Excavation at Lumbini in Nepal

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The remains of Lumbini (located at lat. 27° 28' and long. 83° 40'E.) in Kapilavastu Country, Kingdom of Nepal has been believed by many Buddhists to be the holy place of Buddha's birth.

Lumbini was confirmed to be the birthplace by inscriptions engraved on Aśoka Pillar discovered A. A. Führer in 1896. A.A. Führer had discovered the Aśoka Pillar of Conagamana Buddha in Nigali Sagar in 1895, therefore these discoveries and investigation had been carried forward from the viewpoints of archaeology and its term study¹).

From the results of these studies, P. C. Muckerji who conducted an archaeological survey on Kapilavastu in 1898, dug out the remains of Tilaurakot and studied the differences between Tilaurakot and the remains of Kapila castle. He also dug out Lumindei and did an archaeological research on the birthplace of Buddha in Tarai²). The results of investigations by P. C. Muckerji became the foundation of research and study of Buddha's birthplace.

P. C. Muckerji dug out the lower part of Aśoka Pillar which was first discovered by A. A. Führer. P. C. Muckerji revealed the condition of the Pillar standing upright in the center of square shaped remains. Also, Maya-Devi temple and the surrounding area were dug out and clues to the structure of this temple and the existence of Stupa consecrated to

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Buddha was reveals. It was especially reported that the foundation of Maya-Devi temple was a step-like form made of ornamental bricks laid on the north, west and south side.

Afterward, from 1932 to 1939, Maya-Devi temple and the surrounding area were dug up by Kesher Sumsher J. B. Rana. The aim was to restore and comprehend the actual condition of the remains of Lumbini, but unfortunately survey results were not reported. However, photographs stored in the Kesher library shows the maintenance of Lumbini, excavation of Maya-Devi temple, and partial excavation of the platform. Reports and photographs by Sennosuke Okada\textsuperscript{3}) and Tsusho Byodo\textsuperscript{4}) who visited during the excavation and Shindo Yamamoto\textsuperscript{5}) who inspected immediately after the excavation are helpful reference.

According to these reports and photographs, ornamental bricks indicated by P. C. Muckerji were revealed. Photographs show the excavation of the upper part of foundation not involved Maya-Devi temple. Square compartment made of bricks were put under the surrounding foundation which were buried by dirt to make it flat. Therefore, it was made clear that Maya-Devi temple was built on the upper part of foundation formed by square compartment facility with multiple brick walls. Surrounding area of Aśoka Pillar was also uncovered, square shaped steel fence was made, and few small stupa were found around the area.

In 1969, D. Mitra\textsuperscript{6}) found the west side of Aśoka Pillar as Tilaurakot was unearthed, and attempted to observe the erection of limestone pillar.

Subsequently, from the end of 1970s to mid 1980s, B. K. Rijal\textsuperscript{7}) and T. N. Mishura\textsuperscript{8}) of Nepal Department of Archaeology excavated Maya-Devi temple and the surrounding area. B.K.Rijal especially dug out the surrounding area of Maya-Devi temple and found stupa of different
sizes as well as vihara. These investigations by Nepal Department of Archaeology were done relevant to reconstruction work of Lumbini by United Nations under the plan of Kenzo Tange in 1978.

Japan Buddhist Federation (JBF) had great interest toward reconstruction of Lumbini and Supported the United Nations. Upon request by Lumbini Development Trust (LDT), the reconstruction was promoted in full scale. Particularly, restration of Maya-Devi temple was done by archaeological findings and investigations on dismantlement of Maya-Devi temple which took place from 1992 to 1995.\footnote{The investigation was done based on P. C. Muckerji studies in 1893 and Kesher Sumsher J. B. Rana studies from 1932 to 1939. Maya-Devi temple was completely dismantled, structure of foundation and process of making were comprehended. By the result of these studies, it was found that the basic platform which is the foundation of Maya-Devi temple was made in seven stages. The basic platform originally had rectangular shaped outer walls which were 26m long west to east and 21m long north to south. Inner walls were 20.40m long west to east and 15.70m long north to south, which surrounds a square compartment with main poles on the west and east side. In the compartment there were facilities, 5 lying east to west and 3 lying north to south, total of 15 were constructed by brick walls, lying in certain intervals. These square rooms called ‘Chambers’ were located in the center of No.2 and those which are thought to be consciously built in the west part of rectangular shaped compartment are estimated to be built in the first stage. Of these Chambers made in the first stage, No.5 and No.8 are of the same figure as No.2. In the middle (second row) of Chamber 3 which lies west to east, there are three Chambers. On the north side (first row) and south side (third row) of these three chambers}
there are multiple number of Chambers of the same rectangular shape, No.3, No.6, No9 on the north side, No.1, No.4, and No.7 on the south side, In addition, there is one Chamber each on the west and east side of north (first row), center (second row), and south (third row). They are No.15, No.14, and No.13 on the west side and No.12, No.11, No.10 on the east side.

On the upper side part of Chamber No.2 built in the first stage there is a small Chamber and it is estimated that this was made in the second stage. Basic platform which is presumed to be built in the third stage formed a rectangular shape of 7m west to east and 7m north to south, making nearly a square. This was inherited to the forth stage. In the fifth stage, size of Basic platform was 17.5m west to east, 15.40m north to south. In the sixth stage a tower dedicated to Buddha was built above the platform. Above this square shaped tower, Maya-Devi temple was built in the seventh stage. The structure made through first to seventh stage was built in consideration of Chamber No.2 to lay “a piece of natural rock as marked stone”\textsuperscript{10}.

The above is the outline of the remarks of partial excavation associated with demolition of Maya-Devi temple. By the result of studies, detection of flat stones from first stage should be noted. These stones are thought to be deliberately put in Chamber No.2 in accordance with the establishment of basic platform in the first stage. These stones which are $70 \times 40$cm large and 10cm thick were crushed into random shapes. They were made of pebbly sandstones brought from northern Siwalik Hills.

The flat stones placed horizontally in the center of Chamber No.2 were artificially put on the brick. It is estimated that they were put before the period of Aśoka, highly likely as “a piece of natural rock as marked stone”\textsuperscript{11}. In the second stage people continued to be very conscious
of this "piece of natural rock as marked stone" which is thought to be laid in the first stage. Fragments of Aśoka Pillar were detected intensively as distinguishing remainder to identify the period from Chamber No. 2. Fragments of earthenware (N. B. P. W and red ware) were also found. Pieces of Aśoka Pillar, coins used in Maurya Kushan era, terra cotta, and earthenware (N. B. P. W. and red ware) are excavated from Chamber No.5 and Chamber No.8 which are thought to be built in the same age.

A Small Chamber was constructed above Chamber No.2 which was built in the first stage. The interval between first and second stages was not long, so they could not distinguish unearthed remains between the two stages. On study of unearthed remains found from Chamber No.2, No.5, and No.8 which are thought to be built at the same time in the first stage, fragments of Aśoka Pillar are commonly excavated.

When the wall on the west side of Chamber No.2 with the "piece of natural rock as marked stone" was destroyed, large sizes of fragments from Aśoka Pillar (unsuited stones) were discovered. When these fragments were removed, Chamber No.2 was unearthed and the "piece of natural rock as marked stone" is thought to have been exposed.

Document on Chamber No.8 which is estimated to be built in the first or second stage indicated measured value of $^{14}$C to be $2160 \pm 50$B.P., $2140 \pm 70$B.P. From the remains of Chamber No.8 as well as Chamber No.2 and Chamber No.5, piece of Aśoka Pillar, N. B. P. W., and fractions of red ware from different ages were found together.

Chamber No.2 was constructed as basic platform of building structure in the first stage as well as Chamber No.5 and Chamber No.8. The "piece of natural rock as marked stone" is thought to be placed there. This "piece of natural rock as marked stone" differs from Chunar sand rocks, but is pebbly sandstones of Siwalik. The shapes of these stones were naturally
made unlike the fractions of Aśoka Pillar.

The "piece of natural rock as marked stone" was deliberately put on the brick laid horizontally when Maya-Devi temple was built\(^\text{13}\), which is about the same time when Aśoka Pillar was built. The size of bricks were 38cm \(\times\) 25cm \(\times\) 7cm in the first and second stage, almost the same size as those in the third and forth stage of Ganwaria\(^\text{14}\). Ganwaria III dates from B.C.8\(^{th}\) century to B.C.4\(^{th}\) or 3\(^{th}\) century. Ganwaria IV dates from B.C. 6\(^{th}\) to B.C. 2\(^{th}\) century.

Reparation and enlargement were done on the previous building of Maya-Devi temple and Xuān zāng described several stupas while he visited there in the 7\(^{th}\) century. It is not sure whether Xuān zāng saw stupas\(^\text{15}\) or viharas, but it is possible that basic platform was made of ornamental bricks. This is due to similar bricks used to make remains of Kudan\(^\text{16}\) located near Lumbini. The ornamental bricks used in the remains of Kudan are thought to be made in the 7\(^{th}\) to 8\(^{th}\) century. The platform of Maya-Devi temple was restored in this age. Since earthenware, terra cotta, and Maya-Devi stone statue Maya-Devi temple (made of red sandstone in Mathura) are excavated from the surrounding area, basic platform may have been made in the fifth stage after Guputa.

Since photographs of "Maya-Devi temple standing on basic platform" are on the report by P.C. Muckerji in 1901, it is clear that Maya-Devi temple existed in the end of 19\(^{th}\) century.

In the meantime, inscriptions carved on Aśoka Pillar indicate that the prince of West Nepal visited there in 13\(^{th}\) century.

Excavation of Maya-Devi temple and surroundings was carried out from 1932 to 1939 by Kesher Sumshers J.B.Rana on a large scale. During this excavation, underground of Maya-Devi temple was also dug out and restored, some Chambers were unearthed and were buried again. With
the fragments of Aśoka Pillar in Chamber No.2, No.5, and No.8, esrthenware from recent times were also found telling us the passage of time. Since the report of excavation in 1930s is not brought forward, it caused difficulty in the study of Maya-Devi temple's basic platform.

By the archaeological studies of dismantlement of Maya-Devi temple, existence of "piece of natural rock as marked stone" was confirmed. The knowledge of Maya-Devi temple's transition is perhaps useful.
Fig. 1  Distribution of famous Buddhist ruins

Fig. 2  Distribution of ruins around Lumbini
Fig. 3  Plan of the Maya-Devi Temple before research
Fig. 4 Overall plan of structures at stage 1
Fig. 5  Plan and cross section of the maker stone
Notes:
1) A. A. Führer, Antiquities Buddha Sakyamuni’s Birthplace in Nepalese Tarai (Archaeological Survey of Northern India, Vol. VI, 1899)
2) P. C. Mukherji, Antiquities in the Tarai, Nepal-The Region of Kapilavastu (Archaeological Survey of India, Imperial Series. 1901)
3) Sennosuke Odaka; A Diary of India (1939)
4) Tsusho Byodo; Trip to a place sacred to Buddha in India Travel to Ancient India (1969)
5) Shindo Yamamoto; Travel to India (1941)
6) D. Mitra, Excavation at Tilaurakot and Kodun Exploration in the Nepalese Tarai (1972)
9) Satoru Uesaka went to Nepal, Lumbini to enforce the investigation of archaeological study under the name of Japan Buddhist Federation.
10) Satoru Uesaka conferred with the Archaeologists of the Department of Archaeology and Lumbini Department Trust. The International Conference was held in Nepal, February 1994 and March 1995. Views are based on that of the Conference.
11) “A piece of natural rock as marked stone” is called with other names, “a mark stone” or “a wise stone”.
12) According to “the value for taking an accurate measurement of times” of Tilaurakot in the III and IV stage of 14C, “times” shows older ages than 1690 ± 40.B.P. (Gak-9455), 1790 ± 40.B.P. (Gak-9456), 1780 ± 40.B.P. (GAK-9457). These measured value were not recorded in Tilaurakot I (2000), II (1978).
13) Times of “a piece of natural rock as marked stone” are ambiguous, but generally, it is called in “times” written in this text, according to the record of investigated excavation.
14) K. M. Shivastava, Excavation at Piprahwa and Ganwaria. (Memories of the Archaeological Survey of India, No.94, 1996)
15) Xuán Zàng, Tat'ang hsiyuchi (A great account of the east and west region).
16) D. Mitra, Excavation of Tilaurakot and Kodan and Explorations in the Nepalese Talai. (1972)
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