

## The Primitive Pile-dwelling of Li Nationality in Hainan and Transition

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**Abstract:** Pile-dwelling of the Li nationality in Hainan are living fossils in the history of Chinese architecture. In this paper, Wuzhishan Chubao Village is taken as the main field investigation point, and the origin of the original pile-dwelling of the Li Nationality, the evolution clues and changes of the pile-dwelling in the Li Nationality area are analyzed. After a long historical evolution, the primitive pile-dwelling of the Li Nationality has been hard to adhere to in its degeneration, and its "primitiveness" has gradually disappeared. The establishment of the Li nationality pile-dwelling cultural and ecological protection zone will help the inheritance of the pile-dwelling culture, but the original pile-dwelling village that no longer lives will inevitably be annihilated in the development of the times. Studying the original pile-dwelling of the Li nationality plays a vital role in protecting and developing the Li culture and creating the national characteristics of the international tourist island.

### 1. Introduction

The pile-dwelling building is one of the main architectural forms of the original inhabitants of the world. Mr. Zhang Lianggao once said that "pile-dwelling is a flat Chinese architecture history". The pile-dwelling buildings in the Li ethnic area of Hainan have a long history. At present, the ancient building forms of the "pile-dwelling" can still be seen in the Li villages. This paper takes Wuzhishan Chubao Village as the main research object, which is the only remaining Li pile-dwelling residential village, using ethnographic fieldwork methods and literature analysis. This paper studies the origin and historical evolution of the original pile-dwelling of Li Nationality, and analyses the interrelation of social, political and economic systems behind it.

### 2. The Origin of the Primitive Pile-dwelling of the Li Nationality

The word "pile-dwelling" was first seen in "Wei Shu Liao Zhuan" in which "building blocks are built according to trees to occupy them, which is called "Pile-dwelling". It can be seen that the pile-dwelling refers to the houses built on the piles. The existing historical documents about Li pile-dwelling began in Song Dynasty, and the records about Li pile-dwelling increased in Ming Dynasty. In the Qing Dynasty, it was more detailed. Zhang Qingchang's "Li Qi Ji Wen" not only described the roof features of the Li people's pile-dwelling "shaped like a boat", but also recorded the high and low points of the pile-dwelling. In addition, the National History Museum and the Hainan Provincial Museum have collections of customs depicting the living buildings of the Li ethnic group. "Qiongzhou Haili Tu" has a small note on it: "Li House is long like a ship and has a high potential. The door is open and left, and the middle is built in two layers. The home is on the edge of the ladder and the lower is on the animal." (Fig. 1) From the above historical records, it can be clarified that the Li nationality has always maintained a pile-dwelling style of residence, with a high-pile dwelling and a low-pile dwelling, and the Li national pile-dwelling has a boat-shaped roof feature.



Fig.1. National History Museum Collection of Li Nationality Residence in Hailitu, Qiongzhou

Regarding the ethnic issues of the pile-dwelling architecture, the history circles have agreed that the pile-dwelling was created by the ancient Baiyue ethnic group. The Li nationality of Hainan Island is a member of the ancient Baiyue Luo Yue, which migrated from Hainan Island in the southern coastal areas of China about three or four thousand years ago. In the bronze drums of the Baiyue Cultural Site, there is a clear representation of the pattern of the pile-dwellingr boat house. Both Yunnan and Indonesia, both of which belong to the Baiyue family, have discovered bronze drums with architectural patterns. The period from the early Spring and Autumn Period to the late Warring States period, the architectural images on the bronze drums are very similar, and there are two kinds of bronze drums on each side. Pile-dwellingr architectural pattern. One is a boat-shaped roof style with long ridges and the other is an arched pile-dwelling.(Figure 2) Researchers believe that the ship-shaped roof bars and arch bars represent two facades of the same building, respectively. Ship-shaped roof bars represent the facade of the building, and arch bars represent the gables. According to the analysis of the characteristics of the existing boat-shaped houses of the Li nationality, the plane of the boat-shaped houses is rectangular in length. The entrance of the arch-shaped gables at both ends of the north and the south is the entrance of the boat-shaped houses. The doors shown by the arch-shaped houses on the copper drums are the gates of the boat-shaped houses. (Figure 3) Bronze drum patterns found on the northern coast of Jawa Island, Indonesia, not only show the characteristics of the ship-shaped roof, but also clearly depict the internal scene, the bottom overhead, livestock, residential floors, climbing stairs. And its roof and eaves are integrated into one, each with a half-dome-like roof outside the gables at both ends, shading the sun and sheltering the rain. These characteristics coincide with the hull-shaped houses in some Li nationality areas. (Fig. 4)



Fig.2. Architectural design in the bronze drum (the upper row is a ship-shaped roof building, the lower row is an arched hut)



Fig.3. Ship-shaped House with Pile-dwelling of Li Nationality

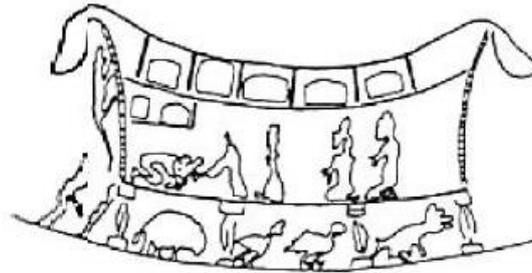


Fig.4. Beijialangan Drum

In addition, many bronze wares with images or models of pile-dwelling have been unearthed in Yunnan, China. Their ages have been verified as the Spring and Autumn Period. Historical records show that the Li ancestors began to migrate southward only in the Spring and Autumn Period and the Warring States Period. Therefore, it can be inferred that the barge-shaped house of pile-dwelling was introduced into Hainan Island by the Luoyue people during their migration to the south. "Rituals, customs, opinions and so on, they are brought into a new social stage by customary forces from the social stage they belong to, and become the witness and example of ancient culture." As a product of human culture, pile-dwelling will naturally follow this development principle. From the point of view of human culture, "even in a new environment, people will follow some of the instructions previously learned, because this new environment evokes a basic pattern of acquisition." Based on this view that "previously learned cultures will be evoked in a new environment." The Li nationality ancestors moved from Nanyue to Hainan Island and during the continuous migration and differentiation of Hainan Island, they still maintained the material shape profile of the pile dwelling-shaped house.

### 3. The trail of change of the original pile-dwelling of the Li nationality

#### 3.1. Independent evolution.

The development of the Li nationality residence in Hainan Island is a process of gradually evolving from the "pile-dwelling" to the dwelling. In order to survive, the early Li people adapted to the environment of Hainan Island's wild and damp heat and wild beasts, and built a "high-pile dwelling" boat-shaped house, where people lived and raised livestock. However, the excessive living space brings inconvenience to people's daily life, and it also causes great difficulties for preventing typhoon. With the development of productivity and the improvement of production technology, especially after the maturity of human fire technology, the ability to resist nature has been greatly enhanced, and the height of dry railings has become possible. Finally, it falls to the ground step by step and becomes a ground building [1].

#### 3.2. The Impact Evolution of Han Culture.

During the Qin and Han Dynasties, Hainan Island belonged to the "Yue" area, at which time the Han people had moved in. After the Eastern Han Dynasty, more and more Han people migrated to

Hainan, forcing the Li nationality to retreat from the coastal plain to the inland mountainous areas. In the Song and Yuan Dynasties, there appeared the Han and Li nationalities between Li and Han communities, and further squeezed Li into the Inland mountains. This pattern lasted until the end of Qing Dynasty and the beginning of the Republic of China. The change of the pattern of ethnic cohabitation has brought about continuous exchanges and integration between Li and Han Dynasty, and the increasing influence of centralization in southern minority areas. Some of the leaders of Li people live in coastal plains. In order to consolidate the legitimacy of its status, it has been integrated into the Han Chinese society, adopting the Han-shaped houses with obvious advantages in terms of lighting, ventilation, and construction technology, and even directly adopting the living mode of Han brick buildings. The weak Li people gradually lose their own traits. At present, there are only a few Li ethnic groups living in the hinterland of the central mountainous area. Due to the closed environment, they have little contact with the Han people, and they still maintain the architectural shape of the pile-dwelling boat house.

### **3.3. The infiltration of modern civilization.**

After the reform and opening up, the living conditions of the Li people have been greatly improved. In the 1990s, most of the areas where the Li people lived had access to highways. Smooth traffic accelerated the development of the Li society. New construction techniques were also introduced to the Li villages, and the living conditions of the original pile-dwelling buildings were relatively poor. More and more villagers have abandoned the traditional living mode and built new flat roof houses and buildings with reinforced concrete and brick structure. In addition, the government's reform policy in the Li nationality area has also become a powerful driving force for the change of Li nationality residences. Regardless of the government-led or the people's spontaneous transformation, Li villagers have generally accepted the modern residential buildings, the traditional barricade boat-shaped houses have disappeared or abandoned, and the Li area has basically completed the transition from tradition to modern.

### **3.4. Characteristics of the Changes of the Original Pile-dwelling of the Li Ethnic Group**

From the original pile-dwelling to a semi-pile dwelling, "invisible" pile-dwelling and partial pile-dwelling. After field investigation, the only remaining Li village in the country is the first village (Chaobao Village, Maoyang Town, Wuzhishan City). Among the existing 34 pile-dwellings, it is difficult to see the original full-pile dwelling system, more of which is tailored to the local conditions, combined with the living terrain to develop semi-pile dwelling, "invisible" pile-dwelling, partial pile-dwelling, etc. The characteristics of the boat roof of the original pile-dwelling have mostly disappeared. "Semi-pile dwelling" is an important transformation of the Li people's pile-dwelling. It is the product of the combination of the floor and the ground. The semi-pile dwelling building overcomes the difficulty of inconvenient contact between the full-pile dwelling and the ground. Some of the space is directly connected to the ground, and the other part is picked out and supported by wooden columns. The columns are different in length and flexible. (Fig. 5, 6) This form is the evolution and development of the combination of the pile-dwelling building and the mountain area, which is inseparable from the characteristics of the pile-dwelling building itself. "Half-pile dwelling" is the main feature of the existing pile-dwellings in Chubao Village. "Invisible" pile-dwellings are enclosed with bamboo and wood around the bottom or built with stones and adobe. From the appearance, the characteristics of "overhead" are not clear. But the interior is a genuine "pile-dwelling" - the bottom is used to pile up debris and livestock, people climb the ladder and live on the second floor. (fig. 7) Another kind of local pile-dwelling, the main building is ground building, and the auxiliary part is pile-dwelling building. As shown in Figure 8, the main building is built on the slopes, which are built with stone blocks and lead from the slopes to living space. The bottom part is partially hollow, with a small entrance, and the pile-dwelling timber frame supports the hollow part. The residence in Figure 9 is supplemented by a barricade on the side of the terrace on the elevated terrace, separating man from animal. Two kinds of local pile-dwellings still retain their functional characteristics, which are used for stockpiling debris and raising livestock.



Fig.5, 6 semi-pile dwelling-style building (photographed in Wuzhishan Chubao Village)



Fig.7. "Invisible" pile-dwelling

Fig.8, 9 partial pile-dwelling

### 3.5. From mainstream building form to auxiliary building feature.

The Li's architectural types include residential houses and auxiliary buildings such as the Longyan, Hawthorn, Livestock, and Barn. For a long period of time, the dry bar boat house has been used as the mainstream building form. In the investigation of the Li ethnic village field, the author found that most of the Li's compatriots' residential houses have changed from pile-dwelling to floor-standing and even brick-and-mortar houses. However, the auxiliary buildings of the Li nationality have always maintained their original form and construction. (Fig. 10) This aspect shows that the "pile-dwelling" living culture has already occupied a "secondary" position in the architectural culture of the Li ethnic group. On the other hand, it also shows that the "pile-dwelling" culture is deeply rooted in this region. From the point of view of cultural functionalism, the pile-dwelling style is simple in technology and effective in function. It meets the needs of enclosure and storage of auxiliary buildings, so it can be spread for a long time. In addition, "pile-dwelling" as a culture bears the spiritual sustenance of the Li people, while trying to improve the living environment. The architectural symbols of their own nation are reluctant to give up completely, so they follow the pursuit of "pile-dwelling" architectural elements in auxiliary buildings, and have always maintained distinct traditional characteristics. Auxiliary architecture has become the main body of preserving and displaying the characteristics of the original pile-dwellings of the Li nationality.



Fig.10. Auxiliary pile-dwelling

### **3.6. From Natural Landscape to Humanistic Landscape.**

Villages of the Li nationality are mostly located on the edge of the mountains, on the slopes, on the backs of mountains, rivers in front of villages, and terraces in the middle. This is a typical site selection feature of Lizu villages. Villages are generally hidden in tall and dense broad-leaved forests, shrubs, coconut trees and other plants. As Stubo said, "almost all villages are hidden in the woods." And there is no obvious boundary between the entire settlement and the surrounding environment. The open pile-dwelling settlement is like the growth in the natural environment, and through the spontaneous adjustment between the environment and the environment that fosters it, it achieves a balanced ecological relationship in the dynamic, reflecting the natural landscape characteristics of the original ecology [6].

With the implementation of Hainan International Tourism Island Strategy and the promotion of beautiful villages and folk culture tourism, pile-dwelling architecture as an original form of residence has attracted more and more scholars, researchers, students and tourists to visit. As the only remaining pile-dwelling village, Chubao Village is listed in Hainan Province's Intangible Cultural Heritage Protection List and World Cultural Heritage List, and is relocated as a whole under the government's plan, and the new village residents and old villages are protected. The government adheres to the policy of "protection first, rational utilization, inheritance and development", pays great attention to the national cultural brand, and constantly excavates the cultural connotation of Li people's Pile-dwellings. Wuzhishan City has launched the construction and development project of Chubao Village's eco-cultural tourism resort. Pile-dwelling has become a precious and endangered cultural landscape of Hainan International Tourism Island.

## **4. Conclusion**

The above research shows that the boat-shaped houses of the Li nationality in Hainan follow the ancient southern culture of the pile-dwelling in China, and in the long historical development, because of the constraints of natural conditions, political, economic and geographical factors, they have always maintained the cultural characteristics of the pile-dwelling residence. With the changes of the modern social environment, the pile-dwelling of Li nationality has been hard to adhere to in its degeneration, and its "primitiveness" has gradually disappeared. The establishment of the pile-dwelling cultural and ecological protection zone will help the inheritance of the pile-dwelling culture, but the original pile-dwelling village that no longer lives will inevitably be annihilated in the development of the times. The Li-style pile-dwelling boat house is a "living fossil" in the history of Chinese architecture. It contains the ancient genes of human culture. The evolution of the pile-dwelling architecture also confirms the development and evolution of the Li people's production and life. Studying the original pile-dwelling of the Li nationality plays a vital role in protecting and developing the Li culture and creating the national characteristics of the international tourist island.

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