Guayas, Ecuador January 2013

Bahia Muyuyo

ARCHITECTURAL GUIDELINES

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Planning and Design by 5th Year Architecture Studio

Edition by 5th Year and Graduate Seminar

University of Notre Dame School of Architecture South Bend, Indiana A LIVING TRADITION FOR LOCAL IDENTITY





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"It is about answering the needs and wishes of people, giving them a choice of places they can identify with, each a place where people feel they belong, a place people feel is theirs, and a place people can enjoy, love, and conserve for generations."

SECURITY

Security is serious local reality. We believe that aggression can be reduced, or eliminated, through social integration, mix of activities diversity, density, eyes on the street and walkability.

- Welcoming gateways that can be secured when needed
- Property fences made of a mix of thick lush local vegetation and barbed-wire
- Care takers in every block and places for the exchange of services
- Shutters and wrought iron work

RESILIENCE

- Learning from types and patterns that people once enjoyed before artificial controls and inappropriate designs and technologies were adopted, and replaced local traditions and methods of building
- Using common sense
- Building holistically and for the long term
- Places and buildings that people can love and will care for
- Learning from phase to phase

BALANCE OF COMMUNITY AND THE INDIVIDUAL

- Promoting a sense of belonging though identity of place use of the Muyuyo flowering bushes and its wood
- Including designs that evolve from and value traditions that belong to the place
- Spaces and buildings people can identity with
- Streets and squares where people enjoy to be together
- Homes that close together and yet provide spacious and intimate private retreats

HEALTH

- Caring for the needs of people and nature
- Harmony of built and natural environments integrating permaculture and urbanism
- Promoting natural living i.e. without air conditioners
- Designing neighborhoods with streets people want to walk
- Providing for many sports and related activities
- Encouraging natural foods agriculture, fishing ...

ECONOMY

- Promoting local methods of construction
- Using local natural materials that can be maintained and age with grace dirt roads with natural surfaces, muyuyo wood, bamboo ...
- Reducing consumption using cross ventilation instead of costly air conditioning, natural shading principals
- Recycling of water and materials
- Promoting alternate energy sources

SELF-SUFFICIENCY IN AN ENVIRONMENT OF EXCHANGE

- Promoting local resources and businesses throughout the region
- Creating an asset to the region through exchange and hospitality
- Fostering a rich and balanced mix of people and activities



A REMARKABLE PLACE

Bahía Muyuyo is located on the Pacific Coast of Ecuador, less than two hours from the city of Guayaquil, at the tip of a sunny and temperate peninsula. The 476 hectare site will sustain a full community, with market village, beach village, malecon and marina town center, country homesteads or fincas, neighborhoods of different densities, and waterfront homes. The community will support a variety of activities not limited to those of a typical resort. Our goal for Bahía Muyuyo is to create an ecological and authentically local place that evolves from the best traditions and culture of Guayas, Ecuador and integrates best practices in sustainability and resilience. It will be a place where homes are safe and designed to celebrate the wonderful climate and character of the Pacific Coast.

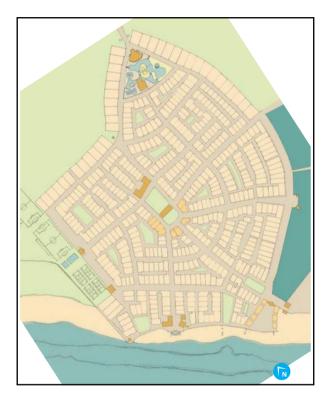
Proposed Beach Village Amenities

Pavilion
Bed and Breakfast
Restaurant with beach seating
Airstream trailer food carts
Small grocery
Pharmacy
Mixed Use, with a real estate office, etc.
Market
Malecon boardwalk
Chapel
Small marina

Proposed Market Village Amenities

Pavilion
Worker checkpoint/truck entrance
Main entrance
Artisan live/work units
Small, cute, authentically local houses
Market
Small chapel





BAHIA MUYUYO, GUAYAS, ECUADOR



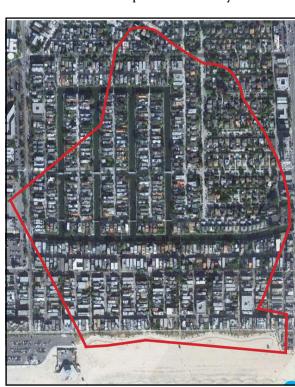
SCHOONER BAY, GREAT ABACO ISLAND, **BAHAMAS**

- Good intra-block incorporation of sport and
- A variety of buildings and spaces on the waterfront



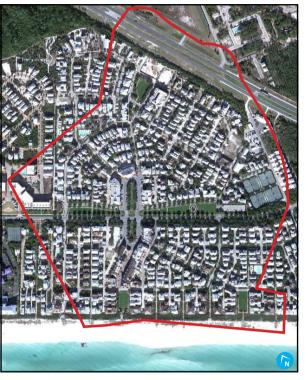
SEASIDE, FLORIDA, USA

- Beach pavilions promote character of place
- Clear positioning of town center
- Beach views from plazas and courtyards



VENICE BEACH, LOS ANGELES, CALIFORNIA, USA

- Block sizes in relation to coast
- Alleys promoting beach living and social interaction



ROSEMARY BEACH, FLORIDA, USA

- Diverse coastal block structure (system of paths, vehicle alleys, etc.)
- Heirarchy of intimate streets



NANTUCKET, MASSACHUSETTS, USA

- Fluidity of streets
- Legible transect differentiation



BATAN, SAMBORONDON, ECUADOR

Diverse coastal block structure (system of paths, vehicle alleys, etc.)



HVAR, CROATIA

- Plaza engages ocean front gracefully &
- effectively, pulls ocean front into town center Malecon appropriately scaled and landscaped for the pedestrian experience

THE FIRST PHASE

The first phase to be developed will be located at the ocean front, at the southeastern edge of the property.



PROPOSED PHASING

To the right is an illustration of how phasing can be carried out. Though the actual size and location of future phases will probably change as the development grows and adapts, this illustration shows one potential course of action. Security should develop in tandem with phasing.

PHASING STRATEGIES

- Avoiding one-sided street construction and promoting lively streets
- Small phases allow for little risk in investment
- Developing amenities when appropriate to size of community
- Developing bay area last to allow for bay financing and construction



FIRST STREET & PLAZA

BENEFITS OF DEVELOPING THIS AREA FIRST

- Showcases beauty of ocean front
- Becomes a "destination" point
- Includes income-producing properties
- The variety of building and spatial types will give visitors an accurate vision of the quality and character the development will offer

INCLUDED STRUCTURES

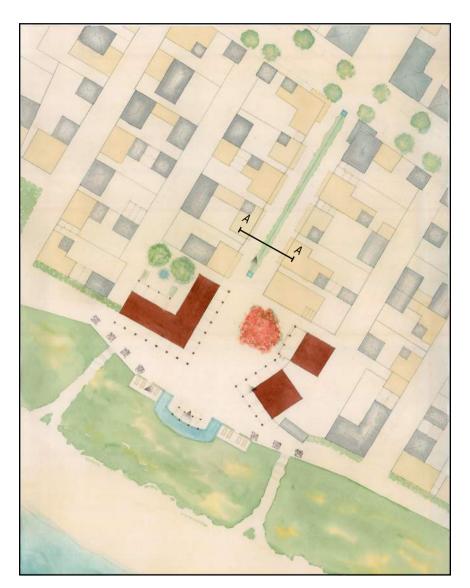
- Iconic beach pavilion
- Bed and breakfast
- Public square
- Private residences
- Initial security points



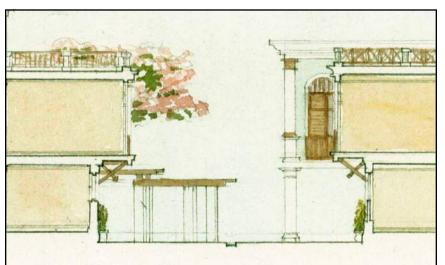
The plan of Founder's Row, indicating the first ten residential buildings, and three public buildings (shown in red) forming Bahía Muyuyo's first public space.

STREET ELEVATION

The distinctive character of Founder's Row is informed by the cohesive architectural features of the first residential and public buildings. All residential buildings (shown at left) are connected by a continuous simplified street wall at the ground floor, and all employ the traditional bracketed projecting upper floors. Note that in the condition of a simplified ground floor, upper floors must articulate a post-and-lintel construction via pilasters. The public buildings (here at right) employ the traditional colonnaded soportal.







PERSPECTIVE

A view entering the first public space at Bahía Muyuyo.

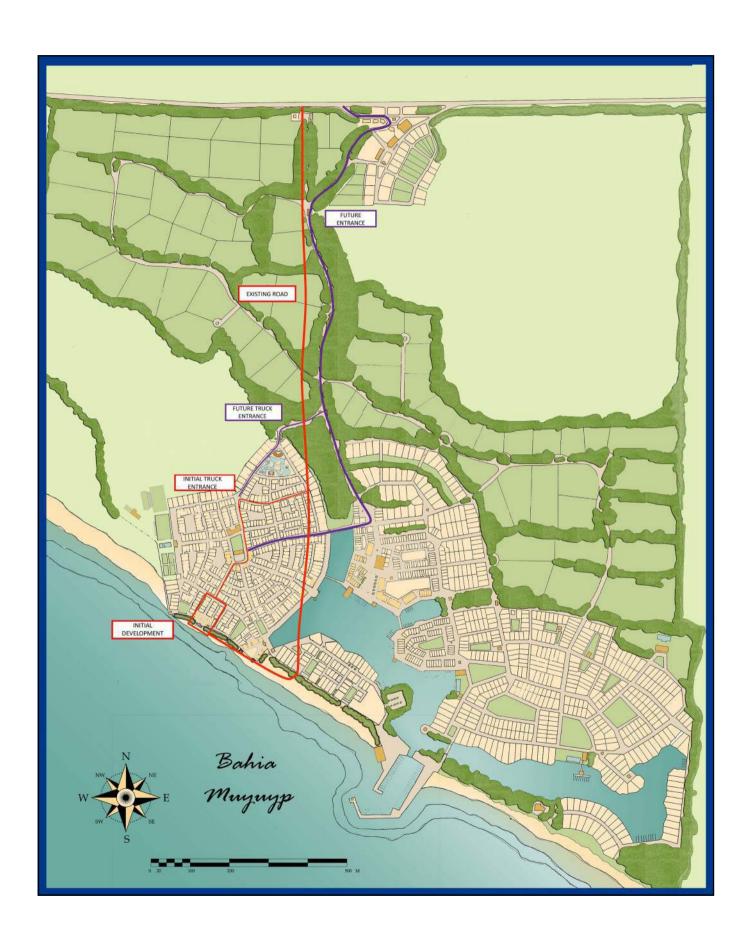
STREET SECTION AA

A typical section through Founder's Row, illustrating several key character-defining architectural and public features of the first street: bracketed projecting upper floors at the residential buildings, roof terraces, soportals at public buildings (beyond), and a zero lot-line street right-of-way.



PHASING AND CONSTRUCTION ACCESS

By phasing the development in a thoughtful manner, early residents will not have to interact with construction traffic as later phases are constructed. Construction access can be phased as shown in the diagram to the right



Bahía Muyuyo
GUAYAS, ECUADOR

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DESIGN PRINCIPALS

ROOF TOWER

- Enhances vertical ventilation
- Detailed with shutters
- Used for observation

SHUTTERS

- Promotes cross-ventilation while providing privacy and security
- Fixed transom enhances ventilation
- Carved details and patterns
- Promotes innovative, local craftsmanship and industry
- Provides shelter from elements

USE OF MUYUYO WOOD

Incorporated into building details, such as:

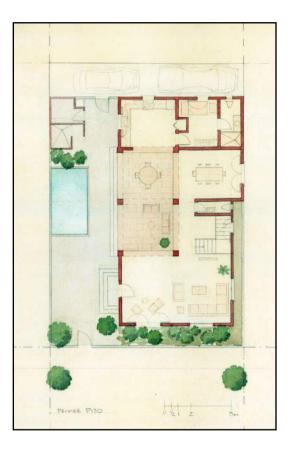
- Railings
- Fences
- Transoms
- Shutters
- Furniture
- Light fixtures

ROOF TOP TERRACE

- Promotes outdoor living
- Can be covered with pergola

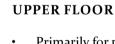




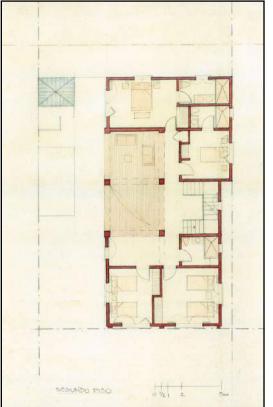


GROUND FLOOR

- Outdoor/covered living areas
- Open plan celebrates temperate climate
- Bays are often wider than they are tall Shutters used at every opening allow for privacy and security
- Building plan utilizes entire property



- Primarily for private rooms
- Open passageways and corridors
- Overlooks inner courtyard Shutters provide for shelter and privacy

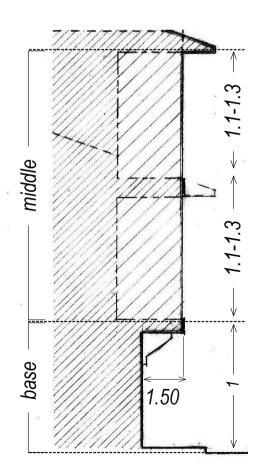




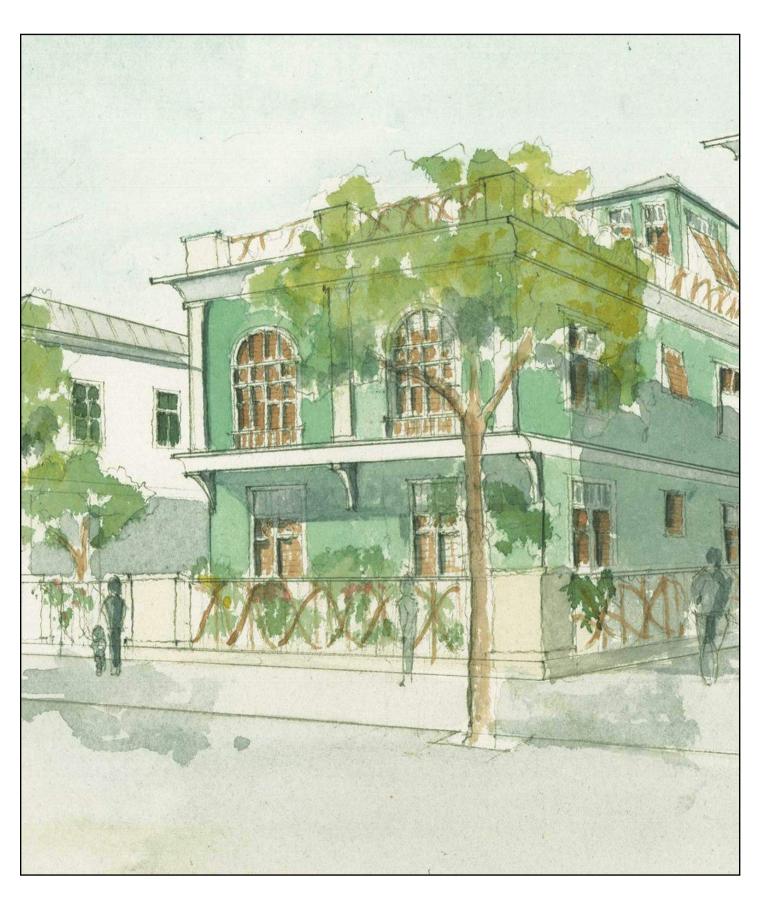


RESIDENTIAL BUILDING IN DENSE URBANISM

The building type to be used in the first phase is representative of traditional row houses found in elegant historic neighborhoods found throughout the historic towns and cities of Ecuador. The example shown, thought not the exact type to be used in the first phase, depicts the projecting loggia house, with the floors pushing forward from the main body of the building. Usually held up by brackets, this protruding structure provides a bit of shelter over the front entrance and catches the breezes coming down the street.



ACCEPTABLE DIMENSIONS FOR LOGGIA HOUSE COMPONENTS



RESIDENTIAL BUILDING CHARACTERISTICS

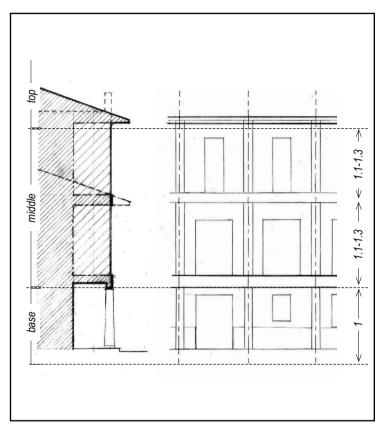
The homes in Ecuador take advantage of the mild climate by providing a range of outdoor spaces within the lot, often surrounded by the main body of the house. These courtyards, many times with pools and filled with foliage, are fundamental to the indoor/outdoor daily living that the people of Ecuador enjoy year round.

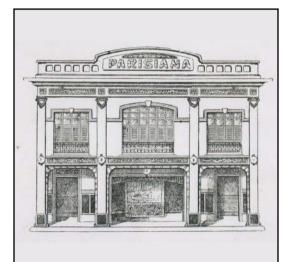


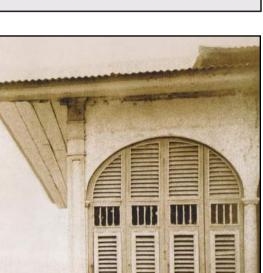
DESIGN PRINCIPALS

MIXED-USE **BUILDINGS IN ECUADOR**

The traditional mixed-use building (with retail on the first floor and residential above) is fronted on the street by a colonnade, or soportal. In more dense urban settings, they were primarily constructed with load-bearing masonry, while more rural or vernacular settings saw these buildings made of wood.

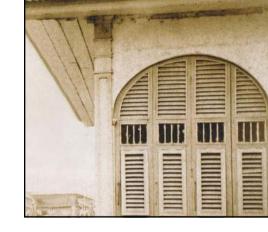






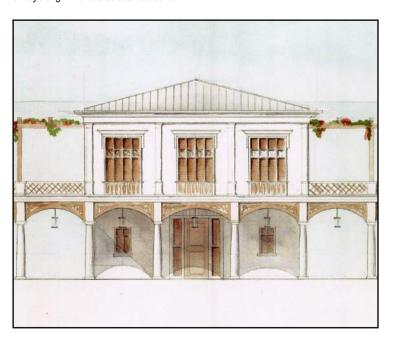


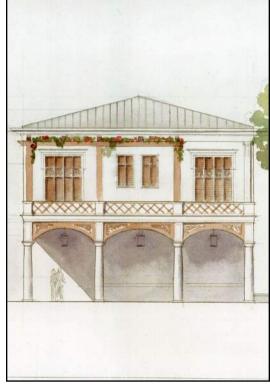




SOPORTAL BASE

Bases with columns provide protected outdoor space at ground level while supporting the upper floors. Soportal bases are most appropriate in denser urban zones to encourage street life. Columns on the ground floor always align with the structure above.







Beyond the soportal, one of the most characteristic details of these buildings is the almost universal expression of post & beam construction. Every facade has a rhythm of openings with shutters punctuated by pilasters to the roof or cornice.

Bahia Muyuyo
GUAYAS, ECUADOR

the shape of the building.

extend beyond the first floor.

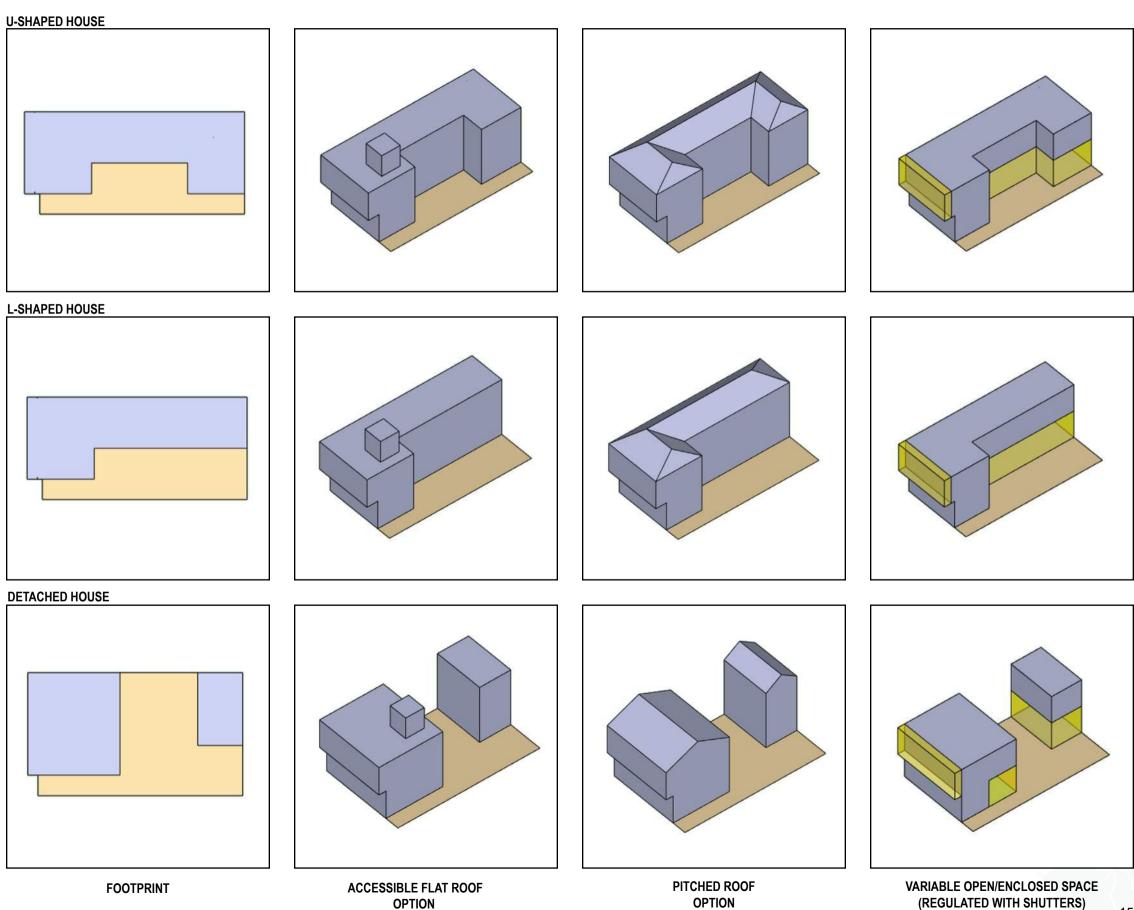
All three shapes hold the street edge on the ground floor, and have second floors that

The entirety of each lot is used, regardless of

For each type of house, flat roofs must be accessible, and will have pergolas and towers (in variable positions, but set back from the front of the house).

When roofs are not accessible, they will be metallic and pitched.

All three house-shapes create an open courtyard space defined by the massing; they will also have space that can easily be either open or closed with the use of shutters.



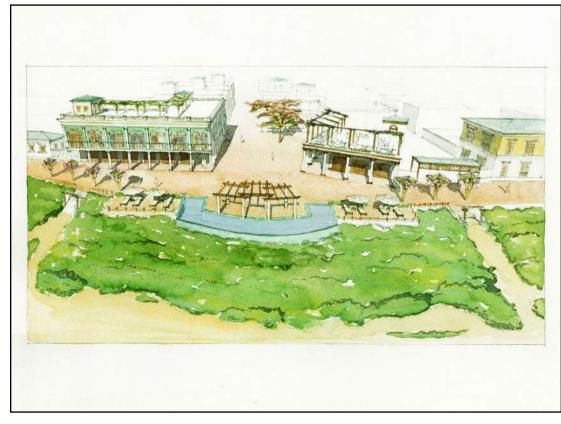
FIRST STREET & SQUARE

PUBLIC SQUARE - CHARACTER

These vignettes illustrate the spacial and architectural character and atmosphere of Bahía Muyuyo's first public space and street. They indicate many key features such as expressed string courses, entablatures and pilasters; bracketed projecting upper floors at residential buildings; colonnaded soportals at public buildings; roof terraces, towers and pergolas; and a zero-lot-line public right of way.













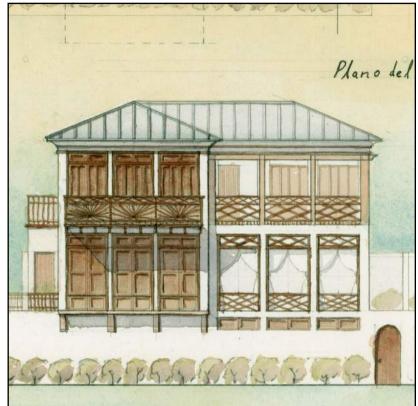
ENTRANCE DOORS

Entrance doors may be constructed of wood, ironwork, or Muyuyo. The material should be strong, durable, natural, and locally produced, when possible.

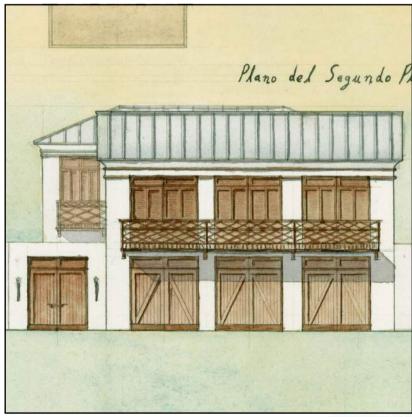
GARDEN WALLS

Garden walls should be constructed of solid structural materials. No composite or veneer material should be used. Solid walls can be topped or combined with woods, trellises, and iron grills.











CONFIGURATION OF BASE, MIDDLE & TOP

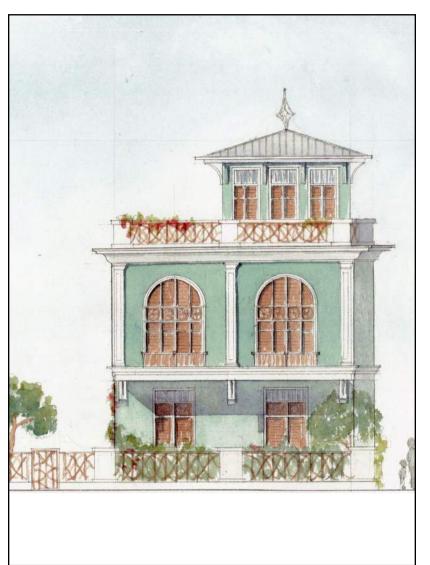
Fundamental to the architectural character of Bahía Muyuyo, all buildings are horizontally and vertically defined, with a clear base, middle, and top. Structural elements like openings and columns are vertically aligned to create a cohesive, balanced facade.

HORIZONTAL COMPONENTS

Buildings are horizontally divided with a base, a middle and a top. On the Founders Row and the first public space at Bahía Muyuyo, public buildings employ a soportal at their base, while all residential buildings are connected by a continuous smooth wall at their base, with bracketed projecting upper floors.

STRING COURSES

All floors must be demarcated and expressed with a horizontal entablature or string course. In no condition may two floors lack a demarcation. The tops or buildings are expressed by entablatures/friezes, whether at flat terrace roofs or pitched roofs.





RESIDENTIAL STREET FACADE

Examples of the required articulation on the Founder's Row, with a simplified ground floor and bracketed projecting upper floors expressed with pilasters. All floors and the roof are expressed horizontally with entablatures or string courses. Buildings are connected at the ground floor by a continuous unarticulated wall.

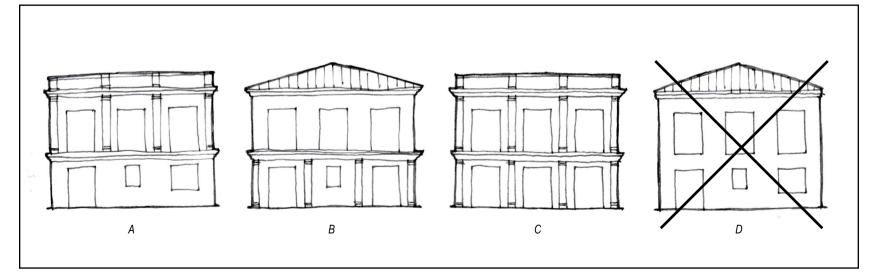
The projecting upper floor is a traditional Ecuadorian configuration. Upper floors were often lined with double facades (loggias) to insulate the interior space. Brackets support upper floors and respect the vertical alignment of the structure above.

PUBLIC/MIXED-USE STREET FACADE

Examples of the required articulation on the Founder's Row public buildings, with soportal colonnades on the ground floor. All floors and the roof are expressed horizontally with entablatures or string courses.

VERTICAL COMPONENTS

Soportals are expressed by vertical columns or piers at regular intervals. On the Founder's Row, ground floors of residential buildings are expressed by continuous simplified, smooth walls. Upper floors, however, must be expressed as post-and-lintel construction, articulated by aligning pilasters and shuttered openings (A). Typically at Bahía Muyuyo, if ground floors are articulated with pilasters or columns, upper floors may be simplified (B); or all floors can be vertically articulated (C). At no time may both the ground floor and upper floors be simplified, without horizontal demarcation and vertical articulation (D).



PILASTERS FOR VERTICAL EXPRESSION

Condition A (pilasters on upper floors, simplified ground floor), Condition B (pilasters/columns on ground floor, simplified upper floors), and C (pilasters on all floors) are acceptable at Bahía Muyuyo. Condition D is never permissible.

On Founder's Row, all residential buildings must follow Condition A, with a simplified ground floor, below upper floors projecting (with brackets) and articulated with pilasters.

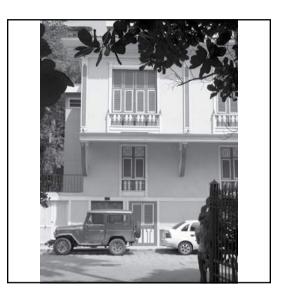
PROJECTING SECOND FLOOR AND BRACKETS

PROJECTING UPPER FLOOR AND BRACKETS

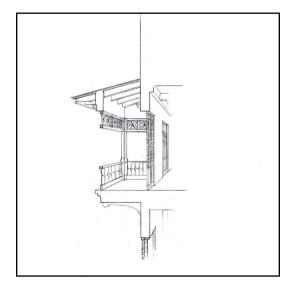
The projecting upper floor supported by brackets is a common local building type. The projection is 1.5m. Traditionally, the overhang was a fully enclosed loggia. It can also be possible for the projection to be fully integrated into the room so that the wall does not carry up from the ground floor, but is truly projected 1.5m over the street. The street façade of the projecting floor must be articulated to denote post and lintel construction.

Brackets can be made of painted or unpainted wood. The design should be substantial enough to express the load of the upper floor. Brackets should be inspired by shipbuilding construction techniques, from which the building tradition of Guayaquil originated.















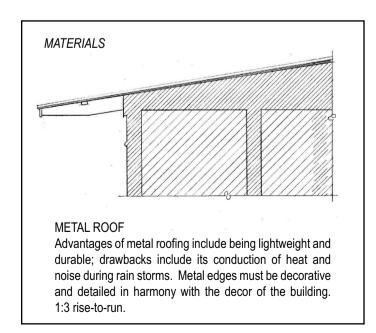
HIPPED ROOFS

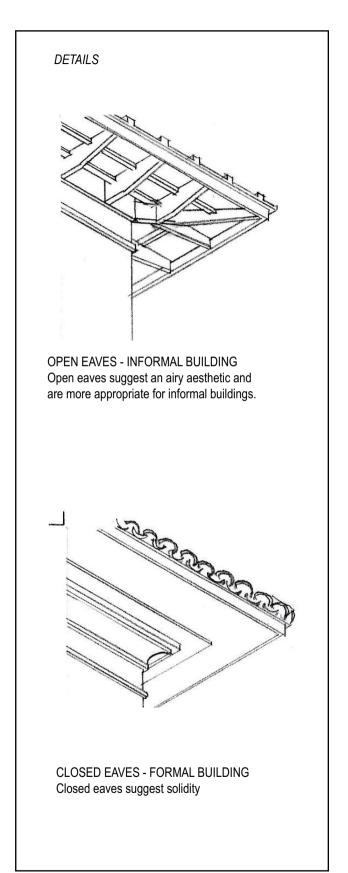
Roofs are simple and have low profiles - they are not dominant features.

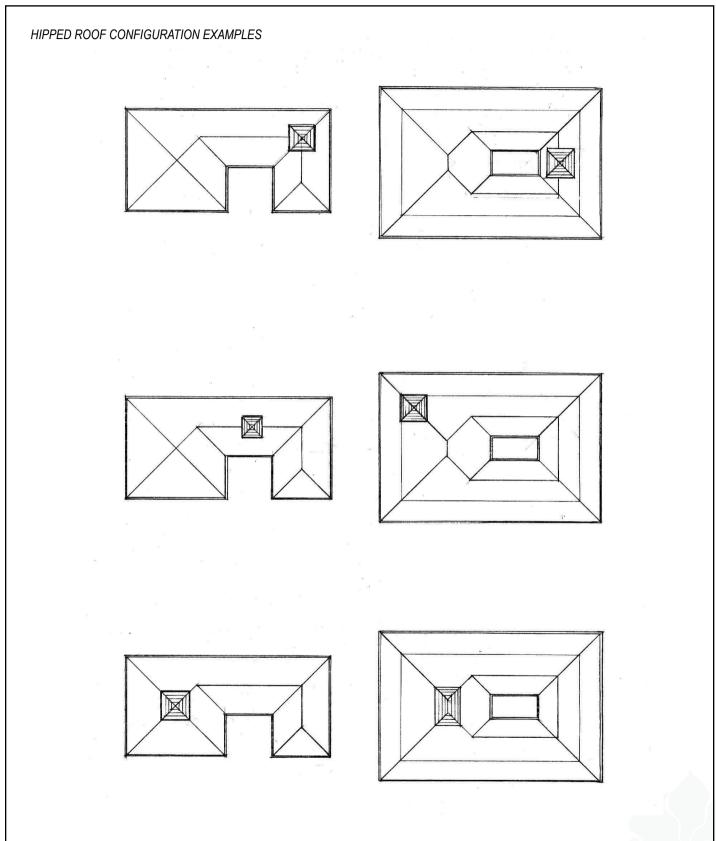
Hipped roofs should have attic space beneath that acts as insulation from the sun's heat. To function as passive insulation, the attic should not be designed as liveable space. The attic space must be naturally ventilated using eave vents, dormers, shifted ridges, and/or roof towers.

Roof materials should be natural clay tiles and/or metal. Whenever possible, local materials should be used. Artificial materials or other substitutes are not permitted.

Downspouts and gutters must be decorative elements that compliment the facade. Avoid using plastic for the gutter and/or downspout material. Downspouts and gutters should be used to facilitate water gathering; water should be funneled to vegetation and/or water barrels.









FLAT ROOFS

Flat roofs must be terminated with cornices and parapets, clearly delineating the top of the building.

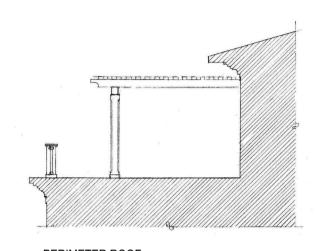
Flat roofs must be usable, liveable space! Rooftop terraces with permanent trellises are not only inviting, but also shade the rooftop space and the roof of the floor below. Pergolas and parapets must be designed in harmony with each other and the building's elevation.

Downspouts and gutters must be decorative elements that compliment the facade. Avoid using plastic for the gutter and/or downspout material. Downspouts and gutters should be used to facilitate water gathering; water should be funneled to vegetation and/or water barrels.

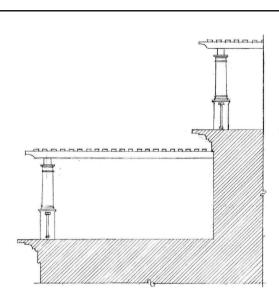
CONFIGURATIONS

DETAILS

CONTINUOUS ROOF Continuous flat roofs must be designed as an easily accessible terrace with a permanent pergola.



PERIMETER ROOF A flat roof on the perimeter of the building provides terraces directly accessible from the interior space. Perimeter roofs can allow both terraces and a hipped roof above the interior space.



STEPPED ROOF Stepped building profiles can provide multiple outdoor spaces. All outdoor roof spaces must be easily accessible and designed with covered terraces.

SHADING EXAMPLES



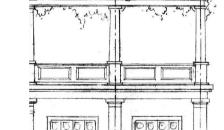




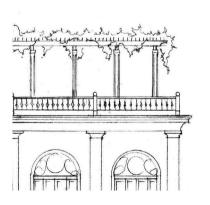




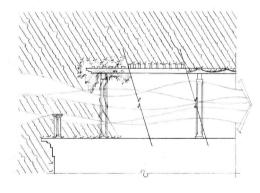




Pergola and parapet design should always correspond. To accent the height of more formal buildings, the pergola is placed in the same plan as the building's elevation.



RUSTIC PERGOLA For a more rustic appearance, the pergola is independent of the parapet and the building's elevation.

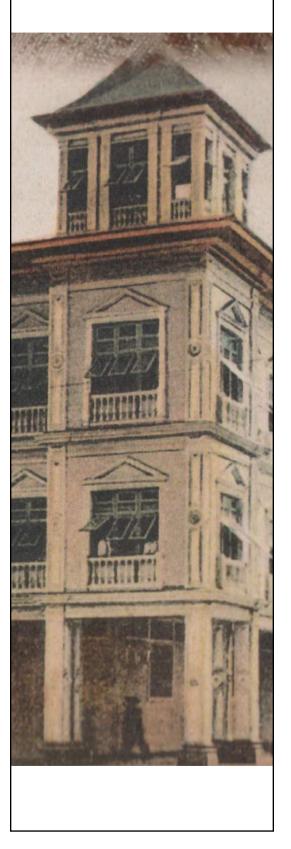


Pergolas can be covered with vegetation, wooden slats, and fabrics. Covered pergolas are inviting and also provide additional shade to the rooftop space and the roof of the floor below.

ROOF TOWERS

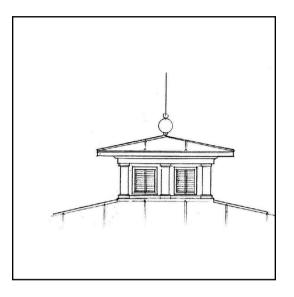
ROOF TOWERS

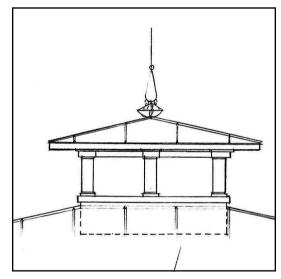
Roof towers provide ventilation and can even provide access to a roof terrace. Towers can be topped with a finial or weathervane if desired. Articulation of towers should reflect post and lintel construction. Shutters will be used.

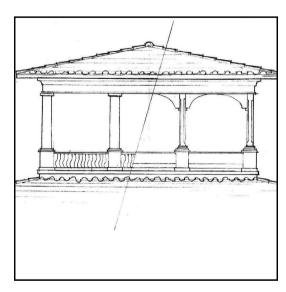


















Bahia Muyuyo GUAYAS, ECUADOR

POST, PIERS & COLUMNS

Though this vernacular contains different types of columns, all maintain a base, middle, and top. The choice of column must be appropriate for the building type and location. Each type has proportions and rules. Classical columns are reserved for formal buildings and must be detailed according to the selected style.

Columns can be constructed of wood of a single timber and should not be built up except for the most classical columns, which may be paneled. Wood columns must have a base, preferably in masonry because it is most durable.

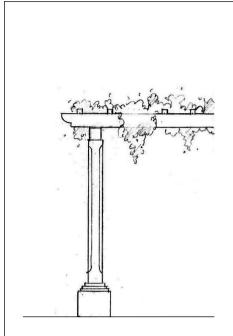
Because composite materials may be stronger than wood, resist termites, and do not rot, they can be an option here, though they must follow the rules of substitutions.

Masonry columns may be used in both rural and urban settings. Depending on the quality of the plaster or stucco, paint may or may not be necessary.

Metal columns do not frequently appear in this vernacular. If used, they must have an aesthetic reason in the overall design, such as for pergolas.

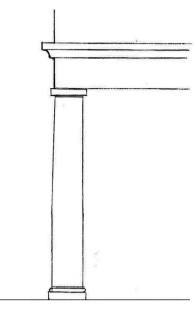
PILASTERS

Pilasters are structural and decorative elements that form a cadence along the façade and are aligned with corresponding columns. A pilaster must be three-dimensional with a simple proportioned base, shaft, and capital, detailed to reflect those of the columns.



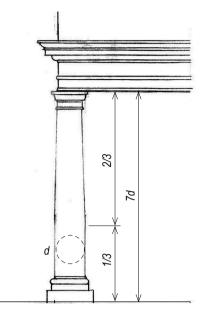
POST

Wood posts may be used for trellises in both rural and urban settings. They should be no less than 16 x 16 cm and should be constructed of a single timber.



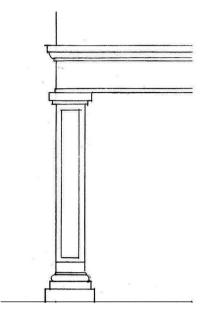
COLUMN

A column can be elementary in design but must have a base, middle, and top and sit correctly in relation to the entablature.



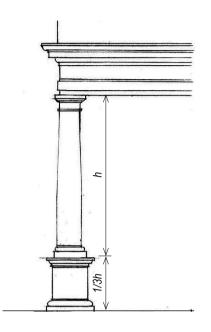
TAPERED COLUMN

The taper of the round column shaft starts one-third up from the base, bowing slightly outward rather than straight. The top of the shaft is five-sixths the diameter of the bottom. The column's height is seven times the diameter at the base.



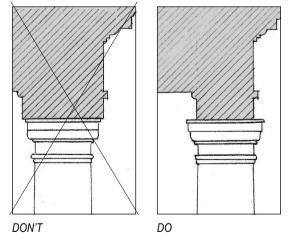
PIER

Square or rectangular piers may be used in both rural and urban settings depending on the refinement.



TUSCAN COLUMN

The inherent simplicity of the Tuscan column makes it the most appropriate classical column for this vernacular. The base is one third the height of the column, which is proportioned like the tapered column.

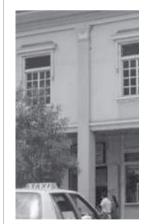


The inside and the outside faces of the architrave should match the width of the top of the column shaft.



Columns should be properly placed under the architrave, in line with the shaft of the column or pier. Thin and in-set columns create awkward spaces.

DO



DON'T

The second floor should not hang from a column. Columns must support the entablature of the second floor.



DONT



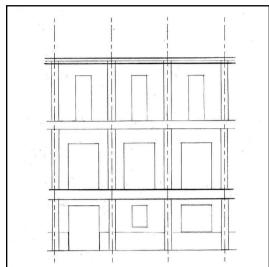
Columns and piers require a capital and base and should be detailed accordingly. This living vernacular has its rules; whimsical or arbitrary column deviations are not appropriate.

SOPORTALS

SOPORTALS

The traditional *soportal*, a colonnaded or arcaded building base, provides protected outdoor space at ground level while supporting the upper floors. Serving as walkways or porches, they promote street life and activity in the public ream. The soportal responds to the climate by providing cool outdoor spaces, as well as by shading interior spaces from the direct heat of the sun. Soportal bases are used on the first street at public and mixed-use buildings.





STRUCTURAL ALIGNMENT

Columns and piers in the Soportals always align with the structure above, whether expressed via pilasters or implied by openings.



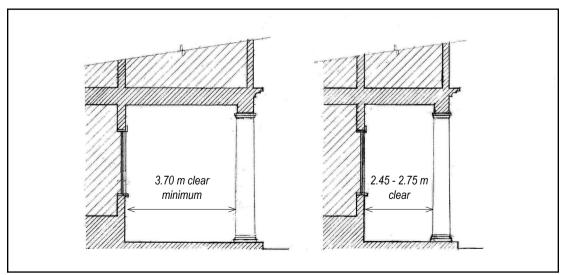
TRADITIONAL EXAMPLES

SOPORTAL DEPTH AND FUNCTION

The dimensions of the soportal should be carefully chosen to correspond to the desired activities and character. Grander proportions are appropriate for more significant public buildings. The depth of the soportal relates to the depth of the room or loggia on the floors above.

On the left, we see the soportal as an outdoor room, with a minimum clear depth of 3.70 meters. A soportal of this dimension (or greater) provides space for commercial activity and sitting areas. This space can be used for restaurants and shops.

On the right, we see the soportal as a walkway, with a clear depth of 2.45 to 2.75 meters. A narrower soportal provides cool, shaded walkways and inviting entranceways from the public to the private realm.





section



LOGGIAS

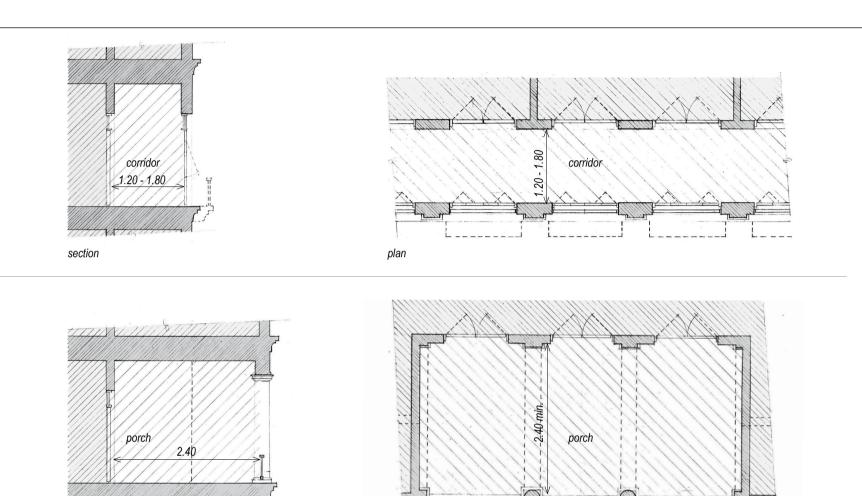
The middle, or the body, of the building must sit on a base. These upper, more 'noble,' floors are distinguished from the base by their more decorative façades, and higher ceilings than those of the ground floor. Traditionally, the middle comprises one to three floors, with higher buildings reserved for more urban contexts. Please refer to the urban code for height specifications.

Upper floors can be configured in two ways: either with loggias, which are outdoor spaces carved out of the building volume, or with interior space lying directly behind a façade lined with windows and balconies. In this vernacular, façades are characterized by simplicity of design: choosing just one or two types of openings and balconies avoids a cluttered, confusing overall impression.

FACADE WITH LOGGIA

Traditionally loggias lined the façades of Guayaquil's buildings, providing practical, pleasant outdoor corridors or porches. Unfortunately, over the past decades they have become forgotten treasures. In Batan, they will once again become an integral architectural feature.

Loggias by their very nature are not enclosed with glass. Shutters, nevertheless, are a welcome amenity, providing shade and allowing cross ventilation. When shutters do not line the loggia façade, they should be considered for the windows of the inner façade. Awnings of natural fabrics can be considered as an alternative to create a different ambience.



LOGGIA AS PORCH

LOGGIA AS CORRIDOR

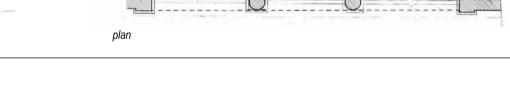
the building.

Loggias can be used as porches if they are a minimum of 2.40 m deep. Deeper than 2.40 m, loggias become real outdoor living rooms.

Narrow continuous loggias function as open-air corridors,

accessing rooms and separate apartments. To ensure that the space functions properly, its depth should be a

minimum of 1.20 to 1.80 m, depending on the grandeur of



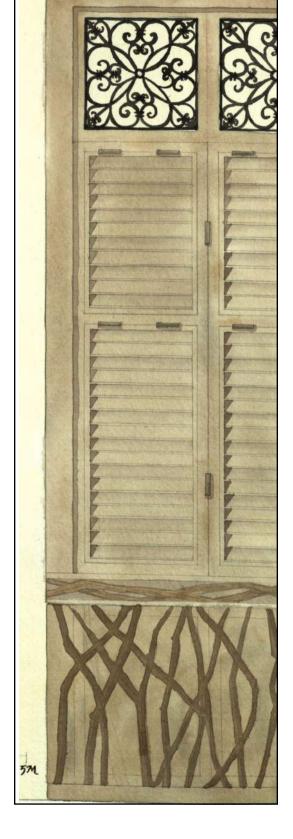
OPENINGS AND SHUTTERS

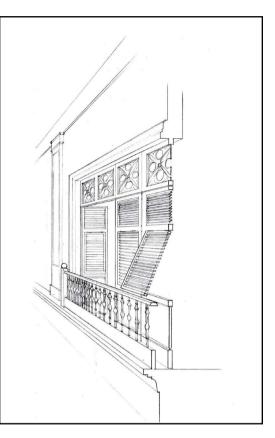
SHUTTERS

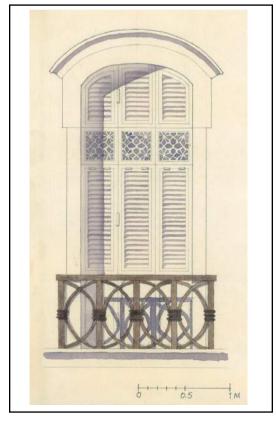
Shutters will be used in all openings. Shutters are ideal for Bahía Muyuyoʻs climate. They allow for natural ventilation that take advantage of ocean breezes and promote healthy living (see appendix on negative health effects of HVAC systems). Shutters can be used in a variety of ways to achieve the desired amount of light and ventilation. Light and shadow patterns add beauty and interest into the house design.

Shutters are made up of panels that operate as awnings and stationary panels set in a frame that opens inward. All shutters have a fixed transom, either arched or rectangular. Most shutters open to the floor with a 90 cm balustrade integrated into the outer window frame. Even if the bottom 90cm of the shutter is fixed, a balustrade should be included in the shutter system. Most lower sections of shutters are not louvered, but rather solid wood panels.

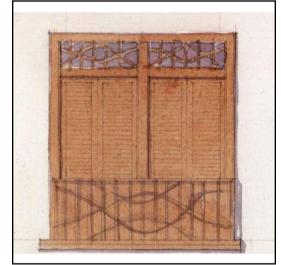
Shutters are constructed in wood. Balustrades can be made of wood, black ironwork treated to prevent rust, or unpainted muyuyo wood. Fixed decorative panels are encouraged in the main body of the shutter and also in the transom. Panels can be built of carved wood, ironwork, or muyuyo designs. Design should be based on local vegetation or ocean and shipbuilding themes. Historic decorative panels were inspired by local flora and fauna. Mosquito netting should be integrated thoughtfully into all shutter designs. Other issues of dust, security and sound should be addressed thoughtfully.





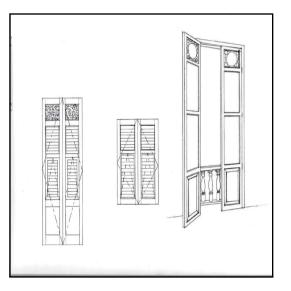








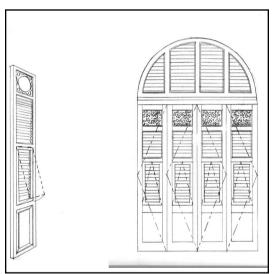


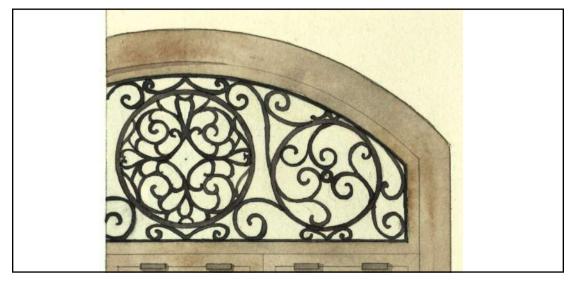




Bahia Muyuyo
GUAYAS, ECUADOR









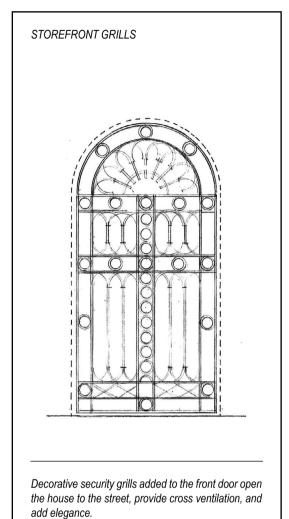


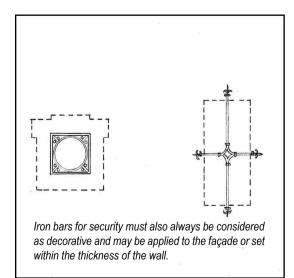
GATES & GRILLS

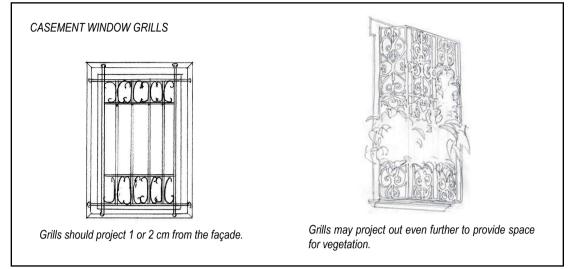
Security grills are permitted on the groundfloor as long as their decorative quality enhances the design of the openings.

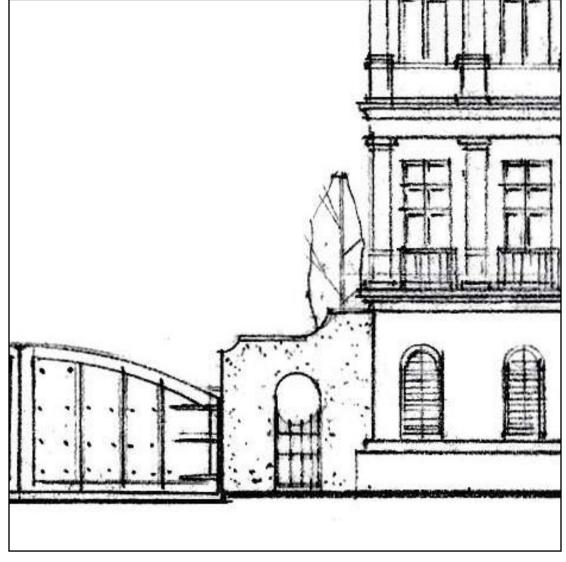
Gates and grills must not be a tight grid; the spacing should be no less than 12 cm. Storefront security grills must be decorative and transparent, allowing passersby to see in.

Wrought-iron gates may be added in front of wood doors for security, but glazed wrought-iron doors are not part of this vernacular and can in no case replace the wood door.







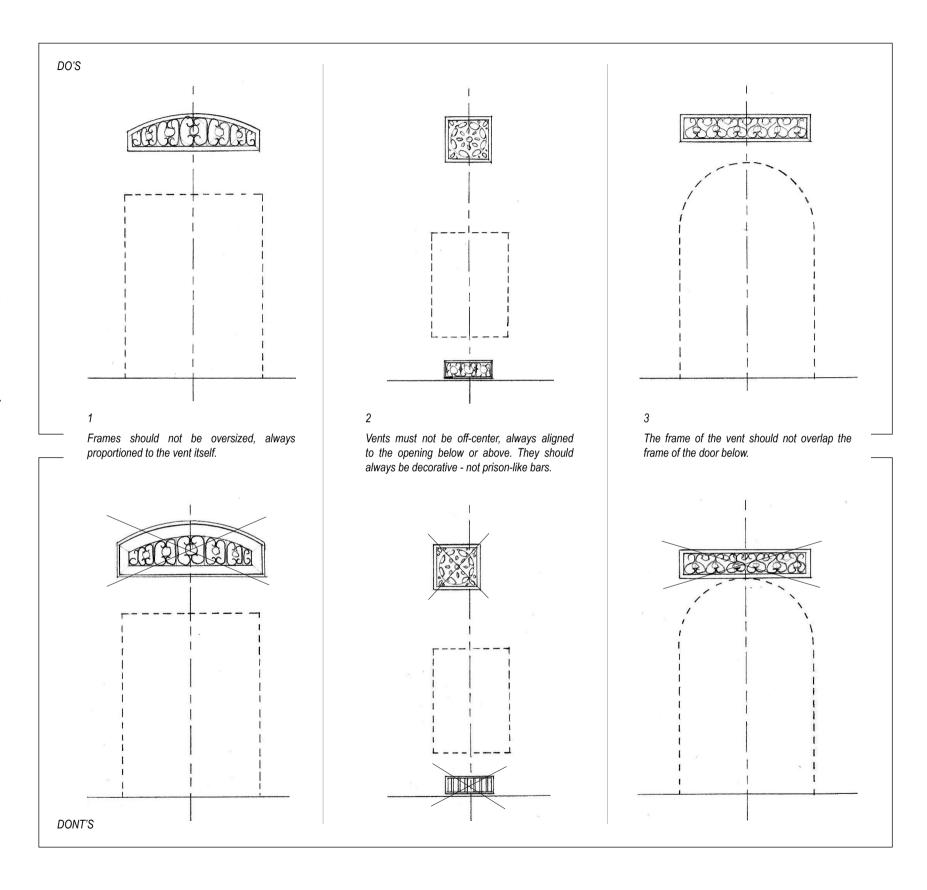


VENTILATION GRILLS

Ventilation grills may seem incidental in the overall scheme of things, but in this vernacular they are an important visible part of the passive climate control system of buildings, promoting cross-ventilation throughout buildings. As well as utilitarian, these ventilation grills must also be conceived as decorative elements, symmetrically placed relative to openings and in harmony with the overall building design. Where possible, they should be placed and designed to create the traditional enchanting light patterns.

While important, vents have their place in the hierarchy of architectural elements. They should not call attention to themselves with out-of-place designs or oversized frames.

Ventilation grills should be made of wood or wrought iron. Plastics, which attract dust and age poorly, are not permitted. Other composite materials can be used if they follow the rule of substitutes.





RAILINGS

In this vernacular, where loggias and balconies are so prevalent, railings are an essential architectural and decorative element.

In keeping with the simple, balanced façades of this vernacular, railings must be designed in harmony with the windows, shutters, and balconies they protect.

Though railings, like shutters, give character to the building, they must not be extravagant or different for difference's sake, and must be traditionally shaped and proportioned.

Railings maybe be made of wood, masonry, wrought iron, or a mix of any of these. Whatever the material, their design must express that material and be manufactured according to the art of the craft. Simulated materials may be used but must follow the rules of substitutes.

Railing height should comply with relevant safety regulations.



WOOD

Wood is most commonly used in this vernacular. Balusters must be shaped and finished so the wood can display its essential textures, maintaining the traditional look.



MASONR'

Masonry balustrades are more appropriate for larger-scale and more formal buildings. Of heavier quality, masonry is suited for estate villas and urban buildings.



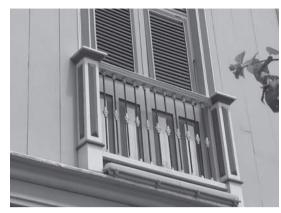
WROUGHT IRON

A wrought-iron balustrade has a more refined appearance and should be designed based on classical and vernacular traditions to highlight the nature of its material.

Supported by an entablature, railings which

are placed beyond the face of the building

give the façade a more tangible depth.



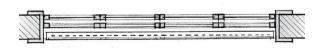
MIX OF MATERIALS

Railings can be artfully designed to combine masonry and iron, or wood and iron.

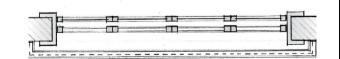
RAILING PLACEMENT FOR LOGGIAS AND FAUX BALCONIES



Placing the railing within the thickness of the wall creates permeability and a connection with the outdoors without obstructing the view from inside.







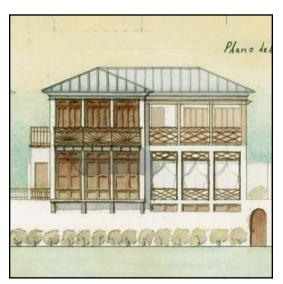
MUYUYO WOOD

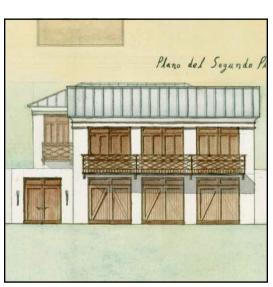
Muyuyo is a natural, sustainable, material that is easily grown and processed locally.

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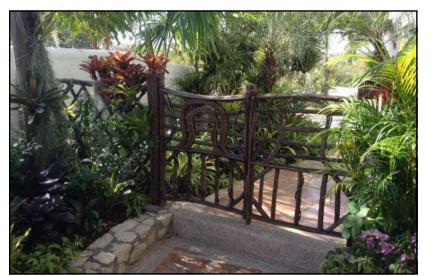
The use of muyuyo wood in balustrades, fences, furniture, shutters, and other details will promote a sense of place and help give the development a distinctive, authentically local feel. It will also promote local craft and industry.

Muyuyo wood used in the development should be treated with a natural finish, in the art of the craft. It should never be painted.





















FINISH MATERIALS AND COLORS

MATERIAL

The nearby Parque Storico and Las Peñas in Guayaquil exemplify the rich character given to the houses by their color and material. Each house makes use of a rich and cohesive palette that is simultaneously bright and unified. The color exists on the walls and trim, as well as the myriad elements that make up the dynamic but composed facades. Paint is generally applied to stucco-covered masonry walls, and also to the wood and metal elements (including balconies, trim and grills).

For the First Street, the ground level of each house will be cream-colored. This will reinforce the sense of unity among the buildings that uniformly hold the street-edge on the ground floor. This also allows for variability in the colors in other elements of the houses, while still maintaining a cohesive palette. The base (water table) will also be the same color).

The upper level can be painted with pastel colors, and cannot be painted cream. Up to two additional colors can be chosen for trim and shutters. These will be from an approved palette, though exceptions can also be approved. Shutters can have darker hues. Final colors must be approved.

Muyuyo should not be painted; it is to be treated naturally in the art of the craft. This would entail matte to semi-gloss finishes for longevity.









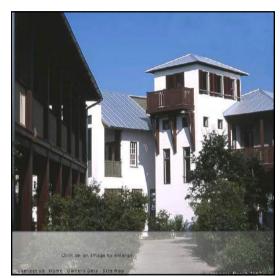




The coastal resort town of Rosemary Beach exemplifies traditional neighborhood design. Based on the principles of New Urbanism, it is a walkable, mixed-use community. Its architecture and construction is based on Caribbean models found in St. Augustine, Florida and in the islands, and is of the highest quality.

Successful features include balconies, loggias, roof towers, inner courtyards, and living walls, all of which are inspiration for Bahía Muyuyo.



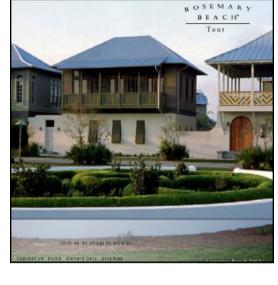


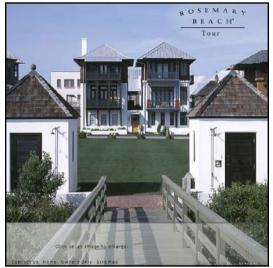


















Bahia Muyuyo
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Aiming to be environmentally sustainable, Alys Beach has a mixed-use, pedestrianfriendly plan.

Architecturally, the simple volumes of whitewashed masonry and stucco are reminiscent of styles found in Bermuda. Perimeter and connecting walls are used throughout and are higher and more formal in the urban zones and lower and more rustic in rural areas.

Features include interior courtyards, patios, and rooftop towers.

The forms and their relation to public space are sometimes open and engaged and sometimes intimate and distinct.





ARCHITECTURAL GUIDELINES



















WINDSOR, FLORIDA

Windsor is elegantly scaled and designed in the urban Caribbean tradition. Though residences are extremely private, streets and public spaces are inviting.

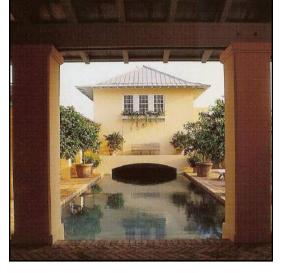
Guidelines mandate continuous facades with masonry at the first floor and wood construction above, as well as a variety of porches, balconies, loggias, and roof overhangs.

Windsor has quickly become the reference point for exemplary design.









INSPIRATIONAL PRECEDENT









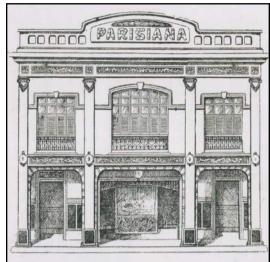






Guayaquil's historic architecture reflects a combination of native Ecuadorian and European cultures, building techniques, and local materials. What may once have been a confusing aesthetic mix has blended over time to fit the region and its people, inspiring a true sense of place.

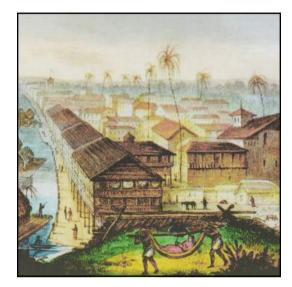














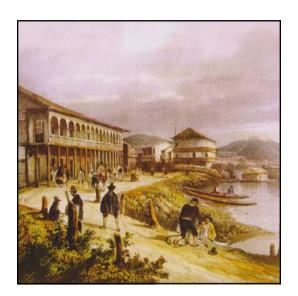




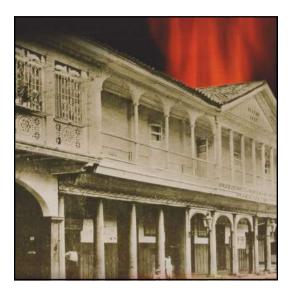


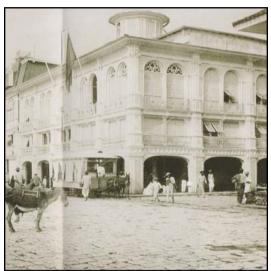


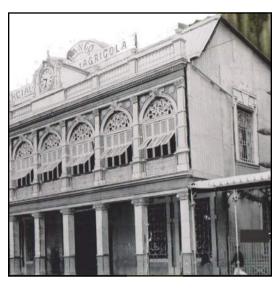
Guayaquil continued

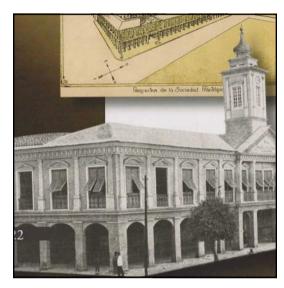






















HISTORIC GUAYAQUIL, ECUADOR

Guayaquil's street scapes indicate the frequent use of elements recommended in this book - soportals, loggias, shutters, canvas shades, etc. The streets are a place for people - they are scaled for the human experience and spacial in nature.

Bahia Muyuyo
GUAYAS, ECUADOR









Guayaquil street scapes continued









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Claire Martell

HOUSE NAME

FLAMBOYÁN

MARACUYÁ

POMAROSA

JACARANDA

ALMENDRA

MARAÑON

CIRCUELA

CARDON

LAUREL

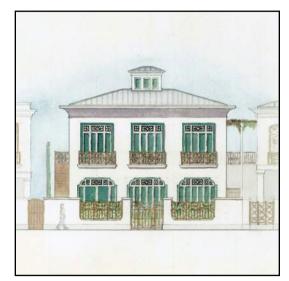




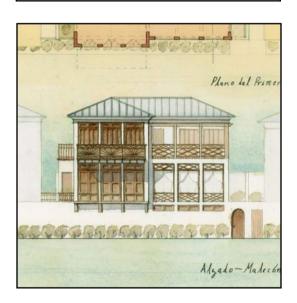




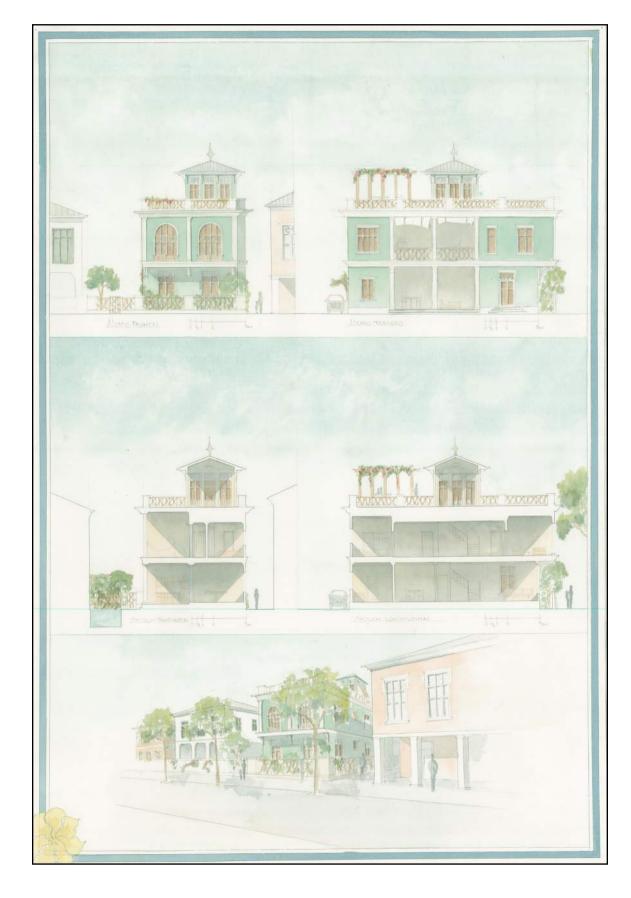


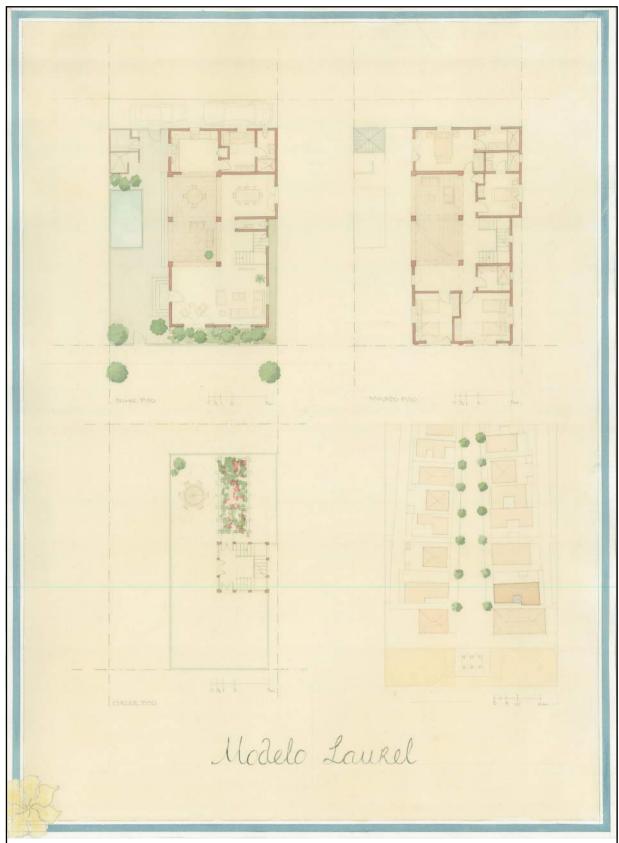




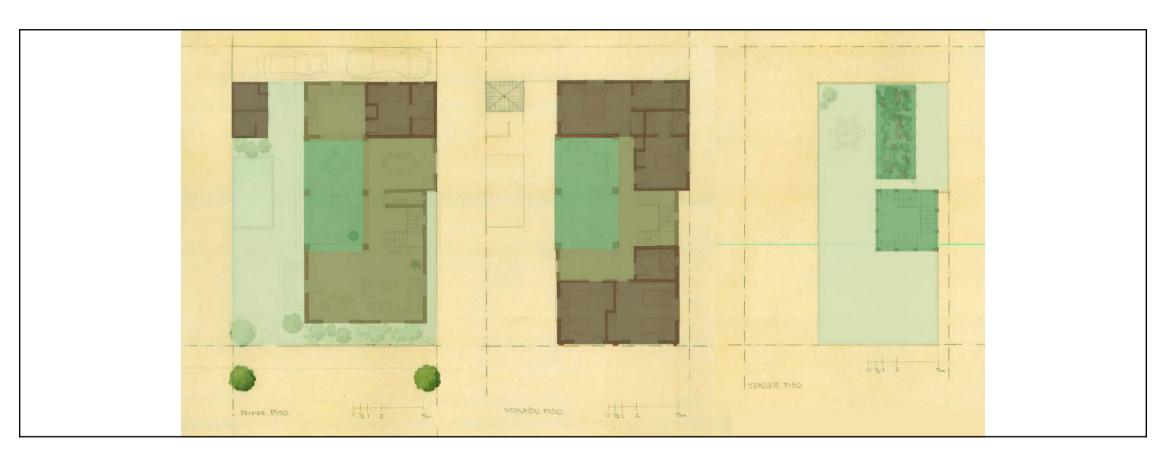




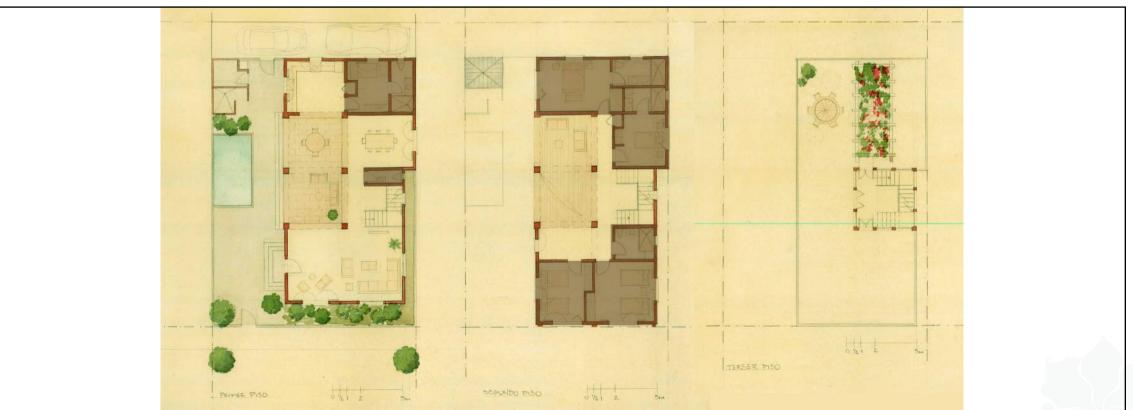


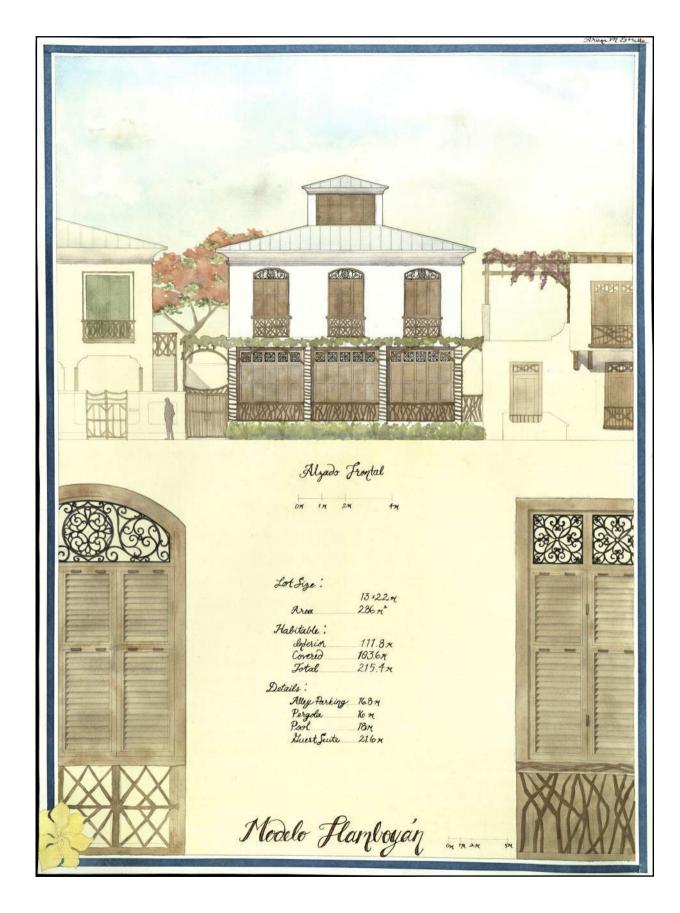


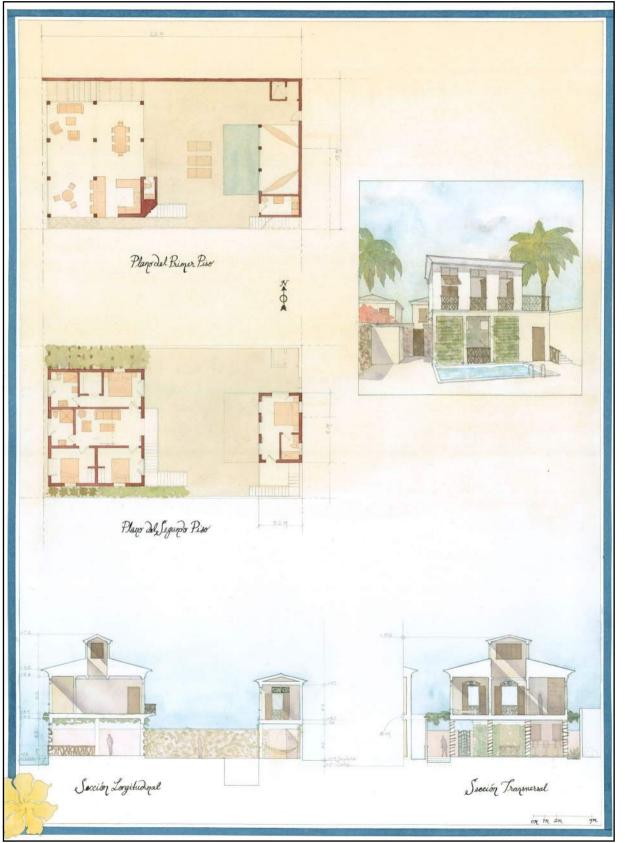
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- Covered Open Space
- Shutters as Walls (Open or Closed)
- Walls with Shutters



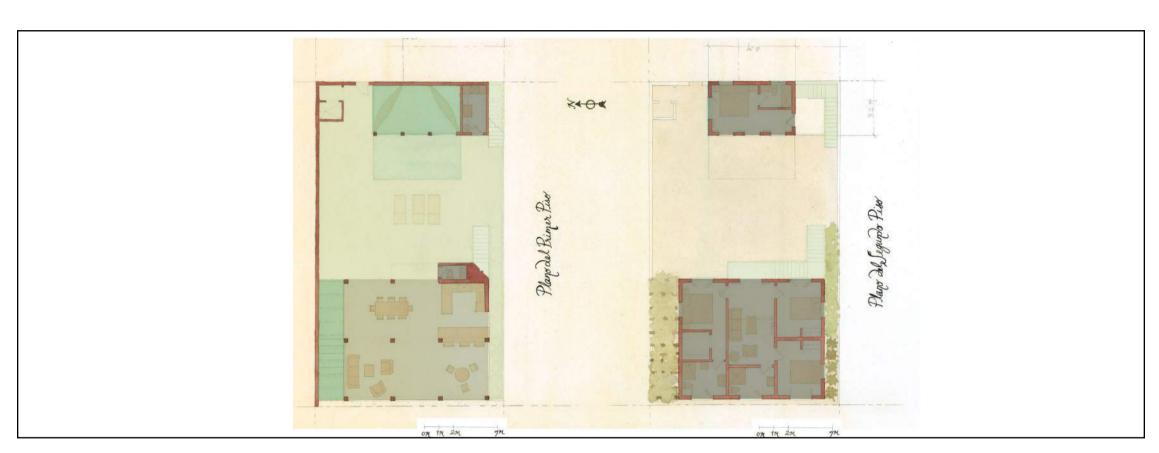
PUBLIC/PRIVATE SPACES



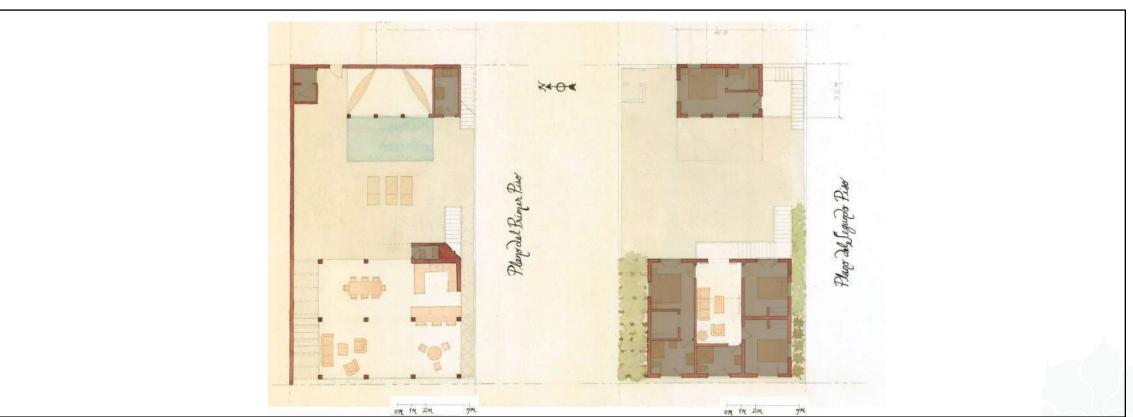




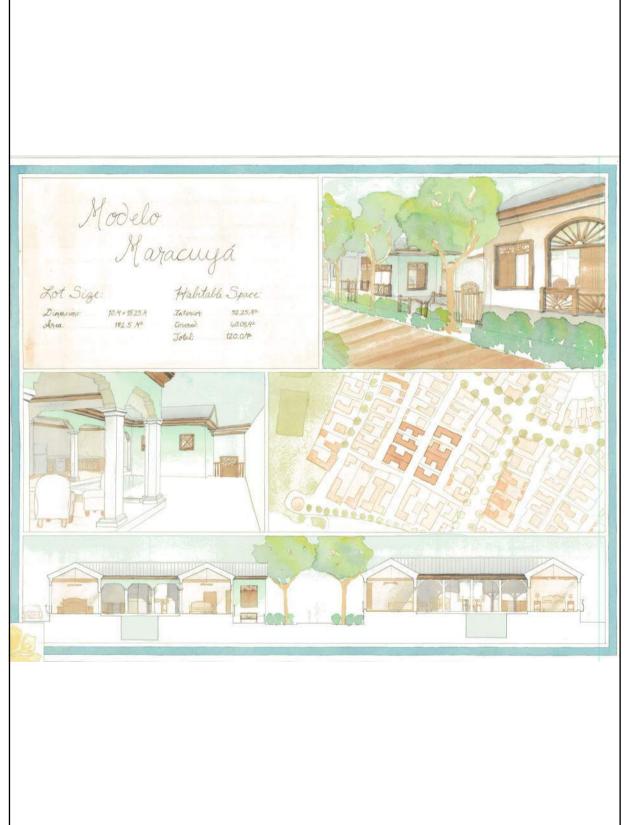
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PUBLIC/PRIVATE SPACES





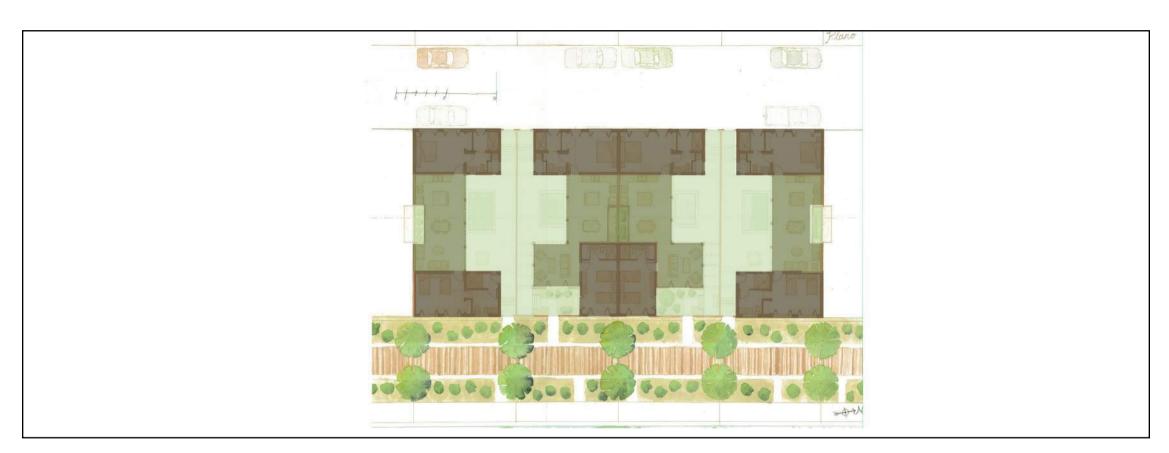


Uncovered Space

Covered Open Space

Shutters as Walls (Open or Closed)

Walls with Shutters



PUBLIC/PRIVATE SPACES

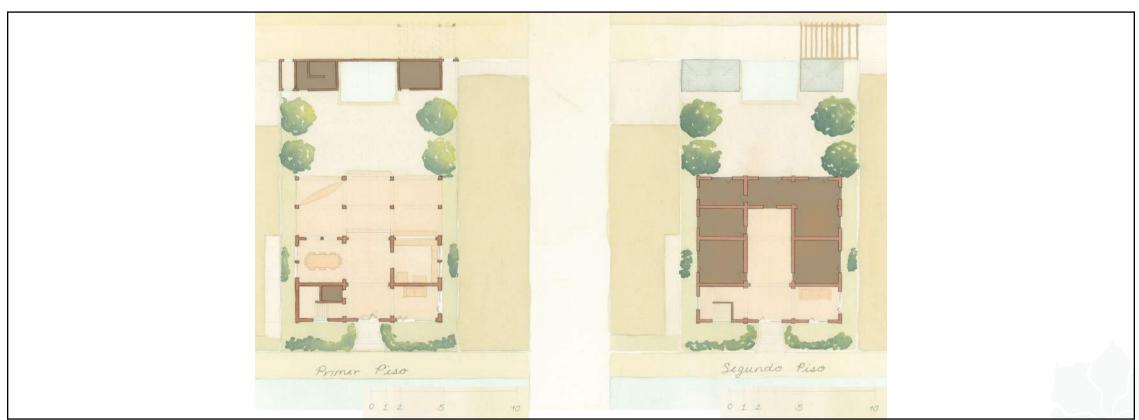




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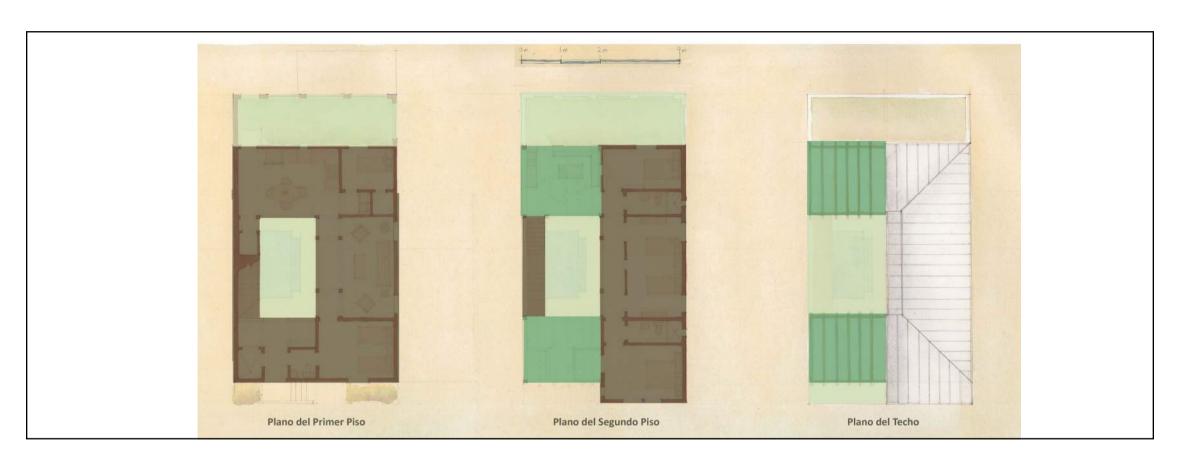
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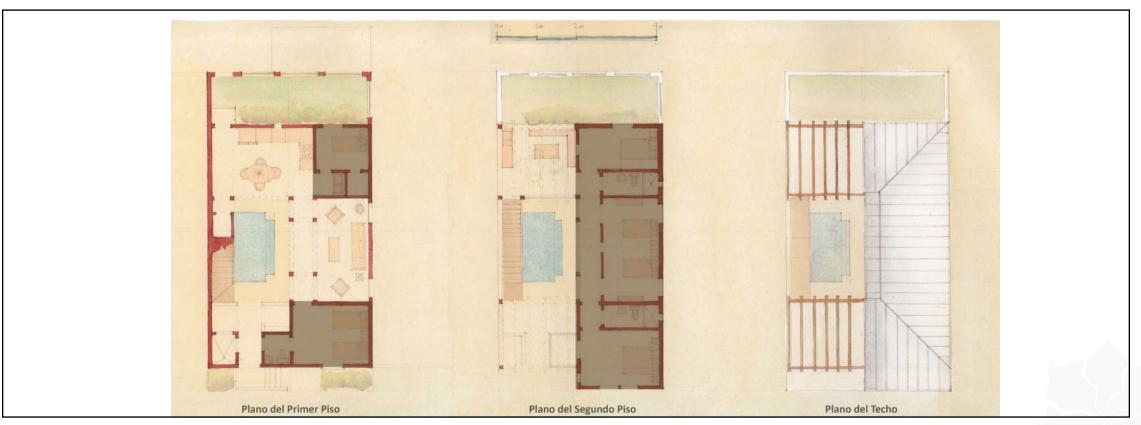


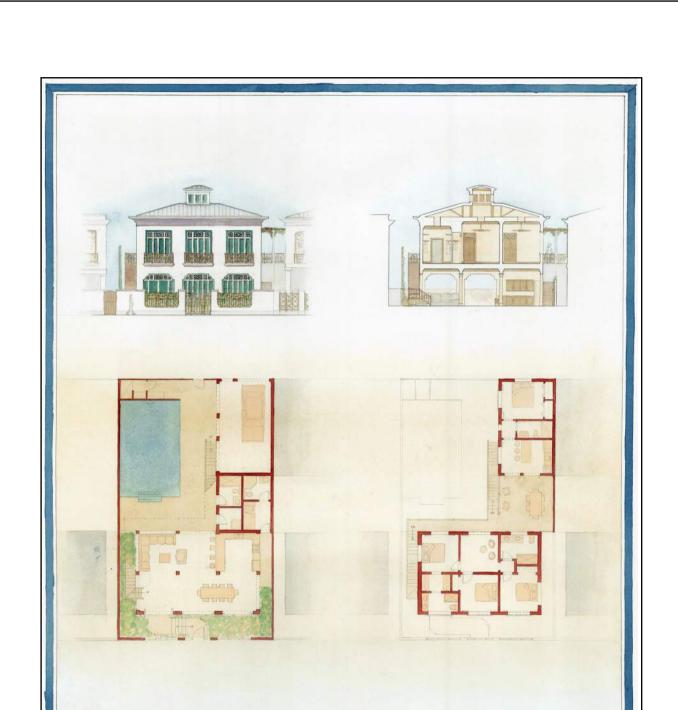


- Uncovered Space
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PUBLIC/PRIVATE SPACES





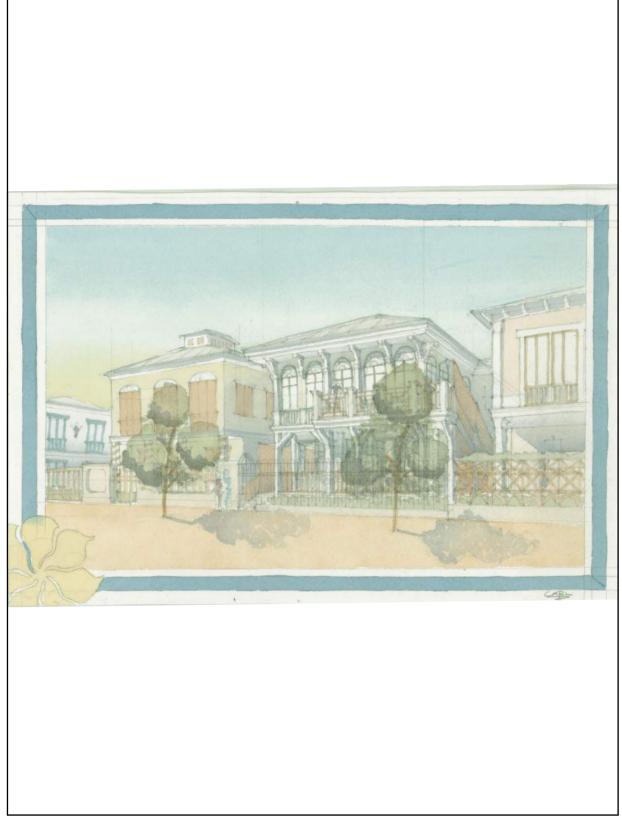
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PUBLIC/PRIVATE SPACES





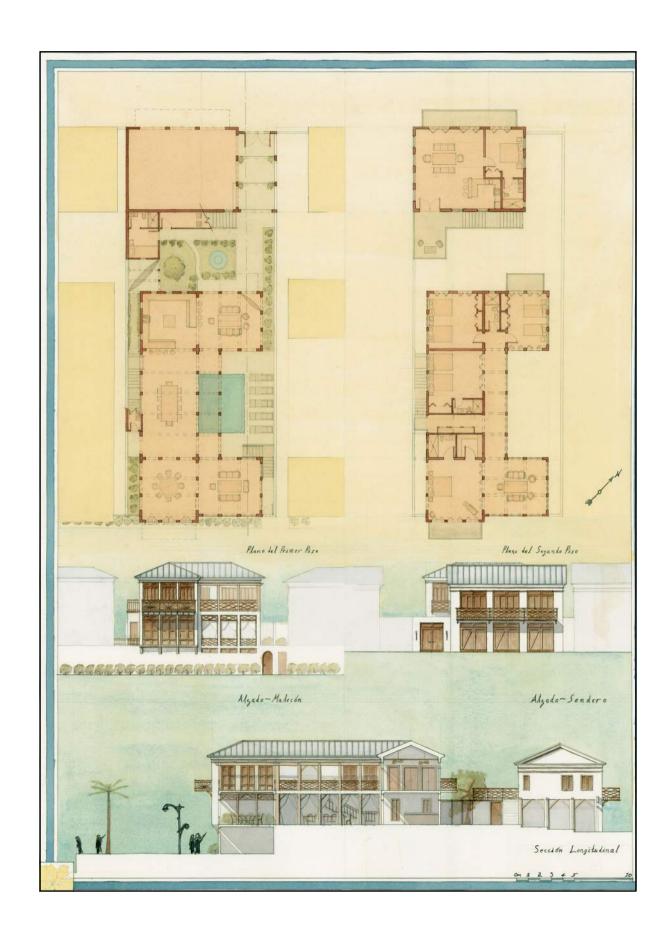


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PUBLIC/PRIVATE SPACES



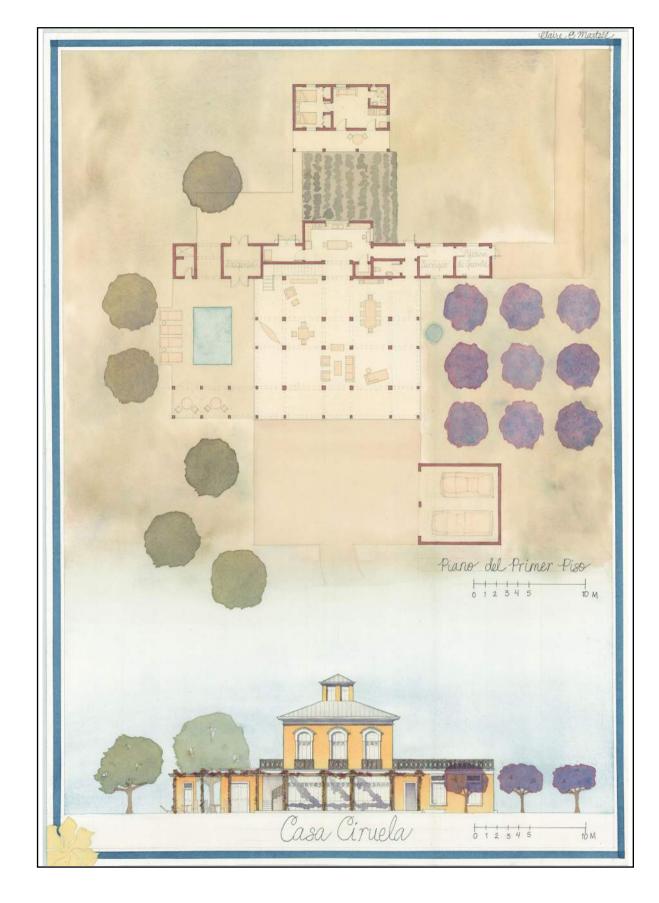


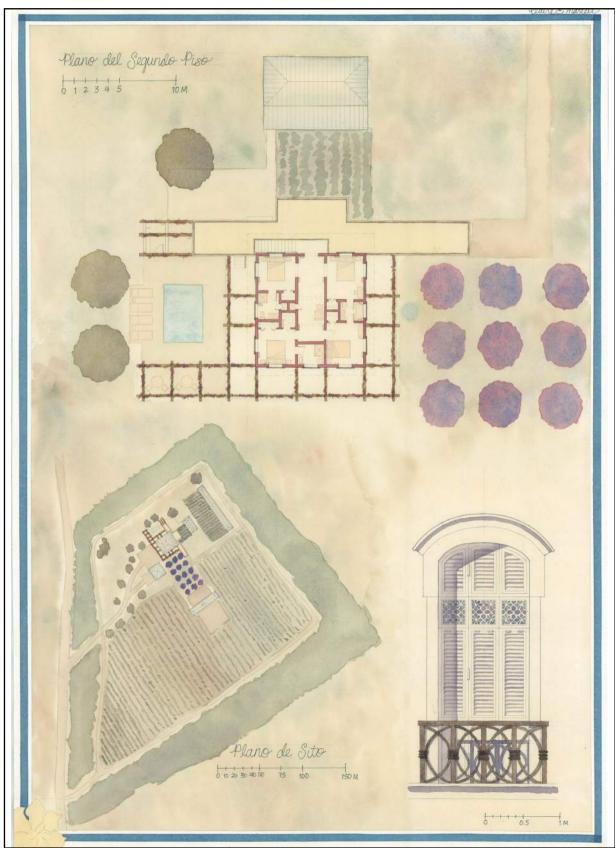
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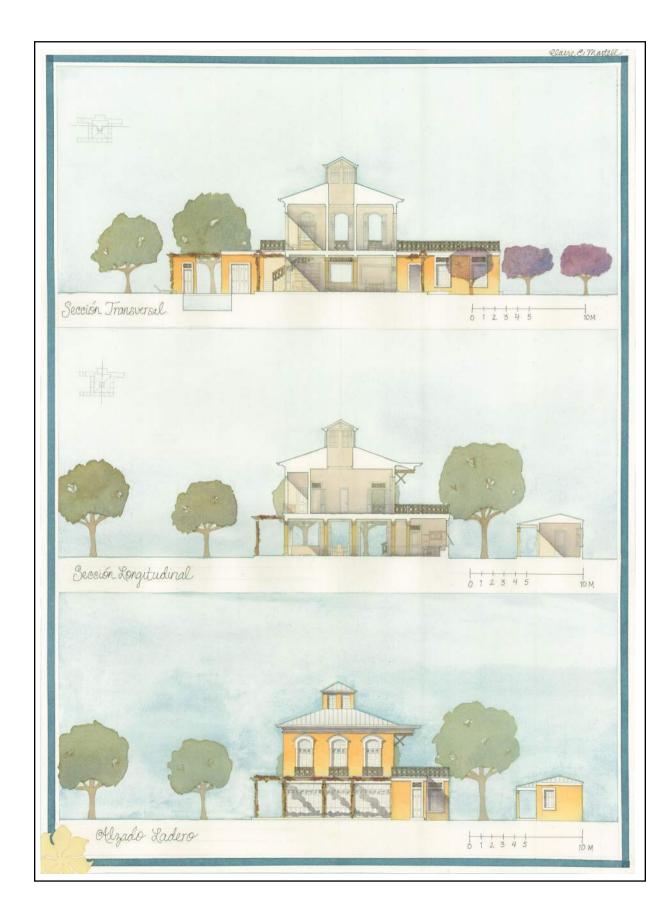


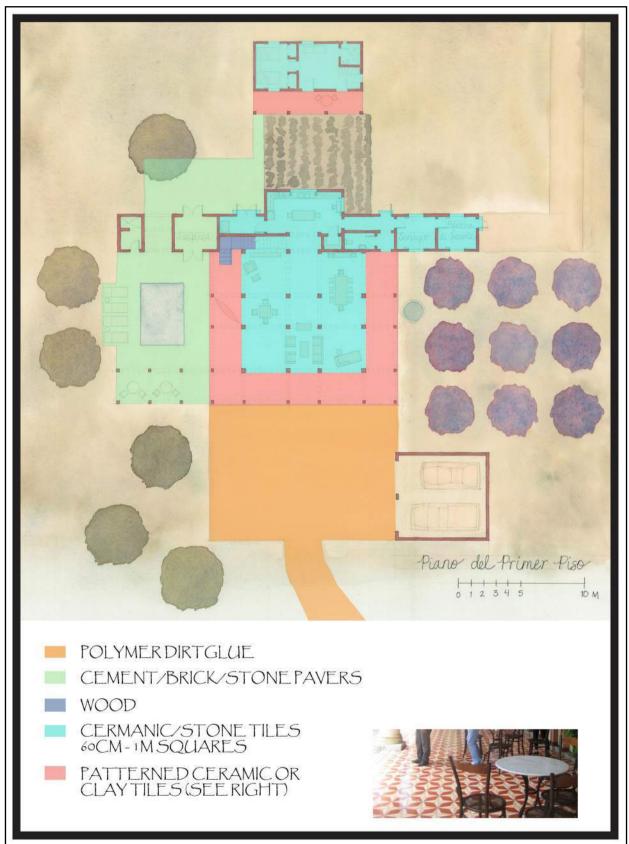
PUBLIC/PRIVATE SPACES











ADAPTED FOR PERIMETER LOTS

ACKNOWLEDGEMENTS AND SPECIAL THANKS

DEEPEST GRATITUDE TO THE FOUNDER, NICOLAS LAPENTTI, AND THE LAPENTTI FAMILY FOR THEIR ASSISTANCE AND COLLABORATION.

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GUAYAQUIL LITERATURE, DRAWINGS, & PHOTOS BY

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We owe it to the fields that our houses will not be inferiors of the virgin land they have replaced.

We owe it to the worms and the trees that the buildings we cover them with will stand as promises of the highest and most intelligent kind of happiness.

Alain de Botton The Architecture of Happiness Pantheon Books, 2006