**LATIN AMERICA**

Living in the contemporary

Visions of sustainable architecture

Organised by **IILA International Italian-Latin American Organization**

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*And Polo said: – The inferno of the living is not something that will be; if there is one, it is what is already here, the inferno where we live every day, that we form by being together. There are two ways to escape suffering from it. The first is easy for many: accept the inferno and become such a part of it that you can no longer see it. The second is risky and demands constant vigilance and apprehension: seek and learn to recognize who and what, in the midst of the inferno, are not inferno, then make them endure, give them space. (from “Hidden Cities 5” in “Invisible Cities” by Italo Calvino, 1972)*

This quotation from Italo Calvino must not take us by surprise. He was one of the first writers to have dealt with topics of environmental sustainability in his writing. Before many others, he already wondered what the city today had become for us. He said that he had written his last love poem to cities, as it was increasingly difficult to live in them as such with the destruction of the natural surroundings; he highlighted the fragility of the great technological systems and how they would have compromised whole metropolises, but at the same time he did not prophesy catastrophes in his writing. What Marco Polo was interested in was discovering the hidden reasons that have led men to live in cities. For Italo Calvino these are sets of things: memory, desires and meeting places and he gives us back images of happy cities which continuously take shape and vanish, hidden by unhappy cities. And he tells us of cities that have to grow lightly.

It is precisely lightness that this exhibition, the result of a research project, wants to relate, with visions of contemporary architecture

 “*Vivir en la contemporaneidad*” means living sustainably with attention to the interactions between economic, social and environmental changes and combining social inclusion, economic, and sustainable development and this is possible through architecture.

The architectonic scene diversified by country and known to varying degrees, has a unique value for its *hic et nunc* (here and now) vision of this intense contemporary capital of projects and works by young architects; it is attentive to the natural surroundings and still grateful to the teachings of its native peoples, who have always been the guardians of the environment. The simple constructions recover and innovate the styles of traditional types of some urban ensembles, which use vernacular building techniques and natural and salvaged materials with an innovative approach to the technology of traditional ancestral architecture.

It is a contemporariness that is so singular for each Latin American context and it must be understood how much of it is linked to each situation and what this means and to which architecture seeks to give sustainable social solutions, as in Ecuador the “Casa Parasito” by the **Sindicato de Arquitectura**, which designs a repeatable prototype of a “vivienda minima” developed to solve the accommodation needs of singles and young couples. The creation of the award-winning school of “Las Tres Esperanzas” for the community of Puerto Cabuyal, by the Ecuadorian architects of the **Alborde** studio, is a project of social inclusion, which meets the problem of the distance of the community from state schools and develops a new model of local education, built with techniques together with the local community.

Sustainable architecture is inclusive and the project of the “Casa de la lluvia (de Ideas)” by **Arquitectura Expandida** is an example of this. A project of self-construction of a self-managed social and environmental space in the district of La Cecilia in Bogota, Colombia. The process of self-construction of a house using guadua, which tries to question the authoritarianism and the lack of transparency of the decision of territorial policy in neighbourhoods which are historically victims of the incapacity to guarantee territorial rights.

In Chile the Pritzker Architecture Prize-winner, **Alejandro Aravena Elemental**, committed to improving the social conditions of the poorest, in the city of Iquique, experiments with “Villa Verde” on the least affluent sections of the population a methodology of “participated design”, in a programme defined as "incremental design", based on cooperation and self-construction to absorb slums.

The Guatemalan firm of **Taller ACÁ** builds for the McDonald Foundation in Guatemala City the “Ronald McDonald House”, which every year houses more than 2,000 families. The charitable foundation, socially committed with the motto “a home away from home”, offers accommodation to families from the interior of the country whose children are undergoing medical treatment in the public hospital system.

In the city of Caracas in Venezuela, **Enlace Arquitectura Elisa Silva** proposes an inclusive space, for art and culture, in the “Anexo la Casa de Todos” with the reuse and recovery of materials easy to find in an existing building, which has been abandoned for more than three decades. A central garden full of plants and trees cools down the environment, and large mobile openings allow the circulation of air and transversal ventilation. This place which generates inclusive and participating ways of design of the city, also encourages discussion for the generation of ideas which support the integration between the city and its inhabitants, as well as structured and organic projects which meet their needs.

Other contemporary and sustainable visions are the experimental ones of the architects from Ecuador **Alejandro González, Ignacio de Teresa and Juan Carlos Bamba Vicente in** “El Guardián del Chimborazo- Refugio Antártico Ecuatoriano RAE”. Here they experiment the use of natural fibres left over from the agro-industry: corn on the cob, maize, rice husks and other waste are experimented in the construction of two emergency shelters, a project of “prefabrication of the natural'', which would guarantee for architecture the possibility of accessing an unlimited source of waste resources and which have surprising physical-chemical characteristics for their use in making building materials.

**German Del Sol**, a Chilean architect, makes the “Terme di Puritama” usable. This is a thermal river which flows generously in a hidden valley 60 kilometres from San Pedro de Atacama. Along its sinuous course, the Puritama River creates many natural pools that have been used for bathing since time immemorial. The delicate work done in this unique thermal landscape preserves these natural swimming pools, creating profit for the local community.

The sustainable vision of the Colombians **Torres, Piñol, Ramirez & Meza** is that of the “Biblioteca Publica di Villanueva” which makes use of local materials, local labour and reduced costs, which is adapted to the climate. They have built a sustainable building of two compact volumes which house, in addition to the library, offices and workspaces; another volume has a square and a public corridor, creating an ensemble which is more a cultural centre than a library.

The “Jardín y Nectarífero para mariposas” in Cali is an attraction for butterflies. Designed by the Colombian architects **Husos Arquitectos,** it is a bioclimatic building which also works as a biometer, which helps measure the environmental quality and make visible the unique value of the ecosystem it is in; the butterflies, efficient bioindicators of the quality of the environment, live in this construction which has houses, work spaces and commercial businesses, but above all it is a domestic garden of plants, shrubs and climbing plants as the habitat of birds and other species of local insects.

Residential architectures are sustainable when they propose models such as the “vivienda bioclimatica” of the “Siquíman Lodge” by the Argentinian **Pablo San Martin**, but seek non-invasive architectonic solutions, like this house which, resting on the ground and on the vegetation, allows water to continue its natural outflow.

In the multi-family house of the “Edificio Damero” by **Francisco Cadau,** there is the contemporary vision in the relationship with the vernacular: very often, going forward means going back; the tradition in construction and technology form the ideas themselves and are the references when thinking of sustainable models of design.

**BAAQ,** in the “Casa Aráoz 967” creates a residential building in Villa Crespo, in Buenos Aires in a low density area, but with a strong neighbourhood character. The project deals sustainably with the difficulty of continuing to densify the city in a neighbourhood of low houses and with medium density which define its identity as an urban lifestyle, from the study of the materials, the path of the sun and the proportions of the windows, BAAQ designs a building which is consolidated in the official line, without balconies or recesses, completing and respecting the morphology of the block, with its old houses and generating a passage of transition between the outside and the inside.

In Brazil, the firm of **Apiacas Arquitetos,** in the “Casa Serra Azul”, goes back to the vernacular architecture of the rural Brazilian home and perimeters with a balcony, the patio and the pool, resuming the typical distribution system of the local models, which here runs between the contrasts of the volumes built using sustainable material.

**Luciano Lerner Basso** with his “Casa Fortunata”, situated in the extreme south of Brazil, puts himself in relation with nature, around a tree, an enormous Araucaria Angustifolia which dominates the whole house. This building is immersed in its context and built reusing materials used such as the timber used for the formworks of the walls without barriers.

**GeraBrasil** in the “Casa das Birutas” proposes a new way of building with eco-efficient technologies, a house as a living system, which recycles and regenerates, as does **Tagua Arquitetura in its**  “Casa MP” in a brutalist and industrialist style, which combines the use of natural material such as ecological brick to build the load-bearing structure with exposed cement, systems of collecting and reusing water and a system to produce photovoltaic energy, making this weekend home autonomous.

**Architecture which relates to nature is** the vision of the Paraguayan **José Cubilla** who questions how architecture can occupy a place without destroying it, a sustainable vision which is inspired by the Guarani cosmogony, which he translates into his “Casa Ara Pytu”, in the state of Central; Ara means “day and time”, and Pytu “darkness,” a reference to the atmosphere of the surrounding woods rich in a biodiversity of flora and fauna, which must not be compromised and which embraces this architecture, incorporated like a natural stone which takes its shape from the wood. Ara Pytu is built from handmade bricks, wood and recycled stone; the garden roof, which preserves the thermal inertia in the home, is also a small kitchen garden.

In the “Casa MilGuaduas” by the firm of **Ritmo Arquitectos** in Colombia, it is also architecture surrounded by a native forest of guadua, which becomes part of it to be fluidly inserted into a sloping relief. By abstracting the typical elements of the rural home in the coffee-growing area, the typical archetypes are reinterpreted in a contemporary context in search of the timelessness in the place.

**Studio Saxe** in Costa Rica has conceived the “Casa Azucar” as a pavilion-garden, which incorporates a small stream and a perimeter corridor of vegetation, which generates the sensation of architecture immersed in vegetation, but at the same time isolated as in an oasis.

Matter, materials and vernacular building techniques characterise the contemporary and sustainable vision such as that of the Bolivian **Pacha Yampara Blanco** with her “Casa Restaurante A toda llama” which spreads her knowledge of architecture in rammed earth, the “earthly matter” as a possible alternative for the reduction of the impact of the building sector in the production of greenhouse gas, but her vision goes beyond that of an architecture linked to the local area: it shows appreciation of the wisdom in raising lamas, the practice of “ayni” of disinterested reciprocity, a cultural practice of the ancestral peoples, where money is not the essential to be able to “build” a home.

A few kilometres from Ciudad de Santa Cruz de la Sierra, in the “Casa de Quinta Quebracho,” the Bolivian **Bruno Aragonese Cortez** also emphasises the material nature of the local tradition, with the use of adobe, the roof ventilated with ceramic tiles of the colonial type faced internally in wood to regulate the indoor temperature, while large drain pipes protect it during the rainy season.

In Chile, **Base Studio** with the “Casa Quincha” reworks in a contemporary language the building system of the quincha, reinterpreting it and exploring the potential of space, material and geometries of earth construction, combining local craft techniques, combined thanks to an experimental process of digital design.

The Colombian firm of **Yemail Arquitectos,** in the “Casa Elita,” challenges architecture and technology to invent a buildable space on a “non–existent” plot of land. It is a construction open on all sides, ready to explore nearby and distant views of the landscape from three overhanging metal platforms, each in a unique dialogue with a distant view that merges the mountains with the city.

All the constructions by the architects of the firm **Luz de Piedra** in Costa Rica are mostly made with a lightweight and dry building system to reduce the impact on the tropical jungle and the natural environments during the construction process. The “Cielo Lodge”, nestling amidst the plants of a tropical landscape rich in biodiversity, is conceived as an island: it produces its own power, which is clean and hybridized with a micro-hydro and photovoltaic plant and it includes a lagoon to recover rainwater.

“Galería dos hijas” by **ClaClá** in Baja California in Mexico is a project that shows off to the best the vernacular architecture used in dry zones and reinterprets it in a contemporary way. The construction of cylindrical volumes, done using the traditional technique called COB, similar to pottery, combines different materials: straw, clay and granite, a constructive method which, once completed, is self-bearing.

Innovation in tradition characterises the work of the Panamanian architect **Patrick Dillon,** who has deep knowledge of the local indigenous architecture and of the North American architecture of Gamboa, typical of the area of the Panama Canal, where he was born, and he absorbs its principles which he then reworks, giving rise to residential architecture suitable for the tropics. In “Casa Salò”,” Casa en El Copé”, “Casa para una violinista” and “Casa para un pintor”, Dillon uses sustainable materials and only passive strategies to keep a high level of environmental comfort throughout the year. His houses have large protruding roofs, like the canal homes typical of the isthmus, and are oriented for the dominant winds, to capture them in all the seasons when they come from the ocean. In this way the homes are ventilated naturally and do not need air conditioning. He preserves their surroundings and adds trees with a lot of foliage which, as they grow, contribute to creating cool and pleasant natural surroundings.

The Mexican group of **Arquitectura Mixta** in the “Hotel UNIK Isla Mujeres” designs 4 bamboo structures, the Ola, the DJ Booth, the Wet Bar and the Templo with different uses. The last one was inspired by the Mexican Marine Slug, which lives in the Caribbean. The structures were all designed using specific computational processes, reducing the waste of material and building costs. The structures of the arches, beams, etc. were made using vernacular building techniques, contributing to preserving the techniques for the materials used by native cultures.

For the Incas, the choice of the site in building an architectural work for minimum impact on the environment was a fundamental principle which can still be seen in the Temple of the Sun and the Temple of the Moon in the Machu Picchu area. The Peruvian **Luis Longhi** expresses a contemporary architecture which respects these ancestral teachings and for “Casa Pachacamac,” he starts from the place and not from the need of use. The architectonic answer to the site is therefore building an underground house which enters into a balanced dialogue with the landscape, only 40 kilometres south of Lima in a rural area with the presence of pre-Inca archaeological remains.

Again, from the site, the project of this archaeological museum is developed, which has to find a balance between the conservation of the heritage on display and its diffusion to the public. The “Museo de sitio Julio C. Tello de la cultura Paracas”, by the Peruvian architects **Sandra Barclay** and **Jean Pierre Crousse,** built on the ruins of its predecessor destroyed in an earthquake, tackles the further challenge of having to be integrated into a landscape which is the cradle of this culture, today part of the most important biological and landscape reserve of the Peruvian desert coastline. Resuming the compact geometry of the pre-existing museum, it is adapted to environmental and museum requirements, solved thanks to an innovative device of environmental management which controls the internal comfort for conservation.

The Mexican **Javier Sanchez JSA** in the “Casa Cosecha de lluvia'' east of Mexico City, offers an alternative route, starting from a global vision which proposes a regenerative design with the natural water of the region and permaculture; establishing a holistic and integrated relationship between people and the ecosystem. As well as contributing to the restoration of the microclimate of the region, the project shows the potential of the collection of rainwater to create autonomous and off-grid hydric systems, eliminating dependence on the municipal supply. More than any other environmental component, the conservation and improvement of the quality of the water as a precious resource has the potential to considerably improve the sustainability of built-up environments.

The Argentineans **Marantz Arquitectos** in the “Global Iconic Building” concentrate the design of a new building for corporate use to generate a smart, sustainable and innovative building, including in the way of working; a structure which monitors the microclimate, optimises the natural resources and the building installations, informing the inhabitants of consumption with digital systems and energy control in order to reduce to a minimum the environmental impact of the outdoor/indoor building.

**Reuse and urban regeneration**

**Barrionuevo Villanueva** redevelops an old “Conventillo La Boca,” the typical block which in the past received the wave of migration from Genoa and elsewhere. Located in the characteristic and colourful neighbourhood of La Boca in Buenos Aires, it is an example of urban regeneration for the elimination of slums, re-signification and reuse of materials. For the Argentinian architects, sustainable means to regenerate and give new life to architectures with a historical, symbolic and cultural value.

In Ecuador, the project of the Zaruma cableway by the firm of **DHZ Arquitectura** is a plan for urban and tourist mobility of the “ Teleférico turístico Portovelo - Zaruma” for work on the urban landscape. The vision of saving the urban landscape is sustainability for DHZ, just as recovering the historical memory of the place is, at the same time connecting areas for mobility between Portovelo and Zaruma. With this project, DHZ highlights how important the activity of architects, planners and town planners is to avoid the destruction of the physical and cultural heritage.

For **Guillermo Altamirano in** El Salvador, it is the ruins of the pre-existing hospital of Suchitoto that is the main element of the project of recovery for the new Casa de Las Mujeres, where the only thing that could be recovered seemed to be some colonial stone arches. But then other findings from the pre-existing building, rediscovered during the works, gave another direction and became the main element of the work. A sustainable perimeter structure in bamboo forms the perimeter and permeable closures, which give ventilation and natural lighting, thus preserving the state of the former architectonic structures.

In Nicaragua, **Marcos Agudelo** recovers the church of Solentiname, a historically emblematic building where meetings with the Nicaraguan theologian Ernest Cardenal used to take place, with sustainable processes and materials. Agudelo recoups it, respecting the technique and different woods and materials, then medlar wood for the columns of the building, resistant to compression of humidity, “madero negro” for the pillars that support the wall of “taquezal” and bay tree wood for the main beams of the roof. The idea of sustainability is not only in the construction, but also in the social purpose of a place that will always be used as a space to host the assemblies of the communities of Solentiname.

In Costa Rica, **Bruno Stagno,** an architect of international referencefor sustainability, transforms industrial complexes, such as that of the “Corporate Headquarters of HOLCIM S.A. Costa Rica”, from an urban desert into a welcoming and green industrial estate, a building which reflects the possibilities of its materials, far from thinking of a huge corporate building as an object isolated from its surroundings. Structures of different scales and functions, as on a campus, are alternated with patios and gardens to create a working area on a human scale and based on the principles of constructive and environmental sustainability, which are found in all his architecture.

 “CIVAC Parque Lineal” is a project of infrastructure and urban regeneration, standing on one of the main streets of Jiutepec in the State of Morelos, a work by the Mexican architect **Rozana Montiel**, which is completed by the park, a civic centre, a new skate park and a fountain. The presupposition for the design was the recovery of the identity of the local landscape through the conservation of all the plants existing for more than 50 years. The project required the creation of a space for the Skating community, who previously used an abandoned area, as well as creating a linear area with some platforms as places of aggregation and which are used as a support for the programme of this multipurpose area.

The Uruguayan **Federico Lagomarsino,** winner of the “Ecoparque Las Piedras” competition, has the objective of transforming a vast area of the Uruguayan city of about 23 hectares, where there used to be the remains of quarries for the working of ballast and stone, which completed their productive cycle many years ago. The plan of the park is developed on a North-South axis, accompanying the pre-existing railway line, which is the strategy of the programme, to use pre-existence as a contribution to the identity aesthetic of the park. The East-West axis of work, on the other hand, crosses the railway line and follows the topography of the land. The project is based on reinforcing and recovering the existing eco-systemic services, wagering on an opportunity of resilience and proposing workshops for the study of the landscape as a response.

The “Parque Comunitario la Pantalla” in Sucre, Venezuela by **Gabriel Visconti Stoppello - Aga Estudio** is part of a series of works of replanning and local urban reinforcement, based on participative models and practices by citizens. The park is a scaffolding of actions, knowledge, procedures and technologies, all local: a device of self-construction, between inhabitants and architects, in a work cooperative.

This set of contemporary and sustainable visions is completed by the work of the Colombian **Simon Velez** with the **“**Iglesia sin religión”, a bamboo architecture which adapts to and dialogues with the natural surrounding landscape. It is temporary architecture, instead of the cathedral of Pereira in Colombia, which collapsed after an earthquake, and then demolished to be rebuilt near Cartagena, but no longer as a place of worship but, to say it in Velez’s words, a spiritual place, full stop.