Tamed Tropics: Modern Architecture in the Colombian Caribbean



Massimo Leserri, Merwan Chaverra Suárez, and Pedro Martínez Osorio

Abstract In the Southern Bolivar Savannas, in the heart of the Colombian Caribbean, the experience of architectural designs developed during the 1950s and 1960s is significant. There is an important modernist legacy from Colombian architects such as Roberto Acosta Madiedo Portilla, José Rodrigo De Vivero Amador, Miguel Rafael Farah Zakzuk, among others, who are the exponents of this modern architecture, thanks to their ability to conquer the emerging social elite of the agricultural economic boom, interpret cultural legacy, and reflect on landscape, geography, and climate. This investigation is supported by a meticulous search for historical facts and files associated with a diligent architectural survey campaign, which allows to reveal the essence. The following critical lecture reveals the important effort of young architects in the 1950s and 1960s, their commitment to combine elements derived from the vernacular tradition with the new and exciting language built on modernist paradigms. On the other hand, single-family houses integrate the architecture and garden landscape, tamed for the tastes and needs of its inhabitants. The search through tools of representation, bibliographic, and iconographic analysis reveals an architecture capable of being founded through the consolidated patterns in the Caribbean culture and the new vision acquired in the architecture schools in Colombia including those from other countries such as the United States of America. Actually, the great capacity to adapt the cultural tradition without losing contact with the tropical climate and nature is evident.

Keywords Architecture · Modernism · Heritage · Climate · Tropic

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1 Introduction

Domestic space study in modern houses of Southern Bolivar in the 1950s and 1960s, show the construction of new identities, individually and socially associated with the domestic exploration from young local architects, in the interior and intimate spaces of an emerging bourgeoisie in a territory and natural landscape from the Colombian Caribbean. According to Caicedo and Goossens [1], "It is important to establish the study of the domestic space as a tool to reveal and interpret intentions, trends and habits of architects, inhabitants, and communities". Thus, the territorial context, in which a series of houses and experiences of modern architecture are implanted, is studied.

The territory has a fluvial-lacustrine landscape of flat reliefs, valleys, and savannas [2], to which the basins of the Sinú and San Jorge rivers belong, where there is a variety of morphological traits forming many watersheds and swamps that provide abundant humidity in the land. In this watery landscape is where architects implanted a singular number of exemplary houses of modern architecture in the departments of Córdoba and Sucre.

At the end of the first half of the 20th century, the so-called Southern Savannas of the Bolivar department—currently belonging to departments of Córdoba and Sucre—, was a territory in permanent socio-political tension as a result, on the one hand, by the government neglect to the basic sanitation and infrastructure needs of the provinces, and on the other, by the desire for progress, especially driven by the regional economic and social elites [3]. This context in permanent social, political, and economic tension, caused what would later be the cessation of the department of Bolívar, creating two new additional territorial entities, Córdoba department in 1951 and Sucre department in 1966 (see Fig. 1).

These events and transformations were translated into new fluvial infrastructures associated with agricultural development that introduced modern technologies in a wild landscape with little intervention. The contrast between cultural tradition and

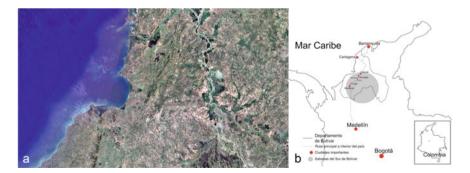


Fig. 1 a Geographic classification and location: coastal strip (Caribbean Sea), valleys of the Sinú and San Jorge rivers, Momposina depression. *Source* Google Earth 2020. b Context map of the Southern Bolivar Savannas. *Source* Pedro Martínez, 2020



Fig. 2 a Image of a steam ship contrasting some vernacular constructions in Puerto Wilches on the banks of the Bugre spout in the mid-1950s. *Source* Caribe Vivo Foundation. **b** Image of a seaplane landing in the Caño Spout in the 1950s. *Source* Caribe Vivo Foundation. **c** Image of helicopter-farmer participating in a traditional event such as Las Corralejas. *Source* Caribe Vivo Foundation, Burgos de la Espriella family album, 1962

modernity is highlighted in this historical period, where young architects contributed new compositions that integrated tradition with modernity (see Fig. 2).

2 The Teaching of Architecture in Colombia

In the middle of the 20th century, the alternative for many young people from the Caribbean region to study architecture in Colombia was to go to Bogotá to the Universidad Nacional de Colombia or Medellin, at Universidad Pontificia Bolivariana where the only two Architecture Schools were located (see Fig. 3).

The School of Architecture from Universidad Nacional de Colombia was created in 1929, but it was until 1936 when it acquired its autonomy as a major school. Architects Guillermo Herrera Carrizosa, Carlos Martinez, and others are among its directors (Universidad Nacional, C. 1954). Architect Martínez was the founder of the first architectural magazine in Colombia (Revista Proa) in 1946, initially created to promote the latest advances in urban planning, architecture, and industry [6]. Between the 1930s and 1940s, a series of foreign architects arrived in the country,



Fig. 3 a Aerial photograph from the Universidad Nacional de Colombia Campus in Bogotá in 1947. *Source* IGAC. **b** Aerial photograph from the Universidad Pontificia Bolivariana Campus in Medellin in 1956. *Source* Department of Document Management from UPB

some such as Lepoldo Rother, Bruno Violi, among others, joined to the academy and teaching of architecture in Colombia.

The Architecture and Urbanism School from Universidad Pontificia Bolivariana was founded in Medellin in 1942, based on the study and teaching methods, evolution of needs, assimilation and use of most appropriate techniques, general culture, and history of architecture.

Also, it was a fundamental space for the training of architects in the mid-20th century in Colombia [4]. Among the directors and teachers from the school of architecture are the architect Ignacio Vieira Jaramillo, trained at the Royal Academy of Fine Arts in Brussels and Antonio Mesa Jaramillo from the first generation of architecture graduates from UPB, who along with other graduates such as Nel Rodríguez Hausler, Federico Vásquez Uribe and Rafael Cepeda Torres, among others, were part of the teaching group. Foreign teachers such as the architects Albert Dotthée, of Belgian origin and, Jean Wolf, of French origin also participated [5].

The presence of Le Corbusier in June 1947 represents a real revolution for architecture and urban planning in Colombia (see Fig. 4). Invited by the local government, he held a series of conferences at the Colón theater in Bogotá with the aim to obtain a commission [6], made effective with the contract to carry out the Bogotá Master Plan (better known as the Plan Pilot). His presence caused a great commotion among the students from the first School of Architecture from Universidad Nacional de Colombia. On this occasion, he also visited the city of Medellín and held a conference at the Institute of Fine Arts entitled "Urbanism and the joy of living". Just as in Bogotá, he visited the School of Architecture from Universidad Pontificia Bolivariana.

However, for some young people in the Caribbean Region, training in the United States was another alternative given the lack of local training possibilities. In the case of the Acosta Madiedo and De Vivero Amador architects, as other families of the new emerging bourgeoisie, they chose to train in an Anglo-Saxon environment.

Roberto Acosta Madiedo (1929, Barranquilla), was trained as an architect in 1953 at the Syracuse University (1949–1953) in the State of New York in the USA. During this period, he studied and worked with the American architect Kenneth "Doc" Sargent who began his teaching career in 1930 and profoundly influenced the program for the next forty years. Sargent placed a high value on professionalism, as



Fig. 4 a Le Corbusier with students at Universidad Nacional de Colombia in Bogotá 1957. *Source* NA. **b** Le Corbusier at the Universidad Pontificia Bolivariana in Medellín 1957. *Source* NA. **c** Le Corbusier in the city of Barranquilla in a meeting with local architects next to Joseph Luis Sert and Paul Lester Wiener in 1950. *Source* NA

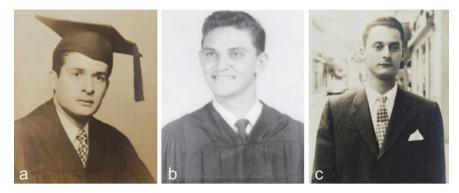


Fig. 5 Roberto Acosta Madiedo. Source NA, José Rodrigo De Vivero Amador. Source NA, Miguel Rafael Farah Zazuk. Source NA

well as a broad liberal arts education. According to Harrigan [7] "Sargent passionately believed that architecture was a profession that served society, like medicine. He saw the doctor, not the artist, as the ideal model for the architect." What Acosta Madiedo himself defines as the dream of a humanistic and sociological training to understand human behavior [8].

José Rodrigo De Vivero Amador (1933–2020) Corozal-Colombia, trained as an engineer and architect in January 1957, at the University of Miami, in Coral Gables, Florida, USA. In which he learned the importance of using strategies for climate control and management, such as eaves, brise-soleil, open-work, among other architectural elements; also, the awareness of generating a rationalist architecture but adapted to its context [3].

In the case of Miguel Rafael Farah Zakzuk (1930–2011) Montería-Colombia, he was trained as an architect and graduated in 1966 from Universidad Pontificia Bolivariana (1952–1956) in Medellin, Farah belongs to what can be considered the second generation of architects trained in Colombia [9] (see Fig. 5).

3 From the Vernacular House to the Modern House

Syncretism is taken as an original and creative fusion of elements that gives rise to unpublished products. It welcomes aspects of popular culture in the professional sphere, occurring in a context of unequal power relations between the popular and the refined. According to Segre [10], Caribbean architecture was worked for a long time as an appendix of continental America; however, the outlook of the region in Latin America is due to its innovative mix. The innovation of this architecture is associated with the processes that gave rise to a large part of the Caribbean buildings: many were not directed by famous architects but by pragmatic builders, engineers, or the military, who used local labor to create functional, adapted structures to local conditions

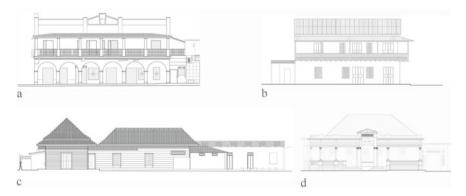


Fig. 6 Facade studies of the most representative houses in Cereté and Montería, built around the beginning of the 20th century. The first one **a** is Casa Pineda from 1882 and renovated in the second half of the 20th century, the second one **b** is Grandeth de Montería from 1908, the third one **c** is Casa García de Cereté from 1927, demolished in 2017. The last one **d** is Villa Débora in Cereté from 1926. The study was developed through a cycle of architectural surveys, on the Heritage and Recycling workshop of the Architecture Program from UPB Montería (2017–2019) and carried out by: José de Jesús Silva Vásquez, Castillo Ayazo, Horacio Elías, Castillo Sarmiento, María Alejandra, Adriana Muñoz, Wendy Mejía, Alma Benítez, María José Atilano Vellojín. *Source* Massimo Leserri. 2018–2020

and materials [10]. In the modern movement as in other regions, the Caribbean architecture articulated external influences while strengthening local roots, in which technological innovations have been associated with adaptations to the climate and cultural values of the communities, expressed in decorations, colors, materials, and structures (see Fig. 6).

In fact, some old surviving constructions tell of experiences where material choice and the consequent typologies that have given life to the houses are not arbitrary. It is rather the results of a profound process of evolution. "... This was achieved through experimentation with multiple possibilities, after which those who understood what elements were necessary for houses to acquire the multiple benefits they enjoy including those of a bioclimatic and sustainable nature, so in vogue today ..." [11].

What today is indicated as a vernacular house, built rigorously in wood, is related to the local Hispanic-Mestizo traditional construction which in turn integrates the indigenous one, with contributions from other European traditions that influenced the architectural culture of the Colombian Caribbean coast due to the arrival at the end of the 19th century of North American, French, and English businessmen, with their own language, to the plantation fields.

Different cities present a respectable number of places that significantly represent their identity through architectural languages of vernacular or strongly modernist inspiration. The architectural heritage is the trace of a past characterized by an economy focused on agricultural exploitation and export, as well as other important activities connected with the exploitation of natural heritage. They are large or small cities founded in remote times by indigenous communities capable of using







Fig. 7 Some internal landscapes of heritage houses in Cereté: a García House, when it was inhabited before its demolition. Source Manuel Joaquín Angulo, 2017. b Watercolor image made by the painter Roberto García from the patio of the Vellojín Burgos house. Source Mario Giraldo, 2020. c Interior photograph of the Villa Debora patio. Source Massimo Leserri, María Atilano, 2019

the river as a source of life and means of communication. An example of vernacular architecture is the case of Casa García from 1927 in Cereté, rigorously built in wood and demolished in 2017 (see Fig. 7).

Another case is the Casa Grandeth, still existing and located in the downtown of the city of Montería. Built in 1908, which presents a construction system based on the use of wood along with the combination of reeds and clay. This is the main material used in the vernacular architecture of this Caribbean region [12].

4 The Tamed Spirit

Common things contain the deepest mysteries [13]

Domestic architecture in the savannas of Southern Bolívar in the Colombian Caribbean had a significant period of architectural legacy in the 1950s and 1960s. Where According to Llanos and Henao [14], predominance of abstraction, aspiration to universality in relation to the place, technicality, and materiality were the characteristics of some architectural firms based in the Andean region of central Colombia, among which, the architects of the firm Obregón & Valenzuela stand out, who develop an interesting series of single-family houses mainly built in the city of Bogotá, but which also extended to other cities in the Caribbean region such as Barranquilla and Cartagena.

For architects like José Rodrigo De Vivero, the experience lived in Casa Martelo in Barranquilla (1950), a work from the Obregón & Valenzuela firm, represents something more than a simple Summer vacation experience (see Fig. 8). In De Vivero's words, the contrast between the environment of his native Corozal and the modern house in Barranquilla made a great impression that transformed his spirit by an interest in the new modern domesticity.

"I myself grew up in a very large palm house, which occupied the 30-m-long lot, here the concrete block houses were very few, for instance, the ones in the square were all made of concrete blocks, except for one that was made of zinc, but once



Fig. 8 Samuel Martelo Badel's house in Barranquilla 1950, designed by the architectural firm Obregón & Valenzuela. Source Revista Proa, number 40, October 1950

you left there, very few were made of concrete blocks, all were made of palm". According to Martínez [3], the architect De Vivero, who came on vacation from the university and spent much of his time at the home of his uncle and sponsor Samuel Martelo Badel in Barranquilla, was impressed by the form of an architecture that appropriated the context and adapted to the tropical climate. The young architecture student in full training took careful note of the appropriate design for a climate like that of the Caribbean region.

These concepts of bioclimatic architecture, together with what he learned at the University of Miami, were put into practice in the development of his personal work upon returning to Colombia in 1957. As described by Martínez [3], the architectural elements such as "the large eaves for sun protection, wide and open environments for better ventilation, orientation, etc.," are the strategies applied by De Vivero in his professional practice in the tropics.

"The habitual distribution of the domestic space influences our lives and, at the same time, hides the fact that this organization has an origin and a purpose. The search for privacy, comfort, and independence through architecture", Evans [13].

For Evans, the domestic configuration influences the intimate life and the desires of the inhabitants, so much so that privacy, comfort, and independence are habits that create uses in the space organization. Thus, to understand the real experiences lived in some of the houses of modern architecture such as Casa Urzola and Casa Buena, it is convenient to rely on oral tradition; the result of magical literary narratives that describe the domestic life of these houses.

An example of these descriptions can be found in the text of Jacqueline Urzola (1960), daughter of Emiro Urzola and Cecilia Nader, who describes in some passages

of the book "Welcome back, if you come alone", her experience as a resident of the Urzola house (1957), designed by the architect José Rodrigo De Vivero.

All the floors of the house had a special highlighting motif and the openwork of the terraces through which the sun entered in shimmering fragments at different hours of the morning and afternoon, instead of silhouettes of similar rectangles, as those of the smaller houses, that had the shapes of tangled labyrinths that lead to nowhere (...) the house was full of loose rectangle-shaped walls and glass and aluminum railings with silhouettes of trapezoids and parallelograms. There were also granite columns that matched the floors and wooden sunshades that were rotated to enlighten the rooms and ventilate the dining room. The main staircase consisted of rows of steps suspended from thin aluminum tubes and in the pool. There were walls of polished stones that lit up like brands in the mid-day sun and burned our backs with the power of an iron.

In the house everything was new and radiant as in the houses of the beautiful cities elsewhere. Our house had no fig or papaya trees or portraits of the Sacred Heart (...) like those in the living rooms of my grandmother's houses (...) the patio was made of grass and not concrete or opaque tiles and the halls were filled with pots of white-flowered anthuriums and baskets of ferns that leafy spilled from the ceilings. The terraces had planters with figures of wavy cells, full of bushes, with flowers the size of a cane and maracas, and philodendrons with leaves of hearts that climbed the walls of the ropes [15].

On the other hand, the Casa Buena project houses a series of experiences and memories in the remembrance of its dwellers. This is the case of Nelly Aurora Vellojín (2018), with different roles over time as daughter, wife, mother, and grandmother, remembering the beginnings of its construction; "Before Casa Buena was built, there was a traditional wooden house on the land that my parents inherited (...) during construction it was not necessary to move, the works began from the back of the lot to the front (...) Without having finished the works, the old house was inhabited by eleven people, not including the service personnel (...) the house has had circumstantial changes in the replacement of some wood materials for aluminum in the carpentry of windows and doors" [16].

These experiences highlight the antagonism between Casa Urzola and Casa Buena, the former being more opulent and ostentatious due to a desire for luxury, comfort and power, while the latter is more endowed with simplicity and modesty, perhaps influenced by the character and personality of its dwellers. However, both houses have an inherent relationship with that domesticated spirit with which their creators designed and built this magnificent and exemplary modern architecture of the Colombian Caribbean.

5 Architecture and Tropical Climate

On the idea of the particularities in the forms of life in the tropics, the architect [17] makes a detailed description of the needs and characteristics of tropical architecture in the following words:

In the tropics, it is the refreshing shade the one that unites, and contrary to the stove, it is everywhere. In the tropical latitude the local experience of family cohesion therefore

becomes relative and dilutes through the open spaces - some members of the family lie on a hammock under the shade of a tree, others in the corridor seated on a bench under the shade of the eaves.

The author continues to describe some details that constitute fundamental parts of architecture in the tropics:

It is precisely these syllables that integrate architecture into the context of its locality. Among these syllables it can be mention contained open spaces, high sloped roofs that rapidly discharge the rainwater, extended eaves that award shade, perforated or dematerialized facades which capture the breeze and ventilate the interior, large drainage ditches, interior vegetation, shaded intermediate open spaces, reposed interior half-lights, and the ever present central vestibule (hallway), which not only ventilates, illuminates, and organizes the interior, but also assures an adequate and comfortable habitability in the urban houses made of wood. (see Fig. 9)

According to Stagno [17], in tropical architecture distinctive elements are identified in what could be considered as the language of architecture in the tropics: open spaces, large roofs with eaves, perforations in the facades to allow the passage of the wind, intermediate spaces, interstices, the search for diffuse lighting of the interior space in twilight, close to the shade of the trees.

The traditional vernacular architecture in the Colombian Caribbean region contains distinctive elements typical of the architectural language of a tropical climate, where there are proposals of diverse sizes and solutions designed to make devices for the habitat consistent with the place natural conditions. Creating permeable instances to the gentle breeze and protected from the sunlight.

Nature is domesticated, understood, and subject to taxonomic organizations that explain as reasonable what had previously been conceived as an elusive and threatening mystery. In the case of modern house projects in the savannas of South Bolívar, it is characterized by a representation of the tropical nature imprint, its authors manage to build an ideal imaginary of an architectural-natural landscape, which not only links the tropical, but also the desire for progress towards a modern life. Where the paradigm of the garden city is present in each of the projects.

This tool to represent the project was very useful for the architects of the time to illustrate the ideas of a modern way of life, creating imaginary of progress for the clients of the social elites of the Savannas of Southern Bolívar. Modern-shaped



Fig. 9 Houses designed by the architect Miguel Farah Zakzuk. **a** Interior patio at Cabranes house, 1962. *Source* Merwan Chaverra. **b** Interior patio of the Chagui house 1971. *Source* Merwan Chaverra **c** Interior patio of the Vega, 1965 house. *Source* Merwan Chaverra y Rafael Pertuz. **d** Patio-garden Esquivia house 1962. *Source* Merwan Chaverra, 2018

buildings are displayed in a tropical setting, with clear blue skies, palm trees, lush vegetation, late-model Ford Thunderbird-type cars, on ideally paved and urbanized roads in the American style, in some cases influenced by architecture schools from the United States (see Fig. 10).

In the case of the Casa Buena project, carried out in 1954 by the architect Acosta Madiedo, the interior spaces are related to the exterior through front garden, porch, lattice windows, large windows, interior patio, terrace, patio-garden, hallways, skylights, among others, generating a set of intermediate spaces with the function of meddling between the interior enclosure and the exterior landscape (see Fig. 11).

This meddling function is articulated through vertical circulation, such as the staircase and the alveolar openings in the roof, which fulfill the double function of expanding the space and extending the vision of the landscape (Fig. 12).

In the case of the architect José Rodrigo De Vivero, the set of houses projected in Sincelejo, Corozal and Montería, the use of stairs and double height spaces is recurrent to expand and extend the visual space. The use of the staircase as an articulating architectural element is developed in two ways, a more artificial rectilinear as in the Urzola and Gómez house, and another, spiral form, related to nature like the Martelo and De Vivero houses.



Fig. 10 Representation methods from the 1950s. Landscape views of the natural and tropical context with language insertion of the modern movement. a Perspective of the Urzola house. b Perspective of the Támara house. c Perspective of the Martelo house. Source José Rodrigo De Vivero Archive. d Irotama Bungalows Perspective. e Yidi house interior perspective. f Matera-Lago del Cisne Recreation House perspective. Source Roberto Acosta Madiedo Personal Archive (photo: Juan Tapias)

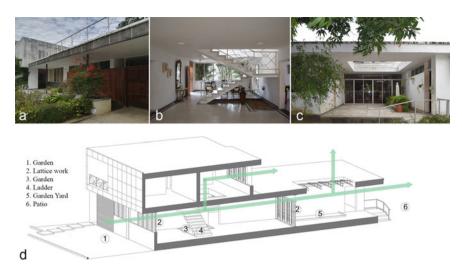


Fig. 11 Casa Buena 1954 Cereté, Architect Roberto Acosta Madiedo. Views of the spatial and climatic sequence between the garden, patio-garden staircase and patio. *Source* Merwan Chaverra, Sammy Castro, 2018–2020



Fig. 12 a Interior of the Urzola house, Sincelejo, 1957. **b** Interior of the Martelo house, Sincelejo, 1958. **c** Interior of the Gómez house, Corozal, 1961. **d** interior of the De Vivero house, Montería 1965. *Source* Personal archive José Rodrigo De Vivero

6 Methods for Architecture Analysis

The research began with the idea of building a collated data system through a bibliographic, cartographic analysis. After this activity, considering the absence of information and literature on selected works and authors, field activities were carried out to check out an exhaustive documentation on the phenomenon of the modern movement in the Savannahs of Southern Bolívar in the Colombian Caribbean region.

The importance of the information obtained through structured interviews and oral testimonies is also evidenced, made present since the beginning of the investigative journey, making it possible to reveal the experience of its inhabitants, the architects' formative years, as well as identifying and classifying the most significant works of the 1950s and 1960s of the twentieth century. Once the existing houses were located, the selection was determined, according to a series of factors related to aspects of formal relevance, the socio-cultural context and the historical period.

With direct survey, the objective of exploring the main architectural characteristics was established; organizing the process in phases, where in the first one, the metric data were obtained and in the second one, a graphic restitution was carried out, in a vector environment. In each case, an analysis was carried out to help understand how the architectural spaces were formed and their connections with the pre-existing natural, architectural, and cultural context.

Through the research process, archives were found containing photos and original house designs. This type of iconographic information served to identify the change in the order of the constituent elements of the interior and exterior that were relocated to adapt to the needs that the new functions had required over the years. The interpretation derived from the confrontation between the original design, the current state, and the results of the post-survey graphic restoration show how some elements were lost throughout history. However, scars were evident suggesting reforms over time, where some components were transformed or subtracted to adapt the architecture to a contemporary language.

Finally, the study of these architectures allows, to know the design thinking that has generated, such architectural devices regarding the use of natural elements and their relationship with the physical space which are raised and methodically represented. By writing a file for each of the selected houses, a critical-qualitative post-figuration of the main aspects of the project was carried out.

CASA BUENA, 1954 Arquitecto Roberto Acosta Madiedo

Location: Cereté Lot area: 1300 m² Built area: 776 m² Climate: Warm, 30 °C

Geographic coordinate systems: latitude 8°88′66.3″ N longitude 75°79′08.9″ W

Project: Architect Roberto Acosta Madiedo.

Casa Buena is located in one of the foundational axes of the municipality of Cereté on Calle de las Flores (Calle 13) on a deep plot of 1,300 m² with an occupation of 35% on the ground floor, and a total of 776 m² built on two levels.

The house was projected in 1954 in a context where traditional vernacular architecture predominated, characterized by wooden constructions, palm roofs and/or zinc roofs, and other architectural styles such as colonial and republican architecture from the end of the 19th century.

This project bursts in with a novel modern architectural language [9].

The spatial qualities are represented by intermediate spaces, linking interior spaces with the exterior landscape through the porch, interior patio, terrace, and gardenpatio. This spatial intermediation allows, on the one hand, the horizontal vision of the landscape and on the other, the generation of domestic microclimates. The house is essentially distributed in three modules differentiated by their functionalities and hierarchies. On the ground floor there are two modules, one for the social area and domestic services and another one, parallel to the rooms. A third module is for the main rooms, i.e., for the people who rule the house. Currently the building is preserved in excellent quality condition, maintaining its original conformation and materiality (see Fig. 13a, b).

CASA URZOLA, 1957 Arquitecto José Rodrigo De Vivero

Location: Sincelejo Lot area: 1500 m² Built area: 700 m² Climate: Warm, 31 °C

Geographic coordinate systems: latitude 9°18′00″ N longitude 75°23′47″ W

Project: Architect José Rodrigo De Vivero.

This house is located in the Centro neighborhood in Sincelejo, in one of the most exclusive sectors of the city in the mid-twentieth century, just three blocks from the main square, in a dividing lot, which is separated from the street through a wide front garden shaded by two huge laurel trees.

The main access is generated through a covered terrace, and to one side the access to the garage. On the first level, a study adjoins the main access, on one side of the main staircase that functions as an articulating element.

Also, on the first level, there is the social area and main double height dining room, auxiliary dining room, guest bedrooms and the kitchen that is integrated into a large service area on one side of the house. The central organization scheme highlights the location of the pool-bar, on which the distribution of spaces and zones revolves and serves as a visual focus inside the house. On the second level the rooms and a terrace overlooking the street are organized (see Fig. 14).

CASA MARTELO, 1958 Arquitecto José Rodrigo De Vivero





Fig. 13 a Urban location in Cereté. *Source* Merwan Chaverra, Massimo Leserri, Yuliana Páez, 2021. Photograph of the main facade. *Source* Merwan Chaverra, Sammy Castro, 2018. **b** Graphic restoration of the house for Buena Vellojín in Cereté (1954). *Source* Merwan Chaverra, Massimo Leserri, Sammy Castro 2018–2020. The 3d model of the House. *Source* Merwan Chaverra, Massimo Leserri, Sammy Castro, 2018–2020

Location: Corozal Lot area: 610 m² Built area: 485 m² Climate: Warm, 31 °C

Geographic coordinate systems: latitude 9°18′58″ N longitude 75 ° 17′39″ W



Fig. 13 (continued)

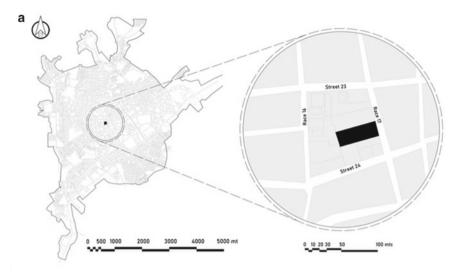




Fig. 14 a Urban location in Cereté. *Source* Merwan Chaverra, Massimo Leserri, Yuliana Páez, 2021. Photograph of the main facade. *Source* José Rodrigo De Vivero Archive. **b** Planimetric restoration of the house for Emiro Urzola in Sincelejo, 1957. *Source* Pedro Martínez, Massimo Leserri, Merwan Chaverra 2020. The 3d model of the House. *Source* Pedro Martínez, Massimo Leserri, Merwan Chaverra, 2021

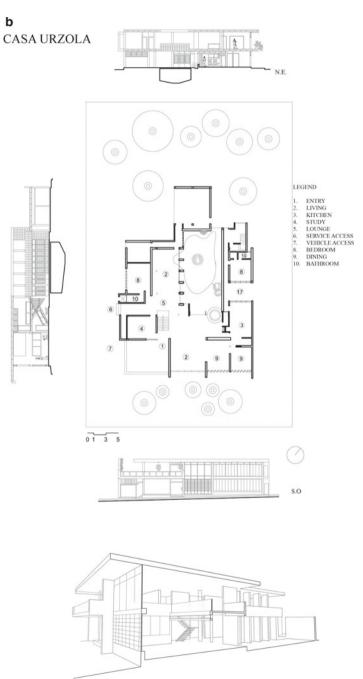


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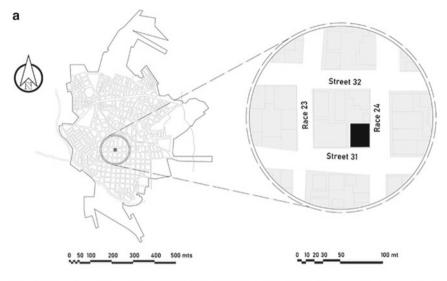


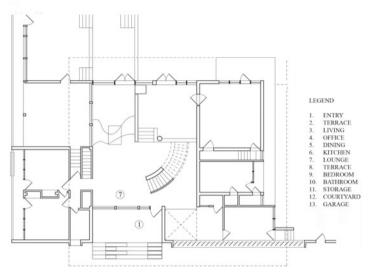


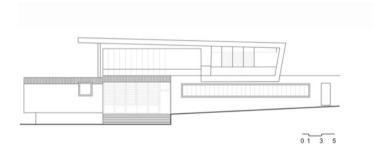
Fig. 15 a Urban location in Corozal. *Source* Merwan Chaverra, Massimo Leserri, Yuliana Páez, 2021. Photograph of the main facade. *Source* José Rodrigo De Vivero Archive. **b** Planimetric restoration of the house for Samuel Martelo Paniza in Corozal, 1958. *Source* Pedro Martínez, Massimo Leserri, Merwan Chaverra, Luis Orozco, 2020. The 3d model of the House. *Source* Pedro Martínez, Massimo Leserri, Merwan Chaverra, 2021

Project: Architect José Rodrigo De Vivero

Located on Calle 31 with Carrera 24 in the downtown of Corozal, just three blocks from the main square, in a corner lot with a slight slope. The house is separated from the street through a large front garden with palm trees. The main access is generated

b CASA MARTELO





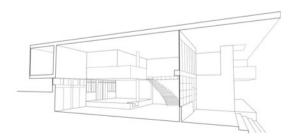


Fig. 15 (continued)

to one side by the secondary road, through a terrace with a double height roof. Access to services and garage is done through the main road to one side of the lot. On the first level, a double height main living room is the space on which the functions of the house are organized, in which the staircase of a sinuous section that leads to the second floor is the protagonist; in the background, as a visual finish, an interior garden with a small bridge that complements the social area with a mini bar.

Also located on the first level are the main dining room, a small office, the guest bedrooms and the service area, which occupies a side strip to one side of the house. The organization scheme is centralized from the main living room, which articulates the spaces and areas inside the house. On the second level the rooms and a terrace with a view of the main street are organized (see Fig. 15).

CASA DE VIVERO, 1966 Arquitecto José Rodrigo De Vivero

Location: Montería Lot area: 460 m² Built area: 390 m² Climate: 30 C

Geographic coordinate systems: Latitude 8°45′14.9″ N longitude 75°53′08.0″ W

Project: Architect José Rodrigo De Vivero.

Located in the downtown of the city of Montería between Calle 27 and Carrera 6, in a heritage environment such as the San Jerónimo Cathedral and the vernacular and other republican-style buildings.

The project is developed on a 460 m² corner plot with a 70% occupancy on the ground floor. In this case, the project is implemented in an urban context where the architect uses compositional mechanisms to isolate and emphasize the corner. The house is internalized around elements such as the staircase, the internal courtyards and the double-height spaces, which relate the interior to the exterior.

It seems that the architect, when proposing a hipped roof in a clearly modern project, sought to reconcile traditional architecture with the new architectural language.

The tripartite layout on the ground floor allows, on the one hand, the zoning of the spaces in a vertical layer, where the social and service area is on the ground floor, and the most private and intimate areas are on the first floor; a large double-height space connects the two levels. On the other hand, it allows to develop a project strategy in which the house is isolated from the streets, generating an introspection in the interior space. The building is currently preserved in good condition, maintaining its original volumetric and material conformation (see Fig. 16a, b).

CASA CABRALES, 1962 Arquitecto Miguel Rafael Farah Zakzuk

Location: Cereté Lot area: 2,300 m² Built area: 450 m² Climate: 30 C

Geographic coordinate systems: latitude 8°53′17.2″ N longitude 75°47′41.1″ W

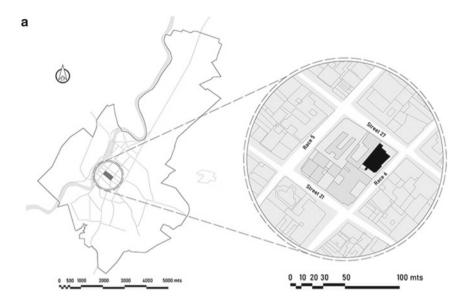




Fig. 16 a Urban location in Montería. *Source* Merwan Chaverra, Massimo Leserri, Yuliana Páez, 2021. Photograph of the main facade. *Source* José Rodrigo De Vivero Archive. **b** Graphic restoration of the house for José María De Vivero Olmos in Montería (1966–1967). *Source* Massimo Leserri, Merwan Chaverra, Sergio Gómez, Daniela Gonzalez, María Inés Reyes, 2020. The 3d model of the House. *Source* Massimo Leserri, Merwan Chaverra, Sergio Gómez, 2021

Project: Architect Miguel Rafael Farah Zakzuk.

Located on the west side of Bugre Spout in a sector (1) developed in three stages starting in the 1950s. The isolated house that is developed on one floor is surrounded by a wide green area, it is implanted set back from the access road (2) through a large garden to which the social area, the office and the garage open, a patio-interior

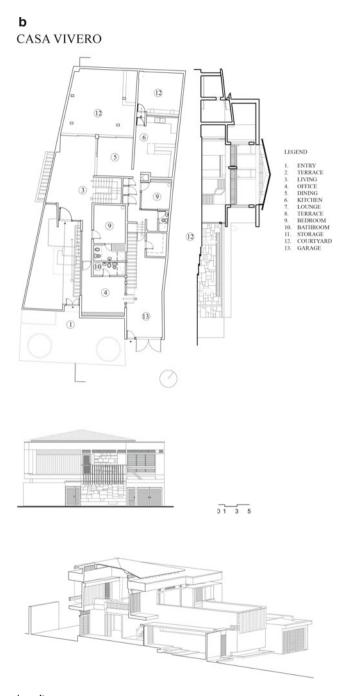


Fig. 16 (continued)

open sky meddling between the social areas and the rooms that are oriented to the side gardens for more privacy, a terrace-being under cover at the end of the corridor opens to the rear garden as an integrating element between the exterior and interior of the House.

A service area occupies a lateral strip of the lot separated from the main body of the house through a terrace-patio that intercedes between the two areas. The intermediate spaces such as the interior patio, the terrace-living room and the terrace-garden, generate a variety of internal and external relationships, giving unity and spatial integrity to the whole of the house.

A service area occupies a lateral strip of the lot separated from the main body of the house through a terrace-patio that intercedes between the two areas. The intermediate spaces such as the interior patio, the terrace-living room and the terrace-garden, generate a variety of internal and external relationships, giving unity and spatial integrity to the whole of the house. This spatial intermediation is subtly defined and articulated by levels and architectural elements expressed in its materiality. This material good condition still grants the house a porous and tactile perception of its wrapping, and interior and exterior cladding, maintaining a project original conservation (see Fig. 17a, b).

(1) Venus neighborhood (2) Calle 14 or Calle del Comercio.

CASA VEGA, 1965 Arquitecto Miguel Rafael Farah Zakzuk

Location: Montería Lot area: 800 m² Built area: 630 m² Climate: 30 C

Geographic coordinate systems: latitude 8°45′10.4″ N longitude 75°53′26.3″ W

Project: Architect Miguel Rafael Farah Zakzuk.

Located in the urban fabric of downtown Montería, between the first avenue and the 22nd street, the project is implanted in a plot of $800\,\mathrm{m}^2$ with an occupation of 40% on the ground floor and separated from the adjoining party walls. On this occasion, the architect Farah Zakzuk faces two premises, on the one hand, the urban context of the road axis of the first avenue, and on the other hand, the natural landscape of the right bank of the Sinú River. The demand for a more complex and extensive architectural program requires development on two levels.

Elements such as gardens, interior patios, terraces, hallways, balconies are proposed to protect the interior spaces from the outside climate and direct the visuals towards the Sinú river landscape. As other Farah projects, intermediate spaces generate a variety of internal and external relationships providing unity and whole. This intermediation is expressed in its shape and materiality through the tangible perception of both interior and exterior cladding (see Fig. 18a, b).

CASA CHAGUI, 1971 Arquitecto Miguel Rafael Farah Zakzuk

Location: Cereté Lot area: 2,300 m²





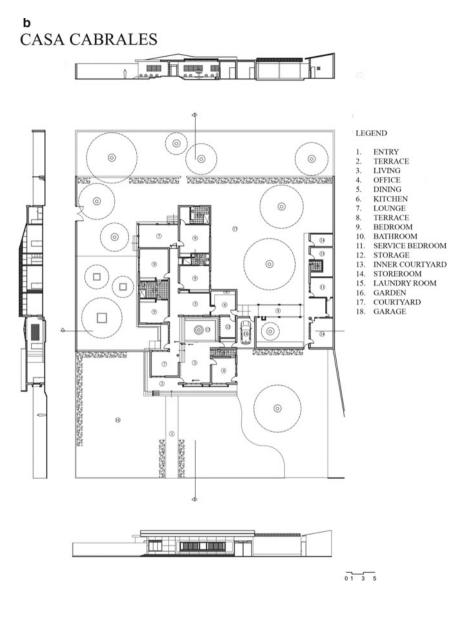
Fig. 17 a Urban location in Cereté. *Source* Merwan Chaverra, Massimo Leserri, Yuliana Páez, 2021. Photograph of the main facade. *Source* Merwan Chaverra 2018. **b** Graphic restoration of the house for Ignacio Cabrales Espinoza in Cereté (1962). *Source* Massimo Leserri, Merwan Chaverra, Laura Robles, 2020. The 3d model of the House. *Source* Massimo Leserri, Merwan Chaverra, 2021

Built area: 450 m² Climate: 30 C

Geographic coordinate systems: latitude $8^{\circ}53'09.7''$ N longitude $75^{\circ}47'30.7''$ W

Project: Architect Miguel Rafael Farah Zakzuk.

Located on *La Calle de las Flores*, the founding road of the municipality of Cereté. The house between party walls is developed on one floor with a front garden and



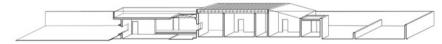


Fig. 17 (continued)



Fig. 18 a Urban location in Montería. *Source* Merwan Chaverra, Massimo Leserri, Yuliana Páez, 2021. Photograph of the main facade. *Source* Massimo Leserri, Sergio Gómez, 2020. **b** Graphic restoration of the house for Álvaro Espinoza Espinoza in Montería (1965). *Source* Massimo Leserri, Merwan Chaverra, Rafael Pertuz, 2020. The 3d model of the House. *Source* Massimo Leserri, Merwan Chaverra, 2021

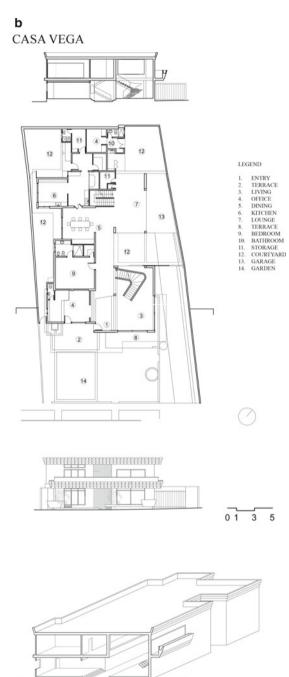


Fig. 18 (continued)

terrace on which the social area, the office and the garage open. An open-air interior patio between the social areas and the room area that are oriented to the lateral spaces of the Hallways and the rear patio-garden. As other Farah floors, a terrace-being under cover at the end of the corridor opens to the patio-garden as an integrating element between the exterior and interior of the house.

Intermediate spaces are recurrent in the art work of architect Miguel Farah Zakzuk, such as the use of an interior-patio, a living room-terrace and/or a garden-terrace, elements that generate a variety of domestic microclimates, where the architectural materials are integrated with nature (see Fig. 19a, b).

7 Conclusion

The compilation, reconstruction and analysis of this set of particular works produced between the fifties and sixties in the Colombian Caribbean, allows us to observe a sensitive architecture in the form of domestic production, and in the unique forms of living that were organized in that special context; which integrates important aspects of the local culture, in the way described by Leserri and Chaverra [18], brings together a way of understanding the world and acting upon it; which, based on principles learned in architecture schools with a strong influence on training from the ideas of modern architecture, adapts to the needs and particularities of an exuberant context such as the tropic of the Colombian Caribbean.

Keeper of penumbra and invitation to the breeze [19].

The study of this architectural phenomenon provides, on the one hand, new documentation for the development of future research, on the other hand, it establishes a comparative framework between a set of works belonging to the same time and territory. These architectural pieces are based on three aspects, the relationship between the vernacular tradition and modern style, the local spirit and the new domestic, the tropical nature and the internal climate (see Fig. 20).

A relationship of intermediate spaces that allows reconciliation between nature and the inhabitants of the houses, that invite the development of social activities and expressions of the local culture in the Colombian Caribbean. The house as something that goes beyond the shelter and protection of the inclement weather, but as a place created for the full satisfaction of the wishes and needs of its inhabitants.

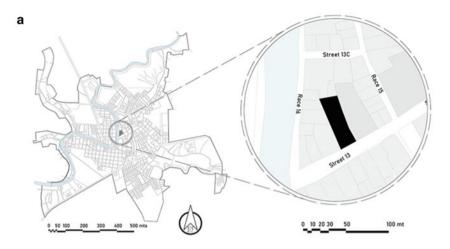




Fig. 19 a Urban location in Cereté. *Source* Merwan Chaverra, Massimo Leserri, Yuliana Páez, 2021. Photograph of the main facade. *Source* Massimo Leserri, Luis Orozco, 2020. **b** Graphic restoration of the house for William Chagui in Cereté (1971). *Source* Massimo Leserri, Merwan Chaverra, Laura Robles, 2018–2020. The 3d model of the House. *Source* Massimo Leserri, Merwan Chaverra, 2021

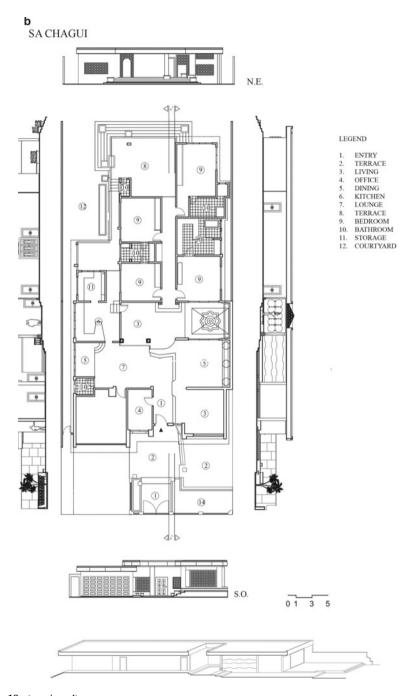


Fig. 19 (continued)



Fig. 20 Casa Cabrales, Cereté 1962, architect Miguel Farah Zakzuk. *Source* Merwan Chaverra, 2018

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