

Le Corbusier's Museum as a Critical Attitude

Efe Duyan

Mimar Sinan Güzel Sanatlar Üniversitesi, Mimarlık Bölümü

Received/Başvuru tarihi: 25.03.2019, Final Acceptance/Kabul tarihi: 09.08.2019

Introduction

Le Corbusier designed many museum projects throughout his career, which are merely different versions of the same idea. The similarities among his museum projects of different geography, context, or period are unusual even for a rationalist like Le Corbusier, as no single project occurs more frequently in the Swiss architect's work. The studies on his realized museums or some of the unrealized examples usually miss to interpret them from a holistic perspective and to explain his persistence on his museum idea, which might point out significant aspects of his architecture.

We can ask whether his ideas on museums have influenced other architects. Corbusier's museum ideas have been mostly ignored by his contemporaries, and they even have not been employed adequately. Despite all the importance given to them by the architect, even today, they seem neither attracting much attention nor seen as game-changing works of his career.

Indeed, their importance lies in the design method, not object, and the primary purpose of this article is to enlighten that. Corbusier museum ideas were not aesthetic solutions towards how a typical museum should be, but it was an attack on the traditional understanding of the museum itself, a redefining formula, whose means are the

forms, rather than the words. They exemplify the critical attitude of Le Corbusier of how to define a building type and show how his criticism generates the form.

In that respect, this article will explain the reasons behind the repetitive occurrence of a single museum idea throughout his career. All of his museum projects will be analyzed to show how he implemented his redefinition as an ideal design in each separate case. It also will be argued that this critical approach of redefining the building type is the source of his persistence.

Firstly, the first museum projects will be described, which are points of origin. They can be grounded in a complex set of unique ideas on the museum that have started to shape in the 1920s. Namely, the museum building inside the Mundaneum complex of 1929 can be regarded as a crossroads where all his museum designs and exhibition spaces are linked. In other words, the World Museum of the Mundaneum represents a prototype, if not the end product, for the future museums.¹

Several museum projects proposed throughout the 1930s can be considered as a phase of Le Corbusier's museum designs. The first of the typical museums of Corbusier was drawn under the name of the Contemporary Arts Museum or Living Artists Museum in 1930, whereas The

Abstract

The museum projects designed by Le Corbusier give the impression of being examples of a single template. Between 1930 and 1965 he countlessly proposed his typical museum for different locations and placed it into his urban plans, in addition to three realized museums. In this paper, the unusual number of the appearance of the museum template will be pointed out, and the importance of his museum for his architecture as a critical stance will be expressed.

The main reason for this persistence can be found in his unique perspective on the museum. According to him, a museum should represent its own time by growing as time passes, so that new artifacts from the present can be added. The infinite growth brings forth the spiral shape as a reference to nature; the elasticity required for the growth paves the way for standardization; the preference of an anti-hierarchic arrangement leads to plan libre, and the open-plan introduces a fluent, total space with multiple vistas. His template redefined the museum conception through the features of expansion, standardization, spatial flow, and the existence of various perspectives for the observer, all of which in turn reflect his personal vision. It is an original definition of the function of the museum expressing his critical attitude as an architect. What lies behind the importance given to his museum idea is that he completely redefined the function of the building type by criticizing the traditional understanding of the museum.

öz

Le Corbusier'nin farklı dönemlerde tasarladığı müze yapıları aralarındaki şaşırtıcı benzerlikler nedeniyle aynı şablondan çıkmış oldukları izlenimini verir. 1930'dan 1965'e kadar bu şablona uygun tasarımların, gerçekleştirdiği üç müzeye ek olarak çeşitli vesilelerle yeniden tasarlandığı, kent planlarına yerleştirildiği ve yazışmalarda pek çok müşteriye sunulduğu gözlemlenebilir. Bu makalede müze şablonunun LE Corbusier'nin çalışmaları arasında alışmadık sıklıkta belirdiği ortaya konacak ve müzesinin eleştirel bir tavır olarak mimarlığı açısından taşıdığı öneme dikkat çekilecektir.

Le Corbusier'nin kendi tasarımını dikkat çekici bir şekilde tekrar etmesinin ardında müzeye yönelik kendine özgü bakış açısı yatar. Müze kendi çağını temsil etmelidir. Böylesi bir müzenin içindeki eserler asla tamamlanmayacak, zaman geçtikçe yeni nesneleri içermeye gerekecektir. Dolayısıyla Le Corbusier müzesinin şimdiki zamana verdiği önemin bir göstergesi olarak sürekli büyümesini öngörür. Büyüme fikrinin doğal göndermeleri yapının genel görünümünü bir spirale büdündürür; büyümenin gerektirdiği esneklik standardizasyona yönelendirir; nesnelerin anti-hiyerarşik yerleşimi serbest bir planı gerekli kılar ve serbest planın olanakları çok bakış açılı serbest bir mekan açısına kapı aralar. Corbusier'nin tasarımı, büyüme, standardizasyon, mekânsal akış ve çeşitli bakış açılarının mümkün olması



This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.

şeklinde sıralanabilecek özelliklerle müze kavramını yeniden yorumlamıştır ve bir şablon olarak tüm müze projelerinde belirleyici olmuştur. Dolayısıyla sonsuza kadar büyüyen müze, kendi özelliklerini somut örneklerle yansıtan ve tüm tekil projelerin kaynağını oluşturan bir fikirdir. Bu şablonun altında yeniden tanımladığı müze işlevi yatar ve Le Corbusier'in müzesi mimarın eleştirel tavrının bir ifadesine dönüşür. Müzenin Le Corbusier için büyük önem taşımasının ardında geleneksel müze kavrayışını eleştirerek yapı tipinin işlevinin yeniden tanımlanması yatar.

Keywords: Le Corbusier, critical thinking, criticism, museum, template

Anahtar Kelimeler: Le Corbusier, eleştirel düşünce, eleştiri, müze, şablon

Figure: 1

Musée à Croissance Illimitée, photo by Lucien Hervé, (FLC/ ADAGP).

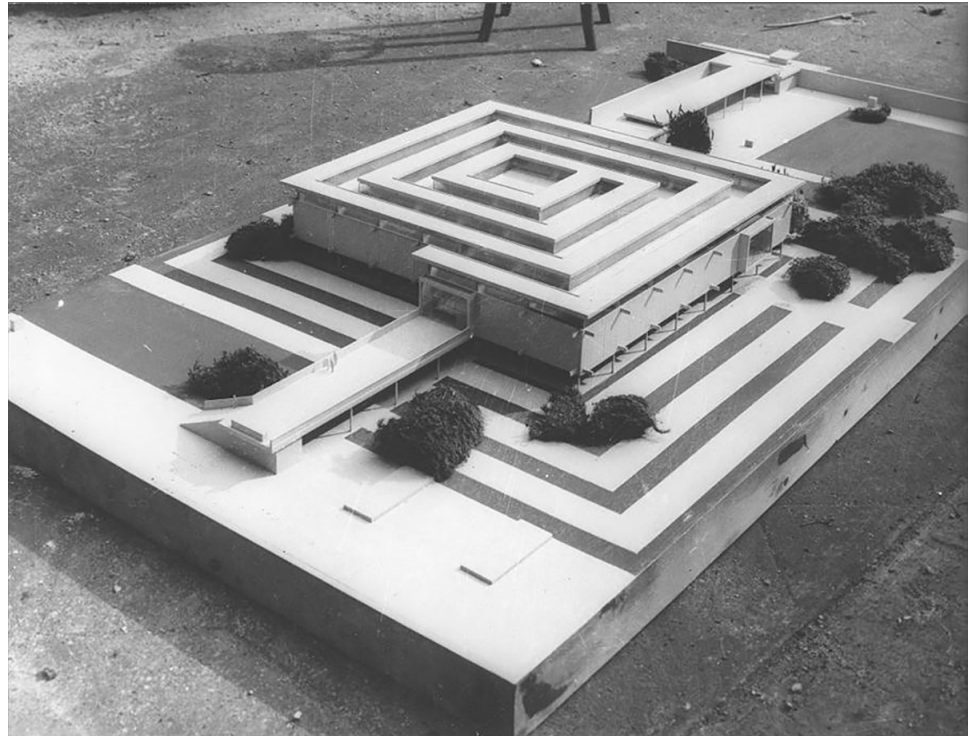
1 Mundaneum's World Museum is not only the prototype of the Museum of Infinite Growth but it also contains certain features recalling another series of designs, namely the exhibition spaces. So, Mundaneum's World Museum is a crossroads where exhibition spaces and museums root in. Starting from Mundaneum another pattern for galleries and exhibition spaces is visible. It can be noticed that another formal vocabulary is at work, which relates to the problem of temporary exhibition, whereas the ultimate museum template refers to the problem of permanently containing objects. In other words, both all museums and all galleries by Corbusier had archetypal solutions, which intervene from time to time. To understand Corbusier's museum archetype, it is important to mention the gallery template as well, as a couple of museums can be associated to the gallery-template as exceptions. All museums and galleries belong or at least can be associated to one of these templates. Mundaneum's World Museum, along with 1927's Nestle Pavillion (and with a connection to the 1910's Workshops of the Artists) triggered a series of exhibition space design, a certain shape which can explicitly be observed in many future projects. City and State Museum (1935), Bat'a Pavillion (1936), Pavillon de la France à l'exposition de l'eau (1937), Pavillon des Temps Nouveaux (1937), Knowledge Museum (1950) and Art Gallery (1950) in Chandigarh, "Synthesis of Major Arts" Exhibition at Porte Maillot (1950), (even) Pavillon Phillips (1958), French Cultural Center (Fort-Lamy, 1960), Carpenter Visual Arts Center (1960), Ahrenberg "Palace" (1962) and Heidi Weber Museum (1962). All of them are connected. The gallery type has a different nature than museum and will be analyzed in another article. But it can be said that Le Corbusier did not design a museum or an exhibition space, which cannot be related to one of these two types.

Contemporary Aesthetics Center of 1936 is a variation of the Contemporary Arts Center. This period ends when the idea is labeled as Musée à croissance illimitée, Museum of Infinite Growth (Figure 1), and represents the emergence of the first museum template. As an unrealized project, Corbusier's Museum of Unlimited Growth can be seen as the most generic expression of his museum idea.

Afterward, it will be shown how often Corbusier has revisited his museum template. All museum projects after World War II refer precisely to the same template, namely the Museum of Infinite Growth, including the realized museum buildings. Other unrealized detailed museum proposals, the museum buildings in his urban schemes and his rough ideas in his correspondences will also be addressed as a bulk of the material in his archive, which remained overlooked in the treatises on Le Corbusier's museum, to emphasize how important his take on museum mattered to the architect. Le Corbusier put his museum template three times into practice in Japan and India in the 1950s. During the construction

process, Corbusier's idea of the museum underwent substantial changes as he went to a direction of integrating locality in the cultural climate of post-war. Again, the template seems to be applied, while versions of the Museum of Infinite Growth could be found in his city plans like Easter eggs. In addition to unrealized projects of the Delaunay Museum Exposition, International Art Center in Erlenbach and 20th Century Museum in Paris, he tried to convince many possible customers to build his museum, as it can be seen in his correspondences. The number of his attempts and his persistence reveal how compelling the design template was.

After a detailed examination which also aims to complete the existing lists Corbusier's museums, it will be focused on the common features of the museum projects to demonstrate how the template represents Corbusier's ideas on the museum. Using standardized elements, creating multiple vistas for the visitors, the flow of the space through *plan libre* and, most importantly, the potential of expansion in the form of a spiral are the key elements of his museum design. Following the



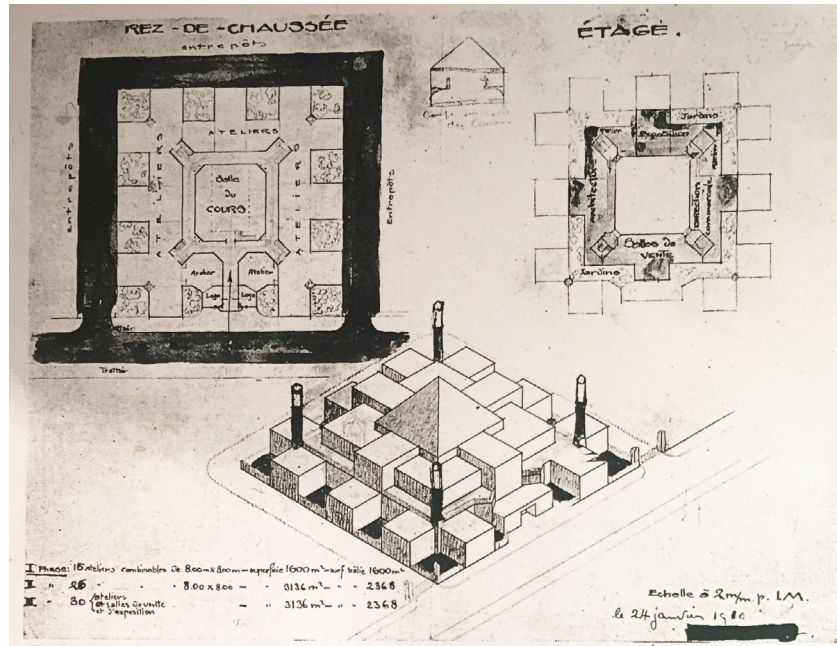
analysis of the template, Le Corbusier's specific understanding of the museum will be put forward as the main reason for his insistence on his infinitely growing structure. Consequently, it will be noted that Corbusier's persistence can be explained by design being the ideal museum and perfect solution in his eyes.

Finally, it will be shown that Le Corbusier's specific understanding of the museum can be considered as a critical gesture, which, in turn, represents fundamental aspects of Le Corbusier's architecture.

1. The Roots of the Spiral

The first building related to art by Le Corbusier dates back to 1910. Inspired by the fine arts school in La Chaux-de-Fonds, where Corbusier was hired as an instructor then, he worked on a preliminary design for a Workshop of the Artists (Figure 2), which gives a couple of clues for the future projects. On the first floor between the workshop rooms, *jardinet*s have been placed, and they can be considered as seeds of future roof gardens in some museums. No hint is given on a possible site, so it seems like an exercise for an ideal art school. The Workshop of Artists' green bands gives an impression of terraces on the second floor. Although this rough sketch has not been associated with his museums before, the terraced square structure has a subtle role as a grid system of future museums. Moreover, the outline, which resembles a ziggurat, will resurface on the Mundaneum project.

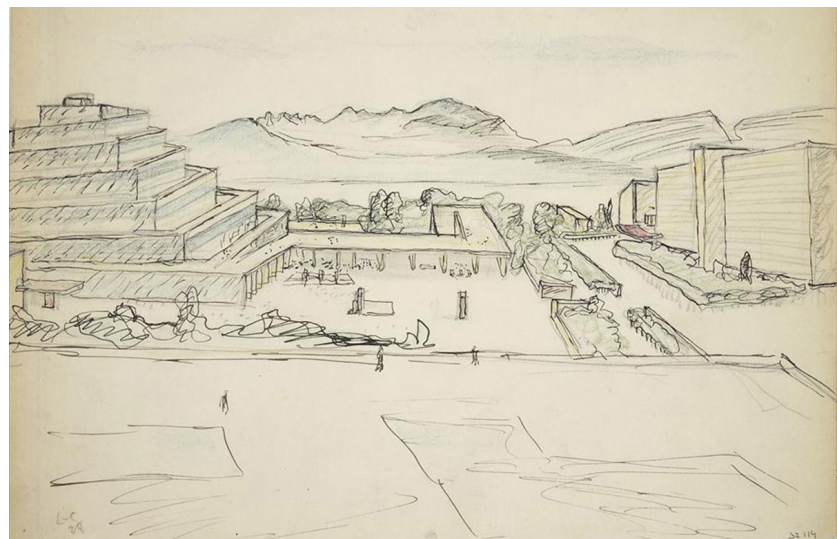
"To make beauty for others-is this a necessity or an impertinence" (Weber 2008, 105), he wrote on the train back from his journey to the east in 1911, when he started to think of beauty in relation to the objective criteria. He later added that he already had "the concerns of organization, series, standardization, extension in 1910" (Le Corbusier, 1995 (1929)), rooting his thoughts of extension and standardization to an early date. Thus, his line of thought on the museum can be the origin of the Workshop of the Artists. Shortly after the foundation of the League of Nations, a preliminary enterprise for the



future UNESCO was put on the agenda, following the outline by Paul Otlet. Corbusier and Pierre Jeanneret designed an urban complex as a meeting point of cultures in addition to states, called Mundaneum, which also included a World Museum. Although the new architecture was not approved in the final round of the competition, for the first time Le Corbusier worked on an out-and-out museum. *The World Museum of Mundaneum* (Figure 3) brought forward the main idea of linear circulation from the beginning to the end. A need of

Figure 2
Ateliers d'Artistes, 1910 (Le Corbusier - Oeuvre complète VI, Birkhäuser, 2006).

Figure 3
Mundaneum, Musée Mondial, FLC 32114 (FLC/ADAGP).



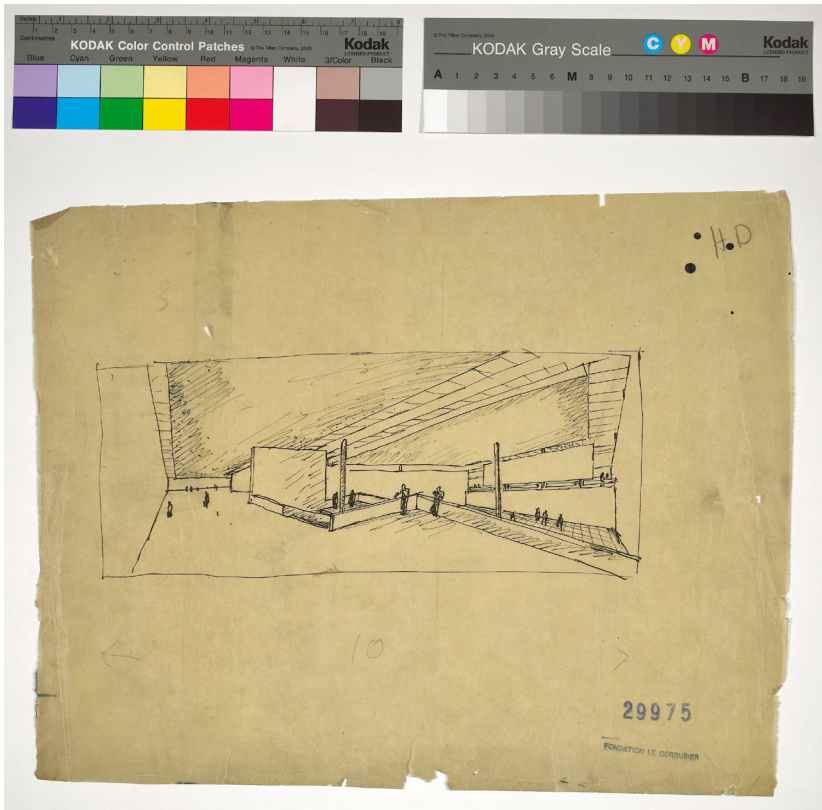


Figure 4
Musée des Artistes Vivant, Sketch of an indoor perspective view towards the central stair, FLC 29975 (FLC/ ADAGP).

ceremonial experience in the corridors of a museum -a melting pot of world cultures- led Le Corbusier to animate a particular sequence and a hierarchy of displaying the artifacts. To make this particular visiting experience possible and to emphasize the structure as a center of attraction, Corbusier brought forward the form of a spiral. A passageway was whirling out in the form of a spiral from the top of the pyramid to the bottom edges, in other words, from the prehistory to the present time. The ascending circulation of Mundaneum is the first example where a spiral-like plan came to the surface in Le Corbusier's work. The World Museum of Mundaneum was the first essential step towards the museum template, as a spiral was playing a central role. Furthermore, the main shape was laid out in relation to the desired visitor experience. Corbusier was trying to present as many objects in one glance as he noted that "it will be truly poignant and be useful if everything is connected" (Corbusier, 2006). The ziggurat-like form may be a historical reference as criticized by Karel Teige

(1988[1929]) for being anti-modern, but it is obvious that the parallel naves have a certain functional aspect, too. It is easy to imagine how Mundaneum's museum could easily be transformed into the Living Artists Museum in 1930 by pressing from the top of the pyramid. This is exactly what Le Corbusier was going to do to eliminate the criticism of archaic references. Mundaneum's museum, therefore, can be seen as an antecedent of Le Corbusier's museum² template.

2. From the Spiral to the Need of Growth

In his famous letter to Christian Zervos in 1930, Le Corbusier described his museum idea as "a cube standing on supports with an entrance from below into the midpoint of the structure from which the rooms spin out in an endless spiral". Published in *Cahiers d'Art* magazine along with drawings, the *Living Artists Museum* (a.k.a *Contemporary Art Museum*) (Figure 4) is the first prototype of the Infinite Museum. He published the same design in *L'Architecture Vivante* next year and included it in 1935 to *Oeuvre Complète's* 1929-1934 volume under the name of Contemporary Art Museum in Paris (Figure 5).

The jump from the World Museum in Mundaneum to the first of the series of the original museum designs can be described by the circular scheme becoming a flat, single-story building, where the rooms whirl out in an endless spiral. Conspicuously, the project contains the idea of growth. The museum is planned to spread as a spiral for circulation as part of the functional scheme.

The spiral is there and plays its part as Le Corbusier himself was going to give a reference to nature (Maak 2011, 98). In *Oeuvre Complète* he explains that the building would expand according to natural laws of growth that are in the order in which the organic life manifests itself. The growth in harmony with laws of nature and mathematics is reminding the Fibonacci spirals that could be encountered in nature. Thus, the spiral, which is the "genuine form of harmonious and steady growth," seems also to be a solution to a practical problem

² In fact, this very form of the pyramidal section, a historical reference by all means, did not cease to exist in Corbusier's work. It continued its existence in a disguised way, by transforming to a certain triangular façade of the galleries, another template for exhibition spaces.

of unending construction of a building; a problem that will never be entirely solved in any other versions in the future, but will be emphasized stronger. Still, the spiral is the bridge between nature as the ultimate reference point and practical concerns.

Corbusier puts an additional emphasis on the practicality of the museum. In *Cahiers d'Art* magazine, he suggests that it is a building that can be started without money -100.000 francs would be enough to construct the main room. It should have been conceived as a “patentable idea” without a client. He also adds that “two permanent workers” would suffice for the ongoing construction. The economic advantages of the expandable museum were emphasized in the same way. Corbusier even suggests that painters might contribute to the budget in exchange for having a wall. In his letter to Zervos, he mentions that he had the idea for seven years, probably since a little after the first *Citröhan* house sketches where he was playing with the idea of prefabrication and mass production. He neglectfully talks on the possible place of the museum that it could be built “in the suburbs, in a field, -potato or beets-.” It really “doesn’t matter” if the site is beautiful or ugly.

An empty space, anywhere, would fulfill the conditions. It can be built anywhere; it is easy to construct and economical to maintain. All these indicate the flexibility of the museum as an adaptable container with a garden. Thus, being a place for future construction as a temporary void, the garden also complements the central idea of the building as the potential area for the growth. It is different from the *jardinettes* of 1910’s Workshop of the Artists in the way that the garden or the outer space of the building is a fundamental part of the composition.

The Living Artists Museum of 1930/31 has an interior composed of cubes divided by panels and long corridors, while the fluidity of total space can be sensed in the first place. (Weber: 336). This very first version of growing museums set more or less all the principles of the template. However, it was going to alter in the following versions in

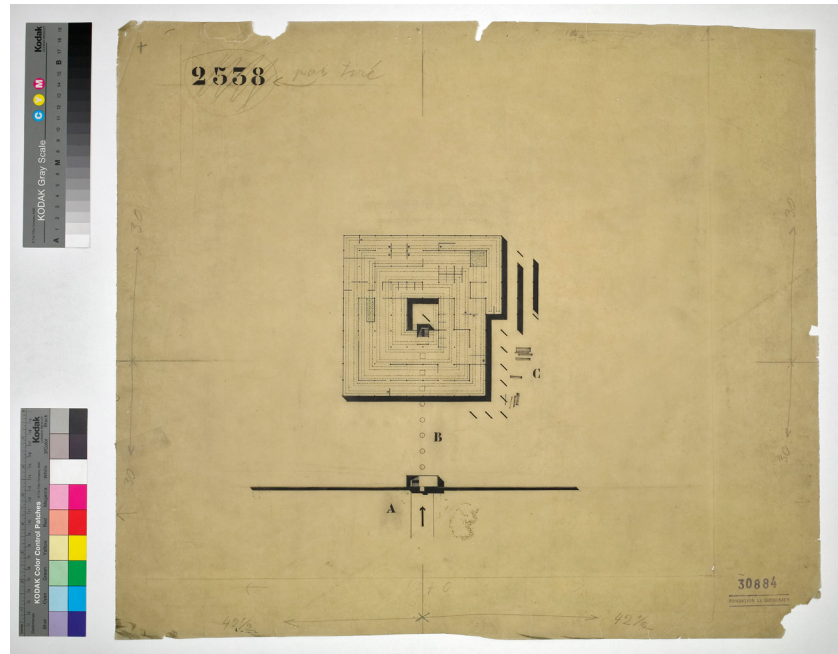


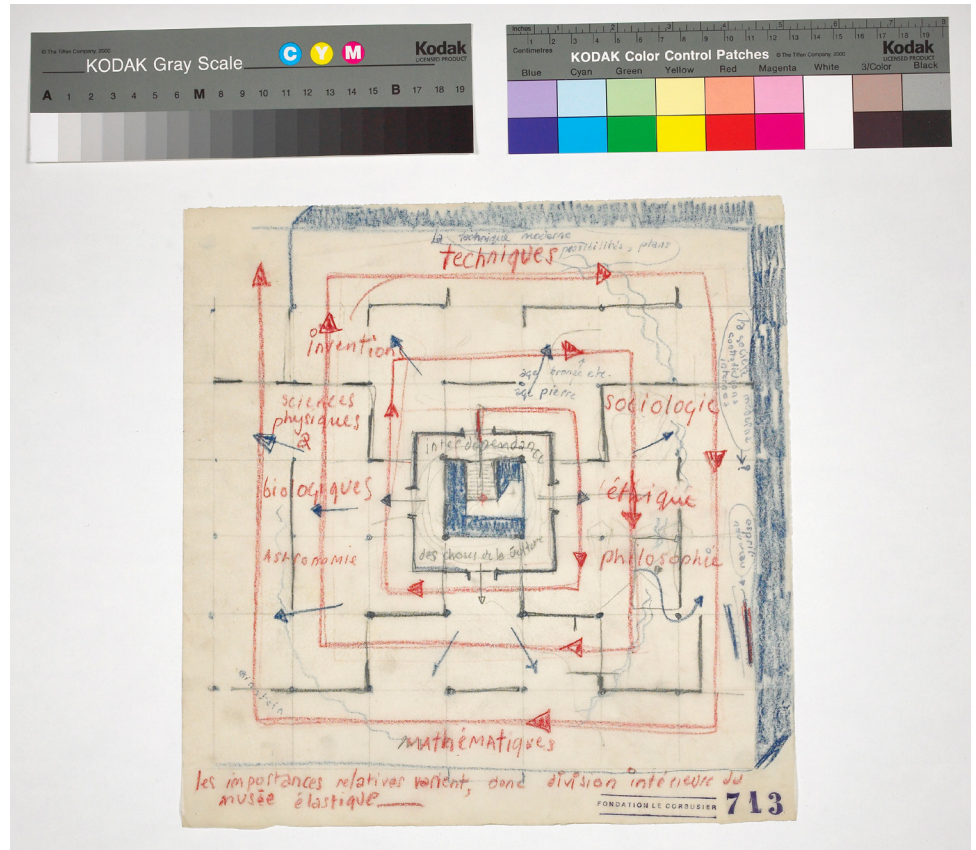
Figure: 5
Musée d'Art Contemporain, First floor plan
with shadows, FLC 30884 (FLC/ ADAGP).

the 1930s. The later versions were going to place a more intense emphasis on the infinity of the spiral.

The *Contemporary Aesthetics Center* of 1937 (Figure 6), designed for the Paris Expo is the last step before the formulation of the infinite museum as it is. It was an opportunity to realize the “museum of unlimited growth,” which has been “created a long time ago.” According to Le Corbusier (2006) “after the exhibition, the museum would have remained at the *Porte d’Italie* and would have been the long-planned foundation ‘autonomous Museum of Modern Art,’ or it would have been dismantled and reassembled elsewhere, for the same purpose” but the exhibition committee refused it.

This time at *Port d’Italie*, the design does not have the ideal surrounding, but the building seems to be self-sufficient even in the given place. In comparison with the 1930/31 version, site plans and perspective drawings are more realistic, while the building laid stress on the interior -“*un musée sans façade,*” a museum without facade. In accordance with this, a detailed description of the interior was provided in order to crystallize the elaborate visiting experience. The spiral ceiling lightning line is pronounced, and the primary source

Figure 6
Exposition de 1937, Projet C, Centre
d'esthétique contemporaine, FLC 30713 (FLC/
ADAGP).



of light is the natural light from the ceiling. The line of spiral reflects the direction of the proposed sequence of visiting different parts, whereas it also indicates the direction of possible growth. The spiral is moving in the emphasized grid system of columns. In addition to the spiral line and grid system, a third layer is the partition walls which are freely positioned in a typical Corbusian way. In the clearly partitioned interior, many different sections are to be noticed, such as sociology, ethics, philosophy, and astronomy, etc. (Figure 6), while the partition walls liberate the movement of the visitors. The positioning of the walls, which makes several vistas possible from the same spot, is worth to mention. The free flow of interpenetrating spaces accompanies the free movement. The spiral emphasizes the growth; the grid system provides a basis for the standardization of each construction element, and the distribution of walls enables multiple viewpoints at a given point. By 1937, the Project C proposal for Paris Expo, later

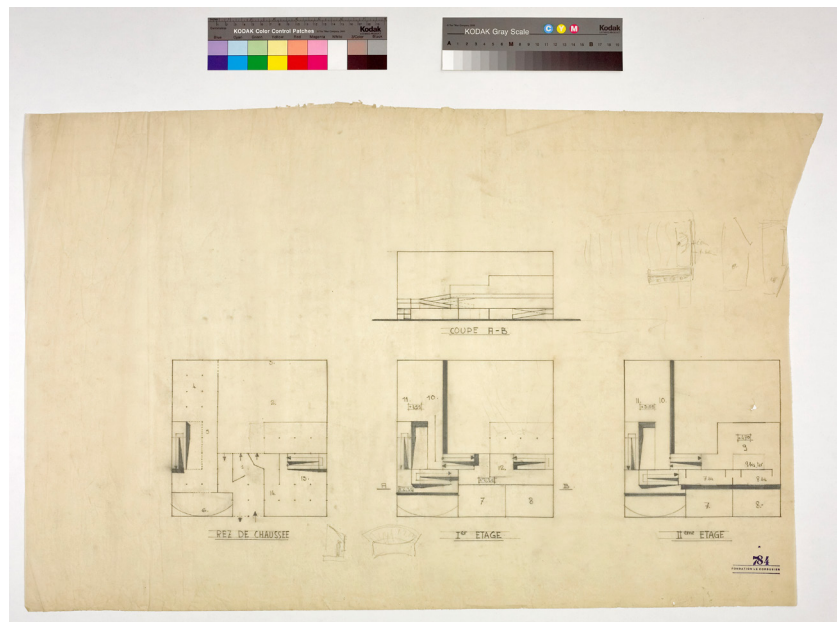
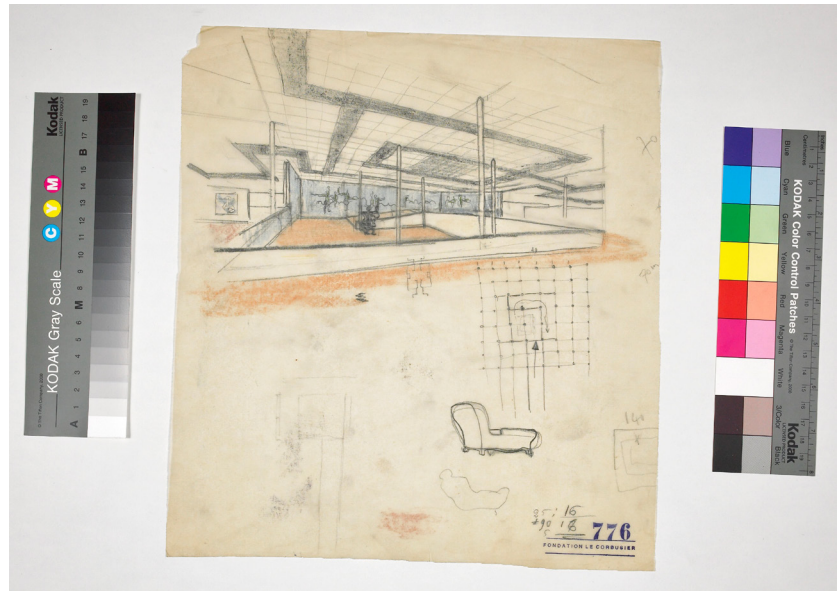
to be named as the Museum of Infinite Growth, possessed the characteristics of an unlimited, elastic and anti-hierarchical space. In 1939, the same ideas were gathered under the name of the *Museum of Infinite Growth*. A carefully constructed model and detailed plans underline the maturity of the project. By naming it, he completes a process from mid-twenties and crystalizes his *musée élastique*. In *Oeuvre Complète*, Corbusier brings up the idea of growth as a result of modernity and states that this particular expansion trick was made possible by the total standardization of building elements.

The 1939 version is much more detailed and gives the impression of being ready to be constructed. The surroundings are precisely drawn and shown in the model. The entrance of the museum is, quite symbolically, its center. The visit starts at the *première salle*, which also constitutes the entrance at the end of a tunnel. The main room, surrounded by galleries and ramps,

presents the possibility of sight in every direction. It is reserved for a special part of the collection –such as the beginning of the civilization in Mundaneum’s museum or “interdependence of culture things” in the 1937 version. A colonnade on the ground floor leads to the main room whereas other exits are also installed at the center of each side via bridges to free the circulation further. The ceiling lightning once again plays a vital role as the primary lighting source of the building as it grows, although the more symmetrical approach of 1939 version contains large glass openings to act as secondary entrances. After entering through the main room, the ramps and gallery stairs, the *promenade architecturale*, are reinforcing the three-dimensional affluence and turn everyone into an observer and objects to be observed along with the exhibited artifacts. The multiple vistas in the corridors and the premier room with a high ceiling fortify the first impression of the entrance ramp. According to Beatriz Colomina, in her article *Endless Museum*, “the museum obsession started with a house, *Maison La Roche-Jeanneret, 1923 (...)* a kind of museum displaying Le Corbusier’s paintings, (...) in short a museum of everything.” She further adds that the “famous ramps that define his domestic architecture are in the museum simply exaggerated and celebrated into a kind of hyper ramp.” The choreographed views inside are in apparent contrast with the impression of the building from the outside (Figure 7 and 8).

It does not seem possible to observe the building while approaching it under the main entrance walkway. Corbusier prefers a museum “without a façade,” so that the focus of the building does not move away from the expansion effect (Figure 9). As the exterior is a permanent construction site, a facade racing with this in terms of attention could weaken the main idea.

The building model emphasizes the mechanism of the growth utilizing the construction elements laid down on the garden, while the trace of the forthcoming spiral expansion drawn on the ground is clearly visible. The garden acts as the negative

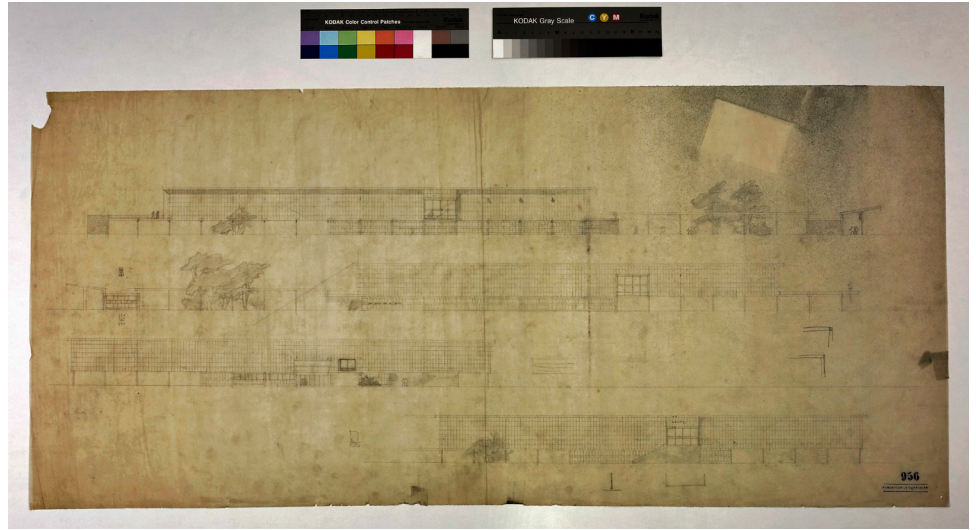


void of the building as in the previous versions. The trace of the spiral is a ceremonial implication of what is going to happen. The columns standing on their own are literally waiting for the building to cover them. On the other hand, the growth is not infinite at all, and that contradicts with the generic idea. The walkway also defines the extent of the growth. The marks of the future construction act as the boundaries even though they emphasize the expansion. In that case, infinite growth means, literally, limited growth at will. Nevertheless, the project

Figure: 7
Exposition de 1937, Projet C, Centre d'esthétique contemporaine, FLC 00776 (FLC/ADAGP).

Figure: 8
Exposition de 1937, Projet C, Centre d'esthétique contemporaine, FLC 00784 (FLC/ADAGP).

Figure: 9
Musée à croissance illimitée, a rough draft of the four elevations of the museum, FLC 00956 (FLC / ADAGP).



is quite strongly capable of conveying the sense of being unfinished (Figure 10).

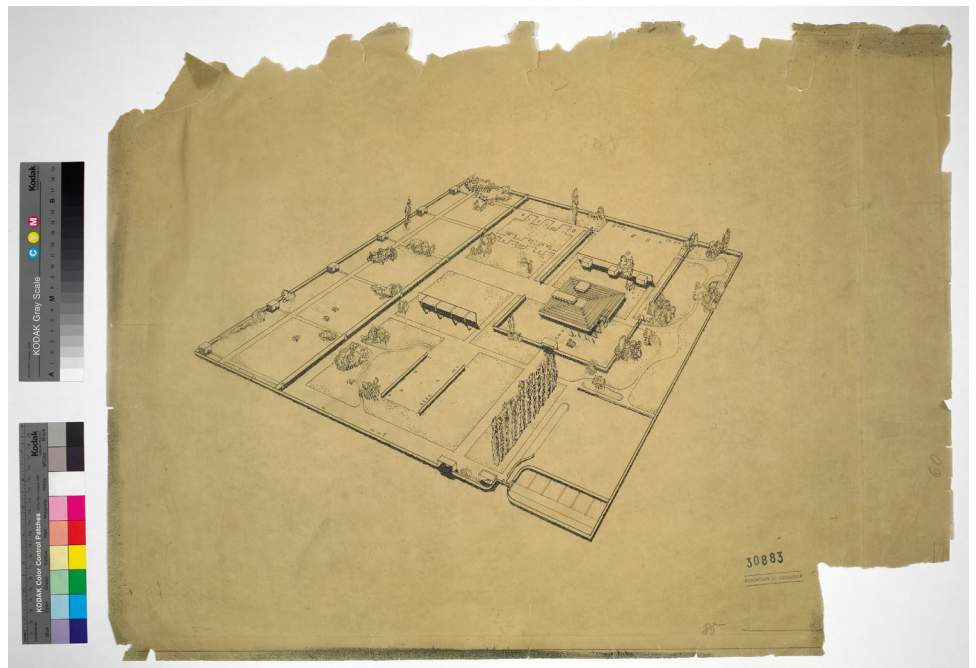
The designs of 1930/1 and 1937 were the steps towards the more accomplished draft of 1939, but the need for endlessness to reflect the continuation of history was first implied back in 1929, in relation to Mundaneum's World Museum, where the visit starts from the prehistoric times at the center and the downward spiral leads to present time at the edges of the pyramid. The World Museum did not have the mechanisms to grow. To begin with, it was

not horizontal. The expansion was needed to make room for the objects of the contemporary world. By flattening the ziggurat and adding the growth potential of the spiral, the ultimate container was obtained, which was supposed to include endless art objects produced with every passing hour -at least in theory.

3. The Examples of Museum of Infinite Growth

The Second World War meant a break, but right after the end, Le Corbusier revisited

Figure: 10
Musée d'Art Contemporain, FLC 30883 (FLC / ADAGP).



his ideas of the standardized, autonomous, and growing museum. He was a renowned architect at the moment, pursuing the realization of his museum design. On three occasions, he was going to manage to realize his museum despite a significant degree of compromise. Still, he kept redrawing new versions according to his preeminent template in the form of complete projects or rough proposals in urban plans.

After he labeled his museum conception, an opportunity arose only in 1945. It was the Delaunay museum to be cast into the mold in this first instance (Figure 11). After the death of the painter Robert Delaunay, a museum after his name was decided to be established. As mentioned by O'Byrne (2010a), it is a complex of a museum and residential blocks, the sale of which should have finance the museum.

Not included in *Oeuvre Complète*, the museum is represented as a single central module -the central room as the starting point of the spiral extension. The garden indicates the projected growth in the form of a maze around that initial module. Like the earlier versions, the Delaunay museum seems to apply the same template, except the details of ceiling lightning mechanism and the slightly different entrance for the museum unit. "For the first time, to gain a precise idea of the central room of 14x14 m which, since 1930, had been presented as the culminating point of entrance sequence and the start of the visit itinerant in all the square-spiral museums" (O'Byrne, 2010b). The beams emerging from the plane of the façade to serve the growth process are a new detail, which will be observed in the 1950s executed museums.

In the early 1960s, his increasing fame seemed to have encouraged Corbusier to draw more museum projects. One of them is the Erlenbach International Art Center Museum (Figure 12), designed in 1962 and never constructed. By that time, he already had three museums in Japan and India to his name. In a letter to Heiner Ruths, who represents Erlenbach Art Center, Corbusier wrote that he "studied the museum over the past thirty years, gradually developed,

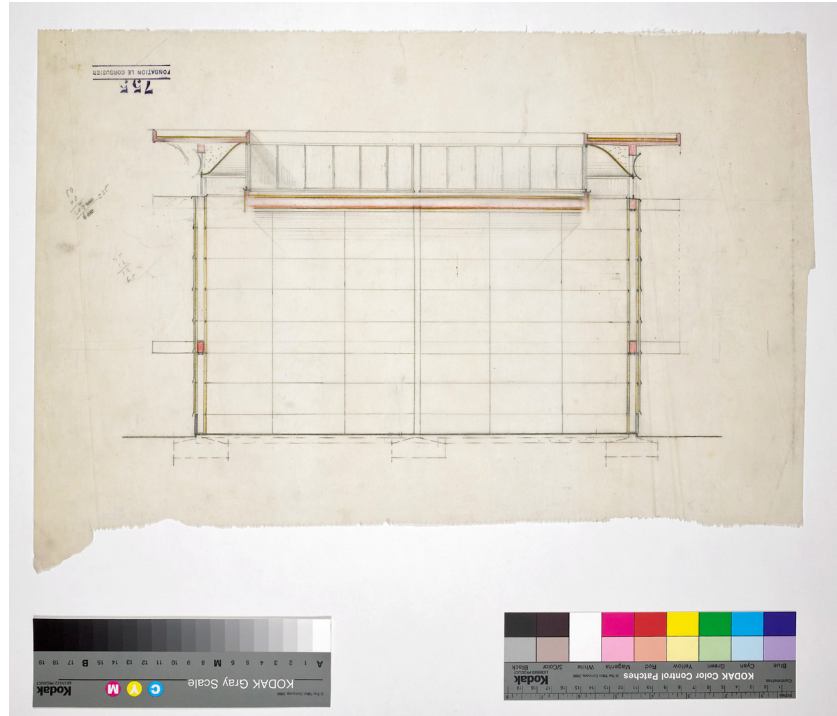
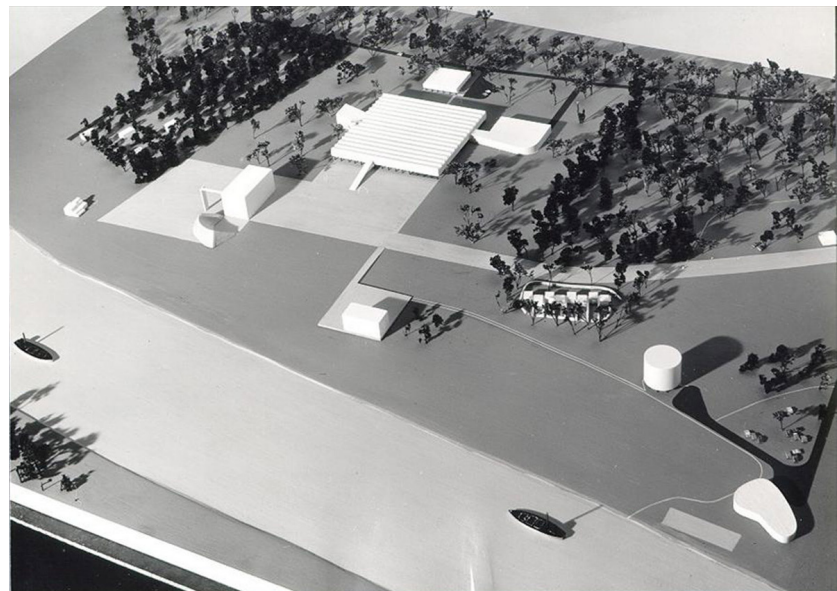


Figure: 11
Musée et Lotissement Delaunay, FLC 00755
(FLC/ ADAGP).

which will be applied for the first time in Erlenbach" (Le Corbusier, 2010), while acknowledging that the three realized museums in the 1950s do not correctly represent the original idea. In an attempt to fix the flaws of his constructed museums, Corbusier proposed another version of his growing structures. This particular version is a higher building with half floors and also rooms on the ground to enrich the

Figure: 12
Centre d'art international, Erlenbach,
1962 (Le Corbusier - Oeuvre complète v7,
Birkhäuser, 2006).



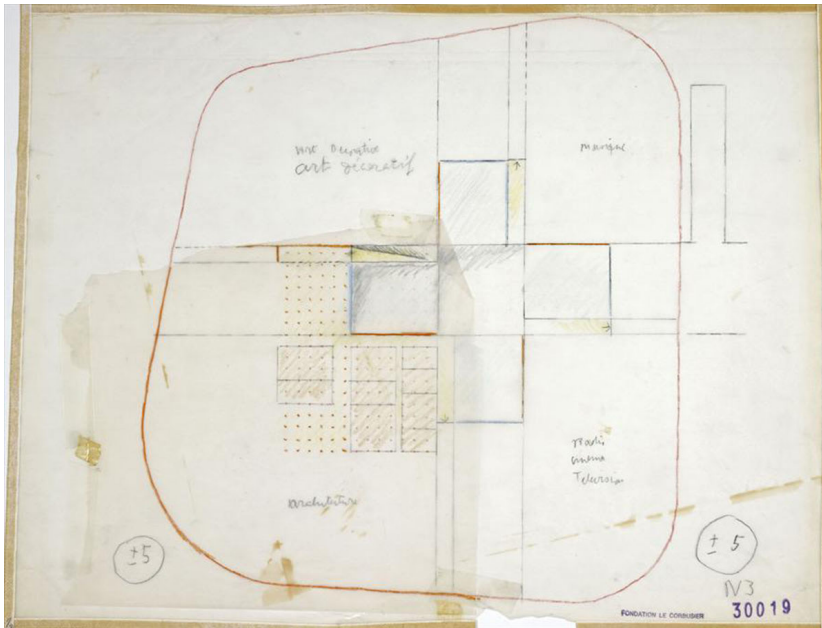


Figure 13
Musée du XXe siècle, FLC 30019 (FLC/ ADAGP).

perspectives, differently from the rest. The museum contains the access ramp, one of the characteristics but the openings on the roof for sunlight are parallel instead of whirling out as a spiral to emphasize the course of the expansion. He proposed to construct the museum in three stages, by gradual growth, to end up as a quiet larger building.

The 20th Century Museum for Nanterre (Figure 13), completed in 1965, also fits the pattern of infinitely growing museum template. It is the last proposition by the aging architect that belongs to the same pattern and part of the more massive cultural complex planned by the French government. As mentioned by Ivan Zankic in (2010), Culture Minister Andre Malraux asked Le Corbusier to undertake the design of a complex including fine arts school in

Figure 14
Musée, Ahmedabad (FLC/ ADAGP).



addition to the museum. Le Corbusier tried to persuade the government for a better place, never been convinced to build the museum outside of Paris, as this was the first major government project he was asked for in Paris in forty years. After his death, one of the disciples of the architect, André Wogensky worked on the project, but in 1969 the new president scrapped the scheme in favor of another project, the future Centre Pompidou (Paskins, 2016, 43).

It is evident that the unrealized versions after the primary formulation in 1939 did not have substantial differences with the other versions. After 1930, except for the virtual formulation of the idea and certain developments in detail, the various versions cannot be seen as a straight evolution line. It can be said that the idea floated freely in the mind of Le Corbusier without major changes.

After several tries in the 1930s, in the end, Le Corbusier found the opportunities to construct his museum project, firstly in Ahmedabad (1951) and then in Chandigarh (1952) and Tokyo (1957).

Sanskar Kendra Museum in Ahmedabad (Figure 14), resting on pilotis, is covered with plain brick and a concrete strip at the top. The roof designed according to the climate includes several broad basins originally intended as planters. The open court with a large pool took the place of the premier room, whereas the ramp is in the building and leads to the exhibition spaces.

The Museum in Chandigarh (Figure 15), with spaces flowing into one another, allowing deep uninterrupted views, is also based on a grid system of stilts. The façade is covered with brick, surrounded by the concrete beam and window strip at the top. The center square acts as a shared space integrating the wings through a ramp. Daylight is the main lighting source. In both museums, the façades contain outstretched lateral elements giving the impression of a possible extension. They imply the awareness of regionality visible from the late thirties, while also proving Le Corbusier's international fame at the time.

Also located in Asia, *the National Art Museum in Tokyo* (Figure 16), has a square plan, while its body is raised on stilts just like the two other museums in India. The entrance is on the ground floor, and the building is lit from above by sunlight. On the opposite side of the entrance, the promenade ramp is ascending to the upper galleries. Ceiling openings for natural light were planned initially. The exterior of the building is clad in prefabricated concrete panels, which sit on U-shaped frames supported by the inner wall.

All three museums have certain distinctive features, but they are quite similar in terms of free planning inside a square as a swastika. Ultimately, they have their source in the same idea, notwithstanding a vital flaw. They may all maintain the spiral circulation scheme, labyrinth-like partitions, vistas in the interior and raised blind facades on columns but none of them contain any system for growing let alone infinitely. The idea of growth could become a distant reference at most. To say the least, all three construct museums were defected then by merely missing the initial idea of Corbusier's museum template, which is the growth. Those museums were designed for a limited collection from the beginning -so, an expansion was never on the agenda. Alternatively, it was a huge undertaking to build a never-ending construction. At this point, Corbusier's persistence on practical and economical solutions, which his template initially contains, makes a great deal of sense. The practical concerns, such as creating a budget by the contribution of artists funding a part of the wall, imply he was thinking or forced to think the difficulties of realization from the beginning. He foresaw the all but the impossibility of an infinitely growing museum. The idea, though, resisted the practical drawbacks and remained as an abstract museum template.

The studies on Le Corbusier's museum usually focused on the 1939 model or the realized museums, whereas it is not examined how many times he subtly installed his very museum idea into the urban plans.



Figure: 15
Musée, Chandigarh (FLC/ ADAGP).

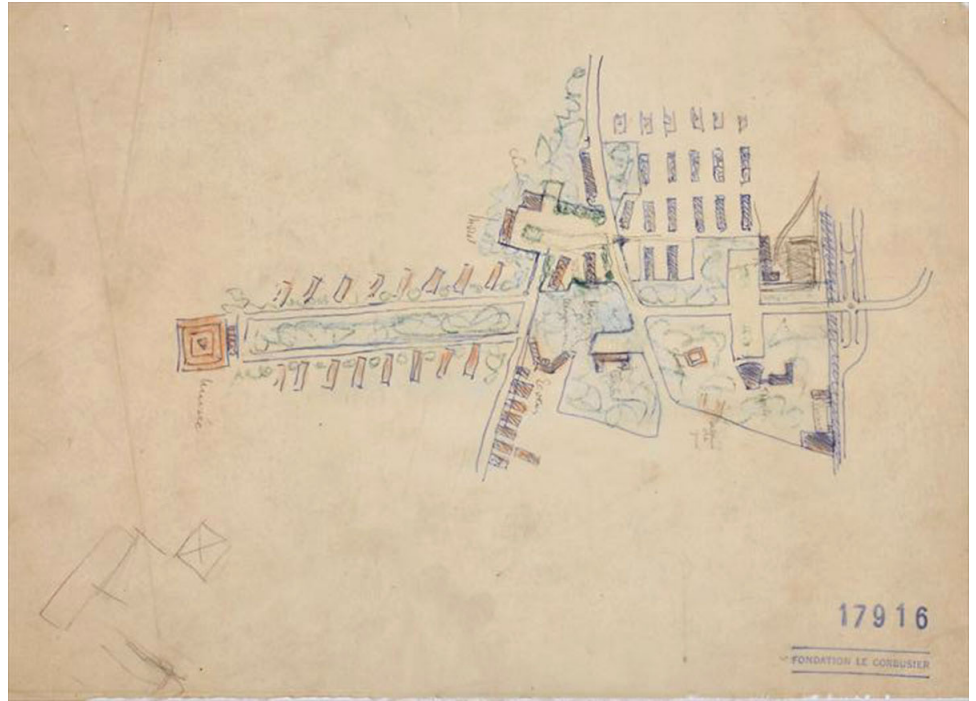
It is interesting to observe that Le Corbusier not only proposed his museum on many occasions but also put it into the city plans he made only to add further evidence for his persistence about his ideal design. It is easy to overlook those examples in urban plans, as they are more product placements than complete projects.

From the 1930s on, the outlines of his trademark museum were to be noticed all over in his urban projects. In the *Plan Maçia* in Barcelona (1932), a museum can be seen next to the enormous housing blocks.

Figure: 16
Musée National des Beaux-Arts de l'Occident,
Tokyo (Olivier Martin-Gambier, 2006, FLC/
ADAGP).



Figure: 17
Urbanisme de Bat'a, Hellocourt, 1935, FLC
17916 (FLC/ ADAGP).



Urbanisme de la rive gauche de l'Escaut (Antwerp, 1933) is a variation of Radiant City, where he tried to transform architectural ideas into urban solutions, and the museum is a part of the pedestrian centered, green outline. *Urbanisme de Bat'a* (Hellocourt, France, 1935), is a developing industrial city plan (Figure 17), where Corbusier saw the need for public services in an “experimental” residential area, which includes a museum of unlimited growth. *Cité Universitaire* (Rio de Janeiro, 1936) is a

university campus (Figure 18) with a focus on the circulation and distribution of units. A museum with a large open area around it can be seen at the center of the campus in one of the drawings. *Plan directeur* (Buenos Aires, 1936) includes a typical Corbusier museum next to the stadium in a proposed vitalization attempt to add the lungs to the city (Figure 19). *Urbanisme* projects for Saint-Dié (1945), has also a central museum of unlimited growth along with other proposed buildings in the civic center with

Figure: 18
Cité Universitaire, Rio de Janeiro, 1935, FLC
19258 (FLC/ ADAGP).



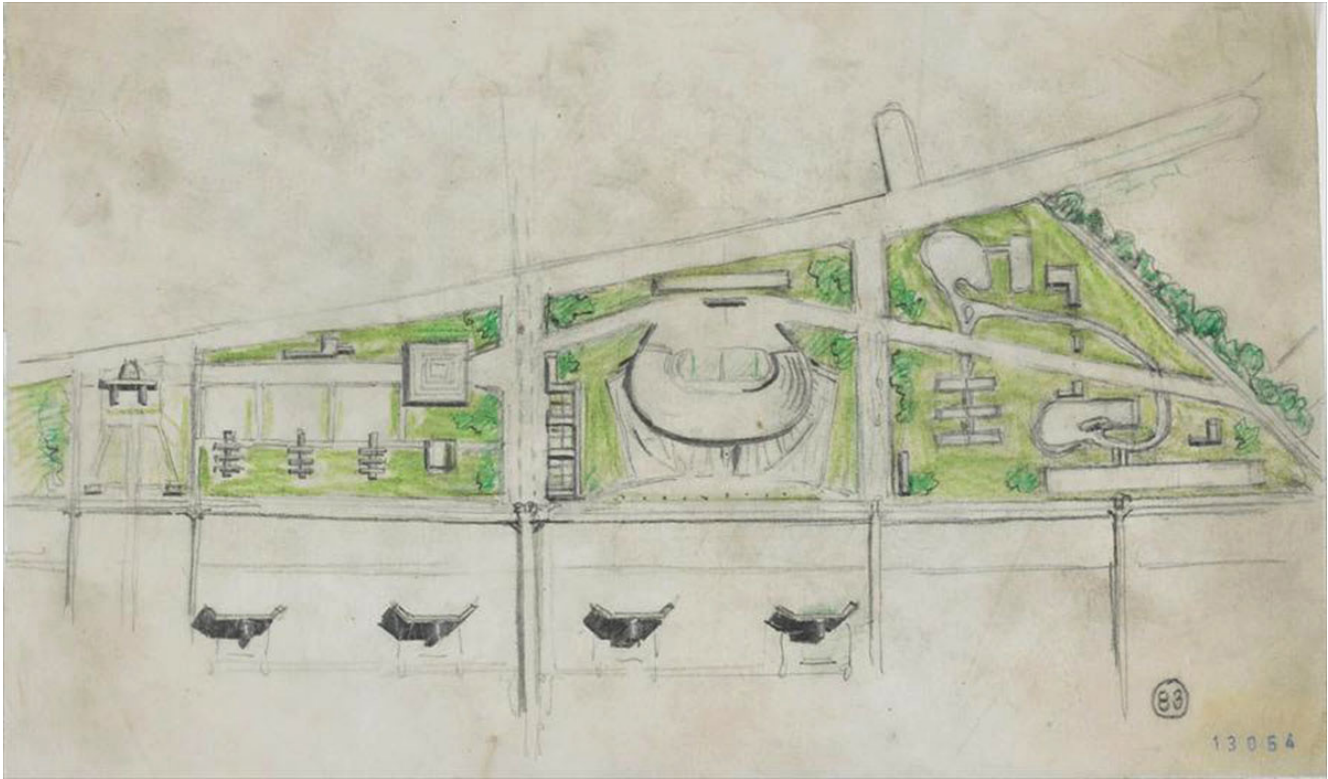


Figure: 19
Plan directeur, Buenos Aires, 1936, FLC 13054
(FLC/ ADAGP).

the note that “the Directorate of National Museums in Paris, (...) had declared love to see a set museum of this kind in connection with the reconstruction of Saint Die” (Le Corbusier, 2006). A residential center for Meaux (1957) contains a rather small Museum of Unlimited Growth among housing blocks. Corbusier’s plans for the center of Berlin (1958), near Tiergarten, proposes another of the growing museums in the south of Spree, if not in the museum island of Berlin.

He tirelessly tried to convince many more employers to fund his project. Although never even drawn on a paper, several proposals are to be noticed in his letters, especially in the sixties. A search through his letters reveals that he proposed his template in the form of a museum in New Delhi (1952), in Buenos Aires (1961), an archeology museum in Paris (1962), in Neuchâtel (1962), a modern art museum in Brussels (1963) and in New York, the Suisse romande museum in Switzerland (1963), the museums as part of a cultural center in Oakland and in Valence 1963, the French Pavillion in New York, a museum

in Spain (1965), and a collaboration art museum in Denver (1965).³

The correspondences do not reveal any new thoughts on his vision, but they similarly contain an almost instinctive response to any museum or cultural center opportunity. Each time when a museum project comes up, it is the template of the infinite growth. Solely the Museum of Infinite Growth seems to define the function of any museum as if it is the only possible museum itself. The brief but frequent mentions in his late letters reflect the belief in his idea that the Museum of Infinite Growth is not only proper but the rightful substitute for the museum as a building type.

4. Conclusion

It can be seen that the building was redrawn a vast number of times in different locations, sizes, and for different needs. One question that needs to be asked, however, is which of the general qualities of the building were paving the way for recurring. With the standard structural elements, prismatic geometry, there is hardly a place that is better than other places, so

³ The information on the proposed museums can be found in the following documents in FLC archives: New Delhi museum in P2-3 & P3-11, Buenos Aires museum in U 2-13, archeology museum in Paris in I 1-18:328, Neuchâtel museum in I 1-18: 256-265, Brussels museum in I 2-16: 72, Suisse romande museum in I 2-16: 34-37, French Pavillion in New York I 2-16: 121-122, Cultural Center I 1-18: 225, Valence Cultural Center I 2-16: 90-94, Mallorca Museum in I 2-16: 233-234, Denver Museum in I 2-16: 226-232, New York Modern Art Museum in I 2-18: 47-50, and Oakland Cultural Center in I 1-18 189-190.

the building is proper enough for any place in the world. Even to different climatic conditions, the template seems to adapt quite easily. Secondly, the free positioning of partition elements in a grid system can respond to the different needs of the exhibition. The size of the building can vary, too, thanks to the growing mechanism and the “two hired workers.” Thirdly, it is a structure of maximum elasticity. The museum can be put anywhere, and it is able to contain anything in any size. This quality is necessary for such a “patentable” idea, and Corbusier’s project tries to be the ultimate elastic container. Lastly, as an elastic container, the structure should be able to grow to contain contemporary artifacts as time passes. The design roots in the materialization of growth as its anchor point. The growing mechanism is a functional necessity of the building to embrace the contemporaneity. It can be claimed that the features of the building facilitate its reproducibility. There we find the conditions of his insistence on the idea. He insists on it whatever the conditions may be and above all the particular designs, we see an abstraction of the museum.⁴ It can be noted that the features of the museum design constitute an interesting synthesis that also corresponds to the corpus of Corbusier’s work: It is practical in the age of standardization and rational as a platonic form. The growing, elastic, and free-flowing structure is an ideal form. All of his particular museum designs receive a share from this template design, and they have molded according to the specific requirements of the subject or practical limitations. During its emergence of particular versions, the museum idea, which Le Corbusier was planning to industrialize and generalize, has been stable and permanently producing varying proposals or imperfect realizations. The museum projects started with the ziggurat reference and have evolved into an attractive, rationalistic design template. The following conclusion can be drawn that all museum variations simultaneously constitute the generic idea of infinitely growing museum as an umbrella, from which all particular drafts receive a share.

His self-edited complete works start with sketches of the art school, a subconscious source for exhibition places of art objects. Moreover, his last architectural plan dated 29 June 1965 was the study of the placement of the museum and art school in Nanterre, the last effort to realize the Museum of Unlimited Growth in Europe and especially in Paris. This loop fits, albeit metaphorically, to the endless spiral drawn by Corbusier.

The endless design of the endless spiral fits his aggressive *avant-garde* stance. This form is more than just a spatial composition or a symbol for understanding the museum, but it contains both of them. It embodies a particular and quite distinctive approach towards the museum experience. It’s an alteration of function of the building type itself, that is why it is a template evoking timelessness. The free movement of the visitors, alternative routes, and multiple vistas from a single point show how he was playing with the conception of a regular museum, the house for human expression of culture. His anti-hierarchical composition is crucial in his understanding of the museum. He was planning to “rid museography of the wretched boredom of rows of rooms one after another” (*Le Corbusier, 1925*). His museum idea should contain “everyday objects” and not just valuable artifacts. According to Corbusier, “the true museum is the one that contains everything” (*1925*). The infinite growth itself is a reminder for the unending production of art or culture. Any museum needs a rightful place for contemporary life and its aesthetic presentation. After all, he was a man of *L’Esprit Nouveau*, after which the famous magazine, dedicated to living aesthetics, was named. The project, dissimilar to other museums of the time, creates its own ground.

According to von Chin (*2015*), “in its radical form, the spiral figure enframes an understanding of time – by resisting the forces of time” (...) whereas Antony Moulis (*2002, 357*) writes that “the image has remained undeniably present, an indication (...) of a certain resilience and contingency”. The unique role of the image of the

⁴ It is also apparent that the Museum of Infinite Growth is much more concrete than his Cinq points or Modulor – both acting were systematical approaches towards the practice. Interestingly the museum seems to apply *les pilotis, le toit-terrasse, le plan libre* and to a certain extent *la façade libre*. No need to mention the spiral’s growth ratio is the very same golden ratio as in Modulor. In terms of reapplying templates, the closest project is the *Unité d’Habitation*. However, it was not defining the living experience by itself, as Museum of Infinite Growth nearly does for the museum.

growing spiral was to trigger an idea of an untypical museum. Niklas Maak (2011, 102) notes that the metaphorical aspect of the museum as “paths of knowledge metamorphosed into ramps, while (...) knowledge became a matter of storeys and distances”. He adds that the message is enacted “physically as the visitor progresses.” He aimed that his critical attitude could be sensed by the visitor thanks to the spatial experience. The museum experience is inherent in Corbusier’s museum idea. It tries to process life. Thus, it echoed as the ever-present form. “So convinced was this prophet of beneficent effects of his well-designed environment that he ended his bible -Towards a New Architecture- with the exhortation: Architecture or Revolution. Revolution can be avoided” (Hoesterey 1991, 12).

Numerous museum designs by Le Corbusier throughout his career were ideal solutions rather than being the result of an obsession. As a comprehensive and clear proposal with an authentic, functional agenda, the museum idea acted as a template generating many particular variations. Its main aspects root in Corbusier’s unique perspective on the museum as a critical stance. He confronts the given museum understanding with his own vivacious, anti-hierarchic, unlimited, and always up-to-date container. Setting off from a functional point, he ends up at a persistent and rational idea.

Le Corbusier has always been a controversial figure, and most of his ideas were radical takes on the conventions –to the point of being almost subversive. From his Paris centrum with Skyscrapers to his sculptural use of concrete; from the mass-produced Domino houses to his anthropocentric theory of ratios, the Modulor, he challenged the status quo. His buildings have never been just radical; they were radical in terms of form. His innovative approach overflowed the limits of form-giving. The radicalism of his forms was an umbrella of his radical ideas on living; in other words, what a function of a building should be. Corbusier’s long-term legacy cannot be grounded in how skillfully he created

forms departing from a given function, but it can only be understood on how he criticized the accepted functional criteria. His Infinite Museum is not an attempt to imagine a new form, but it is a criticism of the conception of the museum.

Corbusier’s museum shows us that his architecture is not the normative attempt to create the appropriate forms for a function, but an exploration of the function itself. It is a critical meditation on what a museum is. One of the critical theorists, philosopher Max Horkheimer of Frankfurt School, has defined criticism as a creative methodology: “A ‘traditional’ theory according to a specific practical purpose: a theory is critical to the extent that it seeks human “emancipation from slavery,” acts as a ‘liberating ... influence’, and works ‘to create a world which satisfies the needs and powers’ of human beings.” (Bohman 2016). Corbusier’s museum is a design, which is practically transformative of the function and normative at the same time. That fits the very idea of critical methodology, which is maintaining the normativity of philosophical conceptions, while at the same time examining the contexts [...] to be promoted practically (Bohman 2016).

In that sense, Corbusier’s museum is an example of the creative application of critical attitude. Through the Infinite museum, he criticized the accepted functional scheme of the building type, and he replaced it with the counter-norms of the Infinite Museum. His museum approach has a practical solution to a problem that was identified simultaneously to the solution: Rejection and suggestion are coexisting in a design. The criticism of the building type itself is the starting point. A design that has constructed its aesthetic perception by deconstructing the given basis also has a liberating influence on the conventions. It is not a form after all, but a radical transformation of the content through the form. Its success lies in his architect’s vision.

Abbreviations

FLC/ ADAGP Fondation Le Corbusier / Société des Auteurs dans les Arts graphiques et plastiques●

References

- Bohman, J. (2016) Critical Theory, The Stanford Encyclopedia of Philosophy (Fall 2016 Edition), Edward N. Zalta (ed.), URL = <<https://plato.stanford.edu/archives/fall2016/entries/critical-theory/>>.
- Boyer, M.C. (2011) *Le Corbusier, Homme de Lettres*, Princeton Architectural Press, New York.
- Chin, I. (2015) Le Corbusier's Musée à croissance illimitée: A Limitless Diagram for Museology, *Le Corbusier, 50 years later*, Polytechnic University of Valencia, Valencia.
- Cohen, J.L. (2012) Architecture and the Museum: A Troubled Relationship," *Cahiers d'Art* (1).
- Colomina, B. (2009) The Endless Museum: Le Corbusier and Mies van der Rohe, *Log*, (15), 55-68.
- Curtis, W. J. R. (1986) *Le Corbusier Ideas and Forms*, Phaidon, Hong Kong.
- Hoesteray, I. (1991) *Zeitgeist in Babel: The Postmodernist Controversy*, Indiana University Press.
- Le Corbusier - Oeuvre complète vl-8*, (2006), Birkhäuser, Germany.
- Le Corbusier Expose* (2011) Silvana Editorale, Milan.
- Le Corbusier (1925) *L'Art décoratif d'aujourd'hui*, Éditions Crès, Paris.
- Le Corbusier (2010) Centre International d'Art, *Le Corbusier Plans vl-16 Echelle-1 & FLC*, Tokyo.
- Horkhaeimer, M. (1982) [1972] *Critical Theory*, Seabury Press, New York.
- Maak, N. (2011) *Le Corbusier: The Architect on the Beach*, Munich.
- Mory, P. (2013) *Le Corbusier's Secret Laboratory, from Painting to Architecture*, ed. Jean-Louis Cohen with Staffan Ahrenberg, Hatje Cantz Verlag, 257-274.
- Moulis, A. (2002a) *Drawing experience: Le Corbusier's spiral museum projects*, PhD Thesis, School of Geography, Planning and Architecture, The University of Queensland.
- Moulis, A. (2002b) Le Corbusier, the museum projects and the spiral figured plan, *Celebrating Chandigarh*, ed. by Takhar J., Mapin publishing, Ahmedabad.
- O'byrne, C. (2010a) Musée et Lotissement Delaunay, *Le Corbusier Plans vl-16, Echelle-1 & FLC*, Tokyo.
- O'byrne, C. (2010b) Musée du XXe siècle, *Le Corbusier Plans vl-16, Echelle-1 & FLC*, Tokyo.
- Paskins, J. (2016) *Paris Under Construction: Building Sites and Urban Transformation in the 1960*, Routledge.
- Samuel, F. (2010) *Le Corbusier and the Architectural Promenade*, Birkhauser.
- Von Moos, S. (1971) *Le Corbusier l'architecte et son myhte*, Horizons de France, Paris.
- Von Moos, S. (2009) *Le Corbusier: Elements of a Synthesis*, nai 010, Rotterdam.
- Weber, N. F. (2008) *Le Corbusier: A Life*, Knopf Publishing House.
- Zaknic, I. (2010) *Musée du XXe Siècle, Le Corbusier Plans vl-16 Echelle-1 & Fondation Le Corbusier*, Tokyo.