, and ensuring that intangible cultural heritage can be transmitted and developed in a scientific and effective way. These suggestions can not only deepen understanding of the Southwest Silk Road itself, but also provide practical reference for other studies of cross-regional historical and cultural heritage.

References

- [1]. Duan Yu. Early Foreign Transportation in Southwest China — The Southern Silk Road during the Pre-Qin and Han Dynasties [J]. *Historical Research*, 2009 (1):4-23.
- [2]. Fang Tie. A Brief Discussion on the Southwest Silk Road [J]. *Journal of Chang'an University (Social Sciences Edition)*, 2015,17(3):114-120.
- [3]. Huang Guangcheng. The Southwest Silk Road was a multi-dimensional transportation network [J]. *China Frontier History and Geography Research*, 2002 (4):63-68.
- [4]. Zhang Bo, Cheng Wei. Protection of Intangible Cultural Heritage from the Perspective of Cultural Tourism[J]. *Human Geography*, 2008,23(1):74-79.
- [5]. Duan Yu. Ancient Bashu Civilization and the Southern Silk Road [J]. *Proceedings of the Academic Symposium on "Dialogue between the Silk Road and Civilization" in Sichuan*. Beijing: China Academic Journal Electronic Publishing House, 2006.

- [6]. Elias H. The Southwest Silk Road: artistic exchange and transmission in early China[J]. *Bulletin of the School of Oriental and African Studies*, 2024, 87(2): 319-344.
- [7]. Kan Aike, Xiang Qing, Yang Xiao, et al. Impact of geographical environment on the distribution of ancient villages and towns along the Sichuan section of the Southern Silk Road [J]. *Mountain Research* (10082786),2022,40(6).
- [8]. Yang Yiming. Research on Innovative Development Pathways of "Intangible Cultural Heritage" for Qian Kiln Ceramics [C]//*Bulletin of Asian Design Culture Society: International Symposium of Asian Design Culture Society*. [Chiba]: Asia TeSign Cultural Society, 2023,17(2):171-178.
- [9]. Wang Lu, Sun Feng, Wang Ruosu, et al. Analysis and Research on Colored Pigments in the Cliff Carvings of Qionglai Grottoes [J]. *Spectroscopy and Spectral Analysis*, 2022,42(10):3198-3202.
- [10]. Lu Manxi, Li Jia. Investigation on the Development of Porcelain Body Bamboo Weaving Techniques in Chengdu, Sichuan [J]. *World Bamboo and Rattan Communications*, 2024,22(4):108-112.
- [11]. Wang Xiaodun. The Academic Significance of Research on "Bamboo Hemp Work Songs" from Qionglai [J]. *Journal of Sichuan Normal University: Social Sciences Edition*, 2014,41(3):159-165.
- [12]. Xu Xin, Zhou Fanqi, Ru Feng, et al. Digital Protection Research on Intangible Cultural Heritage of Ancient Silk Road Post Stations [J]. *Journal of Chang'an University (Social Sciences Edition)*, 2025,27(3).
- [13]. Jiang P. From Huguang to Bashu: Types and Characteristics of Vernacular Courtyard Houses in the Bashu Region from the Perspective of Migration[J]. *JIANZHU YICHAN*, 2022, 25(2022-01): 13-29.
- [14]. Chen Na, Liu Wendan, Zhou Zeyu. Interpretation of Historical and Cultural Heritage Value and Prospects for Protection and Inheritance of the Yunnan-Tibet Tea-Horse Ancient Road[J]. *Agricultural Archaeology*, 2025(5).
- [15]. Gu Yuanzhong. A Study on Ancient City District Monuments in Qionglai [J]. *Chengdu Cultural Relics*, 2007(2):39-47.
- [16]. Huang Xiujuan, Ran Jiawei. Practical exploration on promoting ethnic interaction, exchange, and integration based on China's excellent traditional culture [J]. *Chinese Traditional Culture*, 2025,13:683.
- [17]. Xie Jing. Research on Cultural Value and International Communication Strategies of the Southern Silk Road (Sichuan Section) [J]. *International Economy and Development*, 2025,3(5):1-3.
- [18]. Chen Jiamai. Han Fengliu Bei: New Discourses on the Silk Road – Field Investigation of the Ya'an Section of the Southern Silk Road in Sichuan Province [J]. *Chinese Culture Forum*, 2017,3.
- [19]. Du Yunhong. The Transformation and Conservation of the Southern Silk Road [J]. *Cultural Heritage*, 2015(2):148-156.
- [20]. Dan Jixiang. Protecting the Ancient Thousand-Year-Old Road and Inheriting Chinese Civilization [J]. *Sichuan Cultural Relics*, 2012(1):66-73.
- [21]. Hu Lijia. The First Bridge in Southern Sichuan [J]. *Chengdu Cultural Relics*, 2004(4):23-27.
- [22]. Oriental Mary. Pingluo Ancient Town [J]. *Sichuan Literature*, 2014 (3Z): 65-65.
- [23]. Duan Yu, Liu Yumao. "The Shu Poisonous Daoist Sect II: The First Prefecture from the South of Tianfu—Qionglai [J]. *Tianfu New Studies*, 2016(2).
- [24]. Gu Yuanzhong. A Study on Ancient City Districts and Monuments in Qionglai (Continued) [J]. *Chengdu Cultural Relics*, 2007(3):25-35.
- [25]. Hu Lijia, Zhi Xiuping. A Brief Analysis of Han Dynasty Portrait Brick Art Unearthed in Qionglai [J]. *Chengdu Cultural Relics*, 2008(2):25-29.
- [26]. Shao Yifei. The Southern Song Dynasty Stone Pagoda at Dabeisi Temple in Qianlai [J]. *Chinese Cultural Pictorial*, 2012(9):82-85.
- [27]. Peng Bangben. Development of Water Conservancy and Agriculture in Shu Region During the Qin Dynasty's Governance of Shu [J]. *Journal of Xihua University (Philosophy and Social Sciences Edition)*, 2012, 31(1):22-28.
- [28]. Dai Tangcai, Li Xucheng, Li Sheng, et al. Brief Report on Survey and Trial Excavation of the Iron Smelting Site in Pingle Town, Qiaolai City [J]. *Sichuan Cultural Relics*, 2008(1):16-16.
- [29]. Huang Xiaofeng. Architecture and kiln remains of Kiln Package No.5 at the Shifangtang Kiln Site in Qionglai [J]. *Jiangnan Archaeology*, 2012(4):35-45.
- [30]. Jiang Liu. Research on Cultural and Creative Design Applications Based on the Flower Mouth Form of Qiong Kiln [J]. *ART AND DESIGN*, 2022,1(5):16-18.
- [31]. Hu Lijia. A Study on the Ancient Linqiong Fire Well and Salt Well Ruins [J]. *Chengdu Cultural Relics*, 2002(4):19-25.
- [32]. Zhang Yu, Shen Zhongwei. Converging in Sichuan: The Academic Historical Context of Folk Housing

- Research at Southwest Jiaotong University [J]. *New Architecture*, 2024(5).
- [33]. Li Changchun. Investigation of Wooden Structure Residential Buildings and Architectural Construction Research in Western Sichuan [D]. Xi'an University of Architecture and Technology, 2016.
- [34]. Li Jiade. Study on the 窖藏 phenomenon of Buddhist gold and bronze statues during the Northern Dynasties, Sui, and Tang periods [J]. *Journal of Southwest University (Social Sciences Edition)*, 2025, 51(4):312-324.
- [35]. Tang Hong, Zhang Yipin. A Study on the Transformation of "The Hermitage for Reading" in Chang'an Village, Helin Temple [J]. *Journal of Sichuan Normal University (Social Sciences Edition)*, 2023, 50(6)
- [36]. Sun Mingli. Analysis of "Record of the Newly Constructed Stone Buddha Statues of Infinite Numbers at Huazhi Temple in Qiongxian County, Jiading Prefecture, Tang Dynasty" [J]. *Huolin International Journal of Buddhist Studies*, 2024, 7(1):140-250.
- [37]. Su Tao, Lu Qi. Artistic Analysis of Landscape Design in Wenjun Well [J]. *Urban Architecture*, 2019.
- [38]. Zhou Lingli, Zhang Xianjin. Interpretation of Architectural Art in Xingxian Pagoda Character Library [J]. *Central China Architecture*, 2011, 29(6):167-170.
- [39]. Luo Qinan. Qianlai Huilan Literary Style Tower [J]. *Sichuan Cultural Relics*, 1994(3):71-73.
- [40]. Wang Guiheng, Ye Xinzhen. The papermaking industry in developing Qionglai [J]. *Paper and Papermaking*, 1988, 2.
- [41]. Liu Yishan, Zhu Yousheng, Zhang Junmiao, et al. Origin, Development and Current Status of Bamboo Papermaking in China [J]. *China Pulp & Paper*, 2022(8).
- [42]. Tu Xinrui, Zhao Wenjuan, Chen Hong, et al. Traditional bamboo crafts in China's intangible cultural heritage [J]. *World Bamboo and Rattan Communications*, 2024, 22(4):97-103.
- [43]. Lin Feng. Qionglai: The Prosperous and Wealthy First City of the Silk Road [J]. *Sichuan Provincial Conditions*, 2013(4):36-37.
- [44]. Chen Chen. Wenjun Wine — A Land of Grace and Legend [J]. *China Western*, 2012 (16):92-95.
- [45]. Ma Xiaofen. Ethnic Interaction, Exchange, and Integration in Eastern Yunnan from the Pre-Qin Period to the Northern and Southern Dynasties [J]. *Journal of Qujing Normal University*, 2024, 43(4):67.
- [46]. Zheng Wei. Current Status and Countermeasures for the Protection and Inheritance of Intangible Cultural Heritage of Sichuan Liquor [J]. *China Brewing*, 2023, 42(9):379.
- [47]. Song Junhua, Wang Hui. Standardization and Innovation in Intangible Cultural Heritage Protection [J]. *Ethnic Art Research*, 2023, 36(5):90-98.
- [48]. Chen Qiaofei, Zhou Haomin, Xu Xin. Research on Digital Intelligence Empowerment for Cultural Heritage Protection and Inheritance: A Case Study of International Communication of China's Tea Culture Intangible Cultural Heritage [J]. *Journal of Library & Information Science in Agriculture*, 2024, 36(6).
- [49]. Zhang Hua, Chen Xiang, Wang Yingqi. Research on the Transformation Mechanism and Implementation Path of Contemporary Value of Dujiangyan Living Heritage Cultural Resources [J]. *Journal of Xihua University (Philosophy and Social Sciences Edition)*, 2026, 45(2):54-63.
- [50]. Liu Zongling, Sudan. The Value, Challenges, and Pathways of Cultural Heritage Protection and Inheritance in the Process of Chinese Modernization [J]. *Journal of Chengdu University of Technology (Social Sciences Edition)*, 2026, 34(1):1-13.
- [51]. Deng Yaru, Ma Qingyun, Zhang Yunyao. Fragmented Development to Holistic Utilization: Protection and Revitalization of the Cultural Heritage Corridor along the Ancient Chengdu-Chongqing Road [J]. *Journal of Neijiang Normal University*, 2026, 41(2):102-110.

Author Profile

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