

Space in Le Corbusier's Architecture: A Mechanism of Movement towards the Infinity

Mohammed Azizul Mohith

Department of Architecture, American International University-Bangladesh (AIUB), Dhaka, Bangladesh

Abstract 'Architecture is not simply a platform that accommodates the viewing subject. It is a viewing mechanism that produces the subject. It precedes and frames the occupant'. Colomina, Sexuality and space, 1992. Le Corbusier seems to be a key contributor on this mechanism of viewing in respect of architecture and its production. One of Le Corbusier's more persistent ideas concerned the use of architecture to frame the view to 'the outside'—an idea that is acknowledged as a key aspect of the architect's thinking. How he constructed the drama of viewing of the occupant (or the visitor?) and where the suspense takes place is a sensitive phenomena. In his architecture up to a certain point 'the outside is always an inside' and 'to see is to inhabit'. But when the question of experiencing the view of 'horizon' is taken on a heightened subjective quality compared to other kinds of viewing, it becomes even more complicated. Le Corbusier's interest in visual and spatial concepts for his architecture is, of course, well known. The idea of this paper is not to represent those claims further. Rather what is given particular attention is the manner in which vision and space are tied up, in particular ways to be demonstrated as a mechanism of movement toward the infinity. To explore this issue the architect's conception of the horizon which is actually an infinite destination is discussed to some extent as the 'Infinity' - something that is 'always present, never reachable, perceptible but not palpable, single but infinite and represents the boundary of the human condition.'

Keywords Le Corbusier, Space, Mechanism, Movement, Infinity

1. Introduction

Le Corbusier was always keen to emphasize the fact that his architecture was built around a series of unfolding views, encompassing and celebrating the movements of the body. 'Architecture is interior circulation more particularly for emotional reasons: the various aspects of the work — a symphony whose music never leaves us — are comprehensible in proportion to the steps which place us here, then take us there, permitting our eyes to feast on the walls or the perspectives beyond them, offering up the anticipation or surprise of doors which reveal unexpected spaces. . '[1] Just as a film director creates a feeling of suspense, or a writer draws out the end of a book in order to render the conclusion all the more satisfying, the architect can choreograph a route to create maximum drama.

In his 1942 lectures to students of architecture, Le Corbusier explained the essential importance of the architectural promenade classifying architecture as dead or living by the degree to which the rule of sequential movement has been ignored or instead vividly observed. [2]

To begin with it is obvious to have a brief discussion

about how Corbusier wanted to demonstrate movement and vision in his architecture unfolding spaces. In the chapter 'Architecture Part II: The Illusion of Plans' in 'Vers une Architecture' Le Corbusier argues that the true axis in architecture is not the straight central line of Beaux-Arts pedagogy and design but rather a mental organization that groups a sequence of spaces into a coherent composition related to a visitor's movement. When a straight line axis is used, it is important not to place the main elements along it but rather to dispose them to either side in a dynamically balanced composition. At times, the visitor should also be made to walk to either side and around this central line. [3] It is almost a clear manifesto that Corbusier wanted the visitors to get wondered with this exploration while moving. This paper will discuss the drama of such constitution in a search of finding to where the movement is heading towards.

2. Aim and Process

Le Corbusier's interest in visual and spatial concepts for his architecture is, of course, well known and it is not proposed to represent those claims further. What will be given particular attention is the manner in which vision and space are tied up, in particular ways to be demonstrated as a mechanism of movement toward the infinity considering the architect's conception of the horizon. In this case effort

* Corresponding author:

azizmohith@aiub.edu (Mohammed Azizul Mohith)

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to define (or redefine) the concept of 'space' and 'infinity' are not taken rather been relied on the perception constructed in reader's mind throughout the paper.

The paper is, however, a discourse of Le Corbusier's architecture only in terms of his disposition of spaces to constitute sequential movement towards the non-space i.e. infinity. Hence it is formed in the manner of a discussion where the most relevant commentaries, theories and projects are discussed. Other concepts of his architectural excellence are only mentioned when deemed necessary. The discussion showcases sketches, images and drawings from a critical perspective where technicality is superseded by theme and essence.

3. Space and Visitor

It is profoundly accepted that Le Corbusier treated the inhabitants of his houses as visitors. These visitors are meant to unfold or discover new experiences in their movement. And in this mechanism of viewing visitors are meant to be kept ignorant of what is going to happen or to be seen in the next moment. For example, about Villa Savoye he writes in *Precisions* 'The visitors, till now, turn round and round inside, asking themselves what is happening, understanding with difficulty the reasons for what they see and feel; they don't find anything of what is called a "house" They feel themselves within something entirely new. And . . . they are not bored, I believe.' [4] No doubt that the experience of such exploration is unique but then the question comes of where this movement is heading toward.

According to Colomina in the houses designed by Corbusier everything seems to be disposed in a way that continuously throws the subject toward the periphery of the house. The look is directed to the exterior in such a deliberate manner as to suggest the reading of these houses as frames for a view. Even when actually in an 'exterior' in a terrace or in a 'roof garden' walls are constructed to frame the landscape. These views are composed as a series of frames and these frames are given temporality through the promenade, perception here occurs in motion. It is hard to think of oneself in static positions. [5] Up to this point the movement of the visitor is traceable.

But from the series of photographs of his Villas taken by Corbusier himself it is likely to be imagined that at some point this movement (of the subject) is beyond the trace of the viewer. In the photographs there are impressions of someone missed momentarily. The way this sense of momentary disappearance was portrayed seemed mundane yet thought provoking. In the photographs of Villa Savoye the impression is that somebody was just there, leaving as traces a coat and a hat lying on the table by the entrance or some bread and a jug on the kitchen table; meanwhile photo of a raw fish in the kitchen of Villa Garche, suggests the idea that we have just missed somebody working there. In the latter the door was left open as well to intensify the idea.

Even in the photograph taken at the highest point of the house- the terrace of Villa Savoye on the sill of the window that frames the landscape, the culminating point of the promenade, we find a hat, a pair of sunglasses, a little package (cigarettes?) and a lighter left alone, the user is untraceable at that very moment. [6]

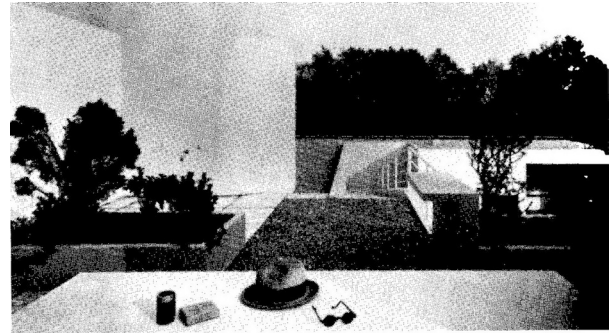


Figure 1. Roof of Villa Savoye, Poissy

This approach of leaving a question to give an idea that something is to be explored yet, is also present in his films. In the movie *L'Architecture d'aujourd'hui* (1929), directed by Pierre Chenal with Le Corbusier, the latter as the main actor drives his own car to the entrance of the Villa at Garches, descends and enters the house in an energetic manner. He is wearing a dark suit with bow tie, his hair is glued with brilliantine, he is holding a cigarette in his mouth. The camera pans through the exterior of the house and arrives at the 'roof garden' where there are women sitting down and children wondering. A little boy is driving his toy car. At this point Le Corbusier appears again but on the other side of the terrace, he does not seem to have any interest in the inhabitants of the roof rather concentrated on puffing his cigarette. He then very athletically climbs up the spiral staircase that leads to the highest point of this house, a lookout point. Still wearing his formal attire, the cigarette still sticking out of his mouth, he pauses to contemplate the view from that point. He looks out (to where?). [7]



Figure 2. Still picture from the movie *L'Architecture d'aujourd'hui* (Pierre Chenal, 1929)

It seems that his journey is not terminated in terms of vision (though ended physically). There seems to be a

temptation of further movement within or beyond the perception of the viewer.

4. Horizon and Infinity

The testimony of continual, never ending formation of spaces can be analyzed or at least attempted to be discussed through Le Corbusier's encounter with 'horizon' depicted in several of his texts. In his book 'Precisions' Le Corbusier says (denoting his meeting with 'horizon')- 'I am in Brittany. This line is the limit between the ocean and sky: a vast horizontal plane extends toward me.' [8] 'This line' that Le Corbusier speaks of is the horizon line, a line denoting the boundary of that part of the earth's surface visible from his given viewpoint. And yet it soon becomes obvious, from Le Corbusier's unfolding description that seeing the horizon is not to just mildly observe it. In his Brittany encounter Le Corbusier also confronted the essential form of the site's counter principle. The very moment occurred when he was walking, a vertical rock of granite paused him like a menhir, which was placed in absolute right angle with the horizon. For him the moment was poised with extreme intensity denoting complete symphony of vertical and horizontal while expressing the nobility of such pure relationship. To him it was- 'Crystallization fixation of the site..... One is alive because of the other'. [9]

In these texts Le Corbusier describes a moment in which architecture takes into account every possible surface. The entirety of the site to the horizon has the quality of a 'room,' a quintessential architectural space. What the architect puts forward in relating his experience at Brittany is a particular lesson about the visual and spatial limits which are of concern to architecture. But we can imagine that Le Corbusier was trying to orchestrate the possibility of 'seeing' for the occupants of his architecture to perceive a relationship between the building and the surrounding spaces all the way to the horizon. Later he describes- 'Here I am on the way to search for greater architectural truths. I perceive that the work we raise is not unique, nor isolated; that the air around it constitutes other surfaces, other grounds, other ceilings, that the harmony that has suddenly stopped me before the rock of Brittany exists, can exist, everywhere else, always. The work is not made only of itself: the outside exists. The outside shuts me in its whole which is like a room.' [10]

And, therefore, there are other opportunities to move where 'the outside is always an inside' and that 'to inhabit means to see'. But is that possibly suggesting to inhabit the 'Infinity' which is never ending, imaginable yet not viewable?

To Le Corbusier horizon seems present in an instantaneous and direct moment of experience. The meeting of the horizon with the vertical, signified by the rock, determines the site, that is, it fixes the relation of things in the view. That this moment occurs in nature gives it the sense of being original and seminal, at least for Le

Corbusier. He turns this moment into a drawing made of two lines forming a cross, which is published later along with the 'Precisions' lectures. This experienced moment, which he refers to as the 'point of all dimensions' appears to be more than a mere accident or happenstance. Above all, it is an experience with an orchestrated or symphonic quality, and certainly a transcendent one. [11]

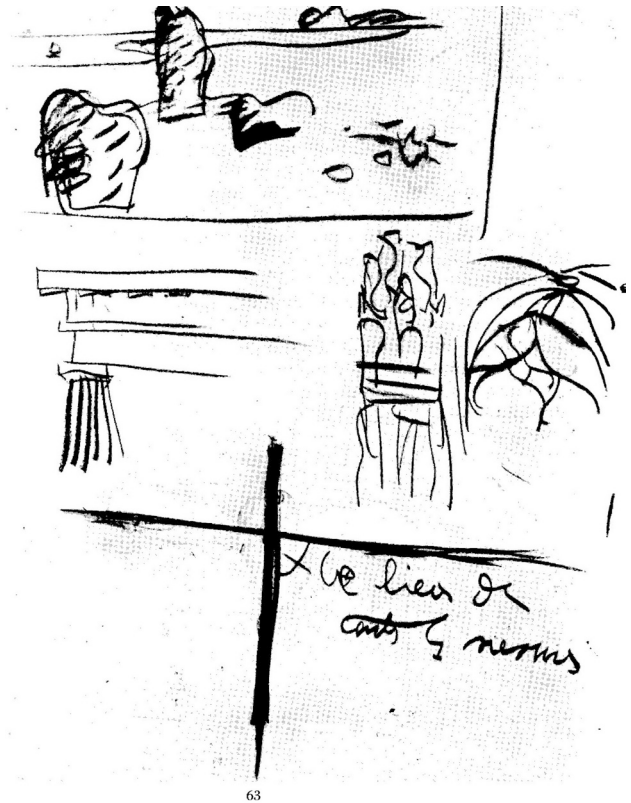


Figure 3. Poem of all Dimensions (Corbusier)



Figure 4. The Roof, Couvent de La Tourette, Evieux

To articulate the desire for the continuity of movement, Le Corbusier attempted (successfully) certain architectural approach from both conceptual point of view and in detail design decisions. For example in case of his project La Tourette though an obstruction to a promised delight, the parapet (in the roof) presents in its place the power of a constructed horizon punctuated by the vertical forms of

chimney and bell tower. This room, open only to the sky appears in other projects but in the context of La Tourette, becomes a vehicle of detachment from the worldly, in its fabricated boundary is the spirit of the temples of the Acropolis which 'drew around them the desolate landscape, gathering it into the composition through the horizon.' [12]

Even in case of designing the 'Window' which is the key feature of vision from inside to outside Le Corbusier's conception of 'horizon' played significant role. His affection was always toward the horizontal window, a window with no apparent limit, paralleling the landscape's horizon. Windows of this sort were imagined as part of a 'free façade', two important aspects of which were its absence of supportive quality and its detachment from interior partitions. The result of allegiance to contemporary construction possibilities was for Le Corbusier 'spiritual enjoyment, (apparent in) proportions . . . thin verticals . . . unbroken surfaces . . . (serving as) the basis of architectural sensations.' [13]. All these features illustrate his curious enthusiasm to explore something more.

In the Radiant City Le Corbusier celebrated the glass wall as the 'lungs' of the building. Horizontal glazing was also a device for joining the room to the landscape, particularly when the latter was conceived as an extended horizon. Through this instrument the landscape and the building were both sited and sighted. In Une Petite Maison, for example, the building's siting resulted from placing a viewpoint in the landscape (geographically and topographically), and this viewpoint was focused through the horizontal window. Plan and plot were joined through view (as Corbusier says about this project): 'In my pocket was the plan of a house. A plan without a site? The plan of a house in search of a plot of ground? Yes! (The location) offers an unparalleled view which cannot be spoiled by building, (a view) of one of the finest horizon in the world.the plan is tried out on the site and fits it like a glove [14]. In this case also, interestingly, the vast expansion of infinite space is given more importance and architecture (in form of a building) has to suit that.

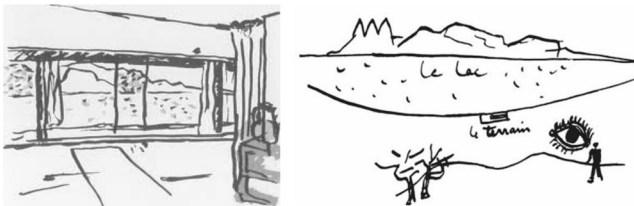


Figure 5. Une Petite Maison, Corseaux

Anyway, the discussion of an architectural device 'horizontal window' is stated here not to reciprocate the detailing or characteristics of this device but to formulate the conception of visionary movement to infinity (in guise of horizon) by using it. The house as an instrument for 'survey of' is permanently 'sited within' the landscape. Thus the window, a sheet of glass is self-reflexive; in it and through it, landscape and building collapse into a spatial visual slippage in which reciprocating views make a

continuous horizon. Le Corbusier broadened this principle in his later writings and projects. [15]

Among them one of the sensational projects in respect of constructing the 'infinity' in architectural terms is the Museum of Unlimited Extension (1959). It is one of a set of projects known as the spiral museums, which Le Corbusier and his studio worked on between 1929 and 1965. This project can be discussed here to learn how he constructed the movement towards the horizon. The 1939 museum comes after a decade of research by the architect into this 'prototype' in which a square spiral form is used as a plan.

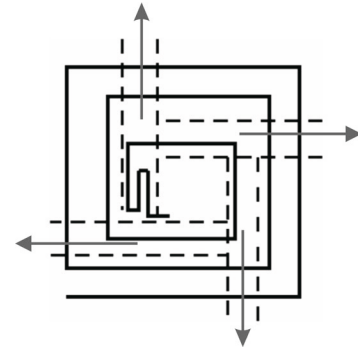


Figure 6. Overlay of spiral and swastika form encourages concentration inside yet a scope to view outside while in the particular position

Interestingly in this project two kinds of plan form are used in combination- the spiral form and the swastika form. This combination of plan forms had been tried in prior spiral schemes. However, it is in the Museum of Unlimited Extension plan that these plan forms are finally crystallised in their arrangement. While this particular project never becomes a realised building, it is a project that has much to reveal about the operations of technique within drawing to construct infinity. [16]

From Le Corbusier's commentary on the project in the Oeuvre Complete it is clear that the role of the spiral arrangement of the plan is specifically to orchestrate the museum visitor's experience. This is indicated where he states that, 'the square spiral makes for a discontinuity in the flow of circulation, extremely favourable for attracting the required attention from the visitors.' [17] Beyond the type of this sort of experiential affects already described are affects that are produced by the plan forms (spiral and Swastika) read in combination with each other.

One can note how the combination of plan forms would institute an obvious play with the horizon from the point of view of museum visitors. When visitors are positioned in the space set out by the spiral form, they are free to concentrate on the displays that are close around them. When visitors are positioned in the space set out by the axial form, they experience the extension of space to the horizon (the garden) and its connection to the 'origin' of space in the interior (the central hall). According to Corbusier- 'the means of orienting one's self in the museum is provided by the rooms at half-height which form a 'swastika'; every time a visitor, in the course of his wanderings, finds himself under a lowered ceiling he will

see, on one side, an exit to the garden, and on the opposite side, the way to the central hall.' [18] More than this play (considered as a simple act of viewing) is the possibility of more complex affects for experience. The combination of plan forms not only orchestrates the view to the horizon but also stimulate the desire to find it.

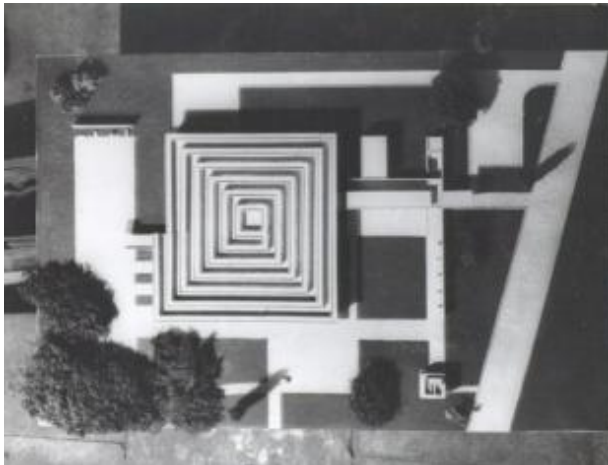


Figure 7. Museum of Unlimited Extension, not located (Top view)

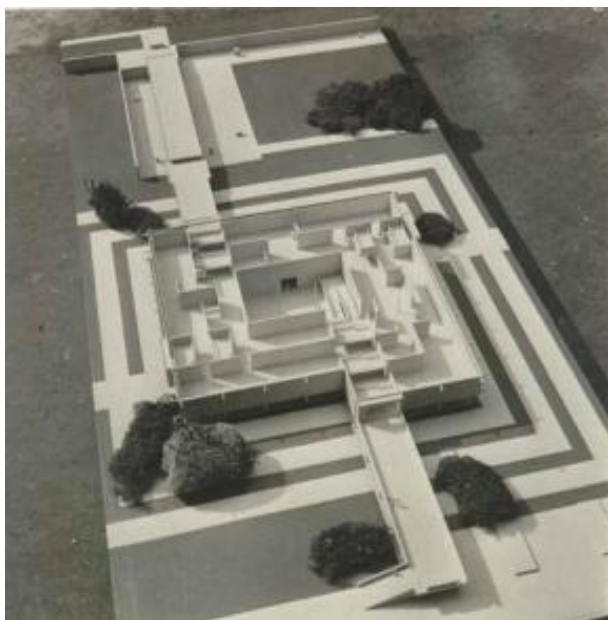


Figure 8. Museum of Unlimited Extension, not located (Model)

The square spiral form is the means of producing the sense that something is being obscured or withheld from sight. Indeed, looking at the plan, it is evident that the sense that something is being obscured increases as the route described by the spiral unfolds, for each leg of the journey is slightly longer than the last. As the space unravels, there are fewer and fewer turns for the distance travelled and the movement may appear endless. And yet at the same time, this internment facilitates a desire for transcendence (of some kind of escape). While the square spiral plan form creates a sense of wandering and the desire for transcendence from wandering; it is the axial plan form that 'satisfies' this desire, by forming long views out of the

space of the spiral. The wished for transcendence from labyrinthine space is given in a look that takes in the fullest extent of space from the interior to the horizon. [19]

Here, the long axial views out of the labyrinthine space are like the view mentioned earlier from Le Corbusier's commentaries; the view that fixes the relationship of elements in the view in an 'instantaneous' moment of experience, 'crystallising' the site from an embodied viewpoint. It is not simply that the organisation of the building makes the line of the horizon appear and disappear as the visitor moves from the axial space to the spiralling space. It is also the case that the organisation of that movement could make the sight of the horizon desirable and compelling, by shifting the visitor from labyrinthine enclosure to extensive axial prospect. [20]

This subtly formed desire relies on the idea that the subject's desire to find the view is self-formed, that this desire comes from 'within' them. Accordingly, the desire to find the infinite expansion of virtual space is not here a desire that the notional visitors come 'already' armed with (or at least the architecture does not assume that to be the case). Rather that desire is determined for the visitors by the architect's careful and considered manipulation of the museum's plan forms to articulate the movement conceptually (though not physically) to infinity.

5. Epilogue

However, from this discussion on Corbusier's particular conception in formatting visual and physical (as a result of the visual sequence of framings) movement as well as creating attraction and opportunities for virtual movement (or escape?) to the horizon to some extent takes the opportunity to explain his sequences of spaces as a mechanism of movement towards the infinity. As according to him the horizon is the 'line of transcendental immobility where mathematical order and nature coincide.' In combination with its opposite, the vertical force of gravity, it reveals 'the full power of a synthesis', a right angle that is 'the sum of forces which keep the world in equilibrium'. But to search for this symphonic perfection or desired destination is a prolong and never ending activity because the 'infinity' in guise of the never reachable horizon (in Corbusier's concept) *is always present, never reachable, perceptible but not palpable, single but infinite and represents the boundary of the human condition.* [21]

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