

# Bagan Myinkaba Village Cultural Heritage: Past and Present

ပုဂံ မြင်းကပါရွာရှိရှေးယခင်နှင့် ယနေ့ခေတ် ယဉ်ကျေးမှု အမွေအနှစ်များ

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### **Abstract**

The life of Bagan speaks through its villages, from the founding set of nineteen some two thousand years ago, until today. This formative role of villages, however, has been side-lined by the fame of Bagan as the centre of a great Buddhist empire. The present article focuses on one village, Myinkaba. The location, its history, tangible and intangible characteristics underpin an evolving community of trade, production and religious patronage. Other villages at Bagan likewise have developed their own personalities making this analysis a proposal and potential template for bringing a new perspective to dynamics of the ancient city and its sustainable future. Like all the villages of Bagan, Myinkaba's culture is Buddhist yet mixed with animist and other elements from the interaction of Pyu, Bamar and Mon groups over many centuries. Of the capital's nineteen 'founding' villages, Myinkaba is the only one anchored on a large seasonal water body or *in-gyi*. The prime location on the Ayeyarawady River has enabled trade in bamboo used for lacquer and other products over many centuries. The site also contains evidence of glass production and smelting in a series of kilns. Festivals earn income for the temples, with sale of traditional snacks and a puppet competition. Inscriptions and historical links with the 'captured' eleventh century ruler of Thaton, King Manuha, add associations to Mon areas of Lower Myanmar. We construct a working model to encourage further village-based excavation, related research and education in future years that may also contribute to the sustenance of the UNESCO World Heritage site of Bagan.

ကျေးရွာများသည် ပုဂံ၏ သမိုင်းတင်ခေတ်ဆိုင်ရာ ရှေးဟောင်းသုတေသနပညာအတွက် အရေးပါသည့်ကဏ္ဍမှ ပါဝင်သည်။ သို့သော် ပုဂံ၏ ထူးကဲသည့် အနုဗိသုကာဆိုင်ရာ လေ့လာမှုများနှင့် ယှဉ်သော် ရပ်ကျေး ရွာကျေးများအား လေ့လာမှု အလွန်နည်းပါးပါသေးသည်။ ဤစာတမ်း၌ မြင်းကပါရွာ၏ ဒြပ်ရှိ ဒြပ်မဲ့ အမွေအနှစ်များနှင့်တကွ သဘာဝရင်းမြစ်များအား အတူလွှမ်းခြုံလေ့လာ၍ သုတေသနကွင်းဆက်များအား ရည်ညွှန်းတင်ပြသွားပါမည်။ မြင်းကပါရွာသည် ပုဂံမြို့တော်၏ မူလ ၁၉ ရွာ အနက် အစဦ် အလာ ပုဂံမြို့တည်သမိုင်း၊ ကျောက်စာ၊ ဖန်ချက်လုပ်ငန်း၊ တည်ရှိနေဆဲဖြစ်သည့် ယွန်းလက်မှုအမွေအနှစ်တို့ အရ မွန်နှင့် ဆက်နွယ်သည့် တစ်ခုတည်းသောရွာဖြစ်သည်ကိုသက်သေထူနေသည်။ကျောက်စာအထောက်အထားများက ၎င်းရွာ၏ ရင်းမြစ်ကြွယ်ဝမှုနှင့် အရေးပါမှုကို မီးမောင်းထိုးပြနေပါသည်။ ပထမထောင်စုနှစ်မှသည် ယခုကာလထိ ကူးသန်းရောင်းဝယ်ရေးသည် သာသန အနုဂ္ဂဟများအား တွန်းအားဖြစ်စေသည့်အချက် ၁၁ ရာစုကတည်းကတည်ရှိခဲ့သော ဘုရားစေတီအများအပြား၌ သာမက ယနေ့ ခေတ် လူမှုအဖွဲ့အစည်းများ ကြောထောက်နောက်ခံပြုသည့် ဘုရားပွဲများ၌လည်း တွေ့မြင်နိုင်သည်။ မြင်းကပါ၏ ရှေးဟောင်အမွေအနှစ်နှင့် ရှင်သန်ဆဲ အမွေအနှစ်တို့ သည် ရပ်ရွာ အဏု-ဒေသများ၏ ဒေသိယ ကိုယ်ပိုင်လူမှုလက္ခဏာ နှင့်ယဉ်ကျေးမှုတို့ ၏ အခန်းကဏ္ဍကိုသာမက ယူနက်စကို ကမ္ဘာ့အမွေအနှစ် နေရာ ရည်ရှည်တည့်တံ့ရေး စီမံခန့် ခွဲမှု၌ ၎င်းတို့ ၏ အရေးပါမှု ကိုလည်း မီးမောင်းထိုးပြနေသည်။

Keywords: Bagan, Myinkaba, village, resources, cultural landscape, Buddhism, in-gyi

## Location and Names: အနုရာဇ (အနုရာဓ) to မြင်က္ကပါ

### Founding Villages and Cultural Spaces

The ancient and living site of Bagan was inscribed on the UNESCO World Heritage List in 2019. As the opening pages of the Nomination Dossier highlight, Bagan was the "heart of the largest Buddhist empire of its time" (UNESCO 2019a: v). The key, however, to the thousands of monuments at Bagan are the villages which sustain them, interspersed with agricultural areas and open space. Within the inscribed UNESCO property are seven villages or parts of them (UNESCO 2019a: 12, 35). As its primary research question, this article seeks to define the tangible and intangible character of one village called Myinkaba in the southern part of Bagan. It is a place, one of the 'nineteen villages of Bagan' which were briefly formed into a confederation in the second century CE by the king of that era, Thamudarit (107–52 CE). The grouping was dissolved in the fourth century by one of the subsequent rulers (Moore et al. 2023:11). Many of the medium and small water features were managed at village level (Moore et al. 2016: 285). Several of the founding villages that remain have a distinctive character, including Myinkaba, and potentially Nyaung U, Nagabo (Taungbi) and Ywasaik (Phwasaw) (Hudson, Nyein Lwin and Win Maung 2002: 10-12).

All these places are changing, as they did in the past, from the community that uses and has created the lived-in space. It is both tangible and intangible, a physical reality and imagined space of events over a thousand years ago. In this sense, it can be called a habitus of 'inseparably social and mental' places and concepts (Lefebvre 1991: 237). Myinkaba as a cultural landscape is a combined work of man and nature that over time has provided a sustainable sense of place and identity (Cultural Landscape n.d.). Below are brief profiles of Myinkaba's traits: its location, natural resources, ancient glass production, inscriptions and chronicles, religious history and festivals. While some are based on archaeological investigation, others draw on oral history and other intangible factors to

build an integrated and holistic profile of Myinkaba. Many aspects of the village merit further research and gaps in the information here hopefully able to be updated in future.

### Location

Myinkaba is located at the lowest point of the ancient city, just south of the bending of the Ayeyarwady at Old Bagan (Pyiet Phyo Kyaw et al. 2020: 313). The village spreads east from the river and a large (circa six hectare) *in-gyi* or seasonal lake that fills when the Ayeyarwady overflows across the relatively flat land (Figure 1). The terrain rises only slightly from the Myinkaba Stream to the Mango tree (53 msl) on the south edge of the *in-gyi* but four kilometres to the east, the small pond, the Pye That Kan (78 msl) near the headwaters of the Myinkaba Chaung (stream) is twenty-five meters higher.



Fig. 1 Myinkaba in-gyi or seasonal lake during the dry season. Source: Photo by Theint Theint Aung (2022).

The Myinkaba stream originates on the north side of the Tuyin Taung at 150 meters elevation, descending across the plain with historic ponds such as the Alanpagan and finally "captured" by the manmade reservoir of Myinkaba in between the village of Myinkaba and Ayeyarwaddy River (Win Kyaing 2018: 281, Figure 2). While the Myinkaba stream where it meets the *in-gyi* is perennial, the water courses further inland near the Pye That Kan and the Ko Mouk, enhanced natural depressions, are seasonal. (UNESCO 2019a: 118). A study of inscriptions recording water management donations such as large lakes, canals, damming of ravines and rainwater collection tanks especially around 1150 CE, the driest period at Bagan,, documented no examples at Myinkaba (Macrae et al. 2022: 2). There are many factors involved such as the Medieval Climate Anomaly and the

inscriptions which have not been detected, but overall, this suggests that the Myinkaba stream may in the past, as now, has long been managed seasonally at a small scale (Macrae et al. 2022: 4).

Informal descriptions of Myinkaba often relate to the Myinkaba stream. In addition, the main Myinkaba spirit shrine is located north and adjacent to the stream. Dedicated to Shwe Nabay 30606 or Amay-Maedawgyi and her two sons, Shin Phyu and Shin Nyo, it is near to several

Bagan period structures. To the west of the shrine, aligned along an old stream remnant are IMP1334, possibly a monastery dated to the thirteenth century and IMP1335 a partly ruined fourteenth century structure. Another buried monastery nearby is under the present-day football ground (IMP1330).

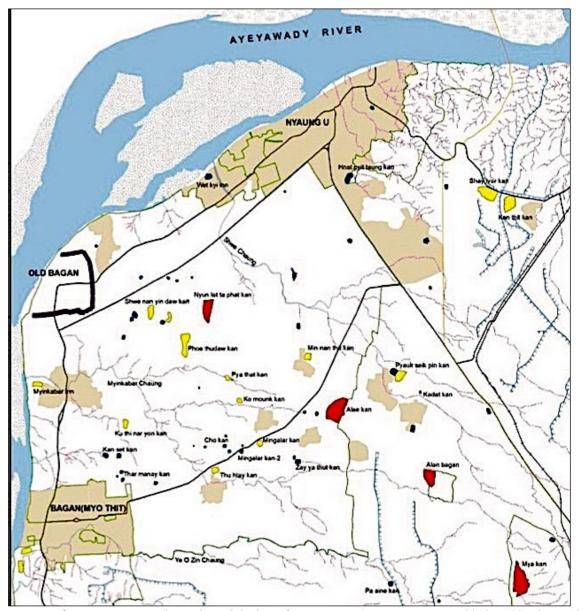


Fig. 2 Excerpt from Streams, Creeks, and Ponds/Lakes of Bagan Area (Source: UNESCO 2019a: 118, Figure 130)

### **Natural Resources and Production**

In-gyi, Sand and Silt



Fig. 3 Looking north from the Myinkaba *In-gyi* and Mango Tree in the foreground to the curve of the Ayeyarwady River. The tree has been cared for by several generations with the species (*Damouk yo thi* (ອຣຍາດຈິຊີເລີຣ໌) only growing in Myinkaba. Source: Photo by U Win Kyaing (2020).

The large Myinkaba *in-gyi* is located virtually on the river's edge, with the word 'in' being a lake-like depression adjacent to the river (Win Kyaing 2018: 282). While the Myinkaba stream that feeds into the *in-gyi* would have slightly moved its course from year to year, the relationship between the stream and the *in-gyi* remains intact (Figure 3). During the rainy season, the steam fills, increasing the size of the ponds, with regular maintenance in the drier cold months as well. Temporary weirs are made of thatch and scrubs (Aung and Shibata. 2019: 2753, UNESCO 2019a: 117). During dry spells of the summer month, sediment deposition could be removed to prepare the embankment. Today, farmers divert the stream water directly to the river to protect the agriculture. As a result, the land is exposed for cultivation, for example, groundnuts, onions and other crops (Win Kyaing 2018: 282).

In addition, the Ayeyarwady narrows as it turns south to the south of the old Bagan wall, so that it slows at Myinkaba, giving high yields of sand off the edge of the higher landscape to the east. Other products from the river water include aquatic foodstuffs, water for drinking, and the many benefits of the location for transport and trade (Win Kyaing 2018: 284). The sand itself is a resource, intermittently harvested and sold locally. And as noted below, sand was an essential part of ancient glass production and contributes to the favourable environment for sub-surface drying chambers for lacquer production. Much further research is merited on aspects such as the impact of climate

change, use by farmers and fishermen and the effectiveness of UNESCO regulations forbidding further construction around the *in-gyi* which we would like to add to a future paper.

#### Bamboo



Fig. 4 Bamboo off-loading. Source: Photo by Theint Theint Aung (2021).

Bamboo is another essential part of the Myinkaba economy regularly traded along the river (Figure 4). The longevity of bamboo at Myinkaba is seen in a thirteenth century CE inscription of Narapatisithu noted below where a princess born in the bamboo clusters is named the 'bamboo princess'. Products today include mats and house-sidings, with shipping and workshops active. Monywa is a center of bamboo distribution to other places. The bamboo is sourced from Kalaywa (നടരാ), Homalin (നടരാട്ട്) and shipped along Chindwin and Ayeyarwady rivers. Sixty years

ago, bamboo was transported from Bhamo. There are three kinds of Bamboo available in Bagan today (Nyan Htun n.d.: 1):

- 1. Tin-wa σοξεο]: Cephalostachyum pergracile Munro
- 2. Hmyin-wa မျှင်ဝါး: D. strictus Nees
- 3. Maetinkha -wa မဲတင်းခါး ဝါး

Of these, the first and third, Tin-wa and Maetinkha -wa are considered best for making lacquer due to their pliability. This preference is not just at Bagan but noted in a profile of lacquer some 350 kilometres north of Bagan at Kyaukka near Monywa (Myo Myint 2002: 188). As described in a section below, the bamboo is used for making different types of frames, including coiled, woven, round and spiral types and various techniques for cutting the bamboo (Figure 5). While the coiled frame was used to produce lacquerware, the woven one used the outer 'rind' of the bamboo and was for making mats (Figure 6). For the round frame, horsetail and bamboo could be added (Khin Khin Si 2019: 24). Although the younger generation of the village is not today generally engaged in

bamboo mat making in Myinkaba, it is a stable market. During the Covid-19 pandemic, local workshop owners provided free food and half-wages to labourers to encourage its continuation.



Fig. 5 Bamboo workshop at Myinkaba. Source: Photo by Theint Theint Aung (2021).



Fig. 6 Preparing a bamboo frame. Source: Photo by Theint Theint Aung (2021).

Myinkaba has a rich history of lacquerware craftsmanship that specifically utilizes bamboo. Over the years, artisans in the Myinkaba region have honed their skills and expertise in working with bamboo, developing specialized techniques for its use in lacquerware production. Although bamboo is not native, it was readily available in nearby regions and the river is used for transporting, making it a viable and easily accessible resource to produce lacquerware. The unique properties of bamboo naturally made it a preferred choice for artisans, resulting in its significant presence in the local industry. Further research on bamboo is needed including annual figures of usage by type of bamboo, and the changing percentages of workers by age. In addition to the production of goods from the different bamboo species, ancient glass production and the lacquer ware tradition are both connected to the village location and natural resources.

#### **Glass Production**

During the first millennium CE, evidence from eight kilns and surface finds indicate that glass beads were possibly both smelted and manufactured in Myinkaba; comparisons can be made to glass from Mupon in Mon State (Hein and Ramsay 2020:37, Tomomi Tamura 2019, Lankton and Pyiet Phyo Kyaw 2015) Two types of beads have been identified: 1) Mineral soda aluminum (m-NA-Al) glass and 2) high lead potash (Na2O–CaO–SiO2). The analysis of the materials from the kilns remains underway by Hein and Ramsay and their team, but as they state, it offers "physical proof of a glass industry at Bagan [that] includes the glass smelting and manufacturing furnaces; primary evidence of manufacture manifests as local finds of glass beads and associated wasters, jar crucibles containing mass glass, and appropriate furnaces (Hein and Ramsay 2020: 37). The beads are found (and sold) along the river near Paunggu stupa north of the *in-gyi* or seasonal lake. Since 2021, the drop in tourists has lessened demand and consequently, lowered bead-hunting.

The bead and kiln concentration in this area, with the *in-gyi* sitting between the river and the village recalls the exploitation of similar seasonal lakes at several of the first millennium CE Pyu cities such as Beikthano. There, the water availability enabled rice irrigation, providing a major stimulus to the development of the Pyu culture. Here again at Myinkaba, the setting and artefacts point to utilization for production over an extended time. Far earlier, Palaeolithic habitation has been documented in the Thantaung-gone region of Component 2 near the Nyaung-U region of the inscribed World Heritage site. This is a hilly area along the river after its turn to the east circa ten kilometres northeast of Myinkaba. However, surface finds of Neolithic stone tools in parts of the Bagan north of the small elite walled area have also been documented (UNESCO 2019a: 37, 122). For example, survey of the Theravada Research Centre near the Mya-zigon temple (IMP2084) between Nyaung-U and Taung-bi villages yielded Neolithic implements. The location is comparable to Myinkaba in being relatively level terrain close adjacent to the river.

The eight kilns of Myinkaba may have been active around the same time, with a network of production making beads to meet local and trade demands (Hein and Ramsay 2020: 39). Alternatively, some may have replaced others after temples were built nearby. For example, Kiln-7 located near the Abeyadana temple may have been replaced by Kiln-7 on the east of Myinkaba (Hein and Ramsay 2020: 31).

<sup>&</sup>lt;sup>1</sup> In contrast to Myinkaba, this is a hilly zone with six *umin* (underground temples or caves): Grade 1 Kyauk-ku-umin (IMP 154) and Grade 2 Hmya-tha-umin (IMP 171) and Thami-hwet-umin (IMP 172)), other important Grade 2 monuments including Guni-Hpaya

All the Myinkaba kilns are located in the southern part of the village, south of the Manuha temple and the Myinkaba *in-gyi*. The 'layer construction method' of the Myinkaba furnaces is similar to that seen at Bago (Pegu), Lower Myanmar (Hein and Ramsay 2020:38). Thus, it may have once been a Mon area including bead makers or may underline ancient exchange networks with Lower Myanmar. As Hein and Ramsay speculate, research is underway to investigate if glass beads produced at Mupon and Myinkaba were distributed to insular locations (Hein and Ramsay 2020:38-39). Another area of research ongoing is the Mupon production. A Mupon sample was among the beads were analysed by Tamura Tomomi, where she divides them into soda and potash and notes the lead content. Her data covered 147 small glass beads, both potash and soda, sixty-six glass lumps as well as unfinished beads. There were glass tubes, unfinished Indo-Pacific Beads, and glass lumps pointing to production, with potash examples including opaque yellow, red, purple and blue, with indications that the Mupon beads were not widely traded in the region (Tomomi Tamura 2019: 237, 239, 253). While not making direct excavated connections with Bagan, the analysis offers a rare comparative local data set on issues of bead content and production.



Fig. 7 Stone and glass beads from Myinkaba, found along the river. Source: Photo by Theint Theint Aung (2021).

The kilns, surveyed by Theint Theint Aung, the lead author, are briefly noted below:

- 1. Kiln-1 was excavated in 1963 by Strologo and Kyaw Nyein and then in 1999 by Don Hein. Today inside a brick roofed shelter, it is about two metres in diameter and shows an upper section, possibly where debris glaze built up, and a lower section.
- 2. Before 1988, Kiln-2 was located on the road which was then moved so it is now on a narrow unpaved road. The kiln is in a house, near a lacquer underground cell that the lead author's family uses for drying lacquer. At circa 1.5 meters in diameter, it is smaller than Kiln-1, with a pale blue slag built up around the rim. Dirt and debris have been deposited in the chamber although some pieces of slag or glass debris can be seen. The condition is similar to Hein's 2014 notes with the original top intact, a molten bluish and white glazed surface, and a matt white on the interior. The firebox is on the west and vent on the east.
- 3. Kiln-3 is located east of the Myinkaba *In-gyi*, northwest of Leh Thar Kyaung monastery, north of Shwe U Min monastery (IMP1177). The kiln, excavated and protected in 1989 by

- the Department of Archaeology, has an inverted U-shaped firebox and a vent on the opposite side. The top is damaged with glass in the cracks and there are also holes up to 45 cm in depth on the top.
- 4. Located west of Myinkaba near Leh Thar Kyaung monastery and south of Abeyadana (IMP1202), this is a U-shaped kiln with green and white glaze on the inner wall face.
- 5. Kiln-5 (IMP 2168) is located southwest of Myinkaba, south of a reconstructed temple (IMP2169). It is the most isolated and difficult to reach of all the kilns, protected by a brick wall but without a roof. Although overgrown somewhat, it has glazed remains on the inner area on one side.
- 6. Kiln-6 is under a roofed brick and a wooden superstructure with again, a thick debris around the rim. A lower section shows some layering, but the pit is filled with debris. As noted by Hein, conglomerate pebble stratum shows the kiln was set at least partly into the ground, the angled vent hole is higher than the other kilns and the wall of the fire hole is made of bricks (35 x 20 x 6 cm) (Hein 2014)
- 7. Glass beads were found when Kiln-7 was excavated by Dr Myo Thant Tin, Don Hein, Dr Aung Bo and Nyein Lwin in 2003-2004. Other finds noted included beads, slag and burnt pieces (UNESCO 2019b). It is surrounded by a fence, but not a roof and the area around has many holes made by illicit digging for beads.
- 8. Kiln-8 has been unearthed by treasure seekers, but not yet excavated, it is located due west of the Abeyadana but near to the river. In an area of tree cover, the slight mound has a number of bricks scattered around the top, and an opening on one side. This has considerable build-up around it and needs analysis and further study.



Fig. 7 Kiln-2 near underground lacquer-drying chamber, showing slag around rim. Source: Photo by Theint Theint Aung (2021).

As with much of the evidence from Myinkaba, the glass data is tantalising but in need of further research. In addition to the technicalities of the production is the distribution of the kilns. For example, Hein and Ramsay's suggestion that Kiln-7 may have been moved with the construction of the Abeyadana temple, offers an insight into the impact of royally patronised structures on the local

area. The temple is justifiably renowned for its murals with their eclectic and detailed Hindu and Buddhist iconography. Built around 1100, it is attributed to King Kyanzittha in honour of his chief queen Abeyadana adjacent to the Nagayone temple (Galloway 2006: 179). But little is recorded the choice of location, and displacement of pre-existing structures. In 1183 CE, the king is said to have invited the monk Paunglaung Shin Kassapa, to attend the *hti-daw* or umbrella-raising ceremony of the Sulamani temple. Shin Kassapa declined however, citing the many who had suffered to build it (Moore et al. 2023: 138, Pe Maung Htin and Luce 1921/1960: 147-148). For the Abeyadana, what existed before of course remains unclear, with the Nagayone being the nearest, and perhaps earlier structure.

The sections below continue with other historical evidence from inscriptions and chronicles. While the two types of records are often at odds, they also complement each other.

### **Inscriptions and Chronicles**

Both inscriptions and chronicles link Myinkaba (မြင်က္ကပါ (မြင်ဂဗာ) village to the eleventh century

King Anawrahta (Anawraddha, Aniruddha). It was earlier recorded as Anurada, the only one of the traditional nineteen Pyu founding site names of with a Pali name. The Bagan yazawin cites it in the reign of Pyinba (221 ME) (Win Maung (Tampawaddy) 2016: 14-15).

"In Thakkaraj (ME) (354) [992 CE] Sokkate became king. When Anawrahtaminsaw came of age, he attended on the king and given Anuradha village to "eat" [to tax for revenue]. Therefore, he came to be called Anawrahta" (Goh Geok Yian 2014: 21, 142; Pe Maung Tin and Luce 1921/1960: 29).

To the north was the village of Magyigyi, that from the seventeenth century Innwa period is said to have been submerged under the shifting course of the Ayeyarwaddy (Win Maung (Tampawaddy), pers. comm. 18 November 2021). The village was northwest of a pagoda where an inscription was found, although the inscription has yet to be located (Khin Khin, Nyein Lwin, Win Maung (Tampawaddy) 2002: 18-19). The name Myinkaba is noted several times in inscriptions from Bagan and to the north at Myinmu in examples relating to rank and domestic exchange networks seen in the following two examples.

### Manuha inscription

The two-sided Manuha inscription at Myinkaba bears a date of 429 ME (1067 CE) and although some scholars suggest it may have been reinscribed, is generally accepted (Myo Nyunt Aung 2022: 62, 318). It is now kept in the Mandalay Inscription shed (Nyein Maung 1972: 322, line 6).<sup>2</sup> The text notes:

By virtue of being willing to attain the Nirvana, a cymophane [Kraung-myet-rwe] named Manomaya [created by the power of the mind] was sold to the wealthy person of Myinkaba for six carts of silver bullion.

<sup>&</sup>lt;sup>2</sup> Nibban ko rauk-khyin thaw kraung manomaya hu thaw kraung-myet-rew ko Mrankapa tha htay hnaik raung thaw ngway ashapra khrok hle rarwe.

The word Kraung-myet-rwe might refer to Cymophane or even a cat's-eye Alexandrite, a rare form of Chrysoberyl whose colour changes in different light. Within Myanmar, Alexandrite and Cymophane are found near Mogok in the Shan States. Another, rare colourless type can be found only in Myanmar. A Burmese saying calls it one of the most valuable gems: 'Ayaung howe ke, Kraung-myet-rwe', the cats-eye with changing colours.

### Shwe-paung-laung inscription

At the Shwe-paung-laung pagoda at Myinmu, 1225 CE (587 ME), Myinkaba is one of three placenames given as the donor of the pagoda. He prays in the merit-sharing ceremony for his relatives from Nga-saung-chan, Sa-tha, Thripyisaya and Myinkaba (Nyein Maung 1972: 179-182).<sup>3</sup>

### Myinkaba Pize inscription ( ပိဇယ် ကျောက်စာ)

Rank, underlining the status of Myinkaba is seen in a thirteenth century inscription mentioned earlier in connection with bamboo, where the rank of the donor was pize (ပိမယ်), possibly related to Catūraga စတုရင်္ဂ ပစ္စည်း. (ပစ္စည်း):

Thakarit 600 (Burmese Era 600 (i.e., 1238 CE), Puttha (Phusha year in the 12-year circle of Old Burmese calendar), Thanwittsara (Samvacchara (Pali) = year): Platho lasote 3 rak krathapatini Mrangabāpize, mayā, thā Atularat, Nganwethin kywan puhrā ko hlu tho

Thakarit 600, Puttha year, (on) Thursday, 3rd wanning day of Platho, Mrangabāpize (Myinkabar Pize), wife, son Atularat, (and) Nganwethin the servant, donated the servant(s) to the Buddha... (Nyein Maung 1972: 319)

### **Chronicles: Artisans from Thaton**

With Anawrahta's eleventh century traditional capture of Thaton to the south, along with the Mon king Manuha, chronicles record captive artisans having been brought to Bagan as well. The record is limited to a brief statement, although local sources have elaborated this to associate named temples with each group. The first two of these are at Myinkaba and include many of the crafts known today as the *pan-seh-myo* or 'Ten Arts': the Myingala Ceti on the north and the Abeyadana to the south (Pe Maung Tin and Luce 1921/1960: 78, Wai Wai Lwin 2020:98, 273, Hninn Wut Yee Latt 2022).

- 1. Pan byut ye (Mingalar): artisans of painting (pan-chi), carving (pan-taut), stone sculpture (pan-bu, pantamault), gold and silversmiths (pan-tain), blacksmiths (pan-be), bronze, copper or brass casters (pan-tin/pan-tae), turnery (pan-poot), masonry and decorative stucco relief (pan-yan, pan-ta-mot)
- 2. Abeyadana: makers of glaze work

<sup>&</sup>lt;sup>3</sup> chi-bin-tha-thu-ka nga-hsaung-chyan [Nga-saung] Sa-tha tha-ye-bins-sa-ya [Thiripyissaya]Myinkaba [Myinkaba]-taing-aung?-meh-leh-pon-lon-hmya kyain-ma-ka Ya-sa-ba-sah-tha-te ခ်ပင်ပါသသုကာ ငါဆောင်ချံ စသ သရေပစ္စရာ မြင်က္ကပါတိုင်သြင် မ္လေယ်ပုံလုံမျှကြိုမ်မက္က ရစ္စပါစေသတေ; Line 44 of the two-sided slab (50 lines)

- 3. Hsin-pya-gu, Myinn-pya-gu: Practitioners of elephant-medicine and horse-medicine and experts of elephant-crafts and horse crafts
- 4. Yann Sann Village: those who could make guns, ammunitions and gun-pounder were placed in the gun-powder-making ward
- 5. Sinka Ywa: those who could make elephant equipment
- 6. Kani Kaphu: those who could make horse equipment
- 7. 'Whip village' (far from Bagan): those who could make whips
- 8. Minn Nan Thu (Tharapol ward, north): ones who could make round and oblong shields and arrows

While the historicity of the capture of Thaton is questioned, the chronicle accounts are widely accepted as a general reflection of past events. Several aspects of Myinkaba – the lacquer work, and several temples of the eleventh century suggest Mon connections in addition to the glass production noted earlier.

### Lacquer work

We speculate that captive lacquer artists from Thaton may have been brought to Myinkaba; although notional, it also is possible that the use of lacquer as a coating already existed. Than Htun (Dedaye) for example, suggests that plain black and red lacquer may well have been used during the first millennium CE Pyu era in Upper Myanmar (Than Htun (Dedaye) 2013: 18). Alternatively, it may have not been until the sixteenth century conquest of Ayutthaya and the Shan States has also been suggested. In the Bagan era, evidence exists in pieces of a cup (10-19 cm), now in the Bagan Lacquer Museum. These have been dated to about the twelfth century, found at the Lay-myet-hna monastery documented in 1991 in the temple compound. They were retrieved by the Department of Archaeology in cleaning debris from the thirteenth century monastery, with an inscription of 1233 CE adding further dating (Kyaw Swe Nyunt 2021: 53, Myo Nyunt Aung pers. comm. 20 June 2023). The shape of the pieces suggests a small alms bowl, with lacquer on a finely woven bamboo base. The plaited bamboo remains visible, underlining the antiquity of the bamboo trade down the river to Myinkaba. In addition, a cylindrical teak box painted with lacquer and yellow ochre has been recorded from the Mingala Zedi pagoda, inscribed with a date equal to 1274 CE (Than Htaik 2002: 184).

Fig. 8 Lacquer cup from Lay-myet-hna compound, Bagan Lacquer Museum. SourcE: Photo by Theint Theint Aung (2023)

The origins of lacquerware in Myanmar are often attributed to China. However, the Burmese lacquer sap is from the Thit-si tree (Melanorrhoea or Gluta usitata) whereas Chinese lacquer sap is

from the Rhus vernicifera tree. The Thit-si tree is widespread in Sagaing, Bago and Mandalay Regions as well as the Shan, Rakhine and Karen States (Than Htun 2013: 27) The tree from which the lacquer sap is obtained is grown locally, so that the presence of the sap could easily have been detected by firewood collection. The production of the etched lacquerware for which Myinkaba is known, dates only to the Inn-wa or Ava period (Than Htun 2013: 47). The use of lacquer in China, however, has been documented to at least 400 BCE. The lacquer of India is also different as it is made from insect secretion, from the lac insect, the Coccus lacca.

For all periods, the ecology of Myinkaba was - and is - significant in the production, offering optimum conditions for underground chambers to ensure the essential drying stage was successful as well as the raw materials. Local typologies have developed over time such as Ah-Phyu or white vessels and important equipment such as the Ah-pwe-gon or round table (Maung Bergè 1993). To produce an object, the bamboo frame, such as the curled type, was coated with thit-si lacquer. This was then dried in special chambers where vapour from the earth provided an essential component (Khin Khin Si 2019: 25). Possible past evidence of chambers is found in the traditional palace area of Bagan Kings Anawrahta and Kyanzittha with several underground brick buildings, probably drying rooms for lacquerware, recorded from excavations in 1989 - 1990 and 2003-2004. They are significant in giving possible production evidence and in their palace location; this may suggest a production hierarchy with royally patronized dedicated areas or monopolies for the king (UNESCO 2019a:112).

As with the prehistory noted earlier, the ancient production life of specialized lacquer workshops and different groups needs further research. Relevant to this, a hollow seated Buddha image (Mann Paya) kept in Salay, south of Bagan is dated to the thirteenth century (Theint 2021: 259; Figure 9). The size - a circa 6.5 metres - makes it the largest surviving hollow lacquer Buddha statue or Yun Paya known in Myanmar.



Fig. 9 Hollow Lacquer Man-Phaya at Salay. Source: Photo by Theint Theint Aung (2022).

### **Ancient Religious Patronage**

Myinkaba village supports many temples, old and new with different patronage groups and temple festivals. While each is part of the changing dynamic, the Manuha, Nan Phaya and Myinkaba Gubyauk-gyi highlight Myinkaba's association with the traditional eleventh century capture of the Mon capital of Thaton by King Anawrahta and the common use of Mon language during King Kyanzittha's reign (UNESCO 2019b: 218). We note some aspects of these below.

### Manuha Temple



Fig. 10 Manuha temple shrine to the Mon king and his wife. Source: Photo by Theint Theint Aung (2022).



Fig. 11 Manuha temple seated image of the Buddha. Source: Photo by Theint Theint Aung (2021).



Fig. 12 Alms Bowl in pavilion at Manuha Temple. Source: Photo by Theint Theint Aung (2023).

The Manuha Temple (1067) is located about half a kilometre east of the Myinkaba *In-gyi* on the main road in the middle of the village (Figure 10). To the south, just under one hundred meters, is the Nan Phaya. The Myinkaba Gu Pyauk Gyi Temple lies about the same distance away, but to the north. The shrine of the village Bo Bo Gyi, Myin Phyu Shin, is located west of the Manuha. The Manuha is said to have been constructed by the captive Mon King Manuha after selling his royal gems as noted in the Manuha inscription above. The large main seated image (Figure 11) fills the space of the temple, as does a reclining image to the west. Traditionally the seated image was carved first, followed by the reclining one, with donations of lands and slaves upon the completion (Wai Wai Lwin 2020: 100). On the east is an oversize begging bowl (117 cm in diameter, and 97 cm high, Figure 12). Popular explanations for the cramped images include the captive king's stress to architecture, that the present structure post-dates the image. The temple has been repeatedly renewed from donor donations and following damage from the 1975 earthquake at Bagan, was almost entirely rebuilt. The temple remains active in all seasons, with filling the bowl said to bring success.

### Nan Phaya

The Nan Phaya is commonly accepted as the location of King Manuha's palace. A square structure made of stone; it opens on the east with stone windows for air circulation. Both the exterior and the interior are finely carved with reliefs. On the outside, these include reliefs of the Mon *hintha* bird (Figure 13) and *kirtimukha* (*bilu*) (Figures 14 and 15), while the interior houses a large image of Brahma. The stone reliefs are deeply carved with an exceptional liveliness particularly in the mythical creatures carved along the upper portions of the exterior walls (Figure 16).



Fig. 13 Nan Hpaya Hintha. Source: Photo by Theint Theint Aung (2023).



Fig. 14 Kirtimukha with crown and hands, corner relief Nan Hpaya. Source: Photo by Theint Theint Aung (2023).



Fig. 15 Kirtimukha relief Nan Hpaya. Source: Photo by Theint Theint Aung (2023).



Fig. 16 Makara with figure of Varuna relief Nan Hpaya. Source: Photo by Theint Theint Aung (2023).

### Myinkaba Gu Pyauk Gyi Temple

The Myinkaba Gu Pyauk Gyi Temple (1113 CE) built during the reign of King Kyanzittha is some seventy years after the Manuha temple. There are stone Buddha stone images in the niches and murals of the Jataka stories, the previous lives of Buddha and many other themes. Of interest for this article, the glosses or ink inscriptions under the murals are in the Mon language (Figure 17).



Fig. 17 Murals with Mon glosses from the Myinkaba Gubyauk-gyi. Source: Photo by Theint Theint Aung (2023).

For example, from the outer wall of the corridor (north wall) on the second row, are two long rectangular frames where deva are gathered (nos. 75 and 76) (Luce and Ba Shin 1961).<sup>4</sup> On the left they consult each other while on the right, they ask the guardians of the four directions. Below are rows of square framed scenes with the previous lives of the Buddha; the two on the right end, the bodhisattva is depicted as a snake-doctor and hermit (risi) (nos. 69 and 76), while below the four scenes (nos. 149-152) depict lives when he was a hermit, world-famous teacher, king, and a lion, respectively. Each frame is small and simply rendered but effectively conveys the action of each narrative.

75. dewatāw gumlon pa kolāhal smān ran sko' kram mangal

"The Devas all make uproar and ask each other about Auspicious Action"

76. dewatāw thun smān caturalokapāl kram mangal

"The Devas come and ask the Four Lokapālas about Auspicious Action"

69. Visavanta [acār jrum] snake doctor

70. Kuddala [risi]

149. Ekapanna [hermit]

150. Sañjīva [world-famous teacher]

151. Rājovāda [king]

152. Sigāla [lion]

There are other Mon inscriptions of course at Bagan, including the Abeyadana at Myinkaba, but the Myinkaba Gu-byauk-gyi is outstanding in the richness of the murals that together with the glosses have made possible significant studies of this period (Luce and Ba Shin 1961, Luce 1966, Nai Pan Hla 1989: 1). The location of the temple is also of note, being just east of the Manuha temple showing the continued patronage of what is today the central area of Myinkaba village.

Myinkaba does not support a massive temple on a par with the Ananda; nor a spectacular stupa like the Shwezigon. It is exceptional, however, in the aggregated historical associations of the eleventh and twelfth century, for the complex and varied iconography of its structures, and for the role of community support in sustaining the local involvement with the built heritage. As documented in a recent study of Phrae in Northern Thailand, while it is intangible heritage that is often cited to illustrate local participation, this is commonly inseparable from the physical heritage. An example is seen in a wall excavation undertaken to assess its construction technique but ignoring the significance of its local spirits, caused protests and disruption with the local population (Ikeda 2016: 177). This link between the tangible and intangible at Myinkaba is highlighted by its temple festivals, to which we turn below.

### Myinkaba festivals

Festivals play a significant social and economic role for the Manuha temple and many others. The central area is organised into six wards for planning and carrying out village temple festivals. Some authors even refer to a Myinkaba sect in the time of Anawrahta (Wai Wai Lwin 2020: 98). Three wards (yat kwet)) - Shwe Chan ( ), Shwe Lae ( ) and Sein kone ( ) are

responsible for the largest festival of the village, at the Manuha temple attributed to the Mon king 'captured' from Thaton. 5 The Myo Ma ( $\Theta_{\parallel}\omega$ ) yat kwet is responsible for the Mya ceti festival

<sup>&</sup>lt;sup>4</sup> The authors thank Ye Myat Lwin for his assistance in matching the images and text in this section.

<sup>&</sup>lt;sup>5</sup> The lead author is from Shwe lae Yat kwet so related to Manuha.

(IMP1320), the Myo Nyunt ( ઉ ) yat kwet for the A shin Oattama pagoda's festival and Myo Shae ( Span) for Shwe Ceti pagoda's festival. While these are the principal festivals, there are numerous other temples and stupas. For some, such as the Myinkaba ceti Figure 18), east of the main road, the compound is quiet much of the time, but during the festival becomes lively. The stupa rests on a small hillock above the stream on the east of the main road. While maintained, the stupa contrasts with the Manuha where pilgrims or tourists are commonly present. The sample of fourteen Myinkaba stupas and temples inserted below indicates that the festivals are more often seen in the northern part of the village (Figure 19; Table 1). This may simply reflect the Department of Archaeology's administration of the older ones in the south, or the absence of an active pagoda trustee committee.

The Manuha located in the centre of the village has its festival responsibilities shared by three wards. The related activities include local snacks and a popular festival known as *Ayoke Thwin*, with over-size puppets made on bamboo frames (Theint 2021: 257). The puppets are large animal and human figures fashioned out of bamboo in different styles. Paper is pasted on the bamboo framework of figure, then painted and decorated with other materials, such as adding hair or reins for a horse. The figures are open at the bottom, worn by one to four performers with their head and shoulders inserted in the Ayoke (Soe Win Naing et al. 2015: 6). The Ayoke Thwin festivals stand out as a symbol of bamboo technology and ideas as well as strong social cooperation.

The puppetry is renowned today, with the puppets often constructed within monastic compounds, one of the beneficiaries of monies raised. There is no direct evidence of their antiquity; this is also the case with over-sized puppets made in Dawei to raise funds for monasteries (Moore and Soe Thainka 2019: 151). Indeed, one of the authors interviewed her grandfather, who suggested the oversize puppet festival dated to the nineteenth century. Thus like many other aspects of Myinkaba, future research is called for. The Ayoke Thwin is both a pagoda and seasonal festival, being held in the Myanmar months of Wakhaung and Tawthalin. Other temples in the southern part of Bagan celebrate Ayoke Thwin festivals such as the Myazedi although the Ayoke dancing and a competition between monasteries and villagers of Myinkaba at Manuha is unique. The judgment is not on the quality of figure dancing but the style, ideas on making of figure and character from 550 Jatakas, legends, oral history, beliefs and craftsmanship. Although during the Bagan era the festival may well have focused on local snacks of beans and sugar, many performers traditionally believe that their ancestors also enacted the Ayoke Thwin festivals in Myinkapa village during the ninth to thirteenth century CE Bagan period. It is also thought that the installing of the Ayoke pays homage to the Manuha pagoda (Soe Win Naing et al. 2015: 6).

Various associations sponsor the Ayoke Thwin competition. Out of fourteen monasteries in Myinkaba village, twelve monasteries and associations of six quarter villagers join in with six monasteries and ten communities take place in competition. In 2015, eighteen groups each performed a different tale. Several were Buddhist, from the tale of Angulimala to the Yama jataka but others with connections to Manuha, such as his alms bowl and some popular figures like a '3 in 1' Disco with two female ayoke to shake a live dancing boy (Soe Win Naing et al. 2015:7).

During the author Theint Aung's stay in the village from 2019 to 2023, she gained valuable insights into local traditions and practices. Some artisans continued to make paper puppets for

children during the Pagoda festival days, despite the absence of official paper puppets celebrations and public visits between 2020 and 2024.

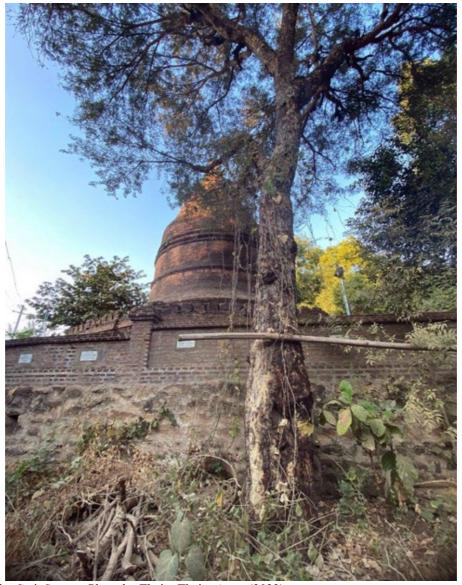


Fig. 18 Myinkaba Ceti. Source: Photo by Theint Theint Aung (2023).

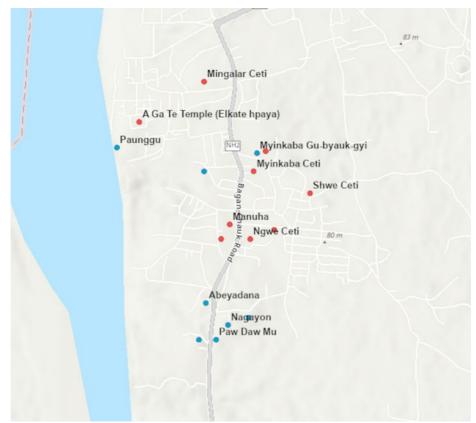


Fig. 19 Map showing temples in Myinkaba with annual festivals. Spurce: Map by Moore (2023).

Name	IMP No	Festival	Type	Est date	Lat	Long
Mingalar Ceti	1439	yes	stupa	12	21.1611	94.8578
A Ga Te Temple (Elkate hpaya)	1340	yes	Temple	12	21.1589	94.8540
Paunggu	1339	no	stupa	11	21.1575	94.8527
Mya Ceti	1320	yes	stupa	12	21.1573	94.8614
Myinkaba Gu-byauk-gyi	1323	no	Temple	11	21.1572	94.8609
N. Myinkaba temple	1335	no	Temple	14	21.1562	94.8578
Myinkaba Ceti	1328	yes	stupa	11	21.1562	94.8607
Shwe Ceti	1316	yes	stupa	18	21.1550	94.8640
Manuha	1240	yes	Temple	11	21.1533	94.8593
Shinpin Oattama Temple	1237	yes	Temple	13	21.1530	94.8619
Nanphaya	1239	yes	Temple	11	21.1525	94.8588
Ngwe Ceti	1235	yes	stupa	19	21.1525	94.8605
Abeyadana	1202	no	Temple	11	21.1490	94.8579
Lay Myet Hna	1185	no	Temple	12	21.1482	94.8604
Nagayon	1192	no	Temple	11	21.1478	94.8592
Soemingyi	1145	no	stupa	11	21.1470	94.8575
Paw Daw Mu	1193	no	stupa	11	21.1470	94.8585

Table 1 Table of the principal temples in Myinkaba with festivals, type, estimated date and location. Source: Moore (2023).

#### Conclusion

The location, history, lacquerware, glass production and religious architecture distinguish Myinkaba from others of the nineteen founding villages that have been sustained until today. Natives of Myinkaba, some of whom self-identify as Mon, are quick to protest if considered to be from the port village/town of Nyaung U, for example. More information and research are needed to assess the degree of local knowledge of the history for Nyaung U and other villages to compare to the active local knowledge of Myinkaba's legacy. There is also the strong historical association to Manuha and the era of King Anawrahta; Myinkaba's name as Anuradha is linked to this ruler. While certainly every village at Bagan is unique, we follow on the lead author's ongoing research on the origins and sustainability of lacquer production at Myinkaba (Theint Aung 2021). The community identification is with the village, and the community life of maintaining the active temples through the income generated by the festivals. The Bagan Heritage Trust has for several years worked with the villages throughout Bagan alongside the archaeology and monastic oversight within the Ministry of Religious Affairs and Culture. The distinctive character sketched out in this article highlights how village level organisations or crafts such as lacquer heritage groups could provide effective support for and coordination with the area-wide groups (Su Su et.al. 2021: 225).

The traditional history of King Manuha and the capture of Thaton, whether apocryphal or an actual past event, marks a significant point in the development of Bagan. This is also the case with the adjacent Nan-phaya with the remarkable stone reliefs mentioned earlier and Mon glosses and murals of the Myinkaba Gu-byauk-gyi. For the earlier glass production evidenced in the kiln remains, ongoing analysis of materials from the seven sites in Myinkaba may suggest connections to glass from Mon areas perhaps in the first millennium CE (Hein and Ramsay 2020, Tomomi Tamura 2019, UNESCO 2019a: 125). This early dating is supported by finds of finger-marked bricks of the first millennium CE recorded along the Ayeyarwady at Paunggu, and large round-bottom pots that continue to be produced. In addition, Myinkaba is renowned for its lacquer production utilising two of the three bamboo species that are traded along the river to the Myinkaba and Buphaya ports with bamboo-based lacquer production demonstrated in the Bagan era.

The location of Myinkaba just south of a major bend in the Ayeyarwady as noted, brings ongoing sand deposition which together with its large *in-gyi* or seasonal lake and the perennial Myinkaba stream, may have stimulated the glass production and then the settlement of the Mon retinue in the eleventh century CE. The village has sustained a distinctive social, religious and economic resilience to the present. Although today expanding, it has also retained village dimensions in contrast for example to Nyaung U. The tangible and intangible elements provide a vital path for sustainability, recognising that "heritage sites are in a constant state of evolution through an iterative process with the communities of users of the sites" (Galloway 2023: xxxi). Empowerment of village level individuals and groups does not necessarily mean parity and a constant peace but rather one of engagement and changing negotiation in an open dialogue of both the intangible and the tangible aspects of Myinkayba (Bergès 2022: 221). The Management Plan of the UNESCO inscription of Bagan, nonetheless, underlines the significance of villages but within sustainability of all the villages at Bagan with their ancient and living heritage for tourists and pilgrims (UNESCO 2019b: 46).

The individual character of Myinkaba described here calls for greater attention to the village landscape in the future management of the UNESCO World Heritage site. One of the criteria under which Bagan was inscribed was Criterion (vi), its living culture where the viable maintenance lies with the local communities (Galloway 2023: 214). Myinkaba, as shown throughout this paper, epitomises this self-responsibility and care for the habitus. Several aspects recall the Pyu cities, from the retention of original natural landscape and key natural resources to the use of the land slope at descending across the village to the *in-gyi* (UNESCO 2014: 127). Conservation of these traits serves also to explore the connections of villages such as Myinkaba to earlier cultures. Myinkaba, a physically, socially, and mentally constituted place, is one of seven villages within the inscribed World Heritage site of Bagan (UNESCO 2019a: 12). Its dynamic combination of historical, cultural and natural resources, specialised production and trade need to be kept for the next generations.

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### References

- Aung Myint, Maung (Nyaung-U) (1993). မြင်းကပါရွာမှ ပန်းယွန်းအနုပညာ၊ [Pan Yun Art from Myinkaba]. Yangon: Thidar Yaysin Sarpay Press.
- Bergès, E. (2022). Cultural Heritage and peacebuilding in Rakhine State, Myanmar. In: T. Clack and M. Dunkley (eds) Cultural Heritage in Modern Conflict Past, Propaganda, Parade. London: Routledge, 207-231.
- Cultural Landscape Foundation (n.d.). Connecting people and places. About Cultural Landscapes. Available at: https://www.tclf.org/places/about-cultural-landscapes [accessed 27 June 2024].
- Dello Strogolo, S. and Kyaw Nyein (1963). Report on Pagan Trip for Analysis of Old Glazing Kiln. Unpublished work.
- Engelhardt, R. (2023). Foreword. In: K. D. Silva, K. Taylor and D. S. Jones (eds.) The Routledge Handbook of Cultural Landscape Heritage in The Asia-Pacific. London: Routledge, xxix-xxxiii.
- Galloway, C. (2006). Burmese Buddhist Imagery of the Early Bagan Period (1044-113), PhD Thesis, Australian National University, Canberra.
- Galloway, C. (2023). The Role of Community in the Management of Heritage at Bagan, Myanmar. In: K. D. Silva, K. Taylor and D. S. Jones (eds.) The Routledge Handbook of Cultural Landscape Heritage in The Asia-Pacific. London: Routledge, 202-227.
- Goh, G. Y. (2014). The Wheel-Turner and His House: Kingship in a Buddhist Ecumene. Ithaca: Cornell University Press.

- Hein, D. and Ramsay, W. R. H. (2020). The Kilns of Myinkaba For Pottery or glass? In: H. Lewis (ed.) EurASEAA14 Volume II Material Culture and Heritage, Papers from the Fourteenth International Conference of the European Association of Southeast Asian Archaeologists. Oxford: Archaeopress, 22-40.
- Hein, D. (2014). The Kilns of Myinkaba, Glass bead manufacture in Myanmar. Paper presented at the Ceramics Symposium, Yangon, Myanmar.
- Hninn Wut Yee Latt (2022). Pan Seh Myo: Ten Arts. Presented at the SOAS Postgraduate Diploma in Asian Art Lecture, 15 June, London, United Kingdom.
- Hudson, B., Nyein Lwin and Win Maung (Tampawaddy) (2022). Digging for Myths:
  Archaeological Excavations and Surveys of the Legendary Nineteen. Founding Villages of Pagan. In: A. Green and T. R. Blurton (eds.) Burma Art and Archaeology. London: The British Museum Press, 9-21.
- Ikeda, M. (2020). Toward an understanding of cultural heritage and sustainable management: a case study from Phrae Province, Thailand. In: H. Lewis (ed.) EurASEAA14 Volume II Material Culture and Heritage, Papers from the Fourteenth International Conference of the European Association of Southeast Asian Archaeologists. Oxford: Archaeopress, 172 -182.
- Khin Khin Si (2019). Comparison of Myanmar Lacquer Ware Arts and Crafts Between Bagan-Myinka-Ba and Monywa-Kyauk-Ka Regions. International Journal of Management and Applied Science 5(10): 24-27.
- Kyaw Swe Nyunt (2021). Myanmar Lacquerware and Its Prospects. In: The 3rd APHEN-ICH International Seminar Diversity and Distinctiveness: Looking into Shared ICH in the Asia-Pacific. UNESCO ICH: 52-64.
- Lefebvre, H. (1991). The Production of Space. D. Nicholson-Smith (trans.). Oxford: Blackwell.
- Lankton, J. and Pyiet Phyo Kyaw (2015). Early glass bead production at Mu Pon in southern Myanmar. Paper presented at EurASEAA:15th International Conference of the European Association of Southeast Asian Archaeologists, Nanterre, France.
- Luce, G. H. (1966). The Career of Htilaing Min (Kyanzittha), the Uniter of Burma, fl. A.D. 1084-1113. The Journal of the Royal Asiatic Society of Great Britain and Ireland, April 1(2): 53-68.
- Luce, G. H. and Bohmu Ba Shin (1961). Pagan Myinkaba Kubyauk-gyi Temple of Rājakumār (1113 As) and the Old Mon writing on its walls. Bulletin of the Burma Historical Commission, Vol. II: 277-416.
- Macrae, S., Iannone, G., Saw Tun Lin and Nyein Chan Soe (2022) Ancient inscriptions and climate change: a study of water management at the ancient capital of Bagan, Myanmar. Asian Archaeology 6: 201-212.
- Mitchell, N., Rössler, M. and Tricaud, P. (2009) Landscapes and Cultural Landscapes. In: N. Mitchell, M. Rössler, and P, Tricaud (eds.) World Heritage Landscapes: A Handbook for Conservation and Management. Paris: UNESCO, World Heritage Centre, 17-19.
- Moore, E., San Win, U and Pyiet Phyo Kyaw (2016). Water Management in the Urban Cultural Heritage of Myanmar. TRaNS: Trans—Regional and—National Studies of Southeast Asia July 4(2): 283–305.
- Moore, E. and Soe Thainkha (2019). The Ancient City of Mokti in the Tenth to Thirteenth Century CE Bagan Period. SOJOURN Journal of Social Issues in Southeast Asia, ISEAS Yusof-Ishak Institute. Singapore. 34(1):149-184.

- Moore, E. (2023). Wider Bagan, Ancient and Living Buddhist Traditions. Singapore: ISEAS Publications.
- Myo Myint (2002). The Lacquerware Industry in Kyaukka Today. In: M. Kopplin (ed.) Lacquerware in Asia, today and yesterday. Paris: UNESCO, 187-190.
- Myo Nyunt Aung (2023). The Study of the Encased Buddhist Monuments at Bagan: A Systematic Survey and Analysis. PhD Thesis, Silpakorn University, Bangkok.
- Nai Pan Hla (1998). Kyanzittha and the Indic words in Myanmar from Mon,1-12. Available at: http://sealang2.net/archives/mks/pdf/28:19-30.pdf [accessed 2023].
- Nyan Htun (n.d.). Bamboos of Myanmar. Available at: https://www.bioversityinternational.org/fileadmin/bioversity/publications/Web\_version/572/ch28.htm#TopOfPage [accessed 2023].
- Nyein Maung (1972). ရှေးဟောင်းမြန်မာ ကျောက်စာများ [Ancient Myanmar Inscriptions 474–600 ME] Volume 1. Yangon: Ministry of Culture.
- Pe Maung Tin and Luce, G. H. (1921/1960) Glass Palace Chronicle of the Kings of Burma. London: Oxford University Press.
- Pyiet Phyo Kyaw, Macrae, S., Kong, C. F., Iannone, G., Nyein Chan Soe, Saw Tun Lin (2020) From the Mountains to the Ayeyarwady River: Water Management in Bagan, Myanmar during the 11th to 14th centuries. In: N. H. Tan (ed.) Advancing Southeast Asian Archaeology 2019. Selected Papers from the Third SEAMEO SPAFA International Conference on Southeast Asian Archaeology. Bangkok: SEAMEO SPAFA, 306-315.
- Soe Win Naing, Naing Soe and Saw Tun Lynn. (2016). The Role of the Myanmar Archaeology Association (MAA): Why the 'Grassroots' Level'. Presented at ISEAS Workshop on The Heritage of Ancient and Urban Sites: Giving Voice to Local Priorities, 14-15 March, Singapore.
- Su Su, Win Thant Win Shwin, Ohnmar Myo, Galloway, C., and Moore, E. (2021). Heritage Education in Myanmar developing resilience and sustainability through community engagement. In: N. H. Tan (ed.) SPAFACON2021, Papers from the SEAMEO SOAFA International Conference on Southeast Asian Archaeology and Fine Arts. Bangkok: SPAFA, 220-234.
- Than Htaik (2002). Myanmar traditional lacquerware techniques. In: M. Kopplin (ed.) Lacquerware in Asia, Today and Yesterday. Paris: UNESCO, 183-186.
- Than Htun (Dedaye) (2013). Lacquerware Journeys: The Untold Story of Burmese Lacquer. Bangkok: River Books.
- Theint Aung (2021) Myinkaba Village Bagan: The Resilience of Traditional Knowledge and Culture. In: N. H. Tan (ed.) SPAFACON21, Papers from the SEAMEO SPAFA International Conference on Southeast Asian Archaeology and Fine Arts. Bangkok: SEAMEO SPAFA, 254-261.
- Tomomi Tamura (2019). Chemical analysis of ancient glass beads in and around mainland southeast Asia. In: M. Sibayama (ed.) The Ancient East-West Corridor of Mainland Southeast Asia. Bangkok: Geo-informatics International, Asian Institute of Technology, 233-289.
- UNESCO (2014). Pyu Ancient Cities. Available at: https://whc.unesco.org/uploads/nominations/1444.pdf [accessed 27 June 2024]

- UNESCO (2019a). Bagan. Available at: https://whc.unesco.org/en/list/1588/documents/ [accessed 27 June 2024]
- UNESCO (2019b). Integrated Management Framework (Management Plan) 1588-2033. Volume III, Annex R. Available at: https://whc.unesco.org/en/list/1588/documents/ [accessed 27 June 2024]
- Wai Wai Lwin (2020). A Study on the Great Manuha Temple in Bagan. Maubin University Research Journal 11: 96-103.
- Win Kyaing (2018). The Water Management of Historic Bagan: The Chronology and Typology of Hydraulic Works in the Ancient Buddhist City. In: N. H. Tan (ed.) Advancing Southeast Asian Archaeology 2016, Selected Papers from the Second SEAMEO SPAFA International Conference on Southeast Asian Archaeology. Bangkok: SEAMEO SPAFA, 276-287.
- Win Maung (Tampawaddy) (2016). မြစ်သာ ၁၁ ရွာ ကွင်းဆင်း လေ့လာချက် မှတ်စု။ Myit-tha-hset-taywa- kwin-hsin- laet-la-chet-hmat-su [Collective Study of the Eleven Villages of Myittha]. In: ဆရာကြီးဦးမောင်မောင်တင်၏ မွေးနေ့ အမှတ်တရ စာတမ်းများ။ [U Maung Maung Tin
  - Birthday Remembrance Celebrations]. Yangon: Pyinsagan Sa Oat Taik.