

Chapter 2: Le Corbusier's space beyond words

From assemblages of components to succession of events

At the core of this chapter is Le Corbusier's concept of "ineffable space". Le Corbusier related "ineffable space" to mathematics, arguing that both mathematics and the phenomenon of "ineffable space" provoke an effect of "concordance". Le Corbusier also argued that when the establishment of relations is "precise" and "overwhelming", architectural artefacts are capable of "provoking physiological sensations".

In a letter he addressed to his mother in 1948, Le Corbusier commented on his book entitled *The New World of Space*. He remarked that his work related to urbanism, architecture, painting and sculpture is characterized by the appearance of "a new notion of space"¹. He argued that what characterized his notion of space is the dominance of calmness, limpidity and clarity². He also underlined that these three qualities distinguish his own conception of the notion of space from the notion of space corresponding to Fauvism, Cubism, Surrealism and Expressionism³. Le Corbusier's concept of "ineffable space" ("espace indicible"), which was also described by him as "space beyond words", acquired a central place in his conceptual edifice after 1945. The fact that Le Corbusier employed the expression "space beyond words" to describe the phenomenon of "ineffable space" is indicative of his awareness that the effect of space is related to a power beyond words. Le Corbusier developed the concept of "ineffable space" in several texts that were published between 1946 and 1953. The first time he mentioned this concept was an article entitled "L'espace indicible", published in *L'Architecture d'aujourd'hui* in April 1946⁴. The first manuscript of this text was written on 13 September 1945⁵, and its original title was "Take possession of space" ("Prendre possession de l'espace"). In this text, Le Corbusier maintained that "taking possession of space is the first gesture of all liv-

ing, of men and animals, plants and clouds, a fundamental manifestation of balance and duration". He also claimed that "[t]he first proof of existence is to occupy space"⁶.

Le Corbusier referred to the primacy of the activity of taking possession of space for all living creatures in *The Modulor*, where he argues that a primordial trait of his intellectual activity is related to its capacity to manifest space, writing: "I see—looking back after all these years, that my entire intellectual activity has been directed towards the manifestation of space. I am a man of space, not only mentally but physically..."⁷. Le Corbusier drew a distinction between physicality and mentality. He believed that there is a difference between expressing or manifesting the notion of space in a mental way and expressing or manifesting the notion of space in a physical way. This distinction could be related to the distinction between the real and the fictive dimension of architectural practice.

To better understand what Le Corbusier meant when he used the expression "ineffable space" ("espace indicible"), we should bear in mind that, according to him, a work is able to provoke an effect of "ineffable space" when it has acquired "its maximum intensity, proportion, quality of execution, perfection"⁸. Interestingly, this phenomenon, as Le Corbusier remarked, "does not depend on the dimensions but on the quality of perfection"⁹. Le Corbusier maintained that "[t]he key to aesthetic emotion is a spatial function"¹⁰. He related the phenomenon of "ineffable space" in architecture to mathematics, arguing that mathematics and the phenomenon of "ineffable space" share their capacity to provoke an effect of "concordance". More specifically, he remarked, in "l'espace indicible": "A phenomenon of concordance occurs, exactly as in mathematics"¹¹. It would be thought-provoking to relate this "phenomenon of concordance" to the phenomenon of "synchronism" to which Le Corbusier referred in his text entitled "Une maison-outil", published in *Almanach d'architecture* in 1925¹², that is to say 21 years before he authored "L'espace indicible"¹³.

Le Corbusier also used the expression "magnification of space"¹⁴ to describe the phenomenon of "ineffable space". He related "magnification of space" to the inventions of Cubism. Amédée Ozenfant and Le Corbusier placed particular emphasis on the accidental nature of perspective from the second year of publication of the magazine *L'Esprit Nouveau*. In 1921, they noted in the fourth issue of *L'Esprit Nouveau*, in an article entitled "Le purisme": "The ordinary perspective, in its theoretical rigor, gives objects only an accidental aspect: what an eye that has never seen this object, would see if it was placed in the special

visual angle to this perspective, angle always particular, so incomplete"¹⁴. In the same article, Ozenfant and Le Corbusier underscored the importance of transmissibility and universality for Purism. Le Corbusier and Ozenfant understood depth as a generator of the sensation of space. In the same year as the publication of the article "Le purisme" in *L'Esprit Nouveau*, Ozenfant and Le Corbusier, in a different text entitled "Intégrer", published in *Création*, gave their own definition of perspective: "Perspective means creation of virtual space. Purism admits as a constructive means of the first order the sensation of depth, which generates the sensation of space, without which volume is a useless world"¹⁵. Reading Ozenfant and Le Corbusier's remark that "the sensation of depth [...] generates the sensation of space" brings to mind the notion of "sense of space" ("Raumgefühl") of August Schmarsow¹⁶.

Le Corbusier's "L'espace indicible" was published the same year as *Propos d'urbanisme*¹⁷. This invites us to wonder to what extent Le Corbusier's understanding of urban planning changed after the invention of the expression "espace indicible". The shift to which Le Corbusier refers is that from "l'esprit nouveau" to "l'espace indicible"¹⁵. Le Corbusier's theory of "synthesis of major arts" could help us better understand his concept of "ineffable space". The emergence of the concept of "ineffable space" in Le Corbusier's thought is linked to the post-war context¹⁸. This becomes evident when he introduces his text on "ineffable space" with the following statement: "This text must be in its proper place. Year 45 counts millions of homeless people straining towards the desperate hope of an immediate transformation of their misery"¹⁹. Le Corbusier also underscored that this text was "addressed to those whose mission is to achieve a fair and effective occupation of space, the only one able to put in place things of life and consequently to put life in its only true milieu, where harmony reigns"²⁰. In the aforementioned excerpt, Le Corbusier related the efficient occupation of space to harmony and believed that the capacity of the architect depended on his sense of space. He believed that "[t]o be is to occupy space"²¹.

2.1 The notion of assemblage in Le Corbusier's thought: Architecture as precise relationships

Le Corbusier's conception of architecture as the succession of events is founded on the assumption that the events take place through "the creation of precise relations". Le Corbusier argued that in the cases in which the establishment of relations is "precise" and "overwhelming", architectural artefacts are capable

of “provoking physiological sensations”. The notion of relationship (“rapport”) is central in Le Corbusier’s conceptual edifice. This becomes evident when he mentions that “all events and objects are ‘in relation to...’”²². Le Corbusier also maintained that an efficient choice and setting up of relations are capable of providing “a real spiritual delectation”, which “is felt at reading the solution”. For Le Corbusier, the sentiment of satisfaction and enjoyment provoked through the “reading of the solution” by the users is related to the “perception of harmony”. More particularly, he was convinced that the users can perceive space as harmonious, with “the clear-cut mathematical quality uniting each element of the work”²³. Le Corbusier places particular emphasis on “the effect of the relationships”²⁴ on the perception of the addressees of architecture.

According to Pierre Litzler, Le Corbusier defined architecture as the syntax of relationships²⁵. Le Corbusier described architectural composition as “living bond as a word” and perceived architectural composition as assemblage. More specifically, he used the term “soudure”, which is closely related to the concept of “assemblage”. He believed that “the architectural composition manifests itself” when the “objects constitute an organism carrying a particular, precise intention, different according to the feeling which animated the arrangement, the welding, the living connection as a word”²⁶. Regarding Le Corbusier’s architectural composition process, Bruno Reichlin remarks, in “Jeanneret/Le Corbusier, Painter-Architect”:

It’s only the ensemble of spaces, elements and accidents that unveil the rules—the syntax—which structure it; it is only at the level of the ensemble that we read the spatial counterpoint between Domino and partition; counterpoint that explains the relationship between the constructive framework and the free articulation of spaces.²⁷

The concept of “intertextuality” could help us better understand the role of assemblage in Le Corbusier’s conceptual edifice. The role of assemblage in Le Corbusier’s thought refers not only to architectural artefacts, but also to the relationship architectural artefacts have with the broader cultural context, or with other forms of art. Regarding the relation of architecture to aspects beyond architecture, Bruno Reichlin, in “L’œuvre n’est plus faite seulement d’elle-même”, refers to the intertextuality in Le Corbusier’s work, with particular emphasis on the client as intertext, the intertext of open work, and the other as intertext²⁸.

2.2 The “maison-outil” as clear syntax: Towards synchronism or the game of indisputable emotions

Le Corbusier, in “Une maison-outil”, published in *Almanach d'architecture moderne* in 1925, established as a criterion for considering an architectural artefact good its capacity to provoke emotions. He used the expression “game of indisputable emotions”, arguing that “the house [should be] [...] made of objects that fulfil our functions”. He related the efficiency of objects being part of a housing unit to the capacity of the architect to “synchronize” them. This becomes evident when he underscores that the “objects [that constitute the house] are destined for an efficiency that arises from their synchronism”. The criterion for judging whether such “synchronism” takes place is the extent to which “particular sensations” are provoked. Le Corbusier defined “synchronism” as the phenomenon provoked when objects are related in a way that provokes “particular sensations”. In parallel, he defined “architectural composition” as the capacity to assemble the objects in an organism in a way that demonstrates a precise intention²⁹.

In 1925, Le Corbusier, in “Une maison-outil”, considered clear syntax “the particular quality of order that has been printed on the grouping of the objects”³⁰ that constitutes the building. Two years later, in “Où en est l'architecture”, he declared that he desired “a poem made of solid words in the definite sense and grouped into a clear syntax”³¹. He drew a distinction between architecture and poem. This comparison is reminiscent of the ancient Greek notion of *ποίησις* and could be related to the distinction he drew between “the living connection as a spoken word” (“la liaison vivante comme une parole”) and the establishment of relationships between objects during the process of architectural composition. Le Corbusier used the expression “parole of architecture”¹⁹ to describe the phenomenon of stimulation due to the embodiment of precise intentions during the process of architectural composition. He compared the syntax of relationships to “the living connection as a spoken word”³² and referred to the “game of indisputable emotions”.

Le Corbusier's insistence on the necessity of the discovery or invention of a “clear syntax” could be related to his remark that “the power of architecture, (the potential of architecture) is integrated into the spirit that sets the order of grouping the elements of the house”³³. In an article entitled “Esprit de vérité” published in the first issue of *Mouvement*, Le Corbusier defined architecture as the activity of “putting in order, establishing relationships and, by the choice of relationships: intensity”³⁴. He argued that the main purpose of architecture

should be intensity and believed that intensity could be achieved only “if the objects considered are precise, exact, acute”³⁵. Le Corbusier understood precision, exactitude and acuteness as the preconditions of intense relationships. In a different text with the same title—“L’esprit de vérité”—published in 1927, Le Corbusier argued that architecture should be “a pure system of structure” and considered a “pure system of structure” a system that “satisfies the exigencies of reason”³⁶. These reflections make us realize how important the relationship between reason and emotion was for Le Corbusier.

2.3 Le Corbusier’s relationship with De Stijl: The interest in precision

Useful for comparing Le Corbusier’s conception of form-making strategies and those of the De Stijl is Bruno Reichlin’s chapter entitled “Le Corbusier vs De Stijl” published in *De Stijl et L’architecture en France*, where the author underscores that among all the projects of Le Corbusier, the one that has the most affinities with the De Stijl approach is the Villa La Roche-Jeanneret³⁷. This hypothesis is further reinforced by the fact that Le Corbusier visited the exhibition “Les architectes du groupe De Stijl”, held between 15 October and 15 November 1923 at the Galerie de l’Effort Moderne in Paris³⁸ (Figure 2.1). His encounter with the compositional architectural strategies of De Stijl played a major role in the transformation of his project for the Villa La Roche-Jeanneret. Le Corbusier, after having visited the aforementioned exhibition, revised his drawings for the Villa La Roche-Jeanneret, taking into account the concept of “counter-composition”, which was at the core of De Stijl movement. Le Corbusier privileged the use of perspective representation, despite his predilection for the avant-garde anti-subjectivist tendencies, which disapproved the use of perspective and favored the use of axonometric representation or other modes of representation opposed to the philosophical implications of perspective³⁹.

Theo van Doesburg’s approach was representative of De Stijl’s preference for axonometric representation. Likewise, El Lissitzky rejected perspective, as is evidenced by his text “A. and Pangeometry” (“K. und Pangeometrie”), first published in 1925⁴⁰. To better grasp Le Corbusier’s modes of representations, we should bear in mind that the ambiguity between individuality and universality is Le Corbusier’s “conviction that the means of architectural composition

process should be generalizable and universally understandable and transmissible⁴¹.

Figure 2.1. Exhibition “Les architectes du groupe De Stijl” held from 15 October to 15 November 1923 at the Galerie de L’Effort Moderne in Paris.

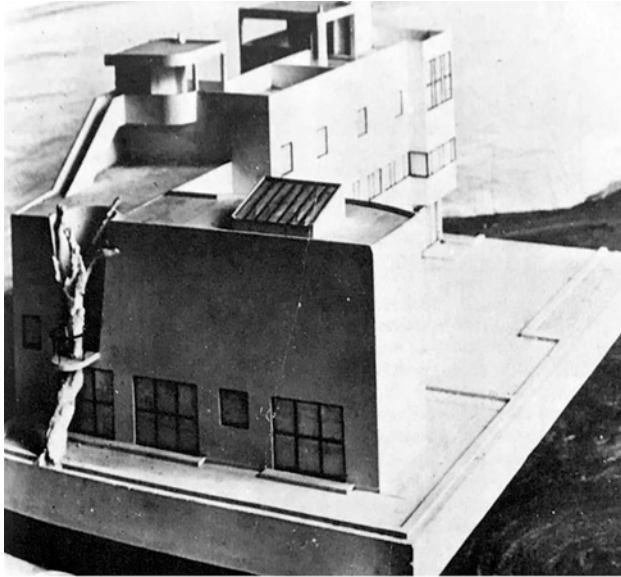


Credits: Het Nieuwe Instituut, Rotterdam

Théo van Doesburg drew a distinction “between composition (placing together) and construction (binding together)”⁴². He argued that neither composition nor construction “can lead to fruitful, monumental artistic production if we do not agree on the elemental means of form-creation”⁴³. What was of primordial importance for van Doesburg was the establishment of “elemental means of form-creation”⁴⁴. Théo van Doesburg and Le Corbusier shared their

interest in precision. The former remarked in “Elemental Formation” (“Material zur Elementaren Gestaltung”) published in G: “the demand of our time: PRECISION”⁴⁵. A large plaster model of the Villa La Roche-Jeanneret was shown at the exhibition in the *Salon d'Automne* in November 1923 (Figure 2.2). One of the major changes that Le Corbusier made in his project for the Villa La Roche-Jeanneret, after having visited the exhibition “Les architectes du groupe De Stijl”, was the transformation of the small windows into large ones. Mies van der Rohe participated in this exhibition with a perspective of the Concrete Country House⁴⁶.

Figure 2.2. Model of the Maison La Roche-Jeanneret exposed at the “Salon d'Automne” in 1923 in Paris.



Credits: Fondation Le Corbusier, Paris

2.4 Le Corbusier's double attraction to the straight line or the right angle and the spiral: Linking geometry to contemporary spirit

The impact of Paul Valéry's approach on Le Corbusier's understanding of architecture is important for understanding the role of geometry in his thought. Le Corbusier remarked in a lecture he delivered several times in 1924: "I was somewhat surprised by reading a beautiful book by Paul Valéry [...] Valéry puts geometry at the top of the human understanding"⁴⁷. The same year, he argued that "men in everything they do are obliged to go through order"⁴⁸. He also asserted that "man needs geometry"⁴⁹. He interpreted man's admiration for geometry as a means for finding "his standard and to create works whose spirit [...] [is] a favourable spirit"⁵⁰. Le Corbusier believed that works that are created based on geometry are expressions of a favorable spirit. He also maintained that they are capable of provoking "pleasure" ("jouissance"). He related this sensation of "pleasure" to the interpretation of architectural works as products that are able to reflect "the quality of contemporary spirit"⁵¹. Le Corbusier related geometry to contemporary spirit, understanding geometry as an inherent feature of human action. Contemporary spirit and anthropocentrism were at the core of his conception of geometry. In "Où en est l'architecture?", Le Corbusier interpreted art as "a vital spiritual necessity, which is inseparable of human action"⁵². He also maintained that "art is nothing but an individual manifestation of freedom, of personal choice"⁵³. In parallel, he conceived art as "a vital spiritual and motor necessity from human action"⁵⁴.

The analysis of the concepts of linearity and zigzag in Le Corbusier's thought is pivotal for understanding the relationship between the determined and the spontaneous gesture in his conception of architecture. Catherine Ingraham, in *Architecture and the Burdens of Linearity*, interprets the line as a conceptual and literal force in architecture⁵⁵. Le Corbusier often expressed his preference for the straight line. In a text written in July 1965 that was included in *Mise au point*, he remarked:

We must rediscover man. We must rediscover the straight line that joins the axis of fundamental laws: biology, nature the cosmos. A straight line unending like the horizon of the sea.⁵⁶

Until his last days, Le Corbusier related the architects' social role to their capacity to serve as "a datum line in the midst of flux and mobility"⁵⁷. He argued that it is primordial for architects to preserve their capacity to have a clear-sight and

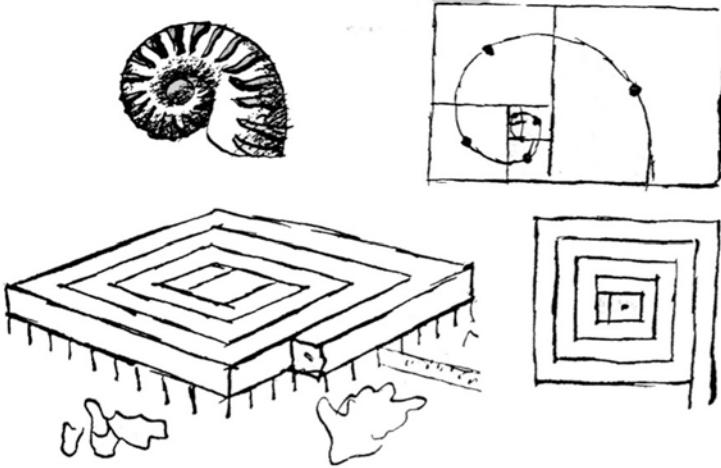
to function as “a measuring instrument”⁵⁸. Le Corbusier maintained that the main quality that is expressed through the act of drawing straight lines is the conquest of control and order. His attraction to the act of drawing straight lines derived from his conviction that men who are capable of drawing straight lines have overcome the state of arbitrariness and have acquired a mental state that makes them capable of acting in a determined way. For Le Corbusier, the value of straight lines was related to his conviction that straight lines can be drawn only “when man is strong enough, determined enough, sufficiently equipped and sufficiently enlightened to desire and to be able to trace straight lines.”⁵⁹ Apart from the metaphor of straight line, he also admired the metaphor of “orthogonality”. Le Corbusier, in *City of Tomorrow and Its Planning*, which was originally published as *Urbanisme* in 1924, argues that the “orthogonal state of mind” best expresses the spirit of the modern age, relating orthogonality to “the height of a civilization”. For him, “[c]ulture is an orthogonal state of mind”⁶⁰. Le Corbusier remarks, in the same book:

Man walks in a straight line because he has a goal and knows where he is going; he has made up his mind to reach some particular place and he goes straight to it. The pack-donkey meanders along, meditates a little in his scatter-brained and distracted fashion, he zigzags in order to avoid the larger stones, or to ease the climb, or to gain a little shade; he takes the line of least resistance...The Pack-Donkey's Way is responsible for the plan of every continental city⁶¹.

Le Corbusier was interested in the distinction between the orthogonal and the oblique. He related the first to the permanent and the latter to the variable. In *La peinture moderne*, Amédée Ozenfant and Le Corbusier: “Whereas the orthogonal is a sensible sign of the permanent, the oblique is that of the unstable and the variable”⁶². They juxtapose the uniqueness of the right with “the infinity of oblique angles”⁶³, maintaining that “[i]f the orthogonal gives the meaning of the structural law of things, the oblique is only the sign of a momentary moment”⁶⁴. The insistence on spiral movement in the Museum of Unlimited Growth, which was designed in 1939, shows that Le Corbusier’s stance was characterized by an ambiguity⁶⁵ (Figure 2.3, Figure 2.4). Jean-Louis Cohen reminds us that Le Corbusier would “implement [in the Museum of Unlimited Extension] in the 1950s in Tokyo, Chandigarh, and Ahmedabad” — with the spiral/ziggurat of the Figure above as the architect’s image of “limitlessness,” one that would be imitated by Frank Lloyd Wright in his design for the Guggenheim Museum”. Cohen also remarks that “these museums hardly represent anything

like Corbusier's unrealised dream of a "true museum, one that contained everything"⁶⁶.

Figure 2.3. Le Corbusier, Pierre Jeanneret, sketches for a project for a "museum of unlimited growth" (*Musée à croissance illimitée*), 1931.

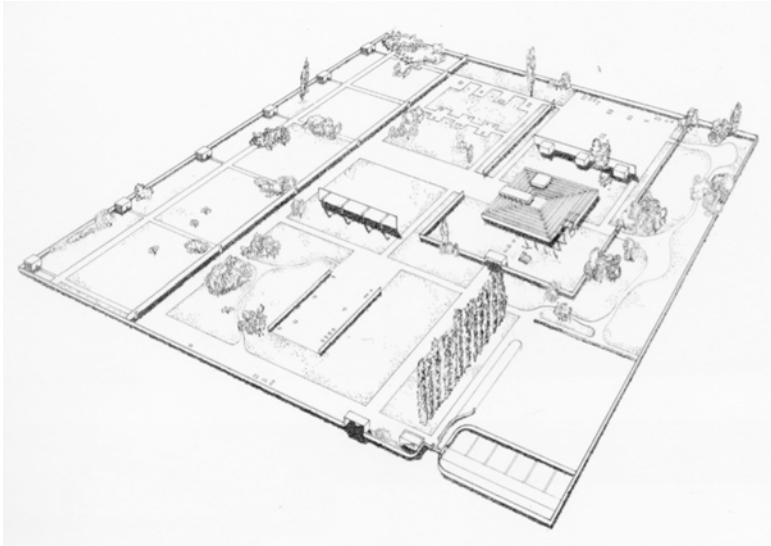


Credits: Fondation Le Corbusier, Paris

Despite the fact that Le Corbusier preferred the straight line, he used the spiral without ignoring its symbolic implications. Nietzsche notes regarding the correspondence between the nature of soul and labyrinth: "If we desired and dared an architecture corresponding to the nature of *our* soul (we are too cowardly for it!) — our model would have to be the labyrinth!"⁶⁷ The use of spiral by Le Corbusier could be understood as an echo of a stance similar to that described by Nietzsche above. Another aspect of the labyrinth, which could be enlightening for interpreting the use of spiral by Le Corbusier is its force as "space with no outside"⁶⁸. Le Corbusier remarks, in *Precisions*, that "Art [is the] product of the reason-passion equation [...] [and] the site of human happiness"⁶⁹. He also often referred to the orthogonal state of mind, relating the orthogonal state of mind to reason. Following Nietzsche, who claims that "the architecture corresponding to the nature of *our* soul"⁷⁰ is the labyrinth, one could relate

the spiral to passion. Le Corbusier's interest in both passion and reason could explain the ambiguity of his double attraction to the straight line or the right angle and the spiral.

Figure 2.4. Le Corbusier, Pierre Jeanneret, Project for a “Museum of Unlimited Growth” (*Musée à croissance illimitée*), general perspective view, 1931.



Credits: Fondation Le Corbusier, Paris

2.5 The notion of circulation in Le Corbusier's work: Eyes to feast on the walls or perspectives beyond walls

Le Corbusier, in *Journey to the East* (*Le voyage d'orient*), defined architecture as interior circulation. He understood spatial experience as a successive process and as taking place in relation to the movement through space⁷¹. His conception of architecture as “interior circulation” was based on the intention to promote what he called “emotional reasons”. He maintained that the perception of space should be revealed to the inhabitants progressively as long as they walk through the spaces of a building. To borrow Le Corbusier's own words, “the var-

ious aspects of the work [...] [should be] comprehensible in proportion to the steps which place us here, then take us there"⁷². This kind of sequential perception activates a mode of seeing that is based on Le Corbusier's desire to permit the users' "eyes to feast on the walls or the perspectives beyond them". This intention of pushing "eyes to feast on the walls or the perspectives beyond them"⁷³ is related to Le Corbusier's ambition to activate an imaginative mode of spatial perception. As he admits, his strategies aimed to activate the sensation of "anticipation or surprise of doors which reveal unexpected space..."⁷⁴.

In 1942, Le Corbusier declared that "[a]rchitecture is travelled, is traversed and is not by any means, as in certain teachings, that totally visual illusion organized around a central abstract point pretending to be a man, a chimeric man armed with a fly's eye, whose vision would be simultaneously circular"⁷⁵. The rejection of the "central abstract point pretending to be a man" to which Le Corbusier refers in the aforementioned passage is pivotal for understanding his concept of "promenade architecturale". To what kind of representation and to what kind of architecture this "central abstract point pretending to be a man" would correspond? It is important to respond to the above question if we wish to understand what kind of visual experience Le Corbusier tries to avoid. His remark that "[t]his man does not exist, and it is for that confusion that the classical period provoked the shipwreck of architecture"⁷⁶ is useful for answering this question.

The notions of movement and circulation are very central for understanding how Le Corbusier and Mies van der Rohe understood the experience of space by their inhabitants. In the case of Le Corbusier, the concept of 'promenade architecturale' is of great significance for comprehending his conception of movement through space. The concept of "promenade architecturale" can help us examine the strategies used by Le Corbusier in order to impose a specific kind of movement through the spatial arrangements of his buildings. The idea of "promenade architecturale" appears in Le Corbusier's thought during the same period that sequential perception and movement became defining for his work. The first building of Le Corbusier, which is explicitly associated with the concept of "promenade architecturale", is the Villa La Roche-Jeanneret. Le Corbusier, in the first volume of his *Œuvre complète*, presented this project as the origin of "promenade architecturale"⁷⁷. He related the concept of "promenade architecturale" to the fact that "the architectural spectacle unfolds in succession before your eyes", when the inhabitant enters the house, and to the fact that "the perspectives develop with great variety"⁷⁸ as the inhabitant follows an itinerary. A question that emerges is how idea of "promenade architecturale"

is put forward through the use of perspective. The emergence of the concept of “promenade architecturale” and its prioritization was accompanied by certain transformations of the way in which Le Corbusier used to fabricate the interior perspective views of his projects.

Le Corbusier insisted on the fact that “[a]rchitecture is experienced as one roams about in it and walks through it”⁷⁹. In 1942, he commented on the concept of “promenade architecturale”: “So true is this that architectural works can be divided into dead and living ones depending on whether the law of ‘roaming through’ has not been observed or whether on the contrary it has been brilliantly obeyed”⁸⁰. The fact that he distinguished architectural works into dead and living ones, adopting as main criterion for their evaluation their capacity to provide spaces that can be “roamed through”, should be related to how he drew his interior perspective views, which, in most of the cases, are drawn with a well-defined frame and are not symmetric. They are like sequences or film shots that aim to capture the movement through space, traversing space assemblages. The concept of “promenade architecturale” and the way Le Corbusier drew his interior perspective views should be comprehended in relation to the fact that Le Corbusier, since 1930, had defined architecture as “a series of successive events”⁸¹.

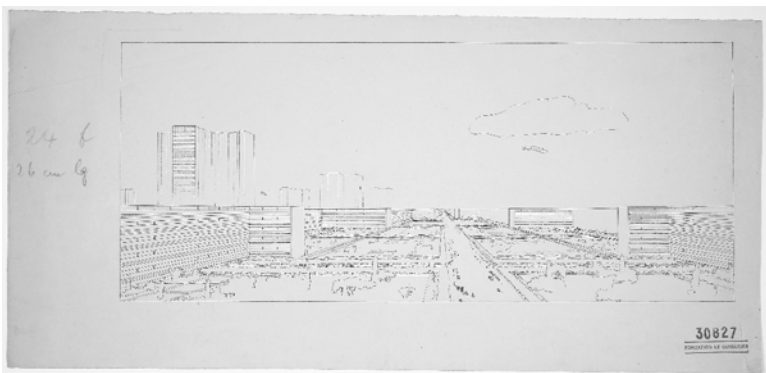
As Bruno Reichlin mentions, in “Jeanneret/Le Corbusier, Painter-Architect”, Le Corbusier’s “promenade architecturale” activates a perception of architecture that requires the adoption of “a multiplicity of visions from categorically different points of view”. This conquest of multiple and distinct points of view pushes the inhabitants who traverse Le Corbusier’s spaces to perceive progressively the different aspects of the built forms and their relations⁸². This trick pushes the viewer to try to understand how forms are connected to each other. This strategy is compatible with Le Corbusier’s conception of the establishment of relationships as the main factor for transmitting emotions to the spectator. In other words, the sequential unfolding of views through movement activates the process of measuring and comparing forms by the observer of the drawings and the user of the buildings. The “promenade architecturale” pushes the user to produce a synthesis of the different successive views.⁸³ Another important project for understanding the place of the notions of movement and circulation in Le Corbusier’s thought and work is the Centrosoyus building in Moscow, which was designed during the same period as the Villa Savoye, the Villa Baizeau in Carthage, the first urban plans for Algiers and South America and the construction of large-scale buildings such as the Cité de Refuge in Paris.

2.6 Le Corbusier's conception of the metropolis: Tabula rasa urban theory?

Vincent Scully remarked that Le Corbusier's view of urban planning "was destructive of the real urban environment"⁸⁴. Le Corbusier had a *tabula rasa* urban theory, which could be interpreted in relation to his fascination with the new. However, Le Corbusier's urban theory was transformed throughout his life. Manfredo Tafuri analyses Le Corbusier's understanding of the city in "Machine et mémoire: la città nell'opera di Le Corbusier"⁸⁵. The way Le Corbusier treated the housing problem during the 1920s through the repeatable private dwelling shows that he conceived architecture and the city as complementary. His understanding of the modern city was based on the intention to incorporate the articulation of the individual and the collective in his urban theory, as it becomes evident in his following declaration:

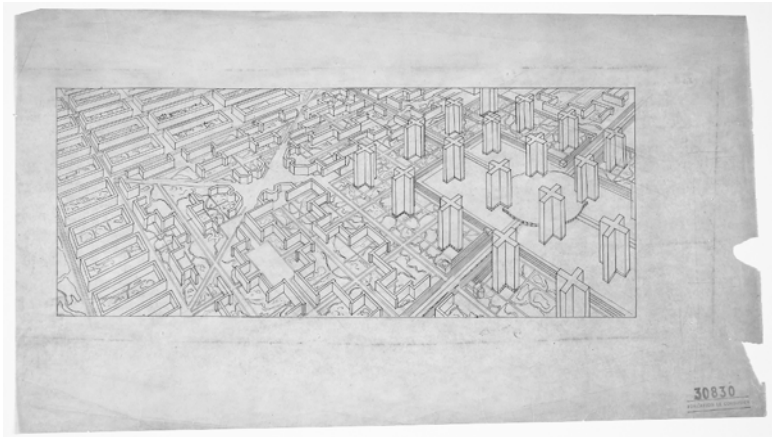
Urbanism and architecture are the two hands which give order to the natural play between the individual and the group, this complex game whose goal is individual freedom and the abundant radiance of collective power... The clear image of cities – the plan – will be expressed on the ground in an order entirely new.⁸⁶

Figure 2.5. *Le Corbusier, ville contemporaine de trois millions d'habitants, perspective view, 1922.*



Credits: Fondation Le Corbusier, Paris, FLC 30827

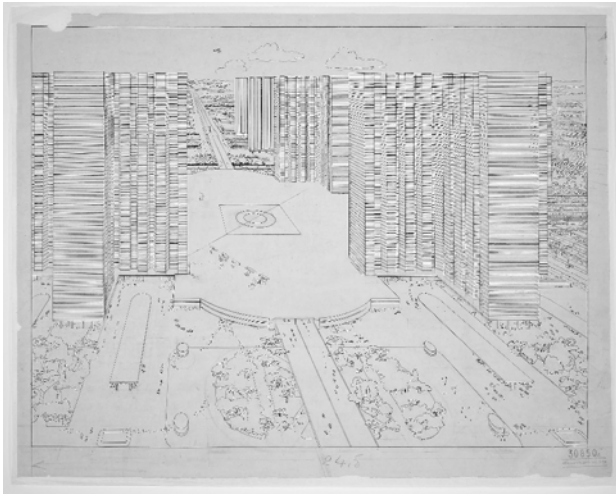
Figure 2.6. *Le Corbusier, ville contemporaine de trois millions d'habitants, bird eye view, 1922.*



Credits: Fondation Le Corbusier, Paris, FLC 30827

Le Corbusier's interest in the vitality of metropolis becomes apparent since early in his life. For instance, the appeal the mythical and energetic character of Paris has on his approach is very evident in a watercolor that depicts the Pont Neuf, in which the city appears as fantastical and vital. An oxymoron that is very apparent in Le Corbusier's urban theory is the simultaneous admiration for the energy of the city, as it becomes evident in the watercolor "The Seine" mentioned above and his desire to rescue cities from their misery, which is expressed in his following aphoristic declaration: "Cities must be extricated from their misery, come what may. Whole quarters of them must be destroyed and new cities built."⁸⁷ In his book entitled *Aircraft*, Le Corbusier wrote: "The city is ruthless to man. Cities are old, decayed, frightened, diseased. They are finished. Pre-machine civilisation is finished."⁸⁸ The messianic character of Le Corbusier's aforementioned words is symptomatic of the *tabula rasa* logic of his urban planning proposals for various contemporary cities: *Une ville contemporaine pour trois millions d'habitants* (1922) (Figure 2.5, Figure 2.6), *Le Plan Voisin* (1925) (Figure 2.7) and *La Ville Radieuse* (1930–1933). Mark Pimlott suggests that "[b]y making the horizon line coincide with the top of the skyscrapers, Le Corbusier suggests that they, as representative fragments of the society he wishes to build, are the world"⁸⁹.

Figure 2.7. *Le Corbusier, Le Plan Voisin, perspective view, 1925.*



Credits: Fondation Le Corbusier, Paris, FLC 30850A

Kenneth Frampton, in “Le Corbusier and ‘L’esprit Nouveau’”, underlines the endeavor of Le Corbusier to incorporate urban implications in his approach. He distinguishes Le Corbusier from Walter Gropius and Mies van der Rohe, arguing that the latter did not try to embrace the urban dimension as much as Le Corbusier. More specifically, he argues: “[u]nlike his German contemporaries-Walter Gropius and Mies van der Rohe-Le Corbusier was always anxious to demonstrate the urban implications of his architecture”⁹⁰. Le Corbusier’s remark that “a city made for speed is a city made for success”⁹¹, which was part of the rhetoric that accompanied his 1925 Plan Voisin Proposal for Paris, is representative of his ‘accelerationist’ view of urban design.

Le Corbusier’s “Descartes est-il américain ?” was originally published in the journal *Plans* in 1931⁹². Le Corbusier, in his text entitled “Vers la ville radieuse. Descartes est-il Américain?”, relates Manhattan to the “aesthetics of chaos”⁹³. In 1938, in *Des Canons, Des Munitions... Merci ! Des Logis, S.V.P.*, he declares that “barbarism, chaos, conflicts are below or beyond unity”⁹⁴. In this case, he assimilates barbarism, chaos and conflicts and contrasts them to unity. In other words, for him, barbarism, chaos and conflicts are synonyms and their opposite is unity. Unity, for Le Corbusier, was the antidote to chaos. This becomes

evident in his following words in *Des Canons, Des Munitions... Merci ! Des Logis, S.V.P.*: “A day comes when unity flourishes, spreads in all things. Everything is harmonious, smile and serenity”⁹⁵. Despite his rejection of chaos in the aforementioned passage, in the sixth volume of his *Œuvre complète*, he questions whether creative act is an act of unity or one of chaos. In the same instance, relating the notion of unity to the concept of synchronism and the notion of chaos to the concept of incommensurability⁹⁶.

The first edition of Le Corbusier's *Charte d'Athènes* was published, in 1943⁹⁷, a year after Josep Luis Sert's *Can Our Cities Survive? An ABC of Urban Problems, Their Analysis, Their Solutions*⁹⁸. The simultaneity of these publications is indicative of two opposing stances vis-à-vis the reinvention of how urban reality is understood. The two books, which are based on reflections carried out during the fourth CIAM held in 1933 on the ship “Patris II” in the Mediterranean and in Athens, suggest different conceptions of the user of the city.

2.7 The “Open hand” as an expression of freedom?

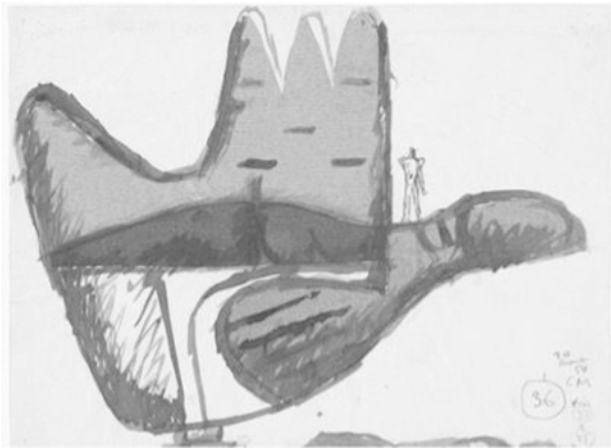
Le Corbusier placed particular emphasis on the notion of freedom. In 1927, in “Où en est l'architecture?”, he declares: “I accept a poem only if it is made of ‘words in freedom’”⁹⁹. In the same text, Le Corbusier refers to his conception of art as “individual manifestation of freedom”¹⁰⁰. In *Sur Les Quatres Routes*, originally published in 1941, he refers to the “complex game whose goal is individual freedom”¹⁰¹. In the fourth volume of his *Œuvre complète*, originally published in 1946, he poses the question: “Contemporary disaster or complete spatial freedom?”¹⁰². In a text written in 1965 included in the eighth volume of Le Corbusier's *Œuvre complète*, one can read: “This Open hand, symbol of peace and reconciliation is to be erected in Chandigarh. This emblem which has haunted my thoughts for many years ought to exist to bear witness that harmony is possible among men.”¹⁰³ (Figure 2.8)

It would be thought-provoking to relate Le Corbusier's interest in freedom to the impact that Albert Camus's view in *L'homme révolté* had on his thought¹⁰⁴. On 10 October 1952, Le Corbusier sent his “Poème de l'angle droit” letter to Albert Camus¹⁰⁵. *L'homme révolté* of Albert Camus was published in 1951, two years after *La part maudite* of Georges Bataille¹⁰⁶. Both books were sent to Le Corbusier by their authors. In the dedication of Camus in *La Chute*¹⁰⁷, we can read: “à Le Corbusier, maître de l'angle droit, cette spirale, amicalement A. C.”¹⁰⁸ Le Corbusier had in his personal library the following books of Albert Camus:

*L'exil et le royaume*¹⁰⁹, *L'homme revolté*, *La Chute*, and *La Peste*¹¹⁰. Among them *L'exil et le royaume* and *La Chute* include dedications by the author.

Le Corbusier highlighted many passages in *L'homme revolté* and as it becomes evident in his annotations in the book he was fascinated by its reading. As we can see in the notes he took on 13 November 1952 in his hard copy of Camus's *L'homme revolté*, conserved at the Fondation Le Corbusier in Paris, Le Corbusier was particularly interested in the chapter devoted to the absolute affirmation. More specifically, he highlighted a passage that analyses the relationship of Nietzsche's theory with the thought of the Presocratics. He also highlighted the following passage, which can help us grasp the idea that was behind his concept of the "Open Hand": "No judgment accounts for the world, but art can teach us to repeat it, as the world repeats itself throughout the eternal returns"¹¹¹.

Figure 2.8. 'La Main Ouverte', 1954: The Open Hand monument in Chandigarh defined as 'Open to Give, Open to Receive'. Not all of the city's architecture carries that spirit, or maybe the fault is in its interpretation.



Credits: Fondation Le Corbusier, Paris

Manfredo Tafuri drew on Georges Bataille's work to interpret Le Corbusier's late work¹¹². Le Corbusier met Bataille through the journal *L'Esprit Nouveau*, and later through the journal *Minotaure*, founded by the latter and André Masson in 1933, where Le Corbusier published "Louis Soutter, L'inconnue de la soixantaine"¹¹³ in 1936. In 1949, Bataille published *La part maudite*¹¹⁴, which is an inquiry into the very nature of civilisation. Bataille's approach, in this book, focuses on the concept of excess. For him, a civilisation reveals its order most clearly in the treatment of its surplus. This concept of the surplus in Bataille's thought could be related to Le Corbusier's concept of "The Open Hand". Bataille, in *The Accursed Share*, refers to "The Marshall Plan"¹¹⁵. Nadir Lahiji, in "The Gift of the Open Hand: Le Corbusier Reading Georges Bataille's 'La Part Maudite'", remarks that "[o]n the last page of this copy, Le Corbusier wrote '19 Nov. 1953,' which indicates the date he finished reading the book."¹¹⁶ A question that arises is the extent to which Le Corbusier's reading of Bataille's *The Accursed Share* is related to Le Corbusier's concept of "The Open Hand". More specifically, what I argue here is that Le Corbusier's concept of the "The Open Hand" could be related to the following passage of *La part maudite* highlighted in his own copy:

In this perspective of man liberated through action, having effected a perfect adequation of himself to things, man would have them behind him, as it were; they would no longer enslave him. A new chapter would begin, where man would finally be free to return to his own intimate truth, to freely dispose of the being that he will be, that he is not now because he is servile.¹¹⁷

Le Corbusier interpreted "The Open Hand" as his only political gesture. This becomes apparent in what he wrote in a letter addressed to Eugène Claudius-Petit on 14 September 1962:

I have never been in politics-while respecting those who are in it – the good ones. I've had a political gesture, that of the Open Hand, the day one of the two parties that divide the world for the sake of two different natures forced me to take side, following a moral obligation¹¹⁸.

As Jean-Louis Cohen has suggested, in his talk entitled "The Art of Zigzag: Le Corbusier's Politics", "Le Corbusier had been able to manipulate in an extremely clever way the meaning of "The Open Hand"". Cohen claims that "[i]nitially, the hand was clearly the hand the communists handed out to the Catholic and this was clear to everybody in French politics. By rotating and

giving it two faces, a sort of strange hand, which has a front and maybe another front on the other side"¹¹⁹. This gesture of neutralizing the communist connotations "The Open Hand" permitted Le Corbusier to introduce it in the context of post-war humanistic discourse. Le Corbusier's Open hand could be interpreted as a gesture aiming to express his views concerning freedom and architecture as liberating action.

2.8 Towards a conclusion: From assemblages of components to succession of events

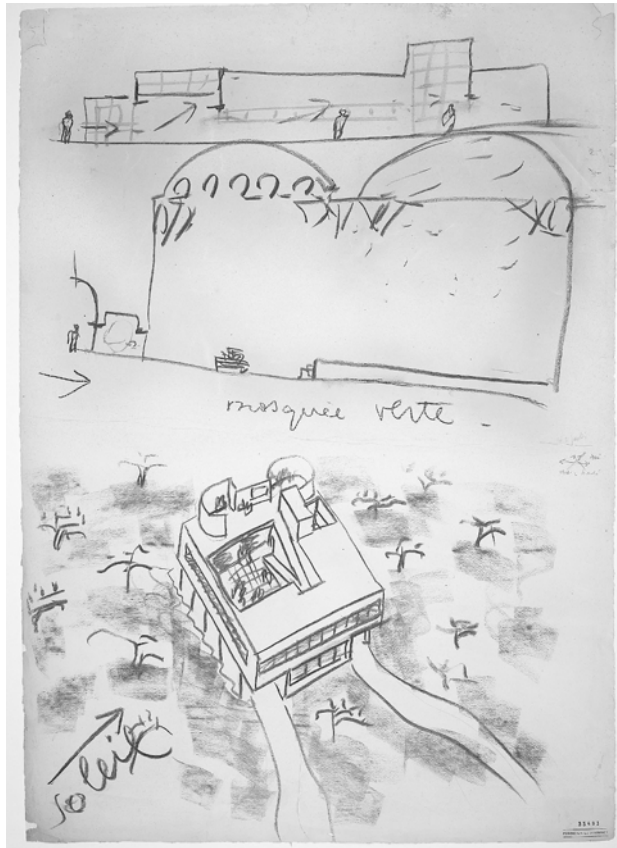
In 1927, in "Où en est l'architecture ?", Le Corbusier interpreted architecture as a "poem made of solid words in the definite sense and grouped in a clear syntax". Clear syntax was of primordial importance for Le Corbusier. Le Corbusier declared, in the aforementioned text:

I do not just eat and sleep: I read beautiful books, I listen to music, I go to the music hall, the cinema, I go to the Côte d'Azur. What will I do, if not delight? to delight myself, that is to say, to choose from my own arbitrary, relationships of various things which flatter my personal initiative and give me the certainty of my free will and certify that I am a free man.¹²⁰

The fact that Le Corbusier used to draw during the conferences he gave is of great interest for the reflections developed in this article given that it shows that his sketches were used to simultaneously capture and communicate ideas. More specifically, it demonstrates that Le Corbusier was particularly interested in the immediacy of the production of architectural sketches and the presence of the observers of architectural drawings during their production. The special character of the sketches that Le Corbusier used to produce during his conferences is related to the fact that their production was based on the immediacy of the transmission of architectural ideas through representation. Le Corbusier described the activity of producing sketches during his conferences as follows: "The public follows the development and the thought; they enter into the anatomy of the subject"¹²¹ (Figure 2.10). He also remarked regarding the act of drawing: "I prefer drawing to talking. Drawing allows less room for lies"¹²². Moreover, during an interview he gave to Robert Mallet in 1951, Le Corbusier underscored: "when we draw around words, we draw with useful words, we create something"¹²³. He believed that "[d]rawing makes it possible to fully transmit the thought without any written or verbal explanations"¹²⁴. For him,

drawing was “a language, a science, a means of expression, a means of transmitting thought”¹²⁵.

Figure 2.10. Sketch made by Le Corbusier during a lecture entitled “The Plan of the Modern House” that Le Corbusier delivered on 11 October 1929.



Credits: Fondation Le Corbusier, Paris, FLC 33493

In 1925, Le Corbusier defined architecture as the establishment of relationships between objects or different building components. During the period in which he was focused on this definition of architecture, he was interested in the concept of syntax. The attention he paid to the assemblage of building components is related to the fact that he believed that good relationships can cause intense feelings. Five years later, in 1930, in *Précisions sur un état présent de l'architecture et de l'urbanisme*, he gave a different definition of architecture¹²⁶. More specifically, he defined architecture as the succession of events. Reyner Banham notes regarding the sequential understanding of architecture by Le Corbusier: "Architecture is not an instantaneous phenomenon, but a serial one, formed by the succession of images in time and space". Banham relates this definition of architecture to a "crisis of modern architectural aesthetics"¹²⁷.

Le Corbusier's definition of architecture as the establishment of relationships that are able to provoke intense feelings should be understood in conjunction with his interest in using axonometric representation during those years. This connection is legitimized by the fact that the moment he gave the aforementioned definition of architecture coincides with the brief period during which he privileged axonometric representation. Axonometric representation, as an object-oriented mode of representation¹²⁸, pushes the observers to focus their interpretation of the architectural drawings on the relationships between the various parts of the represented architectural artefacts. Le Corbusier's definition of architecture as the succession of events should be related to his use of perspective and, mainly, to his tendency to represent several different interior perspective views corresponding to specific spatial sequences on the same sheet of paper. In parallel, Le Corbusier's understanding of architecture as the succession of events should be interpreted in relation to his conception of the so-called "promenade architecturale". The first building of Le Corbusier, which is explicitly associated with the concept of "promenade architecturale", is the Villa La Roche-Jeanneret (Figure 2.11, Figure 2.12). Le Corbusier, in the first volume of his *Œuvre complète*, presents this project as the origin of the "promenade architecturale". In the first volume of Le Corbusier's *Œuvre complète*, regarding Villa La Roche, one can read:

This second house will be rather like an architectural promenade. You enter: the architectural spectacle at once offers itself to the eye. You follow an itinerary and the perspectives develop with great variety, developing a play of light on the walls or making pools of shadow. Large windows open up view of architectural discoveries: the pilotis, the long windows, the roof

garden, the glass façade. Once again we must learn at the end of the day to appreciate what is available.¹²⁹

Indicative of how Le Corbusier related the concept of “promenade architecturale” to his definition of architecture as the succession of events is his insistence that “the architectural spectacle unfolds in succession before your eyes”³⁶, when the inhabitants enter the house. Le Corbusier also believed that “the perspectives develop with great variety”³⁷ as the inhabitants follow an itinerary throughout the building. The emergence of the concept of “promenade architecturale” and its prioritization in Le Corbusier’s conceptual edifice was accompanied by certain transformations of how Le Corbusier used to fabricate the interior perspective views of his projects. Le Corbusier insisted on the fact that “[a]rchitecture is experienced as one roams about in it and walks through it”. In 1942, he commented on the concept of “promenade architecturale”:

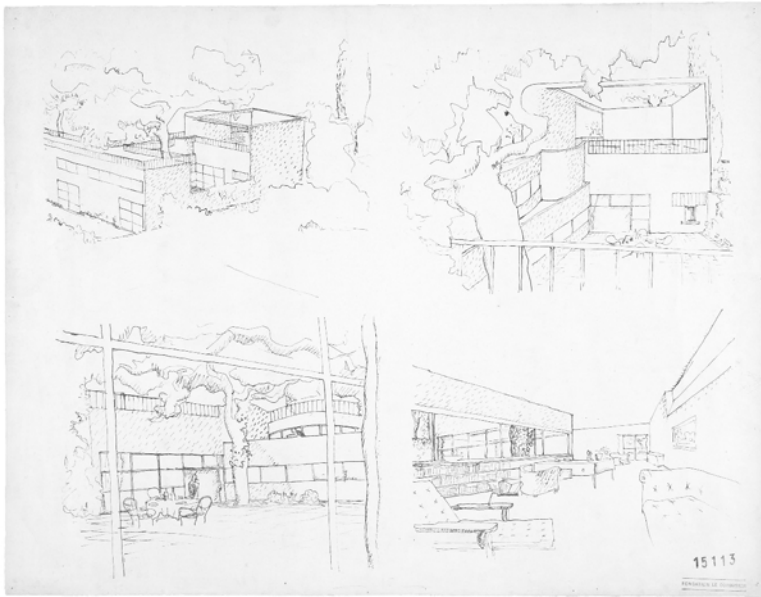
So true is this that architectural works can be divided into dead and living ones depending on whether the law of ‘roaming through’ has not been observed or whether on the contrary it has been brilliantly obeyed.¹³⁰

The fact that he distinguished dead architectural works from living ones, adopting their capacity to provide spaces that can be “roamed through” as a criterion of evaluation, should be related to how he used to draw his interior perspective views. His interior perspective views in most of the cases have a well-defined frame, are not symmetric and are like sequences or film shots of the views encountered while moving through space, traversing space assemblages. The concept of “promenade architecturale” and the way Le Corbusier used to draw his perspective views should be comprehended in relation to the fact that Le Corbusier, in *Precisions on the Present State of Architecture and City Planning* (*Précisions sur un état présent de l’architecture et de l’urbanisme*), defined architecture as “a series of successive events”¹³¹.

Bruno Reichlin described Le Corbusier’s architecture as “anti-perspective”, arguing that Le Corbusier did not conceive architectural artefacts “in relation to privileged points of view to which the forms are ordered according to the most advantageous perspective”¹³². According to Reichlin, Le Corbusier’s tactics of representing his architectural ideas put forward a plurality of views. Reichlin uses the expression “dispositifs anti-perspectifs”¹³³ to describe the representation strategies of Le Corbusier. A distinctive characteristic of Le Corbusier’s architectural drawings is his habit to produce drawings that are based on

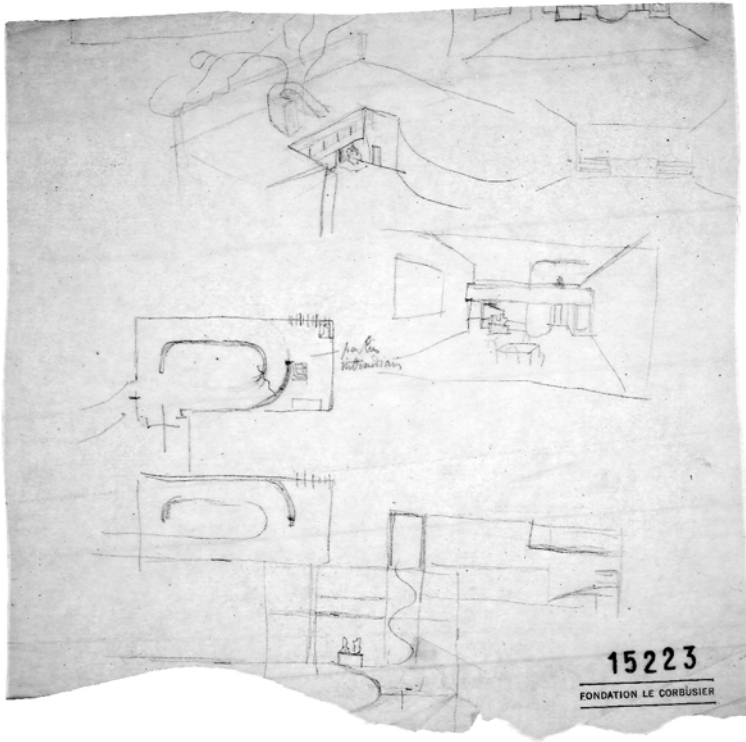
different modes of representation—interior and exterior perspectives, axonometric representations, plans, etc.—on the same sheet of paper. One should interpret this tendency relating it to his definition of architecture as the succession of events. The emergence of his definition of architecture as the succession of events coincides chronologically with the appearance of the notion of the well-known “architectural promenade” (“promenade architecturale”) in his discourse. The sequential perception of space through the movement in it is pivotal for understanding Le Corbusier's understanding of the architectural design process. When he declared, in 1942, that “[a]rchitecture can be classified as dead or living by the degree to which the rule of sequential movement has been ignored or, instead, brilliantly observed”¹³⁴, he expressed his belief that the transmission of a sequential perception and experience of space is one of the guiding principles of his architectural stance.

Figure 2.11. Le Corbusier, four interior and exterior perspectives on the same sheet of paper, Maisons La Roche-Jeanneret, 1923–25.



Credits: Fondation Le Corbusier, Paris, FLC 15113

Figure 2.12. *Le Corbusier, circulation paths, Maisons La Roche-Jeanneret, 1923–1925.*



Credits: Fondation Le Corbusier, Paris, FLC 15223

Notes

- 1 Le Corbusier, letter sent to his mother, 11 January 1948, Fondation Le Corbusier, Paris, FLC R2-4-118. Translation by the author.
- 2 Ibid.
- 3 Ibid.
- 4 Le Corbusier, “L’espace indicible”, *L’Architecture d’aujourd’hui*, hors série “Art” (1946) : 9–17.

- 5 Le Corbusier, the first typescript of the text "Prendre possession de l'espace" written on 13 September 1945, Fondation Le Corbusier, Paris, FLC B3-7-209. Translation by the author.
- 6 Le Corbusier, "Opinion ou 30 années de silence : declaration L.C. Cap-Martin", Fondation Le Corbusier, Paris, FLC B3-7-23. Translation by the author; Le Corbusier, *The Modulor: A Harmonious Measure to the Human Scale Universally Applicable to Architecture and Mechanics*, trans. Peter de Francia and Anna Bostock (Basel; Boston; Berlin: Birkhäuser, 2000), 30.
- 7 Le Corbusier, *Modulor 2*, 1955: (*Let the User Speak Next*), 1st ed., trans. Anna Bostock, Peter de Francia (London: Faber and Faber, 1958), 27; Le Corbusier cited in Daniel J. Naegele, "Savoye Space: The Sensation of the Object", *Harvard Design Magazine*, 15 (2001), 6.
- 8 Le Corbusier, "Conversation enregistrée à la Tourette", *L'Architecture d'aujourd'hui*, 96, n° spécial "Architecture religieuse" (1961), 3.
- 9 Ibid.
- 10 Le Corbusier, typescript of the text "L'espace indicible", Fondation Le Corbusier, Paris, FLC B3-7-239-001. Translation by the author; Le Corbusier, "L'espace indicible", *L'Architecture d'aujourd'hui*, no. hors série "Art" (1946), 10.
- 11 Ibid.
- 12 Le Corbusier, "Une maison-outil", in *Almanach d'architecture moderne*. Collection de "L'Esprit Nouveau" (Paris : Éditions Crès, 1925).
- 13 Le Corbusier, "L'espace indicible".
- 14 Le Corbusier, Amédée Ozenfant, "Le purism", *L'Esprit Nouveau*, 4 (1921) : 369–386; Le Corbusier, Amédée Ozenfant, "Purism", in Robert L. Herbert, ed., *Modern Artists on Art* (Mineola : Dover Publications, 2000), 58; Le Corbusier cited in Françoise Ducros, "From Art Nouveau to Purism : Le Corbusier and Painting", in Arthur Rüegg, Stanislaus von Moos, eds., *Le Corbusier Before Le Corbusier : Applied Arts, Architecture, Painting, and Photography, 1907–1922* (New Haven : Yale University Press, 2002); Bruno Reichlin, "Jeanneret/Le Corbusier, Painter-Architect", in Eve Blau, Nancy J. Troy, eds., *Architecture and Cubism* (Montreal : Centre for Architecture; Cambridge : The MIT Press 1997), 195–218; Reichlin, "Jeanneret-Le Corbusier, peintre-Architecte", *Massilia : Anuario de Estudios Lecorbusierianos*, 77 (2006): 42–59, <https://hdl.handle.net/2099/9260>
- 15 Le Corbusier, Amédée Ozenfant, "Intégrer", *Création*, 2 (1921), np.
- 16 Schmarsow, *Das Wesen der Architektonischen Schoepfung*; Schmarsow, "The Essence of Architectural Creation".

- 17 Le Corbusier, *Propos d'urbanisme*. Collection "Perspectives Humaines" (Paris : Éditions Bourrellier, 1946) ; Le Corbusier, *Sur les Quatres Routes* (Paris : Fondation Le Corbusier and Éditions Denoël, 1970) ; Juan-Andrés Rodríguez-Lora, Daniel Navas-Carrillo, María Teresa Pérez-Cano, "Le Corbusier's urbanism : An urban characterisation of his proposals for inner cities", *Frontiers of Architectural Research*, 10 (2021) : 701–14, doi : <https://doi.org/10.1016/j.foar.2021.05.002>
- 18 Le Corbusier, *New World of Space*; Joan Ockman, ed. 1993. *Architecture Culture 1943–1968: A Documentary Anthology* (New York: Columbia Books of Architecture/Rizzoli, 1993), 66.
- 19 Le Corbusier, typescript of the text "L'espace indicible", Fondation Le Corbusier, Paris, FLC B3-7-239-001. Translation by the author.
- 20 Ibid.
- 21 Ibid.
- 22 Le Corbusier, *Précisions sur un état présent de l'architecture et de l'urbanisme*. Collection de "L'Esprit Nouveau" (Paris : Éditions Crès, 1930), 34 ; Le Corbusier, *Precisions on the Present State of Architecture and City Planning*.
- 23 Ibid.
- 24 Ibid.
- 25 Pierre Litzler, "Pensée architecturale et poétique de l'espace chez Le Corbusier", *Les Cahiers Philosophiques de Strasbourg*, 34 (2013): 25–54.
- 26 Ibid.
- 27 Reichlin, "Jeanneret/Le Corbusier, Painter-Architect"; Reichlin, "Jeanneret-Le Corbusier, peintre-Architecte".
- 28 Reichlin, "L'œuvre n'est plus faite seulement d'elle-même", *Le Corbusier : l'atelier intérieur, Cahiers de la recherche architecturale et urbaine*, 10 (2008): 119–50.
- 29 Le Corbusier, "Une maison-outil", 138.
- 30 Ibid.
- 31 Le Corbusier, "Où en est l'architecture?", 11.
- 32 Le Corbusier, "Une maison-outil", 138 ; Arnaud François, "La cinématographie de l'oeuvre de Le Corbusier", *Revue de la Cinémathèque*, 9 (1996) : 39–55 ; François, "L'Esprit du cinéma et l'œuvre", in Le Corbusier, *Oeuvre plastique* (Paris : Fondation Le Corbusier/Éditions de la Villette, 2005), 76–99.
- 33 Ibid.
- 34 Le Corbusier, typescript of the article "Esprit de vérité", 1933, Fondation Le Corbusier, Paris, FLC A3-2-203. Translation by the author; Le Corbusier, "Esprit de vérité", *Mouvement*, 1 (1933): 10–13; Le Corbusier,

- "Spirit of Truth", in Richard Abel, ed., *French Film Theory and Criticism: A History/Anthology, 1907– 1939* (Princeton, NJ: Princeton University Press, 1988), 111–114.
- 35 Ibid.
- 36 Le Corbusier, "L'esprit de vérité", in Jean Badovici, ed., *L'architecture vivante* (Paris : Editions Albert Morancé, 1927), 5–6.
- 37 Bruno Reichlin, "Le Corbusier vs. De Stijl", in Yve-Alain Bois, Bruno Reichlin, eds., *De Stijl et l'architecture en France* (Liège ; Brussels : Mardaga, 1985), 91–108.
- 38 Yve-Alain Bois, "De Stijl in Paris", in Cees Boekraad, Flip Bool, Herbert Henkels , eds., *De Stijl, De Nieuwe Beelding in de Architectuur* (Delft: Delft University Press; La Haye: Gemeentemuseum, 1983), 121; Bois, "Metamorphosis of Axonometry", *Daidalos*, 1 (1981): 40–58.
- 39 Ibid.
- 40 El Lissitzky, "K. und Pangeometrie", in Carl Einstein, Paul Westheim, eds., *Europa Almanac* (Potsdam: Kiepenheuer Verlag, 1925), 103–113; Lissitzky, *Russia: An Architecture for World Revolution*, trans. Eric Dluhosch (Cambridge, Mass.: The MIT Press, 1970).
- 41 Charitonidou, "Architecture's Addressees: Drawing as Investigating Device", *villardjournal*, 2 (2020), 94, doi: <https://doi.org/10.2307/j.ctv16obtc> m.10.
- 42 Théo van Doesburg, "Material zur Elementaren Gestaltung", *G*, 1 (1923): np.
- 43 Ibid.
- 44 Ibid.
- 45 Ibid.
- 46 Marianna Charitonidou, "Mies van der Rohe's Zeitwille: Baukunst between Universality and Individuality", *Architecture and Culture* 10(2), (2022): 243–271, doi: <https://doi.org/10.1080/20507828.2021.1945371>
- 47 Le Corbusier, transcript of a lecture issued several times during the year 1924. This text, which was transcribed during the session given in the salle Rapp in Paris on 10 November 1924, differs from the version published in *Almanach d'architecture moderne* (1925) and can be compared to a manuscript of preparatory notes. Fondation Le Corbusier, Paris, FLC C3-6-14; Le Corbusier, *Almanach d'architecture moderne*, Collection de "L'Esprit Nouveau" (Paris : G. Crès, 1925).
- 48 Ibid.
- 49 Ibid.

- 50 Ibid.
- 51 Ibid.
- 52 Le Corbusier, "Ou en est l'architecture?", Fondation Le Corbusier, Paris, FLC U3-5-158; Le Corbusier, "Ou en est l'architecture?", 1927,
- 53 Ibid.
- 54 Ibid.
- 55 Catherine Ingraham, *Architecture and the Burdens of Linearity* (New Haven: Yale University Press, 1998).
- 56 Le Corbusier, *Mise au Point*, trans. Ivan Žaknić (New Haven: Yale University Press, 1997), 100.
- 57 Ibid.
- 58 Ibid.
- 59 Le Corbusier, *The City of Tomorrow and its Planning*, trans. Frederick Etchells (New York: Dover Publications, 2013), 37.
- 60 Ibid.
- 61 Ibid., 5.
- 62 Charles Edouard Jeanneret, Amédée Ozenfant, *La peinture moderne* (Paris : G. Crès, 1925), 155–156.
- 63 Ibid.
- 64 Ibid.
- 65 Jean-Louis Cohen, "Architecture and the Museum: A Troubled Relationship", *Cahiers d'art*, 1 (2012): 82–86.
- 66 Ibid.
- 67 Friedrich Nietzsche, *Morgenröthe. Gedanken über die moralischen Vorurtheile* (Leipzig: Verlag von E. W. Fritzsche, 1887); it was originally published in 1881; Nietzsche, *The Dawn of Day*, trans. J. M. Kennedy (Mineola, NY: Dover Publications, 2007).
- 68 Hubert Damisch, *Skyline: The Narcissistic City* (Stanford, California: Stanford University Press, 2001); Damisch, *Skyline* (Paris: Le Seuil, 1996).
- 69 Le Corbusier, *Precisions on the Present State of Architecture and City planning: with an American prologue, a Brazilian corollary followed by the temperature of Paris and the atmosphere of Moscow*, trans. Edith Schreiber Aujame (Cambridge, Mass. : MIT Press, 1991), 68; Le Corbusier, *Précisions sur un état présent de l'architecture et de l'urbanisme* (Paris : Éditions Crès, 1930).
- 70 Nietzsche, *Morgenröthe. Gedanken über die moralischen Vorurtheile*; Nietzsche, *The Dawn of Day*.

- 71 Le Corbusier, *Le voyage d'orient* (Paris : Éditions Forces Vives, 1966) ; Le Corbusier, *Le voyage d'orient* (Marseille : Éditions parenthèses, 1987) ; Le Corbusier, *Journey to the East* (Cambridge, Mass. : The MIT Press, 1987).
- 72 Le Corbusier cited in Flora Samuel, *Le Corbusier in Detail* (Oxford: Architectural Press, 2007), 126.
- 73 Le Corbusier, *Le Corbusier Talks with Students*, trans. Pierre Chase (New York: Princeton Architectural Press, 2000), 46. Original edition : Le Corbusier, *Entretien avec les étudiants des écoles d'architecture* (Paris : Editions Denoël, 1943). The manuscript was prepared in 1942.
- 74 Le Corbusier, *Journey to the East*, 83 ; Le Corbusier, Giuliano Gresleri, *Voyage d'Orient : carnets* (Milan ; Paris : Electa ; Fondation L.C., 1987) ; Le Corbusier cited in Flora Samuel, *Le Corbusier and the Architectural Promenade* (Basel : Birkhäuser Architecture, 2010), 127.
- 75 Le Corbusier, *Le Corbusier Talks with Students*.
- 76 Ibid.
- 77 Willy Boesiger, Oscar Stonorov, eds., *Le Corbusier et Pierre Jeanneret : Œuvre complète, 1910–1929*, vol. 1 (Zurich : Éditions d'architecture Erlenbach, 1946).
- 78 Manuscript of Willy Boesiger, Oscar Stonorov, eds., *Le Corbusier et Pierre Jeanneret : Œuvre complète, 1910–1929*, vol. 1. Fondation Le Corbusier, Paris, FLC A3-7-100. Translation by the author.
- 79 Le Corbusier, *Entretien avec les étudiants des écoles d'architecture* ; Le Corbusier *Talks with Students from the Schools of Architecture*. The manuscript was prepared in 1942. Le Corbusier cited in Samuel, *Le Corbusier and the Architectural Promenade*; see also Samuel, "Architectural promenades through Villa Savoye", in Peter Blundell Jones, Mark Meagher, eds., *Architecture and Movement: The Dynamic Experience of Buildings and Landscapes* (London; New York: Routledge, 2014).
- 80 Ibid.
- 81 Le Corbusier, *Précisions sur un état présent de l'architecture et de l'urbanisme*, Collection de 'L'Esprit Nouveau' (Paris : Éditions Crès, 1930).
- 82 Bruno Reichlin, "Jeanneret/Le Corbusier, Painter-Architect", in Eve Blau, Nancy J. Troy, eds., *Architecture and Cubism* (Montreal; Cambridge, Mass. : Centre for Architecture ; The MIT Press, 1997), 49 ; Reichlin, "Jeanneret – Le Corbusier, peintre – architecte", *Massilia : anuario de estudios lecorbusierianos* (2006): 42–59.
- 83 Reichlin, "Architecture et intertextualité", *Le Corbusier : l'atelier intérieur, Cahiers de la recherche architecturale et urbaine*, 10(22-23) (2008) : 11–20 ; Reichlin, "L'œuvre n'est plus faite seulement d'elle-même", *Le Corbusier : l'ate-*

- lier intérieur, *Cahiers de la recherche architecturale et urbaine*, 10(22-23) (2008): 119–150.
- 84 Vincent Scully, “Le Corbusier, 1922–1965”, in Harold Allen Brooks, ed., *Cité Frugès and Other Buildings and Projects, 1923–1927. Vol. 2. of The Le Corbusier Archive* (New York; London; Paris: Garland; 1983), ix – xvii.
- 85 Manfredo Tafuri, “Machine et mémoire : La città nell’opera di Le Corbusier”, *Nuova Corrente*, 87 (1982); Tafuri, “Machine et mémoire : La città nell’opera di Le Corbusier”, *Casabellà*, 502 (1984): 44–51.
- 86 Le Corbusier, *Sur les Quatres Routes* (Paris : Fondation Le Corbusier and Éditions Denoël, 1970), 15, 26, 153 ; Le Corbusier, *Sur les 4 routes* (Paris : Gallimard, 1941).
- 87 Le Corbusier, *Aircraft, The New vision* (London ; New York : Studio Ltd. ; Studio Publications, 1935); Le Corbusier, *Aircraft* (London : Trefoil Publications, 1987), 108.
- 88 Ibid., 76.
- 89 Mark Pimlott, *Without and Within: Essays on Territory and the Interior* (Rotterdam: Episode publishers, 2007), 34.
- 90 Kenneth Frampton, “Le Corbusier and ‘l’Esprit Nouveau’”, *Oppositions*, 15–16 (1979): 21.
- 91 Le Corbusier cited in Frampton, “Le Corbusier and ‘l’Esprit Nouveau’”, 29.
- 92 Le Corbusier, “Descartes est-il américain?”, *Plans*, 7 (1931): 49–64.
- 93 Le Corbusier, manuscript of “Descartes est-il américain?”, Fondation Le Corbusier, Paris, FLC B2-12 218–227.
- 94 Le Corbusier, *Des Canons, Des Munitions... Merci! Des Logis, S.V.P.* (Boulogne-sur-Seine : Éditions de l’Architecture d’Aujourd’hui, 1938), 5.
- 95 Ibid.
- 96 Willy Boesiger, ed., *Le Corbusier—Œuvre complète Volume 6: 1952–1957* (Basel : Birkhäuser, 1995).
- 97 Le Corbusier, *Charte d’Athènes* (Paris : Plon, 1943).
- 98 Josep Lluís Sert, *Can Our Cities Survive? An ABC of Urban Problems, Their Analysis, Their Solutions* (Cambridge, Massachussets: Harvard University Press, 1942).
- 99 Le Corbusier, “Où en est l’architecture?”, in Jean Badovici, ed., *L’architecture vivante* (Paris : Editions Albert Morancé, 1927), 7–11.
- 100 Ibid.
- 101 Le Corbusier, *Sur les Quatres Routes* (Paris : Fondation Le Corbusier and Éditions Denoël, 1970), 15, 26, 153 ; Le Corbusier, *Sur les 4 routes* (Paris : Gallimard, 1941).

- 102 Willy Boesiger, ed., *Le Corbusier, Œuvre complète, 1938–1946* (Zurich : Les Éditions d'architecture, 1946).
- 103 Boesiger, ed. *Le Corbusier. Les dernières Œuvres. The Last Works. Die letzten Werke*, vol. 8 (Zurich: Les Éditions d'Architecture Artemis, 1973).
- 104 Camus, *L'homme révolté* (Paris: Gallimard, 1951), 97; Camus, *The Rebel: An Essay on Man in Revolt*, foreword Sir H. Read, revised and translated by A. Bower (New York: Vintage Books, 1956).
- 105 Le Corbusier, letter sent to Albert Camus, 10 October 1952, Fondation Le Corbusier, Paris, FLC B3-7-489.
- 106 Bataille, *La part maudite, essai d'économie général, la consommation* (Paris : Les Éditions Minuit, 1949); Bataille, *The Accursed Share : an Essay on General Economy* (New York : Zone Books, 1988).
- 107 Albert Camus, *La Chute* (Paris: Gallimard, 1956); Camus, *The Fall*, translated by Justin O'Brien (Penguin: Harmondsworth, 1963).
- 108 From the personal library of Le Corbusier that is conserved in Fondation Le Corbusier in Paris.
- 109 Camus, *Lexil et le royaume* (Paris: Gallimard, 1957); Camus, *Exile and the Kingdom* (London: Penguin, 2013).
- 110 Camus, *La peste* (Paris: Gallimard, 1947); Camus, *The Plague* (London: Penguin, 1998).
- 111 Camus, *L'homme révolté*; Camus, *The Rebel: An Essay on Man in Revolt*.
- 112 Manfredo Tafuri, "Machine et mémoire : The City in The Work of Le Corbusier", in Harold Allen Brooks, ed., *Le Corbusier* (Princeton, NJ. : Princeton University Press, 1987); Tafuri, "Machine et mémoire : la ville dans l'œuvre de Le Corbusier", in *Le Corbusier, une encyclopédie* (Paris : éditions du Centre Pompidou – CCI, 1987); Tafuri, "Machine et mémoire : La città nell'opera di Le Corbusier", *Casabellà*, 502 (1984): 44–51.
- 113 Le Corbusier, "Louis Soutter, L'inconnue de la soixantaine", *Minotaure*, 9 (1936).
- 114 Bataille, *La Part Maudite, essai d'économie général, la consommation*; Bataille, *The Accursed Share : An Essay on General Economy*.
- 115 The official name of Marshall Plan, which was in operation for four years starting on 8 April 1948, is European Recovery Program. The Soviet Union refused Plan benefits, and also blocked benefits to Eastern Bloc countries, such as East Germany and Poland. From the outset, the Marshall Plan tended toward a rising of the standard of living world-wide. See Michael Holm, *The Marshall Plan: A New Deal for Europe* (Oxon; New York: Routledge, 2017).

- 116 Nadir Lahiji, "The Gift of the Open Hand: Le Corbusier Reading Georges Bataille's 'La Part Maudite'", *Journal of Architectural Education*, 50(1) (1996): 50–67.
- 117 Bataille, *The Accursed Share: An Essay on General Economy*.
- 118 Le Corbusier, letter sent to Eugène Claudius-Petit, 14 September 1962, Fondation Le Corbusier, Paris.
- 119 Jean-Louis Cohen, "The Art of Zigzag: Le Corbusier's Politics", lecture delivered at Harvard University's GSD on 25 February 2016.
- 120 Le Corbusier, typescript of "Ou en est l'architecture?", 1927, 10, Fondation Le Corbusier, Paris, FLC U3-5-158; Le Corbusier, "Où en est l'architecture?", in *L'Architecture vivante, documents sur l'activité constructive dans tous les pays* (Paris : A. Morancé, 1927), 10.
- 121 Le Corbusier cited in Tim Benton, *Le Corbusier Conférencier* (Paris : Moniteur, 2007).
- 122 Le Corbusier cited in "Corbu", *Time Magazine*, 5 May 1961, 60.
- 123 Le Corbusier, interview with the rector Robert Mallet, 1951, excerpt from the sonorous band "L'Aventure Le Corbusier", Fondation Le Corbusier, Paris. Translation by the author; Gérard Monnier, *Le Corbusier (Qui suis-je?)* (Lyon: La Manufacture, 1986); Le Corbusier cited in Mardges Bacon, *Le Corbusier in America: Travels in the Land of the Timid* (Cambridge, Mass.: The MIT Press. 2001), 336.
- 124 Le Corbusier cited in Marta Sequeira, *Towards a Public Space: Le Corbusier and the Greco-Latin Tradition in the Modern City* (London; New York: Routledge, 2017).
- 125 Jean Petit, *Le Corbusier, Suite de Dessins*, (Paris : Forces Vives, Collection Panorama, 1968).
- 126 Le Corbusier, *Précisions sur un état présent de l'architecture et de l'urbanisme*; Le Corbusier, *Precisions on the Present State of Architecture and City Planning*.
- 127 Banham, "The Modulor", 231.
- 128 Bernhard Schneider, "Perspective refers to the viewer, axonometry refers to the object", *Daidalos*, 1 (1981): 81–95.
- 129 Boesiger, Oscar Stonorov, eds., *Le Corbusier et Pierre Jeanneret : Œuvre complète, 1910–1929*, vol. 1 (Zurich : Éditions d'architecture Erlenbach, 1946), 60.
- 130 Le Corbusier, *Entretien avec les étudiants des écoles d'architecture* (Paris: Editions Denoël, 1943); Le Corbusier, *Le Corbusier Talks with Students from the Schools of Architecture* (New York: Orion Press, 1960); Flora Samuel, "Architectural promenades through Villa Savoye", in Peter Blundell Jones, Mark

- Meagher, eds., *Architecture and Movement: The Dynamic Experience of Buildings and Landscapes* (London; New York: Routledge, 2014).
- 131 Le Corbusier, *Precisions on the Present State of Architecture and City Planning*.
- 132 Reichlin, "Jeanneret—Le Corbusier, peintre—Architecte", *Massilia: Anuario de Estudios Lecorbusierianos*, 77 (2006): 47, doi: <http://hdl.handle.net/2099/92602006>
- 133 Ibid.
- 134 Le Corbusier cited in Martino Stierli, *Las Vegas in the Rearview Mirror: The City in Theory, Photography, and Film* (Los Angeles: Getty Publications, 2013), 171; Le Corbusier, *Entretien avec les étudiants des écoles d'architecture*; Le Corbusier, *Le Corbusier Talks with Students from the Schools of Architecture*; Le Corbusier, *The Modulor: A Harmonious Measure to the Human Scale Universally Applicable to Architecture and Mechanics*.

