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On the Development of the Houses of the Dai Villagers and Aristocrats

Yun Gao

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The Dai-Lue people,¹ Chinese people of Tai ethnic origin, live in the Sipsong Panna Dai Nationality Autonomous Prefecture of the Yunnan Province. The development of Dai architecture in Sipsong Panna is related to both Dai religions - Dai original religion and Theravada Buddhism - and the adoption, by the Dai, of Han techniques from the Central Plain of China.

Theravada Buddhist beliefs were adopted as the basis of the world-view of the people throughout Southeast Asia in the period approximately between the thirteenth and fifteenth centuries. Thereafter, Buddhist temples were built in almost every village. Because the organisational structure of the *Sangha* (the Buddhist order of monks) and the Dai feudal administration system were similar and closely connected, the temples and the houses of the Dai aristocracy used essentially the same structures to represent their positions in the social order. At the same time, an essential distinction existed between the houses of the villagers and those of the aristocracy. Han building techniques were first introduced to the houses of the aristocracy and the temples of Sipsong Panna at least in the Yuan dynasty (1271-1368 AD). These techniques were widely used in the villagers' houses in the nineteenth and twentieth centuries, perhaps even earlier, but resulted in structures which were different from those of the houses of the aristocracy.

Many aspects of the Dai people's social life are reflected in their houses.² Often, a change in social organisation appears to correspond to a change of house structure; it was, therefore, felt that a study of changes in land ownership, which is connected with Dai religious cosmology, would shed some light on the changes which occurred in Dai house structures. This article aims to discuss some transformations in the structure of the houses of the Dai people at the Sipsong Panna Prefecture of the Yunnan Province. I

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shall argue that houses have always been regarded as deeply significant structures, even though what the house is held to signify might have changed with time.

Before the adoption of Theravada Buddhist beliefs throughout Southeast Asia, the Dai people believed in Dai original religion. It is important to examine first the world-views inherent in the Dai original religion before we look at some changes in the meaning attached to the Dai houses.

The Original Dai Settlement: Architecture and Related Cosmological Beliefs

Rural people in Dai areas have always believed themselves subject to the power of local spirits.³ The site plans of the common pattern of the early Dai villages and houses have been traditionally viewed as representing an establishment of order. Establishing order meant setting principles of classification for the society of the living, and against the chaos of evil spirits.⁴ From a spiritual point of view, these concepts of classification both unite man with, and separate from, the rest of creation. According to Dai original religion, there are three kinds of spirits which correspond to the human settlement: the *se muang* (spirits of *muang*, groups of villages⁵), the *se bang* (spirits of *bang*, villages) and the *se hang* (spirits of *hang*, houses). These three kinds of spirits came into being in the period of Pa Ya Shanmudi in *circa* the second century AD. When the Dai settled as cultivators, cultivation required the co-operation of many people, and, therefore, several descent groups united and formed village communities. At the same time, the ancestral spirits worshipped by the oldest descent groups became the *se ban* and the *se muang*, the territorial spirits of the newly established settlement. The Dai believe that, after death, the original headman of each village became the village spirit, the *se bang*, represented by several wooden posts in the village. The leader of the *muang* became the *se muang*, also represented by several wooden posts in the *muang*. Since Buddhism was introduced to the Dai society, the *se muang* has been represented by a pagoda in the *muang*. The founders of the Dai settlement, transformed into *se bang* and *se muang*, are considered the 'owners' of the village and the *muang* respectively. Moreover, they are primarily associated with norms concerning village citizenship. They act as disciplinarians for common village property rights, for example, in the protection of public roads and lanes against all sorts of infringement.⁶

According to Dai beliefs, besides man, objects and animals can also be transformed into spirits, but the *se* distinguishes man from the rest of the

world; it expresses the uniqueness of man despite his belonging into the creation as a whole, because only man, in his human condition, can be offered the opportunity of transformation into *se bang* and *se muang* who have the titles of the legendary kings.⁷ According to Dai concepts of spirit essence, the realm of man is fourfold. Human control, permanence of man's occupation, and the strength of bounties successively diminish from houses to villages, to fields and beyond. The associations of family spirits with houses, spirits of animals and plants with villages, and free spirits with areas outside villages reflect the successive diminution of man's control over these areas.⁸ The house is the inmost division of the human domain, the most civilised and controlled area in nature.⁹ It intrudes into the realms of earth, water and jungle in such a way that the process of house construction demands propitiatory and placatory rites. The following is a Dai charm used at the ceremony for breaking the earth in Sipsong Panna:

The household really needs a new house, because the old one is ruined and too small to live in. Now that the members of the household have informed of the reason for building a new house all gods, spirits and the headman, everybody should help them ...

Because so many people of the upper and the lower villages come to help and celebrate, it is possible that somebody may get drunk and cause trouble. In order to ask in advance all gods, spirits and the headman for forgiveness, the household prepared these offerings to you. Everything we do is with a view to letting the new household share in the good fortune of the community. May the gods bless all people.¹⁰

The Dai house is the basic unit of the village community sphere. The Dai believe that, after death, the head of the household is transformed into the house spirit, the *se hang* (*devata hang*), which is represented by the *sao sautsaw*, a column inside the house.¹¹ The *sao sautsaw* is seen as the 'master' of all the columns of the house and the chief symbol of the house and household. All the columns in a Dai house have their own names, still retained nowadays, and these are believed to have been handed down from the time of Pa Ya Shanmudi building the first Dai house.¹² Pa Ya Shanmudi is an ancestral hero who led the Dai to settle as rice cultivators, established the first human settlement and built the first Dai house. In Dai legends, Pa Ya Shanmudi is described as a man, or a symbol of man, and *naga*, the serpent whose kingdom is under the earth, as a symbol of nature. *Naga* fought for the main column of the house with Pa Ya Shanmudi, that is, against man. In the Dai house construction process, rituals were held to ask *naga* to approve of the erection of the main column, in other words, nature had to grant legitimacy to the household.¹³ As Turton argues, discussing the Thai house

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in northern Thailand, "The householder, so to speak, negotiates ownership and use directly with nature."¹⁴

The *sao sautsaw* ('column of the prince') and *sao nang* ('column of the princess') are the most important columns in a Dai house. The *sao sautsaw* is said to be male and the chief of all columns. The *se hang*, the house spirit, is believed to occupy this column. The *sao sautsaw* is also closely associated with the family ancestors. A shelf for placing offerings to the *se hang* is attached to the *sao sautsaw*. In a finished house, the *sao sautsaw* is located in the sleeping room, to the east of the bed of the master of the household. During the house building process, a garment of the master of the household is fixed at the top of the *sao sautsaw*. The *sao nang* is said to be female and makes up a pair with the *sao sautsaw*. It is related to the soul of the house and stands near the hearth in the living room. The Dai believe that the *sao sautsaw* is responsible for the vitality of the sleeping room and the wealth of the family, and the *sao nang* for the vitality of the living room. Traditionally, nobody can lean against these two columns except that the corpse is placed against them when an elder household member dies. In addition, these two columns cannot be used for hanging things or tying domestic animals.

Further Values Attached to the Traditional Dai House

Besides religious beliefs, some social values are also attached to the division of space in a Dai house. A row of columns supports the ridge on the central line of the house, marking the sleeping room off the living room (Fig. 1).

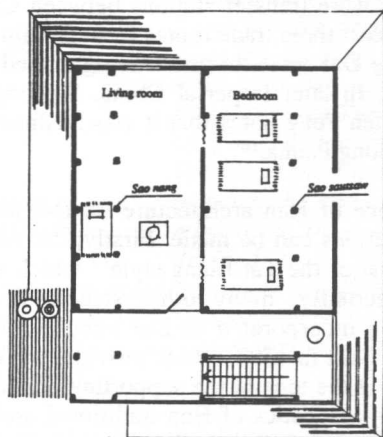


Fig. 1. Typical plan of the Dai house in Sipsong Panna

Tambiah's analysis of the division of the Thai house in northeast Thailand, for example his observations cited below, apply to the Dai houses in China as well. Tambiah writes:

*The huean nau is the place for receiving and entertaining guests (baun rabkhaeg). Typically these guests are second and more distant cousins, neighbours and friends from the same village, and other nearby villagers. People in these categories (phii-naung/yaad haang) are eminently marriageable and are permissible sex partners. They are forbidden to enter the sleeping quarters (huean yaai) unless they enter into a marriage relationship with a member of the household. They are divided from the sleeping quarters by a threshold space represented by the two khwan pillars which stand between the rooms.*¹⁵

In the case of the Dai house, the closest friends of the family may also be invited into the sleeping space, a gesture meant to show that they are as close as members of the family.

The Influence of the Han Techniques of the Central Plain of China on Dai Architecture

From the beginning of the Yuan dynasty, Dai economic and craft development had been fast. Many Dai who travelled to other areas for business purposes brought back to their villages new building techniques. In the Ming and Qing dynasties (1364-1911 AD), commerce was booming because the Dai areas were transfer stations between China and the Indo-China peninsula. At least three trade routes from the hinterland of China to Indo-China crossed the Dai areas; businessmen gathered in Sipsong Panna, Baoshan and Tehung. In later Imperial China, Sipsong Panna became a commercial centre. Zhen Peng notes that it was businessmen who brought Han techniques to Sipsong Panna.¹⁶

Regarding the influence of Han architecture on Dai temples, at least the following two observations can be made. Firstly, the roof truss of the Dai temple is similar to that of the Tai Liang style¹⁷ which was widely used in Han architecture. Secondly, many other structural elements of Han architecture have been incorporated in Dai temples, for example, in the Muang Guan Temple, built in 1597, which provides the earliest example of the use of Tou Kung¹⁸ at the tops of the supporting columns. The Tou Kung is one of the basic characteristics of Han traditional architecture, and only palaces, temples and other high class buildings were allowed to use it. Local Dai people say that Han carpenters were involved in the building of the

Muang Guan Temple.¹⁹

Although we do not have enough information concerning the houses of the Dai aristocracy²⁰ in the Yuan dynasty, we have a lot of information about the techniques used in Dai temples of the same period. After Theravada Buddhist beliefs came into Dai society, Buddhism became closely associated with politics in the traditional Dai states.²¹ The temples and the houses of the aristocracy used the same trusses, manifesting the correspondence between the monastic and the monarchic systems. Nine types of truss had appeared in Sipsong Panna until 1960. Of these, the ninth (Fig. 2) could only be used in temples and the houses of the aristocracy. The exterior forms of the houses of the aristocracy were almost the same as those of the temples. Most often, the temples and the houses of the aristocracy in Dai areas had tiled roofs. The Dai believe that tiled roofs were not used before the introduction of Buddhist architecture, in the thirteenth century.²²

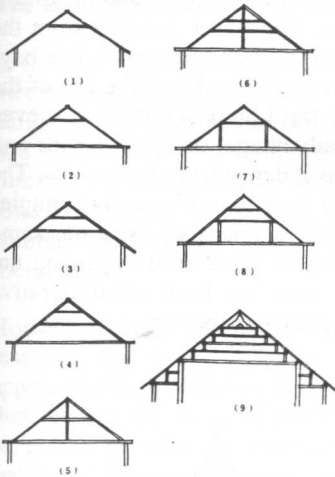


Fig. 2. The nine types of roof truss used in Sipsong Panna.

In the following passage Zhu describes the relationship between the *Sangha* and the Dai administrative system.

... the organisational structure of the *Sangha* was a mirror-image replica of the feudal government's administrative system. In *Xishuangbanna* [Sipsong Panna], for instance, the main Buddhist temple (vatnon or vatkon in Dai) was in *Xuan Wei Jie*, as was the palace of the *Zhao Piang Ling*, the ruler. ... There were also two other temples, *Vat Za Bang* and *Vat Zuan Don*, (known, too, as *The Temple of the Left* and *The Temple of the Right*), which functioned in much the same way as government ministries in carrying out policies decided on by the ruling council of

monks. ... Each *meng* [muang] was made up of smaller ones (like petty vassal states), and in each of the latter there were subsidiary district temples, with each of these in turn responsible for the temples in the villages in that district.²³

Like Tai temples in Thailand and Burma, Dai temples in China were structurally supported on brick masonry. The relationship between the

wooden trusses and the brick walls dominated the development of the architecture of the Dai temples. According to Qiu Xiangchong, there were three kinds of temples in Jing Hong, Sipsong Panna.²⁴ The first was in the Wu Zhu style (a framework without side columns), e. g. the Muang Gou Temple (Fig. 3), with the bottom member of the roof truss supported on stone bases. These pad stones were placed on brick walls and light and ventilation were provided to the interior of the temple through the shallow space between the roof and the pad stones. This technique was used in half of the temples in Jing Hong. The second kind of temple was in the Qian Zhu style (a framework with both walls and side columns), e. g. the Fo Hai Temple (Fig. 4). The roof beam was supported by several short columns standing on the walls. The space between walls and eaves contained the windows. Because the windows were bigger, the interior of these temples was brighter than that of the temples in the Wu Zhu style. The third kind of temple was in the Bian Zhu style (a roof truss with side columns), e. g. the Su Muang Mang Temple at Gan Lang Ba (Fig. 5). The side columns of this style of temple, which supported the beams, stood at a distance from the walls which, therefore, lost most of their structural function.²⁵ The bays between the columns and the distance between the roof and the top of the walls were enlarged, thus, the interior of the third kind of temple was even brighter. This last system had an obvious advantage, as the columns and beams formed an integral structure which was independent of the walls. The third type of temple emerged later than the first two. Normally, temples belonging to the same monastery or located in one area used the same techniques. The conditions under which temples were built depended not only on advancements of techniques, but, also, on local administrative divisions and the mobility and availability of skilled carpenters.

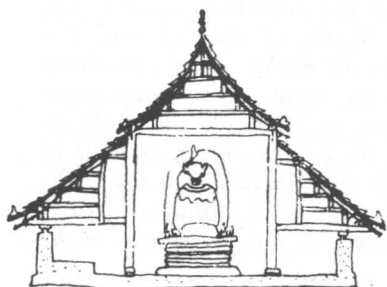


Fig. 3. Cross section of the Muang Gou Temple. (After Qiu).

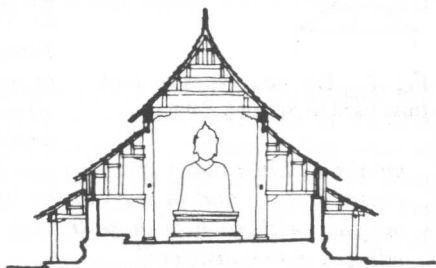


Fig. 4. Cross section of the Fo Hai Temple. (After Yunnan Institute of Design).

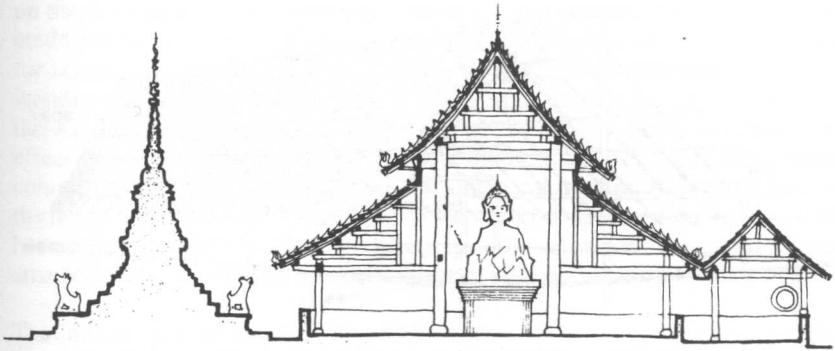


Fig. 5. Cross section of the Su Muang Mang Temple.
(After Yunnan Institute of Design).

The Development of the Houses of the Dai Villagers and the Aristocracy

In the Dai society, the number of columns in a house is significant of the owner's position in the social order. Until 1949, the regulations about the building of houses in the Dai area had included the rule that the villagers' houses could not have more than 40 columns.²⁶ In Xuanwei street of Jinhong, the house of Xuanwei, who was the lord of the Dai areas, had seven rows of columns, 120 in total; the house of his son had 58 columns.²⁷ These columns were not all functional; their great number referred to the owner's social status.

Houses with too many columns had, at times, functional problems. For instance, the living room of Xuanwei's house had sixteen columns; it appeared full of columns. An explanation for the great number of columns is that, before the Yuan dynasty, the roofs of the Dai houses were directly supported on columns without any trusses; these columns were structurally necessary. This kind of structural system is called Cha Shou system (Fig. 6). In order to reduce the number of columns and, thus, make the plan of the house more flexible, a new wooden structure was needed to support the roof. As mentioned above, in the Dai area, triangular trusses began to be used in the houses of the aristocracy and temples in at least the Yuan dynasty.²⁸ The structure of the triangular truss was similar to that of the truss of the Chuan Dou system²⁹ of Han architecture, but when the triangular truss was used in Dai areas, the roof was supported by slanting beams rather than the rafter of the Chuan Dou system. This Dai structural system with the triangular truss is called Xie Liang (Fig. 7).

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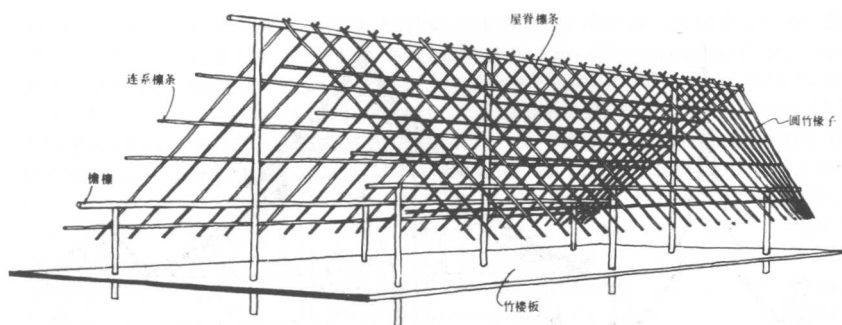


Fig. 6. The Cha Shou structural system. (After Yunnan Institute of Design).

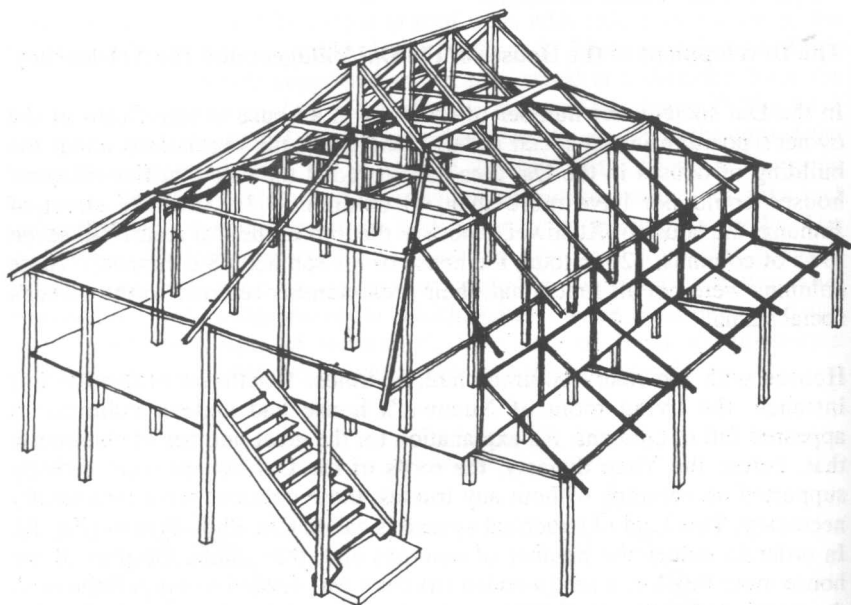


Fig. 7. The Xie Liang structural system. (After Yunnan Institute of Design).

When the Cha Shou system was transformed into the Xie Liang one, two structural changes occurred. One was that some columns in the central line of the house were eliminated. For Cha Shou houses, it was imperative to place a row of columns under the ridge. But the indispensability of this central row of columns meant that the Cha Shou structural system imposed restrictions

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on the floor plan. In addition, since these columns were truly structural and could not be removed, they had to be used for purposes of partition, that is, for separating the living room from the sleeping room. After the advanced wooden structure techniques were introduced to the houses of the peasants, the Xie Liang system's triangular trusses were used in order to reduce the effect of the columns on the plan of the houses, and, consequently, some columns were eliminated. However, two main columns on the central line of the house were retained to mark the division of the space. The partition wall between the living room and the sleeping room remained; the social values attached to the division of domestic space have been maintained to this day.

The introduction of new building techniques affected the architecture of the Dai house in another way too. Previously, the columns which supported the ridge extended through the whole structure, from the ground to the roof. In later houses, the ridge was supported by short columns standing on the floor. This may be explained by the contemporary increasing rarity of large straight trunks.³⁰ This transformation of the columns may be seen as related to the Dai attitude to their original religion and Theravada Buddhism. When Theravada Buddhism came to Southeast Asia, in about the thirteenth century, the teachings of Buddhism were found to be in conflict with the beliefs of the Dai original religion. Buddhism finally prevailed and became the fully established religion of all Dai societies.³¹ Buddhist learning and scholarship had an enormous impact on the characters of the Dai language which first appeared in written form on Buddhism's arrival. They also played an important role in both religion and secular education.³² Some Dai legends changed to Buddhist stories. For example, it is recorded, in the Dai ancient text *Dai Poem*,³³ that *Pa Chao* (Buddha) claimed that he gave the Dai people their houses. He transformed those two main columns, which extended from the ground all the way to the roof symbolising the house and the household, to two short columns in the undercroft. The author complains that it was Pa Ya Shanmudi who fought with *naga* - nature - and erected the *sao sautsaw* in the first Dai house, which means that man appropriated from nature, and established, the household's right to ownership of the cosmos which was recreated in the construction of the house. Buddha eliminated the contribution of Pa Ya Shanmudi who built the first Dai house.³⁴

As Keyes argues, after Buddhism came into Southeast Asia, it was the Dai rulers who initiated conversion to Buddhism.³⁵ The Dai rulers were considered a source of power that ensured the prosperity of the land, and this power was viewed as deriving from association with both locally recognised supernatural forces and the new Buddhist gods.³⁶ The highest ruler of the Dai areas claimed the sole right to mediate between the humans and Buddha and

spirits, on behalf of the community. The structural transformations of the houses of the Dai rulers reflected their new roles, that is, their newly adopted land property rights and their rights of mediation with spirits and gods.

Some Differences Between the Houses of the Dai Villagers and those of the Dai Aristocracy

Besides the trusses, one of the most important differences between the houses of the aristocracy and those of the peasants was that the former were built on stone bases, while the columns of the latter were set into the earth. Houses built on pad stones needed a framework which formed an integral structure. The tenons and mortises of Han techniques were essential to this kind of house. Compared to the original framework, this kind of structure had many advantages. Houses with this structure could be enlarged or reduced in size easily and set inner and outer walls at any place. A building with columns set into the ground could not be changed easily and its columns had to be set into the ground one by one and connected afterwards. When columns were erected on pad stones, they had to be connected before they were erected and, accordingly, the structure had to be a tightly jointed skeleton frame of column-and-beam construction. Furthermore, this later kind of structure helped to prevent moisture from rotting the column bases, a functional requirement in a land of heavy rainfall, whereas a building with columns set into the ground could become quickly rotten.

As mentioned above, after the arrival of Buddhism in Dai areas, the highest ruler of Sipsong Panna was the sole landowner, called *Chao Phaendin*, meaning "Lord of the Land", while the peasants' self-nomenclature was *Bo Hai Mae Hai*, "Parents of the Land".³⁷ In feudal agricultural communities, the ruler's ownership of the land was very important; it confirmed his power. Villagers who lived on the earth paid rent to *Chao Phaendin* or his delegated representatives. Everything attached to the earth, and belonging to *Chao*, had to be claimed, for example, the wild animals hunted had to be given their half which lay on the ground to *Chao* since those were the animals' parts in closest contact with *Chao* land. The stone bases of the houses of the aristocracy were called "the legs of the elephants" by the Dai, because only aristocrats were allowed to ride elephants.³⁸

The law concerning the building of houses on pad stones was flexible, however, provided that *Chao Phaendin*'s ownership of the land could be clearly stated. Some village headmen and other villagers were also allowed to build their houses on bases and use tiled roofs once certain rituals had taken place. As a Dai villager says, "Houses were built on *Chao* Land. If one

wanted to build a house on pad stones and to use tiles, he had to ask *Chao* for permission."³⁹ The villager who wanted to build a house like those of the aristocracy, went to see *Chao* with a piece of white cloth. If *Chao* approved of the villager's request, he drew an outline of his hand and foot on the cloth. During the time of construction, this piece of cloth was hanging from the beam of the roof to bless the new house. If a house had been built with tiles and columns on stone bases without this certificate, it had to be dismantled. Some villagers in Sipsong Panna built their houses with thatched roofs and left the tiles on the ground until they were granted the certificate.⁴⁰ It is interesting to compare this certificate to the garment of the master of the household which, in the earlier type of house with columns set into the ground, was fixed at the top of the main column, the *sao sautsaw*, during the time of construction.

In the Pa Ya Shanmudi period, the *sao sautsaw* was viewed as the chief symbol of the house and household. In rituals of building a house, the fixing of a piece of clothing of the household's master at the top of the *sao sautsaw* was most important; for it was meant to show that the position of the householder in the society and in nature was established. Later, when the techniques of roof trusses and mortises and tenons were widely used in the houses of the aristocracy, after the Yuan dynasty, houses built on stone bases not only boasted progressive techniques, but also indicated that the earth belonged to *Chao*. Discussing the building process of Thai houses in northern Thailand, Turton writes:

*On the one hand there is the establishment and development of local communities directly appropriating from nature, so to speak, with their own ideas of legitimate ownership and attempted control over supernaturally granted benefits of fertility and so on. On the other hand there is the process of their incorporation within higher and wider political units with a somewhat different idea of ownership and access to supernatural power.*⁴¹

According to this, within these two different processes, the meanings attached to the houses are different. On the one hand, the house manifests the establishment of the position of the householder in nature, as this is reflected in the legend of Pa Ya Shanmudi. On the other, the house serves as a reference to the position of the householder in the social order. The changes in which occurred in the Dai social organisation are reflected in the changes in the house structures. Looking at the development of the architecture of the Dai house, it may be said that, on the level of the peasants the social relationships have always been characterised by reciprocity and

redistribution. On the other hand, the relationship between the peasants and the state, in other words, between villagers and aristocrats, is not one of reciprocity; it is a relationship of unequal exchange.⁴²

Summary

There are essential distinctions between the aristocracy and the peasants in Dai society. The houses of the aristocracy and the temples used advanced Han techniques to show their privileges, their ownership of the land and their special relationship with Buddha and supernatural spirits. The houses of the peasants developed a structural system also based on Han techniques, but different to that of the houses of the aristocracy. Although the Dai people made use of Han techniques, they did not adopt the classical Han values. The Dai invested in these new to them techniques the values of their own systems of belief and the principles of organisation of their own society.

Notes and References

1. The terms 'Dai', 'Tai', and 'Thai' are different versions of the same ethnic name. While 'Dai' refers to the Tai who live in Yunnan, 'Thai' refers to the population of Thailand. The Dai-Lue are a Tai-speaking people who live mostly in the Sipsong Panna Dai Nationality Autonomous Prefecture of the Yunnan Province. The Dai population of this Prefecture is 252,000 according to the census of 1986.
2. See: Bourdieu, Pierre. *Outline of a Theory of Practice*, Cambridge University Press, Cambridge, 1977. Cf.: Rapoport, Amos. *House Form and Culture*. Prentice-Hall, Englewood Cliffs, N. J., 1969.
3. Cf.: Chinese Ethnological Institute of Yunnan. *A Survey of the Dai in Xishuangbanna* [Sipsong Panna], Vol. 9, 1988, Yunnan Nationality Press, Kunming, 1956-. Cf.: Ai, Wang, Song and Dao, Baorao. *History of Dai Literature*, Yunnan People's Press, Kunming, 1995.
4. Cf.: Davis, Richard B. *Muang Metaphysics: A Study of Northern Thai Myth and Ritual*, PANDORA, Bangkok, 1984.
5. The *Muang* is a unit in a formal administrative hierarchy in the Dai areas, which consists of several villages, and a village may consist of twenty to over one hundred households.
6. Cf.: Chinese Ethnological Institute of Yunnan. 1956-, op. cit., Vol. 9, 1988, pp. 243-282.
7. He, Fang. "Dai Original Religion"; *Journal of the Yunnan Ethnic Institute*, The Yunnan Ethnic Institute, Kunming, 1993.
8. See: Endicott, Kirk Michael. *An Analysis of Malay Magic* Clarendon Press, Oxford, 1970.
9. *Ibid.*, pp. 96-107.
10. Chinese Ethnological Institute of Yunnan. 1956-, op. cit., Vol. 9, 1988, p. 107.

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11. Ibid., pp. 281-282.
12. Ai, Fong, Wang, Song and Dao, Baorao. Op. cit., pp. 16-28.
13. See: Gao, Yun. "Symbolism in the Construction of the Dai Traditional House"; *Edinburgh Architecture Research*, Vol. 22, Edinburgh, 1995, pp. 121-131.
14. Turton, Andrew. "Architecture and Political Space", in: Milner, G. B. (ed.). *Thailand in Natural Symbols in South East Asia*, University of London Press, London, 1978, p. 124.
15. Tambiah, Stanley Jeyaraja. *Buddhism and the Spirit Cults in Northeast Thailand*, Cambridge University Press, Cambridge, 1970, p. 22.
16. Yang, Meiqin and Zheng, Peng. *Customs and Scenery of the Dai People in Sipsong Panna*, Yunnan Education Press, Kunming, 1986, p. 54.
17. The Tai Liang (raised beam construction) style, was widely used in the Spring and Autumn period (770 - 476 BC) in the Central Plain of China and improved with time. Beams were placed on top of columns erected along the depth of a building. Shorter beams were placed on top of the struts on the lower and longer beams. Through the diminishing length of the beams, triangular wooden frameworks were erected. Then purling were placed on top of the struts on top of the beams to support the weight of rafters and the roofing. These were the basic structures of raised beam constructions. Cf.: Liang, Sse Cheng. *A Pictorial History of Chinese Architecture*, ed. William Fairbank, MIT Press, Cambridge (Massachusetts), London, 1984.
18. A set of Tou Kung, or brackets, is an assemblage of a number of Tou (blocks) and Kung (arms). The function of the set is to transfer the load from the horizontal member above to the vertical member below. A set may be placed either on the column, or on the architrave between two columns, or on the corner column. Ibid.
19. Qiu, Xiangchong. "Dai Temples in Jin Hong, Sipsong Panna"; *The Study of the Customs and Religions of the Ethnic People in Yunnan*, Yunnan Nationality Press, Kunming, 1985, p. 148.
20. There were two classes which were counted as aristocrats in the Dai society. The king's closest patrilineal relatives, i.e., father's brothers, siblings, and sons, comprised the highest class, called *mhoam*. The second class, called *vung*, consisted of the matrilineal relatives of the king or prince, or distant patrilineal kinsmen. See: Shih-Chung Hsieh. *Ethnic-Political Adaptation and Ethnic Change of the Sipsong Panna Dai*, (unpublished Ph. D. thesis), University of Washington, Seattle, 1989, p. 113.
21. Zhu, Liangwen. *The Dai - Or the Tai and their Architecture & Customs in South China*, D D Books and The Science Technology Press of Yunnan, Bangkok, 1992, p. 40.
22. Dao, Goudong. "Aesthetic Standards and life Customs of Dai people"; in: *Proceedings of the Fourth International Conference on Tai Studies*. Vol. 2, Institute of Southeast Asian Studies, Kunming, 1990, p. 314.
23. Zhu, Liangwen. Op. cit., p. 40.
24. Qiu, Xiangchong. Op. cit., p. 148.
25. Ibid. p. 149.
26. Yunnan Institute of Design. *Vernacular Architecture in Yunnan*, Chinese Architectural and Industrial Press, Beijing, 1986, p.224.
27. Ibid., p. 225.

28. Yang, Meiqin. Op. cit., p. 54.
29. The Chuan Duo system is a construction method widely used in residential buildings and still prevalent today in the countryside of southern China, in areas where timber is available. The advantage of this type of construction lies in the use of small size timber for beams and columns which makes this style more economical. In the Chuan duo system closely arranged lines of columns along the depth of the building are connected by small beams let into the columns to form a framework. Cf.: Liang. Op. Cit.
30. Dumarcay, Jacques. *The House in South East Asia*, Oxford University Press, Singapore, 1987, p. 4.
31. Keyes, Charles F. *The Golden Peninsula*, Collier Macmillan, New York and London, 1977, p. 307.
32. Wang, Yizhi. "An Investigation of the History of Hinayana in Xishuangbanna"; in: Wang, Yizhi and Yang, Chiguang (eds.). *The Palm Leaves: Buddhism Sutra Culture Treatises*, Yunnan People's Press, Kunming, 1990, pp. 407-425.
33. Gu Ba Mong. "The Origins of the Village Spirits and Muang Spirits"; in: *Dai Poem* (An Anthology of Dai Poetry), translated by Ai Wenbian, Chinese Folk Art Press, Kunming, 1981, (1615, in Dai), p. 75.
34. Gu Ba Mong. Op. cit., p. 25.
35. Keyes, Charles F. Op. cit., p. 307.
36. Ibid., p. 308.
37. Chinese Ethnological Institute of Yunnan. *A Brief History of the Dai People*, Yunnan People's Press, Kunming, 1985, p.3.
38. Chinese Ethnological Institute of Yunnan. 1956-, op. cit., Vol. 7, 1985, p. 15.
39. Personal communication with Dao Xinming, Sipsong Panna, June 1989.
40. Ibid.
41. Turton, Andrew. Op. cit., pp. 129-130.
42. Ibid., pp. 127-130.