

THE GABLED ROOFS OF THAI TEMPLES

An adventure in tracing Chinese influences

One of our anthropological debts to Phya Anuman Rajadhon comes from his having described Thai customs. Of course, had time permitted, he would have gone on to tracing their historical connections. His philological interests were leading him in this direction as he worked on the Thai dictionary. He did write on Sukhothai customs and suggested a Chinese influence in the *Loy Krathong* Festival.¹ We see our task as taking a small step which he might have taken sometime. In that case he would have helped resolve some of the questions that this adventure could not answer.

The handsome tile roofs of Thai temples with their glittering *nagas* are, as we shall show, not a part of the Buddhist tradition, which came out of India. Typically, Thai temples, variously arranged within a bounded enclosure, center on one or more rectangular buildings with characteristic roofs. Among the wealthier ones, the *vihara* (วิหาร) or assembly hall serves as the center for a cluster of buildings such as the *ubosoth* (อุโบสถ) or sanctuary, a library, and *kuti* (กุฏิ) or monks' quarters. The traditional *stupa* or *chaitya* (*chedi*) may be missing, though sometimes it rises to dominate as a golden mountain.

In India the earliest remaining Buddhist temple at Sanchi, around 300 B.C., appeared more than two centuries after the birth of the Buddha. It consists simply of a dome-shaped *stupa* built of dressed stone and filled with earth, the whole skirted by a balcony near the base. This edifice is surrounded by a masonry fence broken at the four quarters by the famous ornamental gates, added a century or two after the founding. The *stupa* alone sufficed for many years as a center for worship. It set the basic pattern for Nakorn Pathom, the Shwedagon Temple of Rangoon, and the Borobudur in Java. The practical needs of monks and worshippers were provided elsewhere or in subordinate structures which have now vanished without leaving traces.

When caves and walls of cliffs became locations for worship about 100 A.D., little *stupas* along with other symbols and representations of the Buddha came to be displayed either in recessed nooks or in rooms hollowed out of a cliff face. Temples of this tradition occur in Thailand at Chiang Dao and Rajaburi, at Karle and Ajanta in India, not to forget many others scattered across north China from Kansu to Shantung.

By 400 A.D., a third style moved across India, the Hachimalagudi temple at Aihole near Bombay being an early exemplar. There the round *stupa* became a four-sided pyramid, its sides covered with sculpture, perhaps with a small room for a Buddha image where ritual might take place. This form, made to be seen from outside,

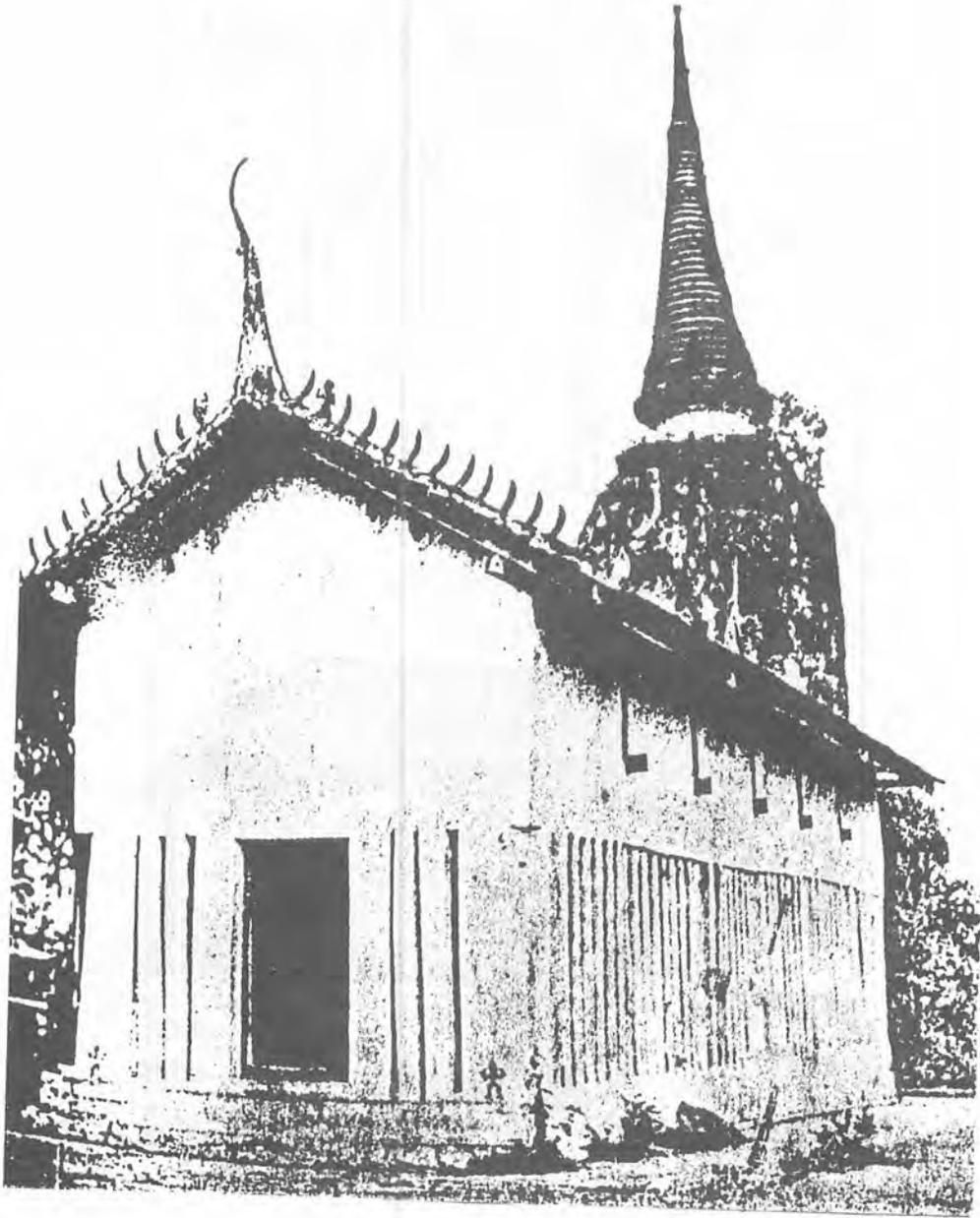


Fig. 1 A vihara in Nakorn Sawan from Griswold 1976.

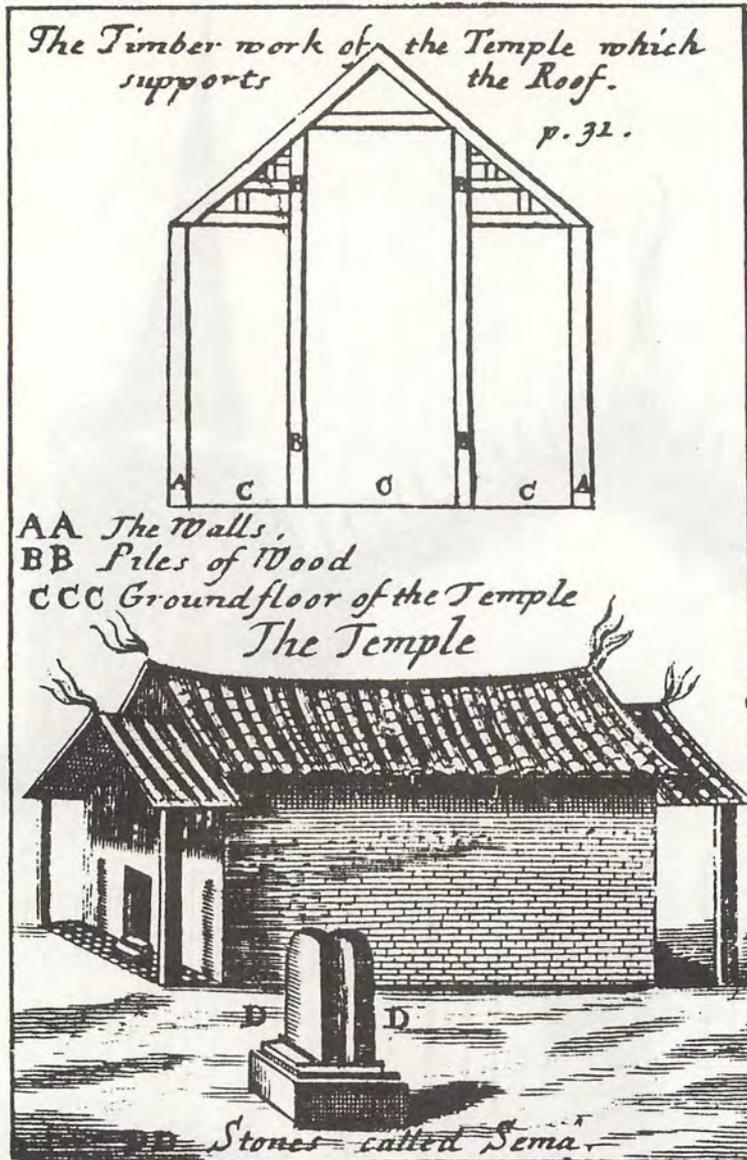


Fig. 2 An ubosoth in Ayuthaya from la Loubere

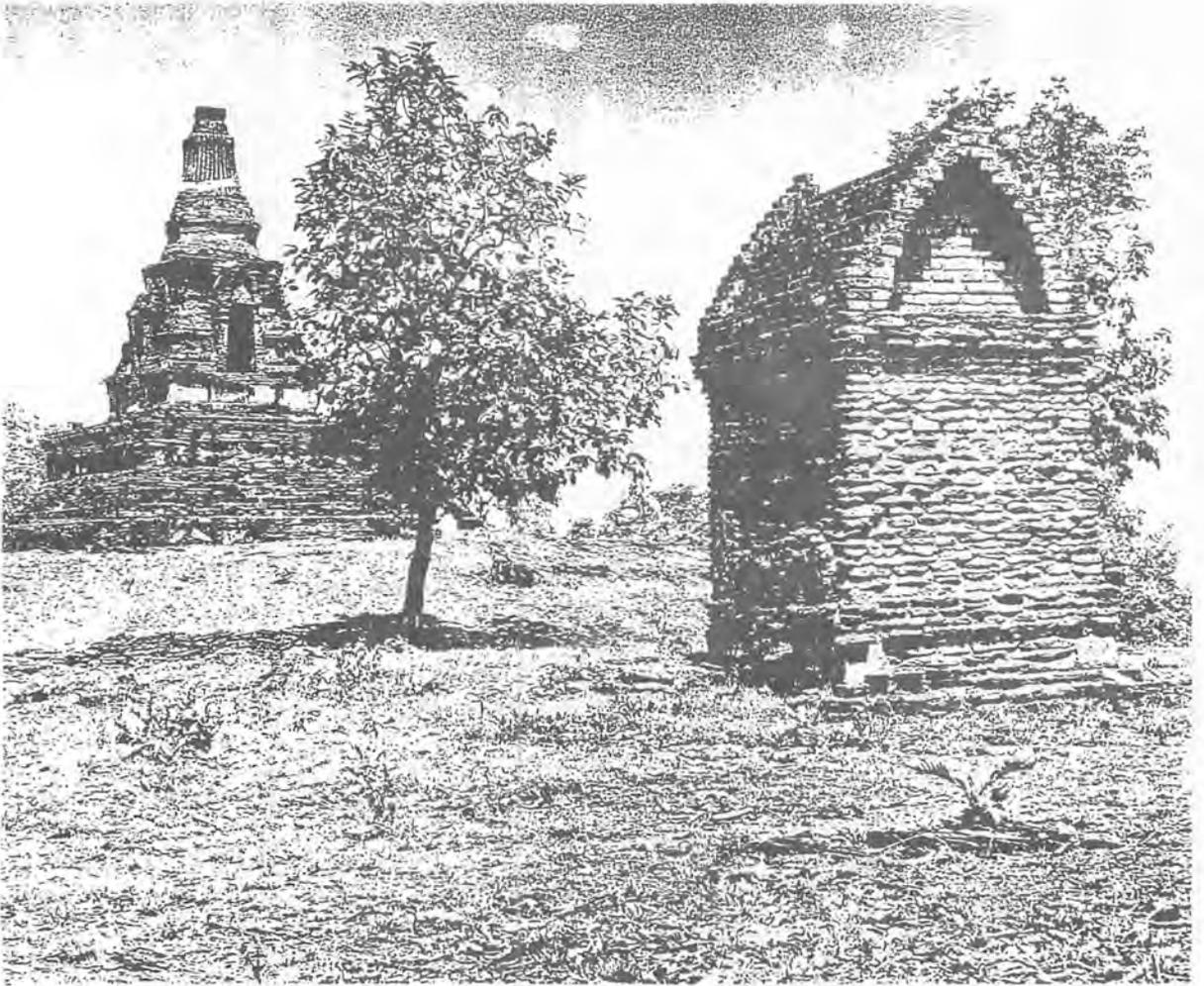


Fig. 3 A Kuti in Sukhothai from Diskul

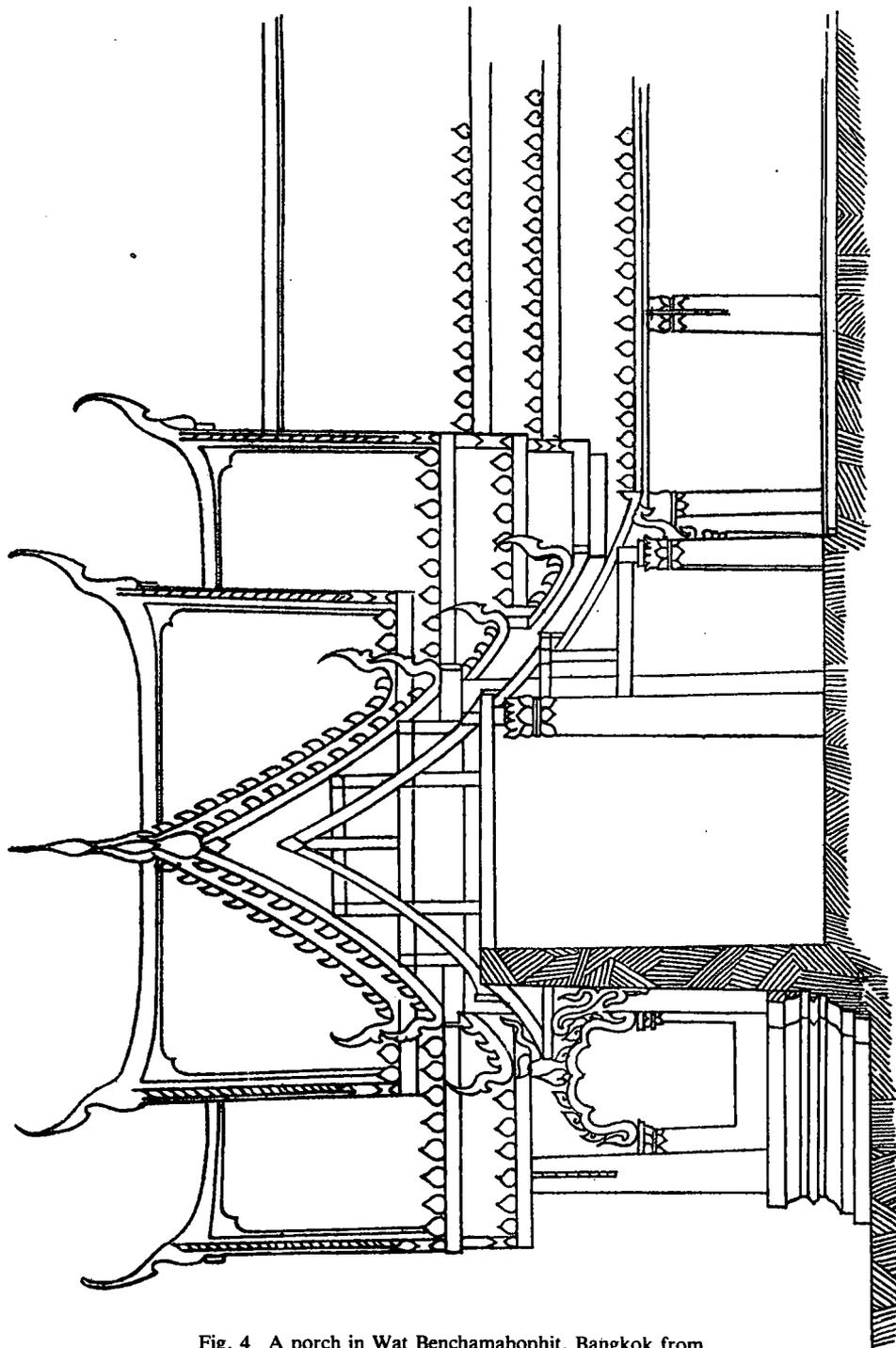


Fig. 4 A porch in Wat Benchamabophit, Bangkok from Dohring 1920 Vol.I p.159.

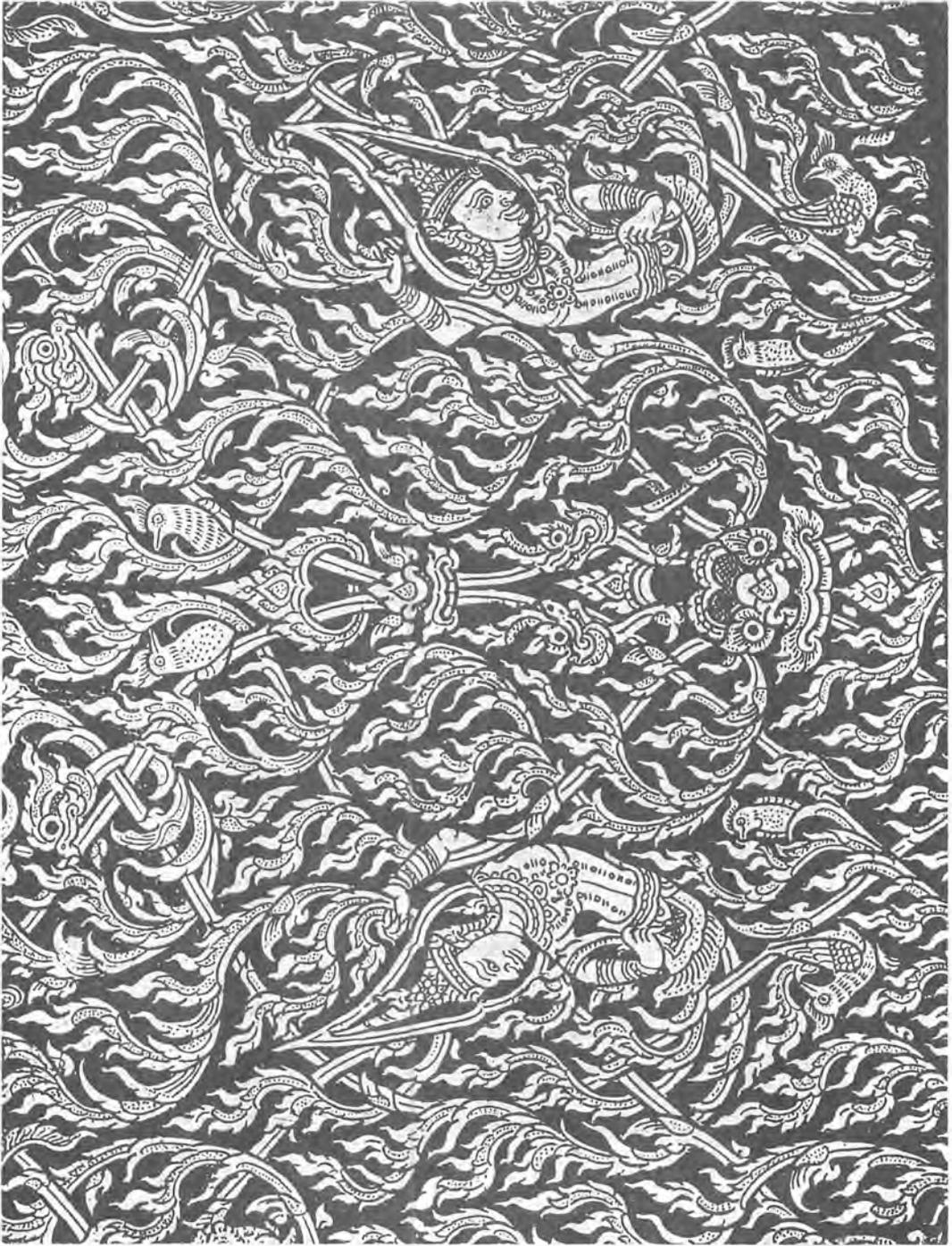


Fig. 5 Lacquered Book Cabinet from Döhring 1923 tafel 75



Fig. 6 Door to Wat Kaw', Paknam from Döhning 1920 Vol.2.

was developed in many tower-like temples throughout India. The same tradition is represented in the temples at Pagan in Burma as well as those near Angkor in Cambodia. In Thailand the style is best known from the Khmer monuments at Pimai and Lopburi.²

Over the centuries the model of temples changed. The idea of a *vihara*, which slowly entered the scene, is distinctly shown in caves such as the Chaitya Cave at Karle in India. In these caves a whole chamber was dug around a central *chaitya*. There groups could assemble for rites, and monks find shelter during the rains. Most temples built in the last half of the first millennium, now known as the Dvaravati period, followed the Hachimalagudi style emphasizing monumental square or rectangular *chaityas*. Temples near Nakorn Pathom such as Wat Phra Man and Wat Phra Pathon, as well as the better known chaitya at Nakorn Pathom, are enormous constructions of brick and laterite. Though passages run through these structures, the generally used corbel arch, which can only span narrow spaces, prevented the developing of rooms for a congregation within the *chaitya* during this period. It is believed that when viharas were built, they were of wooden post and beam construction that left few traces for archaeologists. The sole remaining *vihara*-like structure is San Chao near Pong Tuk, also in the vicinity of Nakorn Pathom ; it survived because of its masonry base and stone columns.³ No chaitya stands near this structure, suggesting that it may once have been a prince's palace.

A photograph of a vihara in Nakorn Sawan shows a building with masonry walls slitted at frequent intervals, which is assigned to the style of the 1200s A.D. (cf. Fig. 1).⁴ Here the roof and its ornamentation were doubtless renewed many times. The inscription of King Mahadharmaraja of Sukhothai, dated about 1361, testifies to the building of a vihara. An august monk had been invited to reside in a temple built for the occasion at a site beyond the city walls where forest monks were accustomed to gather around a *chaitya* built by Ramkhamheng. The text of the inscription tells :

“In the Mango Grove, he caused *kutis* to be built and a *vihara* /with scenes/ depicting the Lord entering nirvana... He also founded a statue /of the Buddha/ and an *uposotha* hall with boundary stones.”⁵

In Lanna, when a chaitya was built, a vihara with images of the Buddha was customarily installed nearby.⁶ Yet everywhere in Thailand over succeeding years *chaityas* were to diminish in importance, while *viharas* gained.

The clearest evidence for a diminishing importance of the *chaitya* is the illustration of a “convent of talapoinis” from la Loubère's *A New Historical Relation of the Kingdom of Siam*, page 112, based on his visit in the 1680s. It shows an *ubosoth* with its *semas* surrounded by *kutis*, all within a fenced enclosure.⁷ Here for the first time stands something like the prevailing gabled roof of a temple that we recognize today. A more detailed illustration in another part of the same book shows “The Temple” with plain walls of brick surmounted by an overhanging (presumably) tile

roof with a porch at each end, each with its own lower, gabled roof. (cf. Fig.2).⁸ From the gable points on the roofs rise three pronged ornaments. la Loubere writes :

“They /these temple buildings with doors but no windows/are much darker than our churches. Moreover, they are of the shape of our Chappels /sic/ but without vaults or Ceilings:only the timber work that supports the tiles is varnished with red interspersed with some streaks of gold.” (cf. 8)

Certainly temples did not all stand without *chaityas*, for la Loubère writes of “pyramids” in the temple ground, and an illustration dated 1690 from E. Kaempfer’s *History of Japan* shows them. In a map of the palace with its grounds, several temples are shown in profile, revealing towerlike *chaityas* beside buildings that match or nearly match them in height.⁹ Another representation dated 1726 from Chiang Saen in model form shows a similar but more ornate *vihara* raised on a high base, suggesting that la Loubere, who found Ayuthaya rather austere, may have simplified his drawings.¹⁰

Soaring Roofs

Let us now narrow our attention to the roofs of the temples in Thailand and examine today’s crowning glories:the *viharas*, *ubosoths*, and libraries. Can we trace the influences that lead this development from the simple gabled roof of Sukhothai times to the massive ornamental roofs that seem to have moved in this direction by the time they can be tracked down in Ayuthaya of the late 1600s? From there the line develops directly to Bangkok of the 1800s, where we find many examples of expanding roofs.

In sorting out the guiding influences on this trend, we distinguish between internal and external factors. Internal factors are those that pertain to the immediate construction of the temple such as shortage of tools, materials, or skills ; and local social changes such as growth of population. These we distinguish from influences originating outside the locality such as ritual and doctrinal matters stemming from India via Sri Lanka, and changes of architectural style, which seem to have come from elsewhere, notably China.¹¹

Internal development proceeds from the simply walled and roofed *viharas* found in Sukhothai times. It came ultimately from the ubiquitous bamboo and thatch shelter later made more enduring by perching it on a base and fashioning it with walls of masonry. In the following centuries, increasing population and a growing number of worshippers required larger shelters. More or less as villagers do when their families grow, expanding the dimensions of the building sufficed to meet these requirements. Though walls could be extended with rebuilding, the horizontal beams from the forest became inadequate, despite a superstructure of angled props, to support a heavier roof covering a broader span. One *vihara* of Ayuthaya times solved the problem by setting

two rows of posts near the center of the building to support a broader and steeper roof. (cf. Fig. 2).

As covering for these roofs, ceramic makers glazed and baked tiles in ever greater numbers. The use of tiles was noted by Chou Ta-kouan on his visit to Angkor Tom during the 1300s:

“All structures open to access and lodging /by ordinary people/ are covered with thatch ; only family temples and private dwellings are covered with tile. The official rank of everyone determines the dimensions of his residence.”¹²

Four centuries later de la Loubère observed a parallel phenomenon in Ayuthaya :

“...in the Palace, the King and Lady’s Apartment is higher than the rest and the nearer an Apartment is to it, the higher it is in respect to another, which is further distant : So that there is /sic/ always some steps to ascend from one to the other : For they all joyn to one another, and the whole is from end to end on a line, and it is that which causes the inequality in the Roofs. The Roofs are all high-ridged, but one is lower than the other.”¹³

Thus the dimensions grew not only with population and Buddhist ardor but with social rank.

During the centuries of Ayuthaya’s growth, the major outside influence on Thai architecture seems to have stemmed from China. Though the Khmer empire set the pattern of organization for early Ayuthaya, while the Mon Kingdom at Pegu relayed Buddhist doctrinal standards from Sri Lanka, the Chinese hand is everywhere evident in temple and palace construction.

Broken roof lines and superimposed roofs were among the distinguishing features of Chinese architecture. Built in ancient times on sacrificial platforms, Chinese temples developed as roofs for sheltering ceremonies. Despite many gaps in the sequence, Han dynasty temples and palaces are seen to grow as elaborations from this standard model, which is not greatly different from the rectangular house with gabled roof that anyone may draw. The Chinese, however, began exploration by juxtaposing multiple roofs in various ways. Their pagodas have roofs piled one on top of the other. Though we think of the inspirations for pagodas in Thailand as coming from the Hachimalagudi style in India via Dvaravati, the sheltered entrance porch for *viharas* stemmed in all probability from a feature of T’ang architecture, which was also reproduced in Japanese temples of the Heian period (794-1185) as shown in the drawing of the Horiyugi temple.¹⁴ The temple style noted by de la Loubère also has special roofs above the sheltered steps at both ends of the building. There the gabled roofs over the entry that was set beneath the roof of the main building suggest the beginnings of interest in multiple roofs, the higher the more valued. A successor to this covered entrance is the ringing of the masonry enclosing the *vihara* with columns for a

porch with its own subordinated roof line, found frequently in buildings of the 1700-1800s and passed to successors.¹⁵ From these beginnings arose the exquisite juxtaposition of gabled roofs surmounted by a spire for which Thai architects have become world famous.

Celestial Bouquets and Nagas

Celestial bouquets (มณฑล) are the total roof adornments from top to bottom of the gabled roofs of a temple or palace. De la Loubere's drawing shows three strips of unknown material fanning out like banners into space from the ends of an undecorated ridge. (Fig. 2) Since we seek the beginnings of the now familiar naga motif, with a single tail at the roof peak and an undulating scaly body leading down the slope to heads rising at the eaves, this illustration indicates that the naga form had not yet become popular in the 1680s.

What was used for decoration in the preceding years is not known because periodic restorations of the latest style of the hour have eliminated this evidence. However, the brick *kuti* or monk's house with corbeled roof at Sukhothai, dated in the 1300s, suggests that even simple buildings were decorated then with some celestial bouquet (cf. Fig. 3).¹⁶ The definitely raised arc of bricks at both the front and back of this *kuti* suggests that even simple buildings were decorated then with some celestial bouquet. This may have been the kind of decorative facade that grew into a *naga*, but examples are too rare to form a sequence.

Let us turn to datable representations of temples and palaces. A sepia painting in Wat Kaw Kaeo Sutharam, Petburi, with its black lines, is dated 1734. It represents the Ratananagara shrine with the Buddha seated inside. The ridge of the building has a fringe of points running along it which continue down a descending ridge to the eaves. There an ambiguous, flower-like construction stands with pointed petals.¹⁷ This wall painting from a temple is matched by two others dated about 1800.¹⁸ They reveal nearly identical ornamentation, even though one depicts the palace where the Buddha grew up, the other a palatial shelter for monks where the Buddha is preaching to the gods. In both pictures a single, long spike attaches to a curved projection which in turn connects the spike to the roof peaks. The fringe along the roof ridge of the earlier painting has been replaced by a row of single leaves. They run down a corner of the roof to the eaves where the head of some little-defined creature can possibly be discerned beneath a horn. Our sequence is completed with a celestial bouquet of 1900 from the architect's drawing of a portico in Wat Benchamabophit (cf. Fig. 4).¹⁹ Single notched spires mount from a clean, rounded bulb at the gable points. The ridge line of the roof has lost all ornamentation; pointed petals descend to some eaves devoid of decoration. Only over the entry porches do nagas with both head and tail enhance decoration.

These celestial bouquets seem to be constantly changing. They represent the

sacred radiance, a constant of every active temple that manifests itself in many different manners. Its evanescence is neatly depicted on the lacquered door of a book cabinet (cf. Fig. 5).²⁰ Here the artist reveals sacred radiance as a vine with flames and leaves that is manifesting itself as birds, animals, saints and demons.

Celestial bouquets, unlike roofs, form only a part of an architectural system with components that can be traced to points of origin. A propensity to decorate roofs has endured in the Far East for centuries. The particular style and placement of these decorations have changed over the years elsewhere as well as in Thailand. To unravel the influences on a particular form (a snake, a bird, a vine, a symbol) leads to subtleties of social history not accessible to the writers. Chinese contributions are here but one of many.

Sources of Chinese Influences

The territories of today's Thailand have been accessible from China by known land and sea routes for fifteen centuries or more. Commercial as well as diplomatic relations waxed over these years until the Yuan dynasty saw fit to establish relations with Sukhothai in 1292, and the Ming emperor, a century later at Chiangmai.²¹ No doubt, immigrants followed some of these routes to Thailand, among them Ch'en I-chung, a Sung prince who fled to avoid capture by the Yuan soldiers in their capture of the empire. He may have been one of the first of the uncounted Chinese grandfathers who have appeared in subsequent generations.

These Chinese migrants worked at every occupation from government official to laborer.²² How many of Cheng Ho's sailors deserted their ships before the fleet sailed from Ayuthaya in 1407 is unknown, but hundreds of seamen and traders haunted Ayuthaya's docks. About this same time Chinese potters seem to have reached Sukhothai, Swankalok and Sankampaeng, suggesting that the overland routes were also active.²³ The Chronicles of Chiang Mai relate that Meng Rai, setting off with his army for P'akham-Angva (i.e. Pagan-Ava), returned from Burma with five hundred families of metal workers and jewelers.²⁴ Skilled workers from anywhere were in demand.

The provenience and names of architects and other skilled artisans are rarely mentioned in the source materials. An exception, from the *Chronicles of Yonok*, concerns a Chiangmai king who built a temple and named it Wat Kathom after the architect. A second example from this source shows the architect more as a builder than a designer, for a man entitled Muen Dam Prakot (i.e. the Honorable Mr. Builds-Tangible-Things) was sent in 1479 by the king of Chiangmai to study the temples of Sri Lanka before restoring the *Chedi (chaitya)* Luang, and building a shelter for the *Phra Kaeo* image, housed today in Bangkok.²⁵ In another instance an inscription at Tak stated that a Burmese architect named Maen Ta Thok built the Lotus Tower.²⁶ These references tell us that recognition and merit for these buildings went to the

commissioning patron and not to the architect and the builders. The latter were seen as copiers of a structure found elsewhere, so that few innovations were attributed to them. Were Chinese among them, they did not bring with them, for instance, the famous bracket construction for helping support the roof. Columns and rafters continued in Thai temples the style of construction that goes back to Dvaravati.

We have no population census for Ayuthaya, but at the time of de la Loubère an estimated two to three thousand Chinese lived in the suburbs and a handful more in the city.²⁷ Doubtless the Chinese sector of the city held rich men, financially capable of building Buddhist temples. A few modest ancestral halls and Confucian temples appear today in Chinese quarters of Thai cities, built or rebuilt since the fall of Ayuthaya, but nothing comparable in size or splendor to the spectacular ones of today's Singapore and Pinang. These Chinese leaders in earlier Thailand could not risk royal displeasure by rivalling the temples of kings, but it is well to recall that they were usually married to Thai women. Though their Chinese background showed during their life time, their children, who were raised to respect the Thai variety of Buddhism, were the temple-building merit makers. Here is one reason why Chinese contributions to Thai culture were usually veiled and modestly conforming to local expectations.

Chinese influence also entered via the skilled artisans who were the builders. As Sukhayadhana describes Bangkok of the early 1800s, the Chinese style of roof was larger and heavier than roofs of the older style.²⁸ Much of the supporting structure was masonry which had to be erected precisely to parallel the trajectory of a higher roof. No doubt some of the temples which rose in Ayuthaya of the 1600s and 1700s with masonry columns, required Chinese foremen and work crews.

Along with skilled masons and joiners came carvers of stone and wood, cabinet makers, inlayers, mixers of shellac impervious of weather. Döhring noted the doors inlaid with mother of pearl in Wat Kaw' on the island at Paknam. He found Chinese expressions in the faces of the slain demons ; and we find the Chinese idioms extend to the faces of the *Yaksa* guardians and the dragon-shaped clouds (Fig.6).²⁹ This inlaying was an exported skill in China. Unless skilled artisans descended from these Chinese craftsmen or apprenticed to them, Thai craftsmen would have been unable to carry out this work. How doors in Ayuthaya were formerly decorated, we do not know.

In selecting the form for ornamenting the roof, the decision lay at the discretion of the patron. Though open questions could have been left to builders to decide, the builder would have been ruled by tradition and what might please his patron. As roof ornamentation changed rather frequently in comparison with the shapes of *chaityas*, these matters may have been left to the builder's decision. Let us remember that aside from protecting the Buddha during his meditations in the forest, the *naga* entered this religion but little for many centuries. Then other symbols seem to have graced the roofs, but when the style changed to *nagas* is uncertain. If Ayuthaya

had no such decor, *nagas* may have fitted the times, as Bangkok rose from its defeat, somewhat better than swans or lions. Judging by the military campaigns of Kings Taksin and Rama I, the idea of protection stood high among official values and could be well served with a *naga* symbol, but here we have moved away from architecture.

At this point in our adventure we have found Chinese heads and hands influenced Thai Buddhist temples not so much in major changes of design as through technological skills that have both furthered and fostered local trends in development. This can be found in constructions well beyond the roof and its adornment. Without it the great sizes and grace of Thai temples would not have been achieved.

Lucien M. and Jane R.Hanks

ENDNOTES:

1. Cf. Phya Anuman Rajadhon, *Essays on Thai Folklore*. Bangkok : Social Science Assoc. Press 1968. Customs of the Sukhothai Period, in *Proceedings of Seminar on Archaeology of the Sukhothai Period*. Bangkok : Fine Arts Department 1964.
2. The foregoing information comes largely from Sherman E. Lee, *A History of Far Eastern Art*. Englewood Cliffs, New Jersey : Prentice Hall n.d. Also E.B. Havell, *The Ancient and Mediaeval Architecture of India*. London : Murray 1915.
3. Pierre Dupont, *l' Archéologie Mône de Dvaravati*. Paris : École française d'Extrême Orient 1959. p. 103-113 ; 132-136.
4. A.B. Griswold, *Toward a History of Sukhodaya Art*. Bangkok : Fine Arts Department 1967. Fig. 40.
5. A.B. Griswold and Prasert na Nagara, The Epigraphy of Mahadharmaraja I of Sukhodaya. *Journal of the Siam Society* 61, pt 1, 1973, 71-179. p. 175.
6. Sommai Premchid, Kamol Sriwichaiyana, Surasin Samruan, *Prachedi Nai Lannathai /Chaiyas in Lannathai/*. Chiang Mai : Chiang Mai University, Department of Art and Architectural Education 2524 B.E. p. 148.
7. Simon de la Loubère, *The Kingdom of Siam*. Kuala Lumpur : Oxford University Press 1969. pp. 112-113.
8. *ibid* p. 31.
9. Larry Sternstein, 'Krung Kao,' The Old Capital of Ayutthaya. *Journal of the Siam Society* 53, 1965. p. 83-121.
10. World Fellowship of Buddhists, *Buddhism in Northern Thailand*. Chiang Mai : Tippanetr 1980 Fig. 29.
11. Cf. Kaiseng Sukhayadhana, *Chinese-influenced Buddhist Monasteries of the Rattanakosin Period*. Bangkok : Chulalongkorn University Press 2526 B.E.
12. Paul Pelliot, trans. Chou Ta-kouan : Mémoires sur les Coutumes de Cambodge. *Bulletin de l'École Française d'Extrême Orient*. 2, 1902, 123-177, p. 145.
13. De la Loubère. *op.cit.* p.32.
14. Laurence Sickman and Alexander Soper, *The Art and Architecture of China*. Hatmondsworth, Middlesex : Penguin Books 1956. Fig. 261.

Volume 76 (1988)

15. Karl Döhning, *Buddhistische Tempelanlagen in Siam*. Bangkok : Asia Publishing House 1920. Vol. I, Abb. 19, p. 77.
16. Prof. M.C. Subhadrahit Diskul, *Sukhothai Art*. Bangkok : Fine Arts Department 2514.
17. Klaus Wenk, *Mural Paintings in Thailand*. Zurich : von Oppersdorf 1975. Vol. 2, p. 135, CCCIII).
18. *ibid* Vol. 2, p. 3 II; p. 33 XXX).
19. Döhning, 1920 *op.cit.* Vol. I, p. 158.
20. Karl Döhning. *Siam*. Darmstadt : Folkwang 1923. Band II, Tafel 75.
21. E. Thadeus Flood, Sukhothai-Mongol Relations : A Note on Relevant Chinese and Thai Sources (with translations). *Journal of the Siam Society*. 57, 1969, p. 201-258 ; also Georges Soulié, Tchang Yi-tchou, Les Barbares soumis de Yunnan. *Bulletin de l'École française d'Extrême Orient*. 8, 1908, p. 149-176.
22. G. William Skinner, *Chinese Society in Thailand*. Ithaca, N.Y. : Cornell University Press 1957. Ch. I.
23. Charles Nelson Spinks, *The Ceramic Wares of Siam*. Bangkok : Siam Society 1965. Ch. 4, 5, 6.
24. G.H. Luce and Ba Shin, A Chiangmai Mahathera visits Pagan (1393 A.D.). p. 330-337 in A.B. Griswold and Jean Boiselier edit. *Felicitacion Volume Presented to Prof. George Coedès*. Ascona, Switzerland Artibus Asiae 1961.
25. Döhning, 1920 *op. cit.* Vol. I, p. 39.
26. Hans Pentth, A Note on Old Tak, *Journal of the Siam Society*. 61, 1973, p. 183-186.
27. Sternstein *op. cit.* p. 116.
28. Sukhayadhana *op.cit.* p. 27-28.
29. Döhning 1920 *op. cit.* Vol.2, Tafel 35.