Le Corbusier, National Museum of Western Art, Tokyo, Japan, 1959. © NMWA, 2007.

National Museum of Western Art as Important Cultural Property of Japan: its Evolution and Historical Value

BY YOSHIYUKI YAMANA AND KYO FUKUDA

Starting with the conception of the World Museum as part of the 1929 Mundaneum project, Le Corbusier continued to develop and refine that concept. The main building of the National Museum of Western Art completed in 1959, was also designed as a Museum of Unlimited Expansion prototype. NMWA has undergone conservation work and seismic base isolation work a number of times, and is therefore in generally good condition. The principal conservation works to the main building since its completion is summarized in this essay, along with other construction, extension and maintenance work carried out on the grounds.

The National Museum of Western Art (NMWA), in Tokyo, was constructed in April 1959 in order to house and display the Matsukata Collection, after its repatriation to Japan as a gift of the French government.

The Matsukata Collection originated as a collection of works of European painting and sculpture, assembled and purchased between 1916 and 1923 by MATSUKATA Kojiro, first president of the Kawasaki Dockyard Company, using his private fortune. A significant portion of the collection remained in France through World War II, at the end of which it was confiscated by the French government as property of an enemy national and, with the signing of the San Francisco Peace Treaty in 1951, it officially became the national property of France. After eight years of negotiations, the French government decided to donate the collection to Japan as a symbol of the restoration of friendly relations between the two countries, on the condition that a museum was built to house the artworks. Ueno Park in Tokyo was selected as the site for the new museum, and the architect, Le Corbusier, was chosen to design it.

Detailed construction plans and project management were undertaken by Kunio Mayekawa, Junzo Sakakura, and Takamasa Yoshizaka, Japanese architects who had worked in Le Corbusier's *Atelier Rue de Sevres* 35. The building was completed in 1959, and has welcomed many visitors over the past 56 years.

The main building of the NMWA is prized as the sole example of the work of Le Corbusier surviving in Japan, and in recognition of both its historical and architectural value, it was designated as an Important Cultural Property on December 21, 2007. The forecourt garden and adjacent areas of the site reflect Le Corbusier's design theories and the landscape connecting the garden with Ueno Park maintains the scenic beauty of its original conception; because of this, the museum site were officially listed as a Registered Monument/Place of Scenic Beauty on July 23, 2009.

The main building of the NMWA is a realization of such elements of Le Corbusier's *Five Points of a New Architecture* as the use of *pilotis*, a roof garden, and a free plan. Employing Le Corbusier's signature *Modulor* approach to proportions throughout its design, the building is also one of only three extant prototypes of the architect's concept for a Museum of Unlimited Growth. For all of these reasons, it has received much international attention and acclaim.

The NMWA hopes to use the present plan as a basis for more faithfully preserving the spatial conception of Le Corbusier's Museum of Unlimited Growth and highlighting the architectural beauty of the museum's main building[1].

National Museum of Western Art as a Prototype for a Museum of Unlimited Growth

Amongst various prototypes of that nature, the model Le Corbusier conceived for museums was the Museum of Unlimited Expansion (MUE). Starting with the conception of the World Museum as part of the 1929 *Mundaneum* project, Le Corbusier continued to develop and refine that concept. The main building of the NMWA completed in 1959, was also designed as a MUE prototype.

The *Mundaneum* Project

Le Corbusier produced the *Mundaneum* project in 1928 on land adjacent to the League of Nations property in Geneva, after being commissioned by Paul Otlet, a Belgian jurist, documentalist and internationalist. 1928 was the year following Le Corbusier's bitter experience of initially having his competition proposal for the Palace of the League of Nations (1927) selected, only for it to be rejected following opposition by old-guard architects.

One significant aspect of the *Mundaneum* project by Le Corbusier and Otlet was that it was an attempt to increase international cooperation through mutual cultural appreciation at a time when political ax grinding by the various countries in the League of Nations was making such cooperation difficult. The immense World Museum formed the nucleus of this project.

The World Museum had a pyramidal cross-section with a large internal atrium and was composed so that visitors would enter from a forecourt or *parvis,* pass the *pilotis,* take a central elevator directly to the top of the building and then descend down from the top floor following a square spiral ramp comprising the exhibition hall. It was also designed so that each time visitors turned a corner of the square spiral exhibition hall they could enjoy the scenery outside. Subsequently, this World Museum developed into the MUE, Le Corbusier's museum prototype of choice, which formed the basis for other plans including the NMWA.

From Museum of Contemporary Art in Paris, to Museum of Unlimited Expansion, Philippeville, 1939

Between 1929 and 1930, Le Corbusier reworked the World Museum at his *atelier* in Sevres, Paris, into a composition of abstract geometry, and developed the idea of the square spiral museum, which is associated with the MUE. Le Corbusier's concept of the square spiral museum was first expressed explicitly in his letter to Christian Zervos, the editor-in-chief of *Cahiers d'Art,* a Paris-based magazine, in its February 19, 1930 issue. The idea of "unlimited expansion" not only addressed the problem at the time of how to deal with continuously expanding collections, but was also based on the assumption that groups of donors would contribute to the construction of museums. Coinciding with the period of the above developments, Kunio Mayekawa (1905–1986) was an apprentice in Le Corbusier's Paris *atelier* from 1928 to 1930. During his time at the *atelier*, Mayekawa witnessed activities relating to the Palace of the League of Nations scandals, the *Mundaneum* project and the Museum of Contemporary Art in Paris.

From June 1931, following publication of the museum concept in *Cahiers d'Art*, Le Corbusier presented a specific proposal — *Musée des Artistes Vivants* — using a site in Nesle-la-Vallée, the eastern suburbs of Paris. In that project, Le Corbusier determined modular dimensions under which, for example, one spatial unit is shown as seven meters square by 8 meters high and the central hall is 14 meters square, the size of 4 spatial units.

Following that project, while Le Corbusier incorporated the idea of a MUE as the nucleus of urban culture into his urban design proposals, in his urban design projects such as the *Pan Macia* in Barcelona, Spain (1933) and the *Rive Gauche de l'Escaut*in Antwerp, Belgium, Le Corbusier adopted a pyramidal form similar to the World Museum in the *Mundaneum* project. Whereas, in his design for the Center for Contemporary Art in Paris for the Paris Exposition 1937, an expandable museum based on his proposal for the 1931 Museum of Contemporary Artin Paris, Le Corbusier made detailed studies into potential materials and construction methods. For example, in removable industrialized dry construction methods, such materials as asbestos panels, galvanized steel sheet panels and copper sheet panels were widely used for the external walls, and materials like bricks and glass-blocks were used for the *pilotis* at ground level.

The thinking behind this approach can also be seen in the construction methods of numerous other pavilions at the Paris Exposition 1937. This was probably influenced by the strong interest that the French construction industry had in dry construction methods at the time.

After the *Mundaneum* project, Le Corbusier continued to produce square spiral ramp museum designs. For the Philippeville City Museum project proposal in Algeria, Le Corbusier gave the following explanation:

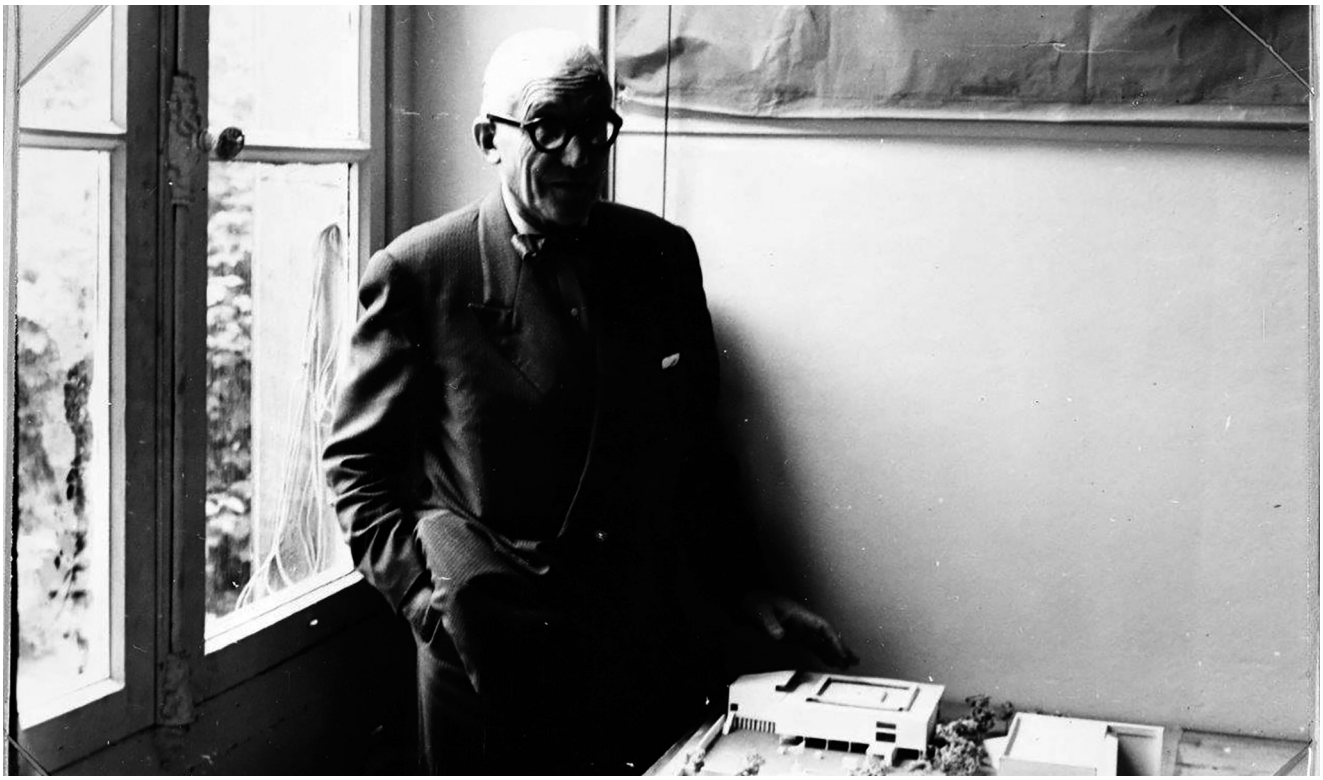
> *The problem of extension of buildings is a task of our time, for which, until now, no solution has been found. A series of studies over a period of ten years has led to a notable result: complete standardization of the structural elements: the totality is laid out according to the Golden Section and permits an unlimited number of harmonious combinations. The fundamental principle of this Museum is that it is built on columns, the entrance at ground level is in the center of the building hall of honor, destined to house several masterpieces.*

Junzo Sakakura was present in Le Corbusier's *atelier* from 1931 to 1936, coinciding with the period leading up to completion of this prototype. Sakakura, who played a central role as an assistant designer for the NMWA project, was indeed present during the exact period that research was being conducted into the MUE, so he would have been able to observe Le Corbusier and his process leading up to completion of the prototype first hand.

Comparisons can be drawn between the architectural composition and use of materials in the above-mentioned Museum of Contemporary Art in Paris and Sakakura's representative work, the Kanagawa Prefectural Museum of Modern Art, Kamakura (1951). Sakakura's Museum was completed before any of Le Corbusier's MUE projects. When Le Corbusier came to Japan to inspect the site of the National Museum of Western Art in 1954, he made his way to Kamakura and visited the completed museum. At that time he presumably noted the size of the external courtyard. In any case, the central hall of the MUE, which had previously been an internal hall, was subsequently designed as an external courtyard in the Sanskar Kendra City Museum, which was designed starting from 1951.

Le Modulor

In the first section of *Le Modulor* published in 1948, Le Corbusier touches on the beginnings of his research into the *Modulor.* When discussing its "mathematical calculation", he gives the MUE as the third example, and cites the use of three standardized elements based on the golden section — standard columns, standard beams and standard ceiling lighting (for day and for night) — as an application of *Modulor* dimensions achieving a sense of organic unity. In *Modulor 2* in 1955,



01 Le Corbusier and model of NMWA, *Atelier Rue de Sèvres* 35. © NMWA, 1956.

one bay size of the grid in the Sanskar Kendra City Museum is given as seven meters square, and the same dimensions are given in Le Corbusier's *Œuvre Complete* (Complete Works). However, one bay size of the grid in the Sanskar Kendra City Museum, as built, is actually 6.35 meters square and the same dimension is applied in the NMWA. The 7 meters square bay size of the grid was realized only in the Chandigarh Museum and Art Gallery, completed posthumously, and it somehow gives a sluggishly stretched impression.

Takamasa Yoshizaka (1917–1980) was present in Le Corbusier's *atelier* from 1950 to 1952, during the period that the *Modulor* was being developed. Amongst other works, he was responsible for the *Unité d'Habitation* projects in Marseilles and Nantes, which were designed using the *Modulor,* therefore, he had a direct experience of putting the *Modulor* into practice with Le Corbusier himself. In 1953, after his return to Japan, Yoshizaka translated and published *Le Modulor,* and subsequently contributed to preparing the design details and working drawings for the construction of the NMWA while teaching at Waseda University.

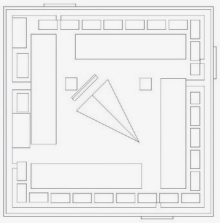
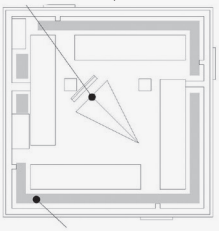
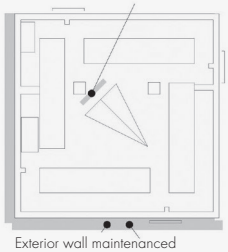
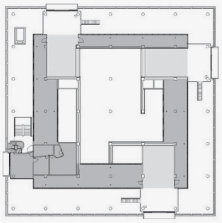
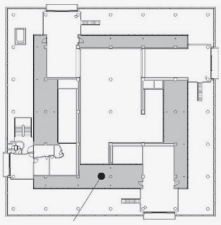
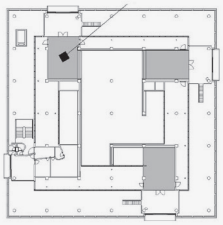
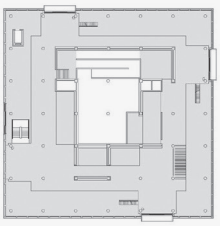
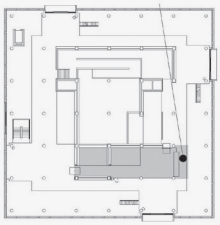
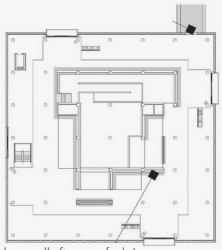
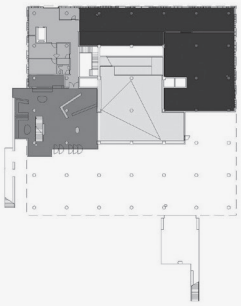
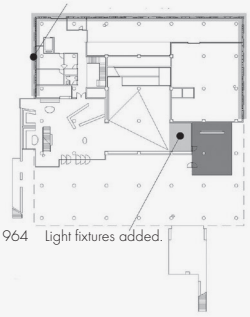
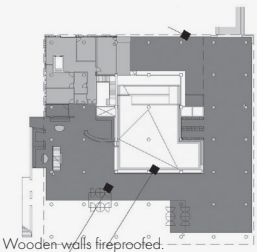
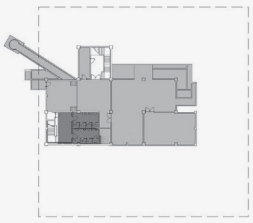
National Museum of Western Art: A Realized Museum of Unlimited Expansion

To what extend were the prototype ideas, such as *pilotis,* the swastika form and expansion in a spiral, put into practice in the three museums based on the MUE prototype realized after the war?

First, with regard to *pilotis,* as a feature in each of the museums, visitors "enter between *pilotis,* directly access the main central hall in the building, climb the ramp in the main central hall's atrium space and arrive at the second floor exhibition gallery space". On the other hand, in relation to the statement "the second floor has a square plan, with the exhibition gallery spaces arranged in a spiral around the periphery of the main central hall. The exhibition gallery space is arranged in a swastika configuration within the overall square plan forming a *mezzanine* floor in the two story atrium", the basic spatial composition is in place, but the "lighting from above arranged in a *swastika*" was what Le Corbusier placed the most importance on, in which "lighting facilities (natural and artificial) are arranged in a swastika configuration on part of the third floor" was achieved only in the NMWA.

How about the possible expansion in a spiral form? For each of the three museums, even though the concept that "each time the number of artifacts increases, the exhibition hall can be extended in a spiral shape and grow unlimitedly. Constructed with standardized and industrialized architectural components and designed so that the building maintained the same aesthetic of industrialization" was considered at the stage of the original spatial composition, the site conditions and other factors became stumbling blocks and to this day nothing has been realized exactly as conceived in the prototype.

At the same time, all of the museums have, nevertheless, implemented the "aesthetic of industrialization" that Le Corbusier sought and have been built in a form that applies the *Modulor* dimensioning system and so on. With regard to the application of the *Modulor* dimensioning to the NMWA, the *Modulor* was applied to the height of the exhibition gallery space, the rhythmic louvers around the circumference of the first floor enclosure, the external wall panels, the forecourt pavement, and various other parts of the museum.

	0 1959	1 1961–71	2 1972–84
Roof/ exteriorwalls		1964 Light fixtures in internally cured concrete lattice added.  1965 Flowerbed removed.	New wing completed; 1980 Lighting foundations removed  1977 Exterior wall maintenanced 1982 New exterior eaves added
3rd. Floor		 1964 Light fixtures added. 1966 Tableau hanging system removed.	New storage facility built.  New connecting passageway built. Exterior wall removed.
2nd. Floor		 1973 Dehumidified exhibition area created.	 Wooden walls fireproofed. Louvers removed
1st. Floor		1967 Insect screening removed.  1964 Light fixtures added.	 Wooden walls fireproofed. Some *pilotis* incorporated into interior.
B1F		1965 Extension to tea room built	1979 Conservation and maintenance work carried out on main building

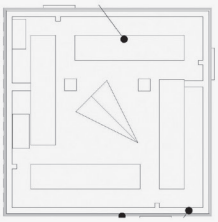
Scope of conservation works and function after changes

Exhibition | Management of works | Management | Visitor Services | Scope of conservation work (not entailing changes in functions)

02 Table 1 Evolution of the Main Building of the NMWA. "0. When first built (1959)" and "5.1988 to Present (2013)" show functions then and now.

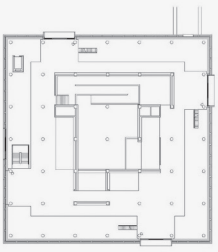
3 1985–93

1988 New interior electric curtains installed



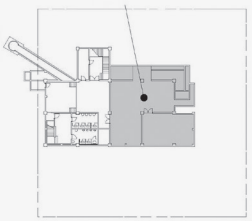
1986 Exterior walls surveyed

1988 Horizontal ducts upgraded



1985 Conservation work carried out on Main Building's interior walls along other work

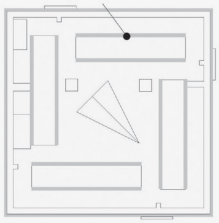
Air conditioners upgrated



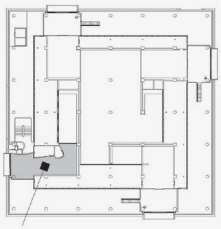
4 1994–97

New Special Exhibition Wing completed

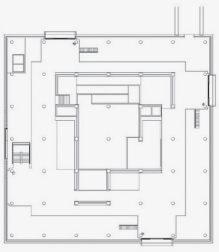
1977 Corrugated glass coated



1994 Preservation work carried out on main building's exterior walls along with other work



Partitions, etc. removed



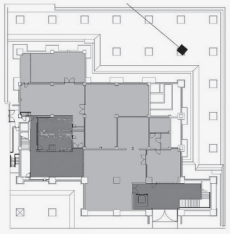
2001 Glass division created

Partition, etc. altered

Staircase 2: removal and installation work

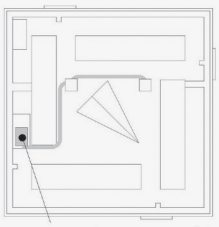
Staircase 1: removal and installation work

New base isolation system installed

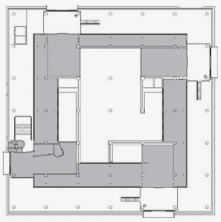


1988 Seismic strengthening work carried out on main building along with other work

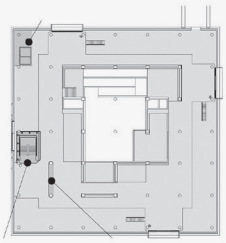
5 1998 to present



Elevated water tank upgraded

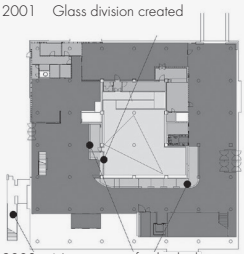


Walls installed



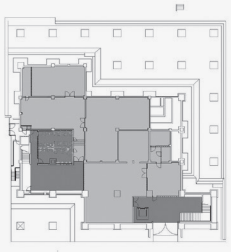
2009 Walls installed

2001 Glass division created

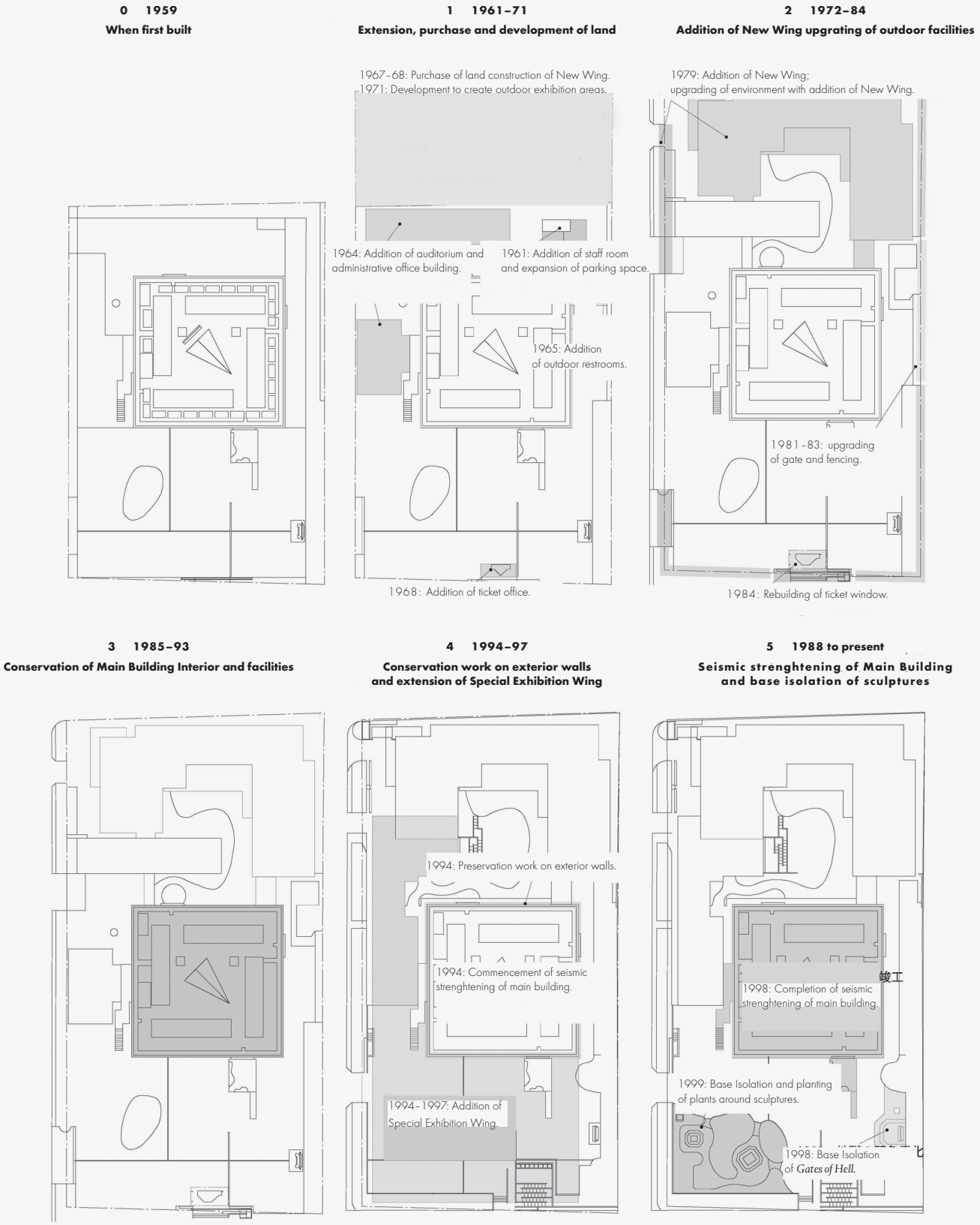


2003 New storage facility built

2009 New partitioning wall erected



Present



03 Table 2. Changes to constituents of grounds of the NMWA.

According to the explanation of the MUE prototype, the initial form of the museum prior to expansion requires a square plan with a size of seven spans east to west and seven spans north to south. Of the three realized museums, the plans of the two built in India, the Sanskar Kendra City Museum and Chandigarh Museum and Art Gallerywere built with a grid of 7 bays by 7 bays, but the museum built in Japan, the NMWA consists of a grid of only 6 bays by 6 bays.

In comparison to the two museums in India, where plentiful space can be secured, the NMWA has a very spacious forecourt, but both sides of the main building are narrow and the future extension planned the concept of the MUE would become difficult to achieve due to site restrictions. In addition to the number of spans in the grid being reduced by one in each direction to a grid of 6 by 6 spans, the size of each span is also reduced from 7 to 6.35 meters as with the Sanskar Kendra City Museum in Ahmedabad, making the museum small overall. Also, as a result of having one less span, the ramp in the central hall going from the first floor to the second floor lies under the skylights arranged in a swastika pattern, thus light floods into the main hall directly from the skylights. Also, because of the ramp, the width of the northern side of the exhibition gallery space becomes one span wide, giving a different plan composition from the other museums.

Evolution of the Main Building of the National Museum of Western Art

The main building has undergone conservation work and seismic base isolation work a number of times, and is therefore in generally good condition. The principal conservation works to the main building since its completion are summarized below, along with other construction, extension, and maintenance work carried out on the grounds. The areas of conservation made to the main building are shown in Table 2.

- 1959: Completion.
- 1961–71: Extension, purchase and development of land. Staff rooms and garage space were expanded in 1961 and outdoor restrooms were added in 1965. Also in 1965, the rooftop flowerbed was removed. Land for construction of a new building on the north side of the site was purchased in two phases in 1967 and 1968. In 1968, a new ticket office was built in the south of the site.
- 1972–84: Construction and extension of new building, upgrading of the exterior. Construction of a new wing commenced in 1977 and was completed in 1979. Some of the main building's *pilotis* were, at the same time, incorporated into the interior. Between 1981 and 1983, upgrading work was carried out on the exterior, including around the gates and fencing work.
- 1985–93: Work on main building interior and facilities. Maintenance work was carried out on interior walls and other parts of the interior.
- 1994–97: Preservation work on exterior walls and addition of special exhibition wing. The main building's outer walls underwent preservation work in 1994. The special exhibition wing was commenced in 1994 and completed in 1997.
- 1998 to present: Seismic strengthening of main building and base isolation of sculptures. Seismic strengthening was carried out around the time that the special exhibition wing was added, and base isolation of the main building was completed in 1998. (Table 1: Evolution of the Main Building of the NMWA).

The grounds of the NMWA were registered under the name "Grounds of the NNMWA" as an officially Registered Monument of Japan in the "Place of Scenic Beauty" category in July 2009. The NMWA consists of a main building, new wing, and special exhibition wing. The 7,079.8 m² south side of the site, on which stands the main building (Important Cultural Property in the "Building" category), is owned by the Tokyo Metropolitan Government, and is leased from Tokyo by the Independent Administrative Institution National Museum of Art. The 2,207 square-meter north side of the site consists of land that was purchased in 1967 and 1968 by the then Ministry of Education for construction of the New Wing.

Work in the grounds as well as on the buildings of the NMWA has been overseen and completed jointly by Junzo Sakakura, Kunio Mayekawa, and Takamasa Yoshizaka. Design and supervision of modifications such as conservation and extension work carried out since completion of the museum has also been carried out either by Sakakura's or Mayekawa's design offices. Major modifications are listed below and shown in Table 2.

- 1964: Addition of auditorium on west side and administrative office building on north side of main building (Sakakura Associates, Inc.).
- 1968: Addition of ticket office at south gate to grounds (Sakakura Associates, Inc.).
- 1979: Addition of new wing on north side of main building and construction of connecting passage way to main building (Mayekawa Associates, Architects and Engineer).
- 1984: Ticket window added at south gate to grounds (Sakakura Associates, Inc.).
- 1997: Removal of auditorium, administrative office building, and ticket window, construction of special exhibition room beneath forecourt, and addition of special exhibition wing on west side of Main Building. Forecourt finishing and two staircases in forecourt removed due to base isolation beneath forecourt, and later restored (Mayekawa Associates, Architects and Engineer).
- 1998: Base isolation work on sculptures (The Gatesof Hell) in forecourt (NMWA).
- 1999: Plants planted around sculptures in southwest corner of forecourt (NMWA).

Seismic Retrofitting for the Main Building

Due to regular advancements in seismology and earthquake engineering, seismic design codes for buildings are continuously under revision; in particular, the level of earthquake resistance required for buildings was significantly increased in 1981. As a consequence of these changes, the seismic performance of buildings constructed after 1981 has greatly improved, but there were unsettled concerns that some seismically unsafe structures existed amongst those built before that time.

04 Le Corbusier, National Museum of Western Art, Tokyo, Japan, 1959. Main building. © NMWA, 1959.

05 Le Corbusier, National Museum of Western Art, Tokyo, Japan, 1959. Main building. © NMWA, 1959.

06 Le Corbusier, National Museum of Western Art, Tokyo, Japan, 1959. Seismic Isolation Retrofit © NMWA, 2007.

07 Le Corbusier, National Museum of Western Art, Tokyo, Japan, 1959. Main building. © NMWA, 1959.

Little progress was made through these efforts; however, since a majority of buildings damaged in the Great Hanshin/Awaji Earthquake Disaster of January 1995 were observed to be those built before 1981, consequently, in 1995, measures to seismically upgrade all structures built prior to 1981 were swiftly adopted including the legislative enactment of related policies, such as the Act for Promotion of Seismic Retrofit of Buildings by the Ministry of Land, Infrastructure, Transport.

Under such circumstances, an evaluation of seismic capacity was conducted for the NMWA that had been built in 1959, and although the building satisfied Seismic design codes at the time of its construction, it was determined that it would suffer substantial damage in the event of a strong earthquake. In addition to a regular attendance by crowds of visitors and its storage of the museum's valuable collection, it is a work of architecture by world-renowned master architect Le Corbusier; thus, it was critical to secure earthquake safety without further delay.

Toward this objective, the NMWArenovation committeewas established in July 1995. Through this committee, the architectural value of the museum was examined, and determining that, as it is representative of Le Corbusier's museum architecture, and is the sole work of the modern maestro in Japan, we should investigate methods for seismic strengthening that would best preserve the original architecture, both on the exterior and interior.

The most conventional means of strengthening for this type of structure is through increasing the amount of earthquake resistant walls and/or enlarging its columns and beams to enhance its seismic capacity. A number of schemes employing these methods were examined for this building; however, while each of these proposals would have ensured earthquake resistance, they would have produced an ungraceful effect on the original structure with visually undesirable alterations or additions.

As shown in the above and also Table 2, the NMWA has never extended like an idea of a prototype "Museum of Unlimited Expansion (MUE)" by Le Corbusier. Architects who took charge of extensions of the NMWA, such as Junzo Sakkura and Kunio Mayekawa, couldn't change the original state, because the main building is regarded as a monument of Le Corbusier. ▮

08 Le Corbusier, National Museum of Western Art, Tokyo, Japan, 1959. © NMWA, 2007.

09 Le Corbusier, National Museum of Western Art, Tokyo, Japan, 1959. © NMWA, 2007.

10 Le Corbusier, National Museum of Western Art, Tokyo, Japan, 1959. © NMWA, 2007.

11 Le Corbusier, National Museum of Western Art, Tokyo, Japan, 1959. © NMWA, 2007.

Notes

1 Akiko Mabuchi, Introduction for "Preservation and Utilization Plan for the Main Building of the National Museum of Western Art (Important Cultural Property/Building) and the Grounds of the National Museum of Western Art" (Registered Monument/Place of Scenic Beauty), September 2013.

2 One column one beam one ceiling element one illumination element for the day one illumination element for the night.

3 Max Bill (ed.), *Le Corbusier - Oeuvre complète*: Volume 3: 1934-1938 (French, English and German Edition), Editions H. Girsberger, Zurich, Switzerland, 1939, p. 238.

References

FUKUDA, Kyo, SHIMAZAKI, Eri, KUMAGAI, Ryouhei, YAMANA, Yoshiyuki, "A Study about the Realization of "Musee a Spirale Carree" in the *National Museum of Western Art: Through the Analysis of the Design Change by the Cooperation of Atelier Le Corbusier and the Japanese Architects*", 2010–07–20, p. 913–914, NAID: 110008113812.

FUKUDA, Kyo, YAMANA, Yoshiyuki, KUMAGAI, Ryouhei, "A Study on the Facilities Renovation History of the National Museum of Western Art Main Building", 2012–09-12, p. 209-210, NAID: 110009649743.

FUKUDA, Kyo, YAMANA, Yoshiyuki, KUMAGAI, Ryouhei, "A Study on the Archiving of the Architecture's Documents on The National Museum of Western Art", 2011–07–20, p. 875–876, NAID: 110009523542.

KATO, Masahisa, FUKUDA, Kyo, YAMANA, Yoshiyuki, "The Historically Valuable Materials of Main Building of the National Museum of Western Art" 2011, 2011–07–20, p. 865–866, NAID: 110009523537.

Le Corbusier and the National Museum of Western Art, Tokyo (in commemoration of the 50th Anniversary of the National Museum of Western Art), Tokyo, The National Museum of Western Art, 2009.

The National Museum of Western Art, Tokyo, National Museum of Art (Independent Administrative Institution), "Preservation and Utilization Plan for the Main Building of the National Museum of Western Art (Important Cultural Property/Building) and the Grounds of the National Museum of Western Art" (Registered Monument/Place of Scenic Beauty), Introduction by a director (Akiko Mabuchi) is included. September 2013.

YAMANA, Yoshiyuki, "The National Museum of Western Art as a Prototype for a Museum of Unlimited Growth", in Ana Tostões, Jong Soung Kimm and Tae-Woo Kim (ed.), *Proceedings of the 13th* **docomomo** *International Conference Seoul - Expansion & Conflict*, **docomomo** Korea, 2014, p. 24–27.

Yoshiyuki Yamana

(b. Tokyo, 1971). Architecte DPLG., PhD on Art History. Professor at Tokyo University of Science. Head curator of National Archives of Modern Architecture/Japan. Visiting Fellow of National Museum of Western Art. Vice President of **docomomo** Japan. International Expert committee Member of the project of "Architectural Work of Le Corbusier — An Outstanding Contribution to the Modern Movement" for UNESCO World Heritage. Japan ICOMOS National Committee Member, ICOMOS ISC20c Member.

Kyo Fukuda

(b. Tokyo, 1971). Master of Engineering, Tokyo University of Science. National Museum of Western Art Curatorial Division Assistant Researcher, 2011. National Museum of Western Art General Affairs Division Specialist (Architecture), 2014.