

Research on the Discovery and Inheritance of the Cultural Genes of Traditional Villages along the Guangxi Xiaohu Ancient Route

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Abstract: The Guangxi Xiaohu Ancient Route, as a vital connecting channel in the ancient Silk Road across land and sea, has been rated as one of the ancient paths in China with tourism value and cultural connotation, worthy of global recommendation. However, the traditional village culture of the Guangxi Xiaohu Ancient Route is generally facing development dilemmas, which severely obstructs the inheritance and development of cultural genes. For this reason, this paper, based on gene theory, and combining historical materials, texts, and field surveys, deeply explores and studies the basic elements of the environmental culture, village layout culture, architectural culture, production culture, costume culture, food culture, and courtyard culture of the cultural genes of traditional villages along the Guangxi Xiaohu Ancient Route. A cultural map of cultural genes is also constructed. Based on this, it proposes suggestions for protecting and inheriting the cultural genes of traditional villages along the Guangxi Xiaohu Ancient Route in the new era, in order to achieve the dynamic inheritance and sustainable development of cultural genes better.

Keywords: Cultural Genes; Traditional Villages; Guangxi Xiaohu Ancient Route; Cultural Exploration; Cultural Inheritance

1. Introduction

The No. 1 Central Document of 2021 pointed out the need to "deeply excavate, inherit and innovate excellent traditional rural culture, combining protection, inheritance, development, and utilization, endowing Chinese farming civilization with new epochal connotations." The Xiaohu Ancient Road in Guangxi, as an important connecting channel of the ancient Maritime Silk Road, was rated by the "China National Tourism" magazine as

one of the ancient roads in China that are worth recommending to the world for their tourism value and cultural connotations. With the continuous development of the "Belt and Road" initiative, "rural revitalization", and "integration of culture and tourism", the exploration and discovery of the cultural genes of traditional villages along the Xiaohu Ancient Road in Guangxi are of great significance for awakening the development vitality of traditional village culture along the ancient road, inheriting and promoting traditional village culture, and building beautiful villages."

2. Literature Review

2.1 Research on Xiaohu Ancient Route

The Xiaohu Ancient Route starts at the Xiao River and ends at the He River, with a total length of 187 kilometers. Initiated during the Qin Dynasty, it was a combined water-land transportation channel built due to the needs of political and economic development by the rulers of that time. Later, it became one of the most important channels connecting Hunan, Guangxi, and even the Central Plains and Lingnan region [1]. The related research mainly focuses on the route verification, culture of the ancient route, and study of ancient villages. In terms of historical verification of the ancient route, Yaobao Teng conducted a series of explorations on the route and corridor network of the Xiaohu Ancient Route through historical document collation, field investigations, minimal resistance model, and GIS spatial analysis [2]. Regarding the historical culture of the ancient route, Meixing Liu and Fang Xu used the Xiaohu Ancient Route as an example to establish the metadata standards for the information resources of ancient route cultural heritage [3]. Starting from summarizing the cultural characteristics of Yao people along the Xiaohu Ancient Route, Yanfei Pan elaborated on the Yao culture

features of the Xiahe Ancient Route [4]. Yisha Lu and others used Shengpo Village in Hezhou as an example to explore the regional cultural characteristics and village spatial pattern of the Xiahe Ancient Route [5]. In the research on ancient route villages, Yang and Song analyzed the spatial distribution characteristics and natural environmental factors of 76 traditional villages along the Xiahe Ancient Route through quantitative geography methods and Arc GIS spatial analysis [6], and proposed development suggestions for the cultural development of villages along the Xiahe Ancient Route.

2.2 Cultural Gene Theory

The term 'gene' originates from biology, first proposed by Wilhelm Ludvig Johannsen, as a carrier that stores all information of a series of processes such as life race, blood type, reproduction, growth, death, etc., and co-controls life continuation with the environment, serving as the basic unit of physiological and biochemical inheritance in organisms. Cultural gene refers to the psychological underlying structure and thinking mode that influence the cultural and historical development of a nation [7] and the basic unit that profoundly controls urban culture [8]. The theory of cultural gene is a new theory proposed based on Darwin's theory of evolution to explain the inheritance and evolution of culture [9]. This theory believes that cultural genes will inherit differently due to the influence of living environment, cultural background, and natural conditions. The transmission process mainly includes the assimilation stage, memory process, expression perception, and transmission result. The spread of cultural genes cycles through these four processes and follows the Darwinian rule of survival of the fittest; genes with strong transmission ability will be permanently inherited to this day."

3. Classification and Genealogy Construction of Cultural Genes in Guangxi Xiahe Ancient Route

3.1 Classification of Cultural Genes in Guangxi Xiahe Ancient Route

The traditional villages along the Guangxi Xiahe Ancient Route are a region where multi-ethnic cultures blend. These cultures

influence the regional environment, types, landscape features, etc., of the traditional villages along the Xiahe Ancient Route, and at the same time, they blend with these factors, eventually forming the unique cultural characteristics of the traditional villages along the Guangxi Xiahe Ancient Route. The smallest units that constitute these cultural characteristics are the cultural genes of the traditional villages along the Guangxi Xiahe Ancient Route. By studying the composition of cultural genes and the mechanisms of their formation, we can understand the complexity of cultural genes, providing effective basis for the identification of genes in later text. Through research, it is found that the cultural genes of traditional villages along the Guangxi Xiahe Ancient Route are mainly composed of several elements such as environmental culture, village layout culture, architectural culture, production culture, costume culture, gourmet culture, and courtyard culture:

(1) Environmental culture

The Xiahe Ancient Route has complex and diverse topography, and the environmental features are distinct. From the perspective of water system factors, most of the traditional villages along the line are distributed along the water system, and the number of traditional villages is significantly less in areas far from the river. In terms of altitude, the number of traditional villages decreases rapidly with the increase of altitude. Therefore, the selection of traditional village sites in the area along the Guangxi Xiahe Ancient Route tends to be in areas with lower terrain. In terms of terrain undulation, the selection of traditional village sites is greatly influenced by the degree of terrain undulation. Flatter areas are more likely to attract human settlements, and as the degree of terrain undulation increases, the number of traditional villages correspondingly decreases.

(2) Village Layout Culture

The traditional village layouts in the area along the Guangxi Xiahe Ancient Route mainly adopt the backing-mountain and facing-water style, and the plain style, among which the backing-mountain and facing-water style is further divided into leaning-mountain and relying-on-mountain styles. The backing-mountain and facing-water style refers to villages that are closely connected to the mountain and water environment, usually with mountains behind the village and rivers, ponds,

or water channels in front, which can adjust the village's microclimate and create a livable microclimate for the village. According to the different locations of the villages on the mountain, they are divided into leaning-mountain and relying-on-mountain types. The leaning-mountain type refers to villages built at the junction of mountains and plains, where the terrain is relatively flat, such as Deep Slope Village, Xiu Shui Village, and Hong Yan Village. The relying-on-mountain type refers to villages built according to the mountain, built in a stepped manner along the contour line, with good ventilation and lighting conditions, but the difficulty of development is greatly affected by the steepness of the mountain, such as Cha Shan Village, Xiu Shan Village, Feng Xi Village, etc.

(3) Architectural Culture

The traditional villages along the Guangxi Xiahe Ancient Route have a long history and are a region where multiple ethnic groups live together. Immigrants from different historical periods and regions entered Hezhou through the Xiahe Ancient Route and the Xijiang River Basin, bringing Central Plains culture to Hezhou. In the process of integration with the native culture, they formed a variety of residential buildings with rich types and distinct features. The traditional residential buildings in the traditional villages along the Guangxi Xiahe Ancient Route are divided into: Xianggan-style flat Yao traditional residences, Guangfu-style traditional residences, Hakka-style traditional residences, Xianggan-style traditional architecture. Public buildings mainly include temples, ancestral halls, academies, stages, and ruins. In terms of decoration, the main themes are plants, animals, symbolic patterns, geometric patterns, and stories of people, and they are mainly divided into two decorative methods: wood carving and stone carving.

(4) Production Culture

Since the Xiahe Ancient Route is close to the Chu State, and the iron smelting industry of the Chu State was relatively developed, more iron tools have been unearthed along the ancient route. The varieties of iron tools include locks, shovels, axes, irons, knives, planers, etc., which effectively improved the level of agricultural production. The area of the Xiahe Ancient Route became the central area of the central government's control of Nanling and

Lingnan, so production tools were greatly improved. Metals, especially iron tools, were widely promoted and used. In addition, the production and living tools of various ethnic groups along the Xiahe Ancient Route each have their own characteristics. For example, those living in the mountains prefer bamboo and wood, while those living on the plains value pottery and wood. The Yao people like to use bamboo to weave baskets, while the Han people are good at making and using iron tools."

(5) Clothing Culture

The common features of the ethnic costumes along the Xiahe Ancient Route are becoming increasingly distinct. Each ethnic group usually decorates with colors such as red, yellow, green, blue, and purple, among which the Yao ethnic costumes are the most representative and culturally characteristic. The Yao costumes in the traditional villages along the Xiahe Ancient Route are mainly divided into Pingdi Yao costumes, Tu Yao costumes, and Guoshan Yao costumes. Pingdi Yao costumes mainly feature sky blue outerwear, round neck, cloth buttons, without embroidery; they wear plain black or blue trousers on the lower body, with embroidered shoes as a feature. Tu Yao costumes mainly consist of flat top wooden hats, long dresses, short tops, shorts, and colored belts, while Guoshan Yao costumes have blue cloth edging added to the bottom and sides of the garment. The comprehensive application of Yao costumes, with their bright colors and streamlined patterns, has a strong visual effect.

(6) Food Culture

Various delicious foods have emerged on the Xiahe Ancient Route due to trade and ethnic blending. Oil tea is a traditional local delicacy. Fuchuan oil tea in Guangxi is made by pouring top-quality tea leaves, ginger, peanuts, and garlic into a tea pot and frying and hammering them together. The three-colored shuttlecock cakes in white, yellow, and purple are another distinctive local food, often paired with oil tea. The tofu skin produced in Cha Shan Village is made from soybeans ground into soymilk, without any additives or preservatives, making it a truly natural green food. Huangtian braised pork is a famous dish in Huangtian Town, Hezhou City, and is a must-have at any festive banquet, and never tires no matter how often it's eaten.

(7) Courtyard Culture

Water well is often seen as the soul and lifeline of a village. From a material level, a courtyard is merely a part of residential architecture, with the function of lighting, ventilation, sewage, flood drainage, dehumidification, and damp proofing. But on the Xiahe Ancient Route, people, in pursuit of spiritual life, hold various religious and belief-related ceremonies in the

courtyard space, and leave various texts and patterns with artistic value and educational significance to inspire and educate their descendants to actively pursue spirituality [10]. The patterns and texts in the courtyard are exquisite, embodying the homeowner's longing and pursuit for health and wealth, and also have a certain implication of warding off evil and eliminating disaster.

Table 1. Cultural Gene Map System of Traditional Villages along the Xiahe Ancient Route in Guangxi

Gene Category	First-level Elements	Second-level Elements	Third-level Elements	Cultural Gene Elements
Cultural Genes	Environmental Culture	Village Site Selection	Hydrological Factors	Hejiang River Basin and Guijiang River Basin
			Altitude	Low-lying village site selection
			Terrain Undulation	Fuchuan Plain > Babu Plain > Zhongshan Plain and Xindu Plain
			Slope Height	Southward > Southeast slope, South slope, Southwest slope > Facing East > North slope and West slope > North slope and Northeast slope
	Village Layout and Form Culture	Fengshui Features	Back Mountain Face Water Type	Yishan Type (Shenpo Village); Jushan Type (Chashan Village)
			Basin Plain Type	Basin Type (Fuxi Village); Plain Type (Shanggantang Village)
		Layout Characteristics	Commercial-type village	A landscape pattern of mountains-forest, village, ancient road, stream, farmland.
			Plain-type village	Landscape features of "ecological forest-ancient road-farmland-village-farmland"; and "farmland-village-pond (canal)-farmland-ancient road".
		Street Culture	Chessboard type, comb type, fishbone type	Chessboard type (Shenpo Village); Comb type (Chashan Village); Fishbone type.
			Residential Architecture	Hunan-Jiangxi style Ping Yao traditional houses
	Cantonese traditional houses	Neatly arranged comb layout villages and courtyard houses with three rooms and two corridors (Pinggui Lugu Village).		
	Hakka traditional houses	"Three-enclosed courtyard type" and "Four-enclosed courtyard type" (Hezhou Jiang's Hakka Roundhouse)		
	Flatland Yao traditional houses	Three-room hall plan (Fuchuan Fuxi Yao Village)		
	Public Buildings	Ancestral halls	Linhe Ancient City Ancestral Hall Group	
		Schools	Xiushui Village's four major private schools, Jiangdong Academy	

			Gate towers, archways:	13 gate towers in Fuchuan Fuxi Village, Enrong Archway
			Ancient bridges	Fuchuan Yao Wind and Rain Bridge, Fuxi Jin Bridge Wind and Rain Bridge
			Temples	Zhongshan Dongshan Temple, Shuichuan Temple, Lingxi Temple
			Theatrical stages	Xiushui Village's Mao Family Ancestral Hall Stage, Fuxi Village's Baizhu Temple Stage
	Decoration Culture		Decorative themes	Plants, animals, symbolic patterns, geometric patterns, and human.
			Decorative techniques	Wood carving and stone carving
			Decorative content	Mythical animals, plant and fruit patterns, antique treasure patterns, and human story patterns
	Production Culture	Manufacturing Materials	Stone, wood, iron tools	Widespread use of iron farming tools (Hetang Han Tomb Iron Hoe from Hezhou)
	Clothing Culture	Clothing Types	Pingdi Yao costumes	Fuchuan Flatland Yao costumes
			Tu Yao costumes	Pinggui District Tu Yao costumes
			Guoshan Yao costumes	Dong Guoshan Yao female costumes
		Clothing Colors	Color combinations: Blue, soy, black, etc. base cloth with yellow, red, green, white; white base cloth with yellow, red, green, black	
		Clothing Patterns	Natural imagery (sun, moon, mountains, rivers), animal and plant imagery (fish, cows, dragons, birds), totem symbols (Panwang seal, dog ears), religious symbols (Yin and Yang, Tai Chi, Bagua), abstract geometric (zigzag patterns, wave shape, sawtooth pattern), realistic patterns (human figure, sun pattern).	
Food Culture		Fuchuan oil tea; Chashan Village shuttle cake; Chashan Village tofu skin; Huangtian stewed pork; Xindu Sanhuang chicken; Xindu red rice wine chili; Chashan Village rice tofu.		
Courtyard Culture	Blessing Ceremony	Fuxi Village courtyard blessings		
	Courtyard Inscriptions	Courtyard table and murals, couplets, ceiling boards with "Tai Chi Double Fish", "Yin and Yang Bagua", "Money Gourd", etc.		
	Water Source Landscape	Natural landscape (Lingxi Spring, Dalian Well, Shenmian Well; Fuxi Village Fengshui Forest, Fuxi Liangjie Garden, rooted stone in the village); Cultural landscape (Qinglong Wind and Rain Bridge; Huilan Wind and Rain Bridge; Zhongling Wind and Rain Bridge)		

3.2 Construction of Cultural Genetic Spectrum for the Xiahe Ancient Route in Guangxi

In this paper, following the principle of genetic map construction proposed by Wang Yinxia [11], we divide the encoding structure of cultural genes into the feature code .The

feature code refers to the 'Classification and Code of Basic Geographic Information Elements,' dividing the subordinate relationship of the cultural genes of the traditional villages along the Xiahe Ancient Route in Guangxi into 'first-level elements, second-level elements, level elements, and

cultural gene elements' at four levels, using English letters for encoding. The classification of the cultural gene elements of the cultural landscape of the traditional villages along the Xiahe Ancient Route in Guangxi mainly relies on the cultural gene identification index system constructed in the previous section. Based on the results of the cultural gene identification of the traditional villages along the Xiahe Ancient Route in Guangxi, the cultural genes are encoded and the cultural gene map system of the traditional villages along the Xiahe Ancient Route in Guangxi has been constructed (Table 1).

4. The Inheritance Path of Guangxi Xiaohe Ancient Route Cultural Genes

Currently, the survival and development of the cultural genes of Guangxi's Xiaohe Ancient Route are generally facing difficulties. Although the related regional government departments have adopted support policies, due to the general poverty and backwardness of the villages along the Xiaohe Ancient Route, each cultural gene still faces a survival crisis. In the face of this situation, it is necessary for the main bodies responsible for cultural protection such as government departments, media, and the public to jointly follow the development and evolution rules of the Tanhuang opera cultural genes, protect the core cultural elements, and on the basis of maintaining the authenticity of cultural genes, collectively seek ways of cultural survival and development space in the new era environment to achieve sustainable development.

(1) Protecting the living environment of Guangxi Xiaohe Ancient Route cultural genes and implementing regional holistic protection
The dilemma of Guangxi Xiaohe Ancient Route cultural gene inheritance stems from the changes in public aesthetic concepts brought about by social development and transformation, the enrichment of entertainment styles, the impact of the media, and changes in folk customs and habits. Therefore, to protect the cultural genes of Guangxi Xiaohe Ancient Route, the government and the people need to jointly implement holistic ecological protection of key areas of traditional village cultural genes of Guangxi Xiaohe Ancient Route, integrating cultural genes into the local economic industry chain to create an environment suitable for the

survival and development of cultural genes. For example, holistic protection can be implemented for key areas of traditional village cultural genes of Guangxi Xiaohe Ancient Route. Ecological protection areas for cultural gene inheritance can be established for cultural types with a wide distribution range, such as architectural culture, clothing culture, and food culture. For special cultural types like Yao culture, Academy culture, and courtyard culture, intangible cultural heritage protection blocks can be established to allow cultural genes to recover and develop in a good ecological environment. Protecting the living environment of Guangxi Xiaohe Ancient Route's cultural genes is a crucial task. We must pay attention to the historical heritage and unique cultural marks of this ancient route, and coexist harmoniously with the diversity of the local ecosystem. The implementation of a regional holistic protection plan aims to maintain the comprehensive identity of the Xiaohe Ancient Route, while promoting sustainable tourism and local community participation. This comprehensive perspective closely integrates cultural heritage protection with environmental management, creating a prosperous future for Guangxi's cultural and natural resources."

(2) Following the Development Laws of Cultural Genes, Enriching Creative Themes and Artistic Expression Means

The new era presents new requirements for culture. The development of traditional village cultural genes of Guangxi Xiaohe Ancient Route needs to follow the laws of cultural evolution, keep up with the times, enrich artistic symbolic elements and spiritual elements, integrate into local cultural resources, refine the spirit of the times, enrich creative themes and artistic expression means, in order to satisfy the aesthetic needs of contemporary audiences and achieve the inheritance and development of cultural genes in the new era. The Xiaohe Ancient Route and its surrounding traditional villages are filled with unique historical stories and cultural connotations, all of which can provide rich material for artistic creation. While maintaining the authenticity of artistic symbols, the cultural genes of the ancient route villages should also progress with the times, continuously enrich cultural expression means according to the requirements and aesthetic habits of

contemporary audiences, improve exhibition methods, enhance cultural design, increase local characteristics, and protect and inherit local cultural genes through development. At the same time, traditional artistic expression means can be borrowed and developed, combined with modern artistic forms, to create works that have both profound cultural heritage and modern aesthetic sense. This can not only inherit and promote the cultural spirit of the Xiaohu Ancient Route, but also promote local artistic innovation and development.

(3) Cultural Tourism Integration, Enhancing the Activation Utilization of Guangxi Xiaohu Ancient Route Traditional Village Cultural Genes

In the face of national policies favoring the promotion of excellent traditional culture, the protection of intangible cultural heritage, and the integration of cultural tourism, cultural tourism units, intangible heritage protection departments, and performance groups can cater to the needs of the vast audience, especially the younger generation, carry forward the inherent innovation spirit and inclusiveness of the cultural genes of the ancient route villages, further refine the artistic symbols of cultural genes, integrate them into the cultural industry and tourism industry, combine the activation utilization of cultural genes with the utilization of cultural relics, tourism development, etc., to achieve an overlay effect, and achieve a win-win situation for the cultural genes of ancient route villages and the cultural tourism industry in their bilateral rush. In addition, modern technology can be used to broaden the communication channels of the cultural genes of ancient route villages and explore the digital communication methods of the cultural genes of ancient route villages. For example, in the construction of cultural exhibition venues for the cultural genes of Xiaohu Ancient Route villages, digital methods can be adopted and interactive experiences can be emphasized to make the display of cultural genes more dynamic. Incorporating modern technology into the exhibition venues of cultural genes, such as creating a "digital scroll of Guangxi Xiaohu Ancient Route village cultural genes" using multimedia projection and touch interaction, creating a "holographic phantom play space" using mirror space and holographic projection, and creating an "intangible cultural heritage exploration

system" using AR technology, and so on. On the basis of fully displaying the culture of Tanhuang opera, integrate elements of the times that the younger group is more likely to accept, build a new platform for the digital communication of the cultural genes of Guangxi Xiaohu Ancient Route villages, which will empower the tourism industry while also benefiting the inheritance and development of cultural genes."

5. Conclusion

Unearthing the Cultural Genes of Traditional Villages along the Xiaohu Ancient Trail in Guangxi holds significant importance in reviving the inheritance and development of the traditional village cultures along the ancient trail. This study employs research methods such as historical records, texts, and field investigations to delve into and study the fundamental cultural elements of the traditional villages along the Xiaohu Ancient Trail in Guangxi. These elements include environmental culture, village layout culture, architectural culture, production culture, clothing culture, cuisine culture, and courtyard culture. Furthermore, a cultural gene map of the traditional villages along the Xiaohu Ancient Trail in Guangxi is constructed. Based on this research, the study proposes suggestions to strengthen the comprehensive protection of the survival environment of the cultural genes in the Xiaohu Ancient Trail region in Guangxi. It also suggests enriching the creative themes and artistic expressions related to cultural genes, as well as promoting the active utilization of these cultural genes, aiming to achieve better preservation and development of the cultural genes of traditional villages along the Xiaohu Ancient Trail in Guangxi.

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