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Le Corbusier
Paris _______ Chandigarh

With a Foreword
by Arthur Rüegg

pp. 39-47

Villa Besnus

Birkhäuser – Publishers for Architecture
Basel • Berlin • Boston
In 1922, George Besnus, after visiting the Salon de l’Automne, approached Le Corbusier to order a house similar to the Maison Citrohan, which had been presented there. After visiting various sites with Le Corbusier they chose a plot in Vaucresson, a suburb of Paris, placed on a ridge about one storey high on the street side.

Le Corbusier rapidly drew the basic concept, without variants, of a rectangular block parallel with the street with a staircase attached. Here the change of level in the site is used functionally. A ground floor at street level contains the main entrance, the garage and side rooms, and a ground floor on the garden level – set a level higher – becomes the living and working area. Above these are the bedrooms with an internal bathroom. Besnus originally wanted a two-storey studio room as in the Citrohan design, but Le Corbusier developed a single-story room glazed to the ceiling, probably for reasons of the better hierarchical order of the functional areas per floor. In fact he produced a design that has next to nothing in common with the basic Citrohan type, even though the client referred to it expressively and Le Corbusier must have been delighted to have an opportunity of realizing this theoretical model. The plot also seemed extraordinarily well suited, especially as there was a Citrohan variant placed on a ridge, and so this set of conditions had already been considered for a design. So far we have no idea why a design was created that departed from this completely and was absolutely not appropriate to the Citrohan model in its complex basic substance. The only possible assumptions about this would also have to include estimated costs, for example. Le Corbusier does mention implementing his work to date on the free plan when speaking of this design, but even the completely new Dom-inо principles formulated in 1914, the separation of the supporting structure and outer envelope, were not applied in any particular. It is quite clear that no synthesis of these very important thoughts took place at the time.

Besnus was an accommodating man, very open to Le Corbusier’s ideas, indeed pretty well an ideal client, who immediately agreed to the smaller studio and very much welcomed the overall concept of the house – the first consistently purist design that was ready to be realized. It is therefore all the more astonishing that very shortly indeed after completion of the building technical defects started to occur; the cellar was constantly flooded, a large crack suggested inadequate foundations, and Le
Corbusier showed absolutely no interest in paying adequate attention to his first piece of work in a new aesthetic category.

The basic concept of the house is that of the studio room. Here it mutates into a continuous living area containing no closed parts, i.e. it is not divided up by walls with doors in them. The outline of the “open-plan room” can clearly be seen and understood when walking around on this floor. It is “interrupted” only by a wall thrusting into the room with a fireplace sculpture on the end of it, which screens off a kind of entrance from the rest of the area. This room represents the centre of the house. The plan develops from here. It symmetrical glazing, as high as the room, projects the axis outwards, together with two corbels and the strip windows of the same width in the upper storey arranged above them. This almost overpowering and thus surprising symmetry, which Le Corbusier had already overcome in the Citrohan house, is intended to represent the “integrity” of the space and thus of the volume on the outside, despite the fact that there are side rooms like the kitchen behind the closed sections of the walls. The street façade is also markedly symmetrical, even though asymmetry is intended to be conveyed by the inequality of windows on the residential level. And so it can be said that the outside of the house is not so much a programme for demonstrating a principle or system as the Citrohan type was, but rather a mere copy of a formal and aesthetic standard. Undecorated white rendered areas within clear, geometrically defined edges with openings cut into them that relate to each other and dark metal framing as a contrasting play of dark areas on a light ground constitute a repertoire of combinations already well-known at this time (from Loos’s work, for example). The repetitive quality of window elements and divisions also suggests an industrial building standard – and masks the fact that the appearance of “serial manufacture” had to be laboriously created by hand. This almost completely symmetrical building rejects functionalist design principles of directly mirroring interior functional hierarchies in the façade. The plan solution of the “whole” makes it possible to produce a façade image that makes itself independent, that does not represent the “interior” as a series of uses but the “exterior” as an ordering principle. The façade becomes autonomous. It obeys higher rules of its own. Here symmetry becomes a kind of “ordering anchor”, an element that establishes and fixes the building volume with its outer covering, while free figurations flow in the interior. Here the – entirely intentional, and thus very deliberately staged – contradiction between internal “movement” and outward rigidity is clearly revealed.

Von Moos\footnote{Von Moos, “Le Corbusier”, p. 107.} points out the picture-like order of the façade, identifying its individuality in the sense of inner form. A remarkable element additionally emphasizes this individual quality and at the same time raises new questions: a narrow protruding cornice functions as upper conclusion to the building, like a roof slab. Obviously Le Corbusier is referring to historical models in which the façade structure is demonstrated as a vertical hierarchy – base, body and roof; this might constitute a correcting element in the context of geometrical calculation.

Much more important for this façade, and ultimately for the design as a whole, is one element in the role of an independent volume, which was in a different position in the first design: the staircase. It was originally placed vertically to the façade, and in a moment of inspiration Le Corbusier shifted its position to follow the façade.
This extends the aspect of the façade by a completely monochrome white area, unblemished and without apertures, separated from the main volume by a glazed joint in the same position as the landing of the staircase inside. Instead of the staircase placed at right angles, an entrance canopy the same length as the stairs is put in place, protruding as a slab and supported by filigree round columns. The entrance canopy is given a corporal quality as a balcony with metal balustrade and round columns. This produces a contrast between the filigree, dissolved body, the staircase cube and the protruding, completely closed balcony on the axis of the central space. These structures represent three-dimensional projections in front of an overall façade that is emphatically two-dimensional.

In contrast with the house itself, the staircase does not have a cornice and thus detaches itself all the more firmly. The glass joint and constructional parts associated with it are set back as well, so that the separation seems entirely deliberate. And yet the staircase block follows the line of the building and is intended to be seen as "in line" with it, and thus a coherent part. We are now in a position to recognize the autonomous significance of this element, which is isolated in such a contradictory way and at the same time attached to the main volume. The precisely cut cube, without apertures or ornamentation, is a self-referential sign, a merely purist structure, an ideal, a "prisme pur", a work of art.

The staircase of this little house in Vauresson is the self-referential leitmotif of this period. Von Moos also refers to the element of separation in this body and asserts that a motif of Modernism and post-Modernism is being expressed at a very early stage here. This was to take the form of a slogan in Louis I. Kahn's later term "servant and served spaces", in other words spaces that are ordered hierarchically. The comparison seems entirely justified, especially as, similarly to Kahn, hierarchy is established – the staircase section serves the main section – but at the same time it is concealed again by being included in the overall outline. Whether the direct establishment of hierarchies will turn out to be a principle of Le Corbusier's designs remains to be seen. The "tracés régulateurs", the regulating surface figures of defined proportion and their diagonals determine the composition of the façade. The extent to which the ground plan was also developed on geometrical principles will be the subject of the following plan analysis, a sequence illustrating the essential structure of the genesis of the design. Before this, Le Corbusier himself should have his say, giving us his own assessment of the
Boundary conditions: “Practical consequences of the exhibition of urbanism at the Salon d'Automne 1922. It was the moment when all the difficulties manifested themselves at once. In 'L’Esprit Nouveau' theories and viewpoints were proposed for clearing up terrain. In this small house, on the other hand, the problem was to create architecturally: the method of construction as well as efficient solutions for the roofing, window frames, cornices, etc. The ‘free plan’ was discovered (placing the bathroom at center of the floor plan). Both the window form and its module were defined (height exactly proportioned to the human scale etc.).”**37**

The following analysis refers to the plan of the garden storey.

**Fig. 27** The starting-point of the design is a double square of a defined size. It establishes the essentials of the outline of the main section of the building. The geometrical figure of the double square provides a vertical axis (on the plane of the drawing). This is the main symmetrical axis of the building figure and creates a dominant regulating line.

**Fig. 28** The double square does not define the precise external outline of the building on all sides. A wall thickness of a defined size dependent on the selected breadth of a supporting column is projected inwards in the upper corners of the double square. This wall thickness is formed by a double-skinned wall slab. Thus the lower line of the double square defines the outer trace of the inner wall. As in earlier designs the precise outline of the square and here of the double square is concealed in its character as a significant geometrical proposition.

**Fig. 29** The internal line of the blurred double square derived from the breadth of the support — and thus the breadth of the wall — represents the outline of the whole interior. And yet the outline of the original double square, and here especially of half of it, the single square, is the key to the further geometrical development of the ground plan figure. This outline is not immediately visible. The diagonal of half the square, with an arc of a circle produced to the bottom line, generates the area proportions of the Golden Section at the point of intersection. When this intersection point is reflected across the central axis the whole figure is divided into a central area and two flanking zones on the right and left.
Fig. 27–29 Plan analysis of the living-room floor of the Villa Besnus
The Golden Section area figure (thick broken diagonal) can be represented intelligibly in the body of the building. The outline of this area defines four more support positions, which clearly define the central space as the main living-room. But here too it is not precisely effective in the interior, because of its dependence on the blurred double square. As the double wall exists on all sides, this ratio of areas "oscillates" by the dimension of the inner wall. And yet it is absolutely clear that Le Corbusier is interested in this proportion relating to the interior space and uses it to establish outlines within the structure of the plan.

The distance between the inner columns, applied to the short side of the building, produces a new central square. With its outline it is possible to define the outline of a volume set centrally above the axis and projecting outwards – as a closed balcony. The square ties this figure into the interior space. On the upper outside line, the distance between the internal columns, at the same time the aperture width of the studio window, clearly relates to the axis of symmetry. In the left-hand outer zone the proportion of the Golden Section can be used to define a line that gives the outline of the kitchen and an important dimension of apertures in the outside wall below it.

All the important lines in the ground plan have now been geometrically determined. What remains to be considered is the canopy over the entrance, which is important for the longitudinal façade. As described above, it emerges, in its unusual balcony function, as a structure that is transparent and yet has a corporal quality. It is derived from a point of intersection between the extended platform line and a Golden Section diagonal which is extended laterally by the width of a column. It becomes clear that the length of the entrance canopy is also reflected in the length of the staircase section of the building.

The structure of this first purist design by Le Corbusier to be built after the L'Esprit Nouveau pavilion and the Atelier Ozenfant, which is roughly contemporary, is clearly shaped by its inherent order. Starting from a symmetry that is quite evidently present, which can be counted as a "calming" basic structure and at the same time as a classical reminiscence, the interior spaces are determined by proportional area figures. The asymmetrically placed staircase section and the entrance façade work against the symmetry, but they too remain within the ordering structure, which is made up of clear referential lines. The decisive factor is that in this way all the parts of the design, interiors, external lines and façades are bound into a "system" of order.

This step makes it possible to define the outline of the staircase geometrically. The order for the sequence representing the emergence of the design that we have chosen is thus confirmed, as it is not possible to find a border for the staircase section until after the imaginary square from fig. 30 has been fixed to define the centrally placed balcony cube, and then by doubling this. Here the centre is formed by the axis of the dividing wall with the kitchen, around which the actual wall turns. The width of the staircase is determined by the width of the opening already established as a result of the kitchen. Thus the width of the staircase is taken into the open-plan room, forming an entrance zone there extending to the central axis and a fireplace/shelving sculpture that ends there. The length of the flight of stairs is limited by a Golden Section proportion: the inner line of the staircase to the outer line of its wall. The distance from the house thus emerges in the shape of a platform and a way out to the garden.