

# Origin of City Planning of Mandalay, Royal City of Burma (Myanmar) in Mid-19<sup>th</sup> Century

Koji YAMADA,<sup>1</sup> Chihiro WATANABE<sup>2</sup>

<sup>1</sup> Member of JSCE, Chief Planner of Nippon Koei Co., Ltd.; Representative Director of Kisho Kurokawa Architect and Associates

<sup>2</sup> Architect, Kisho Kurokawa Architect and Associates

## Abstract

Mandalay was the last capital city of the Kingdom of Burma, and is the second largest city in Burma (Myanmar) today. Mandalay was planned and built by King Mindon, the penultimate King of Burma in the middle of 19<sup>th</sup> Century. This research examines the chronological process and physical feature of Mandalay's city planning through various documents and references, and thus clarifies the origin of the planning of Mandalay. It was concluded that planning of Mandalay followed the historical capital cities of Burma particularly Amarapura.

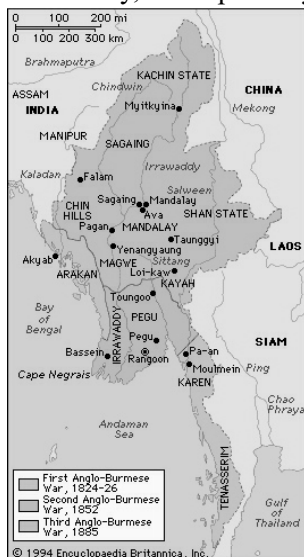
**Key Words:** Mandalay, Yangon, Burma, Myanmar, King Mindon

## 1. BACKGROUND OF THE RESEARCH AND OBJECTIVES

Mandalay City is a major city in Upper, or inland part of Myanmar, or Burma. Mandalay has a population of 1.22 million in 2014 (estimated by Ministry of Construction), and is the second largest city in Myanmar after Yangon. Mandalay is located on the eastern bank of the Irrawaddy River which runs through a large part of Myanmar from north to south.

In mid-19<sup>th</sup> century when Mandalay was built as a planned city by Burmese King Mindon in Upper Burma, Lower Burma was under control by the British, and another planned city, Rangoon (present Yangon), was being built by the British<sup>1</sup>. Both were a city with grid pattern roads, built almost concurrently, but with different planning principles.

The objective of this paper is to clarify the origin of the planning of Mandalay, to which there had been several theories or hypothesis offered in previous studies, based on various documents, particularly the royal orders at the time of the making of Mandalay, and maps shortly after it was built.



**Fig.1 Kingdom of Burma and British Burma at the times of First, Second and Third Anglo-Burmese Wars**

Source: Encyclopedia Britannica

## 2. METHODOLOGY OF THE RESEARCH

In this Research, first previous studies relating to the planning of Mandalay was reviewed (Chapter 3), covering primary documents of the time of planning, and in later years, and theories about the planning of Mandalay was summarized in three hypotheses. Then historical background of planning of Mandalay was clarified, focusing on the history of the royal cities in Burma, and situation in mid-19<sup>th</sup> century when Mandalay was built (Chap. 4).

Then analysis of Mandalay's planning was made in view of spatial feature, using maps and documents of the time of planning, and of chronological process of planning and building of Mandalay, using mainly royal orders and other documents (Chap. 5). After that, discussion on planning of Mandalay was done on three of the hypothesis established for the planning of Mandalay (Chap. 6) and the conclusions are given (Chap. 7).

## 3. PREVIOUS STUDIES ON PLANNING OF MANDALAY

### 3.1 Descriptions of Mandalay in Previous Publications

#### (1) O'connor (1907)

O'connor wrote extensively about the historical cities in Burma in "Mandalay and Other Cities of the Past", in which he mentioned about the planning of Mandalay. He wrote, "The greatest care was taken to follow the traditional plan of the older capitals of the country; and it is in this perpetuation of an ancient tradition that the true architectural interest of Mandalay resides<sup>2</sup>."

#### (2) Scot (1916)

Scot's paper in Suburban Department Committee of Rangoon wrote about the planning of Mandalay in 1916 in the heading of "Town Planning in Burma" which wrote, "King Mindon was evidently under the influence of Chinese ideas; his model of a capital was Peking. Accordingly the core of Mandalay is the walled city. This is as nearly as possible a square, each of

whose sides is just over a mile long, defended by a moat and a brick wall backed by an earthen rampart. Exact orientation was evidently aimed at but has not been quite attained: the instruments used were probably defective<sup>3</sup>.”

### (3) Directorate of Archeological Survey (1963)

Directorate of Archeological Survey (DAS) published a paper on Mandalay in 1963, in which they provided an observation about the plan of Mandalay similar to Scot. DAS wrote, “It has been seen that the city of Khan Baliq (Peking) and the palace there in of the great Mongol Emperor Kublai Khan and those of Mandalay were built practically on the same plan; this plan has been called pan-Asiatic, owing to its being found embodying the same general features over a great part of Asia.<sup>4</sup>” They also said, “His [Kublai Khan's] capital of Khan Baliq (Peking), which he founded in 1264 near the site of the old city, corresponds almost exactly to that of Mandalay<sup>5</sup>.”

### (4) Foucar (1963)

Foucar (1963) wrote, “Mindon heard tales of the growing importance of Rangoon, of the wide streets that had been laid out and of the fine buildings that were fast replacing the mean huts of matting and thatch of older days. Something must be done to restore the diminished glory of Ava. Mindon resolved that he, too, would build a city and perpetuate his name with a capital fairer than any his predecessors had raised.<sup>6</sup>”

In the planning of Mandalay Foucar followed the same theory that planning of Mandalay comes from Kublai Khan's capital city of Peking, saying, “Mandalay, distant only a few miles from Amarapura, was laid out according to ancient precedent; it was of the oriental pattern old even in the days of Kublai Khan<sup>7</sup>.”

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### (5) Maung Maung Tin & Morris (1966)

Maung Maung Tin & Morris (1966) stated about the origin of Mandalay a little differently from the above. He mentioned, “Mindon Min and his more rational advisors began to plan systematically for the inevitable [building of a new capital] as soon as he attained the throne in February 1853. Moreover, they could not have been entirely ignorant of the effects which were being produced by Captain Fraser's town planning in Rangoon<sup>9</sup>.”

### (6) Ohno, Toru (1983)

Ohno (1983) reviewed various aspects of planning and construction of Mandalay, and concluded, “Mandalay was designed basically on the same plan as the preceding capitals of Ava and Amarapura<sup>10</sup>”. Ohno also mentioned that the construction of Mandalay is based on a prophecy of Buddha that a great Buddhist capital would arise in the 2400<sup>th</sup> year after the *parinibbana* [passing away] of Buddha. In Burma, *parinibbana* is believed to have occurred in A.D. 544<sup>11</sup>, so the 2400<sup>th</sup> year corresponds to A.D. 1856, or 3 years after King Mindon's accession to King of Burma. Ohno wrote that King Mindon was well aware of the prophecy, and launched the

construction of Mandalay in accordance with this<sup>12</sup>.

### (7) Funo, Shuji (2003)

Funo (2003) reviewed the spatial formation and transformation of Hindu cities, and pointed out that Mandalay is a city of Mandala, a symbol of the universe in Hinduism and Buddhism. He discussed that Amarapura was succeeded by Mandalay, and the two cities share the same spatial character. He also pointed out that Ancient Indian Model and Ancient China Model are close to each other, and Amarapura and Mandalay follow Ancient China Model closely<sup>13</sup>.

## 3.2 Theories for the Origin of Planning of Mandalay

Based on the foregoing, the authors summarize the origin of the planning of Mandalay in the following three hypotheses;

- Hypothesis 1: Mandalay followed the pan-asiatic plan of capital cities, particularly that of Peking, as built by Kublai Khan: Scot (1916); DAS (1963); Foucar (1963); and Funo (2003).
- Hypothesis 2: Mandalay followed the historical capital cities of Burma, such as Amarapura and Ava: O'connor (1907); and Ohno, Toru (1983)
- Hypothesis 3: Planning of Mandalay had influence of Rangoon's planning by the British: Maung Maung Tin and Morris (1966); and Foucar (1963).

## 4. Historical Background

### 4.1 History of Castle Cities in Burma

The castle is a large building, fortified against attack with thick walls, battlements, towers, and often a moat. In ancient and medieval Asia, the castle often provided protection to the people under the monarchy; such a castle is called a castle city. The castle city having a place for the monarchy of the nation, such as the emperor or a king, is the capital city of the empire or a kingdom.

#### (1) City States of Phu

The Phus were the earliest to establish their nation in Burma. The oldest of the Phu's City States was Beikthano, which is thought to be in prosper during A.D. 1 through 5 centuries<sup>14</sup>. There is a ruin of an earthwork of a rounded rectangular shape. Inside of the outer earthwork, there are ruins of a monastery, temples and pagodas, and a few ponds for impounding water are to be seen even today. The ruin of the palace is a sharp rectangular shape in the centre of the earthwork<sup>15</sup>.

Sri Ksetra, or *Thayekhittaya* in Burmese, is the newest city state of the Phus on the Irrawaddy river about 250 km downstream of Bagan. Sri Ksetra, meaning the Nation of Glory in Sanskrit, prospered in from A.D. 4 through 9 century. Sri Ksetra has an elongated round castle ruin, about 3.5 km east-west; 4.4 km north-south. In the castle there had been 32 gates. Some of the gates are still to be seen today.

#### (2) Bagan

Bagan Dynasty (1044 – 1287) was the first integrated nation in Burma run by Burmese. The capital city of the dynasty was in Pagan in the middle reach of the Irrawaddy River. The capital city, “Old Bagan”, was with a square shaped walls. The structure of the castle looked to have an eastward orientation, which is common to Burmese castle cities<sup>16</sup>. Bagan de-

veloped irrigated farmland system and promoted trade with India and China, and the economy prospered<sup>17</sup>, but in 1283 Khbilai Khan invaded Burma, and the Bagan fell in 1287<sup>18</sup>.

### (3) Ava

After the fall of the Bagan Dynasty, Burma became disintegrated again. The Shan made kingdoms for themselves at Pana and Sagaing and the Mon reestablished their power at Pegu in the south<sup>19</sup>. In 14<sup>th</sup> century, Ava, or *Inva* in Burmese, was founded<sup>20</sup>, but Ava was attacked by the Shan and Chinese in 1422. Then in 1636 Ava was re-established as the capital<sup>21</sup>. Afterwards, Ava was taken over by the Mon, and in 1764, Ava was rebuilt and a splendid palace was built. Ava was finally abandoned after earthquakes in 1839.

### (4) Amarapura

In 1782, King Bawdawpaya built a new capital, Amarapura (meaning City of the Immortals), 10 km northeast of Ava. Shifting of the capital city between Ava and Amarapura took place a few times in 18<sup>th</sup> and 19<sup>th</sup> centuries; Ava to Amarapura in 1783, Amarapura to Ava in 1821; and Ava to Amarapura in 1842, and Amarapura was capital until shifted to Mandalay. The center of Amarapura was a 1.6 km square royal palace with a grand wooden palace<sup>22</sup>. Amarapura was the capital city until the new capital was built in Mandalay in 1859. As will be discussed later, plan of Amarapura resembles that of Mandalay. Amarapura, as shown in Fig. 3, is "an enormous, perfectly square enclosure, with walls over a mile, surrounded by a wide moat and then by numerous supporting towns and villages"<sup>23</sup>.

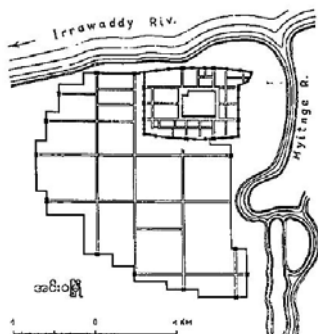


Fig.2 Ava at end of 19 Century

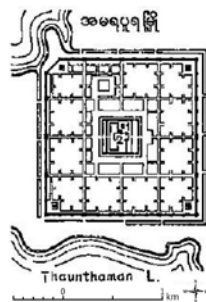


Fig.3 Amarapura - Plan of Citadel in 1782

## 4.2 History of Burma Up to Mid-19<sup>th</sup> Century

### (1) First Anglo-Burmese War

In 1824, a war broke out between Burma and British East India Company. The British side overwhelmed, and Burma surrendered two coastal provinces of Arakan (present Rakhine) and Tenasserim (present Thaninthayi), as shown in Fig. 1.

### (2) Second Anglo-Burmese War

Since the second half of 1851, the Anglo-Burmese relationship became more and more uneasy, and finally, a war was declared by the British on April 1 1852. Throughout the battle, fires raged in various parts of the town of Rangoon<sup>24</sup>. By April 11 1852, the city of Rangoon and the Shwedagon Pagoda became under the control of the British. City of Rangoon came under control by the British.

### (3) Annexation of Pegu

In December 1852, British India proclaimed the annexation of the area along the coast between the two minor provinces

already under their control, Arakan and Tenasserim, and put it as part of their territory in the East. The new minor province was named Pegu and included the cities of Rangoon, Pegu (present Bago) and Prome (present Pyay). As the whole coastal zone of Burma became under control of the British, the Burmese Kingdom was thus contained in the Upper Burma, the inland and land-locked part of Burma.

### (4) Planning and Building of Rangoon

Even before the annexation of Pegu, the British had a vision of making Rangoon the capital city of British Burma with its potential as a port city on the Rangoon River. Upon the proclamation of the annexation, the British started the planning of the new capital city or Rangoon. The plan of Rangoon was under the direction of Arthur Phayre, Commissioner of Pegu. The plan was complete in early part of 1853, and building of the new city started shortly afterwards<sup>25</sup>.

### (5) Planning and Building of Mandalay

A royal order to build Mandalay as the royal city of Kingdom of Burma in Upper Myanmar was issued in January 1857, only 4 years after the completion of Rangoon plan in lower Myanmar by the British. The Royal Palace was completed in July 1858, and the construction of the city continued until 1874, when a ceremony for the new capital city was conducted.

## 5. ANALYSIS ON PLANNING OF Mandalay

### 5.1 Spatial Feature of Planning of Mandalay

The spatial feature of the planning of Mandalay will be analyzed primarily through the historical documents/maps. There can be three major spatial extensions relevant to the spatial structure of Mandalay, as explained below.

#### (1) Royal City

In Burmese, a castle is called *myo*, and the castle city, or the capital of kingdom, is called *myo-daw*.<sup>26</sup> Royal City of Mandalay encloses not only Royal Palace where King's Palace is laid out, but also the surrounding city around it and some space outside of it. The area of Royal City was called Golden Chain Reserved Area (*shwe-gyo-that-ne* in Burmese<sup>27</sup>) and was approved on 27 January 1857.<sup>28</sup>

With regard to the planning of the royal city, an old faded and worn plan is known to exist, which was found in 1954 at Shenandaw Kyaung, Mandalay. Although the plan has neither names nor dates, Maung Maung Tin & Morris (1966) offered an estimate that the plan was prepared sometime during 1855<sup>29</sup>.

Ohno (1983) examined the plan mentioned above, supplemented by inscriptions, and prepared a map of Golden Chain Reserved Area. According to this, the Golden Chain Reserved Area of Mandalay is bounded on the north by the Madya (or Chaungmagyi) river, on the south by the Myitnge River, on the east by mountain ranges of the Shan Highlands, and on the west by the Irawaddy River. The area is 21 km east-west and 51 km north-south<sup>30</sup>, with a total area of approximately 1,100 km<sup>2</sup>.

Inside the city of Mandalay and its suburbs, the roads run parallel [to the walls of the Royal Palace], dividing the building sites into rectangular blocks<sup>31</sup>. Around the Golden Chain Re-

served Area a wall was built, and in all fifty-seven gates were built on the wall<sup>32</sup>. Mandalay and its environs was shown in a map published in 1914, as Fig. 4.

## (2) Royal Palace

Mandalay lies on the left (or the eastern) bank of Irrawaddy river. Unlike the previous royal city of Ava, Mandalay is not directly accessible from the river, which was a risk for the Burmese kingdom when they were in conflict with the British. Mandalay is situated at the foot of the Mandalay Hill which overlooks upon the city.

Mandalay, when it was built, was a double walled city. It had a city wall surrounding its territory along its periphery. In this walled city, a royal palace was set at the upper-center of the territory right at the foot of the Mandalay Hill.

Royal Palace (*Myo-daw* in Burmese) was a perfect square shaped area walled and surrounded by a moat. DAS (1963) wrote that the side of the square is “1 mile and a quarter<sup>33</sup>”. Ohno (1983) pointed out that the perimeter of the square corresponds to 2,400 *ta* in Burmese measurement while 1 *ta* equals 3.36 meters<sup>34</sup>. Thus one side of the square can be calculated to 600 *ta* or 2,016 meters, which is close to 1 mile and a quarter. The area of Royal Palace thus comes to 406 ha.

In a map published in 1914<sup>35</sup>, Royal Palace is shown as in Fig. 5. It can be seen that in each of the side there are 12 bastions (total 48 on the perimeter), dividing the Royal Palace into 144 blocks. There are three major east-west roads and three north-south roads, and near the enter of Royal Palace is a brick-walled block for the King's Palace.

## (3) King's Palace

According to Ohno (1983), the King's Palace (*Nan-daw* in Burmese) occupies 16 of the 144 blocks of Royal Palace with an area of 45 ha. DAS (1963) has a plan of the King's Palace as show in Fig. 6. The main gate to the King's Palace is on the eastern side of the Royal Palace. The Royal Palace faces the east as its main entrance. This can be seen from the symmetric elevation of the King's Palace from the east side, as shown in Fig. 7.

## 5.2 Chronological Process of Planning of Mandalay

The chronological process of planning of Mandalay is analyzed based chiefly on the documents in the following:

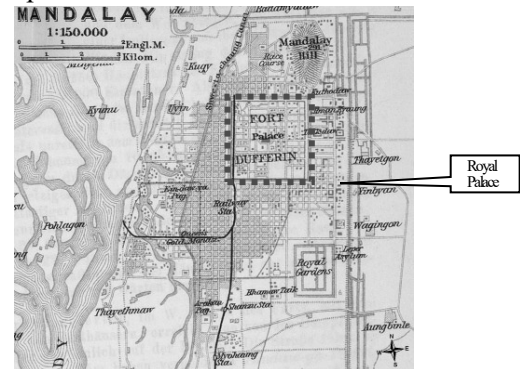
- (1) CSEAS of Kyoto University (1989)
- (2) Maung Maung Tin & Morris (1966)
- (3) Ohno, Toru (1983).
- (4) Travelers memories published in late 19<sup>th</sup> century, such as Bustian, A. (1866); arks J. E. (1868); and Anderson J. (1876)

The results of this analysis is summarized in Table 1, and summarized below.

King Mindon became King of Burma in February 1853. At that time the kingdom was contained in Upper (or inland part) of Burma, while the Lower (or coastal part) of Burma was under the control of the British India after Kingdom lost the second Anglo-Burmese war in 1852.

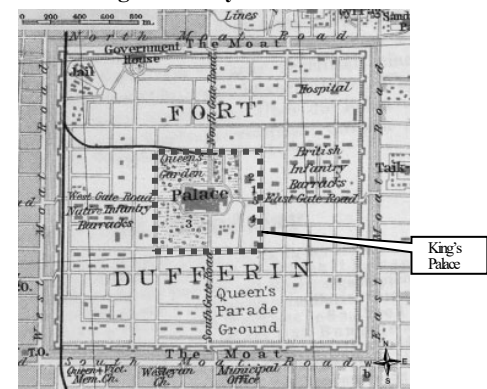
Building of Mandalay was planned and prepare by King Mindon when he sent out an expedition to survey the land for the new capital city in April 1856 or earlier. The land thus selected to build Mandalay on was called Golden Chain Re-

served Area. <EVENT 2 in Table 1>. In September 1856, an intimation was issued in reference to the Buddha's prophecy in which A.B.2400, Mandalay would become the Golden Capital and it would prosper beyond precedence. A.B. refers to “after the death of Buddha”. In Burma, the death of Buddha is believed to have happened in B.C. 544. Thus A.B. 2400 corresponds to A.D. 1856<sup>36</sup> <EVENT3>



Source: Baedeker (1914)

Fig.4 Mandalay and environ



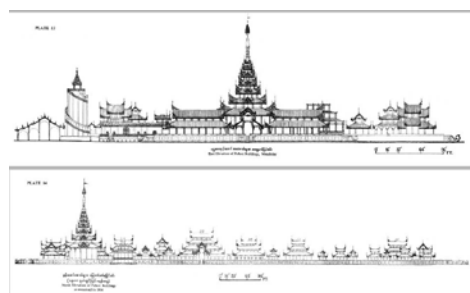
Source: Baedeker (1914)

Fig.5 Royal Palace (myo-daw) of Mandalay



Source: DAS (1963)

Fig.6 King's Palace (nan-daw) of Mandalay



Source: DAS (1963)

Fig.7 Symmetric Eastern Elevation (upper) and Asymmetric Southern Elevation (lower) of King's Palace (nan-daw) of Mandalay

In January 1857, a royal order was issued to build a new capital in Mandalay, and in February 1857, clearing of the land and pegging (marking by pegs) were started <EVENT 6 & 7>.

In March 1857, a temporary palace was built in what would become a royal palace, and in July the same year, King Mindon himself moved to the temporary palace. Construction of the royal palace was continued in full in 1857, and in July 1858, construction of all buildings in the palace was completed <EVENT 14>.

In April 1859, a royal order was issued to the effect of building the outer city of Mandalay in reference to the prophecy of Buddha. In May 1859, foundation stones were laid at the seven most important monuments, namely 1) city [wall]; 2) moat; 3) pagoda; 4) library; 5) hall; 6) monastery; and 7) ordination hall <EVENT 17>. These seven monuments were completed by March 1862 <EVENT 20>.

A ceremony for the new capital of Mandalay was observed in June 1874, or 18 years after the order to build Mandalay in 1856 King Mindon was reported to have done a tour of the city in a magnificent war boat, and crowned for the “second time.” <EVENT 21>

## 6. DISCUSSION ON PLANNING OF MANDALAY

### 6.1 Discussion of Hypothesis 1

Hypothesis 1: Mandalay followed the pan-Asiatic plan of capital cities, particularly Peking, built by Kublai Khan, appeared as early as 1916 in a paper by Scot, who was the President of Rangoon Development Committee. In 1963, two papers were published along the same line of discussion; DAS (1963) and Foucar (1963). U Khan Hla (1978) wrote that DAS (1963) was based on material by Charles Duroselle<sup>37</sup>, who was an eminent scholar of the *Pali* language and Superintendent of DAS.

#### (1) Pan-Asiatic Plan of Castle Cities as a Model

DAS (1963) explained about the main feature of “pan-Asiatic plan” as in the following:

- 1) The city was surrounded by high fortified walls,
- 2) Generally forming a square
- 3) Surmounted by bastions and towers
- 4) A deep moat running all along these walls
- 5) The palace was erected in the center, or very nearly the center, in most cases, of the city

DAS (1963) also discussed that the number of gates on the wall was not always exactly the same in every case, but there is a number of instances in which twelve gates are mentioned, as at Mandalay.

In the early part of 20<sup>th</sup> century, many researchers seem to have commanded a common plan of castle city for Asia, which they called the pan-Asiatic plan. Recently, however, more researcher use two models for Asia; namely, Ancient India Model which traces back to *Arthashastra*, a book written in B.C. 2 to A.D. 4 centuries, containing chapters on Capital (Castle) city; and Ancient China Model which follows *Rites of Zhou*, which was compiled probably in B.C. 3 Century. Conceptual patterns of the both of the Models according to O uji (2003) are shown in Fig. 8. A city following the Ancient Indian Model is shown in Fig. 9 according to Kirk (1978).

The both models are similar in that they have walls around the square castle, with three gates on each side of the square. But there are at least two differences in the two models; Ancient India Model has a concentric structure without clear distinction of orientation, which Ancient China Model has a central north-south belt, with the supreme ruler stands facing the south. Most of caste cities in China and others affected by this model in Korea and Japan have commonly clear north-south orientation. The other difference is the central facility: India Model has a religious facility, such as a temple, and China Model has a palace, which is the case in Mandalay. Mandalay can be said to follow either of the two similar models.

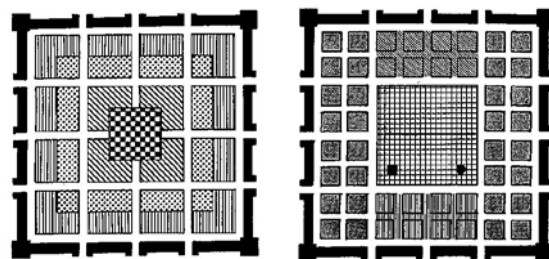
#### (2) Peking built by Kublai Khan as a Model

The second part of this Hypothesis claims that the plan of Mandalay follows from that of Peking, built by Kublai Khan in 13<sup>th</sup> century, as shown in Fig. 10. The plan shows a rectangular walled city, with a central enclosure including the royal palace, or the Forbidden City.

From the physical feature aspect, the plan has a clear north-south orientation as in most cities of Ancient China Model, with a wide road connecting from the Palace to the main gate south of it. The plan of Mandalay does not have this feature.

From the chronological analysis, there were no royal orders that referenced Peking at the time of building Mandalay.

So the authors conclude that this part of Hypothesis 1 does not hold truth.



Source: O uji (2003)

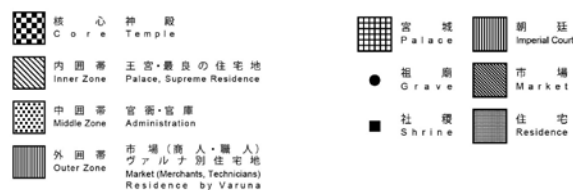
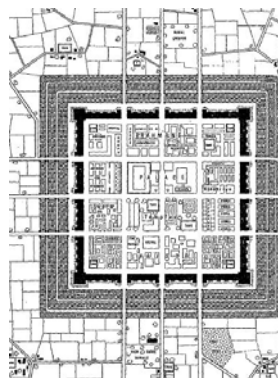


Fig.8 Ancient India Model (Left) and Ancient China Model (Right)



Source: Kirk (1978)

Fig.9 Plan of City following *Arthashastra* Model by Kirk



Source: Kurasawa (2007)

Fig.10 Kublai Khan's Peking

**Table1 Chronological Process of Planning and Construction of Mandalay**

**EVENT 1: King Mindon's Accession to King (17 Feb. 1853)**

To capture Amarapura [then the capital of Kingdom of Burma], Mindon Min and his younger Kauman fought a battle with King Bagan, who is a half brother of Mindon. King Bagan surrender on 17 February 1853, and Mindon Min became the King of Burma<sup>38</sup>.

**EVENT 2: King's Expedition (7 Apr. 1856)**

The Royal Order dated 7 April, 1856 mentioned that the king is sending expeditions to exploit the mineral resources of forty four villages in Mandalay. As the result, a territory of Mandalay, called Golden Chain Reserved, was set out. This intimation dated 7 April 1856 was written by Min Hla Theingathu, Shwe Pyi Le Daw Ok - Chief of Golden Capital Royal Lands, Than Daw Zint - Herald, and when it was read in Tea Room, Minister of Interior Lord Laung Shay approved it<sup>39</sup>.

**EVENT 3: Intimation for Mandalay Approved (16 Sep. 1856)**

An intimation dated Sep. 16, 1856 said, "The king is a true Sakyan and he follows all the good examples of his ancestors because he wants to rule with benevolence." And it went on to mention, "There are the Buddha's prophecies ... that in A.B. 2400 Mandalay would become the Golden Capital called Yadanabon and it would prosper beyond precedence; places around Mandalay are rich in natural resources and it is necessary to get them for use in the king's development schemes."<sup>40</sup>

**EVENT 4: Royal Order to Build a New Capital (13 Jan. 1857)<sup>41</sup>**

A royal order was issued on this day for the effect of selecting a proper site for a new city of Mandalay to realize the Buddhahood, which said, "Prince Siddhartha<sup>42</sup> has chosen a place good enough for him to get the Buddhahood so it is appropriate for the king to get a site that would enhance his future success, according to them the proper site is Mandalay where the ground level is even and the water in the surrounding channels runs clockwise. Such a site is rare and it is certainly a *Jayabumi* – Land of Victory". The royal order went on to say that in all the old records of prophecies, phenomenon and stories of monuments, "by A.B. 2400<sup>43</sup> Mandalay would grow into a big capital city ... where a Tuesday born king would start a dynasty that would last for many many generations<sup>44</sup>." It thus concluded that this was also the place of big and marvelous city, thus "Start building it in 1856 and complete the construction in 1859; the king would have the benefits of glory, long lie and victory. A new capital city and a new place would bring prosperity to both the Religion and the Kingdom<sup>45</sup>."

**EVENT 5: Boundary of New Capital Approved (28 Jan. 1857)<sup>46</sup>**

On this day, a map showing the boundary limits of the Gold Chain Reserved Area of Capital submitted; and the limits were approved<sup>47</sup>.

**EVENT 6: Jungle Cleared (1 Feb. 1857)<sup>48</sup>**

A royal order dated 1 Feb. 1857 said, "There were prophecies that in AB2400 a place called Mandalay would develop into a capital city", and continues to mention, "The site must be cleared of forest on 1 Feb. 1857, as it is the auspicious day named by the Pandits<sup>49</sup>."

Thus on 1 Feb. 1857, a jungle area encircled by Mandalay Hill on the north, earthwork north of Mahamuni Pagoda to the south, embankment of Aung Pinle Lake to the southeast, and The Shwetachaung channel to the west was cleared by 2,000 workers<sup>50</sup>.

**EVENT 7: Plan of City, Palace Pegged (13 Feb. 1857)<sup>51</sup>**

The city plan, palace plan and fortification plan etc. were marked and pegged. Thus the first stone of Mandalay was laid to please the King, and 150,000 people were prepared to give up homes in Amarapura, and moved to the bare new city<sup>52</sup>.

**EVENT 8: A Temporary Palace Built (14 Mar. 1857)<sup>53</sup>**

A temporary Palace was built at the northwestern corner of the palace site<sup>54</sup>.

**EVENT 9: New Arsenal Built (7 May 1857)<sup>55</sup>**

A new arsenal was built.

**EVENT 10: King Moved to Temporary Palace (2 Jul. 1857)<sup>56</sup>**

A royal order dated 13 Jun. 1857 said "Pandits suggested that 2 Jul. 1857 would be the best day for the king to move [into a temporary palace at] the site of new capital city<sup>57</sup>". Thus King moved to the temporary palace on this day to supervise the construction of the palace<sup>58</sup>.

**EVENT 11: New Capital Area Divided (Aug. 1857)<sup>59</sup>**

The new capital area was divided into the residential and commercial quarters.

**EVENT 12: Construction of *Hhutdaw* Started (26 Oct. 1857)**

The foundation work for *Hhutdaw* – the Primary Ministerial Council, was started by bearing holes and erecting pillars<sup>60</sup>.

**EVENT 13: Laying the Foundation (1 Dec. 1857)<sup>61</sup>**

To establish aid new capital city and palace could mean three things, said a royal order dated 1 Dec. 1857, vis. "the prosperity of the Buddha's Religion, the well being of the subject people and the abundance of all sustenance in life for everybody and this prosperity would continue in all the generations to come<sup>62</sup>". It instructed to study the records at the time of Ava and Amarapura when they were built. It continued, "The time of laying the foundation of the new capital city would be sometime on 4 Dec. 1857; get the programme drawn after having consulted the said records first<sup>63</sup>".

**EVENT 14: Palace Construction Finished (16 Jul. 1858)**

Construction of all the buildings in the Palace was finished on 16 July 1858<sup>64</sup>, and the Palace was named Mya Nan San Gyaw and the palace enclosure Lay Gyun Aung Myay. A ceremonial "Palace Taking" was done<sup>65</sup>.

**EVENT 15: Building Mandalay Outer City (28 Apr. 1859)<sup>66</sup>**

A royal order dated 28 Apr. 1859, stated, "The Mandalay Golden Hill Area is conserved to be the best or right site for building a new capital city, the reason are that there is the Buddha's prophecy saying that Tuesday born king would start a dynasty here, that the experts who know good land agree that it is really a *Bhumi Na Sam* – Land of Victory, that the area is extensive with green vegetation and all smooth level ground.<sup>67</sup>" Thus the building of Mandalay outer city was instructed.

**EVENT 16: Sealed Oil Pots Buried (15 May. 1859)**

On 15 May 1859, holes were dug at each of the four corners of the Palace, and fixed with bricks and plaster. In these holes, a total of 120 sealed clay pots, 40 of which containing black sesame oil, 40 white sesame oil and 40 rapeseed oil, were buried<sup>68</sup>.

**EVENT 17: Laying Foundation of Seven Monuments (22 May. 1859)<sup>69</sup>**

The same order dated 28 April, 1859 continued to mention seven most important places as 1) city [wall]; 2) moat; 3) pagoda; 4) library; 5) hall; 6) monastery; and 7) ordination hall. The order continued that there would be trees along the avenues and street light at night so that the city would be magnificent, and that according to calculations made by astrologers, the best day to lay the foundation of the above mentioned seven places is 23 May 1859.<sup>70</sup>

On 22 May, 1859, foundations stones were laid at Seven Monuments mentioned above; put name plates of twelve city gates, as there were three gates on each side of the city<sup>71</sup>.

**EVENT 18: Bastian Visited Mandalay (20 Dec. 1861)**

A renowned German ethnographer Adolf Bastian visited Burma in 1861 – 62, when Mandalay was being built. He arrived in Mandalay on 20 Dec. 1861, and observed, "the [Mandalay] hill offered us a view down into Mandalay's squares, from the middle of which a spiral tower jotted up with seven coils of gilded decoration, placed above the king enthroned in the center. ... The plan surrounding Mandalay was already starting to be covered with brightly colored monasteries and pagodas, which people were busily building<sup>72</sup>."

**EVENT 19: Seven Monuments Done (Mar. 1862)**

In this month, the construction of all the seven city monuments were done, and the capital's suburban area, including villages were defined<sup>73</sup>. The finished monument included the Palace, moat and five religious buildings such as a pagoda, monastery, ordination hall, pilgrim's lodging and scripture house<sup>74</sup>.

**EVENT 20: English Reverend Visited Mandalay (8 Oct. 1868)<sup>75</sup>**

An English Reverend Marks visited Mandalay to meet with King Mindon, and toured around Mandalay. He wrote about Mandalay, "On Saturday [8 Oct. 1868] I went out to see the city. It is large and well laid out, the streets wide and at right angles, but the houses mean and irregular. The city is inclosed by an embattled high brick wall, with several imposing gateways. Both wall and gate appear to be more for show than for use. The suburbs appear larger than the city. A hill on the N.E. is completely covered with Buddhist buildings and emblems. There are in Mandalay more than 20,000 yellow-robed Buddhist priests, etc."<sup>76</sup>

**EVENT 21: Ceremony for New Capital (6 Jun. 1874)**

A ceremony for the new capital, "Taking the Capital" was held to commemorate the completion of the new capital<sup>76</sup>. The ceremony was also witnessed by a British, who described, "When the king, in compliance with a prophecy, was crowned a second time in 1874, he made the circuit of the city in a magnificent warboat<sup>77</sup>."

**EVENT 22: Gates of Outer City Wall Finished (Apr. 1876)**

Mandalay was extended to the west of the Shewetahange stream, and all the fifty-seven gates of the outer city wall were finished.<sup>78</sup>

## 6.2 Discussion of Hypothesis 2

Hypothesis 2: Mandalay followed the historical capital cities of Burma, such as Amarapura and Ava will be discussed here. From the physical feature aspect, it can be said that the plan of Mandalay has clear similarity with that of Amarapura. Both plans have a square enclosure with walls surrounding it, and each side of the square has three main roads north-south and three main roads east-west. King's Palace is in the center of the enclosure in both plans. It should also be noted that King Mindon spent his young years in Amarapura, and he ascended throne and prepared for his new capital in Amarapura, which was built by his great grandfather.

Ava was the capital before it was shifted to Amarapura, but due to the location factor of having a river running through the city, Ava's plan was more skewed with a rectangular royal palace at the northeastern corner of the outer enclosure, and had a weakness of enemies having direct access from the Irrawaddy River, so the plan of Ava was probably not referenced much in Mandalay's plan.

From the chronological analysis, it was noteworthy that a royal order dated 1 Dec. 1857 instructed to study the records at the time of Ava and Amarapura when they were built. This is an evidence to support the hypothesis 2 that historical capital cities of Burma were referenced in Mandalay's planning.

## 6.3 Discussion of Hypothesis 3

Hypothesis 3: Planning of Mandalay had influence of Rangoon's planning by the British will be considered here. Planning and construction of Rangoon (Yangon) as the capital city of British Burma which was to take shape later, was started in 1852 by the British engineers and administrators. The plan of Rangoon was officially approved in early part of 1853, and construction started shortly afterwards. King Mindon's planning and construction of Mandalay was started in 1856, so only three years behind Rangoon<sup>79</sup>.

In the physical feature, little to be found in common to the two plans, except probably that both are rectangular grid type of city. Plan of Rangoon by the British follow from a grid pattern colonial city widely practiced in North and South America, which had little influence on Mandalay.

In the chronological analysis, no reference was made to planning of Rangoon in any of royal orders at the time of building of Mandalay.

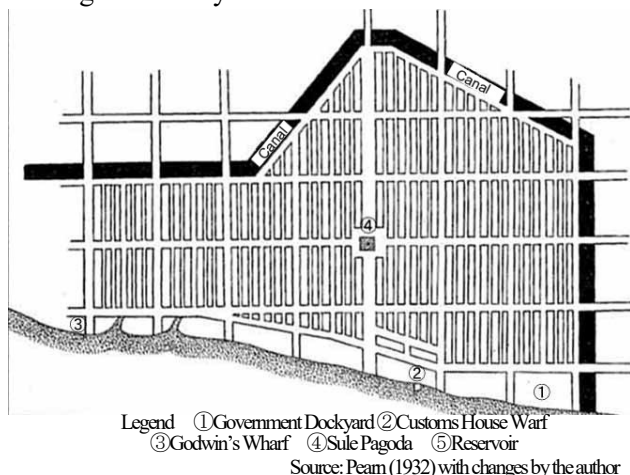


Fig.11 Plan of Rangoon Officially Adopted

King Mindon was concerned about Shwedagon Pagoda in Rangoon, which is an important guardian god of Burma. Also, it is known that King Mindon and Arthur Phyaure, Commissioner of Pegu, who was directing the planning and construction of Rangoon knew each other, and actually visited each other at least in a few occasions; August 1855, November 1859, and November 1866. So it may be natural to presume that King Mindon knew of the construction of Rangoon.

## 7. CONCLUSION

In this research, the process of planning and construction of the city of Mandalay was examined both from the chronological documentation and physical feature. In conclusion, the following findings were made:

- 1) Planning of Mandalay by King Mindon followed the historical capital cities of Burma such as Ava and Amarapura. In particular, Mandalay has followed Amarapura closely, as it appears in documented reference in royal order.
- 2) Planning of Mandalay has some common feature to other castle cities in Asia, but unlike some researches before 1970s, connecting Mandalay directly to a so-called pan-Asiatic model seems to have little evidence to support. Instead, Mandalay's physical feature has some factors in common with Ancient India Model and Ancient China Model concurrently.
- 3) There is no evidence to decide that Mandalay was affected by the planning of Rangoon by the British, which was ongoing just about the same time in Burma.

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- <sup>35</sup> Baedeker (1914). Attached map.
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- <sup>39</sup> CSEAS (1989), Intimation dated Sep. 16, 1856, P. 43.
- <sup>40</sup> CSEAS (1989), Intimation dated Sep. 16, 1856, P. 43.
- <sup>41</sup> CSEAS (1989), *Chronology 1853 - 1885*, P. xvii.
- <sup>42</sup> A legendary figure who was believed to become Buddha. See, Phayre (1884), P. 7.
- <sup>43</sup> A.B. refers to “after the death of Buddha” which is counted as A.D. (*Anno Domini* or the western calendar)+ 537; thus A.B. 2400 corresponds to A.D. 1857, although CSEAS (1989) misinterpreted this as A.D. 1856.
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## 19世紀中ごろのビルマ（ミャンマー）の王都マンダレーの都市計画の源流について

山田 耕治<sup>1</sup> 渡辺 千尋<sup>2</sup>

<sup>1</sup> 正会員, 日本工営株式会社技師長、黒川紀章建築都市設計事務所代表取締役  
<sup>2</sup> 黒川紀章建築都市設計事務所

### Abstract

マンダレーは、ビルマ（ミャンマー）の最後の王都であり、国内2番目の人口規模をもつ主要としてである。マンダレーは、ミンドン王によって19世紀中ごろに建設された。本研究では、当時の資料を時系列で整理するとともに、当時の地図や文献を駆使してその空間的な特性を把握し、これによりマンダレーの都市計画の源流を明らかにする。本研究により、マンダレーが、それ以前のビルマ王国の王都、とりわけアマラプーラを参照して計画されたことが明らかになった。

**Key Words:** Mandalay, Yangon, Burma, Myanmar, King Mindon

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