

# **ARCHITECTURE IN ANCIENT MRAUK-U KINGDOM, RAKHINE STATE, MYANMAR**

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## **Abstract**

Religious monuments are one of the most important structures to build environment. Among the races in Myanmar, ancient Rakhine nationals were able to uphold their own culture and tradition. Mrauk-U was the last royal capital of Rakhine Kings. It flourished for nearly 300 years, from AD 1430 up to AD 1785. Mrauk-U was one of the most powerful kingdom and an ornament in history of Myanmar. Mrauk-U city was called by Europeans as “The Golden City” and also mentioned that it was the richest city among the ports of Asia. The golden days of Mrauk-U were between the sixteenth and seventeenth centuries. Mrauk-U’s rich heritage is evidenced by many magnificent religious buildings. While Pagan is considered as the city of pagodas, Mrauk-U could truly be considered as the fortress city in Myanmar. The architecture of Mrauk-U is different from those of contemporary cities. In this ancient city, today, there are about 163 known structures whereas there are many more remaining unknown. The massive structures, elaborately curved structures, decorative items and others have been seen in superb stone work. Mrauk-U should have to reveal it is an important historic site in South-East Asia. In this paper, it will present and discuss the remaining structures in Mrauk-U archaeological site that are studied and measured and its background history. It is envisaged to observe the ancient monuments in architectural aspects. It is also believed that this field of study will partially contribute in the conservation purpose of our national and cultural heritage.

**Keywords:** Architecture, Ancient Mrauk-U, Religious Monuments

## **1. Introduction**

Mrauk-U has scenic beauty and historical remains which are inextricable and remarkable. Innumerable pagodas belonging to all ages can be found throughout the city. Everywhere one looks within Mrauk-U city wall on every mound, every field and every hill are Buddha images, stupas and temples. It is no wonder that Mrauk-U is popularly known as the “Land of Pagodas”. They were entirely satisfied to be the inhabitants of Mrauk-U. Mrauk-U could rightfully be claimed as the “open-air Museum of the Arts and Culture of the people of Rakhine (European called Arakan). Mrauk-U was founded by King Min Saw Mon in 1430 AD. When it came to selecting the site of city, the seers read two fates depending on the two times; if the city was carried out on a first time, the King would live long but the City would be doomed in three years; if built on the second time, the King would live for only three years but the City would flourish for many hundred years. King Min Saw Mon said “....Never mind up shorter life span. If the Royal Capital lasts for a long, long time, that’s enough” and chose the later time. Abandon of life is the soul of Mrauk-U kingdom. Author would like to reveal the architecture of ancient Mrauk-U. This paper focus on two main parts, the first one is background history and the second part is the study and analysis on ancient monuments. It can be highlight the architecture of Rakhine people who are capable of preservation and safeguarding of nationality-heritage and upholding of religion.



Figure 1. The Maps of Myanmar And Mrauk-U

## 2. Methodology

To complete this paper, the first phase is collection data form literatures, former researchers, publication, internet access and data from authority, the second phase is field surveying, the third phase is study and analysis on the ancient monuments, and the last phase is findings and conclusion after synthesising.

### 2.1 Background History

The four period of the Rakhine history stretched from the Dhanyawaddy Era, Waythali (Vesali) Era, Laymro Era and finally to Mrauk-U Era. Mrauk-U left an incomparable richness of artefacts and stone inscriptions of ancient Rakhine Kingdom.

#### (a) Geography and Climate

The Rakhine State is located in the western most part of Myanmar and it is a narrow strip of coastal region. The city Mrauk-U (latitude 20° 25' N, Longitude 93° 11' E) is situated 45 miles to the north of the sea coast and on the eastern side of Kaladan River. *The largest sea-going ships of that period could reach it through a network of deep creeks by which it was surrounded. Mrauk-U's unique position in the Bay of Bengal, with both land and sea routes to the east and west, resulted in the development of its commercial and cultural centre which later emerged as a highly flourishing country because of its strategic location between India and South East Asia.* (Tun Shwe Khine, 1993, p.9-10) Mrauk-U is located in the tropical monsoon region. Temperature never rises or falls extremely as it is a coastal region. The average annual temperature is about 78° F. Annual rainfall ranges from 160" to 200".

#### (b) Social Economic Condition

Social classes of Mrauk-U people can generally be divided into 1. The king, his royal family and majesty servants, 2. The public and 3. The Buddhist monks. When the king's reign was over, his son became successor of the kingship. Mrauk-U was a port city on the Bay of Bengal to connect and trade the western countries and South East Asia. The merchants from Portugal, Dutch, Sri Lanka, India, neighbouring South East Asia countries and the cities on the main land of Myanmar. Dutch and Portuguese were allowed to open the trade centres in Mrauk-U cities. *Mrauk-U's products; agricultural products, marine products, mineral and petroleum were spread from Bengal region to Java Island by sailing along the coast.* (Ngwe Soe, 1998, p.13-15) In this time, Mrauk-U was called by Europeans as "The Golden City".

### (c) Religious Faith and Belief

Buddhism was the main religious faith of the people of Rakhine. The faith and belief of Buddhism had been completely flourished in Mrauk-U Era is evidenced by many pagodas and religious monuments. The faith in deities were eminent by the facts received from old stone relieves. Some of deities were the prominences of Hindu adoration. These art and cultures were emanated from the close relationship with India.

## 2.2 Historic Monuments

The monuments of historical importance remained can be classified as Stupa, temple, Thein or ordination hall, *Pitakataik* or Library, *Gu* or cave, palace site, moat. City wall and city gate, amphitheatre, Kyi or Granary, Garrison, Fortresses and Lake. According to the records from the Department of Archaeology (Mrauk-U), there are 163 known religious monuments and many unknowns are standing.

Table 1. Numbers Of Religious Monuments

No.	Type	numbers
1.	Stupa	132
2.	Buddhist Temple	14
3.	Pitakataik (library)	6
4.	Gu (cave)	3
5.	Others Thein (ordination hall) -Buddha Image and shrine	8
Total		163

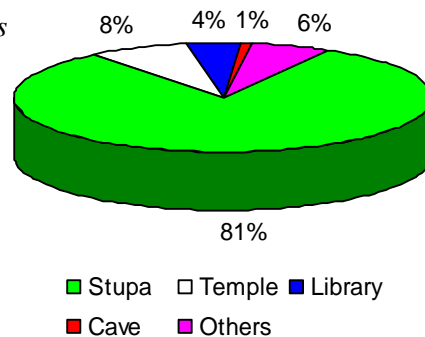


Figure 2. The Percentage Of Religious Monuments

According to Table 1 and figure 2, stupa is the main important religious structure. In this paper, the two main types, stupas and temples are described and studied.

## 2.3 Stupas

The mostly found type of the religious structure is stupa. They observe 81% of all monuments.

### (a) Classification Of Stupas Based On Varied Spaces and Plans

There are three types of stupa through out the Mrauk-U Era base on varied space. They are

1. solid type stupas
2. stupa with central shrine
3. stupa with solid core and inner corridor.

#### 1. Solid type stupas

In solid type stupas, plan varies base on circular, square and octagonal form. Example for solid stupa with circular plan is Yadanapon (see Figure 3.(a)). Yadanapon Stupa is the largest stupa in Mrauk-U Era. It was constructed in 1612 AD. This stupa is built on the octagonal platform with vestibule at the east. The main structure is circular base, and is constructed of huge block of sandstone. The upper part was ruined during the Second World War. The stupa composes of terraces and hemispheric dome. This resembles the huge bell and the prototype of stupa form. The main stupa is surrounded by sixteen small brick stupas with circular base and three small stone stupas with circular base and central shrine are at the east. Gargoyles, elephant fronts form, drained out the rain water of the platform. Now the upper part and the small stupas are rebuilt by the archaeological department (Mrauk-U).

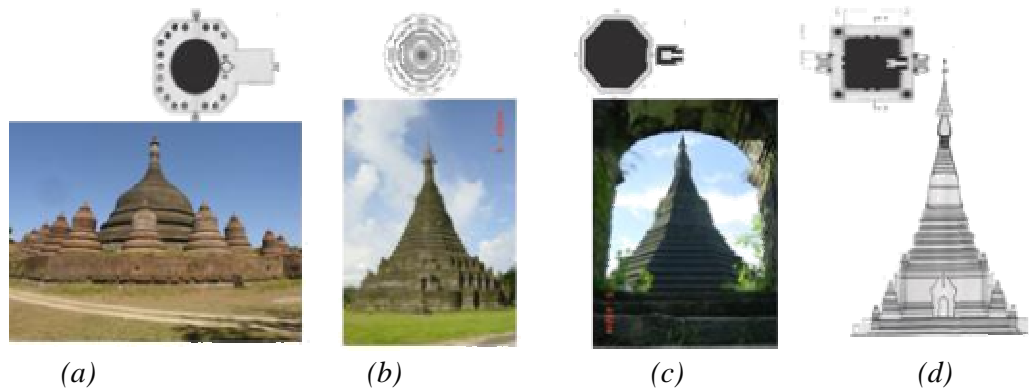


Figure 3. Solid Type Stupas, (a) Yadanapon Stupa, (b) Thatkya Manaung Stupa, (c) Yadana Manaung Stupa, (d) Shwegu Taung Stupa

Other types of plans are circular with niche at the east façade, square with zigzag indentation at the corners and the most founded type of plan is octagonal plan, e.g. Yadana Manaung Stupa (see Figure 3.(c)). This stupa was built in 1652 AD. It is a solid stone structure, octagonal from the base to the top and measured 180 feet high. There are no niches, porches, openings or decorative designs on the main body of the stupa. The entrance arch is used semicircular arch. The plinth or the base of the Thatkya-Manaung stupa (see Figure 3. (b)) is peculiar with blooming lotus petal motif. This stupa was built in 1629 AD. The main stupa is surrounded by twelve small stupas within the precincts and the ordination hall is at the east side. The whole structure and the two enclose walls are stone work. The two ogre statues in knelling posture and the two deities' statues are in the posture of praying the stupa. Another type of stupa is square plan with central shrine E.g. Shwegu Taung stupa (see Figure 3. (d)). This stupa was constructed in 1430 AD and composed of niche at east façade, four small corner stupas and corridor. This stupa was constructed with conic shape structure on the cubic tray.

## 2. Stupa with central shrine

In this type stupa, there are generally be classified as

1. Circular plan with central shrine and one entrance, e.g. Myatanzaung (West) Stupa (see Figure 4. (b))
2. Square plan with central shrine and one entrance, e.g. Minraza Stupa (see Figure 4. (a))

3. Octagonal plan with central shrine and one entrance, e.g. Mahabodhi Shwegu (see Figure 4. (c)) stupa. Mahabodhi-Shwegu stupa was built in 1448 AD. The stupa is octagonal from base to top and the vaulted porch leading to the central shrine surmounted by the inverted lotus shape hemispheric dome and short finial. Both sides of the vaulted passage and inner shrine are elaborately curved with stone motifs. In the central shrine, lighting can get form the small openings of the vaulted ceiling. The stupa can highlight the belief and costume of the Rakhine people during the Mrauk-U period. The structure style of stupa was influenced by the India culture

These type of stupas is composed with central shrine, passage and porch almost which is leading to the eastern point.

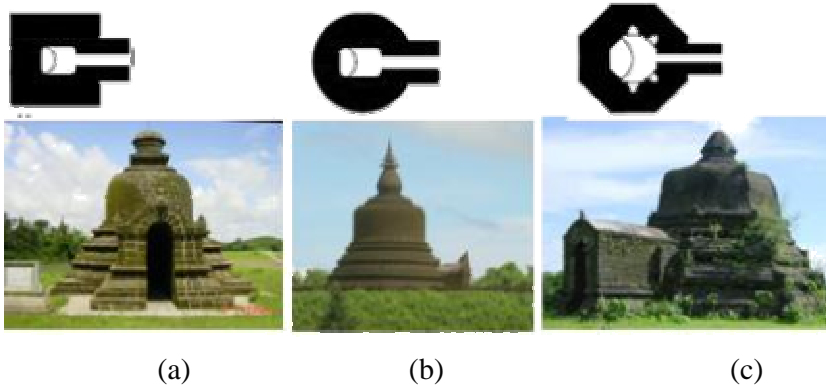


Figure 4. Stupas With Central Shrine (a) Minraza Stupa, (b) Mya Tanzaung Stupa, (c) Mahabodhi Shwegu Stupa

## 3. Stupa with solid core and inner corridor

A stupa, Hnakyait-Shithsu (see Figure 5), can be found peculiarly form others types of stupa. This stupa is octagonal in plan with solid core and inner corridors.

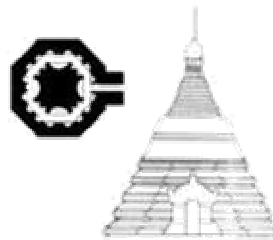


Figure 5. Hnakyait-Shithsu

## (b) Classification Of Stupas Based On Varied Form

The forms of stupas in Mrauk-U period are studied and analyzed based on the following four portions.

- A. Plinth and tiers of terraces
- B. Body of the upturned bowl which is like the bell
- C. The neck like portion of Stupa with tiers of spires and
- D. Ornamental final.

The forms of the stupas in the early Mrauk-U period are similar to the Indian style or original stupa form. The stupas were built in the Middle Mrauk-U period based on the form and construction technology of the stupa in the early Mrauk-U period. The ornamental designs were especially made by

stone. The constructions of temples are not found in the later Mrauk-U period but stupas. The Lord Buddha's relics, hamika or crowning block, used to be kept at the segment of bell shaped dome resemble of the Sri Lanka Stupas. The form of the stupas through out the Mrauk-U Era, it can generally be classified into three types. They are

1. Conic-shaped stupas resemble the stupas on the main land of Myanmar. E.g. Yadana Manaung
2. Conic-shaped stupas are surmounted on the cubic base. E.g. Shwegu Taung
3. Prototype style stupas. e.g. Minraza

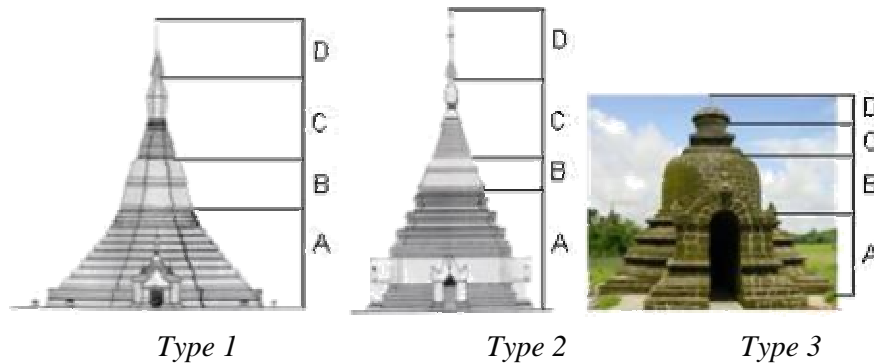


Figure 6. Types Of Stupa Form

The following table shows the components and comparison between the forms of stupas in Mrauk-U.

Table 2. Comparison between the styles of Stupa in Mrauk-U

Portion	Type 1	Type 2	Type 3
A	Plaint Terrace Corner stupas Kyiwon	Plaint Stairs and corridor Corner stupas Cubic tray Terrace Kyiwon	Plaint terrace
B	Lower edge of bell Bell-shaped dome Ornamental band Ornamental freeze	Lower edge of bell Bell-shaped dome Ornamental band Ornamental freeze	Hemispheric dome
C	Ringed conical spires Inverted lotus Bosses Spreading lotus Banana bulb	Ringed conical spires Inverted lotus Bosses Spreading lotus Banana bulb	Crowning block or relic chamber Square spire
D	Finial or Umbrella Vane Diamond bulb (stone/metal)	Finial or Umbrella Vane Diamond bulb (stone/metal)	Upturned bowl or fungus like umbrella

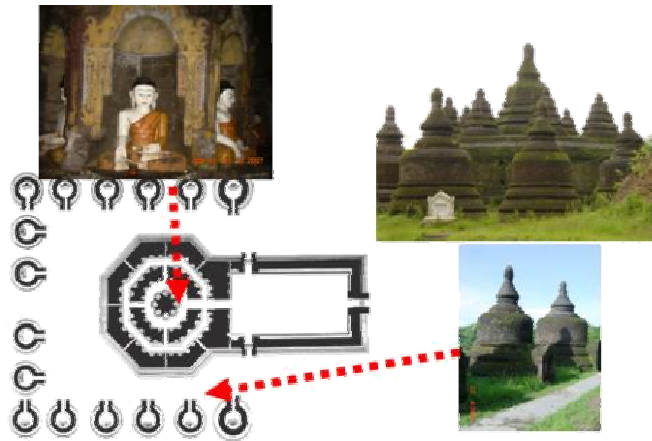
## 2.4 Temples

In early and later period the temples rarely can be found. The middle Mrauk-U period is from AD 1531 to AD 1638. The great development of economy, political and culture were found in this period. The Shitthaung, the Htukkant Thein, and Andaw Thein temples are the great temples with the

accessible arch, the inner corridors and central shrine. The three temples stood for the high standard of the architecture study of Mrauk-U.

**(a) Andaw Thein Temple**

This temple was constructed on 1596 AD. The Andaw Thein Temple is based on a central pillar type and the two inner corridors at its outside. The temple had been considered based on an octagonal plan and connects the shrine at the eastern part. The two inner octagonal corridors were arranged to be in harmony with the plan.



*Figure 7. Andaw Thein Temple*

There are many Buddha statues on the entire wall of the inner chambers. On the upper part of the temple, the main stupa is surrounded by eight corner stupas. The temple is surrounded by sixteen small circular stupas with a central shrine in which meditation can be made peacefully. Although the temple was constructed with sandstones, it is in a good proportion between the horizontal and vertical effects and giving the stable, symmetric and harmony effects.

**(b) Htukkant Thein Temple**

The temple was built in 1571 AD. It stands on the hill-like slab platform and the platform is 30 feet high. The plan of the temple is the combination of square and semicircular form and the Thein or ordination hall extends from the curve which roof is surmounted with a longitudinal dome. The outer walls are slightly sloped and resemble a pyramid. The two spiral-like vaulted corridors lead to the central shrine and it gives the maze-like feeling walking in the corridor. There are 164 niches with Buddha statues in sitting posture along the corridor. Many stone sculptures of worship, stone figures of hair styles in Mrauk-U era are carved on both sides of the niches and this can be observed the various costumes and ornaments of Mrauk-U.



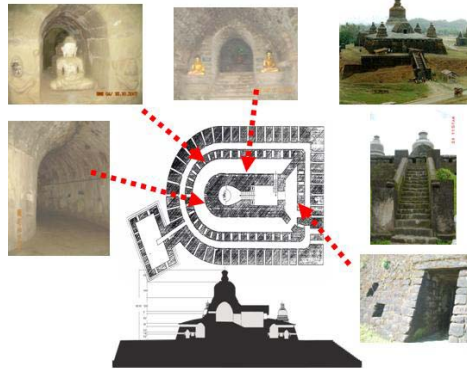


Figure 8. Htukkant Thein Temple

On the upper part of the temple the main central stupa and four corner stupa are surmounted. A rectangular dome, roof like structure, operates lighting for central shrine. The temple is massive but it is fine in both exterior and interior. The lighting and ventilation is good to reach the inner corridors. The temple indicates the amazing thoughts of Architecture in Mrauk-U. To compare solid volume with open space volume at Htukkant Thein Temple, the solid volume is two-third of open space volume.

### (c) Shitthaung Temple

This temple is the most spectacular Architecture of Mrauk-U Era. *This temple was built with one thousand artisans* (Tun Shwe Khine, 1993, p.45) in 1536 AD. The precincts are in West, North and South and the East façade is close with hill side. The first terrace is forty feet high and its walls are built with stone blocks. The two small stupas with central shrine, Sunrise and Sunset stupas are on the first terrace and it is said that these signify the power of the donor, King Min Ba Gyi (1531-1553 AD), in the sense that the sun never sets in his territory. On the upper platform, there are brick stupas standing along the North and South as the walls, the gaps between them being bridged with stone slabs sculptured on both sides. A wooden hall is built in the inner temple court east of the shrine. The temple plan is based on square form with central shrine and four corridors. The main image sanctum is at the centre of the shrine, accessible through the vaulted passage from the east. The spiral like inner two corridors has one entrance at the south and there is no way out except that entrance. The passage is narrow resemble a vaulted tunnel. But it cannot get echo. Sounds are absorbed by the niches.

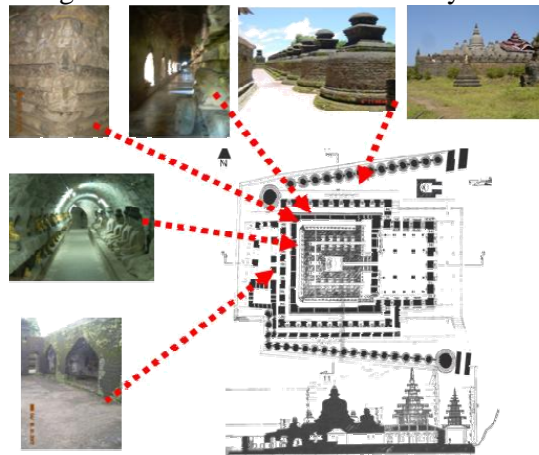


Figure 9. Amazing Plan And Form Of Shitthaung Temple



The outer two spirals like corridors connect the outer small stupas leading to the inner shrine. Along the corridors, there are many huge blocks of stone carvings with six tiers of figures, many small bowl-shaped indentations once used as oil-lamps and many niches with Buddha statue in sitting posture. In this temple there are 84000 further Buddha statues. The temple resembles the museum of arts and motifs. The main body of the shrine is surmounted by the stupa and twenty-six corner stupas. The stupa on the roof and stupas on the platform are the same form. There can not be seen like this temple in India or South-East Asia. This temple indicates the highest position of the Mrauk-U architecture. To compare solid volume with open space volume at Shitthaung Temple, solid volume is the two-third of it, the volume with opens space is less in interior but it is much when it is closed to external wall. The arches and vaults are very strong as it is built by keystone. The wall was built in thickness to stand the stupas' own weight. The construction of roof of the temple was less in flat by building the small stupas due to the better drainage. The stone drains were made above the wall of the first inner corridor in order not to flow down. It is thought that it is meant to long-term existence though there is no leakage through the roof during period of much rain.

*Table 3. Analysis On Religious Structure (Temple)*

No.	Name	Aesthetics	Lighting	Ventilation	Construction Technology	Space Utilization	Detailing
1.	Andaw Thein	A	B	C	B	C	A
2.	Htukkant Thein	A	A	B	B	B	A
3.	Shit-thanung	A	B	C	B	C	A

Legend

- A- Excellent
- B- Good
- C- Fair
- D- Unsatisfied

Summing up, the construction technology of Mrauk-U is high in standard. The arches and vaults were widely used in Mrauk-U era.

## **2.5 Décor Architecture**

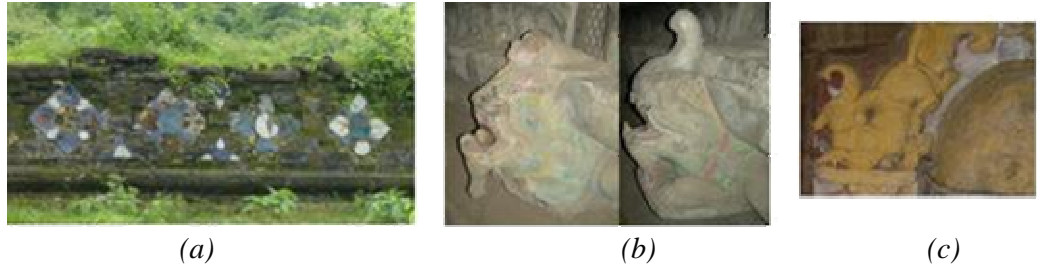
The art of stone sculpture in Mrauk-U era is found by studying the image of the Lord Buddha that carved by the only one stone and the Lords Buddha's life stories sculptured with stone.

### **(a) The Colourful Stone Slabs Of Enamel**

The fine arts of the pagodas in Mrauk-U highlight the King's confidence. In Mrauk-U period, the high-tech of the study of enamel was advanced by new invention. By studying the enamel-wares, the grand designs of animals and flowers are learnt. These colour enamel stone slabs are mostly used in stupas.

### **(b) Byarla, Mysterious Stone Statue**

Byarla is the statue of an animal with nine kind of animal's bodies. At Byarla, the crest of the Dragon, the eye of the deer, a horn of rhinoceros, the tongue of a parrot, the body of toe (the fabulous creature) or facets on gems, the tail of yak or the tail of peacock, the leg, hand and mane of the lion, the ear of the elephant or the ear of horse, the claw of tiger are included. They are used in religious buildings, the caves, the thrones and in various forms. They were carved by the kings of Rakhine in the hope of increasing power and abundance of bribe.



*Figure10. (a)The decorative stone slabs of enamel at the external enclosure of the Laungbwannbrauk Stupa (1525 AD). (b) Byarla Statues In Shitthaung Temple. (c) Byarla On The Central Pillar Of Andaw Thein Temple.*

### **(c) The Figure Of Stone Carving**

The stone carving reached to peak in fine arts in the Mrauk-U era. The stone carvings are used for decoration. From the images of the Lord Buddha and his life stories, the mankind, the animal world and the world of deities are depicted by carving. They were found at the walls of the temples, the thrones of the Lord Buddha, the archways, the ornamental backdrop of a throne. The figures, the flowers, the rinse that brought in from stone carving were painted in multi-colours.



*Figure 11. Stone Curving In Shitthaung Temple*

### **3. Conclusion**

The construction technology of the temples and stupas is relayed by the Rakhine people one era after another. They constructed the buildings by the high-tech to be better era by era. They built them by adapting of their environment, culture, weather. The big and grand temples and stupas were built due to the autocracy. Apart from the kings, the other people could not build the big and grand temples and stupas. The donors built the religious buildings in which they depicted their confidences and feelings. The potions of stupas and temples are simple and well proportioned. The horizontal effect is given due to the wide area of the temples. The vertical effect is found in the style of the ancient stupas. The prototype style stupas are studied. They are chosen to be the same with horizontal effect and to be less in vertical effect. The India and Sri Lanka style influences in the stupas. The concrete that

composed lime is used in the Religious structures in Mrauk-U where much rain and the tide have been, but the concrete is not broken into pieces. Stone is the main material for the religious structures. Summing up, the spirit of Rakhine people concerning with the upholding of race and religion are worthy to admire. The construction technology of the ancient Rakhine people is also worthy to praise. The buildings exposed to the social affairs, economy, political and surrounding of a certain era. Mrauk-U needs to be revealed and conserved as an important historic site in South-East Asia. The inventory and conservation of the historic monuments are needed. It is hoped this research paper would contribute to the Architecture on Religious monuments in ancient Mrauk-U.

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