

Myaungmya Myohaung, One of the Production Centres of Glazed Wares in Myanmar

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Abstract

Myanmar possessed a long history of glaze production and its products spread not only in Myanmar but also throughout Southeast Asia and some parts of the Middle East. The production of glazed ware has been existed before Bagan period. The glazed wares of Myanmar were good in ancient days and Myanmar became one of the glaze trading centres. Myaungmya was one of the production centres in Myanmar and its potteries might have reached throughout Asia. Myanmar glazed wares had been popular in foreign markets in 16th-17th centuries CE. Delta area of Myanmar had played an essential role in production of glaze in ancient days and Twante, Lagunbyee and Myaungmya became the important pottery production centers. The finding of hundreds of ancient kilns sites, kiln furniture and waste and potsherds, indicates that the art of glaze making flourished there greatly. One of the most remarkable points of these glazed wares production is that they had their own distinctive typology of glazed wares and kiln furniture like firing supports. Kiln designs were also different in region.

Key words: glaze ware, kiln, kiln furniture, waste

Introduction

People in different eras produced various artifacts for their livelihood and built different types of structures for living. By doing so, they had earned different techniques for making artifacts and permanent structures that enhanced their societies greatly. Material culture of the past reveals the improvement of techniques in different periods. Glaze technology is one of the important invotation and it has played an important role in human history that leads to developed societies.

Myanmar has the long history of glazed wares productions, and the concrete evidence of glazed wares were belonged to Bagan period. From that time onwards, glaze technology has developed greatly. Glazed wares production evidence such as waste, kiln furniture and remains of kilns are found abundantly in some parts of delta region of Myanmar including Twante, Lagunbyee and Myaungmya. The designs of ancient kilns, techniques of kilns construction and evolution of kilns are presented in this paper. Moreover, typological analysis of glazed wares from other regions is also made in the paper. Study of decorated designs on the pottery or glazed wares which are uncovered from Twante, Lagunbyee and Myaungmya are also stated in the paper. Different styles and sizes of firing supports had been used in ancient glaze kilns, and their styles and sizes were

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varied according to the types of glazed wares. Therefore, firing supports and other associated artifacts from Myangmya are mainly discussed in the paper.

Myaungmya had been an important ancient glazed wares production center in ancient times because countless numbers of glaze sherds, wasters, kiln furniture, firing supports and considerable number of ancient glaze kilns are encountered until now. One of the most remarkable points of Myaungmya ancient glazed wares production centre is in-ground kilns and their kiln furniture are also remarkable ones. Therefore, glaze kilns, glazed wares and kiln furniture from Myaungmya are one of the best in Myanmar.

Aims and objectives

The aim of this paper is to present Myaungmya glazed wares possessed distinctive features and the kilns also very different to other areas and to know the in ground cross-draft kilns were widely used in Myaungmya and they produced good quality glazed wares.

Research Methodology

The secondary data was collected from libraries first. Secondly, field trips to glazed production sites were made several times. Exact drawings and photographic records are also done in the fields. The archaeological analytical and visual analysis methods were used in the papers.

Research Questions

- (1) Was Myaungmya a trade centre for glazed goods?
- (2) How many kilns were found in Myaungmya?
- (3) How many glazed artefacts were produced in Myaungmya and nearby region?

Study on the Glazed Wares and Kiln Sites in Myaungmya Myohaung

Myaungmya Myohaung is well known for its good quality glaze artifacts and they were exported to other regions. Glazed wares and different kiln furniture were used in Myaungmya area. Myaungmya Myohanung is located about seven miles to south of present of Myaungmya and on a high north-south spur of land between parallel reaches of the wide tidal Myohaung creek and the Pein Ne creek.(Map.1) The place name Myohaung, literally old city, is a common one in Myanmar. Since Myaungmya Myohaung was founded by prince Laukphya, brother of King Banya-Oo of Bago (1353CE-1358CE) in 1364 CE, it can be envisaged that ceramic kilns existed in this area before Myaungmya Myohaung was built. By the dispersion of the king Laukphya, his own town possessed very strategic and developed region.[Ref: Dr Myo Thant Tyn, *Ceramic Traditions in Myanmar*, p-26] In later period, at 1796 CE, English Admiralty map of the area shows Myaungmya as Cosmin which was a minor trading port during the colonial period. [Ref: Don Hein, "Summary Report on

Archaeological Field work at Myaungmya, Bagan, and other Kiln Sites in Myanmar”, p-9]. A group of ancient kilns at Myohaung was excavated by Department of Archaeology, Ministry of Culture, in 1999. The excavation team was led by U Myo Min Kyaw, Don Hein and Tony Hein as advisor concerning classifications. In 1990, an inspection led by Dr Myo Thant Tyn was made of reported there are other kilns. [Ref: U Myo Min Kyaw, “Excavation at Myaungmya Kiln Group”, pp-1-9]

In Myaungmya Myohaung, different types of the ancient glazed kilns are scattered in groups. This Myaungmya Myohaung is the third largest kiln site in Myanmar. [Ref: Dr Myo Thant Tyn, *The Ancient Glaze Kiln-sites in Myanmar*, p-5] The places of ancient kiln sites are listed as follows:

Sistant Oo Pagoda (11 kilns)

Shwesigon Monastery (5 kilns)

Mann Thaw Na Chan (Kayin Chaung Wa) (3 kilns)

Paine Chaung (near Cemetery) (sherds)

Man Sa Khawe House (1 kiln)

Bank of Myohaung Chaung (sherds)

Kiln-1 in Myaungmya Myohaung

The study of kilns play an important role in archaeology and they can reveal the ups and downs of the techniques of making pottery. A kiln is a kind of oven and built for firing pottery, bricks or other kinds of ceramic materials. There are different types of kilns to produce the glazed wares. In ground cross-draft kiln and surface cross-draft kilns were used in ancient times. Total twenty one kilns were discovered in Myaungmya Myohaung and most of them are in good condition. Some kilns have unusual features. Among them, Kiln-1 is located on the steep bank of the Pine Ne Creek and it is 4 m (13 feet) long and 2 m (6 feet) wide. [Drawing-1]

The kiln is composed of firebox, firewall, firing chamber, chimney and work area. The most interesting feature of the firebox is that it has a reverse slope, that is, the floor was not horizontal or inclined toward the fire hole as in normal case, but was inclined from the fire hole toward the firewall. [Ref: The firemouth was round and protruding, both characteristic features common to in-ground kilns. The most distinctive characteristic feature of the kiln is its shape, rectangular. Firing chamber of kiln-1 is vertical and a very low-arched roof, resulting in a cross-section that is rectilinear in shape. It has a square cross-section and the back of the kiln is flat. [Ref: Don Hein, “Summary Report on Archaeological Field work at Myaungmya, Bagan, and other Kiln Sites in Myanmar” , p-13]. The floor of the kiln is hard, smooth and flat without horizontal indentations where anything can be placed.

Another distinctive aspect of these in ground kilns is that the firewall is curved toward the firehole, an evolutionary attribute explained above. The known in-ground kilns were specialized to produce domestic rollers and grinding platforms that were stacked in the kiln in piles for firing. [Ref:

Nan Kyi Kyi Khaing, *Martime Trade Ceramics Found in Myanmar*,p-46] All of the kilns in Myohaung area except Kiln-3 appears to be of the in-gorund type and, as far as could be determined, all were mainly used to make grinding platforms. The kiln-1 was the usual find in Myaungmya Myohaung and it is a cultural industrial object closely linked to artifacts that were in common use by the community. The finding of the kiln-1 reveals that the high technique of kiln making was used in Myaungmya Mhohaung and the good firing technique was also applied in kiln-1. Therefore, there were a lot of good quality glazed artifacts in old city and it might export to other areas.

Kiln-3 in Myaungmya Myohaung

Kiln-3 is about the same length as those of the other sites 12 m (39 feet) but only a little over half as wide 3 m (9 feet), meaning the plan is distinct. The kiln shares some characteristics with surface kilns of Lagunbyee and Twante, there are significant differences. The kiln was constructed by cutting large blocks of laterite from the soil. The using of blocks of laterite cannot be found at other kilns sites and it is the only kiln so far found Myanmar. In general laterite blocks are not used in the kilns structure, herein, the finding of the kiln, made of laterite is the main indicator for differentiation of old and new kilns. It also has a quite different firebox. [Drawing-2] The pointed shape was present and the firebox has a wide blunt front, which is quiet different to other kilns, they have more or less pointed front. The kiln had been built with a single wall of bricks about eight and a half centimeters thick and mainly of two lengths. The kiln possesses curious feature and its plan shows a firebox with two opposite , near parallel, slightly curving walls that ends well apart. Each of the walls ended in a tapered point. The evidence for the presence of the temporary wall was clear at the extremity of the inside of the side walls.[Ref:Don Hein, “Summary Report on Archaeological Field work at Myaungmya, Bagan,and other Kiln Sites in Myanmar”,p-18].

The wall would have given kiln a blunt nose appearance, a stark contrast to the Lagunbyee and Twante kilns. No evidence was found of embarkment or revetment or other form of containing wall that might have contained supporting fill. The firing box was dug into the ground, and at least to some depth, so were the side walls. The kiln might have a tile roof because a lot of unglazed roof tiles were found in the artifact pieces. The upper dome of the kiln is exposed and the upper of the chimney is missing or broken. The chimney of the kiln-3 might be circular in corss-section and about eight centimeters in diameter, but now fill the natural sediment. Firing chamber is exposed on the edge of an eroded creek bank. Dome is fractured with large sections displaced downward about ten centimeters . The collapse of the roof was probably not historical evidences but associated with the erosion over time and subsequent weakening of the support of the surrounding sediment.[Ref: U Myo Min Kyaw, “Excavation at Myaungmya Kiln Group”,p1-9]

Don Hein mentioned that the kilns of Myaungmya reveal phases of development, with a number of chronological periods, and each group of kilns appears to be typologically distinct. In-

gorund kilns were the first form of cross-draft kiln and over time they developed into the surface kiln with the advantages of more reliable and higher temperatures, the capacity to rebuild the kiln at the same place and operational convenience. However, in-ground kilns continued to be used up until today.[Ref:Don Hein,“Ceramic Production In Myanmar-Further Evidence On Old Tradition”p-4] Almost all the ceramic kilns in Myaungmya Myohaung are in-ground kilns which was rooted in ancient times and it has been used in some part of the Myanmar. The in-ground kilns were built in and around Myaungmya Myohaung and a lot of artifacts were also discovered near the kiln sites. The finding of the in-ground kilns in Myaungmya Myohaung testifies that the region around old city was a trading centre for glaze artifacts.

Archaeological Finds of Kiln-3 in Myaungmya Myohaung

A lot of ceramic artifacts were discovered in and around the kiln sites such as glazed jars, celadon bowls, celadon dishes and firing supports etc. Sherds of large jars, small glazed bowls, large tubular supports, spurred supports and animal figures were found in the upper layer of Kiln-3 in Myaungmya excavation. It can be assumed that the large tubular supports are the evidence of firing jars in the kilns. There are also a lot of tubular supports in and around the site. According to the excavated finds, medium size jars were also produced in the kiln-3.

Celadon Wares in Shwesigon Monastery Museum

Celadon wares are one of the famous products of Myaunmya old city. Different types of green wares (celadon) are being displayed at Shwesigon Monastery Museum glazed wares collection. [See Fig.1] Celadon jars are also found in the Museum. Glazed wares collections in the museum can be classified as bowls, jars, dishes and firing supports.

Celadon Bowls

Sample (1)-It is a wide shallow bowl with an inverted rim and a footed, trimmed base. Diameter of the mouth of the bowl is 13 cm and the base is 5 cm. Body is round without decoration. Opaque white glaze is applied on both part of interior and exterior until the inside foot-ring. [See Fig.2]

Sample (2)-This simple is similar in shape and size to sample (1), the bowl. Glaze is also applied on both parts of interior and exterior. Body is round, and there is no decoration. The bowl has footed base. Diameter of the mouth of the bowl is 15 cm and the base is 6 cm. The finding of the celadon bowls in the museum indicates that there were a lot of similar products in old city. [See Fig.3]

Celadon Jars

Jars are one of the most important artifacts in ancient times because they support for storing liquids. They can be used as different purposes, not only storing the drinking water but also for cooking oils. Different types of celadon jars such as small size, medium size and large size also commonly found among celadon wares. But the small jars are commonly found in the museum collections. The jars in the collection can be classified into two groups: group-1 and group-2.

Group-1 There are four small jars under group (1), and listed as No-10, 22, 24 and 25. These jars are same pattern and shape. Average mouth sizes of the small jars are 3 cm in diameter, and the height is 6.6 cm and diameter of the base is 4.5 cm. Interior body is unglazed and exterior is glazed. It is with narrow neck and inverted mouth rim, slightly slope shoulder, rounded body, foot ring base and lump lugged. [See Fig.4] The group (1) jars might be used to store drinking water.

Group-2 consists of the small jars, listed as no 8, 14, 18 and 24 have same shape. Diameter of the mouth of the rim are vary from 2.5 cm to 3.8 cm and the heights are between 10 cm and 12.7 cm and diameters of the base are from 3.8 cm to 6.6 cm. There are no lug handles on the shoulder. Interior body is unglazed, and exterior is glazed. It is with inverted mouth rim, slightly slope shoulder, oval shaped body and foot ring base. [See Fig.5]

Other small jars are displayed in the museum. Most of them are small in size and diameters of the mouth of the jar are vary from 2 cm to 12 cm. In decoration pattern, incised and groove lines are decorated on the exterior body. Some of the jar have lump lugged or handle loops around on the shoulder. They also might used for drinking water. The finding of small glaze jars indicates that they were largely produced and used in and around region of Myaugmya Myohaung and exported to other areas.

Celadon Dishes

Dishes were the main household wares and they were widely used till the colonial period. Different types and sizes of dishes were produced and exported to other regions. Dishes are common finds in the kiln sites and they were widely used by local people. The finding of the dishes of various types and shapes reveal that the dishes were produced in large amount. In Shwesigon Monastery, different types of dishes are displayed and most of them are not good in condition and they might be rejects of the potters. Total five samples are displayed and they are listed as sample (1), (2), (3), (4), and (5).

Sample (1)- It is a large size dish. There are two incised circles and small pool green glaze at the center of the dish. [See Fig.6] There are no decorations in and outside of the dish and it might be served for daily uses. A lot of large dishes might be produced and exported to other areas.

Sample (2)- It is a broken part of the dish and style of the mouth rim is straight. As decoration, geometric and abstract floral designs dominate and the colour of the glaze is green.

[See Fig.7] The geometric designs on the dish is indeed very rare and it might be one of the innovative idea of the potter. After that it is also decorated with floral design and that points out the special use of the dish. Therefore, it might be one of the special dish and used in certain occasion.

Sample (3)- It is a large size with two incised circles at the center and the glaze is brown. Shape of the mouth is straight. [See Fig.8] This sample is a bit strange because it is big in size although there are incised circles at the center. The colour of the dish is brown and it is the usual colour of the glaze wares.

Sample (4)- The large size dish has two scars on the interior surface indicating the use of the three spurred support as a separator during firing. [See Fig.9]The finding of the scars on the interior surface points out that the dish was placed downward in the kiln with the firing supports. The finding of a lot of circular firing supports indicate that the glazed wares are placed on the firing supports.

Sample (5)- It is a dish with straight mouth rim. Many incised rings and the incised circle lines are decorated on the interior surface. [See Fig.10] The striking point of the sample no 5 is straight rim. In general, the dishes are not made in straight mouth rim. After that many rings and circles are also decorated on that. The straight mouth and the decorations are the hall marks of the sample no 5.

Firing Supports

Firing supports are the very useful material for glazed wares production. Without the firing supports, there wouldn't be good quality wares. The firing supports play an important role in ceramic archaeology. The shape and designs of the firing supports can tell some useful information for archaeologists because some potters used the different firing supports and they can be learned in some areas. Firing supports are the common finds in the kiln sites and most of them are small and cylindrical in shape. Three solid cylindrical supports are found in there. The diameter of the mouth of the support is 3.5 cm and the height is 13 cm and the base is 7.3 cm. [See Fig.11] Exterior body is glazed, the mouth is inverted and the body is conical shape. The base is flare outwards. The other supports are the same size and shape. The finding of the firing supports in and around kiln sites point out that a lot of objects were fired in single time.

Findings and Discussion

A lot of glazed wares were found in and around Myaungmya old city . So, it points out that this old city was one of the production centres in lower Myanmar. The finding of the kilns, the celadon jars, dishes, bowls and firing supports are revealing that they were locally produced in

Myaungmya old city. Glazed wares of different sizes and shapes were produced and some of them might export to nearby region.

Conclusion

Myaungmya had been an important sites of ancient glazed wares production in ancient times because countless numbers of glazed sherds, wasters, kiln furniture, celadon jars, bowls and dishes are found in and around Myaungmya old city. Almost all the ceramic kilns in Myaungmya old city are in-ground kilns but on-ground cross-draft kilns are also reported from old city. These kilns had produced common domestic utensil such as jars, bowls, dishes. One of the most remarkable points of Myaungmya Myohaung kilns is that the potters had used spurred ring supports, and that type of firing supports are not reported from nearby regions. It is possible that the in-ground and surface kilns of Myaungmya Myohaung were contemporaneous with other glazed production centres. The scattered distribution of in-ground kilns in small groups implies a family or local industry. In Shwesigon Monastery Museum, the most finds are bowls, fragments of dishes, different types of jars and firing supports. Among them, the celadon jars of various sizes and shapes were also found in the museum. Most of them are rounded bodies, slightly slope shoulder, and flat base. The fragments of large size dishes are found with interesting decorations. According to the studying of celadon wares at Shwesigon Monastery Museum in Myaungmya Myohaung, most of the celadon wares are similar to the forms of other classes of Myanmar ceramic wares and other glazed earthenwares. New findings in and around old city Myaungmya will provide for better understanding of the glazed production centres of Myanmar. Therefore, new researches are needed to give more informations of the glazed productions in Myaungmya Myohuang, especially the evolution of the kilns.

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Map.1 Map of Cultural Heritage in Myaungmya
(Source from U Kyaw Myo Win's Map)

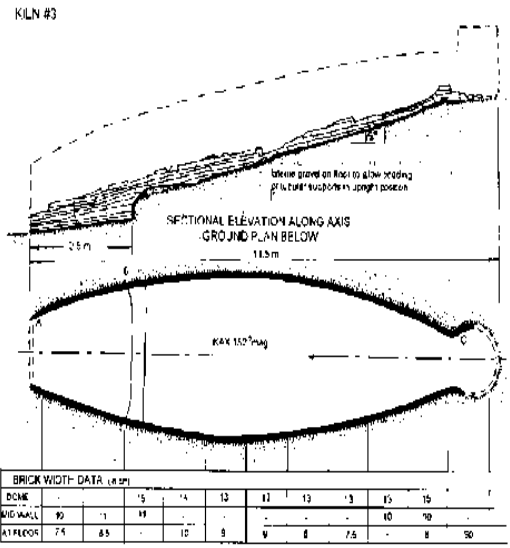
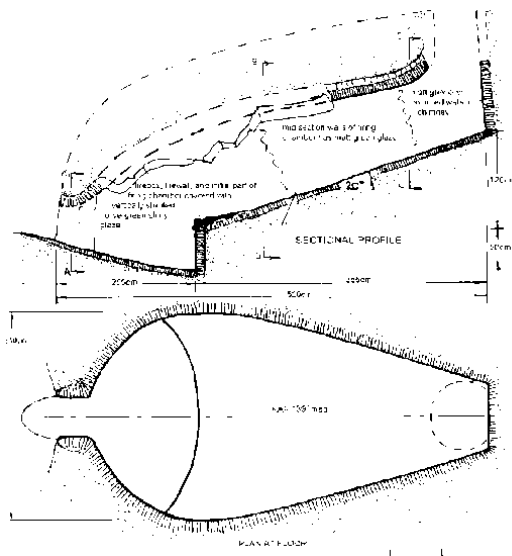


Fig.1 Glazed wares in Shwesigon Monastery Museum

Drawing-1 Kiln-1 Myaungmya Myohaung
(Source from Don Hein Report)

Drawing-2 Kiln-3 Myaungmya Myohaung
(Source from Don Hein Report)



Fig.2 & 3 Wide shallow bowl with an everted rim and a footed, trimmed base



Fig.4 Group-1 Small Jars with lump lugged



Fig.5 Group-2 Small Jars with slightly shoulder



Fig.6 Large size dish with two incised circl



Fig.7 Green and white glazed dish with geometric design



Fig.8 Large size dish with incised two circles



Fig.9 Large size dish with two scars



Fig.10 Large size dish with many incised -circle lines



Fig.11 Conical shape and the outward flat base supports