

SIERRA VENTANA PROJECT

CARLOS GARCIA VELEZ Y CORTAZAR
MEXICO CITY, MEXICO. 2000

Space, Light and nature are three concepts architect Carlos Garcia Velez y Cortazar has integrated in this home of unsuspected shapes, with an architecture of pure lines, mixing curves and diagonals in integrated in integral spaces. Down to the last detail, the project is imbued with a sense of privacy and communion with nature.

The facade was realized as a curtain of mystery that, on being opened, allows one to see first a lengthy corridor covered by a pergola formed by a ribs of glass, an element that creates a play of images and light that changes with the position of the sun. This play of light, an incomparable property of the material, projects different effects on the white limestone wall that envelop the corridor until it opens out on a central courtyard covered with a vault made of glass blocks, supported by a series of laminated wood arches that continue until they are lost in a porch, also covered with glass prisms that open the way for the guest of honor: mother nature. Thus, the tendency toward openness in the complex focuses on our encounter with the jungle; the great guest that makes its presence felt through the wide-open spaces to the rear of the house.

The roof of the structure is in concrete coated with polystyrene, with solar panels facing south, both to provide hot water for domestic use and for the pool. The floors, on the other hand, have radiant heating, which adds to the comfort required for the living room. The lights at the front and rear of the house are powered by photoelectric cells on the rooftop, giving the building an air of ecological intelligence.

We have, then, an ecological sensibility that is also expressed in recycling of rainwater trapped on the roof, to then be concentrated in two large gargoyles that channel it into two pools, which, when they overflow, fill an ample cistern used to water the gardens during the dry season, taking the opportunity to create a natural fountain out of recinto negro, which serves as a great mirror reflecting the jungle.

The concept of openness is expressed, on the other hand, in integrated, open spaces that broaden our perspectives, breaking the borderline between inside out, but at the same time achieving total or partial privacy by means of walls that do not touch the vaulted ceilings, beams and frosted glass partitions that rotate, creating segmented and absolute openings.

Every last detail of the house was thought out and designed with painstaking care, especially the glass washbasins, the countertops, the bookshelves, also in glass and stainless steel, the stainless steel staircases and granite jalousies that act as filters, changing with both natural and electric lighting. This added to the realization of an architectural project that goes beyond the ordinary design of a home, with a palpable, singular creativity, enriched with new and ludic ideas.

MERCEDES-SUAREZ HOUSE

CLAUDIA MERCEDES SUAREZ

SANTO DOMINGO, DOMINICAN REPUBLIC. 2002

Geographic Conditions-This project is located in Santo Domingo city, Dominican Republic, where weather is mainly hot and humid, with a season of cyclonic activity from June until November. Santo Domingo city is located in the southeast coast of the island, where the average wind direction flows during the day in a SE direction and within the night NE. The average relative humidity is over 85% becoming quite frequently to saturation limits. .

The project-This project began as a result of family reduction as their children got their own houses, therefore, there was the need of a comfortable, cosy but well distributed new house, mainly for two adults. Owners requested a one-store house with enough spaces for their movement.

The suggested bio-climatic concept begins with spaces orientation: daytime areas are located in south direction, nighttime ones to the north, as a consequence of winds predominant direction. Services areas and parking places were located toward west side projecting a shadow over the house on evenings when sunshine is more intense.

Inside, roofs have been built with significant height having an average approximately of 6.00 to 7.50 meters, specially on social areas; this in conjunction with slanting and vaulted forms, allows the house to maintain a well stable condition of flowing air which it is a great opportunity to enjoy the different areas of the house without having the inconveniences of hot air blowing inside of it. Windows located on the higher side also contribute for the above-mentioned purpose. Furthermore, cross ventilation is improved all over the house basically on social areas which tend to have the most frequent use with high concentration of people.

The house has been built with conventional materials (cement blocks) but also others were included to emphasize the concept of designing, as well as, enriching the natural lighting effects. Reinforced acrylic skylights with curved forms were used in order to concentrate solar radiation just as a straight line. The same concept was applied in all others vaulted roofs.

Concerning to windows, they are set back from the facade limits that helps the control of solar radiation that comes in contact with facades as louvers. These areas were completed with dense low and medium high vegetation that makes interior spaces more comfortable. In rainy situations this kind of windows could also being kept opened. Exterior areas include a transition zone between the house and gazebo area with a wood pergola that accommodates a leafy plant that becomes as a natural roof.

Finally, and as a decoration accessory of the house, roofs were provided with water collection channels for recycling and also for irrigating exterior areas.