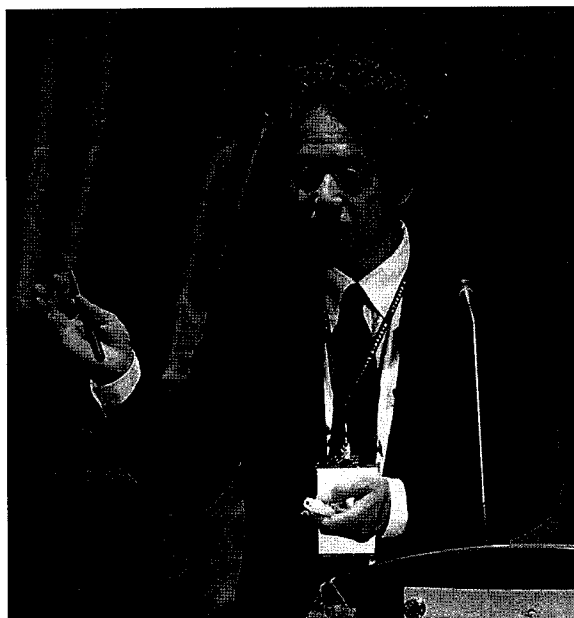


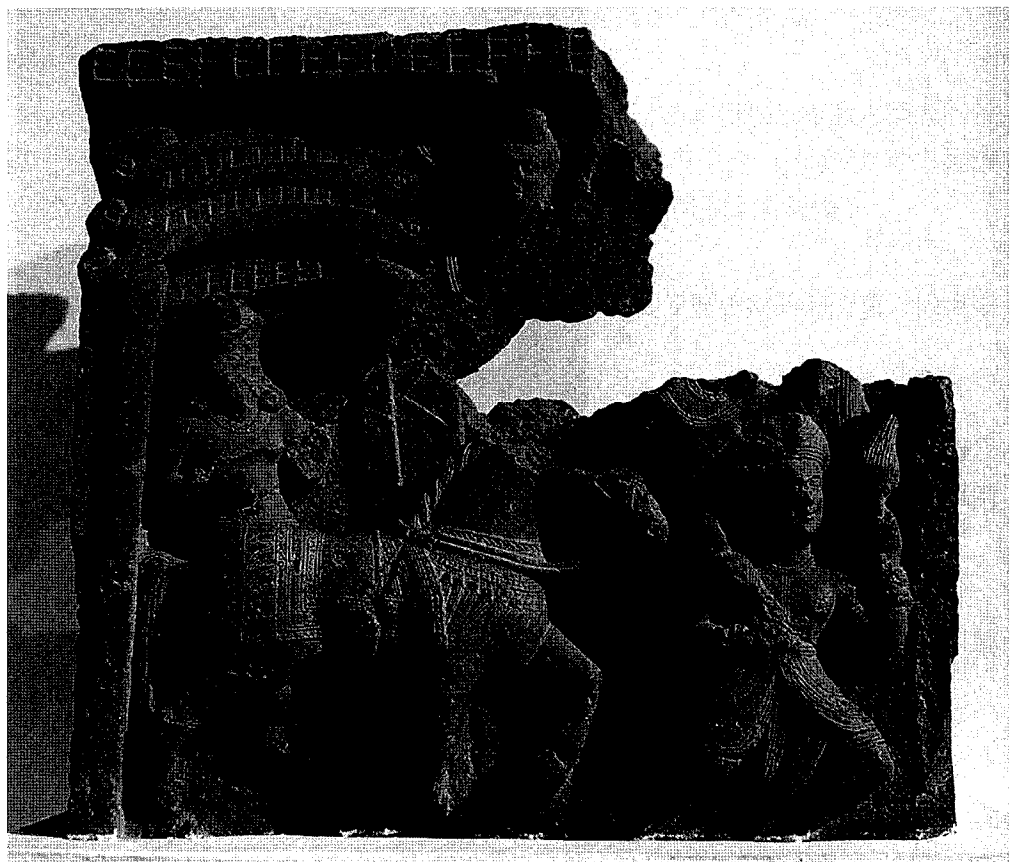
2011 東方文化遺址保護聯盟 臺北國際學術研討會：
從南亞到臺灣—文化資產、歷史記憶、佛教藝術—論文集
林保堯主編
臺北市：國立臺北藝術大學 2012 頁 099-112

Lumbini, the Birthplace of the Lord Buddha Project to Strengthen the Conservation and Management of Lumbini

佛陀誕生地藍毘尼的保存與管理加強計畫

Yukio Nishimura
西村幸夫





逾城出家 西元前 2 世紀 砂岩 H.55cm W.55.5cm D.19.5cm

from Pitalkhora Maharashtra 新德里國家博物館藏 Acc. No.67.183 (2012 年 03 月 31 日 陳怡安拍攝)

Lumbini, the Birthplace of the Lord Buddha Project to Strengthen the Conservation and Management of Lumbini

Yukio Nishimura*

1. Outline of the Project

There are 4 components of the project, (1) conservation of archaeological remains and architectural optimization of the shelter, (2) archaeological identification, evaluation and interpretation of Lumbini, (3) review of the Kenzo Tange's Master Plan, and (4) establishment of the integrated management plan.

This is a three-year project from 16 July 2010 to 15 July 2013 with a total budget of 791,786 USD supported Japanese-in Trust. Secretariat of the Project is UNESCO Office in Kathmandu with close collaboration with the World Heritage Centre of the UNESCO headquarters in Paris. International experts consist of expert of archaeology, stone conservation, and city planning, while national counterparts are Department of Archaeology, Government of Nepal and Lumbini Development Trust.

University of Tokyo group has been working on data collection, review of the original Kenzo Tange's master plan, and new proposal of the future of several cities.

2. Data Collection

Official documents relating the Master Plan were as follows;

1. Allchin & Matsushita: Report for the Lumbini Development Project, Kathmandu, 1969 (Here after Allchin-Matsushita Report)
2. Kenzo Tange & Urtec, Master Design for the Development of Lumbini Phase II, Stage II Report, 1977

* Adviser for Oriental Cultural Heritage Sites Protection Alliance Professor, Tokyo University

3. Kenzo Tange & Urtec, Master Design for the Development of Lumbini Phase II, Final Report, 1978
4. Kenzo Tange & Urtec, Master Design for the Lumbini Garden (draft), 1981

Official brochures illustrating the physical features of the Master Plan were as follows;

1. United Nations, Committee for the Development of Lumbini: Lumbini- The Birthplace of Buddha, New York, 1970 (English edition/Japanese edition)
2. United Nations, Committee for the Development of Lumbini: Lumbini- The Birthplace of Buddha, New York, 1979 (Japanese edition)
3. United Nations, Committee for the Development of Lumbini: Lumbini- The Birthplace of Buddha, New York, 1983 (English edition)

Description of Lumbini project written by Kenzo Tange in Books and Magazines

1. SHINKENCHIKU, Shinken-chiku-sha, pp137-143, pp208-209, May 1976
2. Kenzo Tange, SD Edition Department, Kashima Publication, 1980
3. BRUTUS Casa Extra Issue KENZO TANGE's DNA, Magazine House, 2005
4. Kenzo Tange, Tange Kenzo & Fujimori Terunobu, Shinken-chiku-sha, 2006

3. Development of the Master Plan

There are six viewpoints to understand the development of the Mater Plan.

3.1 Development of the basic concept of the Master Plan

As there are very limited amount of description by Kenzo Tange about Lumbini were left, the team also reviewed other projects that are similar to Lumbini project in scale and the times.

After the review of his projects in 1960's to 70's, several common principles such as creation of urban axis and communication places and transportation strategy have been found out. Detail review was reported in the workshop on 4th January 2011 and the presentation is attached in appendices of the report. Following two points are especially important facts found out in this review.

As described in Allchin-Matsushita report, the most important concept of the Sacred

Garden was "to create an atmosphere of tranquility, universality and clarity consistent with the idea of the birth of Buddha". This concept has been basically followed to later master plans and the final master plan in the final report.

3.2 Site selection

Site was already selected by the Nepalese government, since the location of the Asoka Pillar is the base of all decision. Nepalese government had also decided the scale of the site as square of 1 mile by 3 miles.

3.3 Delineation of the site

The Project site (1 mile by 3 miles) has been the same since Allchin-Matsushita report. The design of border has been changed in each plan. In the plan for the UN brochure, a border of buffer zone was defined with gentle curve. In a following plan prepared in 1972, a straight rectangle rigid line was introduced. Master Design for the Development of Lumbini Phase II, Stage I Report submitted in 1976 proposes a gently curved line with some consideration to existing settlement in the site.

3.4 Archaeological sites and their treatment

From the start of the project, attitude to potential archeological sites has been an issue in the master planning process. As location of important archeological site in Sacred Garden was not clear at that time, the grid system was introduced to preserve potential archeological sites in Sacred Garden.

The system introduced in the plan submitted in 1972. The system was kept until final report in 1978 and conducted though the size of grid was changed from 100m to 80m.

3.5 Transportation system within the site

The main entrance to the site was designed along the Taulihawa-Bhairahawa Highway from the beginning. The Highway was running through the 1 mile by 3 miles area and the main entry point to the Sacred Garden was the crossing point of Highway and the central canal axis.

From this entry point, visitors were supposed to change the mode of transportation to the boat and proceed across the monastic zone to the entry point to the levy, where visitor again have to get off the boat to move to the Sacred Garden on foot.

Therefore, main flow of visitors is from the north to the south along the central axis.

It means that visitors, mainly pilgrims, are guided to the Sacred Garden by viewing the Asoka Pillar, when they approach the site and then when they get back, they return to the north overlooking the prestigious Himalayan Mountain Range.

Service vehicles are designed to use the surrounding road outside the 1 mile by 3 miles square, and enter the site from east or west entrance along the north-south road. It means the service vehicles and pedestrians are completely separated.

This idea remains unchanged from the outset to the final implementation of the project.

3.6 Land use plan

In a basic concept, the approach to the most sacred spots, the marker stone and Asoka Pillar from the entrance of the site were designed in such way that the approach is from the common place to the sacred place by three steps.

First part is the Lumbini Village, where the accommodation of pilgrims and visitors are allocated.

Second part is the monastic zone, where Buddhist temples of all sects and dominions are allocated and all monks and nuns are allowed to practice their religious exercise. And the third and the last part is the Sacred Garden, encircled by the levy and large pond.

Within the 1 mile by 3 miles area, density of the land use activity is higher along the central axis and peripheral areas to the east and the west is set aside as reserve zone for the future extension.

The 1 mile by 3 miles square area is sandwiched by another 1 mile by 3 miles Agricultural Zone for both east and west side, and then again surrounded by much larger 5 miles by 5 miles Protected Zone.

These larger areas are considered as a mandala, the Sacred Garden being as the focal point at the center of such 5 miles by 5 miles area.

4. Kenzo Tange's Urban Design Theory and Master Plan

In order to understand the Lumbini Master Plan properly, it is important to understand the way Kenzo Tange prepared the Master Plan and compare the Master

Plans of other projects which Kenzo Tange engaged together with Kenzo Tange's own writings on urban planning in general and on his design projects in particular.

4.1 Kenzo Tange and his structuralism

Kenzo Tange started his urban design work with the idea of functionalism influenced by the CIAM Athens Charter in 1931, which emphasized four functions such as living, working, recreation and circulation. However, during his first big scale urban design project at Hiroshima Peace Park in 1949 to 1950, he realized that creation of urban core is more important than the functionalist's four elements. He described his idea as structuralism

In his structuralism, Tange introduce his own five viewpoints, namely

- 1 symbol
- 2 harmony
5. communication place
6. human movement and transportation and
7. growth and change

We can compare several master plans of Tange's design by these five viewpoints.

4.2 Three periods of Kenzo Tange's urban design projects

Kenzo Tange's urban design projects are divided into three periods;

1. Development Period of his urban design theory (1943-1959)

Hiroshima Peace Center (1949-1950) and A Plan for Tokyo 1960 (1959-1960) are the main outputs of his work in this period.

2. Creation of his urban design theory (1960-1970)

Although the Tokyo Plan 1960 was not implemented at all, Kenzo Tange reached a certain firm belief of his own urban design theory in the course of the work. And in this period, he began to apply his theory to several large scale urban design in domestic work as well as international projects, such as Mater Plan for Reconstruction of Skopje City Centre (1965-) and Master Plan for Osaka EXPO (1966-1970).

3. Application his theory to other international projects (1970-1997)

Experience of the Osaka EXPO'70 project made Tange quite confident of his urban design theory and hereafter he started to reproduce his design motifs in deferent urban

design projects in abroad including Lumbini (1969-). The projects of his period includes Yarmouk University (1976-) and Abja, new capital of Nigeria (1979-).

Followings are the Master Plans of the other projects that Kenzo Tange was engaged in 1960's and 1970's just before and after he did it in Lumbini.

4.3 Analysis of Lumbini Master Plan

When we view the Lumbini Master Plan with his five points of structuralism, we can observe these things;

Symbol: Asoka Pillar is the main symbol of the Plan together with the north-south axis heading to the Pillar and the Himalayan Mountain Range.

Harmony: there are several types of harmony in his Master Plan, such as harmony of the scale (human and mass-human scale), harmony of the environment (natural and man-made environment), and harmony of the old and the new space. In the Lumbini Master Plan, harmony with nature represented as treatment of water body such as levy and small streams. Harmony with history was expressed as the mandala layout of whole are and usage of brick as building material.

Communication Space: Square plazas in the monastic zone that lead to the central axis which then leads to the circular levy and the Sacred Garden.

Human movement and transportation: Highway to the central link canal for the pedestrian and outer road and entrance from the east/west gate for the vehicles. Complete separation of the pedestrian and motor car was planned.

Growth and change: In the monastic zone, expansion from the areas along the central axis towards east and west was deliberately planned and in the Lumbini Village area, expansion from the entry point from the highway to the Village was designed from the beginning.

佛陀誕生地藍毘尼的保存與管理加強計畫

西村幸夫 (Yukio Nishimura) *

1. 計畫大綱

本計畫有四個要點：(1) 保存考古遺蹟和建物建築優化 (2) 藍毘尼的考古辨識、評估和詮釋 (3) 審視丹下健三的整體規畫 (4) 打造整體管理計畫。

此計畫於 2010 年 7 月 16 日起至 2013 年 7 月 15 日，期程為三年，總預算由 Japanese-in Trust 全額提供，共計 791,786 美元。計畫秘書處為聯合國教育科學暨文化組織位於加德滿都之辦公室，並與位於巴黎的世界遺產中心總部密切合作。由考證、石材防護和城市計畫的專家組成了國際專家團，而在國家部分的參與者則包括考古部門、尼泊爾和藍毘尼政府發展基金人員。

東京大學團隊負責收集資料，審視原本丹下健三的整體計畫，並為未來幾個城市提出新的提議。

2. 資料收集

與整體計畫有關的官方資料如下：

- 1、Allchin & Matsushita：藍毘尼發展計畫報告書，1969 年。(以下簡稱 Allchin-Matsushita 報告)
- 2、丹下健三 & Urtec 的藍毘尼第二階段、第二步發展設計報告，1977。
- 3、丹下健三 & Urtec 的藍毘尼第二階段發展設計成果報告，1978。
- 4、丹下健三 & Urtec 的藍毘尼花園主設計書 (草案)，1981。

官方手冊中所揭示整體計畫的具體特性如下：

- 1、聯合國，藍毘尼發展委員會：藍毘尼—佛陀的出生地，紐約，1970 年。(英、日文版)
- 2、聯合國，藍毘尼發展委員會：藍毘尼—佛陀的出生地，紐約，1979 年。(日文版)

* 日本東京大學副校長、教授、東方文化遺址保護聯盟顧問

- 3、聯合國，藍毘尼發展委員會：藍毘尼—佛陀的出生地，紐約，1983年。（英文版）

曾提及丹下健三所寫的藍毘尼計畫之書籍和雜誌

- 1、SHINKENCHIKU, Shinken-chiku-sha, pp137-143, pp208-209, May 1976.
- 2、Kenzo Tange, SD Edition Department, Kashima Publication, 1980.
- 3、BRUTUS Casa Extra Issue KENZO TANGE's DNA, Magazine House, 2005.
- 4、Kenzo Tange, Tange Kenzo & Fujimori Terunobu, Shinken-chiku-sha, 2006.

3. 發展主要計畫

整體計畫的發展可從六個角度了解

3.1 整體計畫基本概念之發展

針對丹下健三藍毘尼的計畫描述流傳下來的極有限，因此團隊也檢視了在規模和年代上與藍毘尼類似的其他計畫。

檢視其 1960 至 1970 年代的計畫後，團隊指出了幾項通用原則，如建立都市軸心、溝通場所、交通策略。審視的細節於 2011 年 1 月 4 日的工作坊中提出，而報告內容則以本研究附件方式呈現。接下來兩個重點則是其中非常重要的部分。如 Allchin-Matsushita 報告中所述，神聖園（Sacred Garden）最重要的概念就是要「創造一個氛圍，寧靜、普世、澄澈與符合佛陀出生地的概念。」的整體計畫，最終報告中的整體計畫基本上也遵從此一概念。

3.2 遺址選擇

遺址已由尼泊爾政府選定，因為該地的阿育王石柱（Asoka Pillar）就是決策的基礎。尼泊爾政府也決定了遺址的規模為 $1 \times 3 \text{mile}^2$ 的方形場地。

3.3 遺址描繪

遺址地點（ $1 \times 3 \text{mile}^2$ ）在 Allchin-Matsushita 報告後就沒有更改過，但是邊界的設計卻依各計畫而不同。在聯合國手冊中的計畫，是以緩曲線呈現緩衝地帶的邊界。而在 1972 年的後續計畫中，卻採用了長條狀的直線。1976 年呈交的藍毘尼發展整體計畫第二階段、第一步報告則在考量的該區既有的住所後，建議採用曲線。

3.4 考古遺址及處理方式

從計畫開始，在整體規劃過程中，對於可能列入的考古遺址抱持的態度一直是

個議題。神聖園的重要考古遺址的位置在當時還不明確，因此採用了座標方格系統，以保存神聖園中可能存在的考古遺址。

此系統於 1972 年提出，使用至 1978 年的成果報告，但座標方格的尺寸則由原本的 100 公尺改為 80 公尺。

3.5 遺址內的交通系統

從一開始，遺址的主要入口就設在 Taulihawa-Bhairahawa 高速公路旁。此高速公路穿過這塊 $1 \times 3 \text{mile}^2$ 的區域，而神聖園主要的入口就在高速公路和中央運河軸心的交接點上。

從此入口，遊客需改搭船，經過寺院區到入口處，然後下船步行至神聖園。

因此遊客的主要移動方向是沿著中央軸心由北向南移動。這表示以朝聖為主的遊客會被引導至神聖園參觀阿育王石柱，而隨後回程往北走時可眺望著名的喜馬拉雅山脈。

接駁車行駛在此 $1 \times 3 \text{mile}^2$ 區域的外圍道路，由東或西邊的人口駛入，沿著南北向的道路行進。這表示接駁車和徒步者是完全分開的，此概念從計畫的開始至終都保持不變。

3.6 土地使用規劃

在基本概念中，只要經過三個步驟即可從入口抵達最神聖的地點—座標石（marker stone）和阿育王石柱，而其設計方式為從最普通的地方抵達最神聖的地方。

第一部分是藍毘尼村，是朝聖者和遊客住宿的地方。

第二部分是寺院區，不同宗派的佛教廟宇分布在此區內，所有的僧侶都可以在此進行各自的宗教活動。第三部分也是最後一個部分就是神聖園，由河流和大池塘所包圍。

在此 $1 \times 3 \text{mile}^2$ 的區域中，中央軸線附近的土地使用活動密度較高，而東西向的邊緣區則保留作為未來發展的區域。

此區的東西邊各有一塊 $1 \times 3 \text{mile}^2$ 的農業區，農業區外圍被更大的保護區（ $5 \times 5 \text{mile}^2$ ）圍繞著。

這些大區域被視為一個壇城，而神聖園即位於此 $5 \times 5 \text{mile}^2$ 區域的中心點。

4. 丹下健三的都市設計理論以及主要計畫

為了確實了解藍毘尼的整體計畫，就必須了解丹下健三如何籌備整體計畫，也要比較丹下健三其他大計畫的整體計畫，以及針對一般都市規劃，特別是設計方案的著作。

4.1 丹下健三以及其結構主義

丹下健三受到 1931 年國際現代建築會議 (CIAM) 的雅典宣言影響，而開始以功能主義的概念進行其都市設計工作，雅典宣言強調四個功能—生活、工作、休閒、循環。但是，在 1949 至 1950 年間，他參與了生平第一項大型都市設計廣島，亦即和平公園的計畫。在這其間他發現創造都市核心比上述四個功能更加重要，並將其概念描述為結構主義。

在其結構主義中，丹下健三介紹了他自己的五項觀點，即

- 1、 象徵
- 2、 和諧
- 3、 溝通場所
- 4、 人類活動和交通
- 5、 成長與改變

我們可以將丹下設計的幾項整體計畫與此五項觀點加以比較

4.2 丹下健三的都市設計方案可分三個時期

丹下健三的都市設計方案可分為三個時期：

- 1、 都市設計理論發展時期 (1943-1959)
廣島和平中心(1949-1950)和 1960 東京計畫(A Plan for Tokyo)(1959-1960) 即為此時期的主要工作成果。
- 2、 創造都市設計理論 (1960-1970)
雖然 1960 東京計畫並未實行，但丹下健三在工作過程中開始確信自己的都市設計理論是可行的。在此時期，他開始將其理論應用到幾項國內外的大型都市設計中，如史可普列市中心重建之規劃大綱 (1965-)、和大阪世博的整體計畫 (1966-1970)。

3、 將其理論應用到其他國際企畫中 (1970-1997)

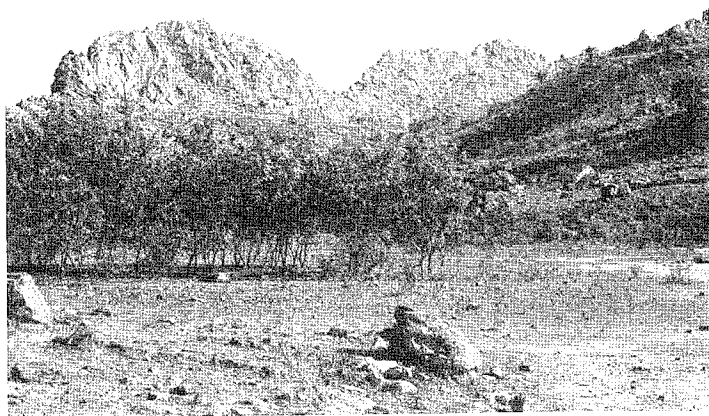
1970 年大阪世博計畫的經驗讓丹下健三對自己的都市設計理論更有信心，其後他開始在不同的國際城市設計方案中，複製其設計理念，包括藍毘尼 (1969-)。此時期他的作品包括，Yarmouk University (1976-) 和奈及利亞的新首都，Abja (1979-)。

下列是丹下健三在 1960 至 1970 年代，藍毘尼案前後所參與的一些其他整體計畫方案。

4.3 藍毘尼整體計畫分析

從丹下健三的結構主義五個觀點來看藍毘尼整體計畫時，我們可以觀察到：

- 象 徵：** 阿育王石柱、石柱的南北向軸心以及喜馬拉雅山脈是規劃的主要象徵。
- 和 諧：** 在其整體計畫中有幾種和諧的型態，如規模的和諧（個人和大眾規模）、環境的和諧（自然和人造環境）、新舊空間的和諧。在藍毘尼整體計畫中，與自然和諧是以對於水域，如河流和小溪的處理方式呈現出來；與歷史的和諧則由整體的壇城設計及以磚塊作為建材表現出來。
- 溝 通 空 間：** 寺院區方正的廣場。其延伸到中央軸線，軸線則延伸至環狀河流以及神聖園。
- 人 類 活 動 及 交 通：** 有高速公路直達中央聯結運河，還有外圍道路以及供車輛通行的東西大門入口。朝聖者和車輛完全分開。
- 成 長 和 改 變：** 在寺院區中，沿著中央軸心向東西延伸的區域是刻意設計出來的，而在藍毘尼村，從高速公路入口延伸至藍毘尼村的擴張範圍也是一開始就設計好的。



前正覺大山—
釋迦牟尼佛苦修六年處
(2012年03月21日 陳怡安拍攝)