

A Study on Bronze Art of Jingle Bell or “Chū” in Htee Hlaing Village Htay Htay Oo*

Abstract

The bronze jingle bell art or Chū produced in Htee Hlaing village of Mandalay Region can prove that Bronze Age flourished in Myanmar. The village is located in Wundwin Township where Samon valley culture appeared, and the art of bronze bell has been initiated since 100 years ago. Although Bronze Age in Myanmar appeared in Prehistoric times, the art of bronze bell is still working only in Wundwin Township, Mandalay Region. This paper describes the process of bronze bell and elements contained in the processing. Chū or bronze bells are usually used to adorn horse carts or cow carts in events of novitiation ceremonies and other cultural processions, and in cart racing held during pagoda festivals. Therefore, it is suggested that the art of bronze jingle bell has performed as an ornament from Bronze Age to present days. It aim to keep improve the bronze jingle bell and preserve the cultural heritage. Research is done through the field surveys, interview and laboratory analysis of the metal content of bronze jingle bell. By researching this bronze bell industry, more job opportunities are being created locally.

Keywords; Chū, Bronze Bell, Prehistoric period, Bronze Age, adornment, Culture

Introduction

Htee Hlaing village is situated one mile southwest of Wundwin Township, Mandalay Region, 20° 32' 42" N and 96° 8' 52" E. There are some Bronze Age sites found in townships of Samon Valley in which Wundwin is one of them. The people living in Htee Hlaing village are still working the art of bronze casting Chū or jingle bells using the mixture of copper and zinc. Prehistoric man could develop tools from stone to brass and bronze, the first metal made for implements, so that this was named “Bronze Age” appearing in Prehistoric period. Copper has properties as easy founding in massive form, easy melting in low temperature and easy adding to other metals, tools were mainly made of copper and its alloy in early metal ages. But using bronze was developed to make ornaments in later periods. The paper tends to describe about the art of bronze casting manufactured in only Htee Hlaing village. Although the industry started for 100 years ago, it can be suggested that making bronze artifacts have handed down from generation to generation since Prehistoric period. In Myanmar, some prominent Bronze Age sites are Nyaunggan, Innte, Kokkokhahla, Monhtoo, Hnawkan, Ywahtingon, Myohla, Uhmin, Htantapin, Nyaunggon, Htonebo, Kanthitgon, Hmyaryawai, Ywagongyi, and Myaukle. Most of them are located in the townships of Yamethin, Pyawbwe, Tharzi, Mahlaing, Taungtha, Meikhtila and Wundwin, situated in Samon valley, Mandalay Region.

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The art of bronze casting

At the Bronze and Iron Age sites in Samon valley, various bronze artifacts were found in situ or on the surface mostly from ancient cemeteries. These artifacts include weapons of axe, arrow, spear and halberd, and other ornaments of floral coffin decoration and ritual occasion. The craftsmen in those days used both hammering and casting technique. For the floral designs and non-functional objects like ritual grave goods of small spear heads, hammering technique was used, and for weapons was, on the other hand, used casting technique. In making some weapons, bulging line on both sides were cast due to have reinforcement which is very impressive for their technology. Apart from these weapons, floral designs for decorating coffins and so-called mother goddess figures were made by hammering technique (See Fig.1 a). Showing various styles and forms of these artifacts were found in Samon Bronze Age sites, bronze technology both casting and hammering flourished in prehistoric period in Myanmar (See Fig. 2 and See Fig 3).

The art of making bronze was handed down from ancient Pyu civilizations of Halin, Beilthano and Śrikṣetra. However, only a few numbers of small are found. Among them, five bronze statues covered under a bronze bell shows that the art of bronze casting reached a high standard and created various forms See Fig.1 (b). These were excavated in the fiscal year of 1966-1967. The other remarkable bronze statue was found in Baw Baw Gyi, called as Avalokiteshra. It can be suggested that Pyu culture was so wide and deep that the art of bronze casting was no doubt to be well developed. However, Pyu bronze artifacts are hardly found because style can be changed with periods and artifacts are casted again and again in later times. (Reff; Aung Nyein Chan: *Kyae Thawn Kyae Khet Pan Tinatat Aung Nyein Chan: Kyae Thawn Kyae Khet Pan Te Atat, Bronze Casting and Hammering*, Sarpaybeikman press, 1st Ed, 2005, p.13-15.)

Indian artists brought the art of bronze casting to Myanmar in about 5th century CE, the kings who lived in Keinsipura, Madarat shore of India were Buddhists. The two countries had good relationships. A kind of religion mixed Buddhism and Hinduism flourished since the reign of King Mahathanbawa who founded Śrikṣetra. According to Mahayazawuntawgyi, the king Doumtabaung travelled around Zabudipar Island for tax and revenue by his royal barge named "Nagakyaehle" (The Barge adorned with bronze dragons).

In Myanmar, the most well-known ancient workmanship of bronze casting art is Mahamuni Image in Mandalay which was casted in 123 ME (761 CE) in Danyawaddy of Rakhine by King Sandathuriya. The art of bronze casting is pronounced in Myanmar as "badin" though the written in "pantee". Sometimes it is called as "pantran". The art passed through such periods as Pyu, Bagan, Innwa, Konbaung and present days. The huge bronze bells are not found in Bagan but casting a bell was mentioned in line 10 of Lay Myet Hna stone inscription. Most of the bronze statues found in Bagan are 11th century CE style. The image standing in Pasittout temple is made

up of brass and copper. Also, daily accessories like weights are made of bronze, mould is used for small artifacts.

The art of bronze casting is flourishing in various places of Myanmar and famous for its specialization, Kyaemon in Monywa is famous for pot and ironing vessel, In daing village for bell, Pyawbwe for spoon, Pyi for timing bell and symbol, Ywahtaung in Sagaing for bowl. In 1143 ME (1781 CE), King Badon planned the city "Amarapura" including a quarter of bronze casting (Pandintan), north of Bagaya monastery, northwest of the city. The industry was however developed in Tanpawaddy Quarter during Yadanabon period, still continuing onwards.

Bronze Ball or Chū from Htee Hlaing village in Wyindwin Township

Chū is a hollowed metal ball in which small balls are put to make sound by shaking, used for hanging on necks of cattle. Someone can easily find cattle wandering around by hearing the bell sound. Making Chū has two purposes: for adornment and for pretty sound. To protect and prevent from dangerous situation, children were put Chū on their foot in ancient times.

Chū Industry

For making bronze ball in Htee Hlaing village, there are different sizes in diameter such as 5", 3.7", 3.4" and 3". Balls are decorated with lines around it. The process to make ball is:

- (1) Molding on small ball using paste mixed with red earth, cow secrete, and sand in ratio of 2:2:1 and some water. See Fig.4 (a), (b), (c)
- (2) Left the mold under shade for 2 days
- (3) Boiling wax and tar in same ratio, then screen it and make into fibers, and put in water
- (4) After drying the mold, wraps around it with two twisted wax fibers designed in lines. See Fig.5 (a), (b)
- (5) Cover the top by using wax paste, make a long hole, put a ring and add a hopper. See Fig.6 (a), (b)
- (6) Cover the mold again with red and yellow earth paste. See Fig.7 (a), (b)
- (7) Dry under the sun them and add three or four balls in big one. See Fig.8
- (8) Boil the liquid of 5 viss of brass and 15 viss of zinc for 12 hours. The furnace `is measured by 27" in height and 36" in width
- (9) Bake the big mold balls in low temperature, put in water and pour bronze liquid into the mold. See Fig.9 (a), (b), (c), (d)
- (10) When break the mold, take out Chū or the small balls but unfinished. It needs to be smooth and to be produced pleasure sound. See Fig.10 (a), (b)

Laboratory Result

The laboratory result of testing by bronze "Chū" pieces are the following;

Ni;Nickel	96.6903
Cu;Copper	2.4750
Zn;Zinc	0.0941
Ag;Silver	0.3368
Au;Gold	0.3937

Conclusion

The art of bronze casting and hammering was introduced in prehistoric period in Myanmar passing through Pyu, Bagan, Innwa and Konbaung period. Bronze Age appeared in early stage of Samon valley culture is suggested that the industry was continued from time to time as a professional one, because this can be found in only Htee Hlaing village of Wundwin Township. The sound of Chū hanging around cattle necks in novitiation ceremonies and card racing is supporting to develop the industry. Like mentioned the laboratory result for the composition of Htee Hlaing Chū, the five bronze statues of Pyu should be sent to a laboratory to know their bronze technology. Similar bronze artifacts found in Bronze Age sites need laboratory results to understand the technology of Myanmar bronze casting art.

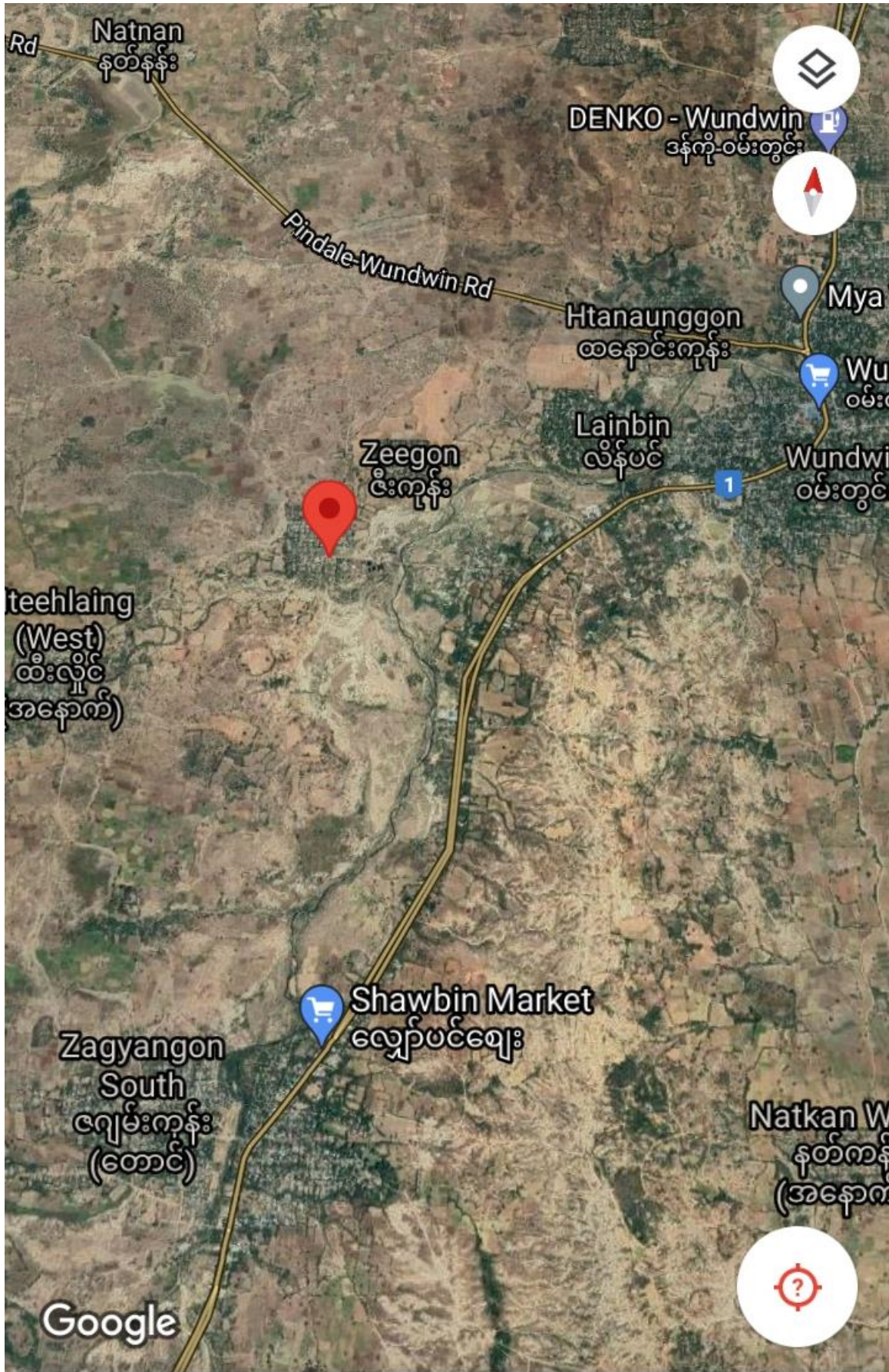
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Map-1. Source from Google

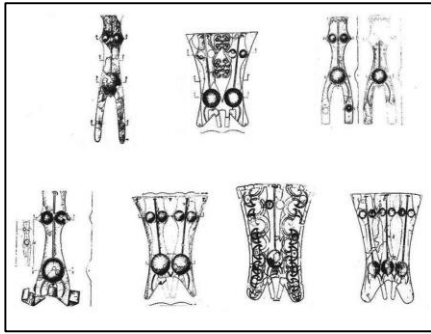


Fig.1 (a) Bronze Mother Goddesses
(From Moore, Early Landscape of Myanmar)



Fig.1 (b) Five bronze statues
(From Moore, Early Landscape of Myanmar)



Fig.2 Samon Bronze Age Sites
(From Moore, Early Landscape of Myanmar)



Fig.3 Samon Bronze Age Sites
(From Moore, Early Landscape of Myanmar)



Fig.4 (a) Moulding on small ball with red earth,
cow secrete sand



Fig.4 (b) Moulding on small ball with red earth,
cow secrete sand



Fig.4 (c) Moulding on small ball with red



Fig.5 (a) Shade of Mould



Fig.5 (b) Wraps around with two twisted wax fibers



Fig.6 (a) Cover the top by using wax paste



Fig.6 (b) Put a ring and add a hopper



Fig.7 (a) Cover the mould with red and yellow earth



Fig.7 (b) Cover the mould again with red and yellow earth



Fig.8 Dry mould three or four balls in big one



Fig.9 (a) Bake the big mould balls in low Temperature



Fig. 9(b) Pour bronze liquid into the mould



Fig.9 (c) Pour bronze liquid into the mould



Fig.9 (d) Bake the big mould balls put in water



Fig.10 (a) Small balls or Chū unfinished



Fig.10 (b) Chū or small ball of Htee Hlaing



Fig.11 (a) Chū hanging around cattle



Fig.11 (b) Chū hanging around cattle