

# The Transformation of the Spatial Structure and its Ritual Axis in Yunnan's Ya'ni village

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**Abstract:** The Ya'ni village and clay method houses in E'shan county of Yunnan province are different from many other forms of Yi tribe settlement in South-West. This paper analyzes the basic elements and attempts to: (1) identify the basic elements of the spatial structure and the compositional principles shared by both Ya'ni village and clay method houses; (2) trace the transformation of this spatial structure through historical analysis; (3) Propose an explanation for the evolution of Ya'ni village and clay method houses.

**Key Words:** Ya'ni Village; Clay Method Houses; Spatial Structure; Ritual Axis; Yi tribe's Settlement

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## 0 Introduction

The Ya'ni village and clay method houses in E'shan county of Yunnan province are different from many other forms of Yi tribe settlement in South-West. In recent years, several articles have appeared discussing such settlements (Note 1). This paper assumes the reader's familiarity with this previously published research and intends, through analysis and comparison of the some Yi tribe village and clay method houses, to identify a unique spatial form: a central axis, with an ancestral piazza located at its far end converted from the negative space. This spatial organization is distinct from not only the Chinese axial tradition derived from *Kaogong ji* of *Zhou Li* dating from 300BC, but also from the position of religious centers of other large houses and settlements in South-West mountain region of China. It is hoped that, by exploring the evolution of this singular spatial model, we may acquire a better understanding of the settlement form of the minority.

## 1 Background

The history of minority in the Ya'ni began in the 10th century AD. By the end of the Ming dynasty, the Pu's family—a great clans (as well as other settlers) had already occupied most of the fertile lands since 1644, this area was already a part of E'shan county. However, the Qing government ordered these mountain regional communities to be evacuated for security purposes resulting in the uprooting and destruction of all towns and villages. This evacuation order was finally lifted and immigrants were allowed to gradually move back. Encouraged by the Qing government, a new wave of Yi tribe settlers arrived to cultivate the land that had been left deserted. Coming mostly from the Da-liang mountain region of Sichuan province (but the Han tribe—the Qiu's family mostly came from Nan'jin city of Jiangshu province), these new immigrants established their villages in the agricultural lands of Lao Wu Dou (Fig.1), Huo Pi Pa (Fig.2), Tong Yi (Fig.3) and Chanqing Shu

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**Biography:** YANG Yi (1970.9 ~), male, post graduate of Doctor degree in Tongji University.

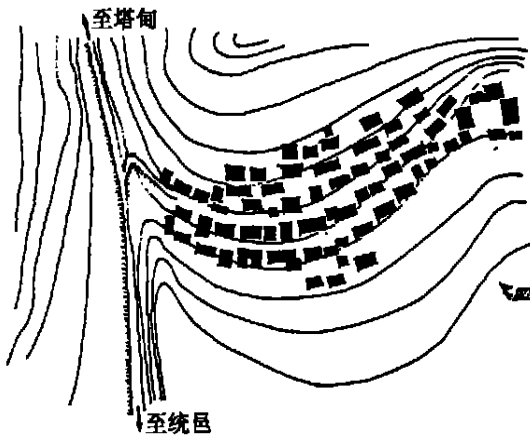


Fig.1 The image of Lao Wu Dou

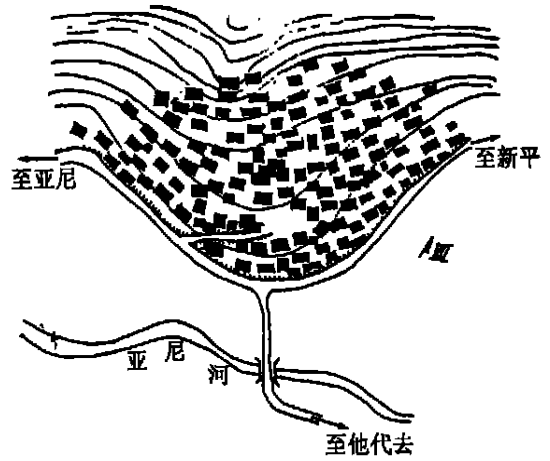


Fig.2 The image of Huo Pi Pa

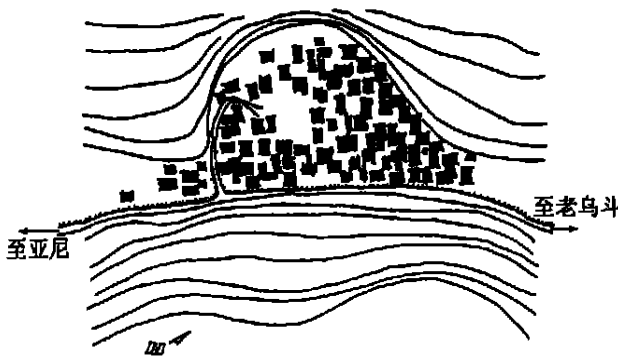


Fig.3 The image of Tong Yi

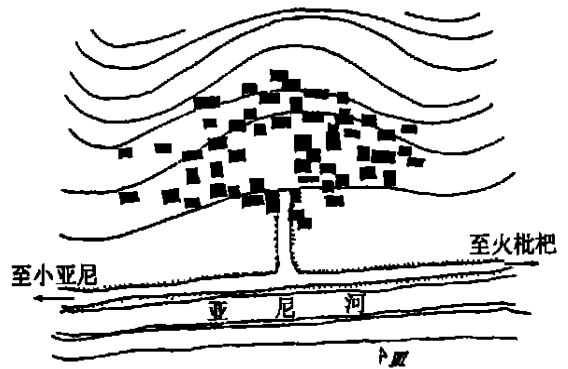


Fig.4 The image of Chan Qing Shu

(Fig.4). The Ya'ni village (Fig.5), the remains of which can be seen today, were basically established by this new wave of immigrants (Note 2).

## 2 The development of settlement form

The settlement forms under investigation can be clearly divided into two major types according to their respective periods of development. The first type, the Ya'ni village, was a large settlement for one big family clan, which had established itself by the first half of the Qing dynasty. The second type, referred to as the clay method houses appeared around the middle or latter part of the Qing dynasty, consisted basically of one large farm house or a small settlement with just one large family living within it. The layout of both the clay method houses and Ya'ni village was strongly governed by family order as well as defense needs.

Because of the increasing threat of piracy and a very weak mountain defense, those immigrants who settled after the lifting of the evacuation order, chose to build high walls around their villages, fortifying them at all corners with defense towers surrounded by dug moats. The only entrance (Fig.6) to the village was through a heavy Gate, from which a two-end. This alley functioned as the central axis of the village. Intersecting at an angle with the secondary allerys, this main alley was lined on both sides with simple abnormal residential units forming a grid system. More buildings were constructed along the inner sides of the square walls, mostly for storage purposes. Not every Ya'ni village, however, displayed the fully developed form and system. Some were only encircled with low stone walls. The more developed Ya'ni village measure about 80 meters in width and 150 meters in length. The smaller villages, measure around 30 meters square.



Fig.5 The master chart of Ya'ni



Fig.6 The entrance of Ya'ni

### 3 The spatial structure and transformation of Ya'ni village and clay method houses

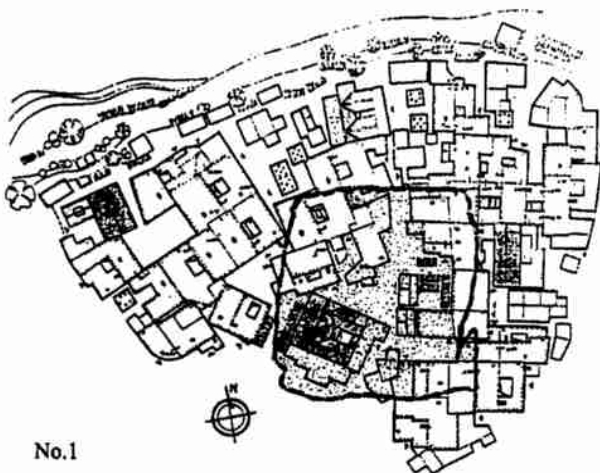
Even though Ya'ni village and clay method houses developed over different time prides and on different scales, their spatial structures share similar basic elements and compositional principles: ① perimeter walls with defensive towers; ② centripetal living units; and ③ an ancestral piazza located at the end of the central axis (Fig.7).

① Perimeter walls with artillery towers

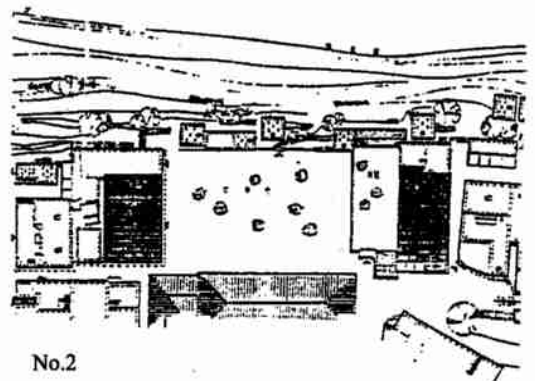
Square or abnormal-shaped “containing walls” usually surrounded by a moat,

formed the defense barrier of a settlement. The corners of the perimeter walls were often fortified by defensive towers. The spaces beneath the perimeter walls and artillery towers were mostly used as “service areas”(e.g. public kitchens, storage, animal barns *etc*)(Fig.8).

② Centripetal living units



No.1



No.2

Fig.7 The pizza of Ya'ni



Fig.8 The public kichens of Ya'ni



Fig.9 The perimeter walls around the piazza

The main residential units were oriented towards front of the settlement and were divided by smack alleys in a checkerboard grid pattern. Secondary residential units, or service-orientated spaces, surrounded the main residential units to form a piazza and were further joined with the perimeter walls to form a one-building complex (Fig.9).

③ An ancestral piazza located at the end of central axis

The central axis of both the Ya'ni village and the clay method houses was defined by the same negative space: the main alleyway connecting the front entrance to the ancestral piazza. The ancestral piazza, the width of one module-hill (one "transverse unit") was the same width as the main alleyway (one "transverse unit") which was flanked on both sides by residential units (Fig.10).

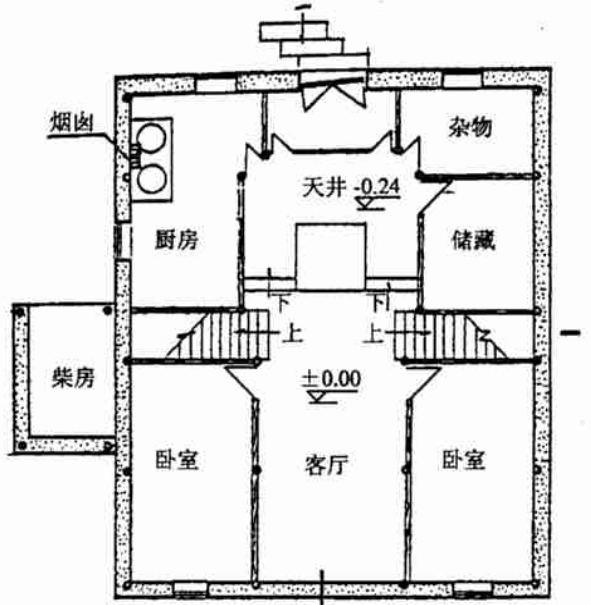


Fig.10 Settlement unite

The basic spatial structure, which had gradually evolved during the Qing dynasty, developed variations depending on site conditions, the size of the settlement, as well as the prevailing social climate. A comparison of an early Qing Ya'ni village with a clay method house of the latter part of the Qing period reveals the following phenomena (Fig.11).

1) A decrease in defense features

The lower perimeter walls, the decreasing number of defensive towers, and the transformation of the moat all suggest a decreasing need for defense. The moat, once surrounding these clay method houses, was eventually replaced by a pond, which functioned more significantly for geomancer than for defensive purposes (a good settlement site should be backed by hills and face the water). In clay method houses of the later period, the perimeter walls and artillery towers were kept to a minimum or entirely disappeared.

2) An improvement in living conditions and facilities

The improvement in both the size and quality of the living units, and the expansion of public space, suggest that the "quality of life" had become more important for the inhabitants of clay method houses. The typical living unit in a Ya'ni village was a simple abnormal form of a one module-hill width. In a walled house, the typical unit was a three module-hill courtyard house (Fig.12); the halls, rooms, chambers, and courtyards all

clearly defined and divided: an indication that along with improved economic conditions, the demand for a better living environment had surpassed the need for defense. In a walled house, moreover, the percentage of total area covered by buildings greatly decreased. The public alleyways were widened, and abnormal open squares began to appear in the front for recreational and agricultural use.

3) A decrease in the formality and symmetry of the layout

Ya'ni village were usually built in strictly symmetrical squares, whereas clay method houses often took the shape of lateral rectangles. The villages had only one central axis entrance, while the clay method houses, as a result of adapting to site conditions, often took on two separate side entrances. The decreasing adherence to rigid symmetry became more obvious in clay method houses of the later period. In the case of the Yi tribe walled house, two axis were developed: one went through the geometrical center of the entire settlement while the other, through the center of the earliest

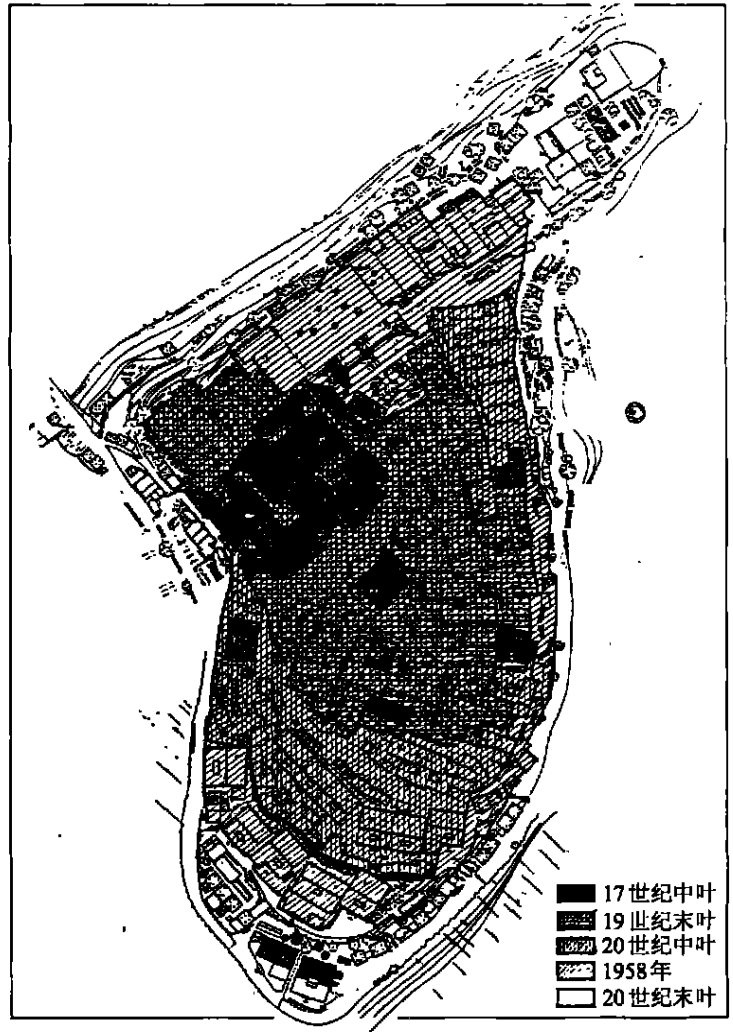


Fig.11 The development chart of Ya'ni

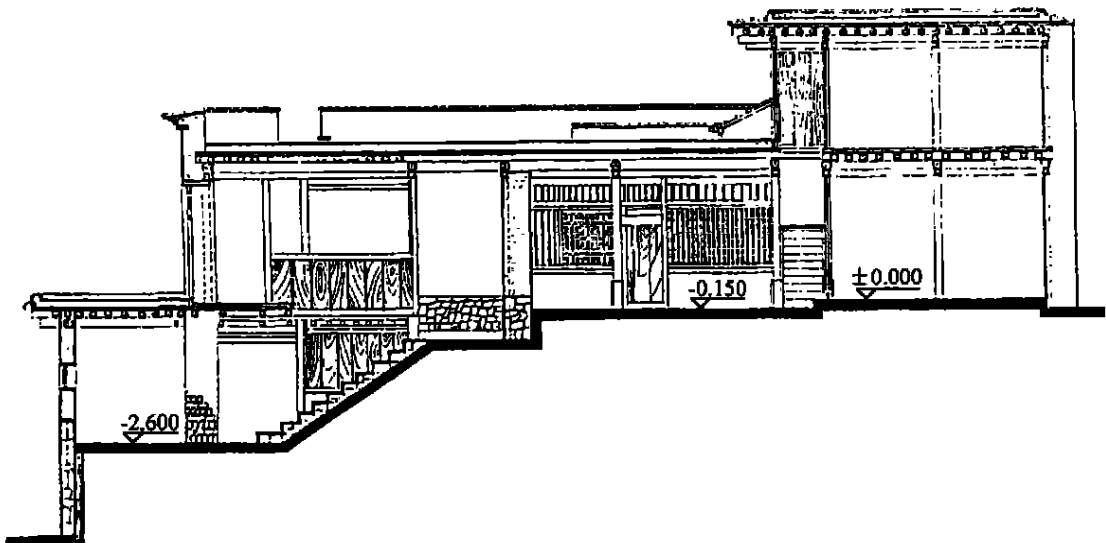


Fig.12 A typical house of Ya'ni

cluster of buildings consisting of the higher hall and the lower hall. In the case of the walled house, the courtyard which would symmetrically balance the other half of living units, was never actually built.

4) The higher hall at the end of the central axis was transformed from one “transverse unit” into multiple “transverse unit”.

In a Ya'ni village, the main alleyway along the central axis of the settlement led to an ancestral piazza of one “transverse unit” (one module-hill) in width, where the tablets of the ancestors and deities were enshrined. In a walled house, with a roof covering the main alleyway, the negative space of the central axis was turned into a positive. The piazza situated at its termination point thus became connected with the courtyard buildings on both shades, and began to along the central axis leading to the piazza, for instance, one feels as if one were walking along the central axis of a three-“transverse unit” courtyard house. The building elevation and the floor plan of these two clay method houses also give one the impression that the main alleyways were the central halls of multiple “transverse unit” buildings.

#### 4 Possible hypotheses for the evolution from Ya'ni village to clay method houses

After the previous discussion on spatial structures and central axis of Ya'ni village and clay method houses, this paper puts forward some hypotheses for further research.

##### 1) The origin of the prototype for Ya'ni village

If it is generally accepted that the formation of the settlement form is a result “modification on a prototype” (Note 3) what was the genesis of the original prototype for the Ya'ni village? Their square perimeter walls with defensive towers were obviously influenced by the configuration of the traditional Chinese city, the earliest description of which can be found in the passage describing how the craftsmen built a city in *Kaogong ji* dating from 300 BC (Note 4). However, even though both the Ya'ni village and city share a grid-patterned interior, because of the vast difference in scale, the divisions within the Ya'ni village for demarcating specific activities were greatly simplified.

The exterior configurations of Ya'ni village were also similar to those of large Yi tribe villages in Yunnan province, both being influenced by defense requirements and social conditions that emphasized a cohesive family units. Their interior layouts, nevertheless, were very different. The living units in most Yi tribe villages in China were centripetal in orientation. The living units in the Ya'ni village of the Yunnan, on the other hand, all faced South, and the central axis was defined by the negative space of the alleyway, not by the positive space of the ancestral hall. It would be unwise to suggest. However, that this type of Ya'ni village only developed after the Yi tribe settlers migrated to the Yunnan province. Perhaps settlements of a similar spatial structure may already have existed in Yunnan province and are as yet unknown to us.

##### 2) The origin of the prototype for clay method houses

The clay method houses of the E'shan county are quite similar in appearance to the large Yi tribe farm-houses of the Yunnan province. The major difference, however, lies in their central axes. Two hypotheses are proposed to explain the phenomenon of the conversion of negative into positive space along the central axis in the clay method houses. The first is based on the theory of parallel evolution. The origin of the prototypes for Ya'ni village and clay method houses were different, and they were transplanted to the Yunnan province in different time periods. But, as a result of influences from similar social and technological factors, the underwent similar modifications and come to resemble each other. The second hypothesis emphasizes influences from the prototype that arrived earlier. After being transplanted to the Yunnan province, the prototype for clay method houses was affected by the central axis feature of Ya'ni village, whose prototype arrived a century earlier and whose modified form had by then already become stabilized. Judging from the fact that there were fewer clay method houses than Ya'ni village, and that the form of clay method houses were relatively unstable compared with Ya'ni village, the second hypothesis seems reasonable.

The findings presented in this paper are at best tentative. To fully appreciate the significance of the spatial structures of Ya'ni village and clay method houses further research is required. We need to prepare comparative studies of similar settlements in the Southern part of Yunnan province to the North of Yunnan province using more in depth research using the methodology of social history and anthropology.

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## 云南峨山亚尼村空间结构和仪礼轴线的转化

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摘要: 在云南西南部的彝族聚居的村落中, 峨山亚尼村和其土掌房具有特殊的形态. 本文在分析其共通的基本元素与组织结构关系原则后, 重点说明了以下问题: ①确认空间基本结构元素和土掌的构成原则; ②通过历史分析认识这些空间结构的转化轨迹; ③说明亚尼村及土掌房的一些更新发展建议.

关键词: 亚尼村; 土掌房; 空间结构; 仪礼轴线; 彝族信屋