Bunun Dwelling: A Study on the Tectonic Culture of the Aborigines in Taiwan

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1. ABORIBINAL VILLAGES IN TAIWAN

1.1. Geographical Distribution

More than two-thirds of central Taiwan is mountainous. The majority of the inhabitants of this region are Austronesian aborigines, including plains and highland tribes. They currently number about 330,000 people, or 2% of Taiwan's total population, yet they occupy 44.3% of the total area of the island. The highland aboriginals comprise 10 major tribes, including the Atayal, Saisiyat, Bunun, Tsou, Paiwan, Rukai, Ami, Puyama, and Thao, as well as the Tao people of Orchid Island. They live predominately in mountainous areas . Over the last century of modernization, these tribes have undergone considerable change, yet they have still preserved their unique customs and lifestyle. Their symbiotic relationship with nature, in particular, is worthy of our study.

1.2 Aboriginal Architecture

Despite the limited size of Taiwan, a rolling coverage of mountains and the embracing sea have incubated a rich and varied natural ecology on the island. This unique environment has also fostered the rise various tectonic cultures among indigenous peoples.

While semantic anthropologists have identified several unique linguistic traits among the languages of the aboriginal tribes of Taiwan, differences among these tribes in terms of built forms are far more difficult to distinguish. From field studies we know that the built forms of different but geographically proximate tribes gradually converged due to environmental limitations. We also know that the dwellings of the same tribe vary markedly both in construction methods and built form across different geographical regions.

The Bunun are the most representative of Taiwan's highland aboriginal peoples. They are also the last to have been impacted by modernization, such that the traditional wisdom embodied in their tectonic culture has remained relatively more intact than in other tribes. This paper has therefore selected the Bunun as a case study in tectonic culture and its relationship to the natural environment.

2.BUNUN VILLAGE

2.1 The Villages and Their Environment

The Bunun are typical of Taiwan's highland aborigines. They live primarily in the areas of Yushan and the Central Range at elevations ranging from 500 to 3,000 meters above sealevel. The majority are concentrated in rocky elevations of between 1,000 and 1,500 meters, making them the highest dwelling tribe in Taiwan. This area has an average annual precipitation of 2,500 millimeters, and there are wide fluctuations in seasonal rainfall. Severe erosion caused by rapidly river flow has carved out a unique natural environment, which is characterized by a close weave of first-growth alpine forests, tablelands, gorges and hills. Millet is the staple of the traditional Bunun diet, while yams and taro serve as supplementary foods. The main sources of meat are goat, boar, deer and wild birds.

The land of a traditional Bunun tribal unit is divided into living, farming and hunting areas. The living area is the basic unit of the village and usually consists of a main dwelling and several outbuildings, such as a chicken coop, pigsty and defensive fortifications, the use and ownership of which belong to a single clan. Ownership of farmland is also clan-based. Since the Bunun adopt a slash-and-burn method of agriculture, the arable land of a clan is often divided over several separate areas and cultivated on a rotational basis. A small work shed is frequently erected on land remote from the main house. Hunting grounds are owned by patrilineally defined clans, though they are often used collectively by the village. If a clan wishes to hunt on the grounds of another, it must first get the consent of the owner and present part of the catch to the consenting clan. In some villages, it is customary to build a small shrine on the hunting grounds for offering sacrifices.

Traditionally, most Bunun tribes live in scattered communities. They generally build their homes on steep terrain to defend against enemies, and they are careful to maintain a certain distance between the villages and rivers. There is no specific pattern to the distribution of homes in the village, though most are separated. Compounds housing three to four families are sometimes found, though the majority of these dwellings house a single clan.

Since there is no clear social stratification in Bunun tribes, every clan has equal status in principle. The chieftains and military leaders are not hereditarily determined, so there are no obvious power centers in the tribal space.

The household itself forms an independent economic unit, so there is no need for communal production across clans. For this reason, there is a considerable distance between individual households. Bunun dwellings are located on crest lines to provide the best defensive vantage. Enlargements to the home or the addition of new clan dwellings extend laterally, such that each clan family occupies a certain elevation and different clans are vertically separated.

The Bunun emphasis on the development of vertical contours is evident in the language, which contains comparatively more words for describing vertical contours in spatial arrangement than for describing collateral contours.

2.2 Social Milieu

While Bunun life is based on the household, there are two levels of social organization above the family. One is the consanguine clan, under which the codes of religion, marriage and law operate. The other is a geographical organization, under which hunting, warfare, and daily matters of the tribe are determined by a council of elders. The elders are usually chosen from among the heads of clans or people of unusual talent, such as a skillful hunter. The Bunun have no hereditary aristocratic class or chieftain system. If exigent circumstances require a leader, one will be selected by the tribal elders.

The most important communal activity among the Bunun is the "*Malah-tagia*". This ceremony, involving the target shooting of the ear of a deer, serves mainly as a supplication for a successful hunt. It is the biggest ceremonial assembly of tribal members during the entire

year, bringing together all of the males of the tribe, and therefore has social and political dimensions as well. It can serve, moreover, as an occasion for determining tribal territorial boundaries (Huang Ying-Ku, 1995).

3. BUNUN HOUSE

3.1 Family Structure

Bunun households are typically large. "The biggest has 60 to 70 members, and some bring together as many as 80 people under one roof. They work long hours and a three-year supply of grain can be stored at home" (Mori Ushinosuke, 1913).

The Bunun traditionally live in patrilineally determined extended families with the clan as the most basic unit. With the exception of daughters, who marry out of the clan, natalocal dwelling predominated. This naturally encourages the rise of large households bringing together several generations of nuclear families. In short, all agnatic members of the family live together in one big house and communally share the stove, millet granary, and available work.

In their effort to expand their families, the Bunun have also formed a special cohabitant system by which a non-blood relative can be inducted into the family (Okada Ken, 1938). The bigger the household, the greater its productive power and prosperity. The upper limit on household size is circumscribed only by the amount of surrounding arable land. Once this is exhausted, the family needs to divide and seek new farming land elsewhere. Household affairs are decided in principle by the head of the family (the most senior and high-ranking male), but if his abilities are lacking or differences of opinion persist, a new leader may be chosen or the family may divide.

3.2 House Form and Building Construction

The principle traditional structure in Bunun villages is the home. Occasionally there will be an assembly hall for male members of the tribe, though these structures are also built in a style similar to the home. Bunun dwellings vary in style between the northern and southern tribes, reflecting the availability of local materials, though their basic layout is roughly the same. Most Bunun homes have a raised sleeping area, kitchen, granary and multi-purpose space. The sleeping and cooking areas occupy the front half of the house, and the granary and other storage spaces are in the rear half.

Japanese scholars Toril Ryuzo and Sayama Yukichi have identified two basic types of Bunun building types, including stone slab and wood-plank homes. Chichiwa Suketaro has also distinguished two basic types of Bunun dwelling, both based on the same basic plan consisting of a single rectangular room, and gable roof. The two styles differ only in choice of building materials. Among tribes of the Nantou and Hualien areas, the "cave type" prevails, in which the outer walls and roof are built from stone slate; while tribes living near Taitung and Kaohsiung adopt a "platform type" with wooden outer walls and a wood shingle or thatch roof , (Chichiwa Suketaro, 1977). This difference is probably due in part to adaptations to accommodate local conditions and locally available materials. Tribes living in areas with an abundance of rock slate naturally developed skill in using this material, while communities in areas lacking slate turned instinctively to wood and grass. Defensive considerations have certainly also played a hand in the differences between the two housing styles. The rock slate "cave type" built forms are much better defended than their "platform type" with wood and

thatch counterparts. The former style also reflects the uneasy relations that existed between the Bunun in Nantou and Hualien and their Atayal neighbors.

The general process followed by the Bunun when building their homes is as follows: 1) divination of the land; 2) clearing the land of vegetation and collecting materials; 3) leveling the ground; 4) erecting the columns; 5) erecting the beams; 6) laying the roof; 7) building the walls; 8) building the granary; 9) finishing the cooking area; 10) finishing the sleeping quarters; 11) setting the wooden doors; 12) laying the slate foundation; and 13) holding a ceremonial banquet upon completion of the work.

Since the Bunun first construct the framing of the house, it is clear that the outer walls are not load bearing and could thus be made of slate or wood without interfering with the wood roof truss system. Consequently, both interior dividers and outer walls could be easily moved, facilitating expansions to accommodate growing families. The placement of the principle supporting structures on the short gable ends of the house also made lateral expansions easier, since one only had to add new roof trusses. These continual extensions resulted in structures that differed only slightly in terms of depth but had inordinately wide facades.

3.3 Ritual and Symbolism

The Bunun people have several taboos. For example, when hunting or travelling, the flight direction of a bird called the "has-has" is used to determine the auspiciousness of the venture and predict the weather or changes of events.

In contrast to hunting, which is a collective activity involving the whole village, millet farming is the main family-based activity among the Bunun. This is true as well of the rituals carried out during the various stages of the farming cycle, including the ground breaking, the start and completion of the sowing, weeding, the driving off of birds, harvest and storage of the grain. In addition to its storage function, the household millet granary also has important symbolic meaning to the family. Firstly, a granary with more than a year's supply of millet signifies that a family is truly independent and does not depend on outside support. The granary is also off-limits to outsiders, and to be able to enter this room signifies that one has been accepted into the family. Brides and other new family members are required to spend some time in the granary as part of a cleansing ceremony before they can formally join the clan (Chiu C.C., 1966: 67).

The Bunun, like the Tsou and Paiwan, traditionally buried their dead inside the home in the belief that the spirits of the deceased would protect and aid the family. Consequently, only those of strength and goodness were afforded the privilege of an indoor burial. The old and weak were interred in the yard and the cruel were buried far away from the village (Sayama Yukichi, 1919). Males were buried facing east and females facing west. After the Japanese colonial period, indoor interment was banned and Bunun burial grounds moved thereafter to a place below and downstream from the village.

Bunun taboos and myths are a dialogue between man and nature—the product of collective participation and the revision of history. In primitive societies, taboo and myth are inseparable from nature. Man coexists with the rest of creation. Through taboo and myth, the Bunun have preserved the life experience of their ancestors across generations and revealed to us an order for sustainable development.

4. CONCLUSION

As we confront the environmental crisis produced by urban architecture in the industrialized world during the twentieth century, the tectonic culture of the Bunun aboriginals offers an alternative worthy of our consideration. In Bunun buildings, objects, dress, taboos and myths, one can identify an intimate relation to nature. The materials used by the tribe come from nature, and to nature they are returned. Through this mode of sustainable development, their artifacts incorporate the relation between man and nature. The Bunun are therefore an important gene in helping us to understand the nature as a tectonic culture.

5. REFERENCES

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