

Exploration of Traditional Village Cultural Landscapes along the Ancient Salt Road in Enshi City

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Abstract As an important salt transportation channel in history, the Ancient Salt Road of Sichuan connects the economic and cultural ties of Southwest China, and the traditional villages and cultural heritage along the route have important historical and cultural value. As an important node on the Ancient Salt Road of Sichuan, Enshi City is home to many well-preserved traditional villages, which not only carry rich cultural memories of salt transportation, but also show unique architectural features, folk traditions and ecological wisdom, constituting a special cultural landscape. This paper analyzed the spatial pattern, architectural characteristics and intangible cultural heritage of traditional villages in Enshi City, and discussed the cultural landscape value and protection strategies under the influence of the Ancient Salt Road of Sichuan, aiming to provide a reference for the sustainable use of regional cultural heritage and rural revitalization.

Keywords Ancient Salt Road of Sichuan, Traditional villages, Cultural landscapes, Tujia stilt houses, Heritage conservation

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Traditional Chinese villages, also known as ancient villages, mainly refer to villages established before the Republic of China period^[1]. These villages carry a profound historical heritage and unique cultural features, and their architectural style, settlement layout and geographical location are basically unchanged, reflecting distinctive local characteristics and folk customs. As an important relic of Chinese farming culture, these villages still play a residential function after the vicissitudes of time, and have great significance in academic research and social and economic development.

With the advancement of urbanization and rural construction, the original living customs, industrial forms, social structure and spatial pattern of traditional villages are gradually undergoing modern transformation.

The Ancient Salt Road of Sichuan, as an important transportation corridor for salt trade in the Southwest China, historically served as a vital route for the salt trade from Sichuan into Hubei and Hunan. The traditional villages along this route bear unique cultural landscapes and historical memories. Enshi City is located in the core area of the Ancient Salt Road and is a place where multiple ethnic groups, including the Tujia and Miao, live together. The cultural landscapes of local villages integrate salt trade, ethnic traditions, and ecological wisdom. With the acceleration of modernization, these villages have encountered issues such as the loss of cultural heritage and spatial decline. Therefore, studying the characteristics of their cultural landscapes and the paths for their protection

holds both theoretical and practical value.

1 Research objectives and methods

This paper took typical villages in Enshi City as the research object and revealed the impact mechanism of the Ancient Salt Road of Sichuan on the cultural landscape of villages through field investigations, historic document analysis, and case comparisons, while proposing protection strategies.

1.1 The cultural road of salt and the living heritage of villages

In order to perpetuate the historical and cultural context of the villages along the ancient salt route, the research focused on examining the unique cultural forms arising from salt trade. By analyzing the “salt carriers” culture and the mule and horse station system, which are both heritages of the salt route, this paper aimed to reconstruct a cultural identity system centered on salt transportation. In conjunction with the cultural characteristics of ethnic minorities in southwestern Hubei, a cultural symbiosis model of “salt route-village” would be established, allowing traditional residences and ancient path sites to regain their historical functions, thereby promoting the innovative inheritance and sustainable development of salt route culture.

1.2 Identification of landscape genetic traits in the Salt Road Villages

Based on the uniqueness of the salt transport network, a landscape gene bank would be established for the villages along the route. Utilizing technologies such as 3D scanning and

aerial mapping, this paper focused on recording landscape elements related to salt transport: ancient transport paths, salt storage buildings, and resting pavilions. From the integrated perspective of “transportation-residence-trade,” this study analyzed the spatial organization logic of salt transport villages, created a landscape gene map reflecting the characteristics of the salt industry economy, and revealed the settlement evolution rules of “villages formed by salt”.

1.3 The cultural landscape protection system of the Salt Roads

Grounded in the linear characteristics of salt road culture, a multi-tiered protection framework of “point-line-surface” was constructed. Point: key protection of node buildings such as salt warehouses and relay stations; line: restoration of ancient road routes and the landscapes along them; surface: integration of the overall appearance of villages. By employing the approach of ‘cultural genes and digital technology’, the techniques associated with salt roads (such as salt bag weaving and transport songs) were dynamically recorded, establishing a cultural database for salt roads that encompassed both material and immaterial elements, thus providing a new model for the protection of linear cultural heritage.

2 The historical context of the ancient salt road and the geographical features of Enshi Section

2.1 The rise of salt industry trade and the ancient road

The Ancient Salt Road of Sichuan was an

important commercial transportation network that emerged during the Ming and Qing dynasties due to the salt monopoly policy known as the “Salt License System”. It primarily served the function of transporting salt from salt-producing areas such as Zigong and Yunyang in Sichuan to consumer regions in Hubei and Hunan. Especially during the Qing Dynasty’s special period of “Sichuan Salt Supporting Chu”, this trade route developed into a major economic artery connecting the southwestern region, ensuring a stable supply of salt and promoting economic prosperity and population concentration in the towns and settlements along its path.

2.2 The distribution and functions of the ancient road network

As a historical trade artery, the Sichuan-Hubei Ancient Road mainly included 2 trunk lines: the “Sichuan-Hubei Line” (connecting Sichuan and Hubei) and the “Sichuan-Hunan Line” (connecting Sichuan and Hunan), of which Enshi area was at the key hub of the Sichuan-Hubei Line (Fig.1). This commercial artery not only undertook the important task

of transporting salt, but also promoted the circulation of tea, medicinal materials, textiles and other commodities, and at the same time became an important link between population flow and cultural integration.

In the western Hubei section of the Wuling Mountains, the salt channel network presented a spatial pattern of “four horizontal and one vertical”^[3]. The 4 horizontal waterways from north to south were: Hanshui waterway, Yangtze River waterway, Qingjiang waterway and Youshui channel, which were basically consistent with the trend of the western Hubei mountain system. The vertical land route connected the river wharves to form a combined water and land transportation system. “Four horizontal and one vertical” jointly built a complete salt transportation network in western Hubei region.

It was particularly noteworthy that the Sichuan-Hubei Ancient Road formed an intersection node in Enshi City, and its water and land transportation network ran through the city’s east, west, north and south, organically connecting the traditional villages scattered all over the place, making the area a cultural corridor

with important historical value. This unique traffic pattern not only promoted the circulation of materials, but also shaped the unique cultural landscape of the Enshi area.

2.3 The culture of the Three Horse-pulling Caravans and the memories of the salt routes

The salt transportation primarily relied on human porters known as “salt bearers” and mule-drawn transport, which gave rise to a unique mule caravan culture, exemplified by the remains of mule stations preserved in Yumu Village of Lichuan. Along the salt routes, a rich oral history has been passed down, including tales of salt merchants and transportation chants, which has become an important intangible cultural heritage.

2.4 The special position of the Enshi Section in the Ancient Salt Route of Sichuan

The transportation system of the ancient salt route in Chuan relied mainly on 2 traditional methods: one is a specialized group of porters known as “salt bearers”, and the other is an organized mule and horse caravan. This unique transportation mode has nurtured a distinctive culture of muleteers, and well-preserved remnants of ancient mule stations can still be seen in places like Yumu Zhai in Lichuan. These historic relics vividly showcase the thriving salt transportation that once flourished. Even more precious is the vast amount of vibrant folk memories preserved along the salt route.

3 The composition and characteristics of traditional village cultural landscapes

3.1 Research subjects

Enshi City is a famous historic and cultural city in Hubei Province, an excellent tourist city in China, one of the first batch of national all-for-one tourism demonstration areas, a revolutionary cultural relics protection and utilization area, the most beautiful county in China, and a comprehensive demonstration county for e-commerce in rural areas. Traditional villages with in-situ ecology of mountains and rivers are widely distributed in Enshi Prefecture^[4]. There are 92 traditional villages in Enshi Prefecture, Hubei Province, and the most representative is the Ganlan-style stilted building in terms of material cultural heritage, which has formed a cultural landmark and cultural landscape with the characteristics of Tumiao style, and has been praised as the “living fossil” of Bachu architecture and culture and “the wonder of Chinese national architecture” by the famous

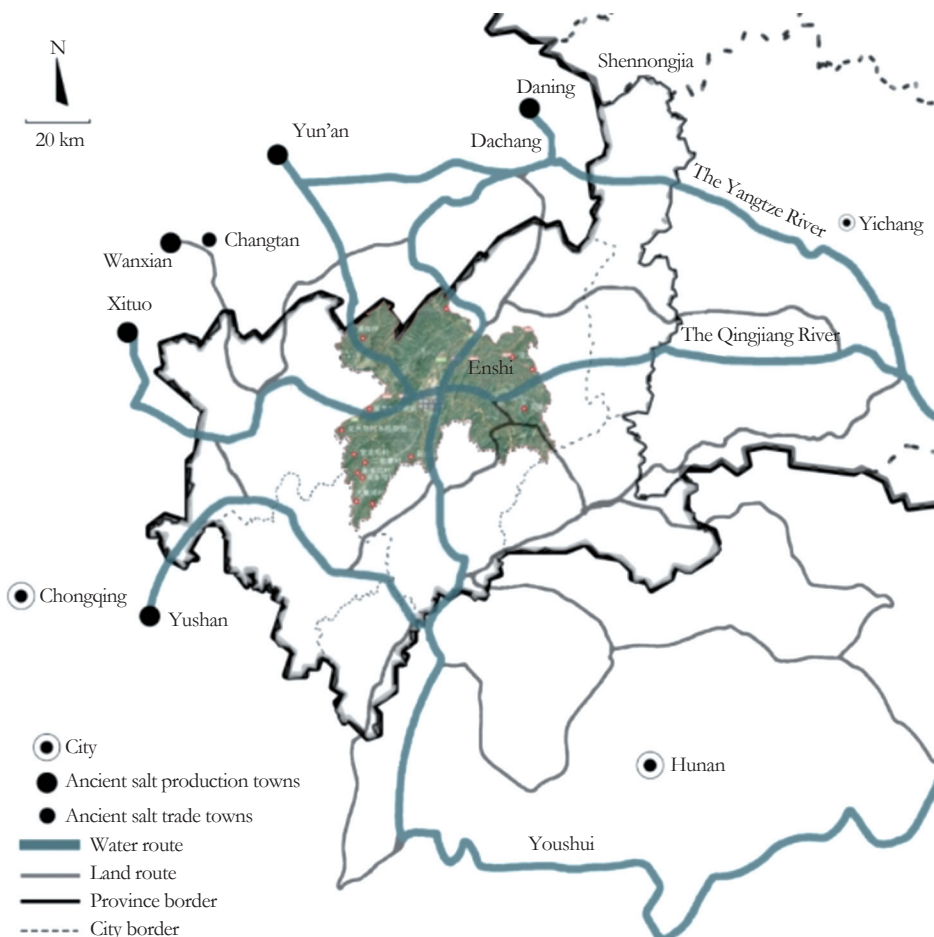


Fig.1 Part of the Sichuan-Hubei Ancient Road Map

scholar Mr. Zhang Lianggao.

3.2 Cultural landscape of traditional villages

As one of the core theoretical frameworks of human geography, the concept of cultural landscape originated in the field of cultural geography, and its classic definition was established by the German geographer Carl Sauer in *The Form of Landscape* (1925), which referred to “the spatial complex formed by the transformation of human culture from the natural base”. This concept emphasized the diachronic process of human-land interaction—taking the natural background as the material carrier and cultural practice as the driving force, and finally forming a spatial representation with regional identity.

As a subcategory of cultural landscape, the cultural landscape of traditional villages condensed the adaptive wisdom and cultural genes of the rural society, and its value dimensions were reflected in: the duality of composition, the coupling of natural ecosystems (topography/hydrology/vegetation) and human systems (settlements/industries/beliefs); morphological stratification: the spatiotemporal overprinting of material heritage (architecture/farmland/water conservancy) and intangible heritage (craftsmanship/festival/oral history); the function of civilization carrier: the spatial paradigm of the philosophy of “harmony between man and nature” in Chinese agricultural civilization, such as the four-degree symbiotic structure of “forest-village-terrace-water system” in Hani Terraces in Yunnan.

4 The pluralistic value and protection of cultural landscapes

4.1 Historical value

The salt road witnessed the history of salt trade and multi-ethnic exchanges, such as the ancient salt road in Xiaoxi Village, Shengjiaba Township. As a relatively well-preserved Tujia village in Enshi area, Xiaoxi Village is an important case study of Tujia history, social structure and cultural changes, and its value is no less than that of well-known ancient villages in western Hubei such as Yumu Village, Tangya Tusi City.

4.2 Ecological value

The stilted houses are unique ethnic architecture formed by the Tujia people in their distinct living environment^[6]. The buildings of Xiaoxi Village are mainly Tujia traditional stilted buildings, built against the mountain, using wooden structure, which has the functions of moisture-proof and earthquake-resistant. These

buildings reflect not only the wisdom of the Tujia people, but also the adaptability to the natural environment, and are important samples for the study of ethnic minority architecture in Southwest China.

4.3 Tujia folk culture

Xiaoxi Village retains a wealth of Tujia folk customs, such as hand-waving dances, weeping wedding songs, and puppet operas^[7], which are not only a living presentation of Tujia culture, but also provide valuable materials for the study of ethnic minority arts and rituals. The traditional skills of Xiaoxi Village, such as terraced farming and handmade papermaking, reflect the survival wisdom of the Tujia people and nature in harmony, and are living fossils for the study of agricultural civilization.

5 Protection and revitalization strategies

5.1 Integration of holistic protection and culture and tourism

The remains of the ancient road buildings could be restored. The restoration concept of “light intervention” could be adopted, focusing on the protection of historic buildings related to salt transportation. For example, Erguanzhai Village implemented the restoration strategy of “repairing the old with the old” for the ancient salt warehouse, and retained its historical features as a salt road node. At the same time, the transportation facilities such as the ancient road and the resting pavilion were repaired, and the transportation scene of the “saltback” porter was reproduced (Fig.2).

Intangible cultural heritage of salt road should be inherited in a living way. The Salt Road Culture Transmission Institute could be established to focus on the protection of: salt transportation related skills (salt bag preparation, mule and horse domestication); ethnic crafts along the route (salt road patterns in the Xilankapu brocade); transport folklore (transport trumpets, salt merchant stories). Moreover, through the activity of “intangible cultural heritage into the campus”, the salt culture was incorporated into the local curriculum system.

Cultural branding of ancient salt road could be built, for example, creating the cultural IP of “Ancient Salt Road of Sichuan”, such as Pengjiazhai relied on the history of the Ancient Salt Road to deepen the connotation of “Tujia Pan Museum”^[8]; developing the “re-taking the salt road” research route; restoring traditional salt transportation scene experience project; launching characteristic cultural and creative products of the Ancient Salt Road (Fig.3).

Community participation mechanisms could be innovated, for example, by implementing the “Salt Road Guardian” system, learning from the “moral bank” model of Erguanzhai Village; setting up points for the protection of salt road culture; cultivating villagers’ awareness of self-protection; establishing a tripartite cooperation mechanism of “government, experts, and villagers”.

5.2 Digitalization and innovation communication

Based on virtual reality technology, a “digital ancient road” cultural display system was created to realize the immersive restoration of historical scenes. Through 3D modeling and interactive design, users could immerse themselves in the grand occasion of ancient commerce and trade. At the same time, with the help of new media platforms, folk culture was disseminated, such as planning “intangible cultural heritage performances” on short video platforms, and systematically displaying intangible cultural heritage such as traditional dances.

Based on the perspective of the cultural route of the Ancient Salt Road of Sichuan, this paper conducted an in-depth analysis of the modern transformation of traditional settlements along the route^[9]. The concept of “livable river valley” proposed by Zhang Lianggao in *Seven Sayings of Craftsmanship* has been vividly interpreted in the creek villages along the Ancient Salt Road. The spatial layout of these settlements that thrives on salt transportation fully reflected the characteristics of salt road culture.

The cultural characteristics of the salt road were formed in the transformation of settlements. Ecological wisdom, the villages distributed along the ancient road mostly followed the site selection principle of “back to the mountains and facing the water”, which is not only convenient for salt transportation, but also conducive to farming. The production system retained the traditional handicrafts related to salt transportation, such as the making of mule and horse utensils and the construction of salt warehouses; spatial organization: a linear spatial sequence of “ancient roads-shops-houses” was formed, and the public spaces were mostly distributed along the salt road.

Conservation strategies in modern transformation in Pengjiazhai and other villages could be borrowed, the new building adopted the design language of “Tujia style salt road elements”; the function was revitalized, the abandoned salt warehouse was transformed into a cultural exhibition space, and the ancient road was transformed into a research trail;

industrial upgrading was promoted through the development of “salt road” characteristic industries, such as salt transportation cultural experience, traditional handicraft revival.

5.2.1 Digital display. The combination of 3D modeling technology and AR (Augmented Reality Technology) can bring users a better viewing perspective and interactive experience. Firstly, the 3D modeling software 3D MAX AND MAYA were used to complete the digital restoration and modeling tasks of architectural decorative components and decorative patterns, and the digital animation of the overall layout of the village was made^[10]. Augmented reality has the characteristics of combining virtual and real and real-time interaction, and uses the integration and interaction of virtual and reality, and the interaction between users and

virtual information to expand the field of time and space, and makes the display of historical information more flexible and complete. Architecture, historical and cultural connotations and aesthetic connotations also need to be professionally explained. Archiving of salt road heritage: 3D laser scanning technology was used to accurately record ancient roads, salt warehouses and other relics^[11]. Cultural display innovation: develop an AR navigation system to reproduce the “saltback” transportation scene. Communication channels could be expanded by establishing a “digital salt road” platform to integrate the cultural resources of villages along the route. Technical standards could be formulated, according to the characteristics of the salt road heritage, through establishing special digital work specifications.

5.2.2 Digital Translation. A digital cultural and creative product system with the theme of Ancient Salt Road could be constructed: making a series of digital collections of “Legend of Salt Transportation”, developing “Salt Back” character figures, making 3D models of mule and horse caravans, and designing digital postcards of ancient road stations. “Re-visiting the Salt Road” interactive game could be made: developing AR real-life puzzle games, making salt road trade card battles, designing online “Salt Merchant Road” role-playing, and immersive digital cultural experience. “Digital Salt Road” micro-film series could be produced, such as documentary short film *A Day in the Salt Back*, animated story *Ancient Road Business Travel*, and suspense plot *Salt Warehouse Code*. Multimedia guide system could be established, for example, WeChat mini-program “Exploration of Salt Road”, AR real-world navigation “Salt Search”, VR experience “Crossing Salt Road”, to enhance digital communication and participation. A “Salt Road on the Cloud” platform could be built to integrate the digital resources of villages along the route, open an online salt road culture lecture hall, develop a digital cultural and creative mall. The participation mechanism could be innovated, such as the “Digital Salt Road Guardian” plan, and online restoration crowdfunding projects. Cultural protection points could be exchanged, for instance, Lichuan Yumu Village launched the “Salt Mule and Horse” AR interaction, Enstunburg developed the “Salt Road Secret File” puzzle game, and Jianshi Guandian launched the “Salt Warehouse Defense” mobile game.

The digital development model with Salt Road culture as the core not only retained the essence of traditional culture, but also improved the experience and communication power through modern scientific and technological means, providing new ideas for the sustainable development of villages along the ancient Salt Road. Through the return of digital products, a virtuous circle of cultural protection and economic development has been formed.

6 Conclusions and prospects

The cultural landscape of the traditional villages of the Ancient Salt Road of Sichuan is the product of the co-evolution of nature, history and humanity, and its protection needs to take into account the integrity of material relics and intangible culture. In the future, more efforts should be devoted to explore the multi-party cooperation model of “government-scholars-

(To be continued in P43)



Fig.2 The ancient salt road of Xiaoxi Village



Fig.3 The landscape of Xiaoxi Village

Canal Museum, Three Temples and One Pagoda), and cultural interpretation that, while showing the smallest gap compared to the Beijing section, remains insufficient for most spaces beyond the museum, lacking digital interpretation systems and interactive experiences found in spaces like Kunming Lake, the Palace Museum, or Yuyuantan. Although the Tongzhou core section has high-value individual sites, the loss of clusters of heritage and fragmented interpretation systems result in an overall heritage value demonstration level lower than the Beijing section, indicating significant room for improvement in future development.

4.2 Improvement suggestions for heritage spaces in the Tongzhou Core Section

For lost heritage sites, existing technology and historical records could be used to create models of the relevant ruins, install basic explanation boards, or erect stelae with historical background information. This would allow visitors to understand the canal's legacy beyond mere imagination, enhancing overall heritage integrity and spatial information readability. For spaces with poor cultural interpretation, key nodes could establish public leisure spaces like

“Grain Transport Relay Stations” offering rest, stamping activities, and digital interactive devices, creating a gamified check-in experience. Relevant authorities could launch a “Canal Tour” mini-program containing interpretive information and cultural guide maps for all heritage spaces in Tongzhou District, allowing users to access specific explanations for each site directly within the program. QR codes could be placed at various heritage spaces providing access to AR digital reconstruction models and interpretive information upon scanning, establishing a highly interconnected guide system.

5 Conclusion

The Grand Canal is a treasure of Chinese civilization. The heritage spaces along its banks connect history and reality, serving as core carriers for showcasing canal culture and continuing the city's cultural lineage. Through systematic planning and precise measures, enhancing performance across all dimensions can allow the Tongzhou section's heritage spaces to shine with unique brilliance within Grand Canal cultural transmission. May the canal culture endure and thrive through the long river of time.

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villagers-enterprises”, to promote the creative transformation of cultural heritage, and boost rural revitalization and cultural self-confidence.

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