



Figure 1 Terraces on the west façade of Corrales House. Image source Enrique Delgado Cámara

INHABITED TOPOGRAPHY

Enrique Delgado Cámara

The house-studio of José Antonio Corrales in Aravaca

When José Antonio Corrales builds his own house-studio in 1977 he proposes an adaptation to the environment that allows him to establish a meditation on architectural sustainability that was not limited to energy saving. Corrales House is solved with common sense and ingenuity, something difficult to find in recent modernity

Following a climate-efficient approach, the building is closed to the north and to the views of the nearby neighborhood by setbacks and steps, to orientate towards south and direct the views to the distant horizon of the Casa de Campo.

In front of the house remains a free a space, located at a vertex of the plot that coincides with the highest level of the ground. The door of the house is hidden, standing on a side façade. It is articulated on the floor plan with the garage to create an access area in a bend to cross a lobby with double door. The house keeps 5 meters away from the limits with the neighbors and takes the triangular shape of the plot like the last of a shoe.

The level difference of the ground is introduced into the house through a stepped topography that generates its own inner world, with eleven terraced levels that give rise to the organization of the different areas of the house. The complexity of the floor plan responds to an approach of the house conceived from the section.

The largest outdoor space is placed on the south of the plot, where there is a stepped garden to which the house opens and where a swimming pool is located. The porch functions as a sunscreen filter for the large glazed

opening of the living area and generates an outdoor living space related to the dining room and the landscape.

Both the patio and the porch can be understood as intermediate elements between interior and exterior. The courtyard of the east façade is covered with a pergola, placed as an appendix protruding and exceeding the line of the east façade. The porch is a living space that links the interior of the living room with the outside garden.

ARCHITECTURAL CONTEXT

In the house can be found themes and mechanisms used perseveringly in the work of Corrales, as well as in the work made in collaboration with Ramón Vázquez Molezún.

The way the house is placed on the ground is similar to the Institute of Herrera de Pisuerga, of 1954, the first work that Corrales and Molezún carry out in collaboration. The stepped terracing had already been experienced in the section of the Residence in Miraflores de la Sierra, in another collaboration with Alejandro de la Sota in 1957 and on which rises a light structure of metal pillars and wooden beams that support a suspended roof. Later Sota will use the stepping of the land in the Guzmán House of 1972 to create an artificial topography of terraces linked with different levels.

The idea of house transformation is explored by Le Corbusier in a project for apartments in 1928-29, where mobile partitions allow the change of use of the rooms during the day and night. In the Engleber House from 1949, Harry Harrison uses deployable divisions in the children's rooms for the transformation of the bedroom into play and studio space. Sota also uses in the Guzmán House mobile elements that allow to transform the living and the porch, to open the house to the exterior landscape.

INHABITED TOPOGRAPHY

The house of Aravaca is born from the land. It adapts to a triangular plot with a steep slope towards south. The initial intention of linking the garden with the living area at the southern end leads the house to climb the hill. The complexity that is reflected in its floor plan and in its apparent difficulty of understanding is solved by making a tour across its interior, guided by a sequence of terraced spaces. You enter the house from the highest level to go down in a terraced way until you reach the garden that is also stepped.

To adapt to the slope the house is organized by stepped platforms where the various rooms are arranged in stratified bands parallel to the terraces. On the solid basement are supported exempt metal pillars, detached from the perimeter walls, which support a light cover from which light can be introduced.

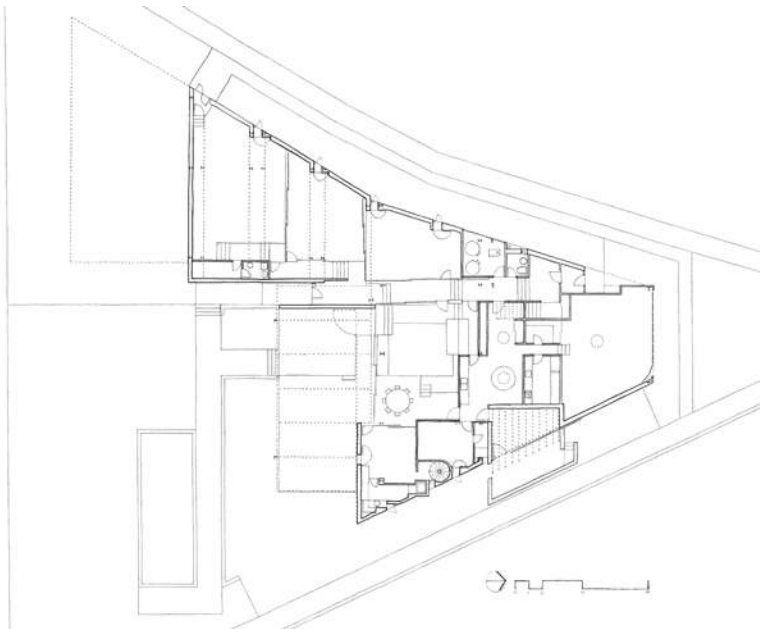


Figure 2 Main floor plan of Corrales House. Drawn by Enrique Delgado Cámara

The terraces adapt to the inclination of the land and in turn determines the configuration of the house. This is done in an orderly manner, using platforms of 7 meters of background that generate a descending sequence with 5 main levels. On the first level is placed the access, the housing area is arranged on the second and third levels, while the work area occupies the lower two.

On a first platform at level 9.48 m.¹ is located the main entrance of the house, arriving from the west side with a lobby. On the second level is placed the service area at level 8.82 m., to which you descend from the lobby or from the garage. This step of 0.66 m is perceived only on the stairs. The dining room and a cabinet are located on this same level which extend to wrap the living as an extension of the platform to the south that continues on the outside porch.

The third platform is located at elevation 8.15 m. and houses the living that fits into a second concavity. The step of 0.67 m. is very similar to the previous one and is present on the three sides of the living. On the other side of the gallery on this same level there is a versatile space that articulates the floor and links with the work area. The living space extends towards the outer portico with a platform slightly elevated to the level 8.50 m. A platform at level 7.50 m. links to the studio and allows you to go out to the garden.



Figure 3 Stepped platforms in the studio of Corrales

¹ Level height have been respected according to the referenced dimensions in meters as appear in the original plans of the architect.

The studio is located between the fourth and fifth platforms, to which is added an intermediate step. The first level is located at level 6.68 m. from which you access the platforms located at levels 6.12 m. and 5.48 m. The leap between the living area and the studio is 1.47 m., while the step between the two platforms of the studio is 1.20 m. These rooms are lightened by open skylights in the fold of the roofs. In the published plans of the house appears another step in the studio area² with a third room that is located at the southwest end of the plot. This space drawn on the ground floor that was not built follows the sequence of the terrace, in continuity with the other rooms of the studio.

The porch is located on the fourth platform partially maintaining the interior level 8.82 m. to descend to level 8.50 m. in front of the living. From the level 8.50 m. of the porch, you can descend to the level 8.00 m. of the fifth platform to reach the level 7.50 m. that connects with the interior gallery. The slopes between these levels are 0.50 m.

At the southern end of the plot is the garden, which is an extension of the fifth platform at level 8.00 m., formed by a green meadow and with a pool that can be accessed from the house ascending from the level of level 7.50 m. or descending from the porch.

The steps around the living generate a space confined on three of its sides by a slope of 0.81 m. The line of vision of a seated person is placed almost at ground level on the porch. The tier produced by the topographic folds fits the furniture of the living room that are arranged in a U-shape to confine a concave area that generates shelter and looks towards the center. However, a short distance away on the floor plan, a person also seated in the dining room position has an elevated viewpoint that allows a distant view of the landscape through the porch.

² The plans are included in the article published by Jerónimo Junquera and Estanislao Pérez Pita, *Casa en Aravaca, Madrid*, Quaderns, nº 160, enero / marzo 1980, pp. 24-37. This space that could be understood as an enlargement is defined in the floor plans, while in the elevation plans it appears only as an outline.

The terraces between the living room and the studio produces an opening of 1.60 m. in height above the upper ground level, which allows a person standing to direct his gaze diagonally towards the lower space. In the reverse position, the eye level of a person located in the studio allows him to overcome the gap of 1.47 m. and see over the floor of the living room or to be able to raise the gaze. The same step of 1.47 m. enables a seated person to work without distraction since the height of his eyes does not exceed the step. Between the two rooms of the studio there is a level difference of 1.20 m. that can be overcome by the vision of a seated person and also allows the diagonal view between the living room and the studio in both directions.



Figure 4 Porch of Corrales House. Filter and steps.



Figure 5 Diagonal visual line between the second living room and the studio of Corrales House.

Image source Enrique Delgado Cámara

VERSATILE PROGRAM

Corrales proposes alternatives in his house-studio on the traditional housing program, a question linked to the current moment of crisis and transformation of our contemporary way of living. Conventional domestic spaces are avoided to propose areas where diverse or not known activities are allowed. Although the studio has an independent entrance, the relationship

between the house and the studio seeks integration and transparency, as happens between the public and private parts.³

It is not intended to isolate the functions or the different possible uses, but to enhance their fusion. The arrangement of movable panels gives the spaces a capacity for transformation in their relationships, in which the stepped section of the house participates in an important way.

On the floor plan the house uses a scheme similar to a mat building with a plot extended over the territory, closed in its perimeter and with vertical lighting openings. The openings to the outside are controlled and the various rooms are organized towards the interior by means of an orthogonal grid that stimulates the relations and the possible interconnections.

Corrales proposes a large family program that is combined with a work-studio area. He wants to avoid the obvious and well-known requirements, to think about complementary activities of work or leisure to accommodate the different members of the family in their necessary environments.⁴

The area of diverse or not known activities that is located next to the living room introduces a random and freely available factor that can be understood as a second room for the children, a place for hobbies, a reception space or to work inside the house.

The same happens with the rooms located on the platforms of the studio, they are versatile spaces without a specific use. The stepped arrangement and closure of the spaces by means of movable partitions reinforce this possibility of transformation of the program.

3 García del Monte, José María, *José Antonio Corrales Gutiérrez, 1976-79, New construction*, Included in: *100, One hundred houses for one hundred European architects of the 20th century*, General editor: Gennaro Postiglione DPA Politecnico di Milano, publisher Taschen, Köln, 2004, p. 84

4 From the text of José Antonio Corrales, published in the book *Corrales y Molezún, arquitectura*, Xarait Ediciones, Madrid, 1983, p. 122

SPATIAL TRANSFORMATION

Corrales uses several mechanisms to allow the transformation of the spaces. Through the steps a physical barrier is produced that nevertheless allows visual continuity. The arrangement of movable panels alters the relationships between the rooms. The control of the views on the outer perimeter made with different types of openings allows to modify the spaces, in addition to controlling the lighting.

The platform located at level 8.15 m. occupies a central position around which all possible spatial connections of the house are articulated. The living room, that occupies the 7 meters of the width of the platform, is located in a prevailing position from which you can dominate the areas located on other platforms. The room is fit by steps on three sides: To the north the step that allows the passage to the kitchen, in the east there is a step that descends from the cabinet and the dining room to the living and on the south side there is an ascent to the platform of the porch, while to the west there is a horizontal continuity with the gallery and the second living room. The placement of sliding doors between these annexed spaces allows each of the compartments to be added or subtracted.

The opening of the two panels of the gallery multiplies the dimension of the living room, whose length can extend up to 20 meters between the two side facades by also opening the mobile panel of the cabinet. Adding the opening of the two sliding doors of the studio would achieve the greatest possibility of extension of the living area, which would allow a diagonal line of vision from the kitchen to the south-west end of the house, with a length of 33 meters. The sliding panels allows an independent use of each of the rooms.

The glass screens that form the exterior enclosure between the living room and the porch are also sliding, which allows the porch to be incorporated into the room and the dining room with absolute continuity. Superimposed on the screens are added the exterior mobile panels of the façade, which give the possibility of modifying the visual connection between the living and the porch. These panels are made up of three moving elements which

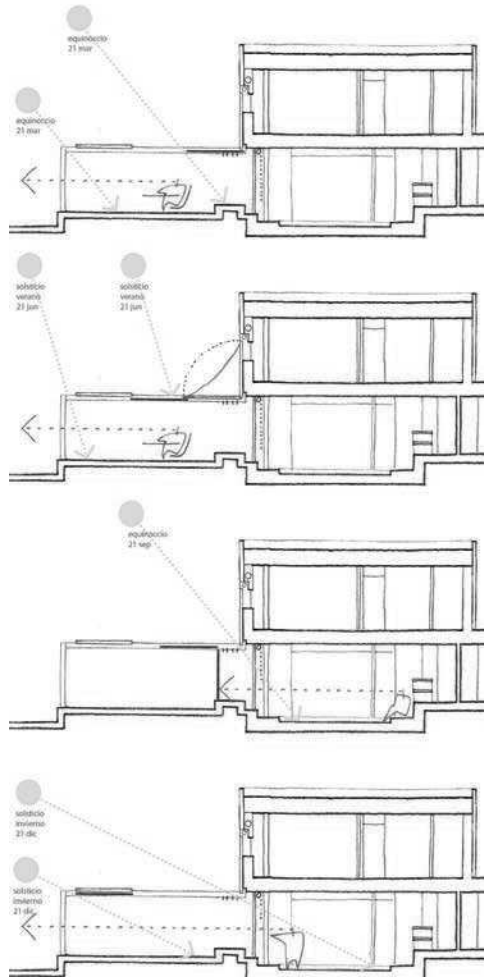


Figure 5 Analysis of the filter and solar cycle in Corrales House. Drawn by Enrique Delgado Cámara

allow different provisions of the closure which can function as visual barriers or constitute a safety element when all the elements are moved over the living space.

There are also mobile panels in the service patio. This closure that is located in the exterior plane of the east façade allows to double the dimension of the patio, changing its character and transforming in turn the visual line that occurs from the kitchen.

The cover of the porch also includes mobile panels in addition to cloth sunshades placed horizontally. The concept of transformation is used here as a passive solar strategy, with versatile dispositions to take advantage of ventilation and sun protection. These elements allow solar radiation to be regulated at different times of the year and generates diverse living spaces in the porch.

TOPOGRAPHY AND TRANSFORMATION

The inhabited topography structures the house of Aravaca. The stepped terraces allow to accommodate the rooms and establish relationships between the spaces with diagonal visions in section. In turn, a downward circulation is generated with a dynamic gradation towards the most public areas of the house and the studio. In this descent, the capacity for spatial transformation that emerges as a contribution in the approach of the program of contemporary living is increased. The program is open and the spaces are transformable. In the house there is room for leisure, work and other alternative or complementary uses to housing.

In the Corrales House are present the geometrized steps of Wright's houses, the concept of Utzon platforms, the use of the porch as an exterior filter of Alvar Aalto, the inside-outside of Sota or the open terrace to the landscape of Oiza, diverse architectures that resonate in an eclectic attitude that allows them to be gathered.

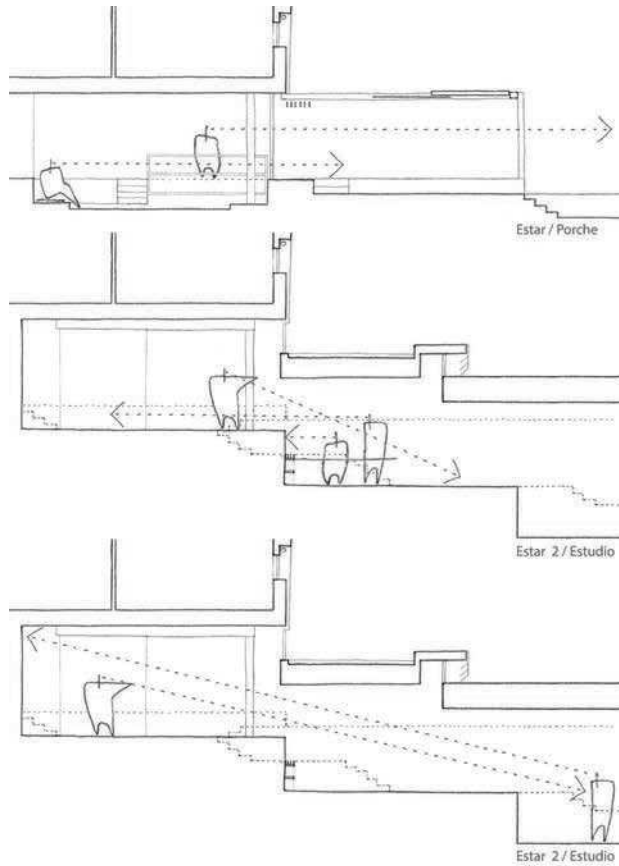


Figure 7 Analysis of the terraces between the spaces of Corrales House
Drawn by Enrique Delgado Cámara

The drawings of the house on the floor plans and sections express clarity. There is a freedom to move between the different interior and exterior elements. The architectural work is natural, spontaneous, easy, cheerful and carefree. Clarity in thinking has been sieved by work and maturation on the drawing board. During the last years of his career José Antonio Corrales avoided the use of computer to continue developing his projects with hand drawing. He said: *"I do want to check graphically the ideas I have in my head."*⁵

Corrales' thought develops by drawing and Alejandro de la Sota, who knows him well, reminds him enjoying the work on the drawing board: "I remember him sitting on the board and brilliantly solving from one end of the paper to the other of the whole project. I found his speed and perfection implausible. [...] When my spirits wane, I think of José Antonio, the cheerful worker on his board."⁶



Figure 8 Analytical axonometry of the topography in Corrales House. Drawn by Enrique Delgado

5 Quote from documentary film, *Elogio de la luz: José Antonio Corrales, voluntad indomable*, director: Juan M. Martín de Blas, Televisión Española, 2003

6 AA. VV., *Corrales y Molezún. Medalla de Oro de la Arquitectura 1992*, Superior Council of the Colleges of Architects of Spain, Madrid, 1993, p. 86

BIBLIOGRAPHY

AA. VV., *Corrales y Molezún. Medalla de Oro de la Arquitectura 1992*, Consejo Superior de los Colegios de Arquitectos de España, Madrid, 1993

Castro, Carmen, *Los arquitectos critican sus obras, J.A. Corrales y R.V. Molezún*, Arquitectura, nº 154, octubre, COAM, Madrid, 1971

Corrales, José Antonio & Molezún, Ramón Vázquez, *Corrales y Molezún, arquitectura*, Xarait Ediciones, Madrid, 1983

Junquera, Jerónimo & Pérez Pita, Estanislao, *Casa en Aravaca, Madrid*, Quaderns, nº 160, enero / marzo 1980

Martín de Blas, Juan M., *Elogio de la luz: José Antonio Corrales, voluntad indomable*, Documental, Televisión Española, Madrid, 2003

Olalquiaga Bescós, Pablo, *El método de José Antonio Corrales y Ramón Vázquez Molezún. Influencias y escenarios arquitectónicos*, AxA Una revista de arte y arquitectura, Universidad Alfonso X el Sabio, Villanueva de la Cañada, Madrid, 2014

Postiglione, Gennaro, *100, One hundred houses for one hundred european architects of the 20th century*, DPA Politecnico di Milano, editorial Taschen, Köln, 2004