

The Architectural Handiworks at the Pagodas in Bagan Built by Merging Sandstone and Brick

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Abstract

Since the reign of King Anawrahtar, Buddhism has flourished in Bagan. King Anawrahtar and his successors built a lot of Buddhist religious buildings and monuments. However, there are only five pagodas which were constructed by merging sandstone and brick. Among them, Kyauk Gu U Min pagoda is the biggest and has most unique architectural handiworks. This article studies the architectural handiworks of these pagodas such as mural paintings, stuccos and sculptures. This is an archival research and is presented by descriptive method. The study found out the high level of architectural handiworks of the Pagan pagodas and revealed the high social, cultural and architectural position of the Bagan people. The researcher suggests further research on the unique architectural styles of other caves like tunnel pagodas in the Bagan area.

Keyword: Bagan, Pagoda, Kyauk Gu U Min, Cave, Architecture

Introduction

Bagan was ruled by 55 kings successfully from 107 AD to 1369 AD. After Shin Arahan had arrived Bagan from Thattonin 11th Century, Buddhism flourished in Bagan during the reign of King Anawrahtar. To lengthen the Theravada Buddhism, King Anawrahtar built a lot of religious buildings and monuments. Among ancient pagodas around Bagan region, there are only five pagodas and monuments which were constructed by merging sandstone and brick. They are Kyauk Gu U Min pagoda, Nan pagoda, Shwezigon pagoda, Sakuteik monument and Buwa Pagoda. All of these are two miles away from Nyaung Oo. Among them, Kyauk Gu U Min is the greatest and most unique one in term of architectural handiworks. This paper systematically analyzed the advanced architectural handiworks of the tunnel Pagodas built by merging brick and stone around Bagan region.

Literature Review

There is an array of books on Pagan pagodas and monuments written by domestic and foreign writers. Some of them are *Inventory of Monuments at Pagan*, Vol. 7, I, II, III, IV, V, VI written by Pierre Pichard, *A History of Pagan Europe* written by Prudence J. Jones, *The Pagan Religions of the Ancient British Isles: Their Nature and Legacy* written by Ronald Hutton, *The Pagan Christ* written by Tom Harpur, *Architectures and Fine Arts of Bagan's Pagodas and Stupes* written by U Myo Nyunt, *Culture, Administration, Justice and Social Affairs in Bagan Era* written by Daw Khin Khin Sein, *Bagan Pagodas and Stupas, Vol. I and II* and *Record of Renovating and Preserving Bagan Ancient Pagodas and Stupas, Vol. I, II, III, and IV* published by Ministry of Information. These books mention historical facts, preservation of ancient pagodas, architectural fine arts of Pagan pagodas, and economy, demographics and administrative facts of Pyu people who lived in Bagan period.

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However, any of these did not focus on the architectural handiworks of pagodas which were built by merging brick and sandstone. This paper analyzed five cave and tunnel pagodas and monuments which were built by merging brick and sandstone. They are Kyauk Gu U Min pagoda, Nan pagoda, Shwezigon pagoda, Sakuteik monument and Buwa Pagoda. Among them, Kyauk Gu U Min which is tunnel type, has remarkable features in architecture style with light windows. There are also unique sandstone figures inside it.

Aim and Objective

This research aims to reveal the high architectural, social and cultural level of ancient Myanmar pagodas and monuments built during the Bagan era. It tries to highlight the high social, cultural and architectural standard of the Bagan people.

Material and Method

In doing this research, the necessary data and documents were mainly collected from Universities' Central Library, Yangon, Yangon University Library, library of Myanmar Historical Research Department and the library of National Archives Department. This paper is an analytical study of the architectural styles of some Pagan pagodas. It is presented by using descriptive method.

Research Questions

1. How sophisticated the architectural handiworks of Kyauk Gu U Min Pagoda?
2. What are the unique features of Kyauk Gu U Min Pagoda?

Findings and Discussion

The first Myanmar dynasty was Bagan. Bagan is an ancient city. King Anawrahta (AD1044-AD 1077) founded the Bagan Kingdom in the year 1044. Under king Anawrahta, Bagan grew into a peaceful and prosperous city with the food supplies of Kyaukse and Minbu regions. During the Bagan period, connections with the foreign countries could also proceed via Ayeyawaddy River to the Indian ocean.¹ In the reign of King Narathihapatae (AD 617- 648), Bagan was destroyed by the Chinese group called Tata.² Although the Bagan dynasty ended in the 13th Century, Bagan was vibrant till Innwa and Konbaung dynasties.³ Bagan is situated in Mandalay Region, Central Myanmar. It is 430 miles away from Yangon, and 125 miles from Mandalay as well. It is located by the eastern bank of Ayeyawaddy River and 4 miles far from Nyaung Oo.

¹Min Bu Aung Kyaing, *Architecture Handiworks in Bagan Period*, Yangon, Aung Chan Thar Press, 1997, p.13 (Hereafter cited as AungKyaing)

²*Bagan Pagodas and Stupas*, Department of Universities Historical Research, Yangon, Universities Press, 2004, pp. a-b (Hereafter cited as UHR)

³Than Swe, U, *Bagan Historical Pagodas and Stupas*, Yangon, Aung Chan Thar Press, 1994, pp. a-b (Hereafter cited as U Than Swe)

There are different names of Bagan. In regard with the word “Bagan”, as described in Great Chronicle, after demising of Sriksetra, Phyu from it migrated Taungnyo, Pontaung Thatthar, Minton and Yonhlutkyune. After merging Pyu lived at Yonhlutkyune in Eastern of Tuyin Taung, and in 19 villages, the term “Pyu Garma” arose. In the ancient stone inscriptions, it was written as “Pukan” in the place of “Bagan”. Not only in the Bagan period, but also in the Pinnya and Innwa periods, it was found that much writings of “Pukan” is in stone inscriptions.

Stone inscriptions written in Mon language during the reign of King Kyansitthar (AD 446-279) showed that Bagan was written as “Pawgarma” in Pali and written as “Pawkam” in Mon language. So, in the reign of King Kyansitthar, Bagan was called as “Pawgarma- Pawkam, and also “ArimadanaPuya”.¹ The word Bagan is transformed gradually from “Pongarma, to Pongarm, and to Bagan” or “Pukan,→Pawkan,→Paukkan”,and “Pyugarma,→Pyugarm,→Pyukan,→Bagan.”² Totally, Bagan has 15 names. They are (1)Pawgaryarma, (2)Arimadanar, (3)Pounakarma, (4)Pounagarma, (5)Pyugarma, (6)Thanpawati, (7)ThiriPyutsayar, (8)Thamunagarma, (9)Panupalartha, (10)Nagagutama, (11)Payamapuya, (12)Thamadi Nagaya, (13)Thamadaytha, (14)Wailukaryama, and (15)Bagan.³

In the ancient times, Buddhism did not play an important role in Myanmar. During the reign of king Anawrahta, Buddhism flourished in Bagan. King Anawrahta was converted to Theravada Buddhism by a monk named Shin Arahan from the Thaton Kingdom, one of the Mon Kingdoms that existed in Myanmar. King Anawrahta decided to spread Buddhism and started a massive campaign to build thousands of Buddhist temples, pagodas and other monuments. In the year 1057, King Anawrahta invaded the Thaton Kingdom. After the invasion the Tripitaka, the sacred Buddhist scriptures containing the teachings of the Buddha were brought back to Bagan. A large number of architects, builders and artisans from Thaton were also brought over to Bagan. They worked on the design and construction of thousands of Buddhist temples, caves, tunnels and pagodas. However, only 2,200 of over 10000 monuments remain today. The structures still standing are built of brick and merging stone and sandbrick.⁴ It is found that Buddhist monuments were built in Bagan after flourishing the Theravada Buddhism.

To sustain the Theravada Buddhism, many monuments like pagodas, caves, monasteries, Buddhist ordination halls, tunnels and Pyathets (buildings with a tiered roof) were built by King Anawrahtra in the 30 mile area of Bagan.⁵ So, there was a saying, “Hlae wi yoe than ta nyan nyan Bagan payar paung” in terms of numbering “4446733”.⁶ Such kinds of monuments are:

1. Stupa (Casket of Relics of the Buddha) typed the circle Myaysate Zedi, e.g. Bupayar

¹U Bo Kae, Bagan Research Guide, Yangon, Sarpaebeikman Press, 1981, pp. 19-21 (Hereafter cited as U Bo Kae)

²Hla Tha Maing, pp.15-16

³Hla Tha Maing, p.25

⁴<<https://www.renown-travel.com/burma/bagan/baganhistory.html>>

⁵U Maung Maung, pp.f-g

⁶U Than Swe , p.14

2. Myaysate Zedi built with terraces, ball shape dome, conical spire, spirit ladder, Conner Stupa and flower pots e.g. Lawka Nanda, Shwezigon, Shwesandaw, Mingalar Zedi
3. Stupas built in Thihostyle e.g. Sapada, Paypinkyaung
4. Cave and Pagodas built with Northern India handicrafts e.g. Ananda pagoda
5. Cave and Pagodas built with Central India handicrafts e.g. Mahar Bawdhi pagoda
6. Cave and Pagodas built with Southern India handicrafts e.g. Gawdaw Palin, Sularmani
7. Tunnelse.g. Kyuak Gu U Min , Kyansitthar U Min
8. Ordination Hall e.g. Upali Ordination hall, Minnanthu, Ordination hall near Laymyatnar Pagoda, Ordination hall in the compound of Sinphyushin Kyaung
9. Pitakat Taik (Repository of the Buddhist scriptures) e.g. Bagan Pitakat Taik
10. Brick monasteries e.g. Soe Min Gyi brick monastery¹

They are also classified as four types in terms of architecture and arts.

- 1 Pagodas built with stucco friezes and stucco statues²
2. Pagodas with sculpture, stone images, stone floral and stone windows
3. Pagodas built with glaze pattern, glaze flora, glaze stories and by grilled brick ground in every stage of the pagoda's terraces.
4. Pagodas enhanced by mural paintings

Besides, there are two types of pagoda: cave and tunnel pagodas in Bagan. Cave pagoda is a kind of cave in which Buddha images are placed to worship. Generally, they can be subdivided into four types. They are:

- 1- Zedi Pouk Gu Pagoda e.g. Nandamanyar, Alopya pagoda
- 2- Kung taung Gu Pagoda (Curvilinear spire cave pagoda) e.g. Ananda, That bin nyu Pagoda)
- 3- Thiho Gu Pagoda e.g. Pahtotharmyar, Apalyadanar)
- 4- Maha Buddhi Gu Pagoda (e.g. Maha bowdhi pagoda, Wat gyi inn, Gu pyaut gyi)³

Tunnels are divided into three categories. The first one is a building in which dipped into central, and making one or two cells with the small rooms in the natural stone walls with sand in circle. In the central dip, the sandstone is surrounded and there is Dhammatharla Hall with wood and stone pillar basement. If tunnel is faced to north, Dama Palin (altar) is built on the wall of the mountain. Sandstone ladder blocks are arranged to go down into the central dip. After receiving sermon in the central Dhammatharla, people go inside and meditate in the preferred rooms. Such kinds of tunnels are Wattgyiinn, Kansitthar U Min in the southern part of Gupyaugyi and Nandamanyar U Min.

The second type is U Min Kyaung with U Min Phamatharla Pilasters. After dipping in the ground, U Min is also dipped to the West. There are middle room and all round corridors. Dhammatharla Pyathet with wood was built in the front of building. If sand is not able to dip, tunnel is used to form tunnel imitation

¹U Than Swe , pp.12-13

²Ibid, pp.118-119

³U Maung Maung, pp. f-g

as arch bridge made of brick like a tunnel e.g. Kyansitthar U Min, tunnels in southern and western side of Shwezigon and Tayotepyae U Min. The third type has Buddha images in the front room. In the west tunnel is dipped again to form the small rooms with the aim of meditation e.g. Kyauk Gu U Min. Some tunnels have Buddha images which are curved with sandstone and natural sand at the same times e.g. Thameewhat U Min.¹ The different kinds of type such as pagodas, caves and tunnels can be found in Bagan. It is believed that people in Bagan got in touch with foreigners because the Buddhist monuments in Bagan were built not only in Myanmar style but also in India style.

Kyauk Gu U Min

Kyauk Gu U Min is the place where the monk Thakhinhtanpar and the monk Ashin Ariya Dhamma stayed and meditated peacefully.² There is an oral history that the monk Thakhinhtanpar attained the food (Swan) from the spirits. He lived therein during the reign of King Narapati Sithu (AD1165-1211). King Narapati Sithu donated the servants for the monk Thakhinhtanpar in AD 1188.³ In the reign of Narapati Sithu, there spread rumors that Ashin Pannita was accused by a woman having an affair with her. To prove that was a false, he released a hone and a chopper into the Ayayawaddy River by vow. The hone and the chopper swam into the upwind side of the river. Therefore they called Kyauk Kuu Damapar and eventually named Kyauk Gu U Min. To memorize the morals of that monk, the king built Kyauk Gu U Min in 11th Century and he built a tunnel (U Min) digging in cliff. Due to the swimming of the hone, this Pagoda was called Kyauk Gu U Min. Moreover, due to the swimming of the chopper, this pagoda was also called Damapar pagoda.⁴ Later on, it is called as Kyauk Gu U Min.⁵

Kyauk Gu U Min is one of the five monuments in Bagan, built of stone brick. It was constructed with the lower section made of stone bricks and the two upper stories made of earth bricks. The first story may be assigned to late 11th Century, whereas the two upper stories are attributed to king Narapatisithu. It is a structure of unique architecture.⁶ It consists of three receding terraces built of stone and brick against the precipitous side of a deep ravine. It faces north around the inside of the front main hall are niches in which eight important events of the Buddha's life are sculpted.⁷ The ground floor is little dark and it contains a large hall raised 42 ft. high and 25 ft. long with a high entrance archway projecting on the north. Inside the hall, there are two huge pillars in the center supporting the roof and the terrace above. These pillars as well as the perforated windows and pilasters, the door jamb, the frieze and the dado are decorated with fine carvings. The main pillars of the devotional hall have floral designs around at the base.⁸

¹Aung Kyaing, pp.36-37

²U Bo Kae, p.226

³U Maung Maung, p.12

⁴U Bo Kae, p.223

⁵Myat Min Hlaing, Ancient Pagoas and Stupas in Bagan- Nyaung Oo Region, Yangon, New Light of Myanmar Office, 2001, p.113 (Hereafter cited as Myat Min Hlaing)

⁶Tin Than Yu, p.194

⁷U Than Swe , p.75

⁸UHR, p.9

On the opposite of the entrance, there is a Buddha image sitting on cross-legged facing the entrance porch on a caved lotus throne having 18 ft. length, 12ft wide and 9 heights. It was hewn out of sand stone. On either side of it are relief figures of the Buddha's two disciples. On the ceiling are two Arahats in relief, each on either side of the Buddha image. On the walls are square panels of paintings describing the stories of the Buddha. On both sides of the inner and outer walls of the vaulted corridor in the upper story are several square niches, in which it was originally planned to paint scenes from 550 Jatakas. It seems that the work was left unfinished.¹

Two door ways lead into the darker caves behind. There are doors on either side of the pillars leading into a network of tunnels running deep into the hall. Inside those tunnels are full of caves for prayer and meditation. A maze of about 500 feet long was dug into the sand stone, with many twists and turns, tunnels and cellars for meditation.² One remarkable feature in the architecture of this monument is light wells in the vaulted hall of the first story. From the light wells in the roof of the second story down to the light wells of the first story light passes through to the hall when the sun reaches noon. On the top of the entrance hall on the northside stands a small Zedi.³

On the upper reaches of the wall are stone sculptures of ogres clutching floral garlands, below are triangle shaped floral designs, at the base of the arched entrance are figures of Gonban, Keinnara and Keinnari between the lotus flowers, lion, tiger, deer, hare, and deva god. The relief carvings at the bottom edge of the 12 ft.-high entrance are intricate and ornate. Here, stone ogres wear loop earrings with elephants dangling in size perhaps to symbolize the gigantic height these beings even if the actual height of the figures are about 2 feet.⁴

Brick arrangement of Kyauk Gu U Min is in rare pattern (ဆင်စီနည်း).⁵ According to the saying, "Ohnton Thatta, Nawa Khwekyew, dwaynaw tin lae, Ushik Kaeyie, Laewa Tasoak, Sittamoak", bark of Ohnton tree is boiled with water. Seven folds of that glue, nine folds of Khwekaw, two folds of Tinlae, more latex of Ushik are added. Not to crush cement, silk cotton is added. The nature of cement makes people sore. Oil is added to prevent from this. The cave of adding honey and milk to come cements are depicted by the court official Athawat Dhammar Mahar stone inscription. The art and architecture of Bagan is unique. The Bagan archaeological zone is one of the largest and most important historical sites in South East Asia.

The Bagan Empire attains highly standard cultural heritage by the skillful kings' administrations. Bagan is famous in Myanmar history as the place where Theravada Buddhism thrived though Bagan was never significant back as the capital of Myanmar. Mostly, in the reign of King Anawrahta, pagodas, caves, tunnels, terraced roofs and ordination hall and other handiworks like sculptures, and mural paintings were Built. Among the historical monuments around Bagan, however, there are only five pagodas which were built by merging brick and sandstone. Among them, Kyauk Gu U Min pagoda is the unique handiwork

¹U Maung Maung, pp.14-15

²U Bo Kae, p.75

³U Maung Maung, p.14

⁴UHR, p.9

⁵Aung Kyaing, pp.116-17

curving sandstone without flaws. Among sculptures inside Kyauk Gu U Min pagoda, the two sculptures are distinctive. These are the Buddha image which is practicing austerities and the spirit (Nat) image which is paying homage to the Buddha image with some food.

The technology of making light-entering holes in Kyauk Gu U Min pagoda should be emulated by the youths of today. It is also found that brick arranging pattern is well organized even not to be capable of inserting needles. By learning this, it is found out that cement technology, calculation, the ratio of making cement were advancing in the Bagan period. Thus, it can be said that Kyauk Gu U Min pagoda is the greatest and most advanced architectural handiwork tunnel Pagoda among pagodas built by merging brick and sandstone around the Bagan region.

Conclusion

Bagan developed rapidly during the reign of King Anawrahta and he built many temples, caves, tunnels and pagodas. The paper studied the architectural handiworks of the ancient Bagan pagodas which were built by merging sandstone and brick. It discussed architectural styles of Kyauk Gu U Min pagoda in detail. The research revealed how unique Kyauk Gu U Min pagoda is. This paper systematically analyzed the advanced architectural handiworks of the tunnel Pagodas built by merging brick and sandstone during the Bagan period. Kyauk Gu U Min pagoda is an interesting place with its natural topographical features. It is famous for its amazing sandstone figures, gigantic Buddha statues and fine square frescoes. It is a unique pagoda, built of a greenish, fine-grained and hard sandstone that was not quarried anywhere around Bagan. There is also a need to do research on other Bagan cave pagodas which have unique architectural handiworks.

References

- Aung Kyaing, Min Bu, (1997), *Architecture Handiworks in Bagan Period*, Aung Chan Thar Press, Yangon.
- Bo Kae, U, (1981), *Bagan Research Guide*, Sarpaebeikman Press, Yangon.
- Bagan Pagodas and Stupas*, (2004), Department of Universities Historical Research, Universities Press, Yangon.
- HlaTha Maing, (2000), *Bagan Era Perspective*, Ayewaret Colorful Press, Yangon
- Maung Maung, U, BA, Myanmar Historical Heritage, Yangon.
- Myat Min Hlaing, (2001), *Ancient Pogoas and Stupas in Bagan- NyaungOo Region, The New Light of Myanmar*, Yangon.
- Than Swe, U, (1994), *Bagan Historical Pagodas and Stupas*, Aung Chan Thar Press, Yangon.
- Tin Than Yu, (2002), *Guiding and Service (Advance)*, Kaung Thant Press, Yangon.
- “The history of the Bagan Empire: Rise and fall of one of Asia’s most powerful empires” Renown Travel 2010-2018 <[https://www.renown-travel.com/burma/bagan/ bagan history.html](https://www.renown-travel.com/burma/bagan/bagan%20history.html)>