

the concrete would deform the support vertex of the cube and thus its willingness for pure form.

Villanueva's Pavilion being a generic building, without an expository content determined a priori, it relegates its usefulness to that of a problem of image basically (that of a country) and to its constructive resolution. So then, this would be the greatest difference with respect to his long career, ruled by functionality and economy, the main and determinant characters of his architecture. As we already warned, it is not a question of a radical change in the way of his designing, but his response to a specific problem, in which, the use was not the determining factor.

José Javier Alayón (Guanare, Venezuela, 1974), Architect by the University of the Andes (Venezuela) and Dr. Of Architectural Design by the Polytechnic University of Catalonia. He is an independent researcher and designer.

## Villanueva and Soto

Antonio Barrionuevo

Located on a granite millennial hill, the city in which sowed the seed of the continental dream of Simón Bolívar, the Liberator, is a privileged viewpoint of the Orinoco; the "Río Padre", as they call this horizon of water and the third largest river in the world.

In this land of grace that Columbus sighted on his third voyage, the capital city of the Spanish Guyana moved its original location as a port and fortified gate of El Dorado; until it emplaced itself on the narrowest stretch of the river where the river bed, six kilometres wide, is reduced to eight hundred metres in high water. Ciudad Bolívar constitutes a cultural landscape where its original grid plan, right angled and orthogonal, it settled on a displaced and adverse topography in which the colonial city remains like an intact jewel around the main square. Its rectilinear streets are populated with courtyard houses, the way of inhabiting of the native cultures in sunny latitudes and an evolution of southern architecture.

Benito Irady, coordinator of the candidacy of the city as Cultural heritage of Humanity and committed to "Cultural Diversity" a Venezuelan sign of identity, said: "Who would have thought that at the beginning of the twenty-first century, this city of endless stories would emerge again from its bones of stones to place us in its magical nature and in the consciousness of its name and reveal the American memorial that it keeps in its entrails to the world".

Jesús Soto, master of kinetic art, universal Venezuelan, was born in Ciudad Bolívar in 1923. Tireless researcher in the means of abstract art expression, abandoned early any type of figuration, texture and chromatic colour which were distinct to the flat and pure ones.

After moving to Paris, his works clearly within the inserted theories and plastic arts of constructivism, going on from the single plane to the three-dimensional object, where the superposition of built surfaces with diverse materials conforming graphic patterns, which would make the composition vibrate in front of the observer and his/her body movement; producing the kinetic vibration.

Furthermore, his creations are directed

towards objectivity in art. He stated "I do not see art as a free invention, but as the intellectual development of man in history".

His intense research made him constantly change the materials with which he built his works: he did not want to be trapped by a way of doing things.

"The introduction of plexiglas only interested me as a means to draw the space". And to be liberated of it he invented the way of overlaying the frames by means of metal rods welded together, without the addition that the Plexiglas represented.

Towards 1957 he designed the first "evolving work" which he titled "pre-penetrable".

It is a new achievement in the way of fully creating the total integration of the spectator by turning him/her into an actor "for me a work of art does not exist independently of the spectator". The important thing about the "penetrables" is to demonstrate that the space is fluid and full. The elements do not matter, since they are only there to make the relationships evident, the density of space.

When you are in a penetrable you feel that this is another space. One of play and movement. Soto considered that "the penetrable is not even a work, it is an idea of space that can be materialized in any situation and at any scale, if it were possible; to do so covering the whole planet."

Carlos Raúl Villanueva, Venezuelan born in Paris in 1900, is one of the main architects of Latin America and of the universal modern culture.

Professor of History and Composition at the Central University of Venezuela, outlining his works with total synthetic and expressive force, taking charge of reflecting it into defining plans of the project and the works of the Italian architect Juan Pedro Posani, currently director of the National Museum of Architecture in Venezuela.

For the teaching of architectural composition and design he invited as a master teacher of the workshop the then furniture designer Cornelis Zitman, a Dutchman living in Venezuela, that in the 1950s had founded the prestigious firm Tecoteca, in which functional and comfortable modern style furniture of great simplicity, endurance and beauty were manufactured with great skill.

As professor he emphasized that the plan of studies for the schools of architecture must be based on technology, composition and in

promoting social and historical consciousness, to develop the independent creative talent. Giving an extensive education that does not admit exceptions. His thought can be synthesized in one of his statements: "Architecture is the mark of living in its most complete manifestation and the architect is fundamentally an intellectual, besides being a technician, if his/her ideals are complex, poetical and alive, then he/she will also be an artist."

#### **The Soto Museum**

On the occasion of the National Arts Award received in 1959, Soto expressed his intention to found the Museum of Modern Art in the City of Bolívar; and around 1969 he donated to his city of birth an extensive collection of his property, and his most representative works of different periods.

Previously he had given to Carlos Raúl Villanueva, architect, friend and avid collector of contemporary art, his work "The Villanueva Box". Who enthusiastically gave a lecture the following day on the composition values of the work and stated "Soto, half magician, half geometer, has managed to make the traditional canvas vibrate, I have always imagined that the architectural plastic arts liberates the internal space of any static vision and prints in multiple dimensions the kinetic joy of colour." Since the work for the Venezuelan Pavilion of the Montreal exhibition, formalized by the relation of three cubes in which one was the external covering of the Great Penetrable of 1967, Villanueva in his maturity was trying to formulate architectures of essential features, from further refinement and simplicity; whereby, "building without using materials would be the ideal. The building has significance only for the living content that it shelters. One would like to build an ideal form, without anything useless, technological and so pure that there no longer existed appreciable difference between the roof, walls and natural spaces". The museum located at the crossroads of two main avenues open to the extension of the city- Germanías Avenue and of Mario Briceño formed part of the New Cultural Centre planned in the 60s: the House of Culture, the Auditorium, the Theatre and the Library. The museum consists of six free standing buildings connected by roofed corridors, from which they have access to the interior gardens where sculptures of Soto and other artists are exhibited outdoors. The first of the museum's buildings consists

of two levels and houses the entrance and administration. The following four are the exhibition halls. And finally the sixth volume of large format is a cubic box which is customised to the measurement of the thirteen meter high Montreal Penetrable.

It was built in 1971 in a very short period of time, taking only nine and a half months: On the 21st of February, Soto visited the site; On the 31st of March, Carlos Raúl Villanueva accompanied by Edgar Parra inspected the foundations and commented that the rest of the structure and enclosures were being prefabricated by the patent Prevenca (Venezuelan Precast Reinforced Concrete); and on the 4th of December the newspaper El Expreso reported: "Soto is at home", the inauguration article headline.

This speed in the execution of a museum complex of 1080 m<sup>2</sup>, equipped with advanced artificial lighting and with all the existing technical advances, is a product of its pre-industrialized conception. The buildings have all the same width, 10 metres, and only vary in their length or in the way of placing their enclosures.

The supporting columns of the entrance and administration building are set back allowing the slabs that form part of the roof to jut out around the whole perimeter which is finished off with a wide band just like a frontispiece.

The following three exhibition halls, the two first ones being twins, their length being the result of attaching structural modules and the projection of half a module at both ends. The fourth exhibition hall has two levels of height. The building despite of its formal diversity -the naves have different lengths according to the 2, 3, 4 series and their non-parallel layout is adapted to solar orientation and in convenience to the shape of the plot- it turns out to be, however, very systematic as a pre-industrialized production.

The rooms have three blind sides, to be flat supports of the exhibited hanging works; but its fourth side, the fronts of the halls 1, 2 and 3, open onto the garden through large windows and lattice-work frames, making nature participate as another exhibition object.

Villanueva designed the vertical walls not to touch the roof level, thus introducing a strip of natural light on them, breaking the idea of a hermetic room and making his aspiration effective in which roof, walls and natural spaces would merge integrated in the architecture. It is said that despite its apparent geometric

arbitrariness its formation around a courtyard garden of sculptures, perpetuates an atmosphere similar to the Roman villas, or a monastic cloister. The presence of the garden, of the courtyard, of the backyard, of the exhibition halls and corridors, definitively released from their canonical order, are legacies of the Mediterranean architecture that the Andalusian master builders, as Villanueva explicitly recognized, transmitted to Venezuela and to Latin America.

Antonio Barrionuevo is Senior Lecturer of Architectural design at the Superior Technical School of Architecture of Seville.