

THE SPACE OF POMPEIAN DOMUS TOWARDS LE CORBUSIER HOSPITAL OF VENICE

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Abstract

Pompeian domus are the result of a spontaneous, annular process, which through continuous modifications and adjustments, and sometimes errors, affirmed over time a recognizable typological model. Few spatial elements held together by a central void, the patio, constitute the domestic environment. With the same simplicity, they are joined together through the cardo-decumanic structure, constituting urban fabric.

Charles-Edouard Jeanneret discovered Pompeii during the Voyage d'Orient in 1911. He studied the city catching proportions, distances between spaces, human dimension as well as main domus character: introversion.

In Pompeii, while drawing the order of the Forum, the young C.-E. Jeanneret discovered the invention of these houses made of thick, hermetic walls that enclose an intimate and luminous space. The L-shaped plan of the Tragic Poet House, of the Labyrinth House and of the Silver Wedding House, would perhaps support and direct the theorization of habitat minimum concept: this is an essential, intimate living cell with a generous amount of natural light. This knowledge and reflections made in his youth would accompany the Master's production in many projects. However, it is perhaps in the project for the Hospital of Venice (1963) that they condense and assume a preponderant role. The domus, as cells, aggregate themselves around patios. These simple systems combined one to another, cling to the existing Venetian fabric whilst aligned in a cardo-decumanic order. With the same force of the domus they are introverted looking for intimacy and light.

Keywords: Le Corbusier, ruins, Pompeii, Hospital of Venice.

From Italy to Italy

The Venice hospital is the last work of Corbusian production (1963), and it is the most developed project among those he had conceived for Italy, such as the Cooperative Village of Pontinia (1934), La Banlieue de Rome (1935), the Church for Bologna (1963) and the Olivetti factory for Rho (1963). Political events,

Olivetti departure and finally the approach the end of his own life made however impossible for Le Corbusier to realize one of his works in Italy.

Italy had been so loved by the architect since his first trip in 1907, when he captured the beauty of the Renaissance in Florence, and he caught the importance of details finesse. Such first familiarity with Italy marked his curiosity and strengthened his interest in architecture. This initial learning phase culminates in 1911 *Voyage d'Orient*. During this, he reinforced his awareness and knowledge of history and especially he built up his imprinting towards the Ancient World. The journey is full of expectations and provides him some revelations, consumed day by day discovering live architectures he had already studied on books before departure (Turner, 2001). The visit of ancient sites provides to the apprentice architect confirmations, findings and discoveries. Such images and suggestions, found in Istanbul, Athens, Rome and Pompeii, would represent over years a strong reference for the construction of *his* Modern architecture, coming back in the hand of the architect in the act of creation.

Pompeii, urban layout and Pompeian intimacy

Charles-Edouard Jeanneret arrives in Naples after his stay in Athens, during which he has produced an average of twenty drawings and annotations per day. From his arrival in Brindisi on 6 October 1911, he climbs the Italian peninsula up to the city of Naples:

After Brindisi I saw all styles, all species of houses, all sorts of trees and flowers, of grass! Mountains have their appearance and big names. Styles are more complicated: often uncertain, hideous, disgusting agglomerations. Interiors of Churches are horrible, so are paintings. People shout in the streets screaming and lacking in character. (Jeanneret, 1984, p. 312, my own translation)

There are relatively few references to Naples in the chapter *En Occident*, contained in his book *Voyage d'Orient*, completed in July 1965. He impresses in his mind the city landscape observed from *Vomero* neighbourhood and he

portrays the gulf, remarking in drawings rising elements that emerge from the steep fabric of the city.

His interest is immediately catalysed by the opportunity to visit Pompeii, that represent one of the discoveries of *Voyage d'Orient*. In fact, the visit to such archaeological site wasn't in fact foreseen in the itinerary of the trip. This rises by the lucky visit of Athens Archaeological Museum (Zannier, in Gresleri, 1984, p. 479), where Jeanneret could see some records of Pompeii archaeological site.

A further hypothesis of such interest can be found in Naples. Here he purchased the book *Pompei com'era, Pompei com'è* by Luigi Fischietti, that illustrates a reconstruction of the archaeological site (Gresleri, in Gravagnuolo, 1997, p.74)

Jeanneret is attracted by the ability of the ancients to organize, structure and regiment the space (Berritto, 2011). Thus, after just three days in Naples, he organizes a visit to Pompeii that will last three days (October 8-11).

Once in Pompeii, passing through Porta Marina, he reaches the Forum, observing and noting constructive details. He reaches a high position on the Forum, where is opening up a favourable view to read the city from above: '(...) *ordering is the hierarchy of the purpose, walking contemplating this plan is a joy for the spirit. (...) It makes me this effect despite being destroyed. It's like Berlin. I seem to be already on the north*'. (Le Corbusier, 2013, p.154, my own translation)

In Pompeii ruins are still organized in an urban form, accomplishing the ancient fabric. Jeanneret sees these ruins organized by unity, far from the scattered order of the Acropolis Temples. Such rigorous alignments produce him a strong impression, destined to last over time.

He is interested in the space between the masses. Numerous drawings and photos focus on the succession of open spaces, on voids hierarchy and relations with plains. The Carnet IV is full of annotations referring to the relief and the measurement of elements that shape void spaces – '*large*', '*vast*'.

Pompeii fabric offers the opportunity to understand dimensions, relations and proportions of the ancient urban landscape, made possible by to direct

measurement as well as by the representations found on Luigi Fischietti book (Gresleri, in Gravagnuolo, 1997, p. 74).

Classic architecture is discovered through its ruins. Jeanneret could understand what is still intelligible, such as '*measures, which are the reason of this beauty*' (Le Corbusier, 1944, p.19, my own translation): these teach him the principles of proportion and organisation, being primary elements to define the plan.



Figure 1. Photo of Pompeii (Gresleri in Gravagnuolo, 1997, p. 81)

Pompeii is an open-air museum, where he can learn how was a Roman fabric. Time erased the upper levels of buildings, horizontally sectioning walls, making clear to understand the plan. The structure of *insulae*, constituted by *domus* attached one to each other along a simple urban grid, it's easy to be caught. Jeanneret not only seize the close succession of *domus* but he appreciates the breaths of the fabric, large open spaces for citizens and for meetings. The forum is an open space whose time has consumed the primordial composition. When

seen by Jeanneret, it appears just fenced by diaphragm structures that define his environment, extending up to closed, hermetic curtains of further *domus*.

The Roman city appears clear. Despite time, ruins retain the recognizability of spatial elements. The young architect focuses on three basic ingredients making the morphological structure of the city. In a central perspective, he catches the rigorous and symmetrical road along which the domus are listed (Jeanneret, 1987, Carnet IV p.81), interrupted by a second transversal way, measuring space and expressing the *cardo-decumanic* structure.



Figure 2. Drawing of C.-E. Jeanneret (1911). *Carnet IV*, p. 81. Via dell'Abbondanza.

Then, in the urban sequence, major axes direct to the *forum* (Jeanneret, 1987, Carnet IV p. 47) centre of the whole fabric. The order of public space organizes the city. Its shape is clear, spatially structured. Time has stripped representative architectures of many emblems, without affecting spatiality. On the contrary: lack of decorations and details makes space emerge more strongly. According to Le Corbusier:

Order is the hierarchy of purpose, the classification of intentions. The plan of the forum contains many axes, but it will never get a bronze medal at the Ecole des Beaux-Arts, it would be rejected, it does not draw a star! Yet it is a joy of the spirit to admire this plant, to walk in the Forum. (Le Corbusier, 2013, p. 153, my own translation)

Finally, Pompeii is the place where it approaches the primitive theme of housing. Through these ruins, he explores the variations of the *domus*: their fascination is once again contemporary, as they are a spatial and typological perfect result. As in urban space, structure degradation heightens the rigor, making emerge spatiality of rooms succession.

Centred on a patio, *domus* is hermetic in its perimeter, ignoring the neighbour and protecting itself from the external world; it overlooks exterior and external view, using just above light. These houses, so intimate and never the same, have spatial structures always structured around a void, with refined and always different solutions. As they were fortresses to enter, the young man with energy starts a meticulous relief, equipped with a meter, a plumb line and a notebook. With these few instruments he records and stores details, in order to develop his thought and his construction of an architectural grammar.

Later he wrote:

In Pompeii. Once again, the small vestibule takes the road away from your eyes. And here you are the *cavaedium (atrium)*, four columns in the middle (four cylinders) rise suddenly towards the shadow of the roof, a feeling of strength, evidence of powerful means; but at the end the splendour of the garden, seen through the peristyle which with a wide gesture unfolds this light, distributes it and signals it, extending far to the right and the left, a large space. Between the two, the *tablinium* that encloses this vision as the eyepiece of a camera. On the right, on the left, two small spaces of shade. From the busy street, full of picturesque things, you have entered the house of a Roman. The majestic grandeur, the order, the magnificent magnitude: you are in the house of a Roman. What were these rooms for? It's out of question. After twenty centuries,

without historical allusions, you will feel architecture, and all this is actually a very small house (Le Corbusier, 2013, p. 149, my own translation).

The transition from the street to the intimate space is emphasized in the description by the annihilation of city noises. Inside, a second degree of intimacy, reserved to private rooms, is built through the filter of the *compluvium*. This is an open passage introducing to the most reserved space in the house: the small, minimal room.

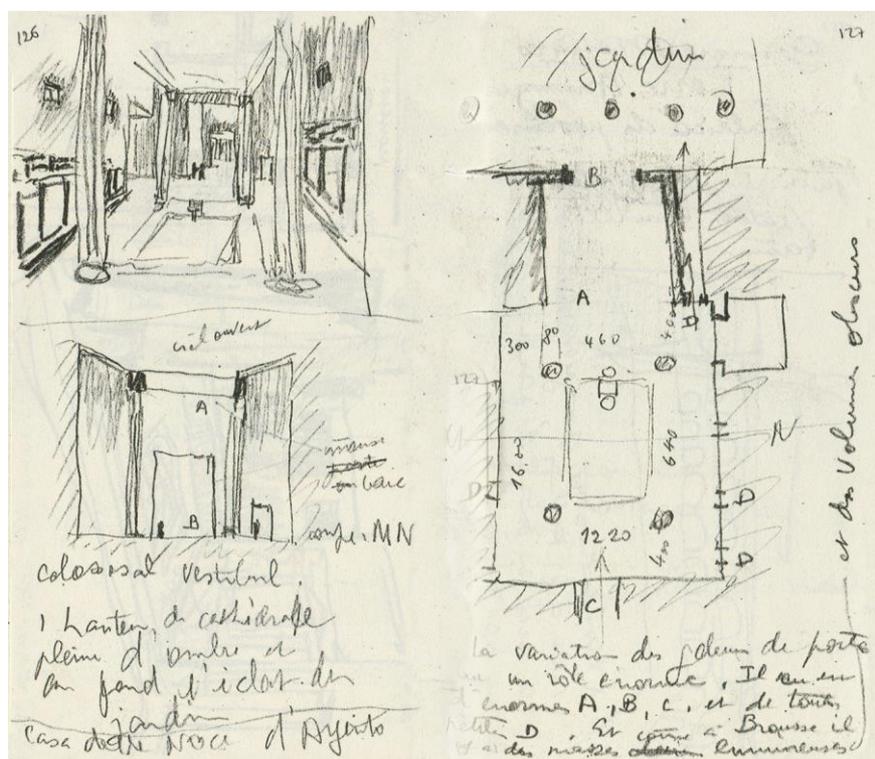


Figure 3. Drawing of C.-E. Jeanneret (1911). *Carnet IV p. 126-127. Casa del Noce.*

House has serenity as a purpose; to ensure this 'Pompeian does not pierce his walls; he has a sacred devotion to the walls, he has a love for light. The light is intense if it is between walls that reflect it. Ancients made walls, walls that stretch and link together to further enlarge the wall. In this way they created volumes, basis of architectural sensation, a sensory sensation' (Le Corbusier,

2013, p. 150, my own translation). These sensations are also marked by frescoes, which, thanks to natural light, reflect into space the pleasant colours of the thick walls of the domus.

Pompeii after Pompeii

The visit of Pompeii didn't remain just a memory of the *Voyage d'Orient*. The archaeological site was for a long time a *magic box* (Tafuri, 2001, p.84) from which Le Corbusier draw on suggestions for more than forty years towards his architectural production, until the project for Venice in 1963.

The imprinting of the ancient architectures seen in youth would become the incipit for a creative path developed through observation, meditation and drawing, which he later explained by his own words: '*this is the key: watching ... watching / observing / seeing / imagining / inventing / creating*' (Le Corbusier, 1963). This note, written on a Carnet a few years before his death, shows the balance of his method between rationality and sentiment: the six words used represent a postulate that arises from reason, from the real datum, and flows into imagination and invention.

Real characters, extrapolated from the ruins of Classic World, assimilated through drawing, re-emerge manipulated by the unconscious; those constitute his own grammar of sensible forms, as well as the essence of his poetics. Since early projects, *domus* played a fundamental role in Le Corbusier design process: let's mention the link made by Kurt W. Forster, who derives the Maison La Roche plan from the Tragic Poet House in Pompeii; the open-air room in Bestegui Apartement of 1929 echoing (Tafuri, 1984) the Temple of Apollo spatiality (Jeanneret, 1987, Carnet IV p. 26); the empty cube flanked by a cylinder in the Esprit Nouveaux Pavilion of 1925 (Quetglas, in Talamona, 2011, p.90). Relations making clear how Pompeian domus are meaningful for Le Corbusier. This re-emergence process also occurs in mature projects, as in Ronchamp composition, where it takes place a '*hermetic*' space with an '*archaeological flavour*' (Tafuri &

Dal Co, 1976, p. 314) or in the *roman* Chandigarh, shaped by re-emergency of Roman ruins images.

Along with *domus* memories, the spatial structure Roman urban fabric, its density and small proportions of buildings, recur in his writings on urban planning (Le Corbusier, 2011), whilst other principles, current in his practice, as public space dilatation and *pilotis* plan, follow different logics.

Venice needs an urban fabric

Le Corbusier had visited Venice lagoon for the first time on October 1907, at the beginning of his architectural learning. Over time, he came back to the lagoon to build and reinforce his knowledge, as long as the preparation for the project proposal he made for the city in 1963 (Von Moos, in Gravagnuolo, 1977, pp. 85-97).

The new urban plan of Venice requires the construction of a hospital in San Giobbe area. On April 20th, 1963, the public health administration announced a competition for the hospital project. In September of the same year the commission announced winners and there was an exhibition of the projects. Controversial affairs on selected project ends in the direct call of Le Corbusier, who accepts the assignment and receives the necessary documentation for a draft project that would have been presented in subsequent May (Mattioni, in Talamona, 2011, pp. 377-389).

Already in August, Le Corbusier moved to Venice for a first survey in the intervention area. From the beginning, the analysis of Venetian fabric suggests that the new building should be as silent as possible, respecting historical landscape and average heights, and it should be able to absorb the spatial proportions of Venetian streets and squares.

Le Corbusier presents a sketch explaining the correct approach. This arises from an altimetric study of the fabric, and from the statement that San Marco bell

tower should remain the only vertical element, as an emblem of the lagoon landscape.

Venice is a horizontal city, where verticality is made up of exceptions. Buildings lay down on the sea like oil on water, arrange the land available to thicken on stilts. Viewed from the sea, Venice is a unitary block, made of few shadows.

Le Corbusier traces the maximum height of its architecture and fixes it to 13.66 meters. A dimension taken from the altimetric mean as a first input for design.

The horizontality and the homogeneity of the city thus push the project towards a horizontal building: '*Venise la maille de l'hopital (horizontal)*' (Mattioni, in Talamona, 2011, pp. 386). The horizontal grid hospital should be an extension of the urban fabric, as concerned by dimensions and space occupation. Le Corbusier's proposal expands on the lagoon reinterpreting the dynamism of the coast and thinning up to become perceptibly lighter than the 13.66 metres initially declared. A horizontal fabric, devoid of the tortuosity of Venetian roads, based on rectilinear axis which order space and fixe intentions: three levels on a forest of *pilotis* supporting the fabric.

Le Corbusier in this latest project feels the need to overcome the idea of an *unicum*, a unitary building, to embrace a cardo-decumanic system. This fabric, as in Pompeii, find its breath in large public spaces, flooded with natural light as Pompeian *forum*, open to receive Venetians.

A thin, suspended city that clings to the historical one. Far from the pure, isolated volumes, Le Corbusier, to accommodate 58.650 square meters comes back to the images of youth. It disappears the monumentality of last Indian works, as Venice has human, minimal proportions. Venetian *calle* – pedestrian alleys – measure as the corridor of Pompeian houses, 80 cm (Jeanneret, 1987, Carnet IV p. 91): they are small arteries that let the lagoon breathe little by little.

The composition of the plan is clear, the ingredients of Pompeii also revive in the thickness of the building which, like low rise Pompeii ruins, seems to have been thinned by time.

Vertical blocks give access from urban ground floor to the three upper level and lead into internal streets. These are distribution axes of special functions in the first two levels and of hospital stays in the third one. From the first sketch, 10 cores cling around 6 axes. Since the beginning, one core detaches itself from the others, looking for a bigger open space in the complex (Le Corbusier, 2013, Vol. 8 p. 136-141).

The upper plan, dimensionally the most extensive and the most reasoned by the architect, contains a second Roman reference: the *domus* for the sick, a small bed unit of 3x3 meters, is the place where the patient finds 'the best conditions for his staying' (Reichlin, in Talamona 2011, p.399).

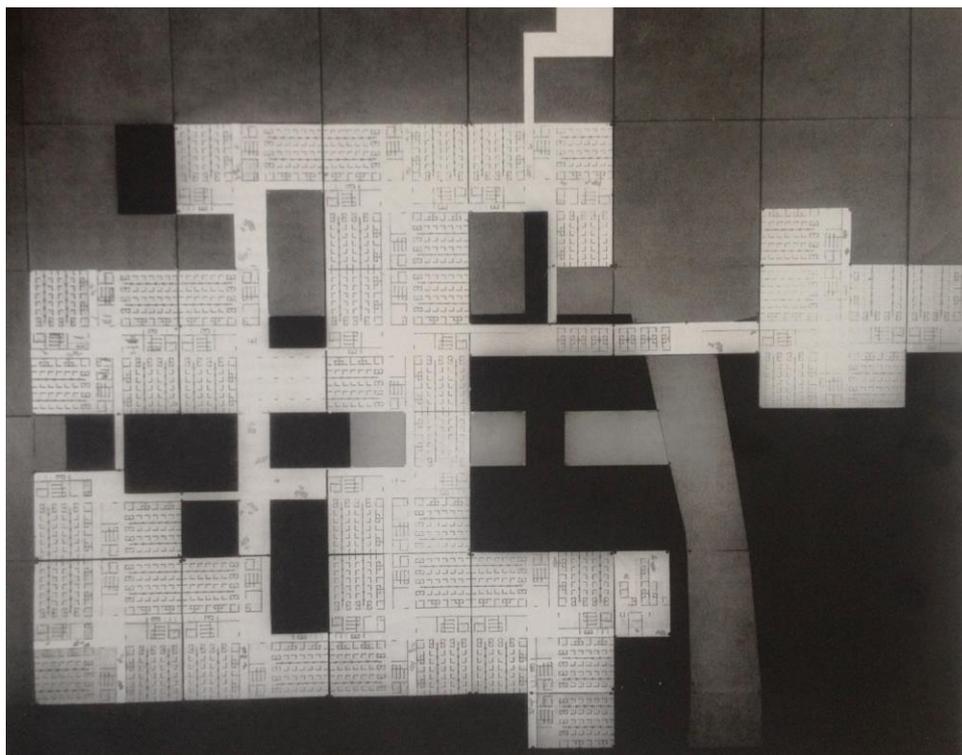


Figure 4. Project for the hospital of Venice (1963). In Le Corbusier (2013). *Œuvre complète Vol. 8 1965-1969*, p. 131. Milan: Hoepli.

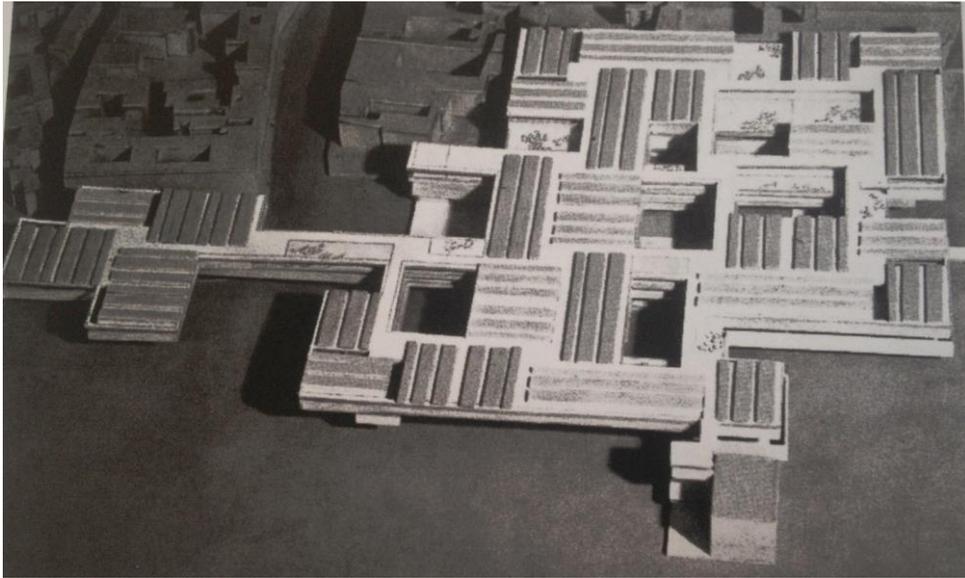


Figure 5. Project for the hospital of Venice (1963). In Le Corbusier (2013). *Œuvre complète Vol. 8 1965-1969*, p. 138. Milan: Hoepli.

According to Le Corbusier, the hospital of the future must challenge intimacy without wasting space. Just like the '*small houses of the Pompeian*' he aims to create a reserved space whilst keeping a direct connection between the rooms. Each patient has his intimacy far from the eyes of his neighbour: rooms are just separated by portions of walls that anyway limit looks and noises.

External wall is a compact involucre without fissures, referring to what he wrote about Pompeian domus '*The Pompeian does not pierce his walls; he has a sacred devotion to the walls, he has a love for light*'. Rooms light comes from above, it can be mechanically regulated by the patient to set intensity and, in architect prefiguration, it can be enriched by colours through a tiling coloured glass. The suggestion of the Noce House in Pompeii (Jeanneret, 1911, Carnet IV p. 113) seems to be reliving, where upper light caresses the coloured walls of the frescoes giving back chromatic nuances in '*sensory sensations*' (Le Corbusier, 2013, p. 150).

Patient cells are hollow rooms hanging garden above: a public space protected from the wind where the patient can meet people or rest. The domus section evolves into the hollow form of the Roman piers dominated by vegetation,

visited in Tivoli. This retraces a theme already present in previous projects, as his own house in Rue Nungesser et Coli (1933), the Maison de Week End La Cella in Saint Cloud (1935), the Saint Baume complex (1948). Furthermore, other rationalisations of a hollow room were being designed just before the hospital, as L'Usine-Verte, d'Aubusson (1944) or the Olivetti factory in Rho (1963), whose sections seem having influenced Venice patient cells (Reichlin, in Talamona, 2011, p. 390-409).

The discoveries of Pompeii re-emerge over time becoming conceptual and figurative references, bringing again to life timeless archaeology through design. Pompeian suggestions thus become the *City of the Patient* in Venice, made up of *insulae* and *domus* with a careful public space where noises do not harm patients.

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