Chapter 6

COMPARATIVE ANALYSIS ON THE ARCHITECTURAL CHARACTERISTICS OF SHAN MONASTERIES IN SOUTHERN SHAN STATE OF MYANMAR AND NORTHERN THAILAND

This chapter presents the comparative analysis on the architectural characteristics of Shan monasteries from selected areas in Southern Shan State and Northern Thailand. The analysis of the variables studied, i.e., site planning, main monastery building, roof forms and detail decorations, will determine the similarities and differences occurred in the Shan monasteries built between 1830 and 1930. The analysis performed by comparing each variable between two different regions. By doing so, some striking similarities in their characteristics can be grouped and their quantity claims the probability of the relationship between the regions. There are some transformation and variations according to time and region. The transformation by tracing alterations and additions through time resulted in the primary planning. The variations are discovered within the same region as well as in the different regions. Within the same region, the variations depend on different time of construction. In the different region, the variations depend on the topography and socio-cultural changes. For the comprehensiveness of the study, the analysis undertaken in the site plan, forms and detailed decorations are decided depend on the present physical settings. The analysis on the spatial planning of main monastery building depends on both in original and present conditions.

6.1 Samples

Ten samples for each study area are collected in Southern Shan State and in Northern Thailand. In Southern Shan State, the samples are located within Nyaung Shwe Township which was once prospered as one the Shan principality states. In Northern Thailand, according to the distribution of Shan migration, the samples are scattered around the Northern provinces including Mae Hong Son, Lampang, Phrae and, Phyao in which Mae Hong Son is the latest established province having more rural nature than other provinces. Among them, Lampang is the most prospered city which has been as main teak trading center in the 19th centaury. The original constructions vary from 1832 to 1925. The earliest sample found in Innlay Lake area was built earlier than 1832 however the earliest built sample found in Northern Thailand was built in 1867 even if it does not mean that the evolution of Shan monastery in Northern Thailand start in 1867. There can be earlier built monastery although not survived. Most of the Southern Shan State samples are commoners' donations in which only one is the royal donation in fact all of them situated in villages which can be taken as rural area. The Northern Thailand samples situated both in urban and rural area. None of them is the royal monastery since they generally are donated by traders and local commoners. The samples around Lampang were donated by the British subject wealthy teak traders and their followers whereas those around Mae Hong Son were donated by local villagers.

In Southern Shan State, every village usually has at least a monastery. They are built in dedication to a monk or a ruler. Sometimes, they are built as an auxiliary structure of an existing pagoda. A set of donation such as pagoda, ordination hall, monastery and rest houses is also fond to be donated. This kind of donation can be seen in the merit of Nyaung Shwe Sawbwa Saw On who donated Shwe Yan Pyay Pagoda and monastery including ordination hall and rest house. In northern Thailand, Shan monasteries were built as the community center for Shan immigrants whose culture and language is different from the local community. Shan, Pa-O or Myanmar monks from Myanmar proper or Shan State were asked to stay in these monasteries only after they were built. In general, the monasteries in both Southern Shan State and Northern Thailand were first built as temporary bamboo structures. They are reconstructed as present wooden structure in the later period.

6.2 Site

The analysis on the site planning undergoes according to the elements in the compound, site composition and site access.

6.2.1 Elements in the Compound

The following elements are commonly found structures for Shan monasteries both in Southern Shan State and Northern Thailand.

- Main monastery building
- Stupa
- Ordination hall
- Laymen pavilion/rest house
- Monk residence
- Preaching Hall
- Bohdi tree
- Bell tower
- Separate kitchen
- Well
- General store
- Common toilets (monks' toilets and lay toilets)

Main monastery building

The main monastery building is the most important structure in both regions since every monastery compound has a main monastery building which is known as Kyaung in Southern Shan State as well as in Myanmar proper. In Northern Thailand, it is known as Sala Karn Parian, Viharn, and Jong (probably the Thai adaptation of Myanmar word "Kyaung"). However, there is no identical building type in a Northern Thai monastic compound as a Kyaung in Southern Shan State. Comparing with the structures in a Thai wat, a Kyaung is a multipurpose building combining Sala Karnparian (meeting and preaching hall), Viharn (assembaly hall and shrine), Ho trai (library), and Kuti (monks' residence). Hence, various functions such as temple, school and residence perform in this single main monastery building.

Ordination hall

In Southern Shan State, the monasteries have to use the common ordination hall particularly in Nyaung Shwe town and Ywa Ma village. It happened according to

the royal order from the ruler of Nyaung Shwe (Sir Saw Maung) in order to get unification of various monastic sects. Since the topography of the villages around Innlay Lake area has semi aquatic nature, the ordination halls are usually founded as water type. It is important for a water ordination hall to be located on water. Since Innlay Lake silts up every year, the ordination halls are no longer on the water and they are being abandoned. Instead, land type ordination hall are built to use as common ordination hall for certain area such as one per each village. However, some water type ordination halls are still being used.

In the past, the Shan monasteries in Northern Thailand were start established as monastic residence (Samnak Song), without ordination hall and depending upon another monastery for ordinations, rather than a full fledged temple (wat). Later, the donors tried to get the permission to built ordination halls and upgraded the monastery as a full status wat. However, some monastery compounds still do not have an ordination hall.

Stupa

In Southern Shan State, stupas built before the monastery thus almost all the stupas found in the monastery compounds are ancient stupas or the reconstruction of abandoned stupas enshrining the relics of Buddha or an arahat. A monastery is an auxiliary structure for a stupa and in contrast, a stupa is not a main thing for the prevailing of a monastery as well.

In Northern Thailand, although some monasteries around Mae Hong Son have the same reconstructed type of stupas as in Southern Shan State such as the one in Wat Tor Pae, the stupas usually appeared after a monastic compound was established. In particular, they were built the same instant with ordination halls.

Pillar

There are some pillars found in the monastery compounds of both Southern Shan State and Northern Thailand. They are found in two locations: near a stupa or stand independently within the compound. They are celestial flag poles usually richly carved, topped by a mythical bird (Hintha) or snake (Naga), with spirits standing at the base towards the four cardinal points. The pillars found in Southern Shan samples

known as Da Khun Dine are usually thick set masonry poles hanging cylindrical pennant (Da Khun Lone) or no pennant at all. This kind of pillar, however thinner and taller, is found in Northern Thailand samples especially in Lampang. Another type of pillar which stands independently within the monastery compound is only found in the Northern Thailand samples located in Mae Hong Son and Chiang Kham. They are the wooden pillars hanging an ornamented banner representing a fly pennant (Da Khun Hlwar).

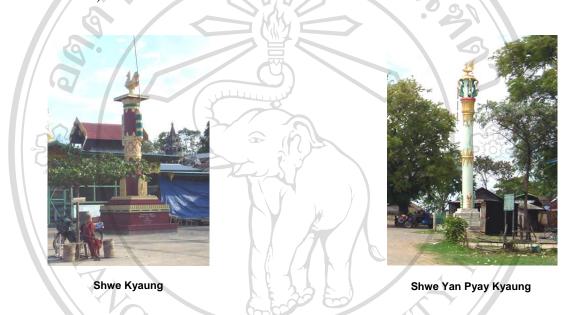


Figure 6.1 Pillars Found in Southern Shan State Samples



Figure 6.2 Pillars Found in Northern Thailand Samples

Laymen pavilion/Rest house

The laymen pavilions (Zayat) are found in every monastery compounds of Southern Shan monasteries. They are used principally to accomodate the pilgrims who come to the famous pagoda festivals around Innlay Lake area such as Phaung Daw Oo pagoda, Shwe Than Daung Pagoda and Shwe Inndein Pagodas. In Northern Thailand monasteries, the rest houses (Sala Chamsil) are mainly for the lay devotees who come to the monastery on the special religious days. They also act as the guest houses to accommodate the guest who come from the different places and stay overnight. The village monasteries have more number of rest houses than urban monasteries. The number of rest houses in Southern Shan monasteries depends on the size of the monastery i.e., the bigger the monastery size, the more number of the rest houses consist of.

Monk Residence

The separate monk's residence can be found in every samples of Northern Thailand whereas very few, in fact very recently added structures, found in Southern Shan State samples. They are built to house the increasing number of monks although there is no religious rule for the monks to stay separately. In Thailand, monks have to stay separately in individual monk quarters known as Kuti. However, in the past, the Shan monastery compound did not include separate monk's residences in the compound. At the present time, there are several monks residence appeared in the Shan monastery compounds of Northern Thailand.

Preaching Hall

There are preaching halls found in some monastery compounds in both countries even though they are not very common. They are known as "Dahmma Yone" in Southern Shan State and "Viharn" in Northern Thailand. They are used to accommodate a large number of people in the special religious days and festival days as well as a place for listening the monks' preaching.

Bohdi Tree

The Bodi Tree which is regarded as scared tree representing Buddha himself is not a typical element for a Shan monastery compound. There is one Bohdi Tree found among each ten samples.

Bell/ Drum Tower

The only bell tower found in one of the Southern Shan State samples actually is a drum tower. It is a three storey high structure with a drum hang on the top floor. The structure is crowned with a simple three tiered Pyatthat. There is a bell tower found in Northern Thailand sample as well. It is a combination of bell tower and drum tower. It also is a three storied structure crowned with Yuan Htat type roof in which the upper level is for bells and the lower one is for drum. They perform the same function of announcing the routine performances for the devotees such as morning recitation, lunch time, and listing to the monk's preaching, on the special religious days.







Bell and Drum Tower in Wat Nan Taram

Figure 6.3 Bell/Drum Towers

Separate kitchen

In the past, kitchens were built separately from the main monastery buildings in Southern Shan State. Later, they were altered as the attached kitchens. However, some big monasteries remain the separate kitchens although they have attached kitchens as well. In Northern Thailand, some urban monasteries were built originally with attached kitchen. Separate kitchens are the additional structures. In reality, monks usually rely on the alms round and not necessarily to cook in the monastery. However, these kitchens are used to cater the lay guests in special ceremonies or during the meditations courses held at the monastery.

General Store

The stores found in the monastery compounds in both Southern Shan State and Northern Thailand is the general storage sheds. In Southern Shan Sate, the outdoor storage sheds are mainly for storing firewood since it is the principal mean of fuel in cooking. In Northern Thailand, this kind of storage can be found mainly in the village monasteries.

Common Toilets (monks' toilets and lay toilets)

Common Toilets, both for monks and lay people are found in every monastery compounds. They are built in rows separating between monks and laities. In some monasteries, the elaborative separate monk toilets can be seen. This kind of toilets is seen in both countries. The toilets in the monasteries of Innlay Lake area are connected by covered walkways since they are set on water. The original structures of toilets were crowned with tiered roofs either for monks or laities.



Figure 6.4 Monks' Toilets in Southern Shan State Samples





Wat Sri Rong Muang

Wat Tor Pae

Figure 6.5 Monks' Toilets in Northern Thailand Samples

Table 6.1 Elements in the Compound of Southern Shan State Samples

	Commis					Ele	ement	s in	the	cor	npou	nd		17			Year of	Lanation	Damanta
	Sample	MM	Stu	ОН	ΡI	LP	w.c	W	MR	РН	BdT	вт	K	DN	Sto	cw	Constructi on	Location	Remark
	S-01	•	•	<u>}</u>		•	•	•					•	3	Ê	5)	~< 1832	Inndein Village	Commoners' Donation
	S-02	•	•	•		•	•		•		901	5	•	•		•	1832	Thar Lay Village	и
	S-0 3	•		•		•	•	•	7						J	T	1843	Nga Phe Chaung Village	и
	S-04	•	•			•	•								•	•	1846	Ywa Ma Village	Ü
	S-05	•	•			•	•					•					~1846	Ywa Ma Village	"
213	S-06	•		•		•			E								1851	Myay Ni Gone Village	9 1 33
CIU	S-07	•	•	•	•	•	•	•	•	•						7	1890	Shwe Yan Pyay Village	Royal Donation
Cop	S-08	@	•	. ((•	•		1				•		9	Λ	1890	Nyaung Shwe Town	Commoners' Donation
A	S-09	•	•	•	•	•	•	•		•					3	•	1924	Ywa Thit Village	ü
AI	S-10	•	•				•	•	•	•	•		•		•	•	1925	Ywa Ma Village	vie
		10	8	5	2	10	10	5	3	3	1	1	4	1	3	4			

MM = Main Monastery Building

Stu = Stupa
OH = Ordination Hall

= Laymen Pavilion

MR = Monk Residence

PH = Preaching Hall

BdT = Bodhi Tree

BT = Bell Tower

K = Kitchen

DN = Dining Hall

Sto = Storage Shed
CW = Covered Walkway

W = Well

Table 6.2 Elements in the Compound of Northern Thailand Samples

-				Elem	Elements in the compound	he com	punoa				1	Year of		c
Sample	MM Stu OH PI LP	A F	I LP MR	PH BdT BT K	BT K	W.C.W	W Sto Tb	to Tb FP BS Sh Sch Shp Op	S AS S	ch Shp	ဝီ	Construction	Location	кетатк
N-01	•	•	•	ł C	•	•	•					1867	Mae Hong Son City	Community's' Donation
N-02	•	•	Š			•						1867	Muang Pon Village	
N-03	•		•			•						1881	Lampang City	Y Z
N-04	•	•	•1			_•\	•	7	•			1892	Lampang City	Teak Trader's Donation
90-N	•	•				•			<u>On</u>		•	1899	Lampang City	Teak Trader's Donation
90-N			•			•	•					1899	Khun Yuam District	Community's' Donation
N-07	•	•	• ,,			•			7 A		946	1905	Lampang City	Teak Trader's Donation
80-N	•					•//		1	•	4		1910	Phrae City	Community's' Donation
60-N	•	•	•5	i și Lici	·•	•	•	_•_ (•}		•		1918	Tor Pae Village	/ / %
N-10	•	•	•	•		•	•		(•)			1925	Chiang Kham District	Teak Trader's Donation
-	10 8	7	2 8 9	3	1	10 4	4 6	2 3	5	2	-			

MM = Main Monastery Building
Stu = Stupa
OH = Ordination Hall
PI = Pillar
LP = Laymen Pavilion

MR = Monk Residence PH = Preaching Hall BdT = Bodhi Tree BT = Bell Tower K = Kitchen

BS = Buddha Shrine Sh = Spirit Shrine Sch = School Shp = Souvenir Shop Op = Open Pavilion

W.C = Toilet
W = Well
Sto = Storage Shed
Tb = Tomb
FP = Flag pole

There are some structures which can either be seen in Southern Shan State samples or in Northern Thailand samples. They are:

- Dining Hall
- Covered Walkway
- Tomb
- Flag Pole
- Open Pavilion
- Buddha Shrine
- Spirit Shrine
- School
- Souvenir Shop

Among them, Dining Hall and Covered Walkways are found only in the Southern Shan Sate monasteries while the rest can only be seen in the Northern Thailand samples.

Separate Dining Hall (Hsun Sar Kyaung) is not a compulsory structure for a monastery since Dinning Halls can be seen inside the monastery building. However, some monastery compounds include separate Dining Halls exclusively for the monks. This probably is the influence of the Myanmar monastic complex having separate buildings devoted to specific function (Fraser-Lu, 2002).

Covered Walkways are used to connect one place to another, such as main entrance to monastery, one building to another within a compound, or one monastery to another monastery. They are known as Zaung Dan and can be varied from big to small in size. Some big walkways which connect the main entrance to the monastery accommodate souvenir shops and food stalls.

The following elements can be seen only in the compounds of Northern Thailand samples. There are some Tombs (Umai) appear in the compounds of Northern Thailand samples. They are found in two types according to their location and importance. The tombs enshrining ashes or other cremated remains of the monk who may be the founder of the monastery are placed near the stupa or an image house. The tombs of the principal donors and their relatives are place in a group forming a graveyard usually at the western part of the compound. An open pavilion to

perform the annual memorial rites and rituals can be found in some compounds. There are some flag poles which are similar in the shape and design of the pillars found near the graveyard of some samples in Mae Hong Son province. In this particular case, these pillars are used as variation of Tung Kradang which usually made of fabric in Norhtern Thailand. The donation of Tung Kradang is the Lan Na cultural tradition which is believed to be functioned as pathway or ladders to heaven for wandering spirits.

The guardian spirit shrines (Haw Phii) which can be seen everywhere in Northern Thailand can be seen in the monastery compounds as well. The school and the souvenir shop can rarely be seen but in some monasteries.

6.2.2 Site Composition

Since the important most structures in a Shan monastery compounds are Main Monastery Building, Stupa, Laymen Pavilions and Ordination Hall, the site compositions are principally set up according to the layout of these structures although not every structures can be found every samples. In fact, Ordination Halls are appeared only in the compounds of Northern Thailand samples.

There are three types of site compositions found in the samples of both Southern Shan State and the Northern Thailand. They are Main Monastery Building Center composition, Courtyard Center Composition and Stupa Center Composition.

Main Monastery Building is located at the center of related structures in Main Monastery Building Center composition where as a courtyard in Courtyard Center composition. In Southern Shan State samples, since the Stupas were build before the Main Monastery Building, it can be said that the Main Monastery Buildings were built at the west or south of the Stupa. However, in Northern Thailand samples, Stupas were built later than the Main Monastery Building and located either at the northern or eastern part of the compound. The Ordination Halls were also built later and usually built aside the Stupa. A Stupa with a Mondop or an Ordination Hall on its eastern side is located at the center surrounded by Main Monastery Building and other related structures can be seen in the Stupa Center Composition. The Laymen Pavilions are located along the fence or property line in all types of compositions.

It is found that among Southern Shan samples, Courtyard Center composition is used in the semi aquatic monasteries which cover the more in number. Although the Main Monastery Building Center composition is the classical type in monastic compound composition in Myanmar, a few numbers of Southern Shan samples which are set on the dry land use this composition.

In Northern Thailand samples, Main Monastery Building Center composition and Stupa Center Composition can be found. In which the Main Monastery Building Center composition is used in more number of the samples. Since the Shan monasteries in Northern Thailand have much influenced by the Lower Myanmar monasteries in 19th centaury, this probably is being influenced by the Lower Myanmar monasteries particularly from Mawlamyine. The Stupa Center composition, which can be seen fewer in number, is a classic monastic layout of the Northern Thailand temples. As a matter of fact, there is only one sample which originally used the Stupa Center composition among Northern Thailand samples. The rest which can be seen in Stupa Center composition at the present are the transformations by adding a stupa at the center or new buildings added around the existing stupa.

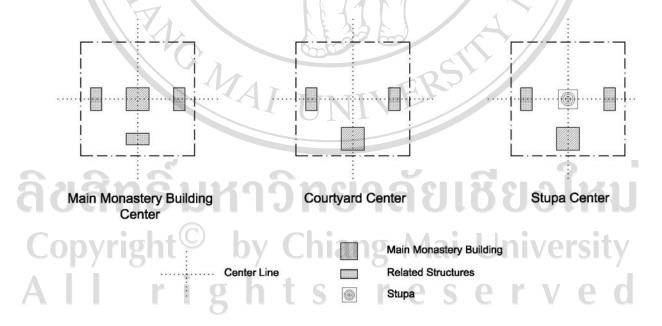


Figure 6.6 Types of Site Compositions

Table 6.3 Site Compositions of Southern Shan State Samples

Sample	Site	Compositio Cyd center		Year of Constructio n	Location	Remark
S-01	•			~< 1832	Inndein Village	Dry Land
S-02		•	010	1832	Thar Lay Village	Semi-aquatic Land
S-03) • Y	1071	1843	Nga Phe Chaung Village	II
S-04	///0	>>		1846	Ywa Ma Village	II
S-05		•		~1846	Ywa Ma Village	II .
S-06	(9)			1851	Myay Ni Gone Village	l l
S-07	9.			1890	Shwe Yan Pyay Village	Dry Land
S-08	7			1890	Nyaung Shwe Town	u
S-09		•		1924	Ywa Thit Village	Semi-aquatic Land
S-10	%	•	76	1925	Ywa Ma Village	
200	5 3	7 8		213		205

MMB center = Main Monastery Building Center Composition

Cyd center = Courtyard Center Composition

Stu center = Stupa Center Composition

Table 6.4 Site Compositions of Northern Thailand Samples

Camanda	Site	Compositio	ns	Year of		Downsk
Sample	MMB center	Cyd center	Stu center	Constructio n	Location	Remark
N-01	•	11		1867	Mae Hong Son City	
N-02	•		4	1867	Muang Pon Village	
N-03	•			1881	Lampang City	
N-04			•	1892	Lampang City	
N-05	a 2 1			1899	Lampang City	بمالما
N-06				1899	Khun Yuam District	
N-07	_1.40			1905	Lampang City	
N-08	8.4			1910 8	Phrae City	IV CI SIL
N-09	- Fi	o la	•	1918	Tor Pae Village	Ancient Stupa reconstructed
N-10		0 -	•	1925	Chiang Kham District	
	7		3			

MMB center = Main Monastery Building Center Composition

Cyd center = Courtyard Center Composition Stu Center = Stupa Center Composition

6.2.3 Site Access

The Shan monastery compounds of both Southern Shan State and Northern Thailand contain main and secondary accesses. They all possess one main access which typically from the North or the East. The main access of the Northern Thailand samples are typically marked by entrance gates which can not be seen in the Southern Shan State samples. For the samples in both countries, the number of the site access varies according to the topography. In southern Shan State, the monasteries set on semi-aquatic land have more site access than monasteries set on dry land. In Northern Thailand, the monastery set on the hillock has more site access than those built on flat land. However, they tend to have access from every four cardinal points and have the number to which the natural or infrastructure settings favored.

6.3 Main Monastery Building

The analysis of the Main monastery building is undertaken focusing on space utilization, spatial transformation, and main entrance and building facing.

6.3.1 Space Utilization

Generally, a Shan monastery has an open plan with no rooms except from the Abbot's Room. The spaces are allocated by levels and columns on floor level whereas by the roof at the top forming separate compartments with associated functions. The main compartments are known as Buddha Hall, Reception Hall and Abbot's Room. The typical spaces are principally found in these three compartments although some additional compartments appeared to house different functions such as Monks' Rooms, Novices' Rooms', Students' Room, Shrine, Dinning Hall, Museum, Utility space, Kitchen, Store and attached Toilet.

Buddha Hall composed of different kind of spaces such as Main Shrine, Place for Monks, Novices' Room and Store with some variations. The Main Shrine is the most holy place in the whole building which is characterized in terms of floor level. It has level segregation between the main shrine and the place for monks showing Buddha floor and monks' floor. If the segregation is not with the floor level, is by using higher leveled thrones for placing Buddha images. A floor to ceiling wall,

Marabin, which divide the front and rear part of the Buddha Hall, appears in some samples.

Four typical Buddha Hall compositions with some variations are found for both Southern Shan Sate and Northern Thailand. They are varied according to the arrangement of the Main Shrine and Place for Monks. Type I contains one leveled dais which can be used not only as the Main Shrine but also as the Place for Monks. Among the Type I variations, Type I-a is not a typical type since the monastery which constitute in a replica of Mandalay style monastery. In Type II, a lower leveled dais is added at the front of the Main Shrine as a Place for Monk. In Type III, lower level dais are added at both front and rear part of the Main Shrine in which the front one serves as Place for Monks and the rear one as storage space for shrine's utilities. An arrangement in which a lower leveled dais circles around the Main Shrine is found in Type IV group. Type IV-a is specially planned for the temporary shrines (staging monastery) of Phaung Daw Oo Buddha Buddha images during their procession days around the Innlay Lake. Although this type is exclusively for the staging monasteries, some ordinary monasteries appeared in this type of Buddha Hall layout. In this type, the Main Shrine is open to all four sides and can be circumambulated. This type exactly is not found in the Northern Thailand samples. However its variations, Type IV-b and IV-c, which are not opened to four sides, can be found in Northern Thailand samples. It is found that the most striking similarity between Buddha Hall compositions of Southern Shan samples and Northern Thailand samples is Type III-b.

There are two kinds of Place for Monks can be seen: one is attached with Main Shrine and the other is attached with Abbot's Room. The former one is for the special occasion while the latter is for casual. However, both are exclusively for the monks to perform their activities on which entering of women are strictly prohibited in Northern Thailand samples.

The Abbot's Room is the second most important place in a Shan monastery. It is a separate bedroom for abbot which attests with an attached casual Place for Monks. It usually has the same floor level either with Main Shrine or formal Place for Monks.

The Reception Hall is a big open hall in which the laities can worship and listen to the monks' preaching. In Southern Shan samples, it is also used as school

where the novices can take their lessons. The Reception Hall can either be a laterally wide hall under one roof or two contiguous roofs one of which usually is an extension. In Northern Thailand samples, the Reception Halls originally have multiple roof sections which mean a combination of separate roofed pavilions. In the past, the reception hall of Northern Thailand samples are separated as men pavilions and lady pavilions known as Jong Taga, Jong Tagama respectively. These pavilions are combined as a single big reception hall and no more separation can be seen at present. Since the schools become separate from the monastery building, the Reception Halls of Northern Thailand samples are no longer used as schools.

The rest of the typical spaces found in the samples of both Southern Shan State and Northern Thailand are Novices' Room, Monks' Room, Shrines, Store, Verandah, Dining Hall, Kitchen, and attached Toilets. In Southern Shan samples, the separate Shrines are for Buddha images whereas in Northern Thailand, the separate shrines are for guardian spirits.

Some additional spaces which cannot be seen in both samples are Students' Room, Museum and Utility spaces. The lay students' rooms are found in Southern Shan samples where the monastic education is still customary in rural area. Lay students' room cannot be found in the Northern Thailand Shan monasteries. However, the Museum and the Utility space for food preparation can be found only in the Northern Thailand samples.







Lay Devotees Listening to the Monk's Preaching in the Reception Hall of Wat Nan Taram

Figure 6.7 Reception Halls

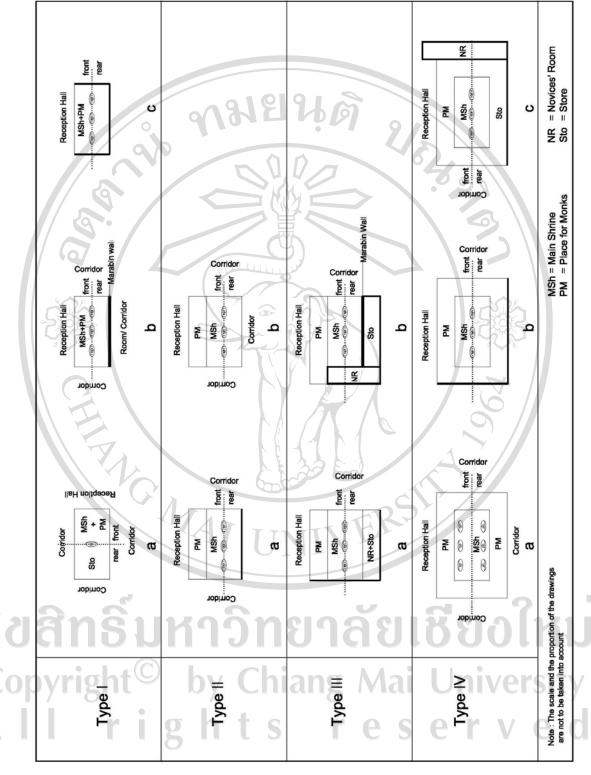


Figure 6.8 Types of Buddha Hall Compositions

Table 6.5 Buddha Hall Compositions in Main Monastery Buildings of Southern Shan State Samples

		Тур	e of	Bud	dha	Hall	Com	pos	ition	S			
Sample		1		1	II		Ш		IV		Year of Construction	Location	Remark
	а	b	С	а	b	a	b	а	b	С	2011001142011011		
S-01						•			9	1	~< 1832	Inndein Village	
S-02					O.		9		Q	7	1832	Thar Lay Village	
S-03					7	0		•			1843	Nga Phe Chaung Village	Staging Monastery
S-04							•		1		1846	Ywa Ma Village	30
S-05	7		9				•	K			~1846	Ywa Ma Village	2,///
S-06		9	0					•			1851	Myay Ni Gone Village	505
S-07	•	7									1890	Shwe Yan Pyay Village	replica of Shwe In Bir monaster,
S-08		•						(;			1890	Nyaung Shwe Town	
S-09		2						•	>		1924	Ywa Thit Village	202
S-10		•					2				1925	Ywa Ma Village	-5053
0	P	2			1	1	2	3		4	201		308

Table 6.6 Buddha Hall Compositions in Main Monastery Buildings of Northern Thailand Samples

	N	уре	of E	Budo	lha I	Hall (Com	pos	itior	าร		051	
Sample		1			Ц		u _		IV		Year of Construction	Location	Remark
	a	b	С	а	b	a	b	а	b	С			
N-01			•								1867	Mae Hong Son City	
N-02				•							1867	Muang Pon Village	
N-03	7			•		1	8			1	1881	Lampang City	ELA [141
N-04	П								U	•	1892	Lampang City	
N-05			L	4($\overline{\mathbb{C}}$		•				1899	Lampang City	nivorcity
N-06		9		•			U	y			1899	Khun Yuam District	inversit
N-07		•	T a			0		h		Ŀ	1905	Lampang City	rve
N-08						0	•			L	1910	Phrae City	
N-09				•							1918	Tor Pae Village	
N-10									•		1925	Chiang Kham District	
		1	1	4			2		1	1			

Table 6.7 Space Utilization in Main Monastery Buildings of Southern Shan State Samples

						Spa	atial	Des	cripti	on						Year of	
Sample	MSh	PM1	AR	PM2	RH	NR	SR	MR	Sto	Ver	Sh	DnH	ĸ	Bath	W.C	Construction	Remark
S-01	•	•	•	•	•	•			•				•		•	~< 1832	
S-02	•	•	•	•	•	•	8	•	0	9		2		•	•	1832	
S-03	•	•	•	•	•	Y.		•	•			181	•	ç	•	1843	Staging monastery
S-04	•	•	•	•	•	•	•	•	•	_		•	•	<		1846	
S-05	/•	•	•	•	•	•	1	•	•	4		7	•	•	•	~1846	
S-06	•(90	•	•	•	<		•	•	37	•	•	•	-	•	1851	
S-07	(9)	•	•		•	•		•	Aut A	K						1890	Replica of Shw In Bin monastery
S-08	•	•	•	•	•	•	•	•		7,1	•	•	•		•	1890	
S-09	•	•	•	•	•	•	•	•	•	3		•	•	•	•	1924	
S-10	ل ولا	•	•	•	•	•	•	•	.			×	•			1925	Teak trader's donation
	10	10	10	10	10	9	6	9	7	2	3	6	8	3	7		

Original Structure Additional structure

MSh = Main Shrine

PM1 = Place for Monks (formal) PM2 = Place for Monks (casual)

AR = Abbot's Room RH = Reception Hall

MR = Monks' Room

NR = Novices' Room SR = Students' Room

Sto = Store

Ver = Verandah

Sh = Shrine DnH = Dining Hall

Bath = Bathroom

W.C = Toilet
K = Kitchen

Table 6.8 Space Utilization in Main Monastery Buildings in Northern Thailand Samples

-		-	_		-4	-	-41-1		and a di	-								
Sample					<u> </u>	Sp	atiai	Des	cripti	on	V						Year of	Remark
Sample	MSh	PM1	AR	PM2	RH	NR	SR	MR	Sto	Ver	K	W.C	Sh	DnH	Ms	U	Construction	Kemar
N-01	•	•	•	•	•			•		•					•		1867	
N-02	•	•		•	•	•		•				•		•			1867	
N-03	•		•		•					•					F		1881	0.73
N-04	•	•	•	•	•	•			•	•				•		•	1892	
N-05	•	•	•	•	•			•		•		•		•		•	1899	
N-06	•	.4	•	•	ŀ,	/		•			•	•	Λ.	•		L	1899	city
N-07	15	•	•	•	•			•		•		•	•			Л	1905	SIL
N-08	•	•	•	•	•	•				•	•	•					1910	7
N-09	•	•	•		•		T				•	•		•			1918	
N-10	•	•	•		•	•		•	•	•	•	•	•	•	•		1925	
	10	10	10	9	10	5		6	2	7	4	2	2	6	2	2		

Original Structure Additional structure

MSh = Main Shrine

PM1 = Place for Monks (formal)

PM2 = Place for Monks (casual)

AR = Abbot's Room RH = Reception Hall MR = Monks' Room

NR = Novices' Room

SR = Students' Room

Sto = Store Ver = Verandah

Sh = Shrine DnH = Dining Hall

Ms = Museum

W.C = Toilet= Kitchen = Utility

6.3.2 Main Entrance and Building Facing

The samples in both Southern Shan Sate and Northern Thailand are usually faced to the North. However, facing to the South appeared as an alternative in some samples. Only the exceptional one, the Shwe Yan Pyay Kyaung, intentionally face to the East according to the Mandalay monasteries planning.

The access to the building is through the staircases which are mostly on the North. The main entrance of the Shan monasteries in Southern Shan State varied from one to five staircases while those in Northern Thailand have only one or two.

In Southern Shan State, the number of the entrance staircases shows the rank of the monastery. The royal donation shows four stair cases while the staging monastery shows five. The rest which are the ordinary monasteries shows either one or two. Among the ordinary monasteries, the monastery set on dry land has one staircase while those set on semi-aquatic land usually has two staircases. If a sample has two staircases, the one on the eastern side is regarded as auspicious and is used for auspicious events. Because of the quantity found, the main entrance via two staircases can be regarded as a feature of monasteries around Innlay Lake area.

In Northern Thailand, the main entrance to the Shan monastery buildings is through either one or two staircases. However, a modified type of entrance staircase attested in the samples of Mae Hong Son province. In this type, the two stair cases running fro East and West direction meet in a transitional landing and combined as a single staircase. This plan of staircase is regarded as Western Style staircase which can provide two entrances in one. The completely separated two staircases style, which is popular around Innly Lake area of Southern Shan State, can only be seen in the sample from Phrae of Northern Thailand.

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Table 6.9 Main Entrance and Building Facing of Main Monastery Buildings in Southern Shan State Samples

Sample	No	. of	Ma	in E	Entr	ance			ldir cin	-	Year of	Location	Remark
	1	2	3	4	5	2in1	N	Ε	S	SW	Construction		
S-01	•						•				~< 1832	Inndein Village	
S-02		•		0.			•				1832	Thar Lay Village	
S-03					•				•		1843	Nga Phe Chaung Village	Staging monastery
S-04	2	•					•				1846	Ywa Ma Village	
S-05		•					•				~1846	Ywa Ma Village	
S-06			•				•				1851	Myay Ni Gone Village	
S-07				•				•		Jalai	1890	Shwe Yan Pyay Village	Replica of Shwe In Bir monastery
S-08	•									•	1890	Nyaung Shwe Town	
S-09		•					•		2		1924	Ywa Thit Village	200
S-10		•					8		•		1925	Ywa Ma Village	1703
200	2	5	1	1	1		6	1	2	4			308

Table 6.10 Main Entrance and Building Facing of Main Monastery Buildings in Northern Thailand Samples

Sample		Ma	in E	Entr	and	e			ildir icin	15-15	Year of	Location	Remark
-umpro	1	2	3	4	5	2in1	N	E	s	sw	Construction		Homan
N-01						•	•	J			1867	Mae Hong Son City	Mae Hong son Province
N-02						•	•				1867	Muang Pon Village	n
N-03	•		5				•				1881	Lampang City	Lampang Province
N-04	•								•	<u> </u>	1892	Lampang City	ters!
N-05	•						•			7	1899	Lampang City	
N-06	100			Ē		•	•				1899	Khun Yuam District	Mae Hong son Province
N-07	•								•		1905	Lampang City	Lampang Province
N-08		•					•				1910	Phrae City	Phrae Province
N-09						!	•				1918	Tor Pae Village	Mae Hong son Province
N-10	•						•				1925	Chiang Kham District	Phayo Province
	5	1				4	8		2				

6.3.3 Spatial Transformation and Variations

The study of spatial transformation of the samples traces their primary planning. The transformation can be seen by the alterations which can be additional or the extension on the existing structures.

In southern Shan State, the transformation mainly occurred as the extension on the existing structure. It is found that the original spatial planning of the Southern Shan samples varied according to the topography they are located. As the research area in Southern Shan State is scoped in Nyaung Shwe Township, around Innlay Lake area, the samples are set on different topography such as on dry land and on semiaquatic land. Among the sites, which located in Shwe Yan Pyay village, Nyaung Shwe Town and Inndein Village are set on the dry land where the rest are set on the semi- aquatic land. By studying the transformation of the spatial planning, the original planning of the monasteries is traced back. There are some unique Shan monasteries found among the collected ten samples. Shwe Yan Pyay Kyaung and Bein Daw Kyaung were not built by the local builders. In these two, the former was the replica of a monastery from Mandalay while the latter is the upgraded local style monastery built by the builders from Mawlamyine of Lower Myanmar. Apart from these two samples, the rest have the same basic concept in planning. The core structures for the Southern Shan monasteries in 19th century when they were first constructed constitutes a Buddha Hall, an Abbot's Room and a Reception Hall connected by a wide verandah. Nyaung Oak Kyaung, which is the earliest-built among the samples and built on the dry land, composed of a Buddha Hall, a Reception Hall, an Abbot's Room, and an open wide verandah. This composition was later varied in the later samples as the Abbot's Room was set separately and all these core structures were set on a wide verandah. The separate shrine, monks' pavilion and monks' room are appeared in the later-built monasteries. The gap between the compartments was filled with connection hall. The open verandahs connected between each compartments were filled later by additional compartments of which the most likely become reception halls. For the ordinary monasteries, the extension went on the front verandah as reception hall, the eastern verandah as place for monks and the western verandah as dining hall. For the staging monasteries, the extension went to four directions with the main shrine as center.

Beindaw Kyaung, which was the latest-built among the samples is a two storeied building in which the ground floor was used as a hall as the replacement of the wide verandahs. It can be used as activity area during the rainy season when no land is available for the monks and novice outdoor activities. The hall was later extended as dinning hall and a kitchen was attached to its western end. The upper floor of this monastery was originally built completely with necessary rooms such as Main Shrine, Reception Hall, Abbot's Room, Place for Monks, Monks' Room, Novice Room, Students' Room and Store. This is the only one among the ten samples having interior staircase.

In Northern Thailand as a whole, less alteration in the spatial planning of the samples is found. Although the variations can be seen according to the regional changes, the core structures of the samples are the Buddha Hall, the Abbot's Room and the Reception Hall. The most unique plan is found in Wat Muang Pon including a Buddha Hall, an Abbot's Room and a Reception Hall. In the past, the reception hall is supposed to be an open pavilion with a long lower floor leveled verandah at the front. This type of planning is popular around Mae Hong Son area. A Novice Room in separate compartment was found in the earliest built monastery apart from the core structures. The samples around Lampang area have a typical planning composing the core structures with a wide open verandah on their upper right corner. In some samples, the monks' pavilion was built originally with the core structures. The later samples include attached kitchens. The Reception Halls in Northern Thailand samples are found to be separated into monks pavilion and lay pavilions. They are later extended by the reception hall and combined to a single one. The reception hall in the samples around Lampang area originally included the enclosing wall. They are less extended and also less refurbished than the samples in Mae Hong Son area. Among them the sample in Lampang such as Wat Sri Rong Muang and Wat Pafang contain interior stair cases in which the former was the original and the latter supposed to be an additional.

It is found that the Shan monasteries are composed of at least three core structures connected such as Buddha Hall, Reception Hall and Abbot's Room no matter where they are located. The typical composition is Buddha Hall at the back center attached with Reception Hall at the front and Abbot's Room at aside. The

Abbot's Room is located at the eastern side no matter to which direction the building is being faced, the North or the South. Besides these three main structures, there is a wide or narrow verandah appears at the front part of the building.

The variations in Southern Shan State depend on the topographical changes such as the presence of encircling wide verandahs. Consequently, the transformations here, extensions rather than deduction, appeared on these existing wide verandahs. After the wide verandahs are being occupied, later extensions appeared on the side and rear part of the monastery. The additional compartments found in the Southern Shan State samples are principally for Reception Hall, Dining Hall and Monks' Residences.

In Northern Thailand, the variations depend on the regional changes. Among the Northern provinces, Mae Hong Son is located at the western most part and quite isolated form the other provinces because of the mountainous natural settings. The variation can be seen in two groups such as Mae Hong Son Province and a group of eastern regions such as Lampang, Phrae and, Chiang Kham. The core compartments are set uniquely with no wide verandah found in Mae Hong Son samples where as a wide verandah or encircle verandah found in the other group. The two trends of variations are likely to be appeared by copying the design of nearest monastery in the region as their model when they first built. The samples in Lampang and Phrae are less transformed where extensions can be seen in the samples of Mae Hong Son and Chiang Kham. The extensions are mostly for the Reception Halls and Museums.

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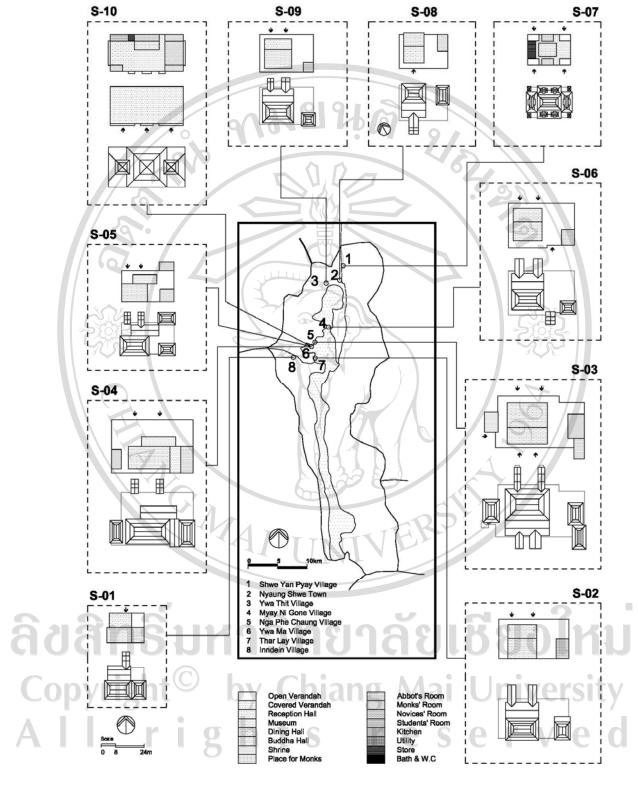


Figure 6.9 Primary Spatial Planning of Main Monastery Buildings in Southern Shan State

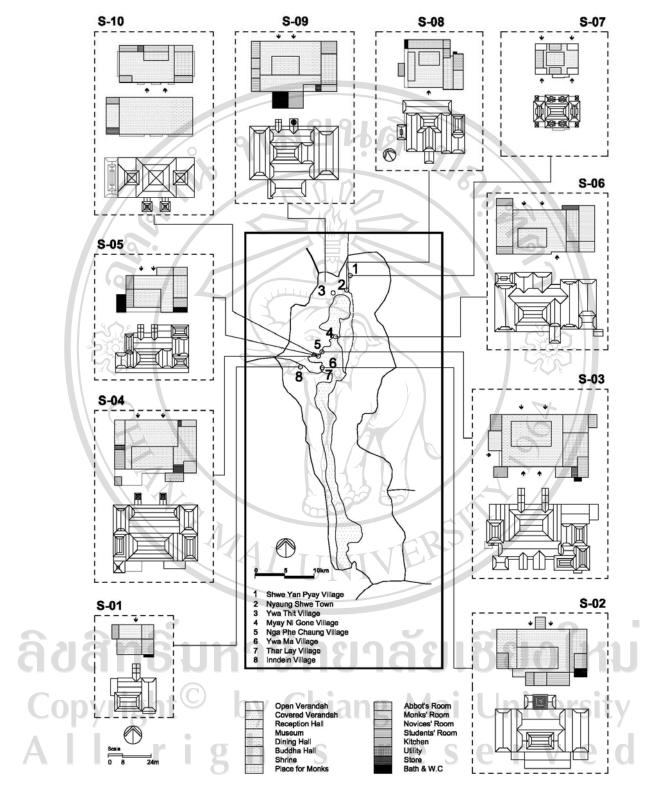


Figure 6.10 Present Spatial Planning of Main Monastery Buildings in Southern Shan State

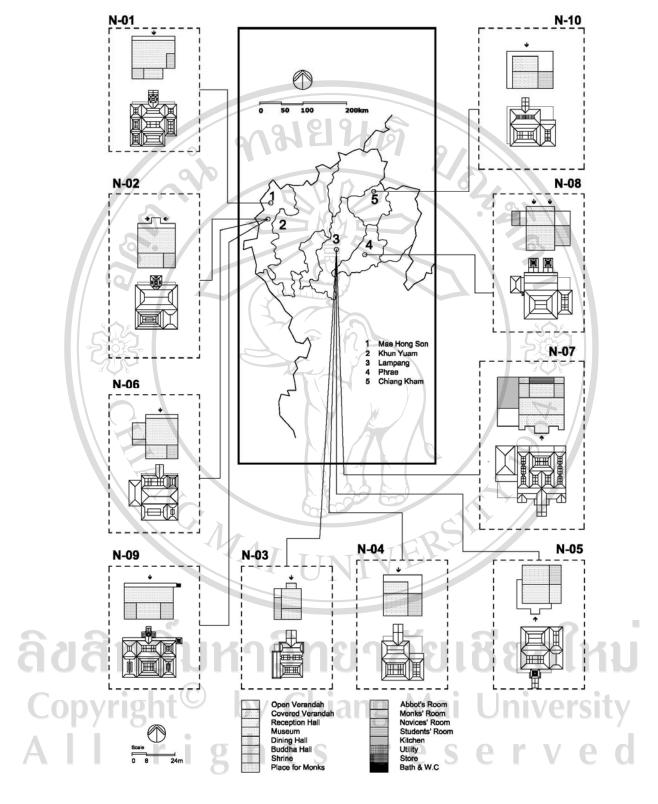


Figure 6.11 Primary Spatial Planning of Main Monastery Buildings in Northern Thailand

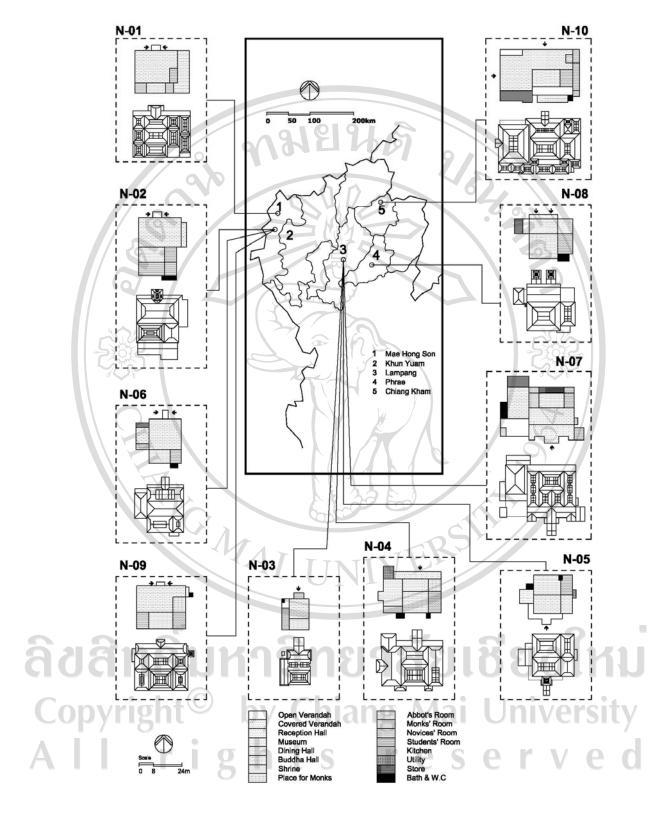


Figure 6.12 Present Spatial Planning of Main Monastery Buildings in Northern Thailand

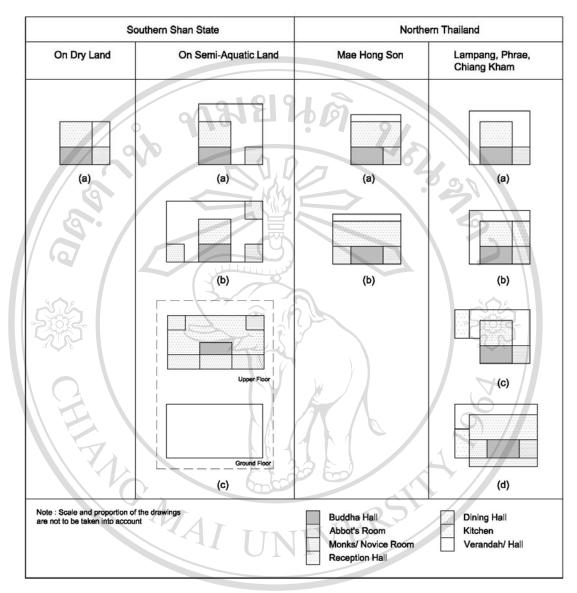


Figure 6.13 Typical Primary Spatial Planning of Main Monastery Buildings

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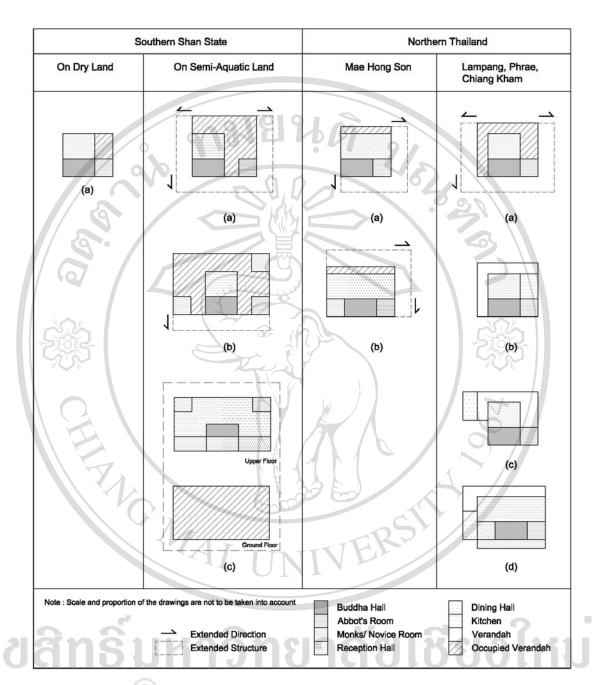


Figure 6.14 Typical Present Spatial Planning of Main Monastery Buildings

6.3.4 Roof Forms

Although the whole building form of a monastery is prominent among the other community structures, its roof form is further more unique. They are not only the representation of interior planning and climatic consideration, but also religious and cultural developments. Hence, in this study, the roof form of the main monastery building is discussed primarily.

Since the Shan monasteries especially in the Southern Shan State is much more influenced by Myanmar Buddhist religion as well as in religious architecture, the roof typologies of religious building are almost the same. In fact, there is no research done for the roof typologies of Shan monasteries alone. For this reason, the roof typologies for the Myanmar religious buildings studied by (Lwin Aung, 1976) is used to help in classifying the roof variations in this particular research. Hence the terminologies are used in Myanmar words (See Appendix A).

There are six roof types found in the studied monasteries. Type I is Khaung Le Paw type (అక్కించ్రులో), Type III is Yuan Le Paw type (అక్కించ్రులో), Type III is Eine Daw Khaung type (ఆక్వించ్రులో), Type IV is Madras Khaung type (అక్వించిం), Type V is Sa Kyaw Khaung type (అక్సాంచిం), and Type VI is Pyatthat Khaung type (అమ్మించిం).

There are two appendages which usually appeared on the main type to produce more elaborative combination one on the top and one at the base. The top one called Sabe Htat ($\infty \infty \infty \delta$) is a stepped roof usually used to afford light and ventilation.

Samyin (ⴰဖြင်) is an open gallery attached to the exterior wall of a building. A roof type combining with Smyin have a name with the suffix of Samyin Khan (ⴰဖြင်ခံ).

Since Shan monastery is a multipurpose building composed of various compartments having one roof per function, the roof form of each compartment varies according to the function. The notable roof variations can be seen in Buddha Hall, Abbot's Room, Reception Hall, Place for Monks, Monks' Room and Kitchens. Since the original roof structures were changed according to the renovations, the analysis is carried out by using the existing roof type which can be seen at the time of observation.

The roof forms found in the samples are the variations of the above mentioned six typologies.

In Southern Shan State, the Buddha Halls of every sample use the typical Zaytawun type except Beindaw Kyaung which has a variation of Zaytawun type roof with colonial influence. The Zaytawun type is also used in the separate Buddha Shrines, Abbot Rooms, Monks' Room and casual Place for Monks in their original time of construction. It can be said that Zaytawun type roof is exclusively for the high ranking spaces housing either Buddha images or Monks.

Yuan Le Paw Typologies are not popular for the roof types in Southern Shan State samples. Only Sanu Yuan Saung type can be seen in Shwe Yan Pyay Kyaung which is a replica of Shwe In Bin monastery which is a famous one in Mandalay. It is used to crown the Abbot's Room, Reception Hall, Monks' Room and Novices' Room (former store).

The surviving original roofs of Reception Halls typically show the Sa Kyaw Khaung type. However, extended and renovated Reception Halls bear variations in Einedaw Khaung typologies such as simple Einedaw Khaung, Einedaw Hna Htat and Einedaw Ta Le Paw type. Since Shrines, casual Place for Monks, Monks' Rooms, Novices' Rooms and Dining Halls are mostly extended at the same time with Reception Halls, they naturally have the same Einedaw typologies.

All of Kitchens appeared in the Southern Shan samples are the additional structures. Their roofs show the variations from only Einedaw typologies such as simple Einedaw Khaung, Einedaw Sabe Htat, Einedaw Ta Le Paw and Einedaw Hna Le Paw types.

By comparing with Southern Shan State samples, the roof types found in Northern Thailand samples are found to be far more sophisticated although undisciplined. However, because of less transformation, Northern Thailand sample maintain most of their original forms which can easily be described.

In contrast with Southern Shan State samples, Yuan Le Paw typologies are the popular roof variations in Northern Thailand samples. However, the Buddha Halls used Khaung Le Paw type and Yuan Le Paw type equally. The variations are Zaytawun type, Zaytawun Sabe Htat Samyin Khan type, Yuan Htat Ngar Sint Hna Le Paw type, Yuan Htat Ngar Sint Hna Le Paw Samyin Khan type and Einedaw Sabe Htat type.

The variations in the Abbot's Rooms roof are Yuan Ta Le Paw type, Yuan Htat Ngar Sint type, Yuan Hna Le Paw type, Einedaw type, Einedaw Sabe Htat type, Einedaw Sabe Hna Htat type and Sa Kyaw Khaung type.

The roof variations in the Reception Halls are Hta We Saung type, Yuan Ta Le Paw type, Yuan Htat Ngar Sint type, Yuan Hna Le Paw type, Einedaw type, Einedaw Ta Le Paw type, and Sa Kyaw Khaung type. The Zaytawun type and Yuan Htat Ngar Sint Hna Le Paw type which are exclusive for the Buddha Hall roof sometimes appear in Reception Hall roofs. The separate roof in a Reception Hall which is supposed to have been the guest monks pavilion in the past is crowned with Zaytawun type roof. The latest extensions in the Northern Thailand samples appear as Reception Hall cum Buddha Hall since it include a Buddha Shrine and therefore crowned with Yuan Ngar Htat Sint Hna Le Paw type. The latest innovation found in one Reception Hall is Einedaw Yuan Htat Ngar Sint type roof.

The casual Place for Monks, which is usually regarded as the same rank as Abbot's Room, use Zaytawun Sabe Htat type roof although the later extensions show the Einedaw type.

Since the original Kitchens use Madras and Madras Sabe Htat type, the recently constructed Kitchens use both Yuan Ta Le Paw type and Yuan Htat Ngar Sint type.

The Museums, which are the additional structures in some monasteries, use Yuan Hna Le Paw type and Yuan Htat Ngar Sint type. The covered verandahs which can rarely be seen though originally included has Sa Kyaw Khaung type roof.

The last type is Pyatthat type roof which is exclusively for the Buddha Shrine in the monasteries of the older time. This type of roof is found in the later extensions of the Southern Shan State monasteries such as Monks' Rooms at the front part and the entrance porches. The Pyatthat type found in the Southern Shan Samples are the modification of simple Kon Pyatthat type roof by adding subordinate roofs known as Mote Bii at the four sides of every roof tiers. The Pyatthat type roof is rarely seen in the Northern Thailand samples. The simplest Kon type Pyatthat is found in only one sample in Phrae. The ordinary entrance porches are usually used Yuan Phyay Zaung Dan type roof for the samples in both Southern Shan State and Northern Thailand samples.

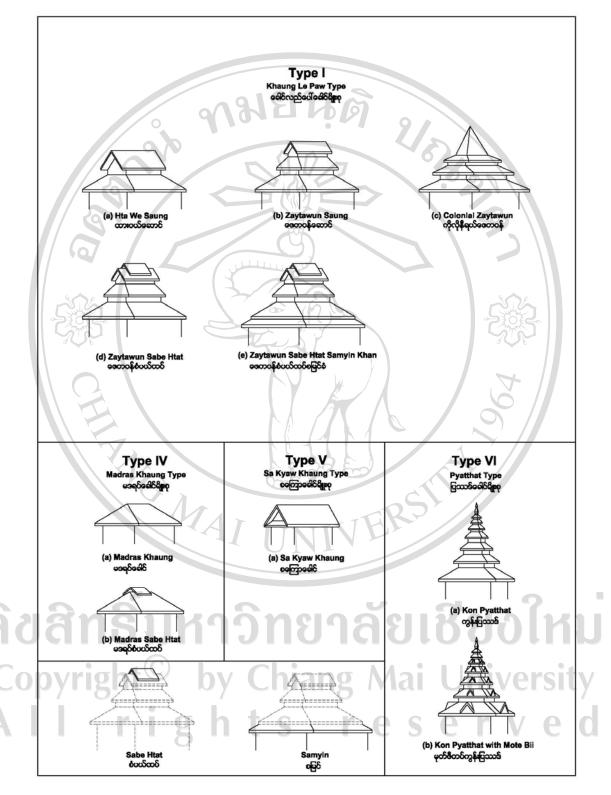


Figure 6.15 Roof Typs Found in the Compartments of Main Monastery Buildings

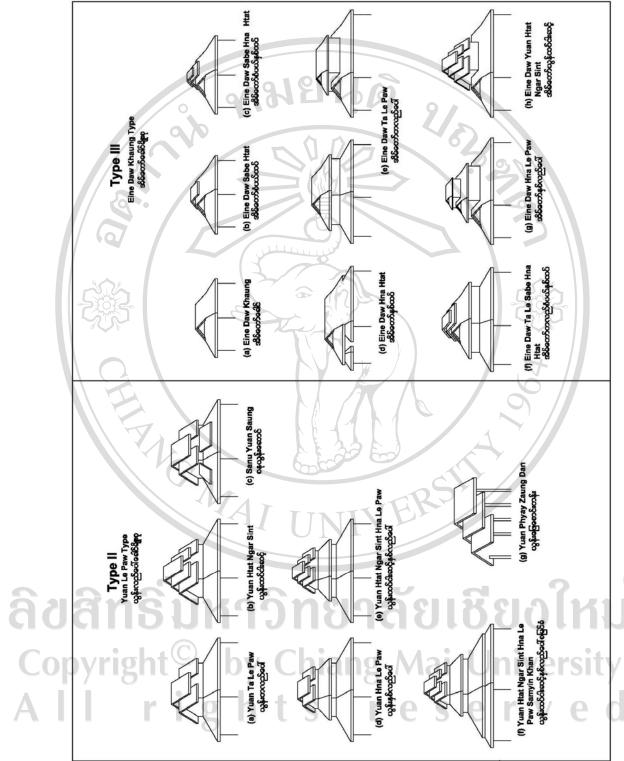


Figure 6.15 Roof Types Found in the Compartments of Main Monastery Buildings (Continued)

Table 6.11 Roof Types in the Main Monastery Buildings of Southern Shan State Samples

			Roof Type																	Year of						
Sample	Space			I	Т.	T		T.		II T				. 1		II					IV		C	Construction	Location	Remark
	5 " "	а	b	С	d	е	a	b	С	d	е	f	а	b	С	d	е	f	g	h	a t	9 8	-			
	BdH *AR		•	 	<u> </u>	-				-	_		•							-+		-				Commoners
S-01	*RH	-		-	-	-	-	-	-	-	-			-	4)	+	4	-		+		~	~< 1832	Inndein Village	Donation
4	*PM			-	-	-		<u> </u>	-				•	-					4	-						Donation
	BdH		•		K	-	Н					1		\dashv	-	-	+	1	+	+	4	+		9 /		
	*AR			-	<u> </u>	-	-	-	-	-	-		•	-	-		-	+	+					///	Thar Lay	
S-02	*RH			<u> </u>				-	<u> </u>		-		ě				-	4		-		+	-	1832	Village	
	*PM	-	6	+	+		-	-		-	-	-	Š	4	+	+	+	\forall	+	-	7	-			Village	
	BdH	J.D.	•			-	Н					Н		-			5			1	+	+			001	
	AR		•	<u> </u>	 			-	-					+	7	M		И			-					
S-03	Sh	-	•	-	1	-		+	-	-	-			-	+		*				-			1843	Nga Phe	
	*RH			-	1	-	 						•				-			-		+		1010	Chaung Village	
	**PM	-	•	<u> </u>	-	1-	-			-	-				+	7	V			-	+	-	-			. \\
1/	BdH		•														1	1		+	+) \ \
	AR		•	-	<u> </u>						1				7	7	7	7	\dashv	+	+	+				
S-04	MR	-	•	 	<u> </u>	1	-	m						7	7			1	7	_		_	-	1846	Ywa Ma Village	
	**RH	-	7		<u> </u>	-	†	-	!	1				7			•			7		•			Twa wa vinage	
	*PM			1	***************************************	1		1	1			-		7			•	. d			1		***			22
-5	BdH		•				Н							1						H		1				572
	AR		•				ļ										1		7	-	Ť				Ywa Ma Village	
S-05	RH						-						\mathbb{Z}			7		1		-	Ť	•		~1846		
	*PM			T		-	†				-		•			(1		7		T		Ĭ			
\\ 1	*K			1		1		†								V	•		1		T					. /
	BdH	•											П	1	7		T	1	F	1	T	/		- //		
	*AR				1		İ			-				7		•	7	1			1	1	1			
S-06	*RH						İ									•		1		7	V	1		1851	Myay Ni Gone	/ /-
	*Sh						İ						•	1	П	7					T	1	7	and the second	Village	
	*PM			1			ļ	T								•		7	1			7				///
	BdH		•													Ţ	1						1		.1	
	AR	4			K		Ī.,		•											7	A	_	7		Chura Van	
S-07	RH		J				1		•						5					Ī	T			1890	Shwe Yan Pyay Village	Royal Donati
	MR			П		K			•													1		~	Fyay Village	
	***NR								•																	
	BdH		•				<	K					_							-	e 11	A	G	K		
	AR		•				Γ										N					Γ				
	*RH											4				Ji.	•								Nyaung Shwe	Commoners
S-08	*Sh												•											1890	Town	Donation
	*PM												•												10001	Donation
	MR			L			<u> </u>						•													
	NR						100						•													
	BdH		•																	J	AI.			CIL	D CI C	111
	*AR																•							7		
S-09	*RH												•										F	1924	Ywa Thit	
EC COLE	*PM						_							_	_		•	1	_	1				Habasii	Village	
	*MR			1			1	ļ.,		_	_	_			4		•	_	_	_	_	_		12:	Ilpin	OKOH
UV	*NR										N	1		_			•				۷	L	4	4dL	UIIIV	EISI
/	BdH			•		_		<u> </u>			1				_		_		1			_				
S-10	AR			•		-	_		_		_			_	_	_	_	1	_		_		_	1925	Ywa Ma Village	Teak Trader
	RH *K					-			ļ					_	_		_	4	_					7 2		Donation
		1 3		1	1	1	1	1	1	3	3				- 6	38	- 1	- 1	. 1	•			THE STATE OF			

Note:

* = Extension (or) Renovation

** = Originals and Extensions

*** = Function Altered

BdH = Buddha Hall RH = Reception Hall AR = Abbot's Room PM = Place for Monks

K = Kitchen Sh = Shrine NR = Novices' Room

MR = Monks" Room

Table 6.12 Roof Types in the Main Monastery Buildings of Northern Thailand Samples

N-01	BdH AR RH MR *MS BdH AR	a I	•		е	а	h							1	11				7	v	v	Year of	Location	Remark
N-01	AR RH MR *MS		•	d	е	а	h	-	II a b c d e f			III						IV				Construction	Location	Remark
N-01	AR RH MR *MS		•			- 1		C	d e	e f	a	b	c	d	е	f	g	h	а	b	a	Construction		
N-01	AR RH MR *MS	•		1			T						Š			i	Ī		1	7				
N-02	RH MR *MS BdH	•	•				7		•	T		1	+					7		7				
N-02	MR *MS BdH			-		•	-	7	•	-		1						-				1867	Mae Hong Son	Community'
N-02	*MS BdH	- 1							•		-	-	-		-		-	-					City	Donation
N-02	BdH		+	-	-	-	-		•	-	-	+	+-					-		-		6/		
N-02				Н	•		+	1	-				H		Н						Н			
		\forall	+	+		-	+		÷			-	-		7						-	1867	Muang Pon	
// /	RH	+	+	+-	-	-	+	+	+	+	-	-	-	17	•	-		-	-	-		1007	Village	
	BdH	+	+				+	-					H	N.		-								-
N 02	AR	-	+	-				+		-	-	-	-			-		-	_			1881		NIA
N-03		-	4	-	-		-	-		-		-	Ļ.,	V	Ä,			_	•			1881	Lampang City	NA
	RH		4		4	•	4	-	-	1	-	L	Н		4	Λ								\rightarrow
/ 14	BdH	_4	•	-		ا	_	-	_	4	-	ļ	ļ			7								_\.L
N-04	AR	4				•	4					ļ.,			ď							1892	Lampang City	Teak Trader
	RH						•	4		<u> </u>												1002	Lampang City	Donation
9	DN	Ш									•										Ц			0
	BdH								1						1									
733	AR						•	4																5-11
N-05	RH	•						4			1						7					1899	Lampang City	
	*PM		Т								•				Ų	1/								°
*[*DN	W	T	T					7		•	П			7	N					W			
	BdH	1	\top				T	1	1		Г	•									7			
\	AR			+			-	+	+	-		•									/	1899	Khun Yuam	Community'
N-06	**RH	-	+	+			-	-	-	+	-	П	-					•	•	-			District	Donation
\\\ \	K	-		-	-	H	-	-		+	-	-						A			7		1751111077455	
1	BdH	+	+		Н	H	H	-			H					1			Ĭ		Н		- ()	//
	AR	-	+		-	•	-+			-	+	H	+								-			Teak Traders Donation
	RH	4	+	+	-			-			+	-	1					-		-	-		Lampang City	
N-07	MR	\mathcal{A}	-		-	•	\dashv			+		-	k			9.		-			-	1905		
-		4	4	_	-			+		-ļ	-	-	-		-					. And			7	
	K		+						-	-	-								•					
	CV	4					4	-	-	4	F										•	C		
-	BdH		•	ļ					4		1		Ļ									122		
N-08	AR						•	A	4		_	L	<u> </u>									1910	Phrae City	Community'
	RH							1	4	4									\setminus		•			Donation
	K												L			М			•					
	BdH	Ш							1	•			L											
475	AR															•								
N-09	**RH						•		T		•									•		1918	Tor Pae Village	ıı ı
	PM			•			T		T															
	***DN		K									1	•										CLO	1121
	BdH							1		•									П				1717	
	AR	1	\dagger				•	+	T	T		T										910		
ADDRESS SERVE	**RH		+	H			•	+	1		t		H						Н		H	\$75,650,650,0	Chiang Kham	Teak Trade
	*MR		H					+				h	1	-								1925	District	Donation
	*MS	9		+	4					+-		-						14				Mai I	J Bistrict / A	Donation
- 7 T L	*K		+	+	-			+	- -	-	\vdash		ļ			٩.				-		v itti i		JIJIL
7	ĸ	2 4	4	1	1	6	0	+	4 .	5 1	╀	2	_			1		H	5		H			

** = Originals and Extensions

*** = Function Altered

BdH = Buddha Hall

RH = Reception Hall AR = Abbot's Room

PM = Place for Monks

MS = Museum

K = Kitchen

CV = Covered Verandah

DN = Dinning Hall

MR = Monks' Room

6.3.5 Detail Decorations

Although the Shan monasteries barely decorated in exterior, the interior elements are decorated with some details. The interior decorations can be seen in the ceilings, columns, walls and dais. A few decorations can be seen in the roof and the staircases exteriorly.

Ceiling

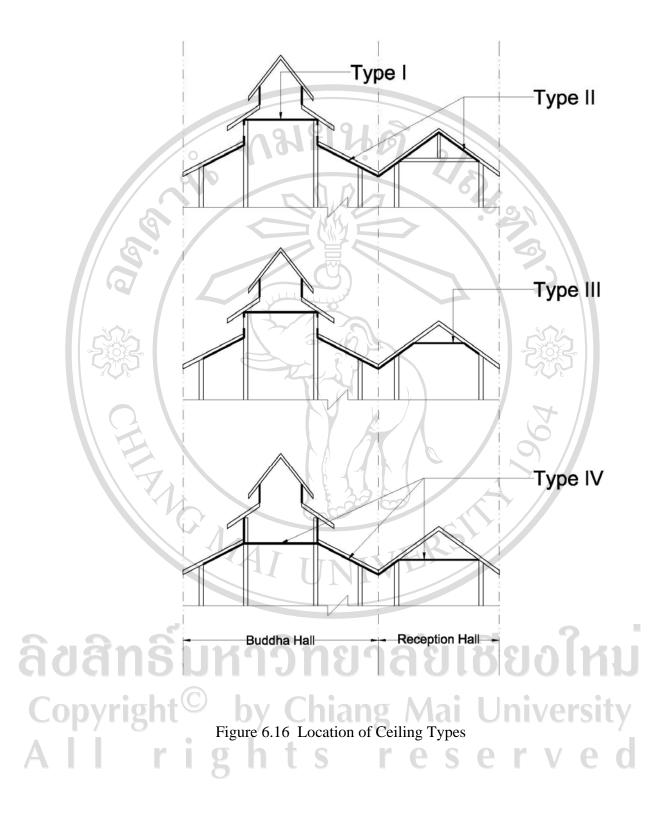
The ceilings found in all samples are associated with the roof types. They are more or less decorated according to the importance of the interior space. Generally, the Buddha Hall and Reception Hall are the principal spaces of which the ceilings are decorated. There are four types of ceilings found in the studied monasteries.

Type I ceiling is found in the Buddha Hall right above the main shrine area. It is the high flat ceiling mounted at the level roof second step roof of the Buddha Hall. It contains several panels with gold stenciled floral paintings which may be the same or different design for each panel. They can be the stepped rectangular rings with lotus flower centerpiece or a group of lotus flower like motifs in high relief. The red lacquer is the base color and the relief motifs are gold painted.

Type II ceiling is found in the rest of the Buddha Hall ceiling particularly above the Place for Monks around the Main Shrine. They are left uncovered exposing narrow vertical purlins which can be taken as ceiling. There are some spacer blocks fitted in-between forming the exposed purlins to be neat and somehow decorative. This type can also be seen in the Reception Halls which are left without ceiling exposing other structural elements such as lintels and queen posts as well. The exposed elements are decorated with beaded moldings at the edges.

Type III is the plain coffered type ceiling. It can be seen in the later extended Reception Halls which are crowned with Eine Daw Khaung type roofs. The main panels of the coffered ceiling are not subdivided into small ones hence, less decorated apart from oil based painting.

Type IV is another type of coffered ceiling with small panels dividing the main panels. Generally, they are richly decorated with red and green lacquer base on which gold stenciled floral patterns are painted. The centerpiece lotus flower and the surroundings are decorated with glass mosaic.







Buddha Hall Ceiling of Kyaung Ni Kyaung

Buddha Hall Ceiling of Wat Chom Sawan

Figure 6.17 Type I Ceiling



Reception Hall Ceiling of Kyaung Ni Kyaung

Figure 6.18 Type II Ceiling

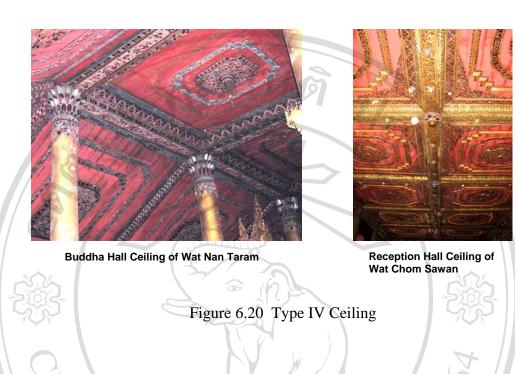


Reception Hall Ceiling of Thar Lay Taung Kyaung



Place for Monks Ceiling of Wat Tor Pae

Figure 6.19 Type III Ceiling









Buddha Hall Ceiling of Wat Mon Chamsil

Figure 6.21 Windows Found in the Roof Neck and Ceiling

Table 6.13 Ceiling Types in the Main Monastery Buildings of Southern Shan State Samples

Sample		è.	Types o	f Ceilir	g	Year of		B	
Sample	Space	ı,	II	-111	IV	Construction	Location	Remark	
	BdH					0 - 9			
S-01	RH	1918		~< 1832	Inndein Village	Commoners' Donatio			
	*PM		191	10			0 4	A COLORS SHOULD HAVE THE PERHAPS AND ASSESSED.	
	BdH						///		
S-02	*RH	N				1832	Thar Lay Village	iii	
	*PM						- ° ° Z		
/ ſ	BdH	•					N. D.	3011	
S-03	**RH			•	J N	1843	Nga Phe	11	
	*PM			•	77		Chaung Village		
191	BdH	•	•		-			99	
S-04	**RH			•		1846	Ywa Ma Village	<u>in</u>	
Q/	*PM			•					
	BdH		•/					\ \	
S-05	**RH			1.		~1846	Ywa Ma Village	ж	
72	*PM			0			10 to 10 to	30%	
	BdH	•					Marria NG Comp	5376	
S-06	**RH		6	•		1851	Myay Ni Gone Village		
76	*PM			1		\d \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Village	708	
	BdH	•	•				Churc Von Drov		
S-07	RH				!	1890	Shwe Yan Pyay Village	Royal Donation	
	PM		•			/ /	Village		
	BdH	•					Niverse Observ		
S-08	*RH					1890	Nyaung Shwe Town	Commoners' Donatio	
	*PM					1/1/1/1	TOWIT		
	BdH	•			1		Ywa Thar	1 //	
S-09	*RH			•		1924	Village Tract	li li	
	*PM			•	on		village Hact	/ //	
	BdH) • ₎							
S-10	RH	•	1			1925	Ywa Ma Village	ль	
	PM	•			-	TTX 71			
		12	4	11	1				

Note:

* = Extension (or) Renovation

** = Originals and Extensions

BdH = Buddha Hall

RH = Reception Hall

PM = Place for Monks

It is found that Type I ceiling is the most popular type for the Buddha Hall ceiling of Southern Shan State monasteries whereas Type IV for those of Northern Thailand samples. The monasteries with Type I ceiling has windows at the first level neck of the roof tier. These windows allow both ventilation and lighting inside the Buddha Hall. For the Buddha Halls with Type IV ceiling, the natural lighting is induced by the several glass panels fixed at the four inclined ceilings around the Buddha Hall since the multi tiered roof neck become a false storey. Only one Northern Thailand used Type I ceiling in its Buddha Hall.

Table 6.14 Ceiling Types in the Main Monastery Buildings of Northern Thailand Samples

0	0	1	Types o	f Ceilin	ıg	Year of	Location	Remark	
Sample	Space	1	II	- 111	IV	Construction	Location	Kemark	
	BdH			•			M = N = = 0 =	· · · · · · · · · · · · · · · · · · ·	
N-01	RH			•		1867	Mae Hong Son City	Community's' Donation	
	PM				•	400	City		
	BdH			0	•		Muang Pon		
N-02	**RH			•		1867	Village	п	
	PM			•	4		Village		
	BdH				•				
N-03	RH				7.94	1881	Lampang City	NA	
- 19	PM2								
	BdH				•			Teak Trader's	
N-04	RH					1892	Lampang City	Donation	
7	**PM								
/	BdH		•	1111	•			Teak Trader's	
N-05	RH		1 7		•	1899	Lampang City	Donation	
	PM2		13		•				
	BdH			•		6	Khun Yuam	Community's'	
N-06	**RH		2	•		1899	District	Donation	
	PM					J		200	
	BdH					1005		Teak Trader's	
N-07	RH					1905	Lampang City	Donation	
	PM2				NU	// //	-		
N-08	BdH	•			•	1910	Dhron City	Community's'	
N-08	RH				1 7	1910	Phrae City	Donation	
	PM BdH				•				
N-09	**RH				+	1918	Tor Doo Ville so	, in	
N-09	PM					1310	Tor Pae Village		
1	BdH			•	bo G	90 mg			
N-10	**RH					1925	Chiang Kham	Teak Trader's	
14-10	PM			•		1525	District	Donation	
	18191	1	4	10	19	16			

Note:

** = Originals and Extensions

BdH = Buddha Hall

RH = Reception Hall

PM = Place for Monks

Type II ceilings are supposed to be typical for the inclined part of the Buddha Hall and Reception Hall at the original time of construction. However, later renovations covered the roof structures with P-T-G (plank with tongue and grove) ceiling producing coffered ceiling resulting as Type III ceiling. In Southern Shan State, the Type III ceilings are almost plain apart from oil based painting and some even left unpainted. This type can extensively be seen in the extended or renovated compartments. In Northern Thailand samples, this type of ceiling can be found in the monasteries around Mae Hong Son and Khun Yuam. However, they are more decorative than those in Southern Shan samples by putting lotus flower centerpiece.

Type IV, the richly decorated coffered ceiling type, is the most popular type in the Northern Thailand samples especially found in Lampang, Phrae and Chiang Kham. The samples around these areas are associated with teak trading since the donors are the teak traders or workers who got prosperity in Northern Thailand. This type of ceiling is seen in only one sample among Southern Shan samples. It was donated by a Shan Prince who hired the builders from Mandalay together with Shan builders to build his merit, the monastery and the pagoda. The ceilings used in this monastery are decorated with gold painting and glass mosaic which was once exclusive for the royalties in Myanmar.

Column

The column decorations can be divided into the shaft and the cap decorations. The column shaft decorations found in the samples are gilded, half gilded, painted and glass mosaic. The decorations at the capitals are generally the representation of lotus petals. They can be separated into plain or painted cap, gilded cap and glass mosaic decorated cap. The decorations are varied in each compartment mainly Buddha Hall and Reception Hall and place for monks.

It is found that in Southern Shan State samples; the half gilded column shaft decoration can be seen the most. The completely gilded column and the glass mosaic decorated column are found only in the royal donation which means that they were not allowed for commoners to donated under the feudal administrative system. The columns in the earliest seen sample and those in the extended compartments are finished with ordinary painting. In the earlier period, the red lacquer is used as painting while oil based paints were used in later extension works. The upper part paint is the replacement of gold painting with red paint remains in the lower section. The glass mosaic decoration in the capitals of Buddha Hall columns were start seen around 1846. Since the Buddha Halls are the principal structures which still maintain the original design and material than the other compartments in Southern Shan State samples, it can be assumed that the use of glass mosaic was popular in Innlay Lake region around 1846. However the latest seen sample used only gilded capitals although it was donated by a wealthy teak trader in Lower Myanmar probably

because of the material and design concentrate on the technical advancement rather than the decoration.

Table 6.15 Column Decorations in the Main Monastery Buildings of Southern Shan State Samples

	C	Col	Shaft	Decora	tion	Col. C	ap Dec	oration	Year of	I seeding	-
Sample	Space	GLS	HGS	PTS	GMS	PWC	GWC	GMC	Construction	Location	Remark
	BdH	$\overline{\Delta}$	V	•		•1	n		10		923 S
S-01	RH			•		2.h	1.42		~< 1832	Inndein Village	Commoners' Donation
	*PM			• <		1. (STE		> \		Bonation
	BdH		•				* §			3	
S-02	*RH		•			7	7	•	1832	Thar Lay Village	n.
/ (*PM	7	•))	•			
	BdH		•		,		y•				
S-03	**RH		•		3		•		1843	Nga Phe Chaung Village	
	*PM		•			•	(6)			Citating tillage	
	BdH		•	4			P. 4				5
S-04	**RH		•		1	7	Q •		1846	Ywa Ma Village	i
	*PM			•							
	BdH		•	-				//•		7	
S-05	**RH		•						~1846	Ywa Ma Village	ü
	*PM			•							
	BdH	7				1			1851		
S-06	**RH	1	•				•	146		Myay Ni Gone Village	U.
	*PM	1	\•			6	500	91			
	BdH	7.	X					•	261	0 / 1	
S-07	RH	•		11	-			•	1890	Shwe Yan Pyay Village	Royal Donation
	PM			1	•		M	•			
	BdH		•							*New Transport	
S-08	*RH		•				•		1890	Nyaung Shwe Town	Commoners' Donation
	*PM	4	•								
9	BdH		•	-				•		S.O.T.O	(, , , ,
S-09	*RH	51	• 1	1				•	1924	Ywa Thar Village Tract	
	*PM							•			2
	BdH	4		L .	, (1112		Mait.
S-10	RH	IL'	•	U			œ	lg	1925	Ywa Ma Village	rsity
	PM		•	ĺ			•				/
		2	22	5		3	13	11	PS	PKV	6 0

Note:

* = Extension (or) Renovation

** = Originals and Extensions

GLS = Glided Column Shaft

HGS = Half Gilded Column Shaft

PTS = Painted Column Shaft

GMS = Glass Mosaic Decorated Column Shaft

PWC = Plain Wooden Cap

GWC = Gilded Wooden Cap

GMC = Glass Mosaic Decorated Cap

BdH = Buddha Hall

RH = Reception Hall

PM = Place for Monks

Table 6.16 Column Decorations in the Main Monastery Buildings of Northern **Thailand Samples**

0		Col	. Shaft	Decora	tion	Col. C	ap Dec	oration	Year of		P. W. W.
Sample	Space	GLS	HGS	PTS	GMS	PWC	GWC	GMC	Construction	Location	Remark
	BdH			•				. 6		2021 (00)	2 5 10 10
N-01	RH		•	•	19	18	•	6	1867	Mae Hong Son City	Community's' Donation
6	PM		0,0	7	10.		•	•	9/	Oity	Bondtion
	BdH	O						•	48	200	
N-02	**RH			•				7	1867	Muang Pon Village	11
	PM		•				1.			000	
	BdH				•		V. E				
N-03	RH				•		•		1881	Lampang City	NA
	PM										
	BdH		•		. 11		7.	•			
N-04	RH		•				2	•	1892	Lampang City	Teak Trader's Donation
9	**PM		•		•		-0	•		30	P
53	BdH		•			0	117	S •/	1899	Lampang City	21
N-05	RH		•	6		-	7 5	•			Teak Trader's Donation
	PM			•	~	M	94	•			Donación
	BdH			•			Y		У	Khun Vi	Community's' Donation
N-06	**RH			•		•		#	1899	Khun Yuam District	
	PM			•		•					
	BdH				•			•			
N-07	RH	7			•	1 6	3	•	1905	Lampang City	Teak Trader's Donation
	PM	12			•	Y	36)		A / I	2 011211011
	BdH		•			9		•			0
N-08	RH				•			•	1910	Phrae City	Community's' Donation
	PM			11	7	_		*			
	BdH		•	4 1	1		•				
N-09	**RH		•			•			1918	Tor Pae Village	Ü
	PM		•			•					
	BdH	4	•					•		Chiana Ida	Tark Tords 1
N-10	**RH		•	20		10	ei.	6	1925	Chiang Kham District	Teak Trader's Donation
	PM	DH.	•					•			DOHATION
			17	7	7	5	6	17			

Note: ** = Originals and Extensions

GLS = Glided Column Shaft

HGS = Half Gilded Column Shaft

PTS = Painted Column Shaft

GMS = Glass Mosaic Decorated Column Shaft

PWC = Plain Wooden Cap

GWC = Gilded Wooden Cap

GMC = Glass Mosaic Decorated Cap

RH = Reception Hall

PM = Place for Monks

No columns in Northern Thailand samples are completely gilded probably because none of them are royal donation. Nevertheless, the glass mosaic once prohibited for the commoners to use in Myanmar is a popular mean for decorating the monastery columns in Northern Thailand. However, the half gilded column decoration is mostly used in the Buddha hall columns while the glass mosaic decoration is usually decorated the columns of Reception Hall and Place for Monks. It is found that the use of glass mosaic depends on the region in which the samples are located. They are richly used in and around Lampang. The samples around Mae Hong Son Province especially in rural area use less glass mosaic or gold painting not even in the capitals. Instead, plain untreated wooden lotus petals are commonly used.

Wall

Wall decorations are found in Marabin wall (back drop wall at Buddha hall), and Abbot's room wall. They are painted in stenciled gold paintings. The upper part of the Buddha halls is decorated with the paintings of Buddhist lore. In the original time of construction, the Shan monasteries in Southern Shan state are open type. They only have enclosed wall for abbot's room. The rest of the compartments are open structures especially, Buddha hall and reception hall. The wide verandahs encircling the reception hall are later altered as reception area and enclosed by walls. The upper parts of the enclosed walls are fixed with wooden grates in order to get the good ventilation. They are crafted in various designs. The extensions around 1940s used cast iron grates with more elaborate patterns. The wooden grates are not common for the monasteries in Southern Shan State, however the earliest one found in the walls of Patama Kyaung built around 1846.

The wall decorations in Northern Thailand are more elaborate than in Southern Shan state. They can be seen on the wall of abbot's room and Novice room composed in the Buddha hall. The gold and glass mosaic works are put on the red lacquered paint. A unique glass painting wall can be seen on the abbot's room wall of Wat Jong Klang. The urban monasteries in Northern Thailand are enclosed originally while rural wats are opened later, extended and enclosed by wall. However, the Abbot's room was originally enclosed by wall in every monastery. The periphery walls of the urban monasteries are decorated with red and green lacquer panels with

gilded beading surroundings. The upper parts of the outside walls are fixed with decorated wooden grates. Those in urban monasteries are more elaborate designs which is popular in the ginger bread houses around Lampang. Those in rural monasteries used simpler patterns.

Floor

The decorations on the floor are found only in the Kha Ban of the dais. They are in gold stenciled painting, wood curvings and glass mosaic decoration. Those in Southern Shan monasteries have simpler decorations such as simple stenciled painting and moulded beadings. They are painted in red lacquer base. Only the royal donation used glass mosaic decoration in "Thayo" technique.

The Kha Ban of those in Northern Thailand used glass mosaic and wood curving. The Lampang monasteries which are urban monasteries as well used the most elaborative glass mosaic set in Thayo technique decoration. The monasteries around Mae Hong Son, whatever city or village monastery used simpler decorations.

The balustrades which are used to demarcate the sacred space around main shrine area showed details in decorations. Those in Southern Shan State samples usually used lathed wooden balusters. In Northern Thailand, lathed wooden balusters are only found in Wat Muang Pon.

Roof

The roofs of the Shan monasteries in Southern Shan State are less adorned. There are some decorations only on the roof necks. In fact, monasteries donated by the commoners are less decorative than those of royal donations. Thus, the common features can be seen as the concentric gilded band with a lotus centerpiece decoration on the roof neck. However the significant roof decoration the monasteries around Innlay Lake including Nyaung Shwe is the three distinct iron lotus flowers fixed at the gable end of Buddha Hall. This type of decorative item is supposed to be found only in the Northern Thailand sample in Phrae. However the size of the flower is smaller and made different technique. The ones in Southern Shan State is a fine telescopic blacksmith product while the one in Phrae is a moulded cast iron piece. However the idea of putting three lotus flowers at the apex of roof of Buddha hall gable is supposed

to be similar. The Southern Shan models have additional tin cut filigree on the barge boards which are the replacement of original wooden decoration. The roof decorations in Lampang monasteries used elongated triangular roof finials (Chao Fa) capping the roof gables in the style of Cha Fa Pak Khrud (the garuda beak finials). This type of decoration can be seen in Wat Pafang and Wat Mon Chamsil. This decoration exactly is the influence of Northern Thailand. The decorations on the roof necks are mixed with wood carvings and color glass strips. Every Southern Shan monasteries have windows on the neck of the Buddha Hall to extract the heat inside. They are fixed only with wire mesh to allow the airflow and prevent birds. There are no windows found in Northern Thailand monasteries, except the one in Phrae. The samples in Lampang have fixed glass panels at their roof necks as false windows.

Staircase

In the past, the Myanmar sumptuary law prohibited the use of masonry staircase in the commoners' monasteries. Hence, the remains of the original structures in Southern Shan State samples show no evidence of masonry stair case except Nyaung Oak Kyaung and Shwe Yan Pyay Kyaung. Nyaung Oak Kyaung, in which Shwe Yan Pyay Kyaung is a royal work of merit using elaborated Naga Tha Yet Kin design masonry staircase. The rest of the samples use wooden staircases whereas some masonry staircases are additions of the later period.

Almost every sample in Northern Thailand use brick staircases although some of them used to have wooden staircases in the older time. The Seindaung type decoration which is popular in the Myanmar monasteries can be found in the entrance landing balustrade design in monasteries around Lampang. No classic Tha Yet Kin design staircase is found in the northern Thailand samples.

6.4 Summary

The analysis between the architectural characteristics of the Shan Monasteries between Southern Shan State and Northern Thailand is carried out through their site planning, main monastery building planning, roof forms and detail decorations.

The main elements in the compounds of are Main Monastery Buildings and Laymen Pavilions for Southern Shan State samples while Main Monastery Building, Stupa, Ordination Hall and Monks' Residences for Northern Thailand samples. The Stupa, Ordination Hall and separate Monk Residences, which are compulsory for a full fledge monastery in Northern Thailand, are not compulsory for the samples in Southern Shan State. The difference happened according to the influence of local religious rules and regulations of Thailand and Myanmar. The noticeable amount and importance of Laymen Pavilions found in Southern Shan State samples are associated with the religious festival of Phaung Daw Oo Buddha images located in Inn Lay.

A distinct element found in the sample compounds is the Swan Pillar. They are only seen as an auxiliary structure for stupas which was spread around in Myanmar from Mon region and not exactly a Shan traditional practice. However, Swan Pillar in the Northern Thailand samples showed a representation rather than an auxiliary element. This can be assumed that some Shan monasteries in Northern Thailand were associated with Mon cultural tradition either by the donor or the artisans or the Abbot who came from Mon region of Lower Myanmar.

The popular site compositions found in the Southern Shan State samples is Courtyard Center composition in which a courtyard is surrounded by the elements in the compound. In the Northern Thailand samples, Main Monastery Building Center composition which is the classical monastic site composition of Myanmar monasteries is commonly used. In this composition, the Main Monastery Building is surrounded by the elements in the compound. However, the Courtyard Center composition was supposed to be used in the Northern Thailand sample in the past. This composition was later altered by constructing a stupa at the center of courtyard and became Stupa Center composition of typical Thai monastic layout.

The main spaces inside the Main Monastery Buildings of both Southern Shan State and Northern Thailand samples are Buddha Hall, Reception Hall and Abbot's Room. Among them, Buddha Hall composed of different functional spaces with several variations. Only one among the ten samples of Northern Thailand used exactly the same as a Buddha Hall composition from Southern Shan State samples which means the two areas had relationship in the past although not strong.

Other related spaces found in the Main Monastery Buildings are Shrines, Dining Halls, Monks' Rooms. They are the additional structures which varied according to the need of custom and tradition of the region they are located. For example, in Southern Shan State, the extensions are Dining Halls, Shrines, Reception Halls and Monks' Rooms whereas in Northern Thailand, the extensions are Reception Halls and Museums. It can be said that both of the samples in Southern Shan State and Northern Thailand are extended for community activities since they serve as community centers. Time by time, more accommodation is needed in the monastery for ever growing community size. The extensions as the residence for monks and novices in Southern Shan States are the consequence of monastic education which is still practiced in Myanmar. In Northern Thailand, the Shan monasteries fell under the Thai religious sect and followed the rules in which the monks have to stay separately from the main monastery building. The construction of Myanmar style religious buildings including Shan style monasteries was stopped since the end of 20th century as they are taken as traces showing foreign invasion of economic sector in Northern Thailand. The surviving few Shan monasteries themselves become showpieces and tourist attraction in Northern Thailand which make the new extensions to be appeared as museums. Hence the extensions appeared in Northern Thailand samples are for exhibition rather than monastic residence.

The Main Monastery Buildings in the samples are tended to be faced either North or South. In Southern Shan State, the main entrance to the building is through the staircases in which the quantity depends on the rank of the monastery; the more the staircases, the higher the rank of the monastery such as royal monastery, staging monastery or dedicated monastery. The ordinary monasteries possess one or two staircase as the main entrance. All the Northern Thailand samples are commoners' donations and possess the ordinary monastery feature which is one or two staircases. Among them, only Wat Chom Sawan from Phrae shows two entrance staircases which is the most common feature of monasteries around Inn Lay area of Southern Shan State.

As for the transformation, the Southern Shan State samples are found to be much extended than those in Northern Thailand. The extensions are mainly on the wide verandahs in Southern Shan State samples. This incident associated with World War II since the war victims largely donated the extended compartments in compensation for their refuge in these particular monasteries.

The variations in their primary planning appeared according to the topographical and regional changes of which the Southern Shan State samples associated with topographical which is set on dry land and set on semi-aquatic land. The monasteries set on the semi-aquatic land composed of wide verandah probably to accommodate the monks' outdoor activities. Because of the mountainous geographical setting, the western part of Northern Thailand, the Mae Hong Son Province, was isolated from the other eastern regions. The design of the Shan monasteries in Northern Thailand used to build by copying the adjacent monastery planning and design or by hiring the same group of artisans for the construction. This resulted the Shan monasteries in Northern Thailand to be varied according to major different regions.

The roof forms seen in the Southern Shan State samples have not much variation. It is found that they normally follow the traditional hierarchical order of the roof types. However in Northern Thailand samples the roof types can be seen in several variations because they are free from the Myanmar feudal administration which controlled the architectural features of the monasteries including roof forms. Moreover, the British colonization of Lower Myanmar turned out the innovations of new roof developments. Consequently, the Shan monasteries which were exceptionally associated with trading between Lower Myanmar and Northern Thailand freely reveal the sophisticated roof combinations.

Gold and red lacquer is the principal means of decoration for Shan monasteries in Southern Shan State whereas glass decoration is popular in some Shan monasteries of Northern Thailand. The decorations were restricted in Southern Shan samples such as complete gilding and the glass mosaic decorations were exclusively for the royal donations. Hence the decorations found in Southern Shan samples are almost plain and simple. In contrast, the Northern Thailand samples are lavishly decorated by means of gold, lacquer and glass decoration. The using of glass decoration by the commoners was restricted by Myanmar sumptuary law in traditional days. No commoner's donations can be lavishly decorated in Myanmar including Shan State. Although the whole Myanmar fell under British Rule since 1885, the British ruled the Shan State by giving autocracy to the Shan chiefs. Shan State used the feudal system till 1958. Hence the commoners in the Shan State did obey the

sumptuary law till the end of the feudal system. The British colonization of Upper Myanmar made artisans from Mandalay to move to Mawlamyine where they developed Myanmar traditional craftsmanship by using advanced materials tools imported from European countries especially glass mosaic decorations. Due to the trade connections and good business opportunities, teak traders hired the Myanmar artisans to build and decorate their monasteries in Northern Thailand. Consequently, the freedom from the sumptuary law, the wealth and material advancement let the Shan devotees who were not the royalties to lavishly embellish their works of merit as seen today in Northern Thailand.



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