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Revisiting the City of Edo and the National Museum of Western Art in Tokyo: Unlimited organisms, between reason and emotion

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ABSTRACT: At the beginning of the Edo period (1603-1867), the city of Edo in Japan, which corresponds today to the central area of Tokyo, was the object of a profound urban transformation that was deemed necessary because of the city's new condition as the country's political and military center. Tokugawa Ieyasu (1543-1616), the first Shogun of the Edo period and a mentor for said transformation, devised a system of moats that spiraled outwards from Edo Castle and was to continue growing. Today, Tokyo is the city with the largest urban area in the world. In that city, the National Museum of Western Art, designed by Le Corbusier (1887-1965) in 1955 and completed in 1959, was based on the *Musée à Croissance Illimitée* [Museum of Unlimited Growth], an unrealized proposal the architect had presented in 1939. That museum was organized around a square-shaped nucleus, around which exhibition galleries built on pilotis could be added successively and without limit. This idea of the possible growth of the Tokyo museum was abandoned early on, but the *Musée* proposal continues to be pertinent.

Recognizing the fact that they share structural principles based on possible unlimited growth, this paper proposes revisiting Edo and the National Museum of Western Art in Tokyo, setting out a discussion of the respective creations as organisms that balance reason and emotion.

Keywords: City of Edo, International Museum of Western Art, in Tokyo, Architectural organisms, Unlimited growth

1 THE FASCINATION WITH UNLIMITED GROWTH – SOME NOTES ON SEA SHELLS, BY PAUL VALÉRY

Among the many objects that confront man's mind with questions, some more legitimate than others, he is particularly fascinated by those which, by their form or proprieties, lead him to reflect on his own powers or tendencies. He is amazed to find objects which, though it is inconceivable to him that they should have been made, he can compare to those he is able to make. In such objects he seems to recognize his own familiar modes of thought, his own types of conscious action: his incorrigible "causality" and "finality"; his geometry; his ingenuity; his need for order and his bursts of inventiveness. (Valéry, 1998, pp. 13-14)

The poet and philosopher Paul Valéry (1871-1945) thus conveyed his fascination with finding in a sea shell singular aspects that marked the way Man thinks. "Causality" and "finality"; geometry and

ingenuity; need for order and bursts of inventiveness. All this was present in these fascinating organisms that stood out for their capability of unlimited growth.

Paul Valéry's observations provide the reasoning for revisiting the city of Edo as imagined by Tokugawa Ieyasu (1543-1616), the first Shogun of the Edo period (1603-1867), and the National Museum of Western Art in Tokyo, designed by Le Corbusier (1887-1965) from 1955 onwards and completed in 1959. The latter was based on the *Musée à Croissance Illimitée* [Museum of Unlimited Growth], an unrealized proposal the architect had presented in 1939. Today, Edo corresponds to the central core of the city of Tokyo. Albeit in different ways, Edo and the Tokyo museum share similar structural principles based on the possibility of unlimited growth, and both use the geometry of a spiral. They are two organisms in the conception of which one can, interestingly, discover a permanent balance between reason and emotion.

This paper proposes two autonomous, or perhaps autonomically, self-supporting readings that intersect at a particular point – the possibility of a connection between the maturation of the idea of the *Musée* and Japan, to which one can add the possibility that Le

Corbusier was aware of the Edo plan. Only the logic of the time of writing renders it impossible that these readings are synchronous.

2 THE CITY OF EDO

The beginning of the Edo period (1603-1867) – also known as the Tokugawa period – marked Japan's entry into a period of peace and substantial prosperity¹. It left the Warring States period (1467-1582) behind, a long period of civil wars and social conflicts instigated by *daimyo* (feudal lords) and carried out by their *samurai* (warlords) which the warfare methods introduced by the Europeans had made even more devastating. At dispute was the shogunate's control – the country's form of government – rendering the unification of the territory and centralization of the political and military power decisive.

The Japanese unification process was brought about by Tokugawa Ieyasu, who was recognized as the third great unifier of the country. Oda Nobunaga (1534-1582), Japan's first great unifier, and Toyotomi Hideyoshi (1537-1598), the second of the three, could not consolidate their power and make their contributions last. Tokugawa Ieyasu, or Matsudaira Takechiyo, to give him his original name, was born into a family of *daimyo*, having inherited from his father, Matsudaira Hirotada (1526-1549), the position of the *daimyo* of Mikawa². He served Oda Nobunaga and fought alongside Toyotomi Hideyoshi, in whose government he was to take on an important role. In 1590 Toyotomi Hideyoshi sent Tokugawa Ieyasu to Edo instead of Mikawa, where the Matsudaira family had its own military support base. The aim was to destroy his vassal's political ambitions. Edo was in the heart of the Kanto plain, on Japan's South-eastern coast. But Tokugawa Ieyasu saw there an opportunity to realize his project to centralize political and military power. Thus, he became the most powerful *daimyo* in the country. In 1603, after having defeated forces loyal to the Toyotomi family, he was appointed Shogun by Emperor Go-Yōzei (1571/r. 1586-1617). Thus, the Tokugawa shogunate commenced. Tokugawa Ieyasu was to abdicate in favor of his son Tokugawa Hidetada (1581-1632) in 1605 but continued to exercise power until he died. The Tokugawa shogunate was to last for two and a half centuries. It was the last shogunate in Japan, as the Meiji Restoration abolished that government system in 1868. Edo was

given the new name of Tokyo³. Today it corresponds to the central areas of the Japanese capital.

2.1 The military and political rise of Edo

Tokugawa Ieyasu's aspired project for political and military power centralization was based, from the outset, on the affirmation of Edo and its castle. Edo Castle, the residence of the *daimyo* and his family and later the Shogun's residence and seat of his government, was to emerge as the epicenter of that project, in a dimension that was to reveal itself at once to be both symbolic and physically real, and which was to manifest itself at the political, military, social, architectural, urban and territorial levels, given that the city became the de facto capital of Japan, although the emperor and court remained in Kyoto. In this dual role, symbolic and physical, Edo became indissociable from said Japanese system of government. As William Coaldrake (1981, p. 240) puts it:

[t]he city [of Edo] was created as a monument to Tokugawa power and a key instrument for the imposition and maintenance of bakufu control over the *daimyo*. It was therefore a city which functioned as both the symbol and substance of government, that is, as a metaphor and mechanism of state power.

Edo was located in a delta created by the confluence of several rivers and where also important roads in Japan intersected. Its centrality with the Kanto plain, which was the largest alluvial plain in the country, and also in terms of the Japanese territory, and its direct connection to the sea via the Edo Bay (Edo [江戸] means literally “the bay entrance”), meant that Edo was in a privileged location, both from the military and the trading points of view. In the 15th century, Edo had been an important *jōkama-chi* (castle town)⁴. However, by the late 16th century, it had become a disjointed collection of fishing and farming villages, and its castle had been abandoned.

Edo's conversion and expansion works began as early as 1590 when Tokugawa Ieyasu was sent to Kanto. The reconstruction work on the castle and the

1. For a better understanding of precursor events and the early Edo period, as well as other periods referred to herein, please see Walker (2015).

2. The former region of Mikawa is currently part of Aichi Province on Japan's southeastern coast. Aichi Province is to the East of Tokyo.

3. When Emperor Meiji (1852/r. 1867-1912) came into power, he abolished the shogunate, left Kyoto, where Japan's emperors had been based for centuries, and moved to Tokyo, taking the court with him. This was a deliberate move of manifest political significance and confirmed the importance Edo had in Japanese society. For several decades, Kyoto and Tokyo were to dispute the status of capital, with the status finally being conferred upon Tokyo (Iwatake, 2016, p. 237). For a better understanding of Edo during the Tokugawa shogunate, please see Sorensen (2002, pp. 11-44).

4. For insight into the city of Edo before Tokugawa Ieyasu came to power, please see Coaldrake (1981, p. 240) and Ichikawa (1994, p. 182).

city's defensive system remained a pertinent priority (Ichikawa, 1994, p. 184). Japan's recent past and Tokugawa Ieyasu's own experiences brought home just how fragile holding military power could be. The intervention on the castle was carried out at the same time as that on the city. A new moat was built that was more distant from the castle itself. The existing ditch was filled in to increase the available surface area. Gaining buildable ground was necessary for ensuring the fixation of the population and the structures and development of a city that was already being imagined as Japan's future capital. Edo gradually attracted growing numbers of people, both military and civil. Its fragmentation, the result of it being located in a delta area, presented problems for ordered growth and the precise definition of the areas for each social class characteristic of Japanese castle towns. Edo "lacked the symbolism normal to castle-towns of the period," writes Coaldrake (1981, p. 241) about the city in this initial growth phase.

The struggle for power that followed the death of Toyotomi Hideyoshi meant that Tokugawa Ieyasu left Edo, resulting in the interruption of the work on the castle and city.

2.2 The conception of the city

His appointment as Shogun gave Tokugawa Ieyasu the opportunity to return to the redefinition of Edo, now in a more justifiably structured and ambitious way. It now became about affirming Edo as the new center of political and military power in Japan and no longer just the seat of a *daimyo*. A major fire in Edo in 1602 gave new and greater urgency to redeveloping the city.

Tokugawa Ieyasu drew up a great and ambitious plan for Edo to manifest itself, as already pointed out, at the political, military, social, architectural, urban, and even territorial levels. In addition to reconstructing the castle, which would have a keep, new walls, and moats prepared for warfare, the city's fabric was also to be ordered. The plans also included the opening of a navigable canal connecting the castle to Edo Bay. Tokugawa Ieyasu relied on the collaboration of Tōdō Takatora (1556-1630), a *daimyo* who was an expert in military construction. After Tokugawa Ieyasu's death, Edo's development was continued by his son, Tokugawa Hidetada, the second *Shogun*, and then his son Tokugawa Iemitsu (1604-1651), the third *Shogun*.

The plan was based on castle towns. Castle towns were urban structures designed primarily with defensive purposes in mind; they were dominated by the *daimyo's* castle, which, as a rule, was well fortified and surrounded by a moat. The spatial organization in castle towns reflected Japanese social hierarchy, "creating a representation of the prevailing order in the physical form of the city." (Coaldrake, 1981, p. 241) The castle, the *daimyo's* headquarters and a focal point in a castle town, was surrounded by the *samurai* areas, which were surrounded by those areas densely

occupied by the ordinary citizens, including the artisans, merchants, and the poor. The outer limits of a town were where the temples were located. Contrary to European towns, where the fortifications included the respective residential areas, in Japanese castle towns defensive structures surrounded only the castle itself. "The outer commoner, temple and *samurai* areas were conceived as a part of castle defences, not as something to defend," writes André Sorensen (2002, p. 23)⁵. In Edo, the relationship between the urban organization and the social hierarchy was more unclear, if not to say inverted, in relation to the castle town model. Concerns with the defense of the Kanto plain, which exceeded concerns with defending the castle, led Tokugawa Ieyasu to place several of his more important vassals on the outer limits of the town. In addition to his, the villagers, some of whose families had been in Edo for generations, and more recent newcomers to the city grouped in available areas, some closer to the castle (Coaldrake, 1981, p. 241).

Heian-kyō, the imperial capital of Japan and seat of the shogunate – the city was to adopt the name of Kyoto in the 20th century – was a justified reference for Tokugawa Ieyasu even before he became *Shogun*. Heian-kyō had been planned following cosmological orientation principles developed in China over several centuries and then imported into Japan after the first Japanese missions to that country in the 7th century⁶. Of course, the adoption of those principles was conditioned by Edo's morphology, which required doing without the regularity that characterized Heian-kyō. Still, the reference to the imperial capital gave the city imagined by Tokugawa Ieyasu the symbolic dimension needed to elevate it beyond the mere seat of a *daimyo*.

5. For a more in-depth understanding of the castle towns of the Tokugawa period, please see Satoh (1997) and Sorensen (2002, pp. 22-25).

6. Coaldrake (1981, p. 241) looks at the adoption of these principles in Edo, basing himself on sources from the early Edo period. Following said principles, which are frequently identified as *feng shui*, or geomancy, today, the orientation of a city in line with the four divinities associated with the four geographic cardinal points was decisive for guaranteeing its protection against evil cosmological forces, particularly those coming from the Northeast. These principles were rarely applied in full, even in China, as a result of pre-existing conditions. "The directions, therefore, were regarded as geomantic and not geographical cardinal points" (Coaldrake, 1981, p. 243). In Japan, the application of the principles was minimal and limited to very isolated cases. As Sorensen (2002, p. 13) points out: "[The cities of Heijō-kyō (later Nara) and Heian-kyō (Kyoto)] were the only two in Japanese history that followed the symmetrical planned grid of the Chinese imperial style and did not have a lasting impact on patterns of Japanese urbanisation, which later reverted to a more indigenous style of asymmetrical and irregular growth." The standard form of urban design in pre-modern Japan was the castle town model, as pointed out above (Sorensen, 2002, p. 13).

The morphological similarity between Edo and Heian-kyō has direct significance in terms of Tokugawa political ambitions. At Edo, [Tokugawa] Ieyasu was laying the geomantic groundwork for a future capital city while he was still the vassal of [Toyotomi] Hideyoshi. Edo, the castletown of a regional daimyo, was conceived as a potential national center in the grand style of ancient Asian imperial cities. (Coaldrake, 1981, p. 243)

2.3 A singular plan

Basing himself on the castle town model and taking the city of Heian-kyō as a reference, Tokugawa Ieyasu invested in expanding Edo's buildable area and constructing a system of defensive moats for the castle and navigable canals, the most important of which was the Dosan-bori, a canal that was opened between the castle and Edo Bay. As a result of this huge investment, there was strong growth in trading activity, thus attracting ever more people, many of whom settled on the canal banks, leading to conflict with the societal hierarchization model used in castle towns.

Along with this increase in commercial activity, the warring impulses of the *daimyo* were brought under control. They were now obliged to ensure that the moats and canals were opened and to supply stone for the castle's construction. This was a considerable financial effort, particularly for those whose lands were further away. They had to bear the costs of transport of materials over long distances (Coaldrake, 1981, p. 250). The clans' crests whose seats were far from Edo and inscribed in the castle walls confirmed the effort required. The control over the *Daimyo* was also to see the imposition of an alternate residence (*sankin kōtai*) system under Tokugawa Iemitsu (Sorensen, 2002, p. 17). That system meant that the *daimyo* had to live in Edo for one of every two or three years – the regularity depended on the status of each *daimyo* – and to have to leave their respective families in Edo as political hostages. The system was also to include the *samurai* that lived on the Tokugawa family lands. The system enforcement contributed to the additional growth of Edo, which was already quite considerable, given that each *daimyo* or each *samurai* staying in the city also meant hundreds, if not thousands, of their subordinates also had to stay.

The singularity of the plan for Edo derived from the complex system of defensive moats and canals. Instead of emanating concentrically from the castle, the moats and canals spiraled outwards, successively surrounding the castle and the city; it was a movement that was as defensive as it was a sign of an opening up and an affirmation to Japan. It was defensive because it improved the defense of the

castle, while at the same time enabling the entrapment of assailants entering through the canals; and it represented an opening up and affirmation to Japan because the implementation of the system was instrumental for the military control of the country and formed the basis of the growth of the city, which was to be continued under Tokugawa Ieyasu's successors. In this spiral system, one can detect an aspiration to unlimited growth – unlimited in space and permanent in time, just like the growth of a spiral.

Tokugawa Ieyasu's ingenuity was shown in his definition of Edo's founding principles, in which the assertion of the shogunate went hand in hand with the city's transformation. Those principles emerged as a precise, rational construction driven by the ambition of centralizing political and military power and which always bore a symbolic dimension⁷. But it is of interest to note just how much those principles also reflected a construction that was of the order of sensibility and, thus, in a way, of emotion, as they revealed a constant balance between evoking an ideal plan, one inspired by Heian-kyō, and integrating the irregularities – both social and morphological – that were already firmly inscribed in Edo. Thus, Edo revealed itself as an organism, an imperfect organism⁸, as all organisms are, but one with a full manifestation of life – a living, expectant body. Perhaps that is the most outstanding aspect and the greatest achievement of the project imagined by Tokugawa Ieyasu.

By the early 18th century, Edo was already the most populous city in the world, having overtaken London and Paris (Coaldrake, 1981, p. 246). The *Kidai Shorān* (Excellent View of this Prosperous Age), a scroll painting by an unknown Japanese artist that was completed in 1805 (Hiromu and Tadashi, 2020), was a faithful portrait of this urban organism. Along 12.3m, the scroll shows, with great precision, the main street of Nihonbashi, the neighbourhood that was the first central area of Edo and was next to Dosan-bori canal. The street is depicted full of people, in a continuous movement that also demands action in the viewer's gaze. The city is a live being – it pulsates.

In today's Tokyo, the large moats dug around the castle, which gave way to the Imperial Palace complex, are still visible. Many of the canals opened by Tokugawa Ieyasu have since been filled in, but it is noteworthy that some of the expressways that cross the

7. Screech (2008) looks precisely at the dimensions of the codification inscribed in Edo.

8. Even in Heian-kyō, symmetry was avoided. That choice was rooted in an analogy to the human body, also an organism. "Th[e] perfect capital could be compared to a human body. [...] But a human body is not entirely symmetrical, as its most vital organ, the heart, is on the left. The city was ordered similarly." (Screech, 2008)

city center follow the layout of some of those canals, some of which can still be seen below the roads.

Tokyo is today the largest conurbation in the world.

3 THE NATIONAL MUSEUM OF WESTERN ART IN TOKYO

In 1955 Le Corbusier was commissioned to design the museum destined to house the art collection of Kojiro Matsukata (1865-1950) in Tokyo. Kojiro Matsukata, a Japanese shipbuilding businessman, who was educated at Yale University in the USA, and who visited Europe on his way back from there to Japan, had gathered together a vast collection of European works of art he had acquired on his journeys to Europe from 1916 onwards. He was driven by “an unselfish desire to build an art museum on his own and to put authentic European artworks on view for the benefit of young Japanese artists.” (The National Museum of Western Art, 2020). Matsukata brought part of the collection back to Japan but had to sell it. Of the rest of the collection, one part remained in London and was lost in a fire in 1939; the other part stayed in Paris and was confiscated by the French State at the beginning of the Second World War. Thanks to the re-establishment of friendly relations between the two countries in the 1950s, France accepted returning the collection to Japan, on the condition that a French art museum was built in Tokyo to house it⁹. In 1954, Kunio Maekawa (1905-1986), a former collaborator to Le Corbusier’s, contacted him and invited him to submit a design. Le Corbusier accepted. The modern museum was one of the problems he was most interested in, he pointed out in his response to Maekawa (Sendai, 2016, p. 185). However, he did insist that Japanese architects carried out the final design and the work supervision. The Japanese support team was made up of Kunio Maekawa, Junzo Sakakura (1901-1969), and Takamasa Yoshizaka (1917-1980), the latter two also having been collaborators of Le Corbusier’s.

The award of a design contract to Le Corbusier for a *musée d’art français* in Tokyo was made official in 1955. Construction work began in 1957. The National Museum of Western Art opened in Tokyo in June 1959¹⁰.

9. To deeper understand Kojiro Matsukata and his collection, please see The National Museum of Western Art (2020).

10. As early as January 1960, the museum featured a touring exhibition on Le Corbusier (Francis and Sloane, 1987, p. 353). In 1979 the museum’s New Wing, designed by Kunio Maekawa, was opened; and in 1997, the Special Exhibition Wing, also designed by Kunio Maekawa, was inaugurated.

3.1 From the Musée à Croissance Illimitée...

The design of the National Museum of Western Art was based on the Musée à Croissance Illimitée [Museum of Unlimited Growth], an unrealized proposal that Le Corbusier had begun to work on in 1930 and finalized in 1939. He published it for the first time in 1946, in Volume 4 of his *Œuvre complète*, where it was located in Philippeville, now Skikda, in Algeria (Le Corbusier, 2013)¹¹. Given its radicality, in particular concerning the meaning of a museum in modernity, “the Museum of Unlimited Growth [is] a counter-narrative to the typical museum as monument,” as Irene Chin interprets the design (Chin, 2015, p. 1). Instead, the *Musée* can be seen as encapsulating values representing how Le Corbusier understood architecture: firm, meta-circumstantial, and atemporal structural principles rooted in his close and deep relationship with the world and at all times guided by the search for inner truth. “Architecture, Pure Creation of the Mind” – as Le Corbusier himself had proclaimed in *Vers une Architecture* [Toward a New Architecture], published in 1923 (Le Corbusier, 2007, p. 231).

The *Musée*, finalized in 1939, was organized from a central square nucleus, around which, successively and without any limits, exhibition galleries built on pilotis were to be added. The entrance was via a passageway underneath the building, from where one could go up through the central nucleus and then access the galleries. This upward direction in the central core contrasted with the horizontal and unlimited expansion of the building. On the exterior, the beams that protruded from the walls and the paving design anticipated future growth. The galleries’ spiraling organization supported the free organization of the interior, inviting the visitor to explore the museum space on foot. The partitions could be changed and were placed to leave spatial intervals. The works of art were to be illuminated by a series of clerestories that accompanied the galleries, favoring natural light. Intending to lessen the perhaps labyrinthine feel of the interior, the *Musée* had defined four galleries that linked the central nucleus to the exterior in the form of a fylfot. The ample spans at the end of each of these galleries were to be the only openings in the museum’s facade. In reality, the *Musée* was to lack a permanent facade. In a summary that is as clear as it is suggestive, Beatriz Colomina (2009, p. 57) writes: “[t]he museum [of Unlimited Growth] is an ever-expanding interior without exterior. It is a machine swallowing the outside.”

By the time he began work on the design of the museum for Tokyo, Le Corbusier had already revisited his unrealized proposal for two other

11. In the 1930s, Le Corbusier and Pierre Jeanneret (1896-1967) developed the Obus Plan for Algiers, Algeria. The design for the museum for Philippeville was not built.

museums: the Museum of Knowledge in Chandigarh, India, now the Government Museum and Art Gallery; and the Ahmedabad Museum, likewise in India, the present-day Sanskar Kendra Museum. The latter was still under construction at the time¹². These three museums were the only realizations of the *Musée* proposal, even if its most interesting detail was not fulfilled, given that none of these museums allowed for the possibility of growth, no matter how limited it was to be¹³. The Matsukata Collection was already a fully formed collection, but that did not dissuade Le Corbusier from returning to his design for the *Musée*.

The choice of the *Musée* as the basic principle for the Tokyo museum's design may not have to do with the fact that Edo, the original nucleus of Tokyo, as explained above, was developed based on a plan that had a spiral as its structuring principle. Nevertheless, one must acknowledge the possibility of the existence of a link between the maturation of the *Musée* idea and Japan, even if the origins of the spiral can also be found in the Mundaneum, a design by Le Corbusier and Pierre Jeanneret (1896-1967) for the Cité Mondiale in Geneva, Switzerland (Le Corbusier and Jeanneret, 2013)¹⁴. Colomina writes (2009, p. 58):

[t]he museum was constructed by the Japanese architects Maekawa and Sakakura, who had worked for Le Corbusier in Paris between 1928 and 1931 (that is, during the crucial years when the idea of the Museum of Unlimited Growth was formulated) and returned to his office after the war.

In addition to Maekawa and Sakakura, and Yoshizaka, several other Japanese architects, both male, and female, worked for Le Corbusier from the 1930s onwards. Charlotte Perriand (1903-1999), an associate and close friend of Le Corbusier and Pierre Jeanneret's, spent long periods in Japan from the early Second World War onwards¹⁵. Le Corbusier, at the

time still using the name Charles-Édouard Jeanneret, came into contact with Japan-related works through the library in his hometown of La Chaux-de-Fonds (Chevroulet, 2015). It is, therefore, conceivable that Le Corbusier knew the origins of Edo.

3.2 ... to the International Museum of Western Art in Tokyo

Le Corbusier traveled to Tokyo in early November 1955 to get to know the final site of the museum. The site was adjacent to the National Museum of Nature and Science and close to other cultural institutions in Ueno Park¹⁶. As was his wont, he drew several ideas in his sketchbooks, adding informative notes on the site's conditions, particularly on the climatic conditions and prevailing winds (Sendai, 2016, p. 187). The first drawings for the design show Le Corbusier's intention of testing an ambitious proposal that was in line with the cultural dimension of the institution that had invited him and how he had understood the museum's reach. Chin (2015, p. 4) writes:

[...] despite the clarity in form of the Museum of Unlimited Growth, the project was always conceived as being part of a larger complex. [...] The square spiral museum would house permanent collections and there were to be pavilions for temporary exhibitions to supplement the greater narrative.

In addition to the museum building, the proposal also included a *Boîte à miracle* [Miracle Box], a small, cube-shaped theatre devoted to theatrical experimentation, and a pavilion (Sendai, 2016, p. 187)¹⁷. The inclusion of a restaurant and a lecture hall were also considered (Sendai, 2016, p. 189), but all additional structures were abandoned, as they added to the proposed budget and the limited surface area available for the museum construction. Above all, the latter reason

12. The design project for the Chandigarh museum was begun in 1952, with Shivdatt Sharma (b. 1931) having collaborated in the project. The construction work was completed in 1968 (Gans, 2006, p. 244). The museum includes the cultural center complex Le Corbusier had envisaged for the city, which was only partially completed. The design project for the Ahmedabad museum was also begun in 1952, with the collaboration of Jean-Louis Vèret (1927-2011). The work was completed in 1958 (Gans, 2006, p. 212).

13. On the other museums designed by Le Corbusier that incorporated the *Musée* principles, please see Duyan (2019, pp. 129-131).

14. The Mundaneum was the first museum designed by Le Corbusier and Pierre Jeanneret. To better understand the significance of the Mundaneum and its influence on the other museums that Le Corbusier designed, please see Dumont D'Ayot (2015).

15. For insight into Charlotte Perriand's relationship with Japan, please see Cimorelli (2013).

16. Here, one should note the curious fact that Tōshō-gū, the Shinto shrine dedicated to Tokugawa Ieyasu, is also located in Ueno Park, just metres away from the National Museum of Western Art.

17. The inclusion of a *Boîte à miracle* in the early design stage for the Tokyo museum had been tried before, in 1952, in the design for the museum in Ahmedabad, although here too, it was not realized (Sendai, 2015, p. 524). The pavilion is similar to the art gallery on the Chandigarh museum grounds. The initial designs for the museums in Tokyo, Ahmedabad, and Chandigarh confirm that Le Corbusier saw the museum as one element in a broader complex of structures, where various forms of artistic expression could co-exist. Those structures would constitute a volumic composition that made it possible to walk between them, a kind of *promenade architecturale*. Said plans were only realized in the Chandigarh museum, and even there only partially, as observed in Footnote 12.

led to the exclusion of some aspects from the *Musée* proposal. The spiral effect would have exceeded the site boundaries and was abandoned for that reason. Furthermore, the fact that the site was relatively narrow meant that the design of the fylfot's arms had to be altered. In the end, some of the museum's functions had to be placed underneath the building. "As a result, the image of a museum elevated in the air broke down" (Sendai, 2016, p. 188). The indications of possible growth disappeared – the structural elements that protruded from the walls of the *Musée* proposal were removed. The concrete panels that cover the exterior walls confirm the idea of perpetuity. Le Corbusier insisted on the maximum possible use of natural light, believing in its changing properties. The *Musée* clerestories gave way to suspended galleries that brought natural light into the interior while allowing for the installation of artificial lighting systems. The positioning of these galleries reinforced the fylfot concept.

The museum's central nucleus, a pivotal element in the whole spatial structure, was given particular attention by Le Corbusier. The passage underneath the suspended building leads to a vertical space over three floors with lighting from above. The first floor is accessed via a ramp that is folded into three parallel sections, along which diverse perspectives of the space are created. On the uppermost floor, a balcony hangs over the void below. The Grand Hall – or *hall d'honneur*, as Le Corbusier (1956, p. 16) refers to it in his text on the *Musée* – is an exhibition space and does not merely provide access to the museum's galleries. Le Corbusier imagined it as a synthesis of several art forms, whereby architecture is simultaneously one of those art forms and the containers for the others. One of the walls was to be a photo wall. "Suppose a Sistine [Chapel] with the photograph in place of brush!" Le Corbusier wrote in a letter to Yoshizaka (Sendai, 2016, p. 192). That idea was not realized, although Le Corbusier insisted on its importance. Initially, the ceiling of the Grand Hall was to be perforated by small-sized apertures and painted red; the walls were to be painted yellow, green, or blue. The atmosphere was to evoke that created by the Southern wall of the Ronchamp Chapel (Sendai, 2016, p. 188), which was completed shortly beforehand¹⁸. The idea of the apertures was to be abandoned. In their place, a large-size triangular opening was placed on top of one of the pillars in the hall.

The opening is covered by a pyramidal volume that is open to the North. Light flows into the interior, highlighting the two beams that intersect at the top of the pillar. The structure is exposed, but in a way that is unique in Le Corbusier's work. There is an affirmation of essentiality in said exposure, extending to the

architecture¹⁹ – structure, and space. The presence of the structure underlines the spatial void. Perhaps therein one could discern another, a new link to Japan, possibly reinforcing that, already mentioned above, which may have existed throughout the maturation of the principle underlying the *Musée à Croissance Illimitée*. The possibility that that other link already existed is strengthened by the fact that the team of Japanese architects assisting Le Corbusier was involved in determining the height and, thus, the proportions of the pyramidal element (Sendai, 2016, p. 190).

Le Corbusier was very pleased with the dedication of Maekawa, Sakakura, and Yoshizaka in accompanying the design and supervising the construction work and was appreciative of the outcome achieved. Unfortunately, however, he never got to the work personally.

3.3 "Pure creation of the mind"

The possibility for the growth of the Tokyo museum was an idea that was abandoned early, as shown above, but the unrealized proposal for the *Musée à Croissance Illimitée* retains its pertinence.

In 1939 Le Corbusier described the principles behind the *Musée* (Le Corbusier, 2013, p. 16), referencing the various necessary construction elements, i.e., the pillars, beams, walls, and ceilings, and how they are combined, i.e., everything is to be based on the Golden Ratio rules. He underlines the economic aspect of the proposal and the wealth of combinations suitable for the good organization of a museum. Le Corbusier seems to confront the reader of his text with the imminent activation of a specific mechanism, but in the end, it is the schematic representation of an organism that is revealed. The *hall d'honneur*, the core of the proposal, is protected by the structure of pillars and beams, i.e., the skeleton, which in turn is wrapped in a wall, a skin, that is successively absorbed. The growth is the manifest expression of the vitality of that organism, which is in harmony with the vitality of the art collection it is to house. Le Corbusier's enthusiastic text convokes the emotion of the confrontation with art, art of modern times appropriately exhibited in a building that is itself full of the spirit of modernity. Le Corbusier makes one wish that his *Musée* was built. He gives it a location in his text – Philippeville. That is the charm of his words, drawings, and the model photographs he presents. Nevertheless, the *Musée* is a plan; it

18. The Chapel of Notre-Dame du Haut was consecrated in 1955. The design project was begun in 1950 (Gans, 2006, p. 93).

19. Kazuo Shinohara's (1925-2006) work on exploring the value of the structure in the conception of Japanese spaces presents elements that could be related to this particular detail of the Tokyo museum. For more on Shinohara's work, please see Taki, Warren and Ferreras (1983).

is not a building. It is directed at the reason instead of being architecture and presenting itself to aesthetic emotions. The *Musée* is, in the end, run, a beginning point in defining an architecture. Indeed, as Chin (2015, p. 5) points out:

[t]he spiral diagram which organized Le Corbusier's ideal museum, was therefore a framework for intellectual organization in the mind, rather than on the perceptual level of the eye.

So, there is nothing singular in how the National Museum of Western Art in Tokyo complied with the *Musée*. Even though it may begin with a scheme, architecture will also be something more.

4 AFTERTHOUGHT

This chapter takes as its starting point recognition of the fascination aroused by the possibility of the unlimited growth of an architectural object – the notion of the architectural object is here interpreted in the broadest sense, also including the urban dimension. Carrying the possibility of unlimited growth means to consider time in a particular way. Contrary to the common idea of time as a continuum that is independent of architecture, with said idea being reflected in the frequent valorization of the timelessness of architectural objects, time itself is, indeed, built into the very conceptualization of these objects, thus emerging as a founding condition of the definition thereof. Architecture is thought of as animated by something akin to inner movement and at all times latent movement. Architecture becomes an organism. This is the idea behind the definition of Le Corbusier's *Musée à Croissance Illimitée*, even if the Museum of Western Art in Tokyo only partially realized that idea; this is the idea that governed Tokugawa Ieyasu's plan for Edo, which gives the Tokyo of today its identity, despite its current immensity and diversity.

Reflecting on architectural organisms that incorporate the possibility of unlimited growth brings one to the boundaries of the very definition of architecture. It is here that the importance of said organisms for the contemporary world is rooted. The notion of the architectural object as something that perpetuates itself in time gives way to the idea of the architectural object as an organism in constant transformation. That readjustment also requires the said organism's constant and always renewed capacity to offer itself to signification, i.e., the capacity to become meta-circumstantial. Architecture thus emerges as something meta-objectual.

Isn't this condition of being a meta-objectual thing the ultimate challenge for architecture?

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