Unit 4 Describing Old Palaces, Royal Residents and Precincts

- Categories of Thai palaces and royal residence
- Divisions of Thai royal residence
- Traditional and modern/ applied styles of Thai royal residence
- Some important palaces in Thailand
- Vocabulary and expressions
- Case: The Grand Palace and the Associated Surroundings (site plan, buildings, gates and forts)

Categories of Thai Palaces and Royal Residence

Ranks of members in the royal family are normally dignified by structure and design, decoration and materials used of residence constructed for them. Therefore, there are different types of residence to be called according to the Thai tradition.

The Grand Palace

The Grand Palace was built in the time Krung Rattanakosin was established. The Palace had primarily and officially served as the residence for the kings of Siam (and later, Thailand) since 1782. The Grand Palace is represented by a complex of buildings at the heart of Bangkok. The Grand Palace has still been the place used for welcoming international guests and holding royal ceremonies.

Phra Rajawang Bavorn Sathan Mongkol (Wang- Na or the Front Palace)

Phra Rajawang Bavorn Sathan Mongkol was the residence that belonged to the Uparaja of Siam (or Heirs to the Siamese Throne), who held the title Krom Phra Rajawang Bovorn Sathan Mongkol (กรมพระราชวังบวรสถานมงคล). The title can be understood as the “Lord of the Front Palace”. The meaning of the title is Viceroy or the office- holder considered as the second only to the King and the heir presumptive. An heir presumptive or heiress presumptive is the person entitled to inherit a throne. This can be referred to in English as “Vice King” and “King-in-second”. This office (position) originated in the Sukhothai and the Ayutthaya period and later gained significant power (influence) during the Rattanakosin period. Those to be front palace occupants were usually a son or brother of the reigning monarch. This office was ended in the reign of King Chalalongkorn and the new office was styled as “Crown Prince of Siam”. Another one is Phra Rajawang Bavorn Sathan Phimook (กรมพระราชวังบวรสถานพิมุข) (Wang-Lang or the Rear Palace), which was also established in the first king of Rattanakosin or of the Chakri Dynasty, King Rama I. Today, the units and architecture of Wang- Na were changed for adaptive reuse serving the official duties. Some parts became the part of Sa- Nam Luang. The evidence of Wang- Lang disappeared.
**Royal Palaces**

Royal Palaces were the residence for kings as well as for queens and other royal members. However, not all residence can be called a royal palace. To call a residence a “royal palace” required a royal proclamation of the king. There are 19 royal palaces under the Siamese kings’ royal proclamation. Some important ones include Wang Saranrom Palace, Bang Pa In Palace, Phra Nakorn Kiri Palace, Sa Pathum Palace, Klai Kangwon Palace, Sanam Chandra Palace and Bhubing Palace.

**Phra Rajanivet**

Phra Rajanivet refers to the residence for kings. The difference from the other types of palace is that Phra Rajanivet was originated in the reign of King Rama VI. There are only 2 palaces of this type: (1) Mrigadayavan Palace (พระราชนิเวศน์มฤคทายวัน), which is a former residence of King Rama VI, and (2) Phra Ram Rajanivet (พระรามราชนิเวศน์ or Ban Puen Palace พระราชวังบ้านปืน), which is a former royal palace commissioned by King Rama V as an alternative country residence. However, the palace was not completed in his reign. The construction of the palace continued in the reign of King Rama VI. Today, it serves as a museum operated by the Royal Thai Army.

![Phra Ram Rajanivet](image1)

**Mrigadayavan Palace**

Palace (Wang) and Mansion for other members of the royal family (e.g. sons and daughters of the king and their mothers)

An example is Paruskavan Palace (วังปารุสกวัน), which was the palace King Rama V gave to one of his son, Prince Chakrabongse upon his returning from his studies in Russia. There are many other “Wang” or palaces especially during King Rama V. The examples are Wang Sra Pathum, Wang Thevet (วังเทเวศร์), Wang Chandra Kasem (วังจันทรเกษม), Wang Chakrabongse (วังจักร
Some pictures of the palaces

Wang Thevet

Wang Suan Kularb

Wang Bang Khun Phrom

Wang Sra Prathum

Wang Sukhothai
**Phra Thinang**
Phra Thinang serves different royal affairs of kings, therefore there are different types or meanings of Phra Thinang. The first meaning refers to a throne hall such as Chakri Maha Prasat Throne Hall (พระที่นั่งจักรีมหาปราสาท) in the Grand Palace. Another meaning refers to buildings that belong to the king as a residence hall such as Vimanmek Mansion (พระที่นั่งวิมานเมฆ) in Bangkok, and some Phra Thinang in Bang Pa In Palace such as Phra Thinang Varobhas Bimarn (พระที่นั่งวโรบาลานันท), Uthayan Phumisatian (พระที่นั่งอุดมภูมิเสถียร), and Wehart Chumrum (พระที่นั่งเวหาศจารูญ). The last meaning refers to pavilions such as Aisawan-Dhipaya-Asana Pavilion (พระที่นั่งไอศวรรย์ทิพยอาสน์) in Bang Pa In Palace.

**Royal Mansions (Phra Tumnak) for royal consorts and royal concubines (such as Chao Chom/ Chao Chom Manda) and ladies in-waiting**
Mansions for royal consorts are the residence built for royal consorts and royal concubines of the king. Some example titles include Chao Khun Chom Manda (เจ้าคุณจอมมารดา- Supreme royal concubine), Chom Manda (จอมมารดา- king’s concubine who was appointed during her
pregnancy and who has given birth to a child), and Chao Chom (เจ้าจอม - those who did not bear any children to the king). These titles were appointed to foreign princess, Mom Chao (หม่อมเจ้า - Her Serene Highness, Princess), Mom Rajawongse (หม่อมราชวงศ์ - The honourable), Mom Luang (หม่อมหลวง - The honourable), and Commoners during pregnancy known as Chao Chom Manda (เจ้าจอมมารดา - king’s concubine who gave birth to a prince).

Divisions of Thai royal residence (using the case of the Grand Palace)

The Complex of the Grand Palace can be divided into 3 courts: the Outer Court, the Central Court and the Inner Court.
The Outer Court or Khet Phra Racha Than Chan Nok (เขตพระราชฐานชั้นนอก) is on the northwest of the palace. The occupation of the outer court starts from the main gate, Visetchaisri Gate, the Temple of the Emerald Buddha on the left and other public buildings on the right including for example the headquarters and information center of the Grand Palace, the Bureau of the Royal Household, the Sala Sahathai Samakhom (ศาลาสหทัยสมาคม) for important receptions and meetings, the Sala Luk Khun Nai (ศาลาลูกขุนใน), an office building that houses various departments of the Royal Household, the Pavilion of Regalia, Royal Decorations and Coins, which is a small museum.

The Central Court or Khet Phra Racha Than Chan Klang (เขตพระราชฐานชั้นกลาง) begins once entering the Phimanachaisri Gate, which leads to the Chakri Maha Prasat Throne Hall. The central court occupies the largest area as well as being the most important court of the Grand Palace. It is where the most important residential and state buildings are located. These include the following:

1) The Phra Maha Monthien (หมู่พระมหามณเฑียร), the group of traditional Thai-styled buildings located at the center of the central court. The Phra Maha Montien means the group of halls used as king’s accommodation. This group of building was built in the reign of King Rama I as the residential and sleeping abode of kings. Once as the residential abode, the group of buildings was built facing the north, with the public reception hall at the front, ceremonial halls in the middle and residential halls at the back. All of them are inter-connected. The important buildings include the following halls, with brief details of their purposes of use.

- Chakraphat Phiman Throne Hall (พระที่นั่งจักรพรรดิพิมาน): It was built at the very center of the The Phra Maha Monthien buildings. It was built as the primary apartment and sleeping quarter of the king. This residential hall was formed out of three identical rectangular buildings which are connected to each other.

- Phaisan Thaksin Throne Hall (พระที่นั่งไพศาลทักษิณ): The hall was built to serve as a ceremonial functions hall. It is here where important religious and state ceremonies are held. It is also the venue where royal coronations are performed at the beginning of each king’s reign. The coronation of King Rama IX was also held here. The hall is in a rectangular shape, decorated in rich murals depicting scenes from Buddhist and Hindu mythology.

- Amarin Winitchai Throne Hall (พระที่นั่งอมรินทรวินิจฉัยมไหยสูรยพิมาน / พระที่นั่งอมรินทรวินิจฉัย): The throne hall is the northernmost and forward building of the Phra Maha Monthien buildings. It was constructed in Thai style as a royal audience chamber for receiving foreign ambassadors and for conducting important state businesses and ceremonies. In term of architecture, this large throne hall was built on the 50 cm high base, with the roof covered in green and orange tiles. The pediment is decorated with a mural depicting the Hindu god Indra. The main central door is reserved for use by royalty, while others must enter through the adjacent side doors (Chong Kud). Within the hall
there are two rows of square columns, five on the left and six on the right, adorned with Thai floral designs. The coffered ceiling is decorated with glass mosaic stars.

Other extensions such as the Sanam Chan Pavilion and the Narai Chinese Pavilion which were built in the reign of King Rama II. Sanam Chan Pavilion was built in a small size on the west of The Phra Maha Monthien. It had been used by King Rama II as a place for Relaxation and to oversee construction projects within the palace. Sanam Chan Pavilion represents one of the best examples of traditional Thai-styled architecture that exists from the period. The gable end is decorated with a delicately carved wooden vine motif set against mirrored glass. The base is decorated with black lacquer and glass in a technique similar to mother-of-pearl inlay. During the reign of King Rama III, Dusidaphirom Pavilion (พระที่นั่งดุสิตภิรมย์) was built near the Sanam Chan Pavilion as an open sala but was enclosed. The purpose of the pavilion was for relaxation and as a dressing chamber for the king when departing by palanquin or elephant.
(2) **Phra Thinang Chakri Maha Prasat group** (กลุ่มพระที่นั่งจักรีมหาปราสาท): Phra Thinang Chakri Maha Prasat group is situated at the center, between the Phra Maha Monthien and Phra Maha Prasat group. Phra Thinang Chakri Maha Prasat group is composed of nine major and minor halls. All were built in a similar structure and pattern to the Phra Maha Monthien Halls from north to south. But there are two buildings that are greatly contrasting in styles; they were built to replace the old structure. The buildings were used as the workplace of the king (especially of King Rama V and foreign architects in the 19th century. Some are below:

- **The Phra Thinang Chakri Maha Prasat** (พระที่นั่งจักรีมหาปราสาท) is situated on the northernmost part of the Phra Thinang Chakri group. The throne hall was the only one built in the reign of King Rama V. It forms the front or the façade of the entire building group. The construction of the throne hall presents a blend of Thai and European style; more specifically Renaissance or Italianate styles. The lower part of the structure is European, while the upper part is in Thai-styled green and orange tiled roofs and gilded spires (or prasats-ปราสาท).

- **The Phra Thinang Moon Satharn Borom Ard** (พระที่นั่งมูลสถานบรมอาสน์) is situated behind the Chakri Maha Prasat Hall to the east side. It was built as a separate wing. The hall encompasses the original area where King Rama V was born and had lived as a child. Currently the hall is set out as a small banqueting and reception venue.

- **The Phra Thinang Sommuthi Thevaraj Uppabat** (พระที่นั่งสมมติเทวราชอุปบัติ) is situated on the opposite side of the Moon Santharn Borom Ard Hall to the west of the Chakri Maha Prasat Hall. The hall is divided into several state rooms, for used by the king, there is a reception room and a council room. It was in this hall on 12 July 1874 that King Rama V stated to his ministers his intention to abolish slavery in Siam.

- **The Phra Thinang Borom Ratchasathit Mahoran** (พระที่นั่งบรมราชสถิตยมโหฬาร) was built in a massive square shaped structure at the very back of the Chakri Maha Prasat group. During the reign of King Rama V it was used as a banqueting hall to host foreign guests and dignitaries. By the reign of King Rama IX, the new throne hall was built on a raised platform and is composed of several inter-connected buildings forming two internal courtyards. These rooms function as a new banqueting hall and are used for important state functions. On the 13 June 2006 the hall welcomed the royal representatives of 25 monarchies worldwide for the celebration of King Rama IX’s 60th Anniversary on the Throne.

![Phra Thinang Chakri Maha Prasat](image)
(3) Phra Maha Prasat group (กลุ่มพระมahaปราสาท): Phra Maha Prasat group is situated on the westernmost part of the central court. The group of buildings contains some of the oldest existing edifice dated from the reign of King Rama I. The buildings were built in the compound in the courtyard style. The important Phra Thinang of this group is the Phra Thinang Dusit Maha Prasat (พระที่นั่งดุสิตมหาปราสาท). The throne hall building dominates the Maha Prasat group. The construction shows a symmetrical cruciform plan with the roof being topped with a tall gilded spire. This is considered an ideal archetype of Thai traditional architecture. The external decoration is all made with symbolism. Moreover, the construction of the hall is in a tall mountain, which epitomizes the belief of Mount Meru, the mythological center of the universe. The spire is divided into three sections. There is some detail about the spire of the hall as below:

- The lower section is the base. It is formed of seven superimposed layers. The meaning of these layers is “level of heaven” according to the Traibhumikatha or Traibhumi Buddhist cosmology.
- The middle section is made in the bell shape with the roundness being flattened to create a four-sided shape. This represents the stupa.
- The top section looks similar to the top of Chedi, which depicts a tapered lotus bud or the crystal dew drop signifying the escape from the circle of rebirths.

To symbolize the kingship, the spire is decorated by garudas on its four sides. The garuda represents the mythical creatures of the Himavanta (Himmaphan) forest (หิมพานต์) that surrounds Mount Meru.

Phra Thinang Dusit Maha Prasat
The other Phra Thinang includes the Phra Thinang Phiman Rattaya (พระที่นั่งพิมานรัตยา), the Phra Thinang Aphorn Phimok Prasat (พระที่นั่งอาภรณ์ภิโมกข์ปราสาท), the pavilion that is considered the epitome of the finest qualities of Thai traditional architecture in proportion, style and detail, and Phra Thinang Rachakaranya Sapha (พระที่นั่งราชกรัณยสภา).

The other buildings are the Ho Plueang Khrueng (ศาลาเปลื้องเครื่อง), which is the two-story Thai-style pavilion in rectangular shape, built in the reign of King Rama VI as a robing room. There is a walkway leading from the top floor towards the Dusit Maha Prasat Throne Hall. Another one is the miniature model of Mount Kailasa (เขาไกรลาศจำลอง), the mythical abode of Shiva. It was built during the reign of King Rama IV. The miniature mountain was used as a setting for an important ceremony called the royal tonsure ceremony or the sokan ceremony (พระราชพิธีโสกันต์ - Thai topknot-cutting ceremony).

The Inner Court or Khet Phra Racha Than Chan Nai (เขตพระราชฐานชั้นใน) or Fai Nai, is the area occupying the southernmost part of the Grand Palace Complex. As in the most inner part, the area is reserved only for use by the king and his harem of queens and consorts. It used to be an area for king’s children and ladies-in-waiting and servants as well. The residential houses were usually built with wood in the traditional Thai-style especially during the earlier time of Rattanakosin period. The house would be demolished after the death of the dweller and the woods left from the demolishment were assembled and brought to temples as the devotion, or the house could also be remained there, and opened for other novelties. Generally, the inner court was populated by small low-lying structures surrounded by gardens, lawns and ponds. In the reign of King Rama III, the architecture of masonry construction technique was learned. Masonry construction technique involves the laying of brick, concrete block, or stone in beds of mortar, the installation of accessory items, and sometimes reinforcement (Digital Engineering Library, 2004). During the reign of King Rama V, new residential
houses in western style (mostly Italian style) were built in this space, resulting in overcrowded conditions. The residential houses vary in size and are divided into three categories: small royal villas (Phra Thamnak-พระตำหนัก), villas or Thamnak (สระน้ำ), and houses or Ruen (เรือน). Each was distributed to the inhabitants in accordance with their rank and status.

The other features of the Grand Palace include the following:

**Defensive Wall** includes the Phra Thinang Chai Chumpol (พระที่นั่งไชยชุมพล) and the Phra Thinang Suthaisawan Prasat (พระที่นั่งสุทไธสวรรยปราสาท).

**Gates:** there are twelve gates (Pratu-ประตู). The gates were built of brick and mortar and each gate was topped with a prang-styled spire. All gates were painted in white, with gigantic red door plates. The gates were given rhyming names from the north-west in a clockwise direction around.

**North wall**
- Viman Deves (ประตูวิมานเทวศร์)
- Wiset Chaisri (ประตูวิเศษไชยศรี)
- Manee Noparat (ประตูมณีนพรัตน์)

**East wall**
- Svasti Sopha (ประตูสวัสดิโสภา)
- Deva Phitak (ประตูเทวาพิทักษ์)
- Sakdi Chaisit (ประตูศักดิ์ไชยสิทธิ์)

**South wall**
- Vichit Banjong (ประตูวิจิตรบรรจง)
- Anongka Raksa (ประตูอนงคารักษ์)
- Phitak Bovorn (ประตูพิทักษ์บวร)

**West wall**
- Suthorn Thisa (ประตูสุนทรทิศา)
- Deva Phirom (ประตูเทวาภิรมย์)
- Udom Sudarak (ประตูอุดมสุดารักษ์)
Some drawings of the gates of the Grand Palace

- Deva Phirom Gate
- Phiman Chaisri (the inner gate)
- Viman Deves Gate
Forts (ป้อม): there are seventeen forts around the Grand Palace. These forts formerly had battlements with cannon placements and watchtower. The name of each fort was also in rhyme. At the earlier time, the forts were built with wood and they were called “Sao Ranied” (เสาระเนียด). Later, they were replaced with masonry. The ridges of the forts were decorated with “Sema” to represent the Grand Palace. Under the Sema is the stucco decorations. The Sema on the ridge of the forts can be divided into two types: Sema in a lotus bud shape, used for decorating the fort ridge of temples and palaces, and Wilan Sema (เสมาวิหลั่น), which is in the rectangular form, used for decorating ridges of general forts.
The content above was rearranged based on the following sources:
(2) http://sac.or.th/databases/thaiarts/
(3) Wikipedia
(4) http://www.crownproperty.or.th
(5) https://www.royalgrandpalace.th
Unit 5 Describing Archeological Sites

- Physical sites and heritage significance
- Vocabulary and expressions
- Case: Sukhothai Historical Park/ Ayutthaya Historical Park

Examples of archeological sites to talk in this unit include those in the compound of Sukhothai Historical Park and Ayutthaya Historical Park. They represent the Sukhothai and Ayutthaya Period, respectively.

Physical Sites and Heritage Significance

Sukhothai Period

Architecture during Sukhothai Period

Sukhothai architectural art can be categorized into 3 groups:
- Vihara (Phihara) and Ubosot
- Mondop
- Stupa and Chedi

Vihara

- It was assumed that the structure was mainly laterite and white-washed with mortar work (lime)
- Material used in building roof mainly is wood (wood work).

Structural Patterns

Type 1: Vihara without wall (Vihara Thong- วิหารโถง) or called “open- structured Vihara” (วิหารเปิดโล่ง) e.g. Vihara at Wat Mahathat, Wat Sri Chum, Wat Sa Sri in Sukhothai, and Wat Chang Lom, Wat Jed Thaew in Sri Satchanalai

Type 2: Vihara with walls or called “close- structured Vihara” (วิหารแบบมีผนัง) e.g. Vihara at Wat Sri Sawai in Sukhothai, Wat Phra Sri Rattanamahathat in Chalieng, Wat Kok Singkaram, Wat Nang Phaya in Sri Satchanalai, and Wat Phra Non (Reclining Buddha) in Kamphaengphet.
**Vihara with Mondop**

Vihara without wall (Vihara Thong) extended with a niche (คูหา) at the back.

The niche was built with walls. At the front is a small entrance, leading into the niche that houses the principle Buddha Image (Phra Buddha Pathima Prathan- พระพุทธปฏิมาประธาน). The roof was constructed by bricks or laterite and in 2 tiers. The Mondop’s roof profile (การซ้อนชั้นหลังคา) represents the ideological meaning of Prasat.

This pattern also represents the “Moon Kanthakudi” (มูลคันธกุฎี) where the Lord Buddha had been sitting and preaching the sermon to His followers and laymen who gathered in the Vihara at the front of the Moon Kanthakudi (or the niche) e.g. Wat Phr Sri Rattanamahathat, Chalieng and Wat Kudi Rai, Sri Satchanalai.

These 3 structural patterns of Vihara of Sukhothai were constructed with different plans of placement/ groupings in the compound.

**A:** The plan where the main Chedi and smaller Chedi were built at the back of the Vihara (below)
**B:** The plan where the Mondop was built instead of the Chedi, at the back of the Vihara (e.g. Wat Sri Chum and Wat Tra Phang Lang in Sukhothai) (below)

![Image](image1.png)

**C:** The plan where Prang (refined) was built at the back of the Vihara (e.g. Wat Phra Pai Luang, Wat Sri Sawai in Sukhothai, and Wat Phra Sri Rattanamahathat in Chalieng (Srisatchanalai)

![Image](image2.png)
The Prang at Wat Phra Sri Rattanamahathat here represents the symbol of Ayutthaya Kingdom, built in the reign of King Borom Trai Lokanat (beginning 21st Buddhist Century) during the time he led the troop here to seize Chalieng back from the troop from Chiang Mai. Assumed that the Prang was built to cover the old Chedi built in the reign of King Ram Kamhaeng.

- **Ubosot**
  
  **Characteristics**
  
  - Small and less significant
  - Some groups of Ubosot in the kingdom compound were found located with the ponds around. This was called “Uthok Sima” (Na Thee Sima) (using the water as the boundary mark of the Ubosot). This is the Langkawong Buddhism concept. The examples include Wat Sa Sri, Wat Tra Phang Ngern, Wat Tra Phang Thong, Wat
Chang Lom in Sukhothai, and the small one in Wat Mahathat compound (with the boundary marker).

The structure of Vihara and Ubosot:

The base or the lower part
- The base or the lower part was of brick or laterite - structured.
- The post were built by laterite
- The walls were built by laterite with making the lighting channels called “Luk Ma Huad” (ลูกมะหวด)
- Low basement

The upper part
- The upper part was assumed being built by wood
- The roof was constructed with the terracotta work
- The body and the roof were decorated with stucco work and earthware or pieces of the Sangkalok kilns
- The pillars were built by laterite

The pictures are the wall channels at Wat Nang Phaya, Sri Satchanalai. The channels allow light into the building.

The stucco work depicted flora motif, especially during Sukhothai and Ayutthaya period, and later in late Ayutthaya, the Kanok Plew motif been created.
- Mondop

- Mondop is the building with square ground, having the same function as Vihara.
- The room inside is the place to house Buddha Image.
- The roof profiling represents the ideological meaning of the original “Prasat” (Prasada-built by bricks or stones in religion, not like the king’s one (Phra Rajamontien) which is wood work. Khmer culture + Indian (Hindu) called Thevalai, comparable with Mount Sumeru the center of the Universe, The place of gods and goddess (Theva)
- Mondop has been used to call a type of Chedi, called Mondop Chedi. Some documents suggested the Chedi should be called “Viman” Chedi (เจดีย์ทรงวิมาน)
Wat Kudi Rai, Sri Satchanalai (วัดกุฎีราย) – Roof is arched- Arch composed with laterite layered in a style called “Pointed Arch” and to build the roof corbels
Assumed that this is the roof profile character during Sukhothai period

Mondop at Wat Sri Chum, Sukhothai

Assumption for the original roof profile

- **Stupa/ Chedi**

Chedi in Sukhothai period can be grouped into the following significant patterns:

(1) **Pattern A:** Lotus-bud shaped Chedi (In Thai called “เจดีย์ทรงยอดดอกบัวตูม” or “เจดีย์ทรงพุ่มข้าวบิณฑ์” or “ทรงทนาฬ” The art was inspired from the time when Sukhothai Kingdom was in search of its own unique Chedi style)

(2) **Pattern B:** Bell- shaped Chedi

(3) **Pattern C:** Prang – shaped Chedi (Prang)

(4) **Pattern D:** Viman- shaped Chedi
(5) **Pattern E: Prasat Yod- shaped Chedi** (ทรงปราสาทยอด/ปราสาทห้ายอด)

**Pattern A: Lotus- bud Chedi** (In Thai called “เจดีย์ทรงยอดดอกบัว” หรือ “เจดีย์ทรงพุ่มข้าวบิณฑ์”. The art was inspired from the time when Sukhothai Kingdom was in search of its own unique Chedi style)

- The Chedi is in finer shape.
- This pattern characterizes the Sukhothai art and excellence in art skill of artisans during the period. The lotus- bud Chedi becomes the unique art of Chedi of Sukhothai period.
- The style shows some elements received from the previous cultures and arts such as from Khmer and Bagan.
- The style disappeared after the decline of Sukhothai. It had no influence over art in Ayutthaya period.

Examples of temples in Sukhothai where lotus- bud shaped Chedi remains include: Wat Mahathat, Wat Chedi Jed Thaew
The basement is a square shape built up to 3 layers. The Chedi has got indented corners (ย่อมุมไม้ยี่สิบ), with spire at the top. The Chedi was built with laterite as supporter of the Chedi’s body.
**Pattern B: Bell-shaped Chedi**

The Chedi was built in bell shape, influenced from Lankan style from the Lankgawong Buddhism spreading to the kingdom. Below the bell-shaped Chedi (the Chedi’s middle part) was arrays of stucco work made in the form of lotus leaves around the bell.
**Pattern C: Prang- shaped Chedi**

Prang in Sukhothai had been relieved in its original style which was from Khmer. So the Prang structure appeared:

- Smaller
- High
- More streamlined shape

We can call this is the “Prang in Sukhothai Style”

An example is the Prang at Wat Sri Sawai (below)

The model of this Prang is the one in Lopburi. Things used in Tri Yampawai Ritual were found here at Wat Sri Sawai, which came to the belief that this place used to be the Brahman Bot.

Archeological evidence found here that helps in making an assumption that it used to be the Brahman Bot were stone plates with the Shiva (The Destroyer) cast on it.

Later the Khmer- styled Narai Banthom Sinthu (Vishnu or Phra Narai asleep in the cosmic ocean on the back of a great serpent deity known as a Naga) was found. From his navel sprouts a lotus with one thousand petals. In the middle of the lotus sits Brahma (Phra Phrom), the Creator.
The difference of Sukhothai Prang and Khmer Prang is that each Prang of Sukhothai is not connected while the Khmer one is. The structure of Khmer Prang is higher profile. However, Sukhothai Prang seemed to contain more decorative details.

Below are some pictures of Khmer Prang in Cambodia (Angkor Wat/ Angkor Thom/ Bayon)
Pattern D: Viman-shaped Chedi

- The Chedi has the square base, 12 and 20 corners, indented.
- Ruen That (Relic part) has 4 niches.
- The top part was in the 9-layered profile surmounted by the sharp pointed top of the Chedi.
- Built with laterite.

The Chedi in this pattern was rarely found in the area. The examples are the one at Wat Chana Songkram, Wat Tra Phang Ngern, Wat Chedi Jed Thaew, Wat Chetupon.

At Wat Jed Thaew, Sri Satchanalai
At Wat Chana Songkram, Sukhothai
At Wat Tra Phang Ngern, Sukhothai
At Wat Chetupon, Sukhothai
Pattern E: Prasat Yod-shaped Chedi

This style was believed to receive influence from the Chedi of Wat Mahathat, Chaiya, and of Wat Mahathat, Nakorn Sri Thammaraj in the South.

The general characters are:
- The main Chedi was decorated with smaller Chedi around (usually 4 + one for the main = 5)
- The base is high square
- Ruen That is square-shaped, with the niches at 4 directions housing the Standing Buddha images. The niche is decorated with stucco work in floral, leave motif
- Above Ruen That is the octagonal base (ฐานแปดเหลี่ยม)
- Arrays of stucco work made in the form of lotus leaves is found in this pattern

At Wat Mahathat, Sukhothai

At Wat Chedi Jed Thaew, Sri Satchanalai
Pre- Ayutthaya and Ayutthaya Period

Architecture during Pre- Ayutthaya Period

Architectural art in U- Thong style had been found in local areas such as

- Sankaburi District in Chainat,
- Muang District in Suphanburi,
- Muang District in Rachaburi,
- Muang and Tha Woong District in Lopburi,
- Some areas opposite the area where located Ayutthaya Kingdom, and in the area where Ayutthaya Kingdom was located.

Architectural Art Patterns in Pre- Ayutthaya Period

The architectural art pattern during the pre- Ayutthaya period included the buildings of Bot (Ubosot), Vihara and Stupa Chedi

The patterns of the above architectures were various. For the Chedi, the outstanding one found was Prang that were scattering in the areas. -- The base was built with laterite and the parts above the base (the body) was built with bricks) Therefore, the most significant building pattern in the Pre- Ayutthaya period was Prang Chedi in Khmer or Lavo art, mixed with U-Thong art.

Prang Chedi of Wat Mahathat in Sankaburi (Phra Prang Song Yod Gleeb Mafueng- พระปรางค์ทรงยอดกลีบมะเฟือง)
High relief stucco (ปูนปั้นสูง) - In the circle presents U- Thong art- Thepanom wearing triangle Chada (crown) with triangle- shaped flame-like halo) on the Prang Rai, Wat Mahathat, Lopburi, the same style of the one at Wat Mahathat, Sankaburi, Chai Nat.
Architecture during Ayutthaya Period
The art was divided into 2 kinds:

(1) Buildings (Ubosot, Vihara, Mondop, Sala Kanprien, Scripture Hall, Bell Tower, Rabieng Kot <Cloister>)
(2) Stupa Chedi

Building
Architectural building during Ayutthaya period can be categorized into 4 stages.

Stage 1: From the reign of King Ramathibodi 1st (King U-Thong) until the reign of Somdej Phra Boromrachathiraj 2nd (Chao Sam Phraya)
  • **Ubosot and Vihara** during this time had the walls with Luk Ma Huad pattern (ผนังลูกกระมาวดเหลี่ยม หรือ ลูกกระประเด็นดอกเหลี่ยม) applied to the building.
  • The brick columns, mostly in round shape. The top of the column was decorated with terra cotta or stucco lotus leaves (called Lotus capital pillar or lotus-topped column. (บัวหัวเสา))
  • The roof-tile used earthenware as the main material as well as bricks
**Stage 2:** From the reign of Somdej Phra Borom Tri Lokanat until the reign of Phra Chao Songtham

- **Ubosot and Vihara** during this time were made in a grander size with higher supporting base.
- The walls applied both Luk Mahuad pattern and windows.
- The walls were supported by “Sao Nang Rieng”
- The roof was in the pattern called “Palai” covering the building body such as Ubosot of Wat Na Phramen, and Wat Maheyong

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Wat Na Phramen

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The side view of Ubosot of Wat Na Phramen, restored in late Ayutthaya and Rattanakosin
The lighting channels of Wat Thamamikaraj (believed to exist before the establishment of Ayutthaya Kingdom)

Wat Maheyong - The back of Ubosot

The front of Ubosot surrounded with Kam Phaeng Kaew

The entrance path to Ubosot (for Kings and royal family)
The “Palai” columns were built in necessary to support the roof eaves (ชายคา) that was built, projecting from the building body in the purpose of protecting/covering the lighting channels.

The roof pattern with Palai (the columns to support body of the building)
Ubosot of Wat Yai Chai Mongkol

Gable/ Pediment หน้าจั่ว

Round- shaped pillar/ columns with the top decorated with Thai lotus motif บัวหัวเสา

Sao Palai เสาไพล

Sema/Sima
Stage 3: From the reign of Somdej Phra Chao Prasat Thong until the reign of Phra Chao Thai Sra

- Architectural art replica from Cambodia (Angkor Wat) by the order of King Prasat Thong. The buildings were such as Nakorn Luang Mansion/ Palace near Pasak River for his Summer Palace (Nakorn Luang District). This time, the architecture learned to apply more complicated building structure from the west.

- The most significant change in Ayutthaya architectural art was in the reign of King Narai the Great when the art received influences from outside especially the Western as there were extensive contacts with western countries.

- The examples are some Ubosot and Vihara in Lopburi and in Ayutthaya (such as Wat Kudi Dao, Somdej Phra Buddha Koosajan Mansion, and Wat Phutthai Sawan)

- The most significant and prominent characteristics included:
  - Doors and windows in pointed arch. The architecture during this time learned to add a window or two to the buildings
- 2-story building (e.g. Somdej Phra Buddha Kosajan Mansion)

- Materials used mainly were bricks (earthenware/terra cotta but these were made with low temperature) and ceramic (used higher temperature).
- The roofing tiles (กระเบื้องหลังคา) in different sizes and patterns including the tile called Krabueng Hang Tat/ Krabueng Kab/ Krabueng Cherng Chai.

- The pillars could be seen with the 12-corners indented (or “Yor Mum Mai 12” ย่อมุมไม้สิบสอง), topped with the lotus long leaves (Called Bua Waeng บัวแวง or Bua Jong Kol บัวจงกล)

- The gable was decorated with stucco work (during this 3rd stage <King Prasat Thong /King Narai>, beginning of the 3- Kanok สามกน). The 3- Kanok decoration presents the natural / floral motif that had been existing before) in Baroque style (Baroque
motif) such as the gable of Ubosot at Wat Tawed, Ayutthaya or Wat Yang Suttharam in Bangkok that receives the influence later.
**Stage 4:** From the reign of King Boromakot until the political fall of Ayutthaya Kingdom (succumbed to the Burmese troop)

- The art of Ubosot and Vihara had remained unchanged with the structural pattern from the previous stage. However, there was a focus on details of the structure and decoration such as: arched door (arched and pointed) and windows decorated with stucco work, wood carving work, gold leaf, mosaic (multi-colored glass) and pearls.
Stucco work at the gable of Ubosot of Wat Yai Suwannaram, Phetchaburi

The front of Ubosot of Wat Yai Suwannaram, Phetchaburi

Inside the Ubosot of Wat Yai Suwannaram, Phetchaburi- the door plate
Other buildings included the palaces such as

- The palaces in Ayutthaya in the reign of King Boromatrilokanat including Phra Thi Nang Chakawat Phaichayon, Phra Thi Nang Viharn Somdej, Phra Thi Nang Sanphet Prasat, Phra Thi Nang Suriyas Amarin
- Narai Ratchanivet in Lopburi in the combination of Western and Ayutthaya styles (during King Narai)
- Baan Vichayen (for international affairs/ welcoming international guests) in Renaissance style
- Wichai Prasit Defence (ป้อม) in Bangkok Yai, designed by the French artisan

**Stupa Chedi**

Stupa Chedi during this period can be categorized according to different ideological beliefs and influence receiving from the countries and the Kingdoms in contacts.

**Stage 1:** Prang, influenced by the architecture in the previous stage (pre-Ayutthaya <Lavo + U-Thong- in which Thevaracha of Khmer ideology was used in ruling the kingdom, and Prang was as the symbol of the kingdom (the central of the kingdom).

The areas where the Prang were found include Sankaburi, Lopburi, Suphanburi (U- Thong). Some Prang were surrounded with the square cloister or Rabieng Kot.
Examples include

- The Prang of Wat Phutthai Sawan (King U- Thong or Ramathibodi the 1st)
- The Prang of Wat Phra Ram (King Ramesuan)
- The Prang of Wat Mahathat (King Boromaracha Thibodi the 1st or Khun Luang Pha Ngua)
- The Prang of Wat Rachaburana (King Boromarachathiraj the 2nd or Chao Sam Phraya)
- The Prang of Wat Som* (small Prang with significantly beautiful stucco decoration)
Stage 2: The style had received an influence from Sukhothai (King Boromatrilokanat was in contact with Sukhothai art. The king established Phitsanulok as the Rachathani in the northern part for political reason and he left Ayutthaya to Phitsanulok and became monk, leaving his son Prince Boromaraja to take charge in Ayutthaya. During that time there was a conflict erupted with Lanna Kingdom in Chiang Mai. Establishing Phitsanulok was the political technique to prevent the intrusion of Lanna led by King Tilokarach and that time Sukhothai was temporarily occupied by Lanna forces.)

Circular Stupa Chedi of bell-shape in the reign of King Boromatrilokanat as well King Ramathibodi the 2nd

For example the 3 Chedi of Wat Phra Sri Sanphet which are believed to be the pattern of Chedi at Wat Nang Phaya in Satchanalai and Wat Suwannavas. However, in the period of King Boromatrilokanat, building and structural improvement of Prang had been also done such as the Prang of Wat Chulamanee in Phitsanulok, Prang of Wat Phra Sri Rattanamahathat in Chalieng, Sri Satchanalai

Circular Stupa Chedi of bell-shape in Wat Suwannavas, Ayutthaya

This stage, Prang style was not popular but the round bell- shaped Stupa Chedi in stead. Examples included those of Wat Sri San Phet built in the reign of King Ramathibodi the 2nd as the first round bell- shaped Stupa Chedi of Ayutthaya Kingdom, that of Wat Wong Kon (วัดวงกลม), Wat Suwannavas (วัดสุวรรณาวาส), Wat Khun Saen (วัดขุนแสน), Wat Sala Poon (วัดศาลาปูน), Wat Thamaram (วัดธรรมาราม), and many others in Ayutthaya area.
Circular Stupa Chedi of bell-shape in Wat Phra Sri San Phet, Ayutthaya

Circular Stupa Chedi of bell-shape in Wat Khun Saen, Ayutthaya

Circular Stupa Chedi of bell-shape in Wat Mahathat, Ayutthaya

Circular Stupa Chedi of bell-shape in Wat Yai Chai Mongkol, Ayutthaya
Circular Stupa Chedi of bell-shape in Wat Samana Kosaram

Circular Stupa Chedi of bell-shape in Wat Thanmaram, Ayutthaya

Circular Stupa Chedi of bell-shape in Thamamikaraj, Ayutthaya

Circular Stupa Chedi of bell-shape in Thamamikaraj, Ayutthaya
**Stage 3:** The style had received an influence from Khmer (Angkor Wat) Prang in the reign of King Prasat Thong (King Narai’s Father) back to popularity again but applied the concept of Mount Sumeru. During the reign of King Prasat Thong, the kingdom expanded the power to rule over Cambodia.

For example the main Prang of Wat Chai Wattanaram which composed of the 4 Prang in 4 directions as The Prang Rai (ปรางค์ราย - Mount Sumeru Concept), surrounded with the cloisters or Rabieng Kot and 4 Meru (buildings in Prasat style) and Meru Rai* according to Khmer style.

* Following Mount Sumeru concept or built for royal funeral rites/ cemetery for kings- called Meru according to the belief about kingship in Brahmanism and Hindu --- kings actually were gods (divine right of kings). The Buddha had an entirely different and more realistic concept of kings and kingship. According to the Buddhist theory, kings derived their legitimacy from general consent, i.e. from the people they ruled. It followed from this that a king retained his right to rule only for so long as his subjects benefited from it. The Buddha’s teaching of good governance had some influence in making kings more humane. The best example of this is Asoka who was probably being completely genuine when he said: “All subjects are my children. I wish for them what I wish for my own children – their welfare and happiness both in this world and the next.”

**The concept of Mount Sumeru**

Sumeru is the name of the central world-mountain in Buddhist cosmology where abode the gods whose King is Indra. Around its majestic form the sun, moon, and stars revolve. Shiva’s
paradise is situated on Kailasa (เขาไกรลาส), a mountain in the Himalayas. The concept of Sumeru is closely related to the Hindu mythological concept of a central world mountain, called Meru.

During the period, there also was the creation of new Chedi style called 12- corners indented Chedi (เจดีย์ย่อมุมไม้สิบสอง) (first in Somdej Phra Maha Chakaphat in Suphannaphume Dynasty) e.g. the Chedi of Wat Chumpon Nigayaram in Bang Pa In, the 2 Chedi in front of the Ubosot of Wat Chai Wattanaram, the Chedi in Wat Mahathat, Chedi Phu Khao Thong, Chedi Sri Suriyothai.

Chedi Phu Khao Thong built in King Ramesuan (early Ayutthaya- U-Thong) in Mon/ Burmese style, and later in the reign of King Boromakot (late Ayutthaya- Ban Plu Luang), the Chedi was restored, making 12- corners indented, to the Chedi body but the base of the Chedi remained unchanged in Mon style.
12- corners indented Chedi of Wat Chumpon Nigayaram, Bang Pa In

Chedi Sri Suriyothai

12- corners indented Chedi of Wat Chai Wattanaram

12- corners indented Chedi of Wat Mahathat, Bang Pa In
**Stage 4:** The period after Prasat Thong Dynasty (The last king in this dynasty was King Narai (the son of King Prasat Thong) which was Phra Phetaracha of Ban Plu Luang Dynasty (The last dynasty of Ayutthaya Kingdom).

The Chedi pattern remained unchanged (12- corners indented Chedi) from the previous stage, yet there were restorations for the remaining Chedi.

The example of restoration included that of Wat Phu Khao Thong.

Additional improvement of the Chedi included the building of 20- corners indented Chedi (and more corners), Chedi Song Krueng (the Chedi with elaborate and elegant decoration (high profile), Than Singha (the Chedi base) some of which beautiful and elaborate stucco especially by the artisans in the reign of King Boromakot.

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**Materials used in Ayutthaya architectural arts**

Bricks were mainly used in the architectural art with Laterite used in minority and only for supporting the structure. Bricks were applied in accordance with different building techniques coming in each stage and with different patterns (local and western), especially the bricks that were used in making round arch and pointed arch in the period after the reign of King Narai.

**Materials used in making lime for stucco work**

- Lime made from burned shells, pasted that makes the white lime
- River sand
- Fiber
- Gum
Additional- Plan of Wat in Ayutthaya Period

Wat Rachaburana

Wat Phutthai Sawan

Variety of Chedi styles during Ayutthaya period
Unit 6 Describing Cultural Sites - Buddhist Sites

- Site plan and functional areas of Thai temple or Monastery
- Temple architectural features
- Important decoratives
- Vocabulary and expressions
- Cases: Lanna style, Sukhothai style, Ayutthaya style and Rattanakosin style

Site plan or architecture alignment and functional areas of Thai temple or Monastery

This is the standard architecture alignment of Thai temple in the central Thailand.
For Lanna temples, the site plan is also similar. There may be some other elements added. Generally, the site includes Vihara, Ubosot, Chedi and other buildings.

Temple Architectural Features

- Chedi

There are some aspects to know:

- Lanna covered long period of time in the history and therefore temples and religious architecture were various and very much influenced by different kingdoms having occupied it.

- However, Lanna was found having an outstanding set of characteristics.

- The development of Lanna temple architectural style was since Hiran Nakorn Ngern Yang and Hariphunchai Kingdom (Chiang Saen, Chiang Rai, Phayao)

- The Chedi: the pattern of Chedi during Lanna period can be divided into 3 main stages:
  - Early stage: during the founding of Chiang Mai in B.E 1839. The influence was from Hariphunchai or Lamphun nowadays.
- Second stage: after Chiang Mai was completely founded as the new kingdom with stability. The influence was from the areas in proximity which included Sukhothai, Nan, Bagan.

- Third stage: since 20th B.E. Influence from Lankavong Theravada Buddhism entering Chiang Mai

- The Chedi in Lanna period can be mainly categorized into 3 groups:

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First Group: Prasat Yod Group

(1) Early stage of Lanna: influence from kingdoms nearby (i.e. Hariphunchai, Bagan)

- The Chedi in early Lanna period are mostly seen in the following shape which is Hariphunchai style. It is called “Chedi Liam” or the angular- form Chedi built in 5 tiers, featured by the 60 niches around housing the Buddha image

- The Chedi (Yod Mondop or Prasat Yod Chedi- 5-tiered finial*) in Wat Pasak, Chiang Saen, Chiang Rai- Built by King Saen Phu. The Chedi sits on the rectangular pedestal having the 12 niches around. Above is “Ruen That” having
small niches. There are 5 tiers decorated with beautiful stucco. The top is in bell shape.

- Yod Prasat = Sukhothai style 5 tiers at the top = Hariphunchai style (like Chiang Yeun Chedi at Wat Phra That Hariphunchai)

- Decorated by Phe Ga (Clec) Baganese art (some believed this is Chinese art coming through Bagan)

West entrance hall, The Ananda in Bagan (above)
Comparison of the Chedi of Wat Pasak and Wat Lok Moli - both in Prasat Yod style (above)

Suwanna Chedi in Wat Phra That Hariphunchai, Lamphun built with brick and laterite up to the top for 5 tiers, decorated by the niches on all 4 sides. The Chedi sits on the rectangular pedestal (above)
(2) Second stage of Lanna: influence from Sukhothai, Nan, Bagan

- Surrounded by row of half – body and head of elephants which is Sukhothai art

Wat Chedi Luang Chotigaram in Chiang Mai (above)

- Built in B.E. 1954 by King Saen Muang Ma (built with 5-tiered finial)
- Finished in King Sam Fang Gaen (B.E. 1945 – 1984)
- Restored in King Tilokaraj (B.E. 2022) and changed to single finial
- Prasat Yod adjusted to single finial

The Chedi sits on indented, 2-tiered square base. The Chedi was indented in order to increase the corners of the Chedi in supporting the indented Ruen That (the part enshrining the relics)
Second Group: Bell Shape or Rakhang (Ceylonese) Group

- The Chedi sits on a 3-tiered pedestal, followed by 3 Malai Thao that encircles and carries the bell shaped Chedi.

![Chedi Wat Umong, Chiang Mai](image)

- The Chedi is 48 meters high, streamlined bell shape, with the finial covered with crown.

- One of characteristic is that the Chedi can have round or octagonal basement.

![Wat Suan Dok, Chiang Mai, built during King Gue Na in B.E. 1915](image)

- The Chedi sits on rectangular basement, superimposed with corners (Yok Get), placing importance on the size of encircled Malai Thao (3 Malai Thao- see below picture) and the finial is covered with crown.
• The Chedi in bell shape of Wat Phra That Hariphunchai, the most beautiful Chedi in this style

• Started building in late 16th B.E. (early stage of Lanna) in Prasat Yod style and later in the reign of King Tilokaraj (late 20th B.E.), the Chedi was re-constructed in bell shape

• Another style of Bell Shaped Chedi in Lanna (third stage of Lanna or since 20th B.E.)
• Bell shaped Chedi in Lanna with an art of Sukhothai: element of Bua Tha La was added that made the Chedi

Third Group: Miscellaneous or Special Group (not before 21st B.E)

Third stage of Lanna: since 20th B.E- Influence from Lankavong Theravada Buddhism entering Chiang Mai

Wat Jed Yod (Mahaphotharam) in Chiang Mai (left), built in B.E. 1998 in the reign of King Tilokaraj as a replica of Bodhgaya in India (below- compared with Wat Jed Yod)
Architectural styles of Vihara, Ubosot and other building structures in Lanna period

- Vihara

Characteristics of Lanna Vihara

- Vihara of Lanna can be categorized into 2 types:
  - Open- structured Vihara
  - Close- structured Vihara

- 2-3 tiered roof (double or triple-tiered roof), built to the front direction, and called “Vihara Sod” (Sod = ชด = ยกกันจากข้างบนลงข้างล่าง)

- Lanna Vihara is rectangle-shaped masonry structure with wooden columns.

- The roof structure is the “Ma Tang Mai” structure.

- Vihara’s walls are usually made lower than the height measured between the floor and the roof of the Vihara and therefore the gable is outstanding in its height with wider space.
- The long and spacious roof gable usually is in wood work, decorated by gold leaf and imbedded colored glass chips. The motif usually is flora pattern, Thevada, and animals in the Buddhist mythology.

- The gable mainly consists of the gable, Na Ud Peek Nok (หน้าอุดปีกนก) or the wooden eaves, and Phaeng Lae Rang Phueng (แผงรังผึ้ง) or the large wooden pediments.

- Below the roof are the plates of woods, made connected with the two sides of roof structure called “Phaeng Nam Yoi (แผ่นยาย้อย)” (to protect the floor from rain), decorated with paintings or gold leaf.

- The wall of Vihara can be built with wood or lime cement with narrow channels as windows to allow the light to shine into the Vihara.

- The main Vihara is surrounded by one or more smaller Vihara in the Buddhavas area (laymen- use zone). The name of those smaller Vihara were named according to the posture of the Buddha image housed in the Vihara (e.g. Vihara Phra Non means that the Vihara houses the Reclining Buddha Image) or named according to decoration (e.g. Vihara Nam Tam- Nam Tam is the method of painting).
What is Kue Ma Tang Mai- ขื่อม้าตั่งไหม (or ขื่อม้าต่างไหม)

- Kue Ma Tang Mai is used to call the roof structure of Lanna Vihara. It is Lanna artisan’s wisdom of building the Vihara especially the ridge piece and ridge pole part that carry the whole building.

- No ceiling board
- No nails or screws are used to assemble (join) and lock each piece of wood element of the roof.

- The fact explaining why it is called Kue Ma Tang Mai come from the 3 assumptions:

(1) Tang Mai (ตั่งไหม) means doll; or

(2) the roof structure that looks like an action of a horse carrying silk for trading on the Silk Road (symbolic) (= the ridge piece and ridge pole that carry the weight of the Vihara building)

(3) Kue Ma Tang Mai = each collar-beam was compared to “Ma Tang” or benches

Ma Tang Mai structure = the columns, beams and roofing structure that uses wood. The elements in the structure join without use of nails but wooden wedges instead.
Ubosot is in the same plan and structure as the Vihara but smaller, surrounded by Sema. Women are not allowed to enter or go inside.

- Other Architecture in Lanna Temples

(1) Hor Trai/ Hor Dhama (Scripture Hall)

- Built on lime cement as the base and the upper part is wood work, in rectangular plan

- The lower (base) part is decorated with stucco. Each temple has its own different style by proportion, materials used and decoration.
Rectangular plan

Hor Trai structure of Wat Muem Lan, Chiang Mai

Hor Trai structure of Wat Phra That Hariphunchai, Lamphun

Hor Trai of Wat Phra That Hariphunchai, Lamphun
(2) Klong Puja (กลองปูจา) (similar to Bell Tower)

- Puja means “worship”

It was believed that drum used in warfare (encouraging soldiers) would not be kept at houses, influenced by the belief in ghost and spirit. So the drum was kept at temple. Later drum has been hit symbolically for worship of Lord Buddha, Buddhist teaching and Buddhist monks, as well as telling time.
(3) **Arched Niche**

- Masonry- structure (masonry structure is the structure built of lime cement, especially for arched door. Arched niche for other purposes are mostly in wood).

- Corners are mostly decorated by Thevada in high relief.

- The gable is decorated by flowers and animals in mythology, gold leaf and colored glass.

- The roof is Ruen Prasat structure (tiered up)

- Three kinds of Arched Niche
  - Arched entrance gate ซุ้มประตู
  - Arched Niche for Buddha Image ซุ้มพระพุทธ
- Arched Niche for Monks (Dhama Maat- ธรรมานันท์)
- Some interesting and beautiful arched niches for monks include the one at Wat Suan Dok, Wat Umong and Wat Phra That Lampang Luang

**Important Decoratives**

Some important decoratives to focus here are the decoratives of roof finials. Most decorations are attached to the bargeboard (ปั้นลม), the long, thin panel on the edge of the roof at the gable ends. The decorative structure is called the Krueng Lamyong (เครื่องลายอง). The lamyong is sculptured in an undulating serpentine Nag Sadung (นาคสะดุ้ง) shape evoking the Naga. The Krueng Lamyong is used as the decoration of roof and gable. It composes the following:

- **Bai Raka** (ใบระกา) or blade- like projection that suggest both Naga fins and the feathers of Garuda.
- **Hang Hong** (นางหงส์) or lower finial at the roof-end, which usually takes the form of a Naga’s head turned up and facing away from the roof. The Naga head may be in a flame-like Kranok motif style, and have multiple heads called Nak Buen (นาคเบือน).
- Cho Fah or finial, the large curving ornament perched on the peak of the Lamyong. It resembles the beak of a bird or represents the Garuda.

Cho Fah, Bai Raka and Hang Hong were the decorative part of the roofing (roof finials). The structure depicts the scene of garuda grasping nagas. This is symbolically interpreted under the mythical concepts. Also, roof finials that embodies guardian figures is under the belief that these guardian figures would protect against bad influences. (http://factsanddetails.com/southeast-asia/Thailand/sub5_8e/entry-3260.html).

Another decorative but with function is Khan Thuoy (คันทวย). Khan Thuoy is a corbel or a structural piece of stone, wood or metal jutting from a wall to carry a superincumbent weight, a type of bracket. There are designs of Khan Thuoy with many motifs such as mythical animals, Naga and flowers. In western architecture, there is a more variety of Khan Thouy motifs. Khan Thouy can be made with wood or stucco.
Some corbel designs in the western architecture