

Western Architecture in Grand Palace, Under Thai Social and Cultural Conditions in the Early Reign of King Chulalongkorn

Somchai Seiset, Lin Jian Qun

Abstract—Chakri Maha Prasart Throne Hall is the important Audience hall in Grand Palace, Bangkok, Thailand which was established in the early reign of King Chulalongkorn (King Rama V) in 1882. The Throne was designed with the distinguished architecture by significant blending of Western and Thai Traditional styles under the Thai Social changing in Colony Era and Thai traditional culture. The western style was represented of modernization and civilization as the other European countries. In the other hand, Thai traditional architecture style with national emblem or Royal emblem was shown the status and power of Thai King as the Thai believes and culture.

Keywords—Chakri Maha Prasart Throne hall, Western Architecture, Thai grand palace, Thai social and cultural conditions, The early reign of King Chulalongkorn era.

I. INTRODUCTION

CHAKRI MAHA PRASART THRONE HALL is the noteworthy building of Thailand which was built in the early reign of King Chulalongkorn (King Rama V) in 1876 for arranging the royal ceremonies, especially in royal quest reception or state banquets (Fig. 1).



Fig. 1 Chakri Maha Prasart Throne Hall

A groundbreaking ceremony was started to hold on May 7th, 1876 and finished in 1882. The hall had designed by John Clunis, The Architect from England, who went to Singapore which was under controlled of England for working in civil engineer for many years before moving to Siam [1] in the status of the first Government Architect of Siam around 1872 [2]. Due to Prince Damrong Rachanubhab had written that Clunis was the famous architect because he was responsible for built the Government House of Singapore [3] (Fig. 2-3) which was established since 1867 to 1869.

Anyway, Clunis was not the chief architect of the project as England evident specific that Major John McNair was [4].



Fig. 2 Singapore Government House in the past

Sources: www.postcolonialweb.org

Fig. 3 Singapore Government House in the present

Sources: www.trendszone.com

Chakri Maha Prasart had been the Throne Hall which had designed identity, been the one-first building Throne in Grand Palace that noticeably mix of western and Thai styles. 3-storey building was designed in the western architecture; Neoclassicism Style. While the roof was in Thai Traditional Style called "Prasada"; had been multi tiled gable roof exerted to four-sided as cross cover with color glazed tiles, at the end of the square-roof or Gable End was called leave-like carvings, gable-finial, small finial representing head of naga cover with lacquer and gold leaves, pediment in the middle of cross-roof and designed multi-small tiled hip roof at the topped. This unique architectural style has not been appearance in the other countries. Furthermore, in Thailand, it had only been designed for the building which relates to the royal family and Buddhism religion (Fig. 4).

Somchai Seiset is Architecture School, Harbin Institute of Technology, Harbin, Heilongjiang 150001, P.R. China. (corresponding author to provide phone: 86-15846335235; e-mail: kssomcha@kmit.ac.th).

Lin Jian Qun, Prof., is Architecture School, Harbin Institute of Technology, Harbin, Heilongjiang 150001, P.R. China. (e-mail: linjianqun50@163.com).



Fig. 4 Roof Structure Element and Style of Chakri Maha Prasart Throne Hall

In the part of decoration arts were comprised with both stucco and portrait by applied Western and Thai Arts, accordingly. External building still presented western architectural style for example; Rustication of ground floor-wall, Arch above door-window or Roman decoration style of pillars (Fig. 5).



Fig. 5 External Decoration of Chakri Maha Prasart Throne Hall

The overall of interior decoration had been in western style (Fig. 6), except in the Front Hall which is still decorated with items in Thai Traditional style namely Throne (Fig. 7).



Fig. 6 Interior Decoration of Chakri Maha Prasart Throne Hall
Sources: Office of His Majesty's Principle Private Secretary, *Grand Palace*, Bangkok: Thai Watana Panich, 2004



Fig. 7 The Royal throne in Thai Traditional Style inside The Front Hall of Chakri Maha Prasart.

Sources: www.atcloud.com

It believes that the cause of architectural design and decoration as mentioned had been the result from the changing in Thai society, politics and economy in the early reign of King Rama V which was the same period of Chakri Maha Prasart Throne Hall establishing. This report is aimed to present the identity of architectural style including the factors which had effected to the style of design and created the distinguished Throne from the others in Grand Palace.

II. THAI SOCIETY, ECONOMY AND CULTURE CHARACTERISTICS IN THE EARLY REIGN OF KING CHULALONGKORN

In the early reign of King Chulalongkorn, the same period that was established Chakri Maha Prasart Throne Hall (in 1876), Thailand was still governed under Absolute Monarchy since Ayutthaya period (Ayutthaya Kingdom, in 1350-1767). King was the governor and administrator who had absolute power administration on the land in the divine kingship status (believe that king was the god reincarnation) same as the other countries in Southeastern Asia. The Kingship was adopted from ancient Indian culture.

The society and economy of Thailand in this period had been significantly changed proceeding in the former reign (King Mongkut's or King Rama IV, in 1851-1868). At that time Thailand had opened relationship with many western countries because they extended their power and invaded to procession over the lands. They also tried to pressure Thai to open Free Trade Area which affected to reduce Thai government revenues because of eliminating of tariff barriers and fees. However, the western countries had much stronger power than Thailand in order to maintain independent and sovereign. Thais had to submit the treaty as westerner conditions. England was the first nation that Thais accepted the treaty which was the Treaty of Friendship and Commerce between the British Empire and the Kingdom of Siam or called Bowring Treaty in 1855 (The name of Treaty was from Sir John Bowring, the governor of Hongkong and representative of Queen Victoria of the Great Britain).

From the result of the treaty, Thais had to open Free Trade, change international trade regulations and remake import and export systems from the former treaty named Burney Treaty in 1826, was the first Treaty of Friendship and Commerce between Thai and Western country in Rattanakosin period. After Bowring Treaty, Siam had signed the similar treaty with many western countries; for instance, United States, France, Denmark, Portugal, Holland, Germany, Sweden and Belgium until the reign of King Chulalongkorn.

King Mongkut had considered that Siam would get the economy advantage from the foreign trade because of their purchase power, especially rice export. His Majesty commanded to expand rice fields and increase agricultural production. These were not only made the farmer's revenue increasing but the government also can get the tariff more than in the past because it reduced the obstacle from the illegal trade. Moreover, the treaty of friendship had still opened the opportunity to get transformed the civilization from westerners to Thais' weather education, public health, transportation or governance system. These had brought to the principle change of "Modernization" which was begun in the early reign of King Rama IV (in 1851-1868) and continued to King Rama V (in 1868-1910) [5].

For the physical landscape development and architect around Bangkok city, there were constructed the road and dredged the canals for developing transportation and logistics systems. Many western building styles were constructed around the new constructed road. Prince Damrong Rachanuphab, son of King Rama IV said that Somdet Chao Phraya Borom Maha Sisuriyawongse (named Chuang Bunnag) brought the building design from Singapore when he visited in 1859 [6]. The Grand Palace had been first-started to construct the building in western architectural style in the reign of King Rama the Fourth at Phra Aphinaonivet Group (Fig. 8) in 1857 for being the residence, reception, state banquet visiting and correcting western tributes in order to present that Siam's King had knowledgeable on the western civilization.

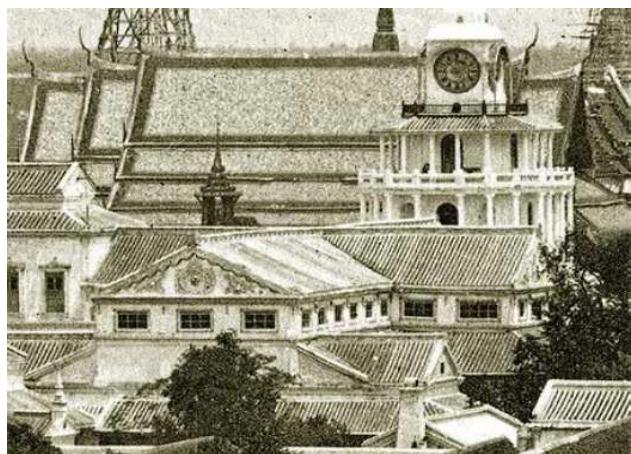


Fig. 8 "Phra Aphinaonivet" The First Western Throne Hall Group in Grand Palace (Demolished in the early reign of King Chulalongkorn)

In the part of Thai culture had still continued from Rattanakosin period in the early reign of King Chulalongkorn, which seized on Royal and Religion Institution as the main priority. Thai culture which related to Thai Traditional Style in Chakri Maha Prasart design was kingship..

Thai ancient culture believed that King was the god reincarnation who was born to administrate and protect his people with Absolute Monarchy. King has status as the Great Emperor or Universal Monarch [7]. This was the same as the other countries in Southeast Asia. It was from Buddhism and Hindu ideals. The King might have good governance [8] for administration while his status became as the divine king (or god reincarnation). As the mentioned ideal, The King had absolute power in Mandala or area under controlled [9] and got highest power in administration. In addition to cultural and traditional Thai Architecture in the past had to rank order of the important building by the owner status such as King, The Royal Family, Government officer or general people. The Architecture must represent Hierarchy namely the place of worship or King's resident has to be luxurious constructed, used great materials, fine decorations and represented the different from general people.

The Architecture of King's residence in Grand Palace had received the influence from this strongest ideal. Meanwhile it still had an important role as the central of administrative government. For the Traditional Thai Architecture audience hall which was built for performing coronation ceremony at the first time when establishing Rattanakosin Reign in 1782 is "Amarin Winichai Mahaisoorayapiman Throne Hall". At the present, the building has been still using for performing the important state ceremony (Fig. 9).



Fig. 9 Amarin Winichai Mahaisoorayapiman Throne Hall

In the reign of King Mongkut (in 1851-1868) had constructed Phra Aphinaoniwet Throne Hall, which was the first time building in western style in Grand Palace by local architecture. The building was similar to Rural Classicism Style in Europe more than Standard Classicism. However, interior throne hall was still in Thai style characteristic more than western [10]; for example, the pillars were in Roman Corinthian on topped with lotus-base, the wall was punctured to three-square shaped with pointed arch but in the middle of the front part was placed the throne in Traditional Thai style (fig. 10). Until King Chulalongkorn had commanded to demolish Aphinaoniwet Throne Hall and constructed The Chakri Maha Prasart Group which was designed by western architecture replace.

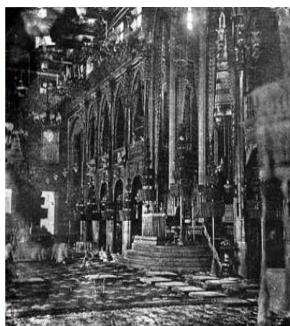


Fig. 10 Interior Architecture of Aphinaoniwet Throne Hall

III. THE INFLUENCE OF THAI SOCIETY, ECONOMY AND CULTURE TO ARCHITECTURE AND DECORATION ART IN CHAKRI MAHA PRASART THRONE HALL

The principle influence which affected to the Chakri Maha Prasart Throne Hall in the Fifth Reign was about social factor that related to foreigners. Due to westerner invasion to be procession the land in Asia Continent, many countries including Thailand got lost some parts of Own area to the Westerners. To maintain sovereignty, King had accepted to abolish the monopolize trade and agreed to sign treaty of commerce with western countries. Moreover, King had still developed the country to be modernization and civilization as westerners including the construction building in western style, especially in Grand Palace and boundaries the capital area which was the principle central of country's administration. These mentions were the reasons of Chakri Maha Prasart Throne Hall Construction.

Anyway, Thai culture had much been influence to construct residence in Grand Palace. This was the most important to create the blending distinguish architecture between Thai and Western style as mentioned in the part of Chakri Maha Prasart Construction History. According to remaining the Honor and the Great Power of King following the architectural creation in Grand Palace during the built of Chakri Maha Prasart Throne Hall period.

A. Chakri Maha Prasart Throne Hall Construction

Before started to build King Rama V had determined to construct all the building in western style [11]. Anyway, Somdet Chao Phraya Borom Maha Si Suriyawongse or named Chuang Bunnag, the former Regent of Saim in the reign of King Chulalongkorn since 1869-1873, requested to build in Prasart Style (The word "Prasart" both in Buddhism and Hindu is the same meaning of Devalaya or Vimana, which was designed to be one kind of the god residence [12]. The reason to use this style with the buildings in Grand Palace was Thai culture comparison The King with divine kingship following the ancient Indian. The Throne Hall should be used traditional building in Prasart style by particularities design of roof structure and ornament, which had been multi tired roof cover with color porcelains, cross layout, at the end of gable decorated with leave-like carving, horn-like finial and small finial representing head of naga, in the middle of the roof was made in multi tired hip roof and to be spires on topped (Fig. 11). The regent referred two reasons as followings;

1. According to the Palace of Ayutthaya Kingdom in 1350-1767 had three Throne Hall buildings consist of Viharn Somdet Throne Hall at the left side, Sunphet Prasart Throne Hall in the middle and Suriyart Ammarin Throne Hall at the right side (ruined). While the Grand Palace had completely built two Throne Hall; Chakapat Piman Group and Dusit Maha Prasart Throne Hall, Chakri Maha Prasart was constructed in the middle same as Sunphet Prasart which should be built in prasart style as the previous one.
2. Since established Rattanakosin Kingdom in 1782, all The Kings of the former reigns had constructed the building in Prasart Thai traditional architecture [13].



Fig. 11 Prasart Spires on the topped of Throne Halls in Grand Palace

As these reasons, King Chulalongkorn agreed to accept the idea and allowed to change the roof from dome shape to three prasart spires. After that the Throne Hall was offered the name as "Chakri Maha Prasart". Until the reign of King Rama VII or King Prajadhipok in 1925-1935, many Throne Halls in Grand Palace were damaged and should be renovated. Anyway the budget for renovation was limited by the world economic recession which impacted to every country. King Rama VII decided to assign Prince Narisara Nuvativongse was the chief constructor and M.C. Itthithepsan Kritakara was the renovated controller Chakri Maha Prasart Throne Hall for 150th Bangkok Anniversary Ceremony in 1932 and also used as the state banquet reception place. This restoration had changed the building styles and decorations such as decoration design, the Prasart spires was made from bronze which is more enduring than wood (Fig. 12-13) and gate shape and design [14] (Fig. 14-15).



Fig. 12 Architecture of Chakri Maha Prasart Throne Hall Before restoration



Fig. 13 Architecture of Chakri Maha Prasart Throne Hall After restoration

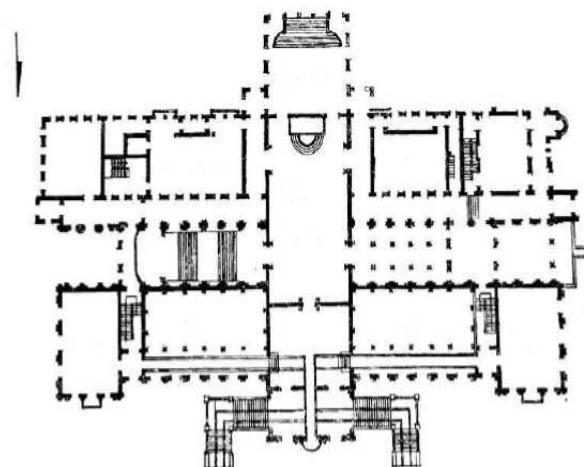


Fig. 14 Decoration Arts Before restoration of Chakri Maha Prasart
Source: P. Povatong, *Architecture in the reign of King Chulalongkorn*, Bangkok: Amarin Printing & Publishing, 2010

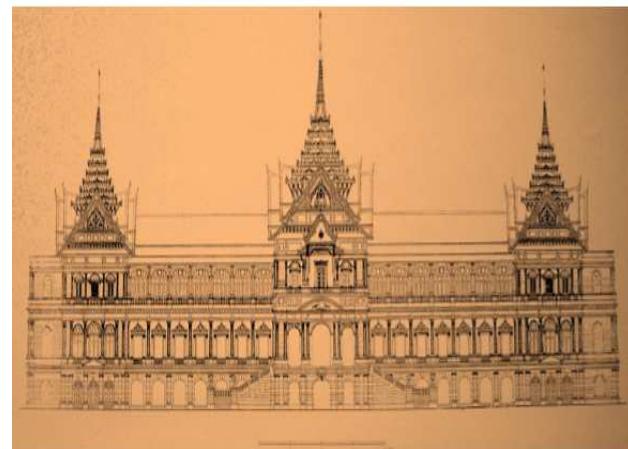


Fig. 15 Decoration Arts After restoration of Chakri Maha Prasart
Sources: Office of His Majesty's Principle Private Secretary, *The Grand Palace Architecture No 1*, Bangkok: Bangkok Printing, 1988

Chakri Maha Prasart Throne Hall has the greatest size and is most important building in THE Group of Chakri Maha Prasart Plan which was connected to the other smaller halls in the back. Chakri Maha Prasart Throne Hall layout was designed to lay on East-West horizontal. The front of the building turns to the north. It has three exserted porches which made the building plan liked the alphabet E (Fig. 16). That was the same style as Government House in Singapore that John Clunis had designed before moving to work in Thailand. (Fig. 17)



(a)



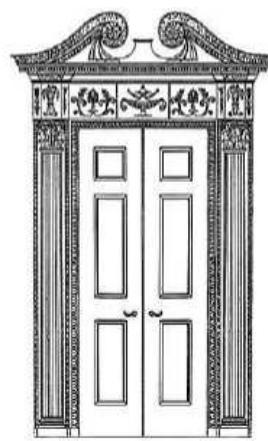
(b)

Fig. 16 Drawing Layout Top view (a) and the Front of Chakri Maha Prasart Throne Hall (b)

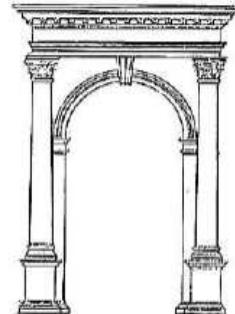
Source: N. Sthapitanonda, *Architectural Drawings of Historic Buildings & Places in Thailand*, Bangkok: Li-Zenn, 2008



(a)



(b)



(a)

(b)

Fig. 17 The comparison the E-plan front view of the building between Government House in Singapore (a) and Chakri Maha Prasart Throne Hall (b)

Source: www.atlantis-lodge.com (a),
www.daily.bangkokbiznews.com (b)

B. Architecture Style and Decoration Arts

Chakri Maha Prasart Throne Hall is three storey building with its blend of Western and Thai architecture. The lower part of building was constructed in Western style but with tired roof and spires in traditional Thai style. Other decoration arts such as insider or outsider doors and windows had decorated with western sculpture in Thai design. Most of them are Arms, Chakri Emblem and King Rama the Fifth Emblem that was represented the King status who was the building owner (Fig 18).

Fig. 18 The blending between architecture and art decoration of western with Thai (a) compare with the western model (b)

Source: www.doors-carved.co.uk (b)

The roof has the spire-shaped in Thai Traditional Architecture. The multi tired gable roof consists of gable end with “Krieung Lam Yong, Chofah, Hang Hong” (Fig. 19). It is cover with color porcelain and has three spires on top in accordance to Traditional Architectural Design in Thailand since the past till the present. This style can only use in building construction about King and religion Institutes. If it was built for general peoples’ residences, it might bring unlucky to them.

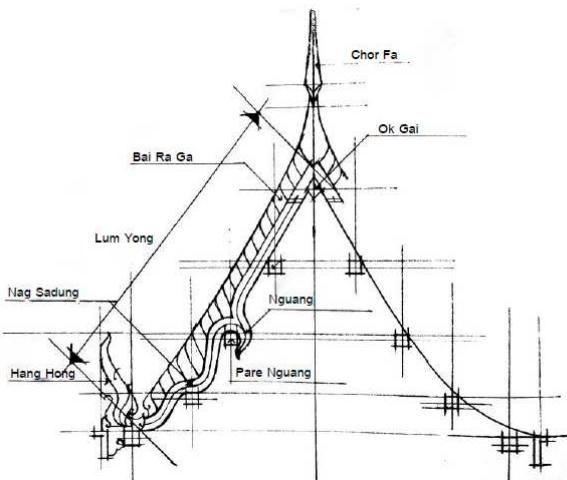


Fig. 19 Architectural Element Design and the name of Gable End in Thai Traditional Style "Krieung Lam Yong, Chofah, Hang Hong"

Source: Adapted from S. Nimlek, *Krieung Bon and decorative artworks of Thai architecture*, Bangkok: Amarin Printing and Publishing, 1996

The pediment of the Throne Hall bears the stucco of Emblem of State (Fig. 20). The central porch is only the main entrance which has the elevator up to the second floor and leads to the Audience Hall



Fig. 20 Pediment bears the Stucco of the Emblem of State

C. Interior Design of Throne Hall

At the prior, the ground floor of the throne hall was used as the station of the royal page and royal guard. Currently, it has been changing to be a museum which is housing the ancient weapons. The first floor has been using as the main audience hall, reception hall and the place for holding the state-banquet and welcoming the royal quests. The second floor of the throne hall houses the important Buddha images and the ashes of Kings, other royal consorts and the members of the Royal Family. As the specific format areas in each floor were from Thai culture and belief. The reason of the staircase was built in the front of the hall because Thai architectural beliefs decreed that staircase interior was inauspicious. As Thai culture believed the spirit or the auspicious thing of each person was site on the head.

If the spirit wasn't be with one, that person might be sick or confront with unlucky. To protect the spirit lost, Thais did not allow anyone to walk across or stay above their heads.

Furthermore, if the general people do stand above the sacred items whether King, Buddha image or monk, the inauspicious thing will occur with themselves. These are the causes of using the second floor for collecting the King's respected sacred-items which can stay at the higher place than the King's residence.

These are the evolution of architectural design in vertical utility format area which has multi-storey, different from the prior one storey buildings. According to the technological construction was adopted from the western architecture to support constructed large multi-storey building such as Trusses; bring the pieces of wood or metal to make Triangle Patterns for the roof (Fig. 21).

This method didn't appear in Thai Architectural Structure. Thai structure specification mostly used wood bolt which was different from wood structure in western style (Fig. 22). The building wall was made from stucco-bricked structure as the prior one but the door and window arches of the throne hall used brick arch technology of western style replace corbel arch in Thai style (Fig. 23).

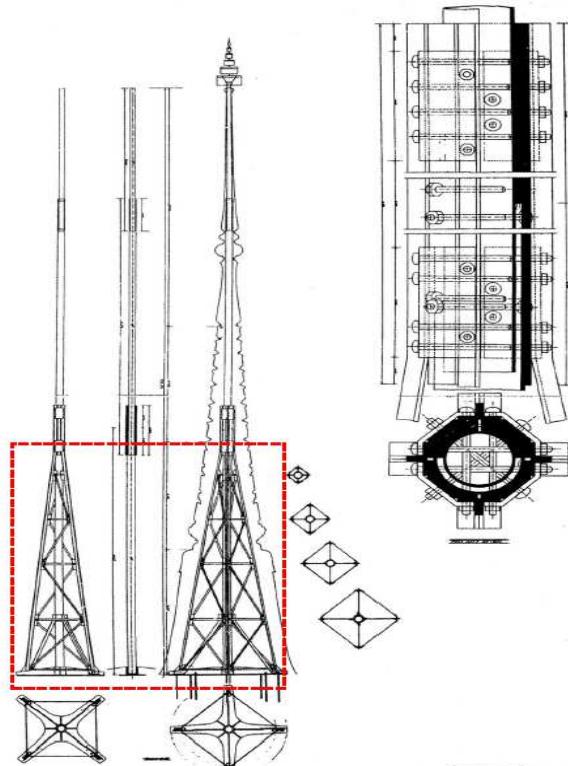


Fig. 21 Former Construction Design showed Western Structural Technology that call "Trusses" used on the Roof of Chakri Maha Prasart Throne Hall

Source: N. Sthapitanonda, *Architectural Drawings of Historic Buildings & Places in Thailand*, Bangkok: Li-Zenn, 2008.

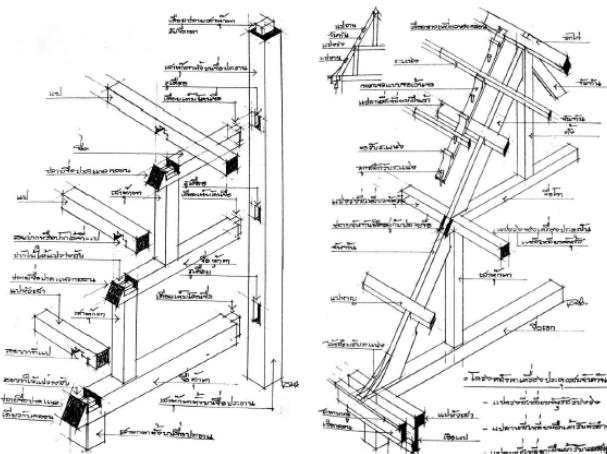


Fig. 22 Wood gripping of Roof Construction in Thai Traditional Architecture

Source: N. Somjai, *Thai Architecture: Roof Structure and Ornaments*, Bangkok: Ammarin Printing & Publishing, 1996.

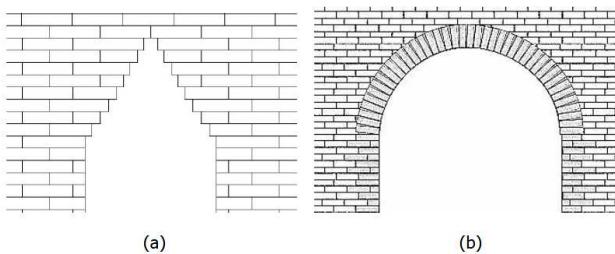


Fig. 23 Brick Arch of Door and Window Structure in Thai Style (a) and Brick Arch of Door and Window Structure in Western Style (b)

IV. CONCLUSIONS

Chakri Maha Prasart Throne Hall is the important throne hall in Grand Palace, Bangkok. With the identity of architectural style, the building had been designed by blending between the western and Thai traditional architecture. The Throne Hall was constructed in the early reign of King Chulalongkorn in 1882 under the changing of Thai society condition. According to the Colony Era, the western countries invaded and try to be procession the lands in Southeast Asia for economic advantage. The King, the highest administrative power in Absolute Monarchy, decided to open the relationship with foreign countries by signing the treaty of commerce along with developing country to be Modernization and Civilization like European cities. These changes were for the westerner acceptance and changed their vision to Thailand as the undeveloped country. For utilization on government office working and receiving the royal quests, Chakri Maha Prasart Throne Hall was designed in western architecture and decoration arts style in order to represent the modernization as the westerners. Meanwhile, the roof part was still used in Thai Prasart spires design and decorated with the Emblem of State and Chakri or King Chulalongkorn Emblem on the building in accordance with Grand Palace traditional architecture. These were represented to the King status and power as divine kingship. All of the reasons created the distinguish architecture of Chakri Maha Prasart Throne Hall.

REFERENCES

- [1] J. Clunis, *The Bangkok Times*, July 21, 1894.
- [2] Foreign Residents at Bangkok and Other Places in Siam, *Bangkok Calendar*, 1872.
- [3] D.Rajanubhab, *The Archives of Laying Foundation Stone of Chakri Maha Prasart Thron Hall*, Phra Nakorn: Sophonpipatthanakorn, 1932, pp 3.
- [4] P. Povatong, *Westerner in Siam: The Early Reign of King Chulalongkorn* Bangkok: Faculty of Architecture, Chulalongkorn University, 2005, pp 82.
- [5] V.Na Pombhejara, *The History in Rattanakosin Period*, Bangkok: Sangdaw, 2011, pp 51.
- [6] N. Nuvativongse and D.Rajanubhab, *San Somdej no. 22*, Bangkok: Kurusapha, 1969, pp 74.
- [7] A.Patthiya and N.Aiewsriwong, *The Early Ayutthaya Sri Ramthep Nakorn Historical Essay Collection*, 2nd ed, Bangkok: Matichon, 2002, pp 19.
- [8] S. Na Bangchang, *Tradition: Beliefs and Regulations since Sukhothai till the middle of Ayutthaya Period*, Bangkok: Chulalongkorn University Printing, 1992, pp 36..
- [9] M.Thaworawatsakul, *Ayutthaya Noble*, Bangkok: Thammasart University, 1993, pp 47.
- [10] S. Chungsiriarrak, *Western Architecture in Siam During King Rama IV A.D. 1937*, Bangkok: Ammarin Printing & Publishing, 2010, pp 41-43..
- [11] O. of His Majesty's Principle Private Secretary, *The Grand Palace Architecture no.1*, Bangkok: Bangkok Printing, 1998, pp 100..
- [12] Fredrick W. Bunce, *A Dictionary of Buddhist and Hindu Iconology*, New Delhi: D.K. Printworld Ltd., 1997, pp 234- 337..
- [13] "The Archives of Laying Foundation Stone of Chakri Maha Prasart Thron Hall" in Court (Government News in the past), Phra Nakorn: Sophonpipatthanakorn, 1932, pp 3..
- [14] O. of His Majesty's Principle Private Secretary, *The Grand Palace Architecture no.1*, Bangkok: Bangkok Printing, 1998, pp 109-110.