

## LE CORBUSIER: URBAN VISIONS THROUGH THRESHOLDS

Maria Pia FONTANA<sup>a</sup>, Miguel MAYORGA<sup>b</sup>, Margarita ROA<sup>c</sup>

<sup>a</sup>University Of Girona (UdG), Av. Lluís Santaló 17171 Girona, Spain

<sup>b</sup>Catalonia Polytechnic University (UPC), C. Jordi Girona, Campus Nord 08034, Barcelona, Spain

<sup>c</sup>Cali San Buenaventura University (USB Cali), Av. 10 de mayo, La Umbría vía Pance, Cali, Colombia

E-mails: <sup>a</sup>mariapia.fontana@udg.edu; <sup>b</sup>miguel.mayorga@upc.edu; <sup>c</sup>mmroa@usbcali.edu.co

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**Abstract.** In Le Corbusier's work the threshold is represented like a revealing and enigmatic space that define the relations of the limit or boundary, the separation and the union between the buildings and the urban spaces, and the space that defines, qualifies and characterises the minimum condition of urbanity of any work of architecture, irrespective of its use or scale. Through an analysis of the draws based on the study of the six notebooks of *The Voyage d'Orient* (1911), and of the study of the urban settings visited, we verified that the threshold is, for Le Corbusier, a space or sequence of spaces organised under the idea of “plan” of variable thickness or extension, that includes both criteria and guidelines of order as well as solutions for managing the limits or boundaries in architecture, as well as its relation with space and the involvement with its surroundings, that is to say, we have also focused on highlighting how the architecture in itself, attends to an order that as well as being articulated and unitary, is extended by means of doors, frames, courtyards, terraces, sheds and exterior spaces, that incorporate both the nearby urban landscape as well as the distant cityscape.

**Keywords:** Le Corbusier, thresholds, in-between space; urban space, *Voyage d'Orient*, inside/outside relations.

*“Le plan implique, dès le début, les procédés de construction: l'architecte est tout d'abord ingénieur. Mais restreignons la question à l'architecture, cette chose qui dure à travers le temps. Me plaçant à ce point de vue exclusivement, je commencerai en attirant l'attention sur ce fait capital: un plan procède du dedans au dehors, car la maison ou le palais sont un organisme semblable à tout être vivant. Je parlerai des éléments architecturaux de l'intérieur. Je passerai à l'ordonnance. Considérant l'effet d'une architecture dans un site, je montrerai qu'ici encore le dehors est toujours un dedans, Avec les quelques bases dont l'énoncé sera éclairé par les figures, je pourrai montrer l'illusion des plans, cette illusion qui tue l'architecture, par la transgression des vérités irrécusables, suite de fausses conceptions ou fuit de la vanité.”*

Le Corbusier. Vers une architecture

### The urban vision in history: 1907–1925

The interest of Le Corbusier in urban themes began very early on. The preparation for the book “*Les constructions des villes*”, from 1910, at the age of 22, until 1915, was his first opportunity to make a reflection about the city and the urban space. The pretext for

writing the book emerged between December 1909 and March 1910, prior to his trip to Germany when his master, Eplatennier, proposed doing a joint work with him about the theme: the trip to Germany would be precisely the first opportunity for checking out and enriching his vision of the city and above all about the shaping of the urban space after his previous trip to Tuscany in 1907. If we follow the biographical reconstruction of Allen Brooks, we can observe

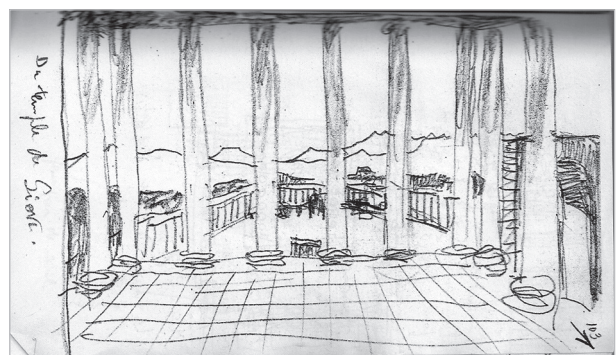


Fig. 1. Le Corbusier (Notebook 4, page 103) imaginary construction of the view of the Roman Forum through the pronaos colonnade of the Temple of Jupiter

that Le Corbusier worked on the elaboration of “*Les construction des villes*”, in two main stages: the first from the summer until the autumn of 1910; the second, after almost five years, from June until September 1915. Afterwards, between 1922 and 1925 he would return to the project, writing the text once again, although he conserved the general structure of the version of 1910 for the book that would be published under the name of “*Urban planning*” (Allen Brooks 1997).

The first stage coincided with his first trip to Germany and which was carried out between March 1910 and May 1911, while, during the second stage, in 1915, he would resume his studies about the city but this time in the *Bibliothèque Nationale de Paris*. This was until the summer when he would return to *Chaux de Fonds*, his hometown. From his trip to Tuscany until his journey to the East, including his fundamental trip to Germany, Jeanneret shifts the focus of his interest towards urban themes as shown by his sketches, drawings, photographs and notes, interest that will be reflected during all of his life (Fig. 1). From 1907 until 1915, by means of the study of the urban spaces of the historical city, he learnt some of the basic skills which would serve him, so as to subsequently formulate criteria of order and architectural solutions for the configuration of the modern urban space (Sequeira 2009).

The relation between the urban space and history in Le Corbusier is as obvious as it is complex, and it is as evident as it is difficult to synthesise. Much has been written about this topic, a recent example of this being the book *L'Italia di Le Corbusier* from 2012 (Talamona 2012), a catalogue of the homonymous exhibition, which emphasises the fundamental role of the historical Italian urban spaces in the consolidation of his vision as draughtsman, photographer, theoretical architect and designer of projects. The theme is so wide that we could get lost among the large amount of information available about the Swiss maestro and in which he himself elaborated and ordered. For this reason we will focus our analysis on the relation between the master and the history so as to understand his vision of the urban space in a theme and field of specific study: The reflection about the notion of the threshold as a defining element and/or space of the limit between the inside and the outside, taking as general references the series of notes, sketches and drawings from the journeys carried out in 1907, 1910 and 1911 and the reflections belonging to the book “*Les construction des villes*” and “*Vers une architecture*” and as a specific reference to the field of study is restricted and narrowed to the contents of the six notebooks of the Journey to the East.

The idea is for us to get close to how the threshold is understood and represented, the revealing and enigmatic space that define the relations of the limit or boundary, the separation and the union between the buildings and the urban spaces, and the space that defines, qualifies and characterises the minimum condition of urbanity of any work of architecture, irrespective of its use or scale. It is Le Corbusier himself who suggests a point of view for starting to get a glimpse of his positions regarding the theme. A careful review, again and again, of the pages of the notebooks of the Journey to the East, produced between the 23rd May and the 1st December 1911, and which notable authors<sup>1</sup> have considered to be the pillars of their learning, have led us to define our approach. Many of the drawings in the notebooks show the recurrent vision of an observer, the young Jeanneret, who very often contemplates the outside from an interior space, and that in turn this exterior leads to, and is in dialogue with another, exterior further away. The drawings show us different types of urban spaces, entrances, hallways, courtyards, squares and gardens through a conscious look, and in a reiterated and repeated way, highlights the presence of *walls with openings, doors and spaces*, which together make up a varied repertoire of “thresholds” of the buildings and places visited.

The vision of Le Corbusier is so mature that it raises the suspicion that the journey was more a way of checking and verifying his ideas and his previous studies, than a totally new discovery: in fact these reiterative approaches towards recurrent themes are the proof of the early urban vocation of his own projects, leaving us with a lesson that still today allows us to understand that the exterior and interior spaces make up a unity, and that the historic buildings and urban spaces that he visited during his journey continue to be an inexhaustible source of learning, learning that he himself would represent again and again in many of his subsequent projects.

### **The threshold between the inside and the outside**

The threshold is one of the crucial themes of architecture that refers to the limit or boundary, and to its multiple possibilities in the configuration of the spaces. In the case that we are dealing with, we are interested in approaching the understanding of the limit, extending it to the idea of threshold, that is to say, to the possibilities of spatial configuration and

<sup>1</sup> About the main researchers of the Journey to the East of Le Corbusier we quote Allen Brooks, Giuliano Gresleri and Ricardo Daza.

its variable thickness (from the verticality of the wall and the door, and the horizontality of the landing and steps, until the extended spatial relations between the inside and outside of the buildings) introducing the notion of urban minimum (Sichenze 1995), a quality that makes a building relate to, and be inserted in, the place by means of architectural solutions of relation between inside and outside which Le Corbusier knew how to recognise, exemplify and reflect in his notes and drawings from the Journey to the East in 1911. In the writings of Le Corbusier there doesn't appear a clear and definitive definition of what we consider to be "threshold", although the term appears used a few times<sup>2</sup>, but what we can recognise in the writings, and above all in the drawings, is that there are more than enough explanations and demonstrations of what he defines as a key relation for architecture: "*L'extérieur est le resultant d'un intérieur*" and "*Le dehors est toujours un dedans*" (Le Corbusier 1924).

In terms of the distinct definitions of threshold, various meanings have been found that vary according to each language. Initially we can consider that the word for threshold in Spanish "*umbral*"<sup>3</sup>, comes from "*lumbral*", that has its root in the Latin term *limināris*, and which in turn is derived from *limen*, -inis "*umbral*", the inflection of *lumen* "*lumbre*", which represents the doorsill or lower part of the entrance door of a house; in English this part could either be 'doorsill' or 'threshold'<sup>4</sup> which is equivalent to the constructive piece that serves for the transition between the interior flooring and the exterior paving, while 'doorway' represents an opening of the building, a space in front of the door which is for entering and/or leaving, and also the upper part of the door and that has the function of lintel. From all of this we can deduce that the threshold is the part you step on and/or cross over to enter or leave a building.

Furthermore, there exists a familiarity in the terms used of the equivalent form in Italian, German and

French. *Sòglia*<sup>5</sup>, *schwelle*<sup>6</sup> and *seuil*<sup>7</sup>, all come from the Latin *solea*, from *solum*, (base), that despite the fact that they do not suggest to us a reference to a constructive element that you step on when you enter, they do contribute other architectural elements and spaces that by analogy not only refer us to the verticality and flatness of the door, but also to a horizontality and three-dimensional aspect. In this way, we can therefore refer to other boundary elements such as the banister and railings, but also large delimited spaces which are covered and extended, thus highlighting the relation that exists between the terms *umbra* (shade), which approach us to the meaning of *umbráculo* or shaded structure, as a device with which you provide shade for a place. In general, reference is made to elements and spaces that you have to cross over so as to enter or perceive the passing from one place or setting to another. Doors and windows, perforations such as frames; or landings, stairways and floors as extensions; extended covered spaces as prolongations or connections, are all together architectural solutions that exercise as a mediation between the building and its parts and the surroundings.

In our interest of approaching the conception of the urban space through the thresholds depicted in the vision of Le Corbusier, we have selected and extrapolated in the 6 notebooks of his Journey to the East, all the drawings (48 double pages) that depict different types of spaces of transition related to the urban spaces and we have put together a series and/or sequences of drawings that reveal multiple nuances in the particular configuration of a threshold, or sequence of thresholds; the doors and their thicknesses, the extended stairs, the passages and corridors, the exterior and interior extension of the "interiorised exteriors".

<sup>2</sup> Le Corbusier uses the word *soile*, threshold in French, in the Notebook 4, on page 102, when he refers to the Temple of Jupiter in Pompey and in Notebook 5, on page 105 when he refers to the door of Pisano of the monumental ensemble of Florence.

<sup>3</sup> Spanish: (De *lumbral*). 1. m. Parte inferior o escalón, por lo común de piedra y contrapuesto al dintel, en la puerta o entrada de una casa. 2. m. Paso primero y principal o entrada de cualquier cosa. 3. m. Valor mínimo de una magnitud a partir del cual se produce un efecto determinado. 4. m. Arq. Madero que se atraviesa en lo alto de un vano, para sostener el muro que hay encima (Real Academia... 2014). <http://www.rae.es/diccionario-de-la-lengua-espanola>.

<sup>4</sup> English: Threshold. 1. Also called doorsill a sill, esp one made of stone or hardwood, placed at a doorway. 2. Any doorway or entrance. 3. The starting point of an experience, event, or venture (Collins dictionary 2005) <http://www.collinsdictionary.com/dictionary/english/>

<sup>5</sup> Italiano: *soglia*. s. f. [lat. *sōlea* «pianta del piede; suola», con svolgimento semantico prob. influenzato dal germ. *swalja* (cfr. ted. *Schwelle* «soglia»). a. Lastra di pietra, striscia di cemento o, più raramente, di legno che unisce al livello del pavimento gli stipiti di una porta o di altri vani d'ingresso. b. fig. Inizio, principio (cfr. l'uso analogo di *limitare*). c. Nel linguaggio dell'edilizia (per analogia con quella del vano della porta), la copertura, generalmente di pietra, del parapetto della finestra, comunem. chiamata *davanzale*; quando il parapetto è molto largo, o si vuole coprire lo spazio delimitato dagli sguinci e dal parapetto, si dispone dietro la *soglia*, in prosecuzione di essa o un poco più bassa, la *controsoglia*, lastra piana di pietra o, più spesso, di legno (Treccani 2013).

<sup>6</sup> German: *Schwell*-le: Waagerechter Balken od. Brett als untere Begrenzung u. zum Abdichten der Türöffnung; Querbalken, auf dem die Eisenbahnschienen befestigt sind; (Wasserbau) unterhalb der Wasserlinie; Bodenerhebung zwischen zwei Senken (Warhrig Deutsches Wörterbuch 1974).

<sup>7</sup> French: *Seuil*. Nom masculin. (latin *solea*, de *solum*, base). Partie inférieure de la baie d'une porte, pouvant former feuillure et/ou emmarchement. 2. Entrée d'une maison ou zone avoisinant la porte d'entrée. 3. Ce qui constitue l'accès à un lieu, le début de ce lieu. 4. Limite, point, moment au-delà desquels commence un état, se manifeste un phénomène (Dictionnaire Larousse).

**The door and its thickness**

*“La doublé seuil de la porte de Pisano est en bronze, usé et métallique, quand les portes sont ouvertes, ça fait un vaste tableau de métal car elles emboîtent juste l’embrasure”*

Le Corbusier. Voyage d’Orient. Carnets (Notebook 5, page 117)

On various occasions, Le Corbusier depicts the entrance door, highlighting by means of the drawing, and sometimes with his own comments, specific characteristics such as the decorative elements, the moldings or textures, and constantly noting down the main measurements and showing the thickness and the depth more than the plan. We can see how this view is reflected in a series of drawings.

In a first group of images he draws various entrance doors from the streets and in each one of them he catches the interest by highlighting at the

same time, both the urban role and the details. Le Corbusier wrote:

*“The double threshold of the door of Pisano is made of bronze, used and metallic. When the doors are open, this produces a vast metal box, because they fit tightly in the frame.”*

Notebook 5, page 117.

In a second group made up of two images, the two doors can be found in very different urban conditions, one in the Villa Adriana, the other in the city of Fiesole. However Le Corbusier’s attention is caught by the presence of some trees that enhance and give monumentality to the entrance, and which he draws, above all in the second case, with great force and expressiveness.

Finally, in this last group, he describes the different types of openings and the effects of the shade and the depth that can be produced in the interior, and on the façade of the monastery and on the side wall of the Villa Adriana.

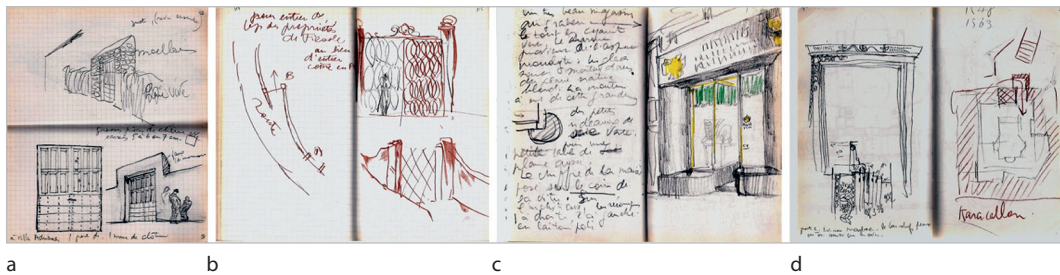


Fig. 2. Doors and their characteristics.

2a. Foreshortened drawing of a curtain wall in an unidentified place of the Villa Adriana. (Notebook 5, page 59) /2b. Drawing of the entrances to the buildings of the region of Tuscany, in Fiesole. (Notebook 5, page 115) /2c. Drawing the shop window, twice, of the stores of Hoffmann in Vienna (Fig.1) and when he is satisfied with the second result he adds a comment about the decoration of the curtains. (Notebook 1, pages 55, 56). /2d. Drawing of the detail of the door of the monastery of Ivron; a door in marble and a low relief painted in gold, the same as its “ovules”. The other page corresponds to the floor layout of the monastery e Karakallou. Notebook 3, pages 58, 59, 63)



Fig. 3. Drawing of the baptistery, the bell tower and the door of Pisano in Florence (Notebook 5, page 117)

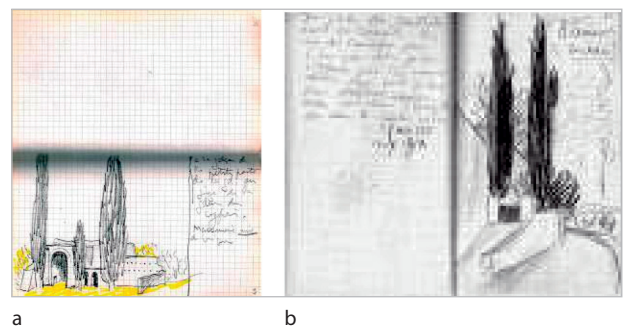


Fig. 4. Doors and trees

4a. Drawing of the monumental entrance, perhaps on the northern side of the praetorium in the Villa Adriana (Notebook 5 page 77) /4b. Drawing of the entrance to the buildings, of the region of Tuscany, in Fiesole (Notebook 5, page 113)

**The extended staircases**

The staircases, like the doors, are minimum spaces of urbanity in all the buildings. Le Corbusier portrays two types of staircases that fulfil the function of mediation with the urban space: those that define a connection and access to an exterior space, like those of Bursa and of Tivoli, and that are perceived as extended plans related to the landscape.

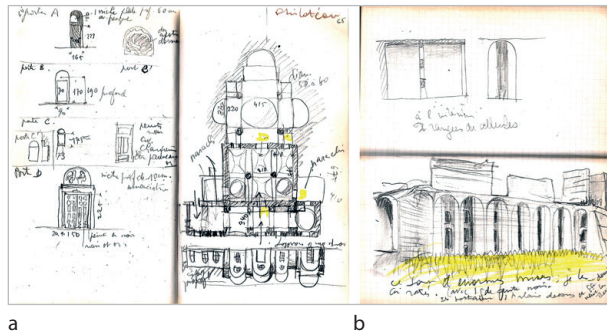


Fig. 5. Types of door and their shade effects  
 5a. They correspond to the monastery of Philotheu; in the first one he makes a general classification of the different types of doors existing in the building and notes as common criteria the use of a niche in the upper part of each one with icons similar to the emblems above the doors of the houses of Prague (Notebook 3, pages 64, 65) /5b. Drawing of the remains of the praetorium in the Villa Adriana (Notebook 5, pages 78, 79)

And the other group of staircases that fulfil the function of allowing access to a building. In this case, he points out that the staircase is perceived as an annexed volume or body that prolongs and extends the building towards the exterior urban space.

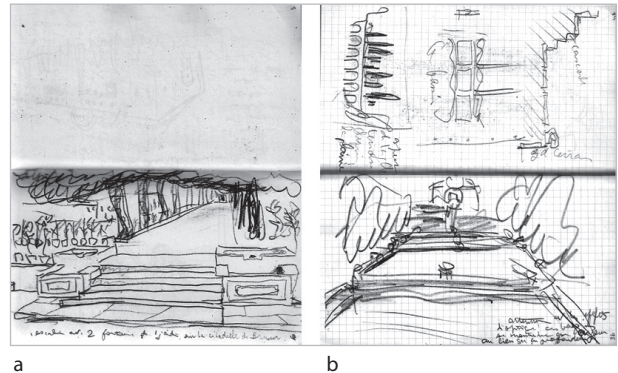


Fig. 6. Staircases and connections between exterior spaces  
 6a. Drawing of the steps of the garden of the citadel of Bursa (Notebook 3, page 9) /6b. Drawing of the perspective of the pools towards the fountain of the organ in Tivoli. He warns "Notice the optical effects" (Notebook 5, page 95)

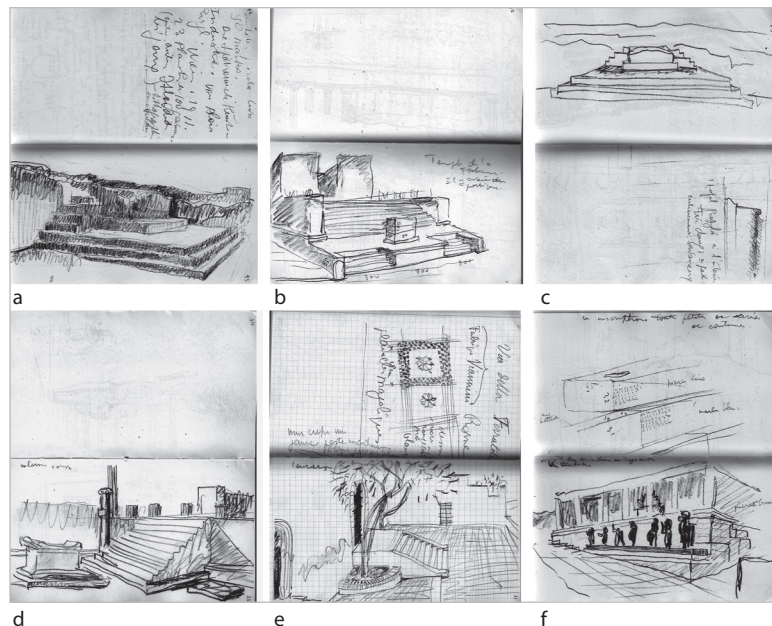


Fig. 7. Staircases and accesses: extension towards the exterior of the buildings  
 7a. Drawings of the podium of the Pnyx sanctuary; this reminds him of the staircase that leads to the green mausoleum in Bursa (Notebook 3, page 93) /7b. Drawing of the temple of fortune of Augusta, that restores the staircase, partially destroyed (Notebook 4, page 73) /7c. Drawings of the podium of the Pnyx sanctuary. (Notebook 3, page 95) /7d. Drawings of the staircase of the temple of Apollo in the Forum of Pompeii, with the votive column, that eventually disappears in other drawings so as to contemplate the building, in the same way as he did with one of the minarets of Hagia Sophia (Notebook 4, page 35) /7e. Drawing of the floor plan and access to the Vianini Factory in the via della Ferratella in Laterano (Notebook 5, page 11) /7f. Drawings of the Arcadians and of Lisandro in the sacred precinct of Delphi, just next to a stone pedestal of an ancient offering to Apollo described above; both are raised in the lower part of the three parts of the precinct (Notebook 3, page 139)

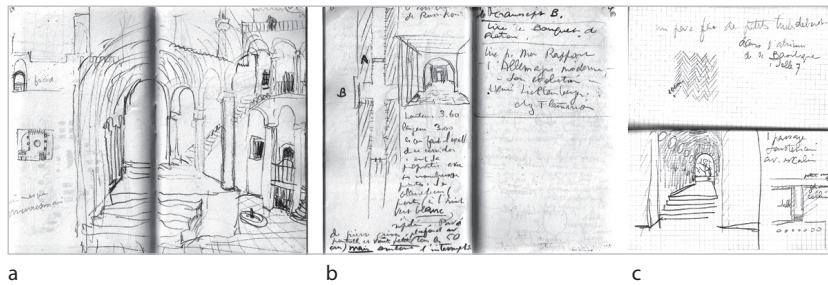


Fig. 8. Passages and corridors and their relation with the exterior

8a. Drawing of a section of the vaulted gallery that surrounds a small enclosure of a mosque in the surrounding area of Nuruosmaniye, in Turkey (Notebook 2, page 67) /8b. Drawing of the ground floor and perspective of the corridor of Rossikón. He points out the accentuated height and width of the circulation, along with the succession of green doors on the surface covered with whitewash, the paving of grey stones and vaulted ceiling, alternated by joists (Notebook 3, page 88, 89) / 8c. Drawing of the detail of the paving of the apse of the basilica and the exit from the underground vaulted passage of the cryptoporticus (Notebook 5, pages 88, 89)

### Passages and corridors

The three spaces depicted are vaulted interior routes, leading from an interior to an exterior space. The condition of the threshold is defined by means of an elongated space, dynamic with a beginning and an end well established, and moreover with a change of level in both of them.

### The exterior prolongation of the interior

“C’est magistral – Je dessine ça depuis la *seuil* de la cella. L’autel du Forum est à sa meilleure place et, juste au delà de la colonnade ça fait 1 gd à pic. Puis on voit les socles du fond; puis ceux de droite. La dallage du vestibule s’ajoute à celui du forum. A droite il y a l’arc de triomphe, tout près. Il faut que le soleil du matin soit juste dans l’axe. Ça fait toutes choses noires; mais le pavé blanc. Au delà, la gde vague bleu glauque des monts. Les mesures sont la cause de cette beauté”

Le Corbusier. Voyage d’orient.  
Carnets (Notebook 4, page 102)

The note of Le Corbusier that accompanies this drawing is a very precise description of the spatial richness that a threshold can manage to produce in a building and its relation with the outside: “It is masterful. I am drawing this from the threshold of the cella. The altar of the Forum is in the best place and just beyond the colonnade, making up a great scene. Then you can see the plinths in the background; and then the ones on the right. The tiled vestibule is joined to the Forum. To the right is a triumphal arch, very close by. It is necessary that there is just a shaft of morning sun. This blackens everything; but the paving remains white. Further beyond, the large concentration of the glaucous, or light green, of the mountains. The measurements are the



Fig. 9. Imaginary construction of Le Corbusier of the view of the Roman Forum through the pronaos colonnade of the Temple of Jupiter (Notebook 4, page 102, 103)

cause of this beauty.” (Notebook 4, page 102). To draw the temple of Jupiter, he “will have to dodge the altar that is right on the axis of the temple. Once you have climbed the steps, from its pronaos, outlines a new view of the Forum. A panorama in which imaginatively reinstates nonexistent pronaos colonnade.” (Daza 2008).

It is worth pointing out here the fact that in this case he uses the word *seuil* (threshold), to define his location inside the temple, but even more important is the fact that with his drawing he reconstructs the

colonnade so as to transmit, in a more precise way, the spatial feeling of an observer who, from an interior space, observes a profound scene made up of a spatial sequence that begins in the cella and finishes in the mountains. The point of view chosen by Le Corbusier reaffirms this view that aims to portray in a recurrent way the relations between the inside and the outside extended as a prolongation towards the urban space and the landscape.

This theme is also recurring in other drawings where he once again depicts a threshold through a colonnade, such as in Athens or in the Villa Adriana, or through a frame composed of a horizontal line of the ground and the vertical lines of the side walls once

again in the Villa Adriana, as well as through another type of framing defined by an arch which produces a spatial effect similar to a door facing outwards as in Pompeii, in Villa Adriana and in the Baths of Caracalla.

Finally in his characterisation of the different types of thresholds, those which show a relation between various exterior spaces take on particular importance, as is the case of the Charterhouse of Ema, where the exterior gallery relates with an exterior defined courtyard located at a lower level, or in the Villa Adriana or the Villa d’Este, where different spaces connect between each other in a spatial sequence which expands the depth of the gardens and courtyards.

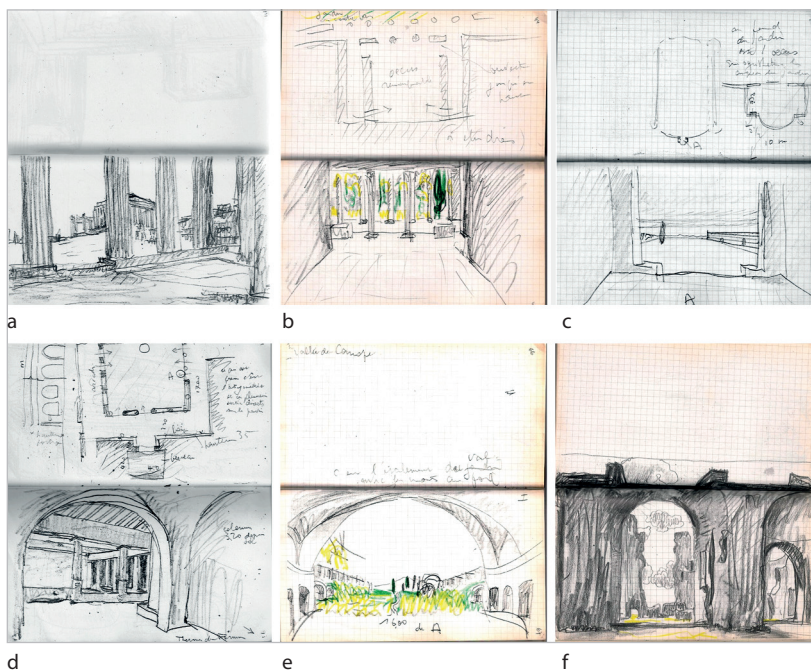


Fig. 10. Interior spaces and the relation with the outside through the threshold, plans and spatial sequences

10a. Drawing of the Propileos. Through the colonnade he observes the Parthenon (Notebook 3, page 115) / 10b. Drawing of plan and the detail of the area of the altar with a section of the Temple of Jupiter (Notebook 5, page 45) / 10c. Drawing of the floor plan of Oecus and perspective from the centre of the apse on the long axis of the esplanade in the Villa Adriana (Notebook 5, page 61) / 10d. Drawing of plan and perspective of the arena of the baths of the Forum in Pompeii. In the drawing of the plan he points out the multiple options that exist for entering the courtyard (Notebook 4, page 74, 75) / 10e. Drawings of the exedra of the valley of the Country house of the Villa Adriana (Notebook 5, pages 66–67) / 10f. Drawings of the Baths of Caracalla, south-east of Rome (Notebook 5, page 27)

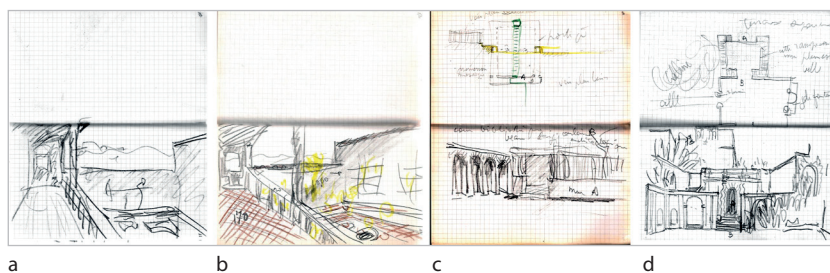


Fig. 11. Relation between the different exterior spaces observed from an interior space

11a,11b. Drawings of the view that there is from the passage towards the vegetable garden and towards the outside, beyond the limits of the Charterhouse of the Valley of Ema (Notebook 6, pages 11, 13) / 11c. Drawing of Cortile of the library of Villa Adriana; a merging between the plan and the section of the courtyard so as to highlight its depression related to its perimeter corridors lined with mosaics (Notebook 5, page 40, 41) / 11d. Drawing of the ground floor and elevation of the Villa d’Este on his second visit, which fully reflects the transition that occurs between the two spaces. This is a proportional relationship between a rectangular space (the fountain of the owl) and a square space (the fountain of the emperor). The elevation includes the staggered transition of these spaces; in the background you can see part of the Villa and the triumphal arch of the Grotta di Diana (Notebook 5, page 92, 93)

### The interiorised exterior

The theme chosen by Le Corbusier in this series of drawings fixes the attention on the perception of the exterior spaces as if they were interior, recognising their character as defined spaces also when there is a relation with the landscape. The observer is sometimes inside and at other times outside the place represented, and the condition of the threshold remains associated with a spatial sequence where different characteristics are depicted of the urban spaces through enclosures and doors. It is also interesting to remember in Istanbul, Rome or Pompeii, Jeanneret has pursued transit and variations that have the openings as input light and directed towards objects of sacred origin (exiguum foramen). However, here in the auction of Canopus, it was found with a particular form of overhead lighting (Daza 2015).

In this sequence of the Villa Adriana, the view is focused from the outside towards the space of the exedra, where the condition of threshold leads to an interior space. Le Corbusier draws a sequence which always gets closer to the interior space through a door

and finally emphasises the relation with the outside through an opening in the roof.

In this second sequence a complementary vision is reproduced of the previous one. In the exterior spaces in the Roman Forum and the Baths of Caracalla, Le Corbusier carries out his drawings based on a point of view in which the elements of the urban space clearly make the limits, an urban scenography that isn't closed, but frames another open space. He reconstructs a threshold space that serves, at the same time, to delimit, or define, an access, to open and finally to frame the background of a space further away.

The condition of the enclosure in the urban space very much caught the eye of Le Corbusier. In the drawings of the Villa d'Este, of the villa Adriana or the Square of Campidoglio, the common characteristics are highlighted with unidentified spaces such as the courtyard of a house or a balcony in a garden, in which the framing of the drawing and the point of view chosen depict courtyards, gardens and squares, emphasising their condition of being defined spaces which can be accessed by means of a highly defined door or entrance.

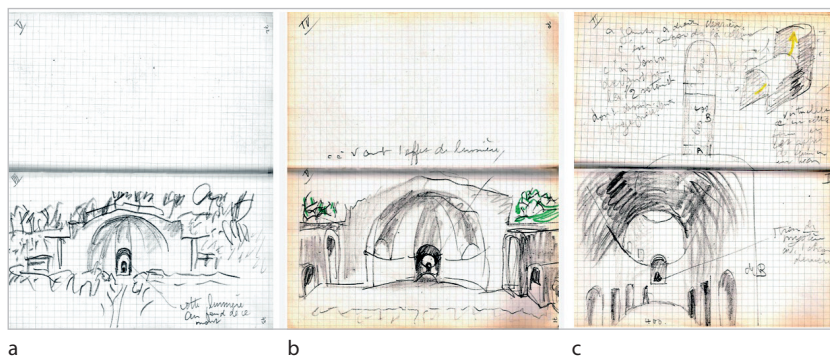


Fig. 12. From the outside to the inside. The urban door

12a, 12b, 12c. Drawings of the sequence of the valley of the Canopo. Villa Adriana. The first and the second of the exedra; the third of the *serafeum* (Notebook 5, pages 73, 71, 68, 69)

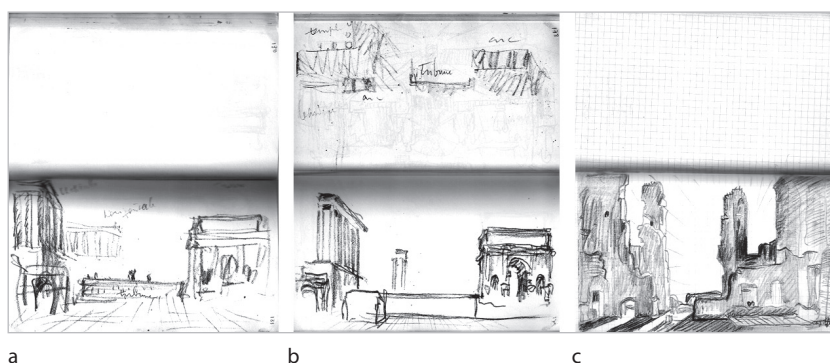


Fig. 13. From the exterior towards the horizon through an urban scenography. The door towards the landscape

13a, 13b. Drawings of the Basilica Julia, arch of Tiberius, temple of Saturn, the tribunal and arch of Septimius Severus on his second visit to the Forum, in Rome (Notebook 4, pages 181, 178, 179) / 13c. Drawings of the Baths of Caracalla, south-east of Rome (Notebook 5, page 31)



In this series of drawings, however, the condition of the enclosure of the exterior spaces is perceived to be much bigger and extended, and the characteristics of the border that make up the access thresholds are much more permeable and lead to another sequence of urban spaces framed in the landscape.

**The plan in the configuration of the threshold**

“Un plan procède du dedans au dehors”

(Le Corbusier 1924: 146)

“Le dehors est toujours un dedans”

(Le Corbusier 1924: 154)

Le Corbusier. Vers une architecture

Within the time framework analysed and based on the specific study of the six notebooks, and of the study of the urban settings visited, Le Corbusier uses the

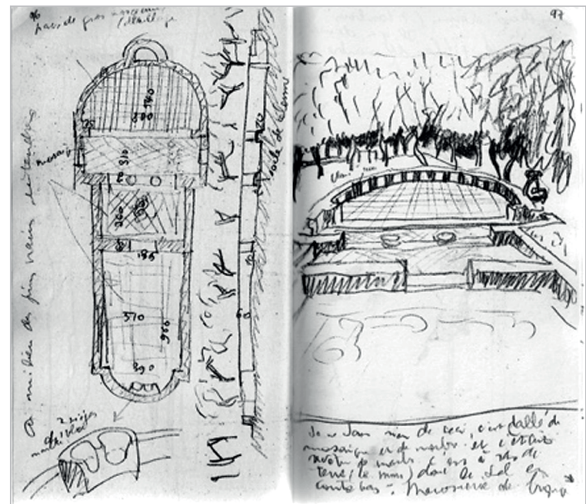


Fig. 14. Exterior spaces: sequence of enclosures. Drawing of unidentified ancient remains (Notebook 3, page 96, 97)

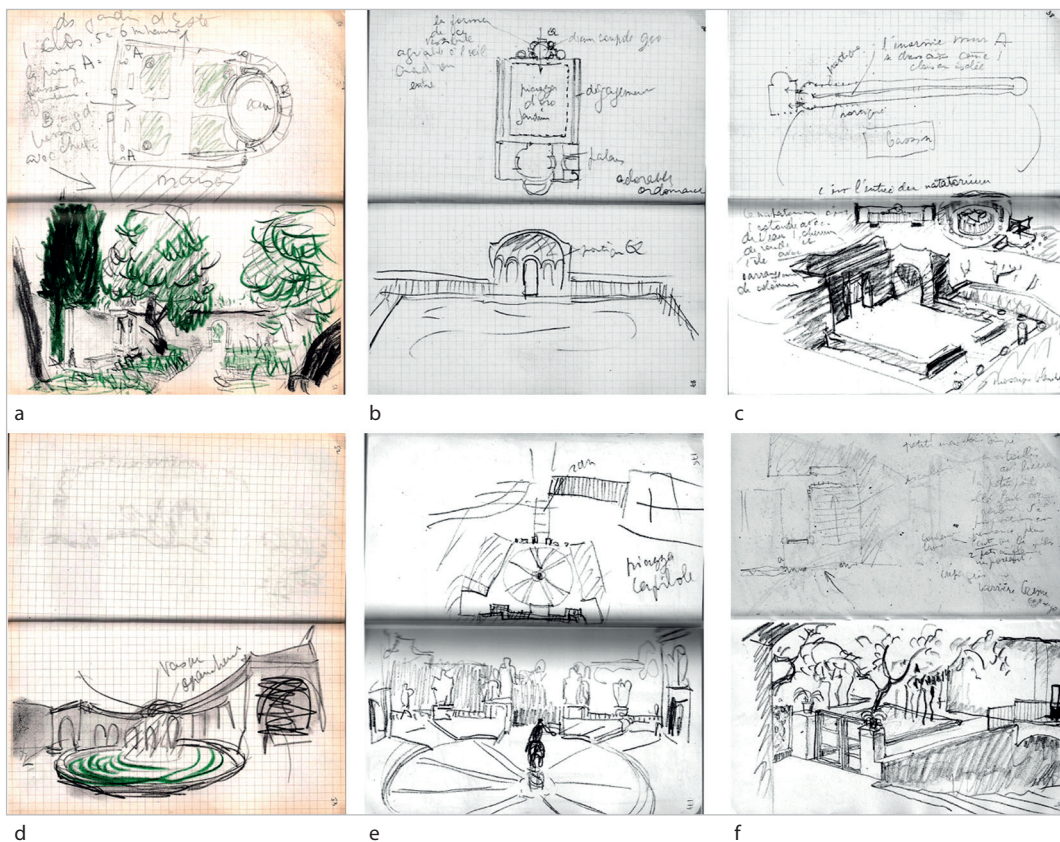


Fig. 15. Exterior spaces: enclosures and access doors

15a. Drawings of the garden of the Villa d’Este; quadrangular floor of the enclosure, flanked by a semicircle on one of the sides and a view from the enclosure looking southwards (Notebook 5 pages 50, 51) /15b. Drawing of a general plan and perspective of the Piazza d’Oro (Notebook 5, page 86, 87) /15c. Drawing of the plan of the wall of the stoa next to the pool in Villa Adriana. From right and left, the wall of Poecile leads to the living room of the philosopher (Notebook 5, page 38, 39) /15d. Drawing of the garden of the Villa d’Este. View of the large oval fountain, surrounded by a semi circular arcade, around which it is possible to walk (Carnet 5 page 53) /15e. Drawing of the square of Campidoglio, done from the canopy of the upper tribunal, and then by going up one of the sections of the staircase of the Sanatorium (Notebook 4, page 176, 177) /15f. Drawing of the exterior courtyard of a small house, unknown place (Notebook 4, page 8, 9)

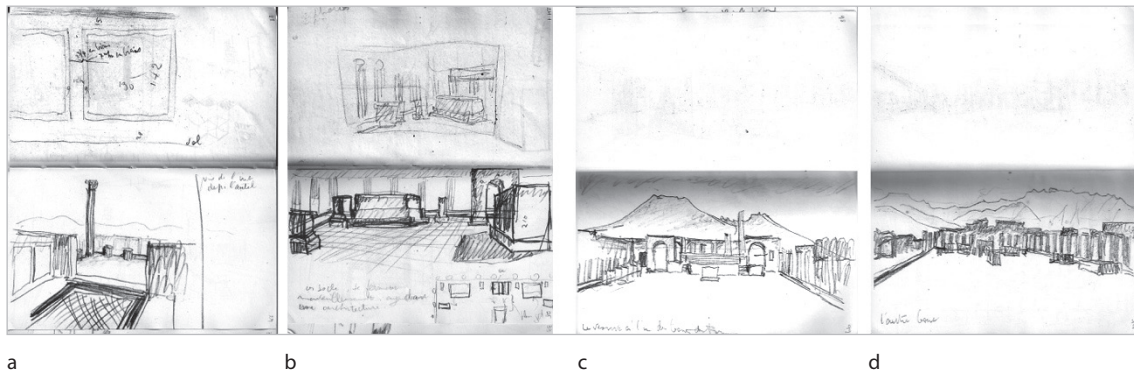


Fig. 16. Defined exterior spaces and related with other exterior spaces

16a. Drawing of the detail of the mosaic of the left wall of the cella and view from the altar of the Temple of Apollo in the Forum of Pompeii (Notebook 4, pages 28, 29) /16b. Sketch and drawing of the southern area of the Forum of Pompeii, in the area of the Tribunals (Notebook 4, pages 24, 25) /16c–16d. Drawings of the Forum of Pompeii, the first of the enclosure of the Temple of Jupiter with Vesuvius in the background (Notebook 4, pages 99, 101)

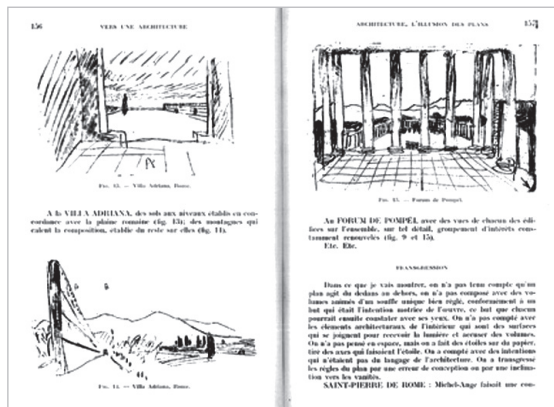


Fig. 17. Drawings of Vila Adriana and Forum of Pompeii (Le Corbusier 1924: 156–157)

word *seuil* (threshold) on very few occasions, however there exists a constant reference to the relation between interior and exterior which is precisely the function exercised by the threshold in the spatial configuration of the act of entering, leaving or delimiting. All the drawings that we have selected show thresholds in different forms, categories and hierarchies, and the spaces represented, be they doors, stairs or transitions (passageways, exteriors as an extension from the interior, interiorised exteriors) fulfil an urban function of dignifying the entrance to the distinct spaces, or relating an inside with an outside, or configuring an exterior with a broader exterior. In 1924, in 2<sup>nd</sup> edition of *Vers une architecture*, illustrated basically with drawings and photographs of the Journey to the East, the comparison of three drawings from the notebooks of the journey of 1911, two of the Villa Adriana and one of the Forum of Pompeii, he highlights the reflection about a key concept for the Swiss master in the interior-exterior relation: the idea of plan.

“Un plan procède du dedans au dehors. Un édifice est comme une bulle de savon. Cette bulle est parfaite et harmonieuse si le soufflé est bien repartit, bien réglé de l’intérieur. L’extérieur est le résultat d’un intérieur” (Le Corbusier 1924: 146).

“Les éléments architecturaux de l’intérieur. On dispose de murs droits, d’un sol qui s’étend, de trous qui sont des passages d’homme ou de lumière, portes ou fenêtres. Les trous éclairent ou font noir, rendent gai ou triste. Les murs son éclatants de lumière, ou en p’nombre ou en ombre, redent.” (Le Corbusier 1924: 149).

“Le dehors est toujours un dedans. En résumé, dans les spectacles architecturaux, les éléments du site interviennent en vertu de leur cube, de leur densité, de la qualité de leur matière, porteurs de sensations bien définies et bien différentes (bois, marbre, arbre, gazon, horizons, bleus, mer, proche ou lointaine, ciel). Les éléments du site se dressent comme des murs affublés en puissance de leur coefficient “cube”, stratification, matière, etc., comme les murs d’une salle. Murs et lumière, ombre et lumière, triste, gai ou serein, etc.” (Le Corbusier 1924: 154).

For Le Corbusier “a plan comes from the inside out and the outside is also an inside”. In this book Le Corbusier uses the term “le plan” on various occasions. In chapter II *Trois rappels a messieurs les architectes*, III *Le Plan* (Three warnings to the gentlemen architects in the section III called “The Plan”), and later on in the chapter V *Architecture II L’illusion des Plans* (“Architecture” in the section II “The illusion of the plans”). The term apparently being the same – in French, is used in two different meanings according to its context. On the one hand, it is used to define the idea of order and of determination “of everything” abstract and also formal, that configures the system of relations that provide unity to the architecture. A law of order

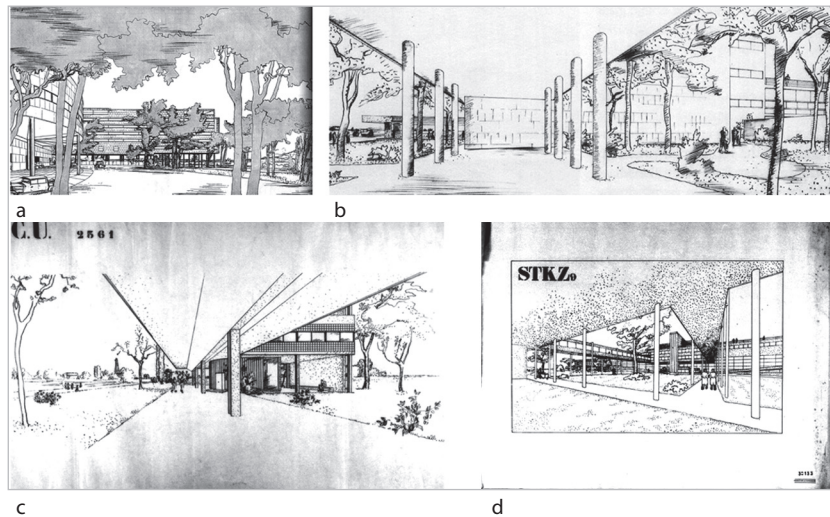


Fig. 18. The urban space through the thresholds in some projects of Le Corbusier

18a. Palace of the Nations, Geneva 1927–1928 / 18b. Palace of the Centrosoyus, Moscow, 1929–1930 / 18c. Swiss Pavilion, Paris, 1930–1932 / 18d. Sanatorium project, Zurich, 1934

which is planned and developed spatially in extension and height, and one that is finally perceivable by man: *Le plan est le générateur* (“the plan is the generator”). And on the other hand, it is also used to emphasise the relation between the inside and the outside in architecture, “plan” – as “plano” translated in the Spanish version of the book, that focuses on showing how the materialisation of the constructive and spatial procedures, that is to say the “architecture”, establishes an effective relation towards its setting based on its architectural elements.

The two complementary meanings, refer us to the threshold as a space or sequence of spaces organised under the idea of “plan” of variable thickness or extension, that includes both criteria and guidelines of order as well as solutions for managing the limits or boundaries in architecture, as well as its relation with space and the involvement with its surroundings, that is to say, we have also focused on highlighting how the architecture in itself, attends to an order that as well as being articulated and unitary, is extended by means of doors, frames, courtyards, terraces, sheds and exterior spaces, that incorporate both the nearby urban landscape as well as the distant cityscape. This is the same viewpoint through which Le Corbusier depicted in his subsequent urban projects, notable spaces of relation: the drawings of the ground floors of projects such as the Palace of the Nations, in Geneva, of 1927–1928, the Palace of Centrosoyus in Moscow, of 1929–1930, the Swiss Pavilion in Paris, of 1930–1932, the Sanatorium Project in Zurich, of 1934, or the Ministry of Education and Health in Rio de Janeiro, of 1936–1945, among many others, which all emphasise this “wide and extensive”

look which accompanies him so recurrently on his trips and would continue accompanying him throughout his life. One of the so many lessons of history...

### Reference List

- Allen Brooks, H. 1997. *Le Corbusier's formative years*. Chicago: The University of Chicago Press.
- Collins Dictionary. 2005. *Complete and Unabridged*. 8<sup>th</sup> ed. HarperCollins Publishers [online], [cited 10 November 2015]. Available from Internet: <http://www.collinsdictionary.com/dictionary/english/>
- Daza, R. 2008. *El viaje de Oriente. Charles-Édouard Jeanneret y Aguste Klipstein 23 de mayo – 1 de noviembre 1911*: Tesis de doctorado en Proyectos Arquitectónicos, Universidad Politécnica de Cataluña, Spain.
- Daza, R. 2015. *Tras el Viaje de Oriente. Charles-Édouard Jeanneret – Le Corbusier*. Barcelona: Colección arquia/tesis, núm. 39. Fundación Caja de arquitectos.
- Dictionnaire Larousse en ligne [online], [cited 10 November 2015]. Available from Internet: <http://www.larousse.fr/dictionnaires/francais/seuil/72432?q=seuil#71623>
- Jeanneret, Ch.-È. (Le Corbusier). 1992. *La Construction des villes* (1915). Paris: Marc E. Albert Emery, L'Age d'Homme-FLC.
- Le Corbusier. 1924. *Vers une architecture*. 2eme ed. Paris: Crés.
- Le Corbusier. 1987 [1911]. *Voyage d'Orient. Carnets*. Milano: Electa spa.
- Real Academia Española, Asociación de Academias de la Lengua Española. 2014. *Diccionario de la lengua española*. 23<sup>th</sup> ed. Edición del Tricentenario, [en línea]. Madrid: Espasa. [online], [cited 10 November 2015]. Available from Internet: <http://www.rae.es/diccionario-de-la-lengua-espanola>
- Sequeira, M. 2009. *A Cobertura da Unité d'Habitation de Marselha e a Pergunta de Le Corbusier pelo Lugar Público*: Tesis de doctorado en Proyectos Arquitectónicos. Universidad Politécnica de Cataluña, Spain [online], [cited 15 November 2015]. Available from Internet: <http://www.tdx.cat/handle/10803/6816>

Sichenze, A. 1995. *Il limite e la città: la qualità del minimum urbano sul limite dell'edificio dalla Grecia antica al tempo della metropoli*. Milano: Franco Angeli.

Talamona, M. (Ed). 2012. *L'Italia di Le Corbusier*. Roma: Electa. Exposición y catálogo MAXXI Roma.

Treccani. 2013. *Dizionario della lingua italiana*. Roma: Istituto dell'Enciclopedia Italiana. Giunti T.V.P [online], [cited 10 November 2015]. Available from Internet: <http://www.treccani.it/vocabolario/soglia/>

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#### MARIA PIA FONTANA

Associate professor, University Of Girona, Phd in Architectonic Projects Catalonia Polytechnic University, Bogotá. Research interests: modern architecture, urban space, in-between space, Latin-American architecture.

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#### MIGUEL MAYORGA

Associate professor, Catalonia Polytechnic University, Master and PhD in Urbanism Catalonia Polytechnic University, Bogotá. Research interests: modern architecture, urban space, in-between space, Latin-American architecture.

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#### MARGARITA ROA

Associate professor, Cali San Buenaventura University, Master / Phd Student in History and Theory of Architecture Catalonia Polytechnic University, Bogotá. Research interests: modern architecture, domestic space, Latin-American architecture.