Site Arrangement of a Yao Settlement in Dachedong Village, Hunan Province of China

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Abstract

Originally from Hunan Province, China, the Yao Minority repeatedly migrated from place to place and are now mainly distributed in five provinces in South and Southwest China. Although much research on the Yaos has been done, surprisingly little attention has been given to those in Hunan Province, which is the ancestral home of the group.

After practicing shifting cultivation for a long time, the Yaos settled in Hunan Province about 150 years ago. Due to historical and ethnic reasons, they used to live in extremely unfavorable areas. Based on a study of the site arrangement of Dachedong Village, this paper demonstrates how the Yao settlement has been arranged in accordance with the steep terrain and what its main features are. The paper first describes the various elements of the site’s arrangement, and then gives detailed analyses of the relationship between the site and buildings, and relationships among buildings within the site. Based on further analysis of the ethnic features of the Yao nation, the paper then discusses the particular reasons which result in the site arrangement of Dachedong Village.

Keywords: site arrangement; Yao rural buildings; geographical features; ethnic characteristics; Dachedong village

1. Introduction

Located in the middle of the southern part of China, Hunan Province has four main minorities living in its west and southwest areas 1). Believed to have originated from the “savage Wuling tribes” in Hunan Province, the Yaos are living in extremely unfavorable areas due to historical as well as ethnic reasons. However, with the improvement of production methods and the correspondingly changed lifestyle, the Yao’s rural houses have changed enormously in the past century.

Research on the plan transformation of the Yao’s rural houses in Dachedong Village has been done and the results have been concluded in two papers 2). The first paper showed that changes in the position and the number of bedrooms have resulted in the plan transformation of the Yao house. Additional factors in the larger context include changes in social-cultural conditions and limitations in geological-economical aspects of Yao society. The second paper focused on the main hall and showed that its form has changed from one type to another. The essential reasons for the change lie in changes in the way of life.

The purpose of this paper however, is to make clear how the Yao settlement in Dachedong Village has been arranged in accordance with the steep natural terrain and what the main features of the settlement are. This paper first describes various constituents of the site arrangement, and then gives detailed analyses of the relationship between the site and buildings and that among buildings within the site. Based on further analysis of the relationship between the site arrangement and ethnic features, we offer conclusions regarding the characteristics of the site arrangement of Dachedong Village.

2. Investigation Background

Considered as “barbarian”, the Yaos were cruelly suppressed by most of their previous rulers and were forced to migrate into deeper and more remote mountainous regions at several times in their history. As a result, the Yaos today are mainly scattered in five provinces in South and Southwest China. Although originally from Hunan Province, the Yao of Hunan Province have been far less studied than those of neighboring provinces.

With a population of 209,564, the Yao in Jianghua...
Yao Autonomous County comprise 51.47% of the Yao population in Hunan Province and were among the earliest to have settled down from Yougeng life, which will be discussed in detail later. Consequently, Jianghua County became the most concentrated area for Yao ethnic culture and traditions in Hunan Province.

For ten days between September 25 and October 4, 1999, the Architectural Department of Kagoshima University conducted a study with the Department of Architecture at Hunan University in China. Investigations were focused on the Yao’s rural houses of Jianghua county and neighboring Xinghuang County. Pre-investigation was carried out in July 1999. Based on three criteria—villages with a concentrated settlement, villages with a successive history and villages with relatively complete Yao ethnic characteristics—we selected Miaochong Village, Niuyaling Village of Ningyuan County, Tongchongkou Village and Dachedong Village of Jianghua County as our research sites with the help of the Culture Bureau and Ethnic Committee in these two counties. Due to limitations of available sites and historical life style, the size of Yao villages was and is usually very small. Of these villages, Dachedong Village has a history of more than 130 years and comprises 13 dwellings along a circular contour line. Since these rural houses were built within a wide time period, and the building materials also vary, Dachedong Village is a typical object for research on the site arrangement of Yao settlements. Because one dwelling site in Dachedong Village has been vacant for a long time and investigation could not be carried out within it, the discussion below will focus on the remaining 12 dwelling sites currently in use.

3. Constituents of the Site Arrangement (Fig. 1)

3-1. Main Building

Usually located in the central part of a site, the main building provides the most important spaces for daily life as well as for worship. Among the 12 main buildings currently in use, three of them have mud outer-walls and wooden partitions. Except Li, Mumei’s house (D7), the newest brick building in the village, the remaining eight main buildings are all wooden structures. All the main buildings in Dachedong village were originally three bays in width except Li, Yongwei’s house (D3), which is only two. Adjoining sections are found to one side or both sides of the house in some cases.

Inside the main building, there is usually a main hall, staircase, kitchen, bedrooms and storerooms. During the process of settling-down, the plan of the main building has changed a lot. The main hall is usually located in the central part of the main building, with the main gate connecting the inside and outside. In more traditional main buildings, bedrooms for aged people are behind the main hall while kitchens and storerooms are located on both sides. In the later plan of the main building, because more bedrooms are required to accommodate the greater number of family members inside the main building, and to preserve the Yao custom of indirect access to the bedroom, aisles were constructed inside the main building while the kitchen came to be located in the adjoining structures instead of inside the main building.

3-2. “Diaojiaolou”

Called “Diaojiaolou” in Chinese, this structure is built in accordance with the steep land. Minorities dwelt in the mountainous areas and due to the unavailability of spacious land to erect buildings big enough, appending buildings usually needed to be built nearby. To make full use of the limited land, posts of various height are laid on a steep site in front of the main building to support a horizontal structure. Used as storerooms or pigpens, spaces below the horizontal level are usually open or enclosed by a simple board fencing. On the other hand, the spaces above are often used as bedrooms for young people with formal walls set around them.

3-3. Kitchen

Different from other minorities in Hunan Province, the Yaos in Dachedong village have only three remaining hearths in their kitchens, while hearths are the spiritual and living center of the home in almost all other minorities in Hunan Province. Other facilities for cooking are mainly stoves. Some of the stoves are almost the same as those of the Hans, i.e., on a brick support about half a meter high, two or three ovens for cooking and heating are set. Some other stoves, however, are different. They have a combined form of hearth and stove—before the opening of the brick stove, a square shallow hole with stone or brick edge is made on the ground; in the center of it, a trivet is set for cooking rice or boiling water. Historically, the Yao has moved from time to time. During this process, interior facilities were also made in a relatively simple form to conform to their emigrating life. “...They used to build up a triangle stove with stones; when conditions allowed, they began to use iron trivets for cooking, which were very convenient to move…” (Hu,
Qiwen and Fan, Honggui (1983) Since stoves are considered as a facility which originated with and was used mostly by the Hans, stoves in the minorities’ rural houses are believed to be the result of Han influence. From the special form of the fire facility, we can see that the Yaos’ traditional customs are still kept in their buildings, while neighboring influences have also been adopted. The position of the kitchen, as has been suggested, is on one side of the main hall within the more traditional main buildings and in the appending structures to either side of the newer main buildings.

3-4. Drying place
Since the dwelling areas of the Yaos are mostly in the mountainous areas, humidity is quite high. To keep grain and to dry firewood for cooking, a drying place is necessary in their settlement. Usually located in front of the main building in order to obtain the most sunshine, the drying place is formed by a horizontal surface supported by posts set on slanting ground. On sunny days, the drying place is formed by a horizontal surface, grain or firewood are laid out to dry. Since Dachedong village is located along a narrow circular contour line and land appropriate for dwelling and construction is extremely limited, the site has an enormous effect on the outline of the settlement. The following discussions are based on data listed in table 1.

4. Relationship between site and the main building
Since Dachedong village is located along a narrow circular contour line and land appropriate for dwelling and construction is extremely limited, the site has an enormous effect on the outline of the settlement. The following discussions are based on data listed in table 1.

4-1. Dimension of sites
Of the 12 dwelling sites, Li, Benxin’s house (D2) and Li, Yongwei’s house (D3) are next to each other and thus, the width of their sites is very limited. However, limitations in the depth of the other 10 sites are much greater than these in the width of corresponding sites. As shown in table 1, in buildings with a history of at least 130 years, depth of sites ranges from 13,844mm to 15,834mm, and the average depth is 14,941mm. While in buildings with a history of less than 130 years, the depth of the site ranges from 7,480mm to 10,417mm, and the average number is 8,890mm, which is 6,051mm less than the former one. Although available site depth of

Table 1. Dimensions of the Main Buildings and Site Plan

| No. | Household | Period | Material | X (mm) | Y (mm) | Xa Xb Xc Xd | Yx1 Yx2 | Site Dimension in Depth (mm) |
|-----|-----------|--------|----------|--------|--------|-------------|--------|----------------------------|
| 120 | Li, Xingyu | More than 130 years ago | Timber | 2577 | 6021 | 3707 | 3228 | 3532 | 2653 | 4547 | 3157 | 7479 (width) | 6257 (length) | 7684 (total) |
| 121 | Li, Xingyu | More than 130 years ago | Mud outer-walls, board partitions | 3441 | 4142 | 8942 | 3925 | 4790 | 4691 | 7587 | 3157 | About 5497 | 7210 | 15044 |
| 122 | Li, Xingyu | About 130 years ago | Timber | 3790 | 3671 | 3821 | 5415 | 5342 | 2301 | 3172 | About 4462 | 210 | 19414 |
| 123 | Li, Xingyu | About 130 years ago | Mud outer-walls, board partitions | 3772 | 4944 | 6475 | 1155 | 5644 | 2311 | 4897 | 6977 | About 3225 | 223 | 15397 |
| 124 | Li, Xingyu | More than 130 years ago | Timber | 3772 | 3902 | 6279 | 1135 | 4262 | 2320 | 6046 | 1490 | 1918 | 10147 |
| 125 | Li, Yongwei | More than 130 years ago | Timber | 3360 | 3342 | 3881 | 4774 | 4096 | 12751 | 5834 | 1495 | 7329 | 1105 |
| 126 | Li, Yongwei | More than 50 years ago | Timber | 3360 | 3342 | 3881 | 4774 | 4096 | 12751 | 5834 | 1495 | 7329 | 1105 |
| 127 | Li, Yongwei | 1969 | Timber | 3360 | 3342 | 3881 | 4774 | 4096 | 12751 | 5834 | 1495 | 7329 | 1105 |
| 128 | Li, Xingyu | 1974 | Timber | 3360 | 3342 | 3881 | 4774 | 4096 | 12751 | 5834 | 1495 | 7329 | 1105 |
| 129 | Li, Xingyu | 1981 | Timber | 3360 | 3342 | 3881 | 4774 | 4096 | 12751 | 5834 | 1495 | 7329 | 1105 |
| 130 | Li, Xingyu | 1982 | Timber | 3360 | 3342 | 3881 | 4774 | 4096 | 12751 | 5834 | 1495 | 7329 | 1105 |
| 131 | Li, Xingyu | 1983 | Timber | 3360 | 3342 | 3881 | 4774 | 4096 | 12751 | 5834 | 1495 | 7329 | 1105 |
| 132 | Li, Xingyu | 1984 | Brick | 3360 | 3342 | 3881 | 4774 | 4096 | 12751 | 5834 | 1495 | 7329 | 1105 |

Note: 1. Italic Numbers represent dimensions of the expanded part. 2. X, Y etc. are illustrated in Figure 2. 3. D_{front} = site depth in front of the main building. D_{back} = site depth behind the main building. D_{total} = total site dimension in depth.
Fig. 3. Dimensions of Main Buildings in Width and in Depth

Li, Xingzheng’s house (D12) is only 7,535mm, a protruding wooden veranda in front of the main building adds another 1,540mm to the site. Consequently, D12 has an increased site dimension in depth (from 7,535mm to 9,075mm). Thus, the site depth of buildings less than 130 years varies within a narrow range, except those of Li, Xingneng and Li, Xingdao’s house (D11 and D9) which have a depth of 7,480mm and 8,668mm respectively, and are the narrowest.

4-2. Dimension of the main building

As for the scale of the main building, several elements must be taken into consideration first. The most important point is the available land. Secondly, there are basically three kinds of building materials. The construction features of these materials and the techniques used in applying them vary. Furthermore, the scale of the main building depends to some extent on the economic situation of the household. In the case of Dachedong village, since the main buildings are basically three bays in width, which is the simplest developed form for a newly built home in the village, economic influence is not as evident as that of the first and second element.

In table 1, we find that, of the four main buildings with a history of at least 130 years, Li, Yongwei’s house (D3), with just two bays in width, is the only wooden structure. The outer walls of Li, Xingyou’s house (D5), Li, Xingyou’s house (D6) and Li, Benxin’s house (D2), however, are all made of mud—a building material with better insulation and traditionally used in Yao rural houses in Hunan Province after the settling down period. While Li, Yongwei’s house (D3) has only two bays in width, the neighboring Li, Benxin’s house (D2) is also limited by the available site width. Since the dimension in width of D2 is the smallest of the three mud structures, the dimension in depth of the building is relatively small compared with its site depth.

Buildings with a history of less than 130 years, however, are all wooden structures except the newest one (D7, Li, Mumei’s house, a brick building). Of the eight main buildings, Li, Xingneng and Li, Xingdao’s house (D11 and D9) have the smallest sites in depth as mentioned in the preceding section. Thus, the dimensions in width and depth of these two buildings are also the smallest. Dimensions in width of the remaining buildings however, have a tendency to increase gradually from 11,352mm to 12,751mm as shown in Figure 3. Furthermore, the rise begins from a number lower than that of any of the more traditional mud buildings. On the other hand, the dimensions in depth of the remaining buildings show no evident trend. Numerical values, which are smaller than those of the mud buildings, vary only slightly from 6,588mm to 7,259mm (Figure 3).

When wood as a new building material was first applied more than 100 years ago in Dachedong village, building techniques and knowledge concerning it were possibly not as mature as that of mud. Therefore, mud buildings usually have larger dimensions than what wooden structures had at first. This helps to explain the smaller width that Li, Xinglong’s house (D1) has when available land was not the problem. Meanwhile, when Li, Mumei’s house (D7), the only brick house in the village, was built in 1984, brick had been widely applied in rural areas of Hunan Province for several decades. Therefore, it didn’t affect the dimensions very much. From the above, we can assume that the numerical changes of dimensions in width and depth of the 12 buildings are to a great extent affected by available land and are only partly the result of technical reasons.

4-3. Chronological development of the site arrangement

In figure 4, we can see that although the site depth of buildings built more than 130 years ago changes slightly, the numerical values are high. The number, however, drops rapidly from 15,397mm in Li, Benxin’s house to 10,417mm in Li, Xinglong’s house, and then changes slightly thereafter except in Li, Xingneng’s house (D11) and Li, Xingdao’s house (D9). At the same time, the ratio of the building depth to site width increases gradually from 0.9 to 0.97.

Table 2. Direction of the Main Buildings

| Householder    | Li, Xinglong | Li, Benxin | Li, Yongwei | Li, Yongzeng | Li, Xingyou | Li, Xinglong | Li, Xingyou | Li, Mumei | Li, Xingwang | Li, Xinglong | Li, Meiwei | Li, Xingneng | Li, Xinglong |
|----------------|--------------|------------|-------------|--------------|-------------|--------------|-------------|------------|--------------|--------------|------------|------------|--------------|
| No.            | D1           | D2         | D3          | D4           | D5          | D6           | D7          | D8         | D9           | D10          | D11        | D12        |              |
| Direction      | East to North| East to North| East to North| East to North| East to North| East to North| East to North| East to North| East to North| East to North| East to North| East to North|              |

Fig. 4. Dimensions of Sites and Utilizing Rate of the Site
depth follows the opposite trend by changing chronologically. Although the rate fluctuates, it increases from around 0.5 to near 0.8, showing that utilization of the site increased while utilizable site depth decreased (Fig. 4). Next, let us examine further the chronological development of the site arrangement in Dachedong village.

According to building periods and dimensional analyses made above, it is possible for us to obtain a picture of the site arrangement as follows (Fig. 5):

Along the circular contour line, 12 main buildings are set from southeast to southwest. Table 2 indicates that the directions of these buildings range from 144° east to north to 97° west to north, which are almost completely in concordance with the directions of the various sites in which these buildings are located. At the back of these main buildings are high hills. At an even higher position is an access road. Following a narrow path which winds down from the road, we can reach the entrance of the settlement in the north. Spacious sites are deep inside the settlement eastward and southward. The earliest buildings with a history of more than 130 years are located on sites with the biggest site depths in the east (Fig. 6). Spacious sites in the southern most area are utilized in succession. Following this period, sites available for building are narrower and more westward from the entrance.

With the main building usually on one side, Diaojiaolou and drying place on the other, a narrow path extends in front of all main buildings. In the case of Li, Xingzheng’s house (D12), since the available site is so limited, planks are laid on protruded joists to form the path.

In this way the main buildings in Dachedong Village are arranged chronologically from spacious spaces in the east to narrower spaces in the south and then to the narrowest spaces in the west. With an open field in the center, 12 dwelling sites form a nearly enclosed circule line and thus constitute the overall site arrangement of Dachedong Village.

5. Relationships among buildings within the site
As explained in Chapter 3, there is a kitchen, Diaojiaolou, bathroom, drying place, pigpen and toilet arranged within the site except the main building. Next, discussions will be concentrated on the relationship among these facilities.

5-1. Positional relationships
Table 3 shows the position of various facilities within the site. In the case of the kitchen, since the center part of a kitchen is the cooking place, statistics are based on the position of both hearth and stove. Within the site, all the facilities serve the main building and are placed around it. Therefore, their positions are analyzed according to their relationship with the main building. To present it briefly, positions inside and outside the main building are divided into ten parts, which are indicated in figure 7. Percentage distributions of various facilities are illustrated in figure 8. From the figure, we can obtain the following results:
Dachedong village, it is quite clear that the hearth as a stoves come to be the unique cooking facility in 5-2. Transformation of positional relationships within the site. Also, we can find a transformation of the positional relationships in Yao settlements. The number of facilities within a site is to a great extent decided by the number of households in the family and the living habits of the family. Two kinds of family type exist in Dachedong village: a joint family, which consists of more than one couple of the same generation and their parents, and the stem family, which consists of the nuclear family of the chosen successor and the parents. Different from other neighboring groups, instead of marrying the daughter off, choosing the daughter as the successor is a phenomenon quite common in Yao custom. Since it would be more expensive to find a wife for the son than to marry the son off, this phenomenon is especially obvious in poorer families. Of the 12 families, ten are stem families with the other two being joint families. Therefore, 14 households exist in Dachedong village. Whether or not a branch family is formed within a household, can be judged from the number of cooking places. From the statistics of facilities, we find that the number of stoves and that of bathrooms are all 14, equaling the number 1. While the hearths are all on two sides of the main hall within the main buildings, stoves are mostly set on the two sides outside the main buildings.

2. Most of the bathrooms are set on either side behind the main buildings, with the others set on the left side of the rear part of the outer main buildings, to make them less visible.

3. All of the toilets are set at remote places from the main buildings, to reduce smell.

4. All of the Diaojiaolous are on the two sides in front of the main buildings. With a protruding structure, they make use of the steep land and help to enlarge the limited site.

5. All drying places are located in front of the main buildings. Besides making use of the steep land, this also helps to access the maximum daylight that a drying place needs.

Thus, we can find that although the overall dwelling site is extremely limited, the position of the various facilities within the site are quite reasonable and are arranged in a way to make full use of the site. Also, we can find a transformation of the positional relationships in Yao settlements.

5.2. Transformation of positional relationships

According to the fact that only three hearths exist in buildings with a history of at least 100 years and stoves come to be the unique cooking facility in Dachedong village, it is quite clear that the hearth as a cooking facility in Yao houses has been replaced by the stove. Furthermore, the position of the kitchen also changed from inside to the outside of the main building. The reasons for the change resulted from the increased requirement of bedrooms inside the main building to accommodate an increase in family members following the settling down period

Another change is the Diaojiaolou. While all main buildings with a history of more than 50 years have Diaojiaolous within their sites, only one Diaojiaolou exists within sites with a history of less than 50 years. As discussed earlier, in more traditional buildings, only aged people can sleep in the main building, while the second floor of the Diaojiaolou used to consist of bedrooms for young people. Because building a Diaojiaolou on steep land nearby costs more money than enlarging the main building on the two sides, disappearance of Diaojiaolou has on one hand resulted from the economic situation and on the other partly resulted from the changed form of the main building.

Thus, we can see that the site arrangement of the Yao house in Dachedong village also transformed following the changed lifestyle as well as the production method.

5.3. Numerical relations

The number of facilities within a site is to a great extent decided by the number of households in the family and the living habits of the family. Two kinds of family type exist in Dachedong village: a joint family, which consists of more than one couple of the same generation and their parents, and the stem family, which consists of the nuclear family of the chosen successor and the parents. Different from other neighboring groups, instead of marrying the daughter off, choosing the daughter as the successor is a phenomenon quite common in Yao custom. Since it would be more expensive to find a wife for the son than to marry the son off, this phenomenon is especially obvious in poorer families.

Of the 12 families, ten are stem families with the other two being joint families. Therefore, 14 households exist in Dachedong village. Whether or not a branch family is formed within a household, can be judged from the number of cooking places. From the statistics of facilities, we find that the number of stoves and that of bathrooms are all 14, equaling the number.

Table 3. Positional Relationships Among Buildings within a Site

| No. Householder | No. of Households | Position 1 | Position 2 | Position 3 | Position 4 | Position 5 | Position 6 | Position 7 | Position 8 | Position 9 | Position 10 |
|-----------------|------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Li, Xingdong    | 1                | ◇          | ●          | □          | □          | □          | □          | □          | □          | □          | □          |
| Li, Xianghua    | 2                | ●          | ●          | ○          | □          | □          | □          | □          | □          | □          | □          |
| Li, Xinglong    | 1                | ●          | ●          | □          | □          | □          | □          | □          | □          | □          | □          |
| Li, Xingmei     | 1                | ○          | ●          | ○          | □          | □          | □          | □          | □          | □          | □          |
| Li, Xingwei     | 1                | ○          | ●          | ○          | □          | □          | □          | □          | □          | □          | □          |
| Li, Xingyou     | 1                | ○          | ●          | ○          | □          | □          | □          | □          | □          | □          | □          |
| Li, Xingneng    | 1                | ○          | ●          | ○          | □          | □          | □          | □          | □          | □          | □          |
| Li, Xingzhao    | 1                | ○          | ●          | ○          | □          | □          | □          | □          | □          | □          | □          |
| Li, Xinglai     | 1                | ○          | ●          | ○          | □          | □          | □          | □          | □          | □          | □          |
| Li, Xingli      | 1                | ○          | ●          | ○          | □          | □          | □          | □          | □          | □          | □          |
| Li, Xingyi      | 1                | ○          | ●          | ○          | □          | □          | □          | □          | □          | □          | □          |

Fig. 8. Percentage Distribution of Various Facilities
of households. To examine this more closely, both of the joint families have two stoves and two bathrooms within the site while stem families have just one of each.

Thus, we can reach the conclusion that, although living in the same main building, the two nuclear families of the joint family live their daily lives separately. Parents usually live with one of the branch families or live with them in turn. In the stem family, however, the main building is equally used by all family members and no branch family exists. Furthermore, while cooking separately is the main sign of setting up a new family in neighboring groups, having a separate bathroom is of almost the same importance as cooking separately when a branch family is set up in a Yao family. This shows that cleanliness is quite a serious matter in Yao custom.

As for other facilities, the number of toilet is just the same as the number of main buildings, i.e., each family has one toilet. As discussed earlier, only one Diaojiaolou was built in buildings with a history of less than 50 years. Consequently, the total number of Diaojiaolou is just seven, much less than the number of families. In the case of the drying place, except for two, all the other ten dwelling sites have one located in front of the main building. The number of pigpens however, is larger than the total number of households. Since this number is decided by the number of pigs one family possesses, it reflects the economic situation of the family.

6. Relationship of site arrangement and ethnic characteristics

6-1. History of the village

It is said that the earliest settlers in the village were three brothers from Li’s family with “Jin” as their middle name. They settled down here and named their descendants following the pedigree, i.e., males in each generation would take the same character from the list “Jin, You, Cai, Wen, Xing, Ben, Yong, Yuan, Shao, Guang and Chang” in order as the middle name. Thus, although the exact founding year of the village remains unknown, the history of the village can be calculated from the villagers’ names. And a history of at least 130 years is discovered as a result.

6-2. Yougeng

The most important ethnic characteristic of the Yaos is the Yougeng life they adopted. As we have noted before, to avoid the cruel and strict control of the government of those times, the Yao people had to move to remote mountainous districts from time to time. During the process, they adopted the unique production methods of Yougeng.

As defined in A Brief Research on the Yao’s Yougeng (Zhou, Jianhua and Pan, Jianbo 1986), “the so-called Yougeng refers to the kind of agricultural production on continually-changing land. Two features of Yougeng are the production method of slash and burn and the unsettled migratory life”. Because fertility of the land was soon used up due to slash and burn, they had to move away for new land every three or four years. Domestic fortunes could hardly be accumulated in this kind of lifestyle; therefore, the economic situation of the Yao people was the worst among all minority nations in Hunan Province. Although the Yao people began to settle down from the middle of the last century, former living habits as well as the house plan which were adjusted to the former production method did not change instantly. New requirements caused by the new production method only arose several years, or even decades later, which led to the plan transformation of the Yao house.

Furthermore, during their long migration period, to protect themselves as well as to help each other in hard times, the Yao formed the habit of migrating and dwelling with relatives from the same clan in small groups. Consequently, most of their settlements consist of people with the same family name. In the case of the four villages selected as our objects, those living in Dachedong village are all under the family name of Li and those in Tongchongkou village of the same county are all named Zhao. Meanwhile, residents of the other two villages are all under the name of Zhao and Feng respectively. Demographic investigations also show that people with the same family name in the same village are all close relatives or are relatives stemming from the same ancestor decades ago.

6-3. Transfer pattern of the Yaos

Next, we will discuss in detail the transfer pattern the Yaos adopted.

Due to the slash and burn production method the Yaos adopted, arable land was usually used up in a few years. They then needed to move about in order to find new land on which to make a living. During the process, the Yaos usually sent people out first to find better land and to live there for some time. Once they had found that the land was arable and appropriate for living, messages describing the new land as well as indicating the route to reach there would be sent back. After that households, usually relatives of those from the old village who had found the new land, gradually moved to the new place. Since each piece of arable land they found could only feed a limited number of people, the scale of migration was usually kept within a few households—which resulted in the small scale of Yao villages. While the earliest settler usually just built a simple hut―called a “changpeng” by native people―to accommodate himself, later comers would build more formal buildings in which to live.

The transfer pattern described above has been practiced by the Yaos for generations. We can assume that the earliest settlers in Dachedong village also have followed the same pattern. The only difference is that since the Yaos in Jiahua County of Hunan Province were among the earliest to settle down from around the 1840s, instead of continuing to move away, the Li
brothers settled down in Dachedong village thereafter. Although some of their descendants moved to other places from time to time, this village has not been abandoned as former villages they transferred from have. Consequently, the limited land along the narrow circular contour line is used to the maximum in order to accommodate as many people as possible in the following years.

Thus we see that since spaces appropriate for the dwelling of their small groups were adequate more than 130 year ago, little consideration was given to future development after they had settled down. While living in an assembled way consists of one of their most important ethnic habits, to exhaust the available land turns out to be a possible way to meet this requirement. As a result, a narrow site was made full use of to form the centripetal settlement. Moreover, Yougeng life was also reflected by the arrangement of facilities within the site, such as preservation of the bathroom within the site and the unique form of the stove. Changes from Yougeng to settlement, however, resulted in transformation of the plan of the main buildings.

7. Conclusion
Above we analyzed a Yao settlement in Dachedong village from three points of view—the relationship between the site and the main building, relationship among buildings within the site and the relationship between site arrangement and ethnic characteristics. From this analysis, we arrive at the following conclusion:

1. The dimensions of main buildings are to a great extent decided by available land and partly by building techniques.
2. The positional relationships of buildings within a site are mainly decided by the way of life that the Yao people have adopted.
3. Ethnic characteristics—Yougeng and the transfer pattern resulting from it—are the essential reasons leading to the existing site arrangement of Dachedong village.

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Notes:
1). Statistical Bureau of Hunan Province (1999) Statistical Yearbook of Hunan 1999, China Statistical Publishing House, 86
2). Dai, Fei et al. (2001) The Plan Transformation in View of the Bedroom of the Yao’s Rural Houses in Hunan Province, China, Unpublished
3). Zhou, Zhenghua and Pan, Jianbo (1986) A brief Study on the Yao’s Yougeng, Academic Report of Central South Ethnic Institute, Vol. 3, 118
4). Detailed analyses of the reason have been discussed in The Plan Transformation in View of the Bedroom of the Yao’s Rural Houses in Hunan Province, China. (Dai, Fei et al. 2001)
5). do.

References
1) Hu, Qi wang and Fan, Honggui (1983) The Yao in Pan Village— from Shifting Cultivation to settlement, Ethnic Publishing House, 212
2) Hu, Qi wang (1988) On the Yao’s Yougeng, Proceeding of 86’ International Symposium on Yao’s Studies, Ethnic Publishing House, 71
3) Zhou, Jianhua and Pan, Jianbo (1986) A brief Study on the Yao’s Yougeng, Academic Report of Central South Ethnic Institute, Vol. 3, 118