

BATAN ARCHITECTURAL GUIDELINES
GUAYAQUIL, ECUADOR

Zaxiony S.A.

THE BATAN CHALLENGE

A LIVING VERNACULAR

Planning & Design
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GUAYAQUIL, ECUADOR

THE BATAN CHALLENGE

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The architectural languages of man are found in four realms: the Universal, the National, the Regional and the Local.

The universal part of the vocabulary includes things such as elements that reflect the desire for objects that reflect our human form in some way.

The national part of the vocabulary includes items that have proven themselves over the years in a particular culture and have become part of the heritage of that culture.

The regional part of the vocabulary contains items that reflect the climate, topography or resources of a particular region within a nation.

The local part of the vocabulary contains items that have been developed in response to a particular place such as a stretch of sea coast.

Architecture deeply encompassing all four realms of architectural language is likely to be counted among the best-loved places. So while the issue of style alone is eminently un-provable, the effectiveness of a building's communication is immediately obvious to even the untrained eye.

Stephen A. Mouzon

The Great Style Debate

Extract from a letter posted on
Trad-Arch List, University of Miami, 2003

Successful modern reinterpretations of traditional architectural styles move us not only at an aesthetic level. They show us how we, too, might straddle eras and countries, holding on to our own precedents and regions while drawing on the modern and the universal.

The great modern houses are happy to admit to their youth and honestly to benefit from the advances of contemporary materials, but they also know how to respond to the appealing themes of their ancestry and can thereby heal the traumas generated by an era of brutally rapid change. Without patronising the history they profess to love, they show us how we, too might carry the valuable parts of the past and the local into a restless global future.

Alain de Botton

The Architecture of Happiness

Pantheon Books, 2006

GUAYAQUIL, ECUADOR

VISION & INTENT

Towns and cities worldwide are losing their attraction, with developers and consumers turning more and more towards insular, scattered shopping malls, office parks, entertainment centers, and bedroom communities. Wherever we turn, our built environment has lost a sense of place. With priority given to the car and its infrastructure, urban fabrics have become a maze of roads connecting mono-culture enclaves. Buildings, seduced by contemporary international styles, look the same everywhere, belonging nowhere.

Sadly, the fast-developing Ecuadorian port city of Guayaquil has rapidly joined these global trends. Its shattered urban fabric and incongruous architecture no longer say anything about its history, location, or future well-being. Caught in the trappings of anonymous sprawl, Guayaquil has lost its personality, its identity.

Batan's founders, planners, and architects aspire to a different reality for Batan, one that is locally responsible and stands for real diversity and choice. It will offer neighborhoods with a sense of place and character, intuitive street networks, vibrant public realms, and meaningful native architecture. Founded in tradition and committed to progress, Batan will respond to the needs of contemporary society and inspire the generations yet to come.

BATAN'S LIVING VERNACULAR

Following the principles of New Urbanism, the Batan Master Plan projects a mixed-use, pedestrian-friendly, transit-oriented, interconnected urban fabric with town centers, neighborhoods, and buildings that will restore a sense of place in the region of Guayaquil.

The Batan Architectural Guidelines will make this vision come alive. The guidelines will establish architectural measures to ensure that different building types share a common syntax that originates in the vernacular architecture of the region. Diversity created from a common syntax creates places that look and feel consistent in their variety, recalling the traditional cities we love most.

Inspired by Guayaquil's iconic designs and forgotten building techniques, as well as the challenges of sustainable design, the architecture born from this vernacular will invite people to enjoy their tropical climate and locale, while protecting their natural resources.

These guidelines will establish the principles of a locally meaningful style that is rooted - not frozen - in the past. From here will grow an architecture native to Batan that will evolve over time and at its own pace – guidelines for a living vernacular.



GUAYAQUIL, ECUADOR

THE ORIGINS OF THE LIVING TRADITION

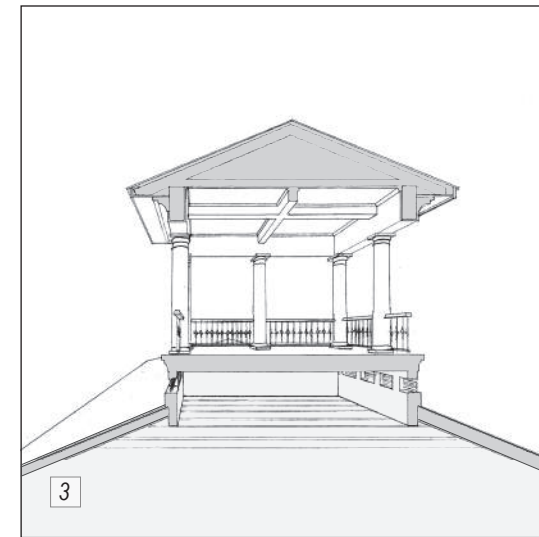
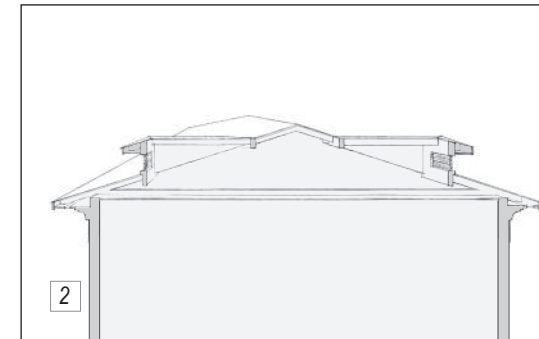
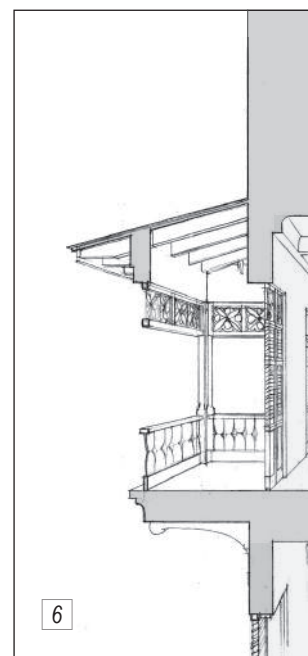
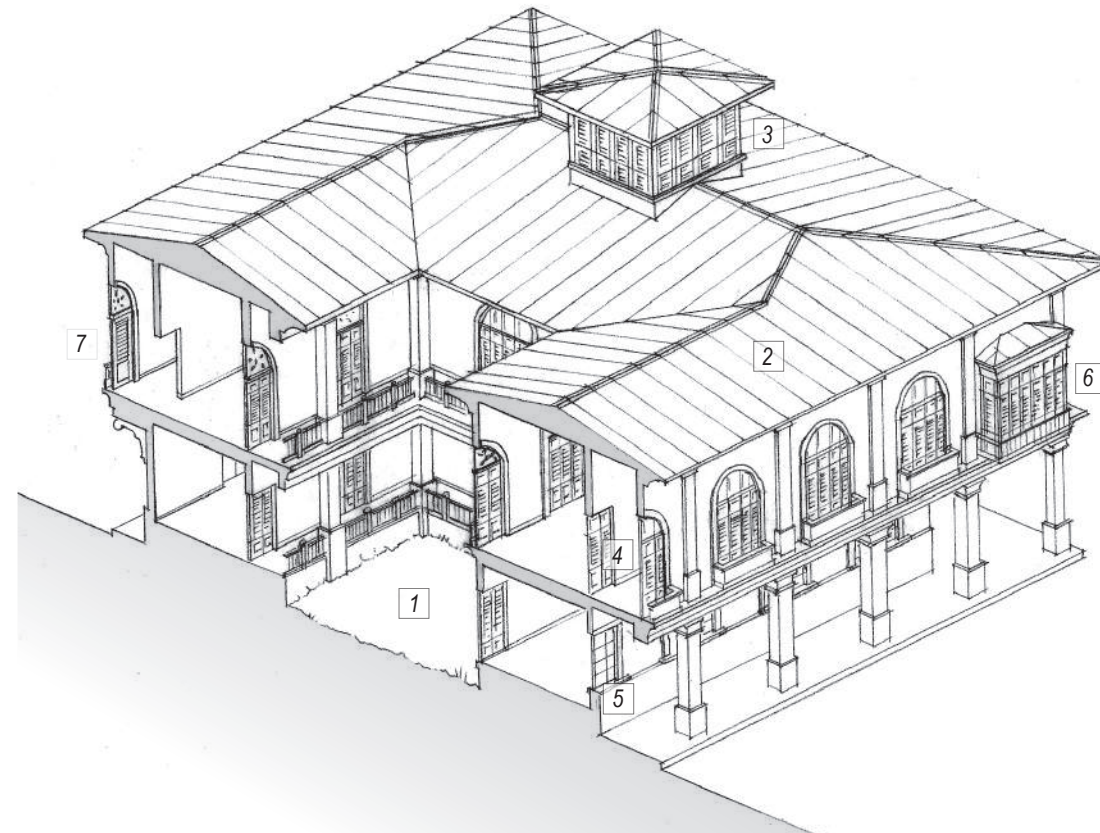
A study of Guayaquil's traditional architecture reveals inventive solutions to both climatic and social issues. Passive cooling systems open buildings up to breezes and shield them from sun, providing comfortable spaces in the tropics, while soportales and courtyards offer atmospheres that encourage public and private outdoor life.

Guayaquil's traditional architecture emerged as the response by the indigenous people to the unique climate and culture. Later, European settlers brought with them their own lifestyles and methods of construction, developing an architecture that responded to the tropical climate and local resources. Throughout the late 18th to early 20th centuries, the style that evolved was a local interpretation and adaptation of classical styles.

Building shapes were simple. Deep soportales defined the streets and shuttered loggias lined upper façades. Tile and metal roofs with roof towers formed the skyline. Though grand civic buildings were highly classical in style, generally ornamentation consisted of a simpler interpretation of classical composition and elements.

For Batan, traditional distinct geometries will once again be available. Façades will be simple, to which simple attachments, such as balconies, will be added or from which simple volumes, such as loggias, will be carved out. Many of the original architectural features will enhance life on the equator in a more eco-friendly way.

Batan's 'architectonic' identity will be achieved through a contemporary reinterpretation of its traditional architecture that respects the local bio-climatic context, the economic impact, and energy-saving needs.



1. INNER COURTYARD

Buildings are built around courtyards; the heart and lungs of the building. They provide outdoor space, natural ventilation, and light to the surrounding living quarters.

2. ROOFS

With simple and low profiles, hipped roofs are most typical. Though not as traditional, flat roofs are an alternative, befitting denser, more urban areas where rooftop terraces provide welcome outdoor sanctuaries.

3. ROOF TOWER

Enjoyable as well as useful, roof towers have become a symbol of this vernacular. There are various types: the ventilation tower, the lookout, and the rooftop porch. Roof towers add personality to buildings while responding to climatic requirements and social needs.

4. LOGGIA

These upper floor outdoor spaces are carved out of the building volume. Unlike balconies, they do not project from the façade. Essential to the inner life of the building, loggias provide cool, shaded hallways and living rooms.

5. SOPORTAL

Soportales provide porches and covered walkways. They are ground-level, continuous outdoor spaces behind colonnades or arcades. Soportales are an essential element to the life of the community, promoting activity in the public realm of streets and squares.

6. BALCONY

Though not as traditional as the loggia, four types of balconies appear in this vernacular: faux, plain, covered, and shuttered. No matter the type, balconies are part of the façade design, never read as tacked-on or precarious.

7. SHUTTERS

Shutters are integral to all buildings in both rural and urban settings. Always functional as well as decorative, they lend character to the exterior façades and create rich light patterns in the interior spaces.

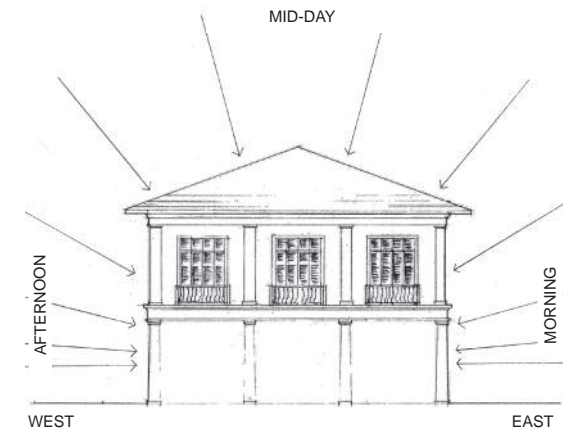
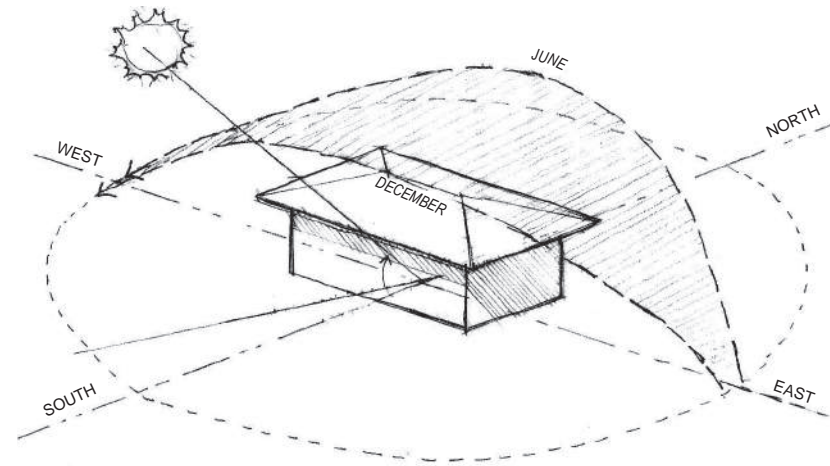
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CLIMATIC CONDITIONS

Batan is located on the equator. The majority of its land lies barely above sea level. This unique geography and hot, humid climate naturally play an important role in the daily life of its residents. The heavy rainy season and prevalent breezes also impact the lifestyles and traditions of Guayaquil.

SUN: PENETRATING AND CONSTANT

Following the equator, the sun moves directly over Guayaquil, shifting ever so slightly to the north by June and to the south by December.

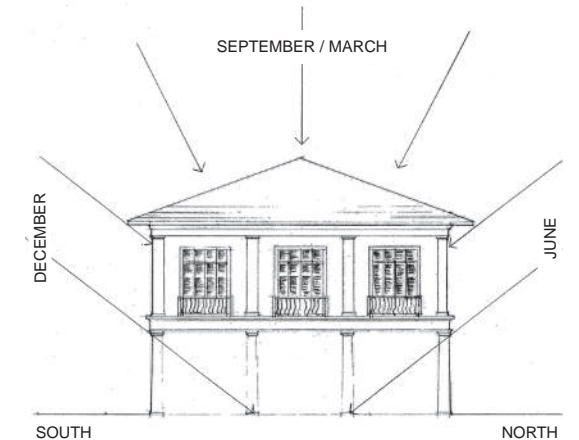
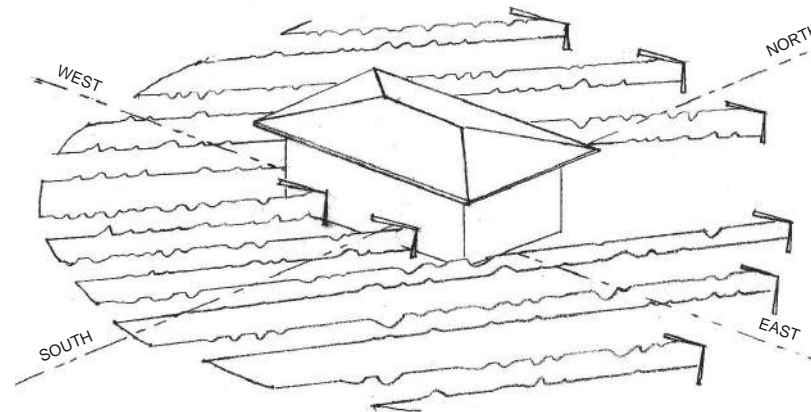


DAILY SUN MOVEMENT - EAST/WEST

Because Guayaquil is on the equator, overhead midday sun is extremely pronounced, but the morning and particularly the afternoon sun is blinding because of its piercing horizontal rays.

AIR: HOT and HUMID

The climate of these coastal lowlands is tropical, with temperatures averaging 25° C (76° F) to 31° C (90° F) and high humidity throughout the year. The hottest period, from December through April, has temperature highs of up to 35° C (95° F). Breezes and winds are predominantly southwestern.

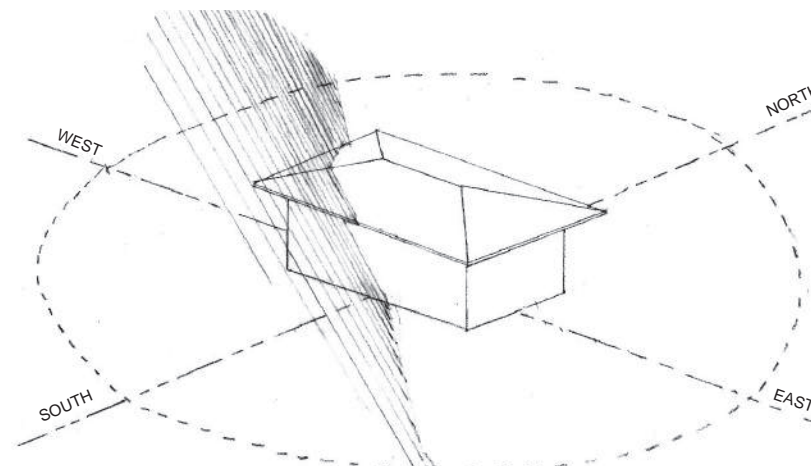


YEARLY SUN MOVEMENT - NORTH/SOUTH

Because of Batan's equatorial location, the sun's overhead position is constant throughout the year. Nevertheless, due to the slight shift in angle, south façades receive more rays in December and north sides receive more in June.

RAIN: TORRENTIAL AND DIRECTIONAL

The rainy season in Guayaquil occurs during January through May, largely overlapping the hottest months. Due to southwesterly winds and rain, it is predominantly southwest façades that suffer from downpours, while those on the northeast sides usually remain dry.



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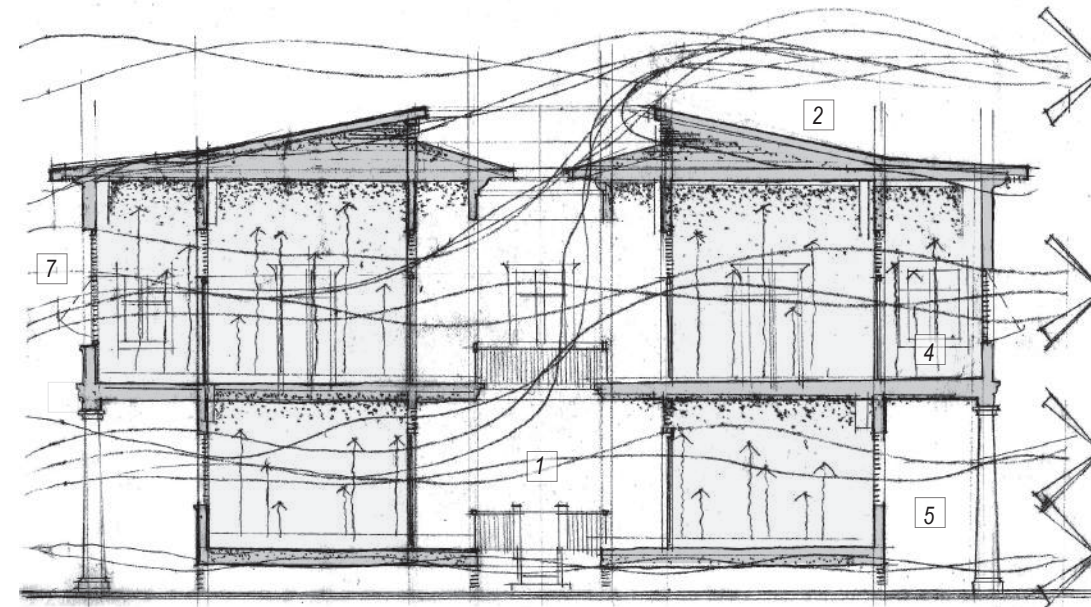
ARCHITECTURE IN ITS ENVIRONMENT

Traditionally, Guayaquil's buildings were cooled by architectural features that naturally responded to the rigors of the tropical climate. Instead of relying on mechanical, energy-consuming systems like air-conditioning, reviving these vernacular methods of passive climate control is a necessary step towards a sustainable future,

These traditional environmentally responsive elements include: roof towers, hipped roofs, high ceilings, raised floors, loggias, soportales, inner courtyards, balconies, and shutters. All these building techniques create more pleasant and natural places to live in, while drastically improving the building's efficiency, reducing energy bills and the impact on the environment.

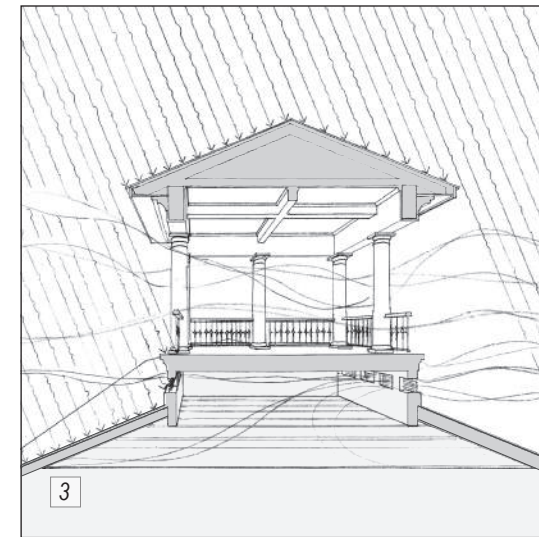
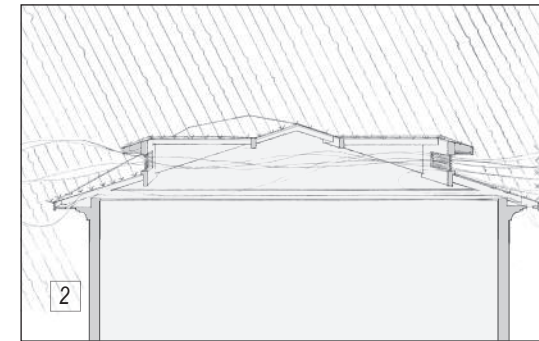
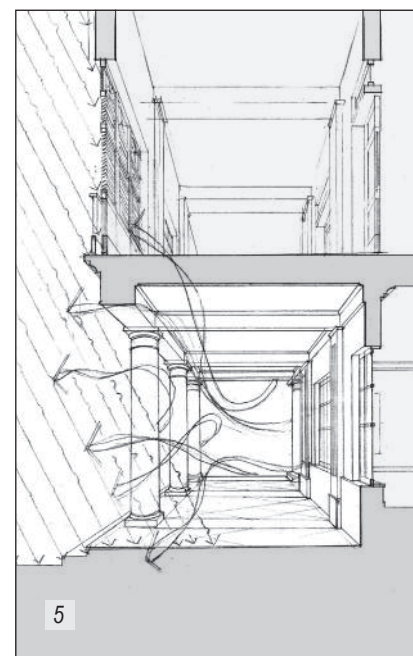
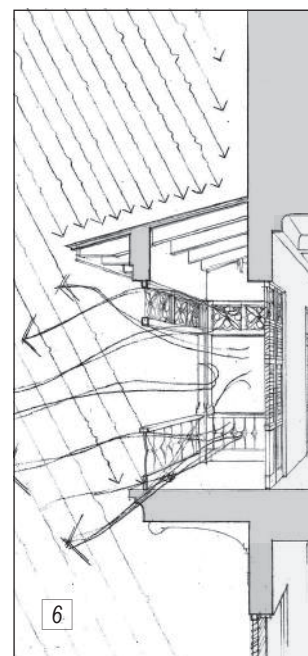
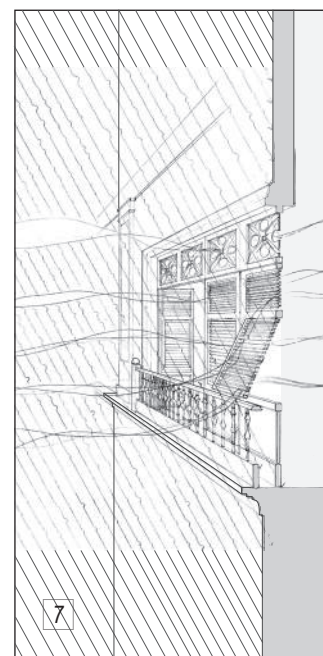
Batan's living vernacular will expand on these traditional solutions to make them even more effective and attractive. For example, by combining the natural cooling ability of roof towers with their recreational usage, the vernacular evolves to meet contemporary needs.

Though each feature has its own merits, they are most effective when conceived and implemented collectively. Together, they not only aid in passive cooling and ventilation, but they also revive and establish local character.



PASSIVE COOLING

The general configuration of the traditional vernacular building demonstrates holistic passive design strategies. Raised ground floors and open air courtyards facilitate natural air circulation. Soportales, loggias, and attics act as insulation from the heat. High upper floor ceilings provide space for hot air to rise and, coupled with large high windows, promote passive ventilation. Vents and roof configurations (such as the shifted ridge shown here) encourage air flow. Operable shutters shade and encourage cross ventilation throughout the building.



1. INNER COURTYARD

Inner courtyards naturally light and cool surrounding living quarters by promoting cross ventilation, the evacuation of hot air, and the cooling effects of rain and vegetation.

2. ROOFS

On the equator, most heat gain is passed on through the roof. The hipped roof insulates and facilitates cross ventilation, passively cooling the living spaces below. If flat, roofs should include shaded rooftop terraces that provide comfortable outdoor spaces. Generous overhangs should be sized to shade the south façades from the sun during November through January, and the north façades during May through August.

3. ROOF TOWER

Ventilation towers draw hot air from the spaces below. Accessible towers provide cool, shaded, rooftop outdoor spaces. At best, towers combine the two assets.

4. LOGGIA

Loggias provide protected outdoor spaces while insulating the living quarters from the intense heat. On the more exposed east and particularly the west side of buildings, they should be protected with operable shutters. Loggias can be more inviting on the north or south sides, which are not affected by the horizontal, daily rays.

5. SOPORTAL

Not only does the soportal promote street life by providing cool, shaded spaces and entryways, but it also insulates the living quarters from the heat.

6. BALCONY

Though not as traditional as loggias, balconies also provide desirable outdoor space. In this climate, covered and shuttered balconies are most habitable.

7. SHUTTERS

Operable exterior shutters are invaluable in the tropics, shading the sun and facilitating cross ventilation. They are particularly useful on the east and west façades, which require protection from intense horizontal morning and afternoon rays.

GUAYAQUIL, ECUADOR

SUSTAINABLE & LOCAL MATERIALS

Batan building materials should be natural and ecological: wood, stone, masonry, clay, metal, and stucco. Whenever available, these materials should be locally grown, produced, or crafted. This means priority should be given to local materials such as clay roof tiles; woodwork for doors, shutters, balustrades, windows; and ironwork for gates and grills.

Though often mistakenly perceived as more expensive, these materials prove their worth in use over time. Unlike most synthetics, which when damaged must be discarded, Batan materials, because they are natural, will be maintainable, and therefore sustainable. Investing in these durable materials may imply higher up-front costs, but will ultimately lead to savings on maintenance and replacement costs, while providing a signature style for the entire community.

RULES FOR SUBSTITUTES

So as not to compromise Batan's identity and environmental consciousness, simulated materials should be avoided. Most natural materials are suited to the local climate and the structural demands.

Wood may have declined in quality of performance and appearance; now, expertise exists to properly address its drawbacks. Though threatened by fire, termites, and humidity, if used with wit and skill, wood is a treasure in the tropics, creating an atmosphere like no other.

A number of new products are available today that exceed the originals in performance and equal them in appearance. In the pursuit of materials that perform well and achieve the desired look, the following two rules will establish the guidelines for acceptability of substitutes, with the final decision to be made by the town architect.

Arm's-Length Rule. In appearance, substitute materials must be indistinguishable from the originals at arm's length or less, and their performance must exceed that of the original if they are to be used below the second floor.

Eyes-Only Rule. Substitute materials used at or above the second floor must be indistinguishable from the original at a distance of 3 meters.

GREEN CONSCIOUSNESS

Buildings should be built of 'green,' or sustainable, materials whenever they are available at reasonable cost. Sustainable materials can be produced locally or salvaged, recycled or recyclable, rapidly renewable, and/or durable. They should be manufactured in the least possible environmentally hazardous or toxic manner. Wood can be certified in accordance with the Forest Stewardship Guidelines for environmentally responsible forest management.

Common sustainable materials include cement siding, cellulose insulation, gluelam beams, and concrete made from fly ash.

For a truly green approach, alternative energy sources (e.g. solar or wind) should be considered. Air-conditioning should be kept to a minimum, and be used jointly with correct siting and designing of the building, secondary to the integration of passive cooling elements.

HEALTHY BUILDINGS

Indoor air quality should be ensured by specifying paints, adhesives, finishes, and flooring products with low or no VOCs (Volatile Organic Compounds). Carpeting and cabinets should be specified to have a low formaldehyde content.

Ducts should be properly installed, air-tight. Ventilation systems that result in an air-change effectiveness (E) greater than, or equal to 0.9, should be air-sealed. Water should be kept away from foundations and walls to prevent moisture, radon, and soil gases from entering. A permanent CO₂ monitoring system can be installed.

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CONFIGURATION OF BASE, MIDDLE & TOP

Fundamental to this vernacular, all buildings are horizontally defined to specific proportions. Structural elements like windows and columns are vertically aligned to create a cohesive, balanced façade. This holds true for buildings small or large, rural or urban, though larger civic buildings can be more vertically defined.

HORIZONTAL COMPONENTS

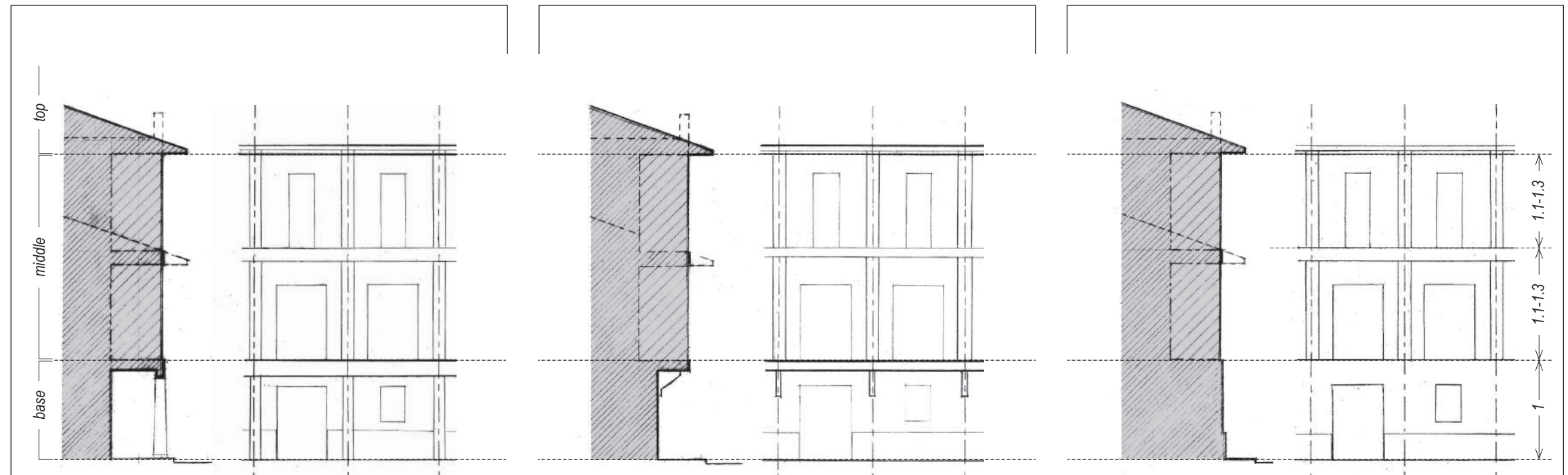
Buildings are horizontally divided with a base, a middle, and a top. The base of all buildings can consist of either a soportal, a recessed façade, or a solid wall. No matter the configuration, the base clearly supports the middle or upper floors of the building. The middle can consist of one or more floors. Though roofs are not visually dominant, the tops of buildings are always terminated with a pronounced cornice or roof eave. Even a one-story building is horizontally composed.

PROPORTIONS

The proportions of Batan's base, middle, and top are unique. Unlike most other vernacular styles, the ground floor, traditionally the 'service' floor, has lower ceiling heights than the more 'noble' upper floors, which are also more vulnerable to the heat of the sun. The average ceiling height ratio, ground floor to upper floors, is 1:1.2, varying between 1:1.1 and 1:1.3.

VERTICAL ALIGNMENT

Openings and structural elements are aligned vertically from one floor to the next. This respects the logic of construction with, for example, columns above columns and openings above openings. It is also important to note that architectural elements such as windows, railings, and shutters are also vertically proportioned.



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.



RECESSED BASE

The recessed base is a traditional Guayaquil configuration. Upper floors were often lined with double façades (loggias) to insulate the interior space. Brackets support upper floors and respect the vertical alignment of the structure above.



SOLID BASE

A solid base, not as traditional but perhaps more appropriate today, suggests a more protected ground floor. As always, openings on the lower level vertically align with openings above.



GUAYAQUIL, ECUADOR

BUILDING BASE: SOPORTAL, RECESSED, SOLID

All Batan buildings must have a base that reads as support to the upper floors. There are three possible base configurations - a soportal, a recessed façade, or a solid wall. This base can comprise one or two floors, depending on the building's grandeur and the location. No matter the configuration, ground floor façades are simple in treatment and less ornamented than the more decorative floors above.

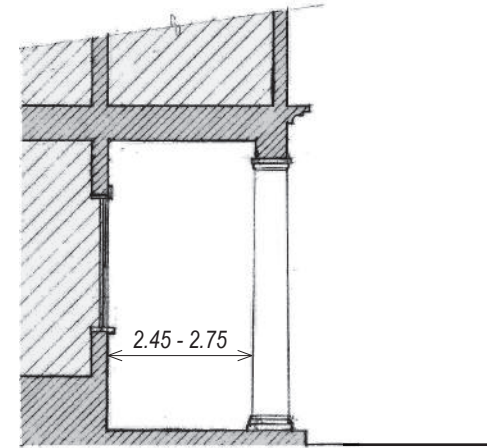
Typically the ground floor is raised 50 to 80 cm for ventilating purposes. When this occurs, the overall façade height of the ground floor becomes comparable to that of the upper floors.

In all configurations, the ground-floor façade should express an articulated foundation of 40 to 80 cm in height, projecting a minimum of 3 cm. Exceptions to this rule exist when the ground floor in its entirety is intended to be read as one continuous base.

SOPORTAL BASE

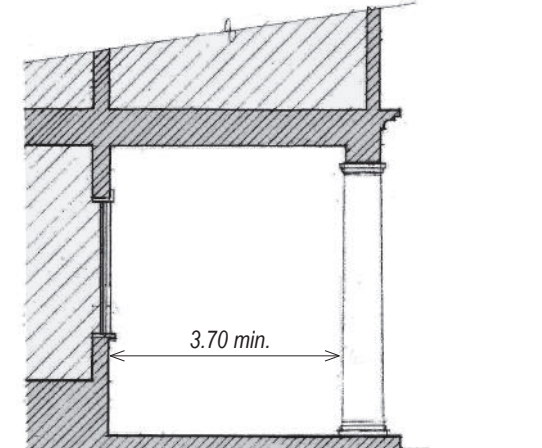
Set behind columns or arcades, a soportal is a continuous, covered, ground-level space. Serving as walkways or porches, they promote street life and activity in the public realm. This architectural feature belongs in denser, more urban zones. The soportal responds to the climate by providing cool outdoor spaces, as well as by shading interior spaces from the direct heat of the sun.

The dimensions of the soportal should be carefully chosen to correspond to the desired activities and character. Grander proportions are appropriate for more urban contexts.



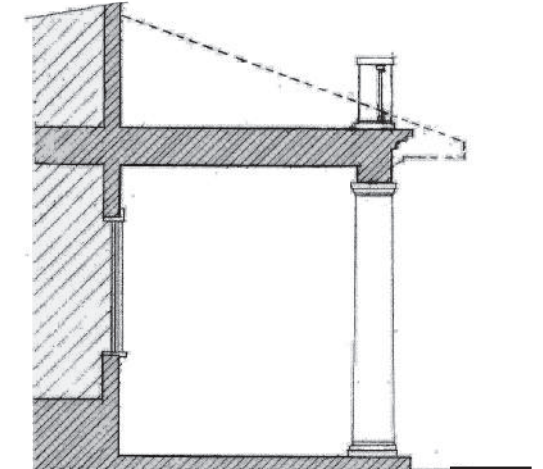
SOPORTAL AS WALKWAY

2.45 - 2.75 m.
A narrower soportal provides cool, shaded walkways and inviting entranceways from the public to the private realm.



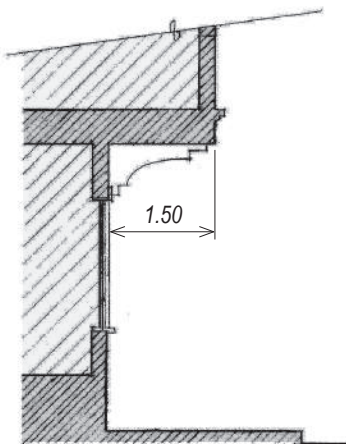
SOPORTAL AS OUTDOOR ROOM

Minimum width - 3.70 m.
A soportal of this dimension (or greater) provides space for commercial activity and sitting areas. This space can be used for restaurants and stores.



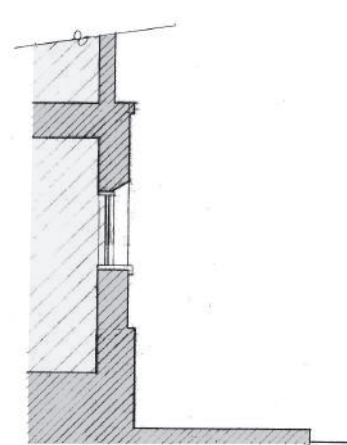
SOPORTAL EXTENSION

Though not as traditional, a soportal can extend out beyond the volume of the building, functioning as a covered porch with an accessible upper terrace if the roof is flat.



RECESSED BASE

When the base is recessed, it must read as supporting the floors above. The overhanging upper floors must be visually supported on brackets, extending beyond the ground floor a maximum of 1.50 m. When more overhang is desired, columns should be used - in effect becoming a soportal, which should be designed as such.



SOLID BASE

The base may also be podium-like, projecting at least a few centimeters beyond the upper floors, clearly supporting the levels above. This wall reads as a fortified base with small, deep windows. The solid base is appropriate when privacy and security are desired, or when it is necessary to connect separated buildings with garden walls.

GUAYAQUIL, ECUADOR

BUILDING MIDDLE: LOGGIAS, WINDOWS & BALCONIES

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.

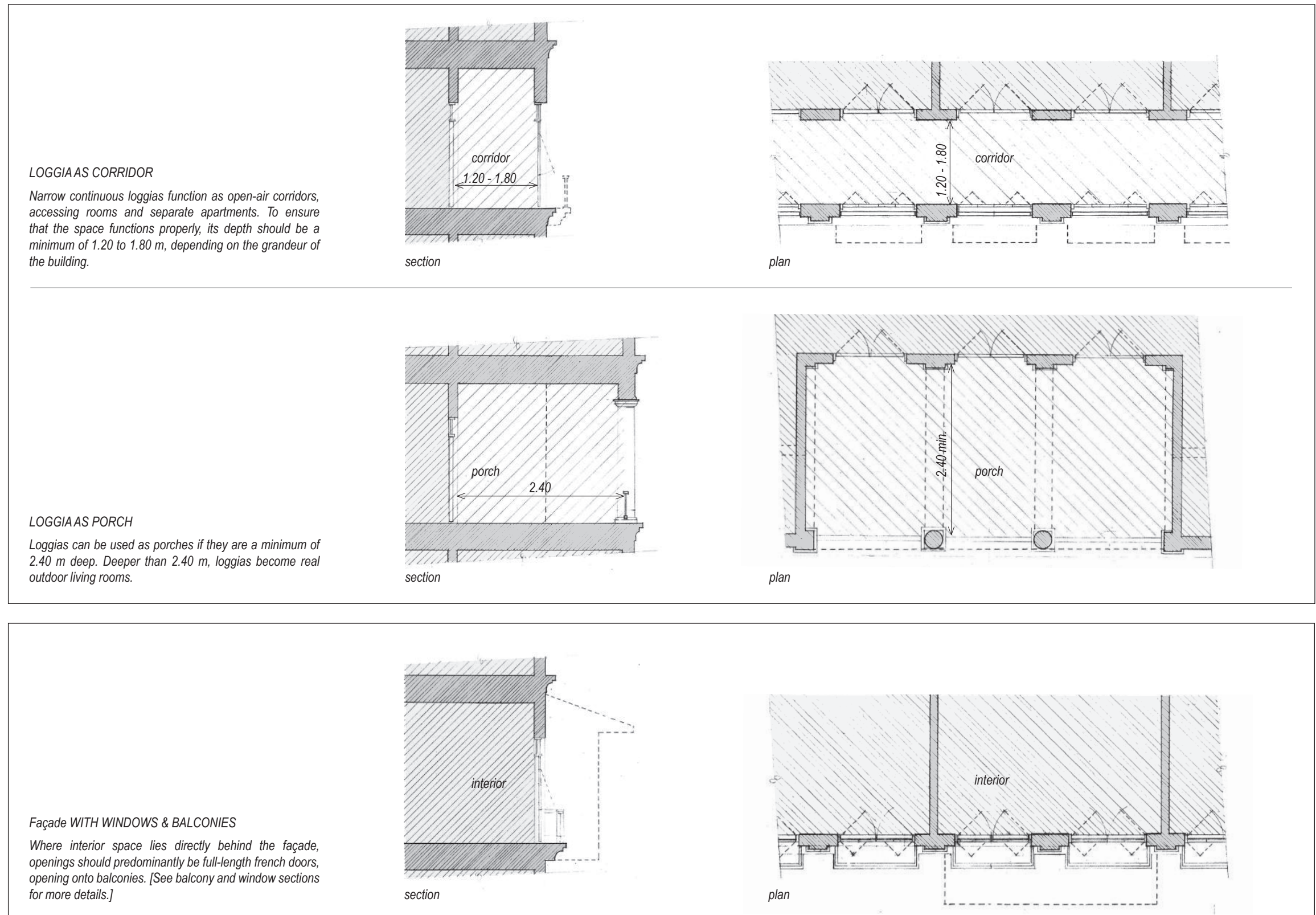
FACADE WITH LOGGIA

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.

FACADE WITH WINDOWS

When the middle, or the body, of the building is configured as a wall with interior space directly behind, windows and balconies distinguish its façade. To shield the interior space from heat and sun, windows and balconies must be protected by operable shutters. [See balcony and window sections for more details.]



GUAYAQUIL, ECUADOR

BUILDING TOP: HIPPED, FLAT ROOFS

In this vernacular, roofs are simple and have low profiles – they are not dominant features. There are two types: hipped and flat.

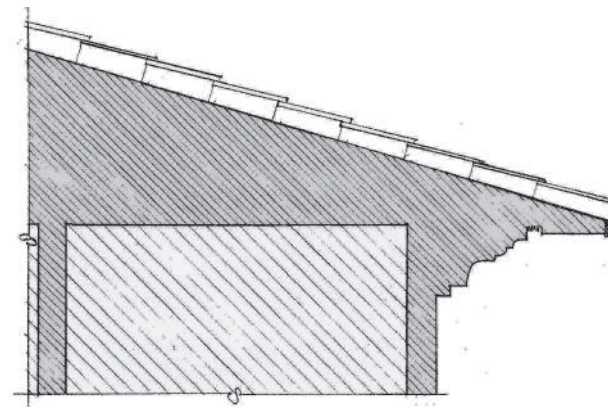
Hipped roofs should have attic space beneath that acts as insulation from the heat of the sun. This attic space must be naturally ventilated using such elements as eave vents, dormers, shifted ridges, and/or roof towers. [See examples in the 'Architecture in its Environment' section.] To function properly as passive insulation, the attic should not be designed as livable space.

In this vernacular, roofing material should be natural clay tiles and/or metal. Whenever possible, local materials should be used. Artificial materials or other substitutes are not permitted.

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

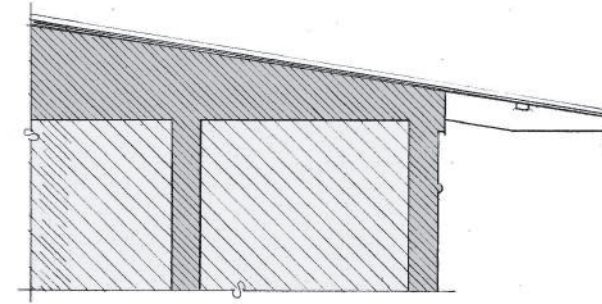
Flat roofs must provide rooftop terraces with permanent trellises, not only to be inviting, but also to shade the roof of the floor below.

HIPPED ROOFS



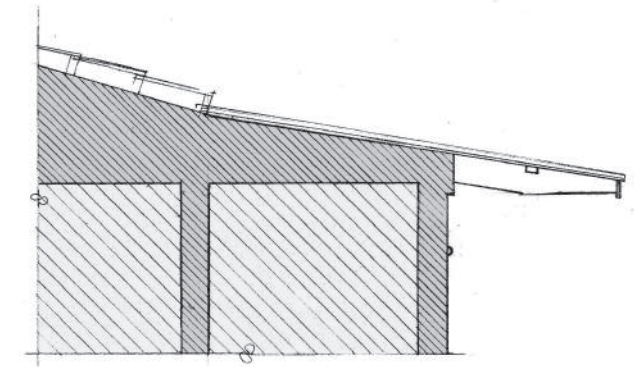
CLAY TILE ROOF

Locally made clay tiles should be used, not only because they are resistant and sustainable, but also to promote the industry. Their traditional form and subtleties of color are a signature of this vernacular.



METAL ROOF

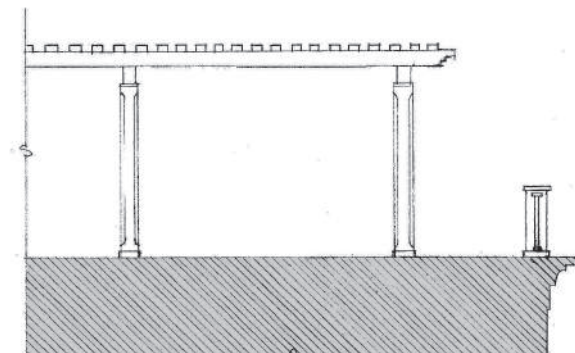
Lightweight and durable, metal roofing has its advantages, but also its drawbacks: it conducts heat and can be noisy under downpours. The metal edge must be decorative and detailed in harmony with the décor of the building.



COMBINATION OF MATERIALS

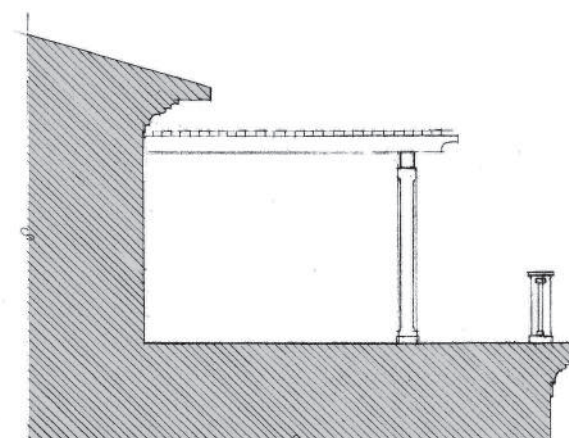
Both metal and tile can be used on the same roof with a 1:3 rise-to-run ratio for metal and a 1:4 rise-to-run ratio for tile.

FLAT ROOFS



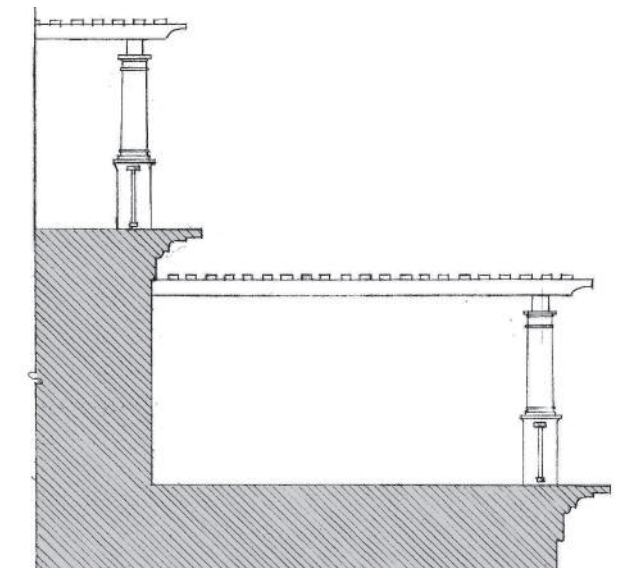
CONTINUOUS ROOF

All flat roofs have cornices and parapets. A continuous flat roof 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. This combination of roof types provides both terraces and a hipped roof above the interior spaces.



STEPPED ROOF

A stepped building profile can provide multiple outdoor spaces, all of which should be easily accessible and designed with covered terraces

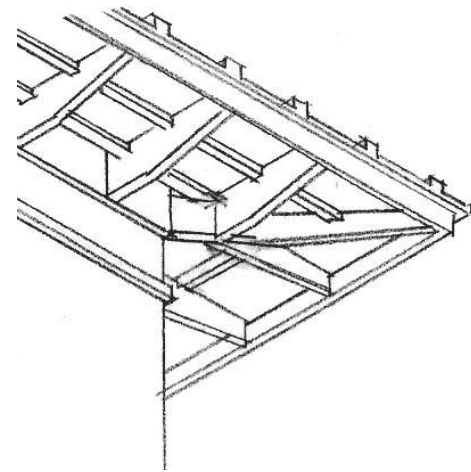
GUAYAQUIL, ECUADOR

ROOF DETAILS

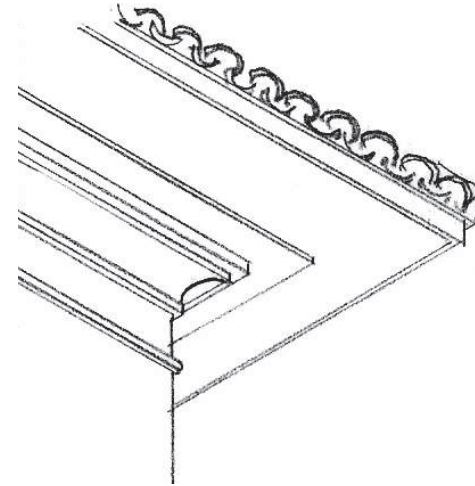
HIPPED ROOF DETAILS

Hipped roofs should be designed with generous eave overhangs (at least 90 cm) to shade and protect façades from the rain. Wherever vents are needed, they should be inconspicuous or decorative to enhance the design of the eaves and dormers.

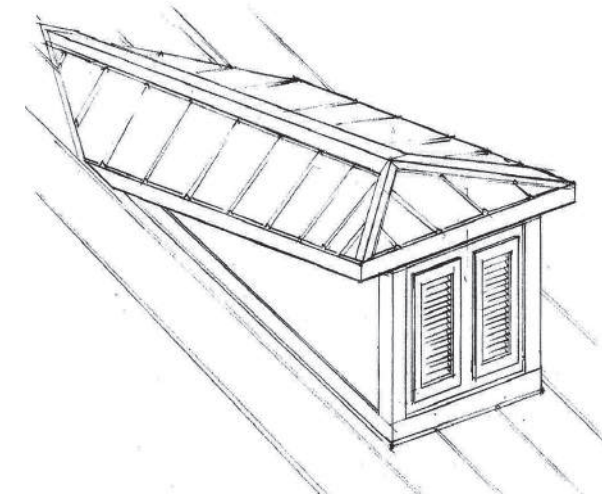
HIPPED ROOF DETAILS



The airy aesthetic of open eaves is appropriate for more informal buildings.



Closed eaves suggest solidity, appropriate for more formal buildings

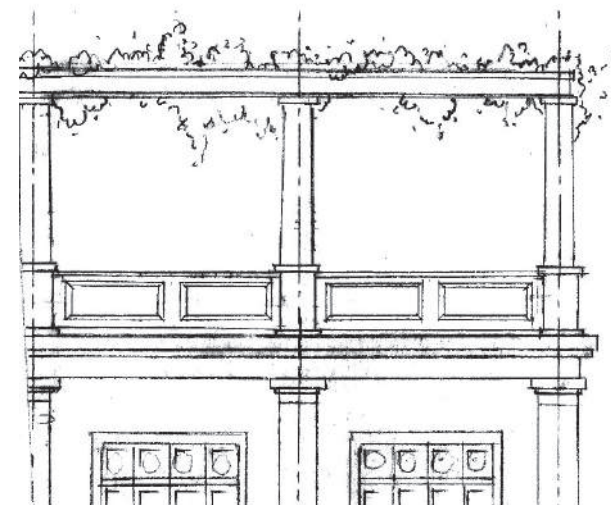


Ventilation dormers must be decorative as well as functional. They must be evenly spaced, corresponding to the rhythm of the façade below, and proportioned to the roof and overall building. They must be vertical or square, with shutters to shade, ventilate, and protect the interior from rain.

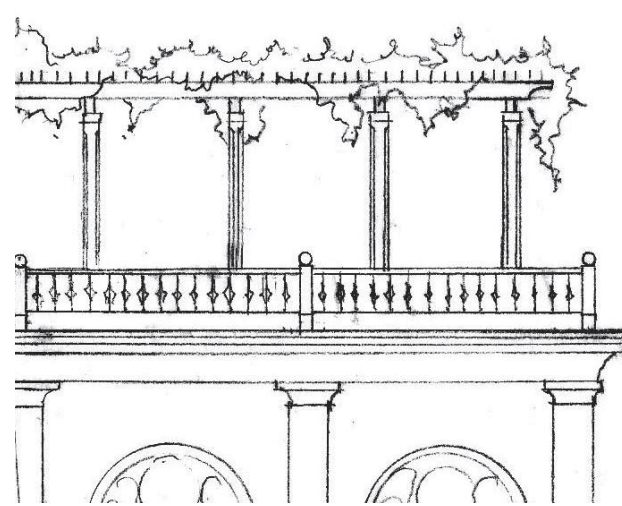
FLAT ROOF DETAILS

Flat roofs provide comfortable shaded terraces. They must have pergolas and parapets that are designed in harmony with each other and the façade below.

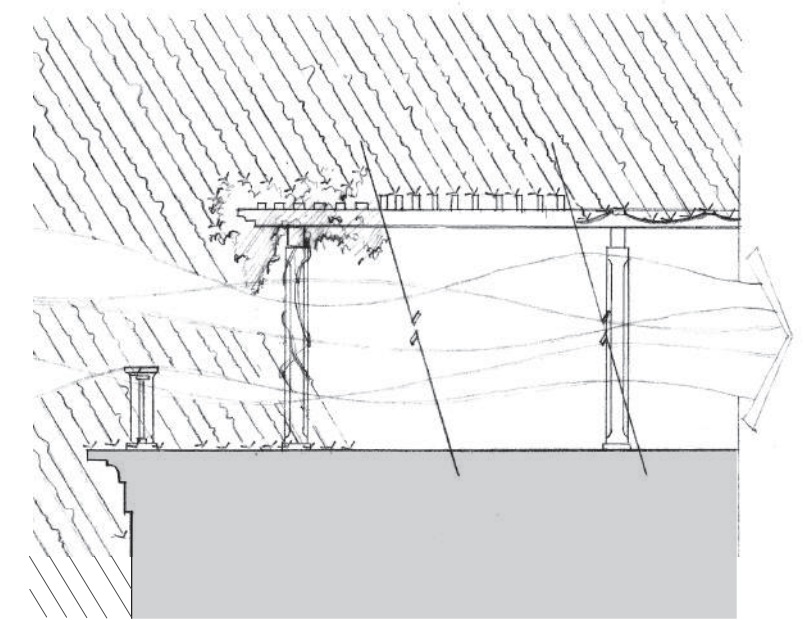
FLAT ROOF DETAILS



Pergola and parapet design should always correspond. To accent the height of more formal buildings, the pergola is placed in the same plane as the façade below.



Here, the pergola is independent of the parapet and façade. In this solution, a rustic pergola may be appropriate.



Pergolas can be shaded with vegetation, wooden slats, or fabric. Covered terraces are not only more inviting, but also shade the roof of the floor below.

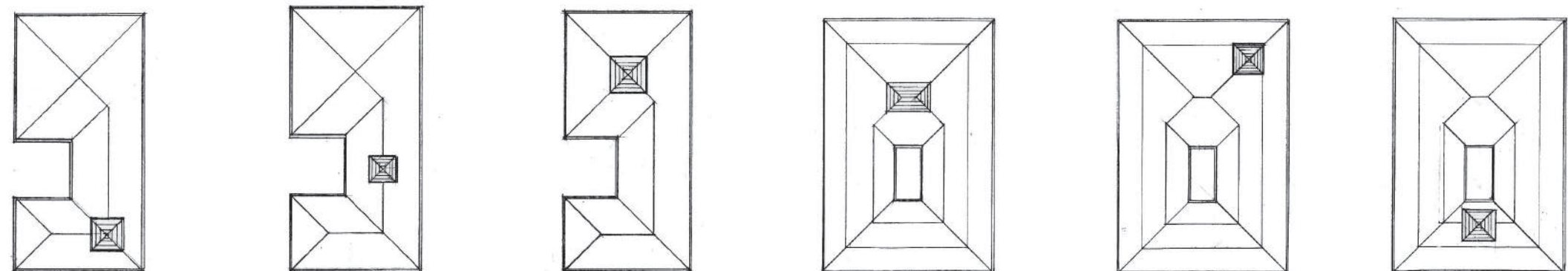
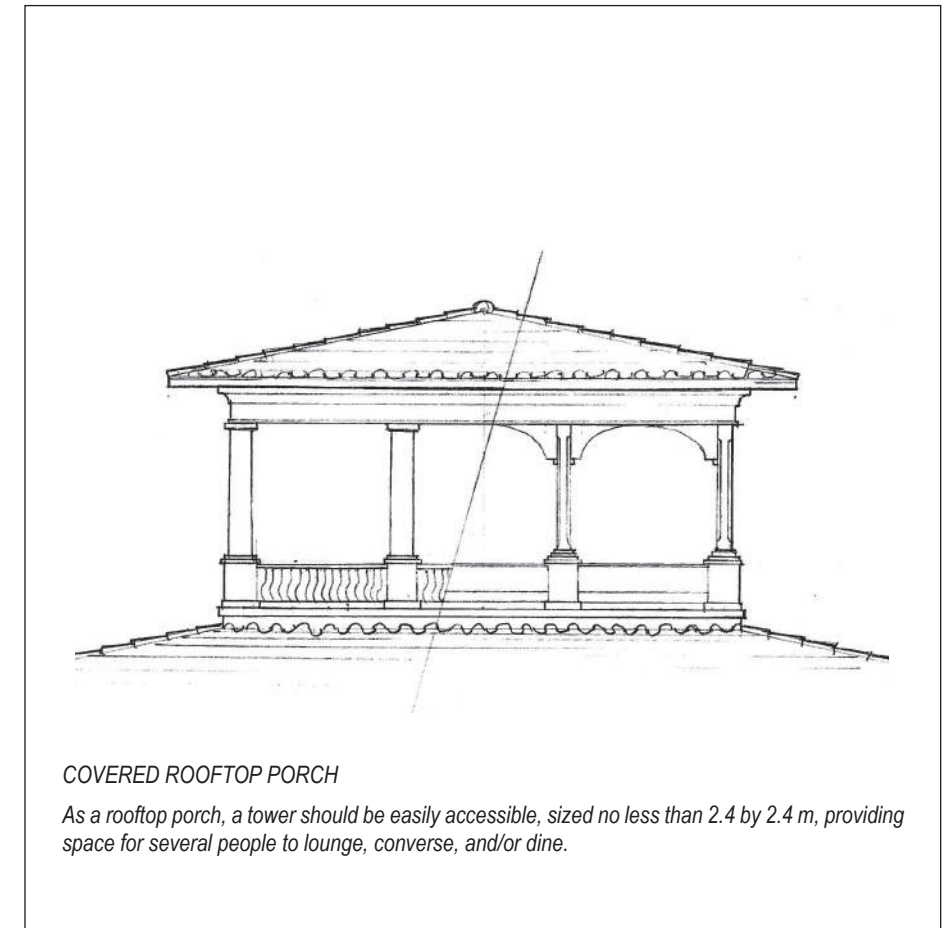
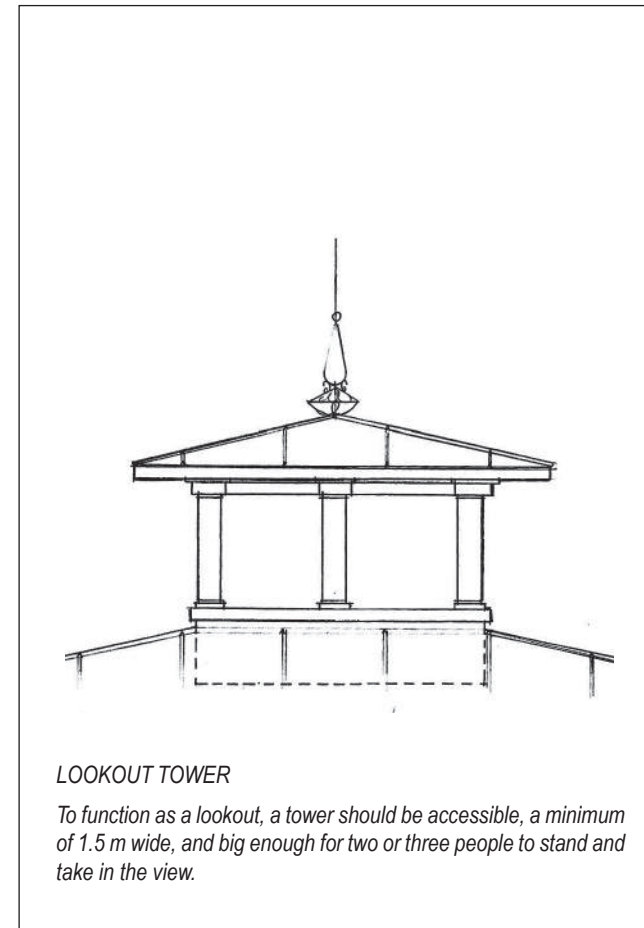
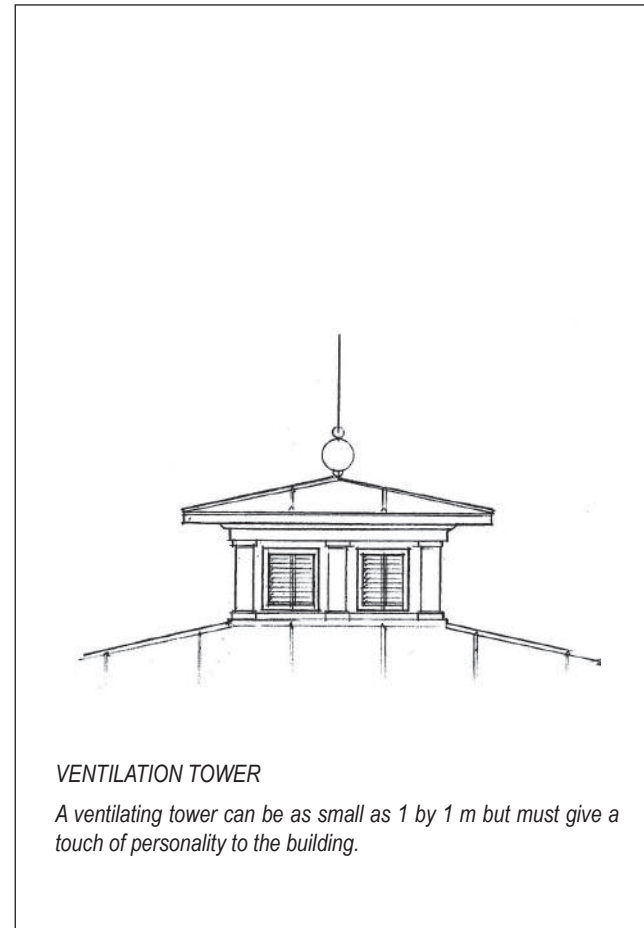
GUAYAQUIL, ECUADOR

ROOF TOWERS

Roof towers must be designed to ventilate the attic space and/or to function as covered lookouts and porches. As in the past, they will continue to be a trademark of this living vernacular, crowning the buildings, lending character and identity to Batan.

There are three main types of rooftop tower: ventilation tower, lookout tower, and covered rooftop porch. If skillfully designed, both rooftop lookouts and porches can promote natural ventilation of the attic space below, enhancing the passive cooling qualities of the entire structure.

Towers should be designed in proportion to the building volume and detailed in harmony with its façade. They should not exceed the height of the floor below, except in locations where the urban code specifies a more prominent one to terminate a vista.



TOWER POSITION Towers can assume various positions on the ridge or hip of the roof.

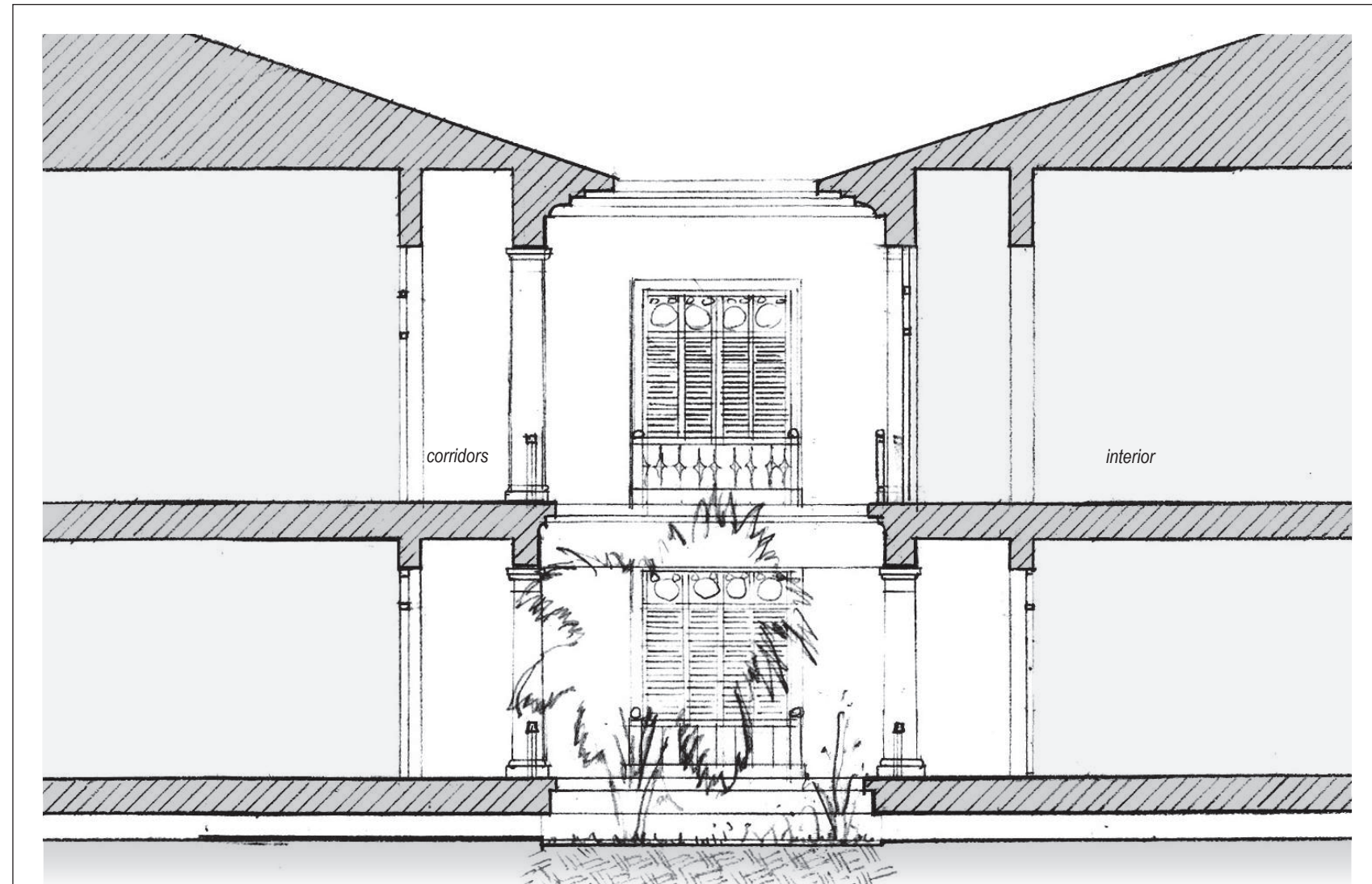
GUAYAQUIL, ECUADOR

INNER COURTYARDS

Defining elements of this vernacular, central patios and inner courtyards are suited to tropical climates because of the natural light and the fresh air they provide to inner spaces. Buildings often include more than one courtyard, positioned and sized in various ways. Large and small courtyards are surrounded by galleries and/or interior space.

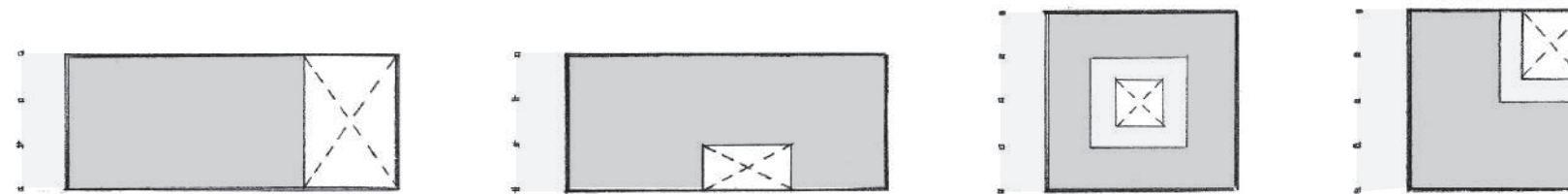
Courtyards that are open to the sky should have generous gutters to collect rain from the often heavy downpours. Though the living quarters of the ground floor may be raised, the courtyard should be at ground level so rain water can be absorbed and vegetation can grow. Larger courtyards should be designed with hardscape areas, inviting outdoor activities.

Inner courts can also be covered to become atriums. This is useful to increase interior space. If covered, courtyard roofs should be designed to filter direct sunlight and allow natural cross ventilation, preserving the essential flow of light and air a courtyard should provide. Air-conditioning must be only a secondary means of controlling temperature and humidity.



INNER COURTYARD

Both corridors and rooms can border inner courts. Living quarters are raised 50 cm to 80 cm above the inner court.



Various configurations of courtyards are possible.



GUAYAQUIL, ECUADOR BALCONIES

BALCONIES

Balconies are attachments that project from the façade. Depending on their configuration, there are four types of balcony: faux, plain, shuttered, and covered.

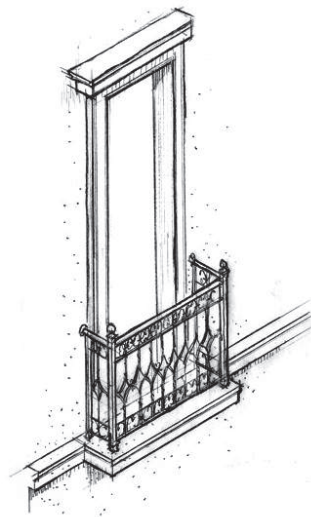
All balconies must be and appear to be safe to stand on and under. They should not appear to project precariously from the façade and must always be visibly supported by an entablature or brackets.

Traditionally, balconies and roof lookouts were particularly appreciated for watching parades. Not only do they provide commanding views, balconies also inspire outdoor living on upper floors.

BRACKETS

Brackets must correspond to the overall style of the façade and must be proportional to the depth and size of the balcony. Brackets must read as support rather than merely decorative attachments.

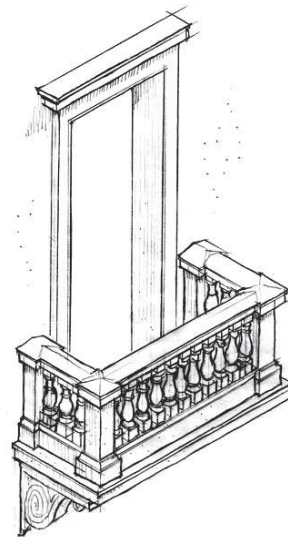
Masonry brackets must be used to support balconies with masonry railings or iron railings. For a balcony with wood railings, brackets may be of wood or masonry. Iron brackets are not part of this vernacular. Composite materials may be used as long as they follow the rule of substitutes.



FAUX BALCONY

The faux balcony projects minimally beyond the façade, allowing for french doors that in effect turn the room behind into a balcony. The faux balcony should be shuttered to shield the interior space from direct sunlight.

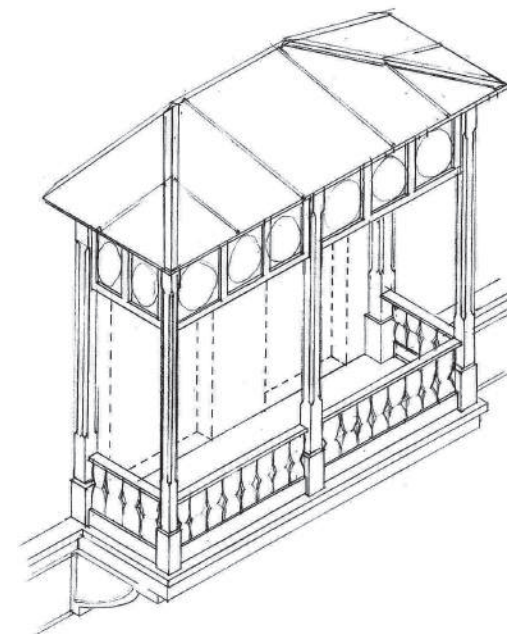
In this vernacular, the faux balcony extends a maximum of 30 cm, resting on an entablature below.



PLAIN BALCONY

The balcony provides space to step out and take in the air and view.

A balcony may project a maximum of 1 m from the façade and must be visibly supported by brackets.



COVERED BALCONY

Covered balconies are most desirable on the north and south façades. Because the sun is always overhead, the roof shades the openings below in such a way that shutters may not be necessary.

Protected from the sun, covered balconies can be deeper than plain balconies to provide more comfortable room for outdoor sitting.

The dimensions should be appropriate for the overall façade but also correspond to its use as a lookout or sitting area. A depth of 1.50 m allows for outdoor living space.



SHUTTERED BALCONY

The shuttered balcony can be designed as an extension of the interior room behind or a room in itself. To promote cross ventilation, all three sides should have shutters with operable panels on vertical hinges, with some opening as awnings.

Enclosed balconies may be 1.50 m deep or deeper as long as they are at least 3 m in length and appropriately proportioned and bracketed to be in harmony with the overall façade.

GUAYAQUIL, 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

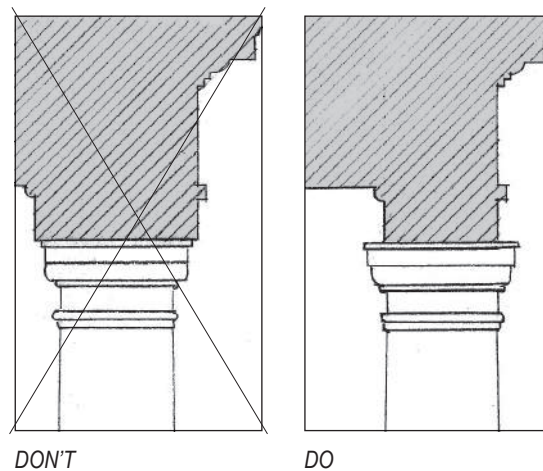
The taper of the round column shaft starts one-third up from the base, bowing slightly outward rather than straight. The top of the shaft is five-sixths the diameter of the bottom. The column's height is seven times the diameter at the base.

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.



DON'T

DO

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



DON'T



DO

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.



DON'T



DO

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



DON'T



DO

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.

GUAYAQUIL, ECUADOR

ARCHES, ARCADES & COLONNADES

Loggias and soportales are fundamental features of this tradition, hence the arcades or colonnades that make them up must be designed coherently.

The colonnade is most traditional, formed by beams and columns or piers.

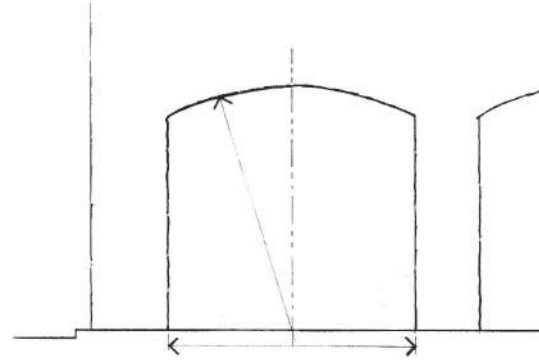
Arcades are formed by columns or piers, and arches which may be full or segmented, the full arch being more classical.

On rare occasions, pointed arches may be used if they complement, and are integral to, the building design.

Each should be used in the appropriate context, from rustic to classical.

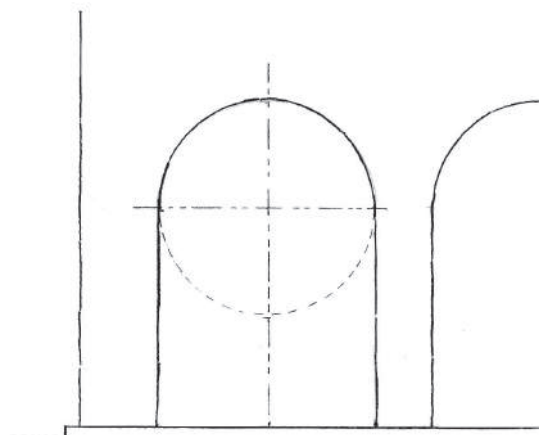
SEGMENTED ARCH

This type of arch is more rustic in style. It must be carefully constructed so that the radius of the segment is equal to the width of the opening.



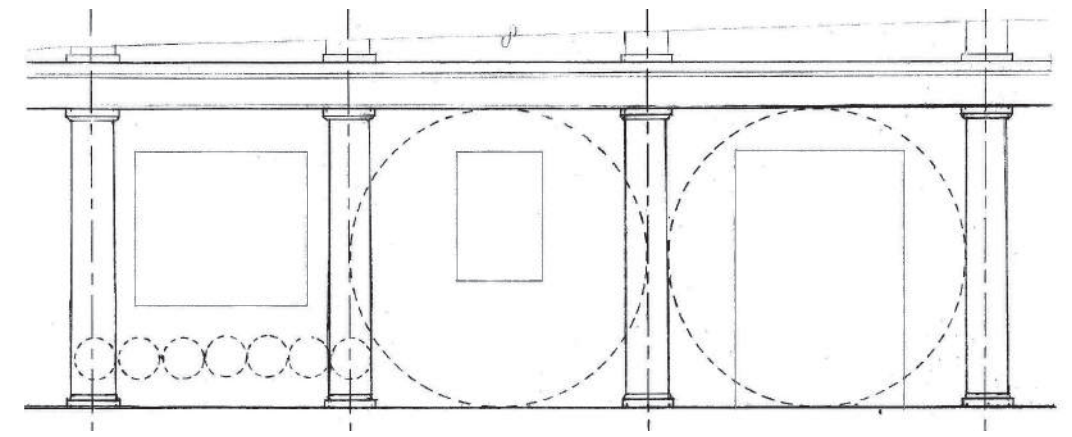
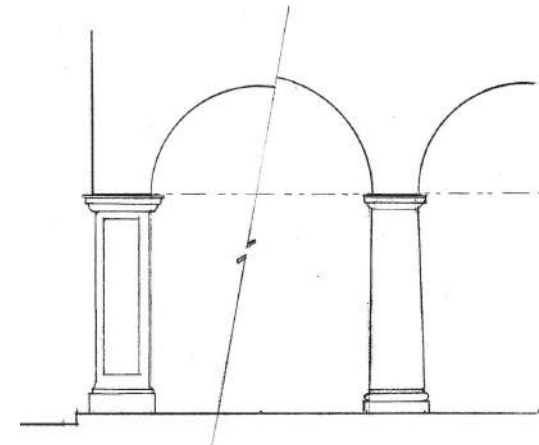
FULL ARCH

To achieve proper proportions, the diameter of the full arch should be the width of the opening.



ARCADE WITH PIER OR COLUMN

This configuration is appropriate for more formal and classical buildings. The arch must be a full half circle and align vertically with the pier or column below.

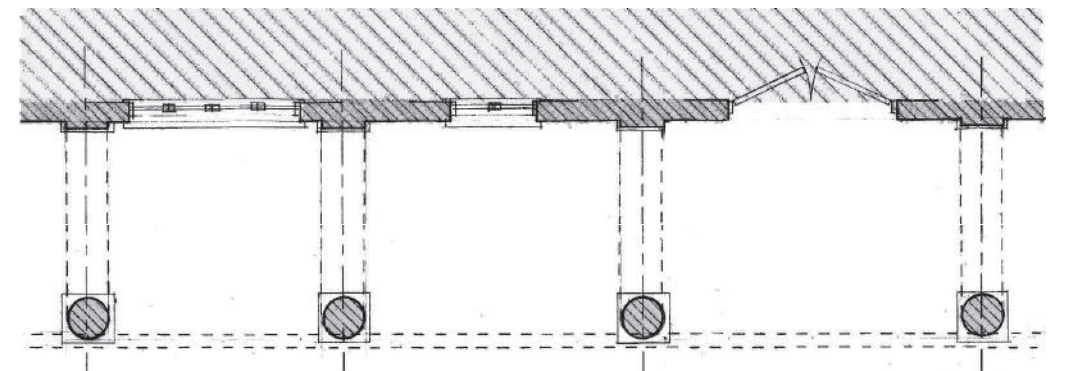


elevation 1 2 3

COLONNADE

The straight or flat arch is the most traditional in this vernacular. Spacing between columns should follow the rules below.

1. Intercolumniation must always be a specific multiple of modules (column diameter).
2. In most vernaculars, colonnades are maximally proportioned 1:1, bay (measured center to center of columns) to column height.
3. In this vernacular however, openings can also extend beyond these spatial rules as long as they are proportioned no more than 1:1 from edge of column to edge of column. Widening the space between columns beyond this makes the structure look precariously supported, and loses the sense of enclosure.



plan

Colonnades should have a regular rhythm of columns, beams, and pilasters. Openings such as windows and doors on the inner façade should be centered in relation to the columns. Pilasters and beams must align with columns.

GUAYAQUIL, ECUADOR

DOORS

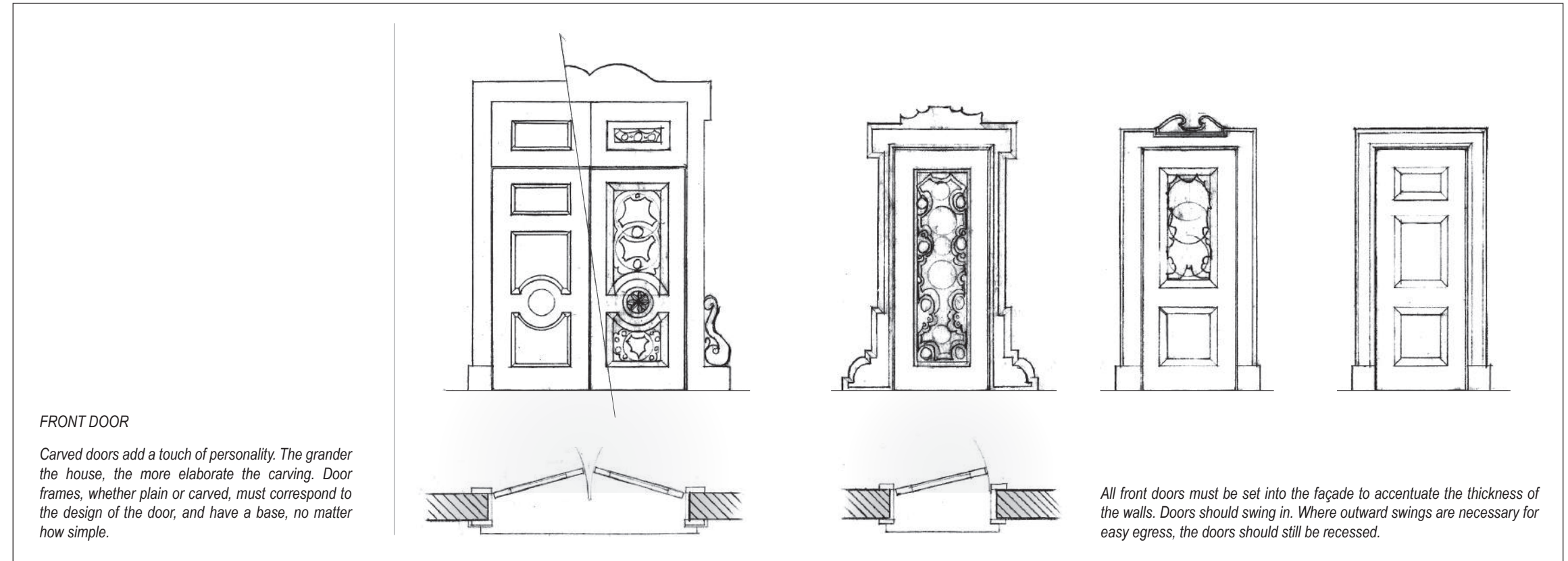
FRONT DOOR

A crucial feature of this living vernacular, a front door of a residential building must have presence and character and be elegantly proportioned, in harmony with the rest of the building. Its position and scale should be welcoming, and convenient for regular use. The front door must not be reserved for guests and grand occasions, leaving a service, side, or - worse - a garage door for daily use.

Main entry doors must be solid wood so they acquire a charming patina over the years. They should be locally made and preferably hand-carved. The finish should be natural wood to contrast with painted windows and secondary doors. Since natural wood finish is prescribed, no substitutes are possible.

For more rural buildings, the door frame may be painted in the colors of the façade trim, but the door itself should have a natural wood finish.

Hollow steel frame or extruded aluminum may only be used for commercial doors. In no case, except for residential garage doors, should metal doors be stamped to resemble wood.



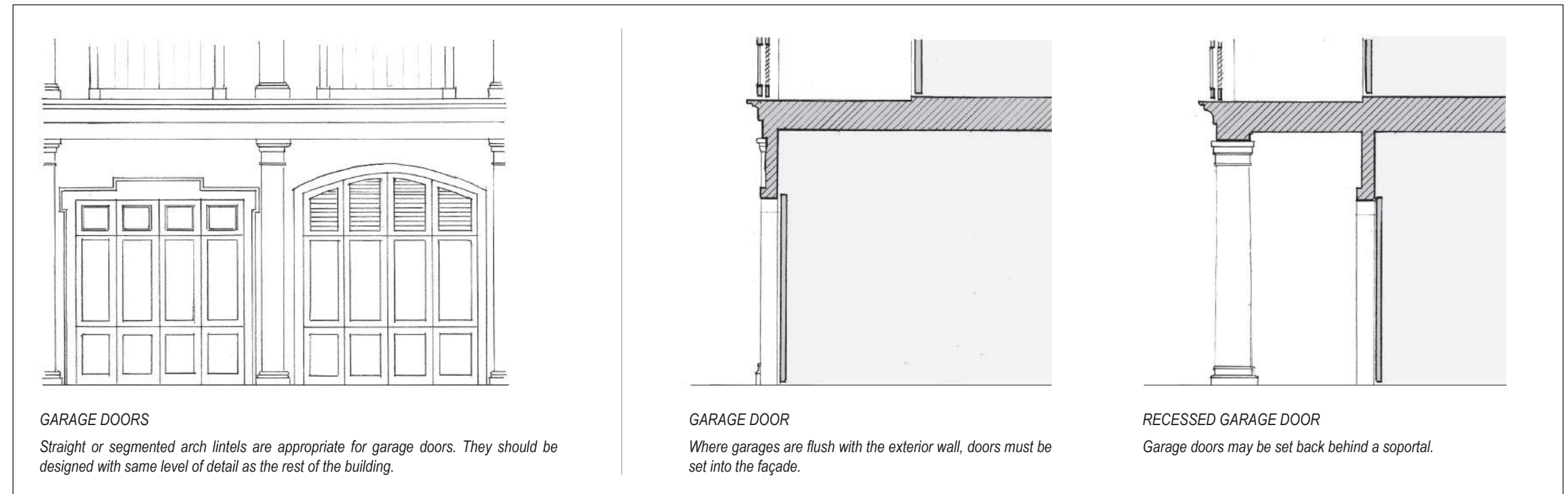
FRONT DOOR

Carved doors add a touch of personality. The grander the house, the more elaborate the carving. Door frames, whether plain or carved, must correspond to the design of the door, and have a base, no matter how simple.

All front doors must be set into the façade to accentuate the thickness of the walls. Doors should swing in. Where outward swings are necessary for easy egress, the doors should still be recessed.

GARAGE DOOR

Garage doors must be positioned with respect to the structural logic of the building and spacing of its bays. Their design should reflect the doors and shutters of the façade. Garage doors can only be one car wide - one large door is not permitted for a two-car garage.



GARAGE DOORS

Straight or segmented arch lintels are appropriate for garage doors. They should be designed with same level of detail as the rest of the building.

GARAGE DOOR

Where garages are flush with the exterior wall, doors must be set into the façade.

RECESSED GARAGE DOOR

Garage doors may be set back behind a soportal.

GUAYAQUIL, ECUADOR

WINDOWS

In this vernacular, fenestration consists of casement windows and french doors or "chazas," with some special window types reserved for specific locations.

Most important, all windows, except some special shapes, must be vertically proportioned and designed in tandem with their shutters or ironwork. The placement, size, number, and type of windows should be carefully considered, as they greatly impact the comfort and energy-efficiency of any building. Windows on the heat-intensive west side should be dimensioned and shaded accordingly. Larger windows can be considered for greater ventilation and daylight on the north and south sides.

Special windows can be square, rectangular (vertical), and round. They should be used sparingly at special locations such as along the ground level façade.

Windows should be made of wood. Wood-substitutes are acceptable only if they are indiscernible from wood at arm's length and have the feel of wood when operated. Commercial windows may be of metal.

Traditionally windows were painted, often in two shades or colors to accentuate depth. Today, this is still possible, but another option is natural wood finish. In this case imitation wood is not acceptable.

GLAZING & SILLS

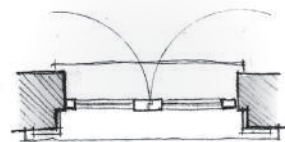
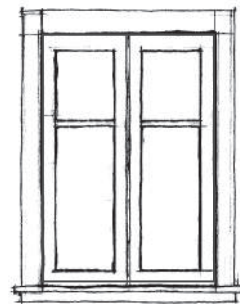
Glass must be clear. Tinted or mirrored glass is not permitted. Translucent or patterned glass is not acceptable on the street façades - use on other façades may be considered only for privacy reasons. Solar protection adhesives must be fully transparent.

Panes must be vertically and consistently proportioned throughout the entire building. Individual panes can be a maximum of 40 x 100 cm.

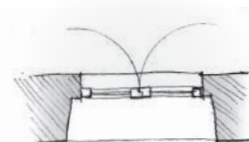
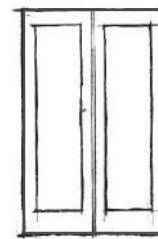
Sills must be of stone, composite stone, or masonry and a minimum of 5 cm thick. They must project a minimum of 6 cm beyond the façade with a drip edge, and extend 5 cm beyond the opening on either side.

CASEMENT WINDOWS

Casement windows must open inward. They are always vertically proportioned, typically 1:1.5, width to height.

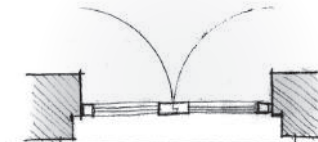
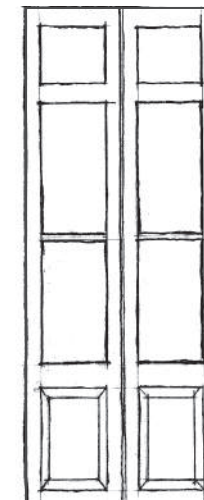


If placed under a soportal or overhang, these windows can have no trim or sill, accentuating the thickness of the wall.

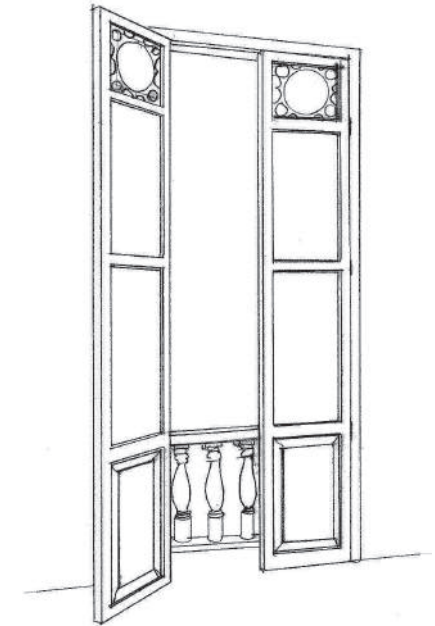


FRENCH DOORS - "CHAZAS"

Full-length french doors are the original and predominant window type in this vernacular. They open inward.



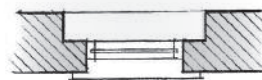
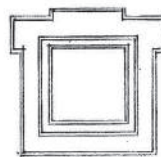
Each window panel should be no wider than 60 cm and panes must correspond to the panels of the shutters that protect them.



SPECIALTY WINDOW TYPES

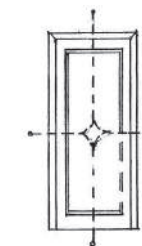
SQUARE

On upper floors, square windows should always be framed. At ground level, they should be frame-less to accentuate wall thickness. Enlarging the inner wall opening brings more natural light to inside spaces.



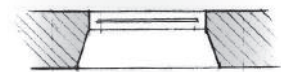
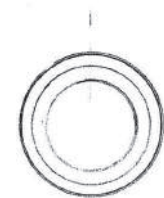
RECTANGULAR

Small, narrow vertical windows are appropriate fenestration on the ground floor, the base of the building. There, inset windows increase the impression of wall thickness and security.



ROUND

Porthole windows are reminiscent of Guayaquil's nautical history. Upper-floor round windows should have frames. Ground floor ones should not.



GUAYAQUIL, ECUADOR

SHUTTERS & IRONWORK

Shutters should have the same qualities as the traditional Guayaquil shutter: they must be operable and provide shade and ventilation, while ensuring security and privacy.

Shutters must be side-hinged and made up of fixed and operable, slated, inlaid panels. Some of these panels should swing out and operate as awnings. When closed, shutters must sit within the thickness of the wall or be recessed from the face of the trim.

Shutters should be of wood. Wood-substitutes are acceptable only if they are indiscernible from wood at arm's length and have the feel of wood when operated.

Shutter colors and finishes should complement those of the façade. If a natural wood finish is desired, no substitute materials are permitted. In no case are roll-down shutters permitted.

Screens are desirable but must be hidden by shutters, so they are not visible from the outside.

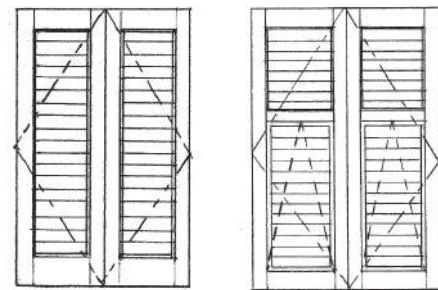
GATES & GRILLS

Security grills are permitted on the ground-floor 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.

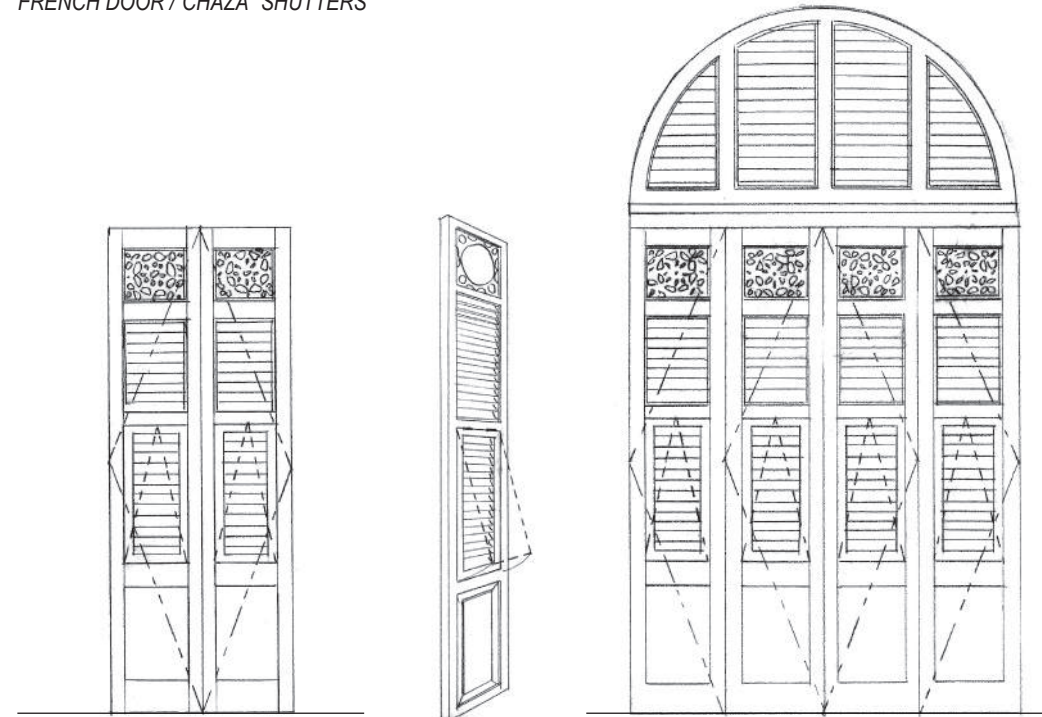
Wrought-iron gates may be added in front of wood doors for security, but glazed wrought-iron doors are not part of this vernacular and can in no case replace the wood door.

CASEMENT WINDOW SHUTTERS



Casement shutters swing outward. Ideally at least some panels should also operate as awnings.

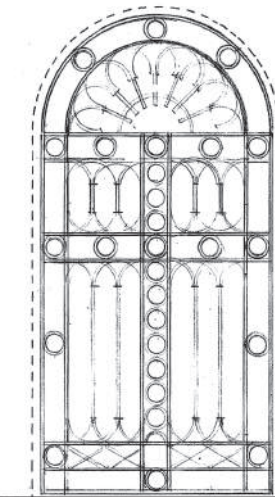
FRENCH DOOR / "CHAZA" SHUTTERS



Middle panels should operate as awnings, the top panel may be decorative.

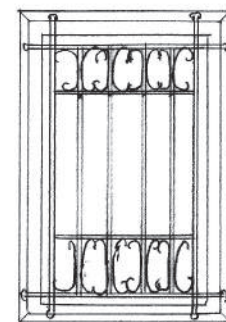
A ventilating transom panel can be arched or rectangular, and decorative or shuttered.

STOREFRONT GRILLS



Decorative security grills added to the front door open the house to the street, provide cross ventilation, and add elegance.

CASEMENT WINDOW GRILLS

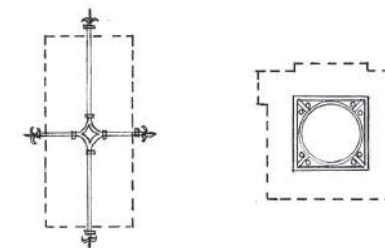


Grills should project 1 or 2 cm from the façade.



Grills may project out even further to provide space for vegetation.

SPECIALTY WINDOW TYPES



Iron bars for security must also always be considered as decorative and may be applied to the façade or set within the thickness of the wall.

GUAYAQUIL, ECUADOR

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.



MASONRY

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.



MIX OF MATERIALS

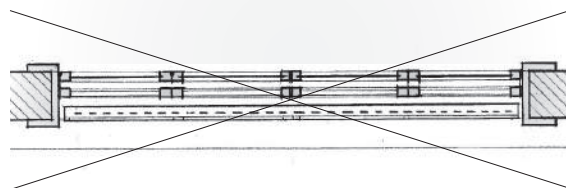
Railings can be artfully designed to combine masonry and iron, or wood and iron.

RAILING PLACEMENT FOR LOGGIAS AND FAUX BALCONIES



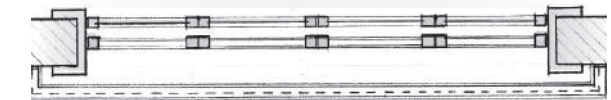
DON'T

Placing the railing within the thickness of the wall flattens the façade, giving it an artificial two-dimensional quality.



DO

Always supported by an entablature, railings must be placed beyond the face of the building, giving the façade a tangible, real depth.



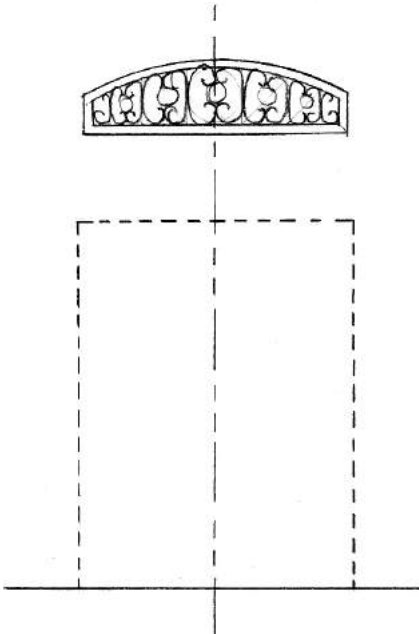
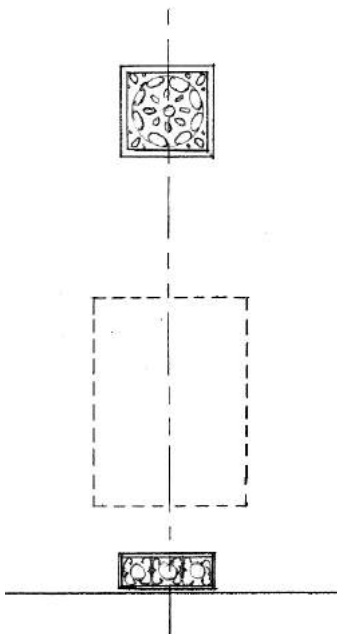
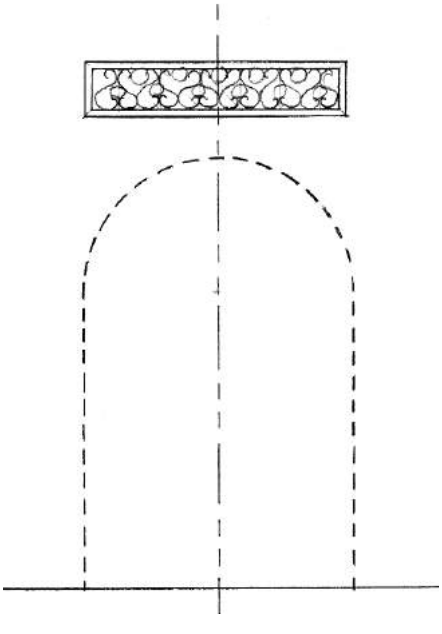
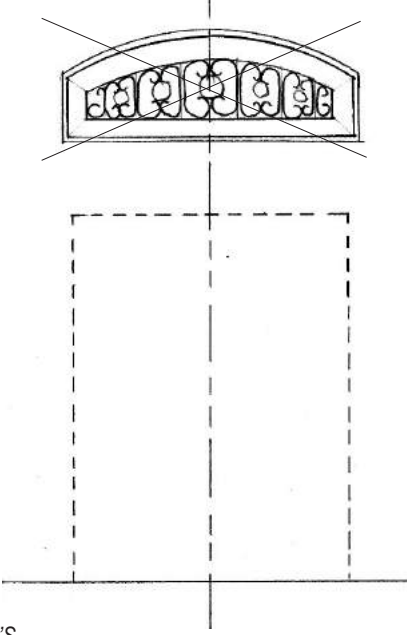
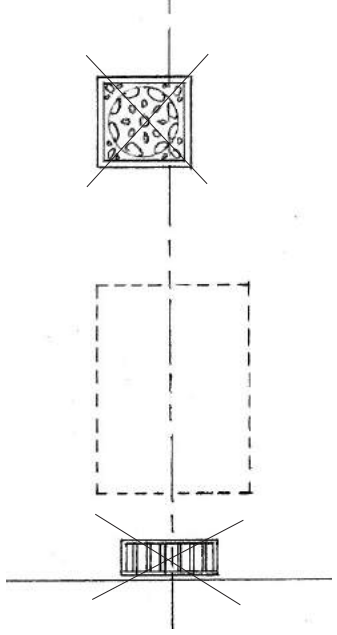
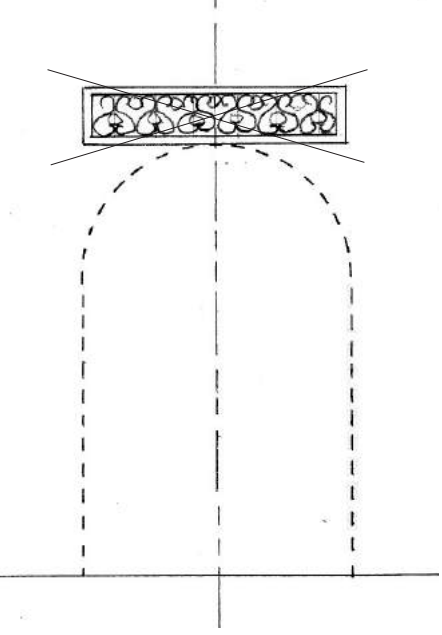
GUAYAQUIL, ECUADOR

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.

<p><i>DO'S</i></p>  <p>1</p>	 <p>2</p>	 <p>3</p>
<p><i>DONT'S</i></p> 		
<p><i>Frames should not be oversized, always proportioned to the vent itself.</i></p>	<p><i>Vents must not be off-center, always aligned to the opening below or above. They should always be decorative - not prison-like bars.</i></p>	<p><i>The frame of the vent should not overlap the frame of the door below.</i></p>

GUAYAQUIL, ECUADOR

NATURAL & DURABLE MATERIALS

Walls should be made of masonry and finished with stucco. Natural, not synthetic, stucco should be used so façades age with more grace. Preferably, stucco should have integrated pigment so the extra maintenance of painting is not necessary. Stucco should have a smooth, sand-finish with no patterns or trowel marks. If painted, walls must have a matte finish.

THREE-DIMENSIONAL ELEGANCE

The elegance of this vernacular is achieved through the clear horizontal definition of a base, middle, and top, and a regularity of vertically aligned structural bays and openings.

Façades must have a three-dimensional quality with recessed windows and doors, and pronounced railings and shutters. Façade ornamentation (pilasters, entablatures, etc.) must also have an articulated three-dimensional quality, not just appear artificially painted or pasted on.

Civic buildings may be of a classical style, in which case they must follow the rules of that style.

Inspirational to Batan, water not only permeates the site itself, with its two rivers and many canals, but also its history. Since Guayaquil is a port city and once specialized in ship manufacturing, many houses were built by shipbuilders. Nautical themes such as round, porthole-like windows are still appropriate.

STRENGTH & SUBTLETY OF COLOR

The traditional light shades of brown, grey, green, and white are to be used to underline the logic and character of the building. Colors should be chosen with respect to materials and should identify architectural elements, accenting shutters, railings, and trim.

Color must be matte or semi-gloss, and limited, complementary, and consistent throughout the building. All finishes should be matte or semi-gloss.

As in old, traditional neighborhoods, façades along the riverbanks should have stronger tones to be visible from afar.

In the case of woodwork, traditionally it was painted, but natural wood is an option. In this case, natural wood should be used consistently throughout the building with a matte transparent finish that brings out the beauty of the wood.

Even if all other trim is painted, residential front doors are the exception and should always be of natural wood. (See section on front doors.) No natural imitation wood is permitted.



GUAYAQUIL, ECUADOR

SIMPLICITY & HIERARCHY OF MASSING & PROPORTION

A building should not be so complicated or heterogeneous that the main body can not be identified; nor should entrances be out of scale, intimidating, or uninviting.

DON'T



DO



Rooted in simplicity, this traditional architecture is characterized by simple masses, to which other simple masses are added according to need. Always maintaining a human scale and proportions found in nature, its hierarchy is clear, structured, and reasoned.

Unlike post-modern architecture, which expresses complexity and contradiction, buildings of this vernacular project simplicity and confidence.

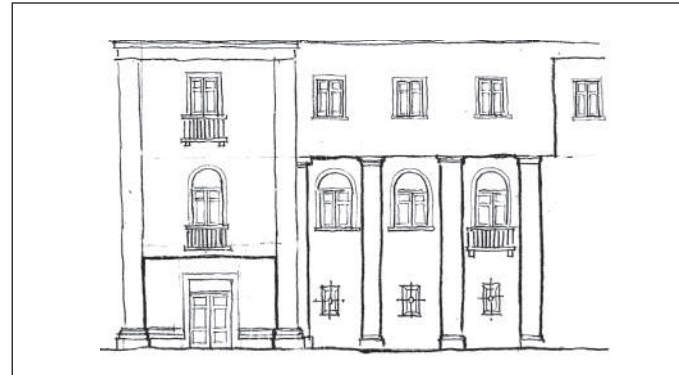
BATAN

GUAYAQUIL, ECUADOR

BASE, MIDDLE & TOP

Arbitrarily configured and lacking a defined base, middle, and top, contemporary buildings often seem precarious. The random inclusion of recognizable architectural elements is not the remedy, particularly when they are distorted and out of proportion with the overall design.

DON'T



DO



In this vernacular, buildings are clearly composed of a base, a middle, and a top, which provides a sense of security through reference to the human body. Buildings have a structured base, clearly supporting main floors topped by generous cornices or eaves that lend clarity and stability.

GUAYAQUIL, ECUADOR

REGULARITY OF STRUCTURE & OPENINGS

Façades should not be purely dictated by the functional needs of interior rooms, nor should they be understood as arbitrary assemblies of elements. When vertically misaligned, façades are confusing and imbalanced.

DON'T



DO



In this vernacular, façades are vertically aligned. Columns are placed one above the other, and openings are centered between regularly placed bays. Spacing of openings and elements need not be identical, as long as the rhythm of the façade is composed with an assuring rationale.

GUAYAQUIL, ECUADOR

SYMMETRY OF FACE

Asymmetry may look endearing, but imbalances express uncertainty. Oversized entrances are intimidating and incidental ones are off-putting. Entryways that are out-of-scale and off-kilter make for an awkward experience.

DON'T



DO



The front entrance, in this vernacular, personifies the character of the building itself and is the primary and regular entryway, easy to find and use. Symbolically reminiscent of the human face with a reassuring symmetry, the front entry may be impressive but always inviting.

GUAYAQUIL, ECUADOR

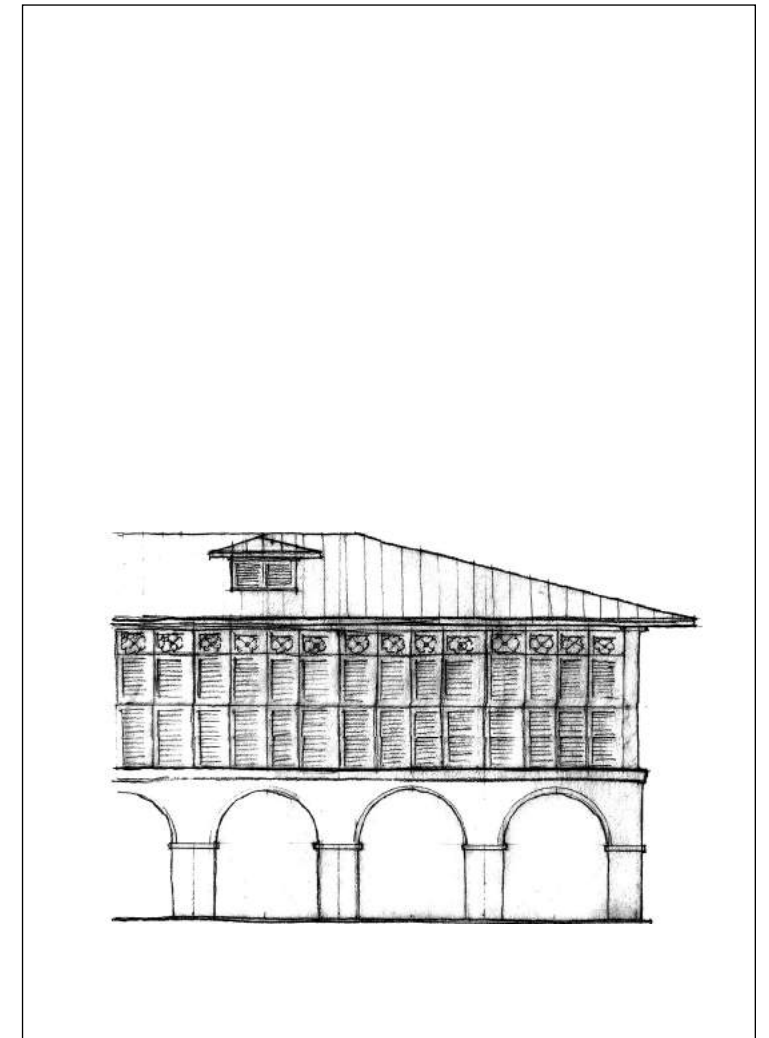
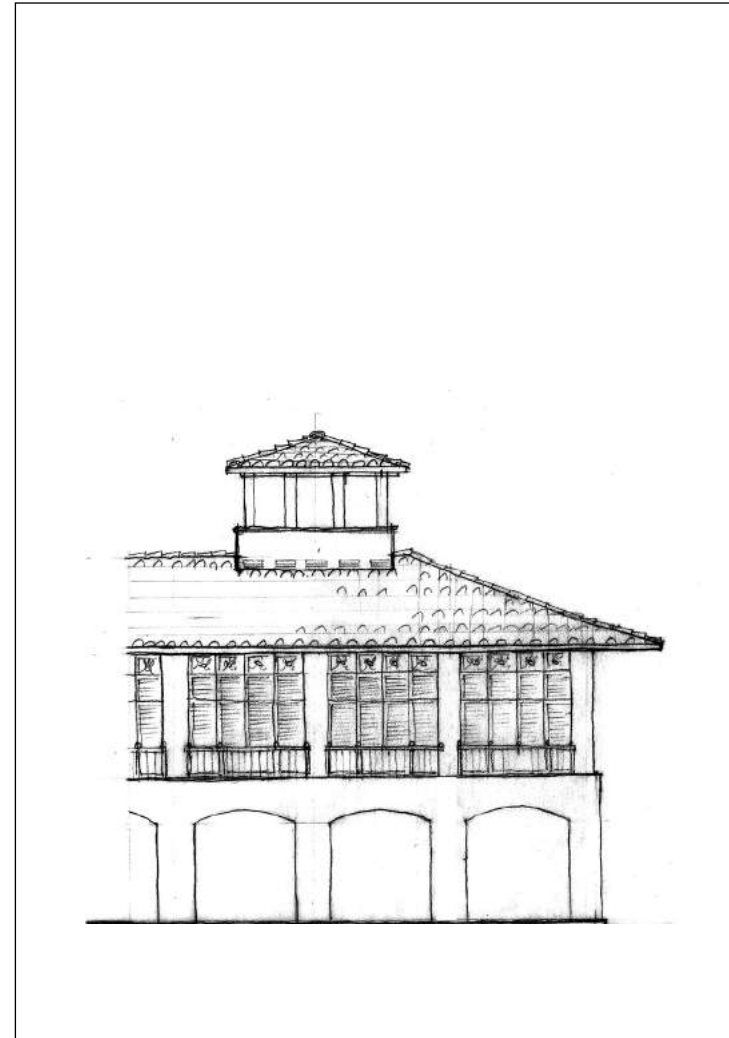
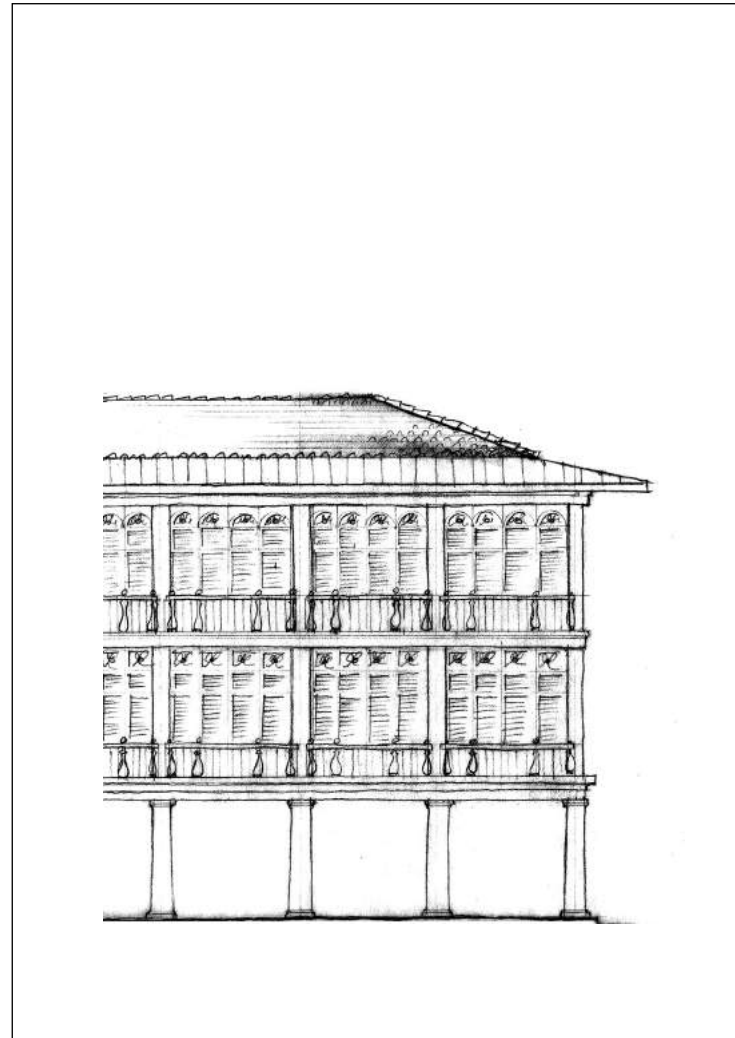
THE BATAN BUILDING TYPES: THE HOUSE

The country house projects a firm simplicity. Strong but porous bases assure stability. Repetitive façades exude confidence and determination. Enveloping roofs provide a sense of protection.

In this vernacular the house is a simple volume. The ground floor forms the base of the building with a colonnade, arcade, or solid wall that clearly supports the upper floors, or the body, of the building.

The upper floors have higher ceilings than the ground floor, with a ratio of 1.2 to 1.0. Each floor is horizontally defined and all windows have shutters. Openings and columns are vertically aligned.

The hipped roof generously overhangs by approximately 90 cm and is covered with clay tiles and/or metal. A roof tower often crowns the house.



GUAYAQUIL, ECUADOR

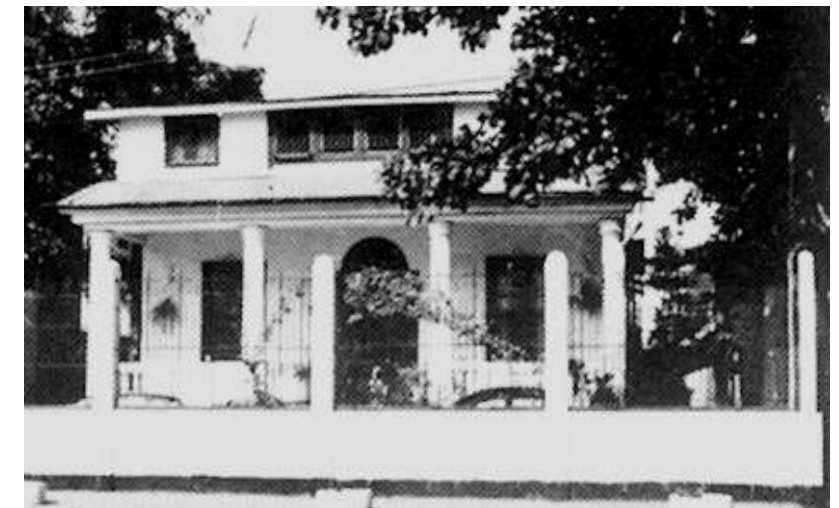
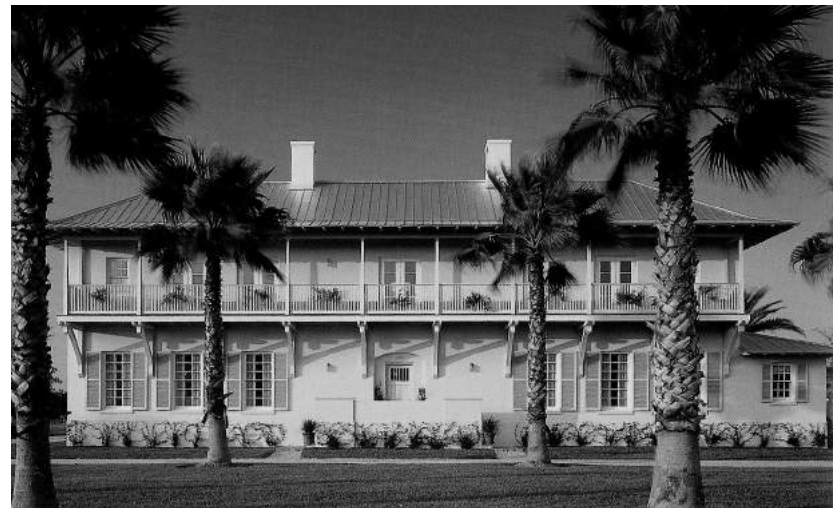
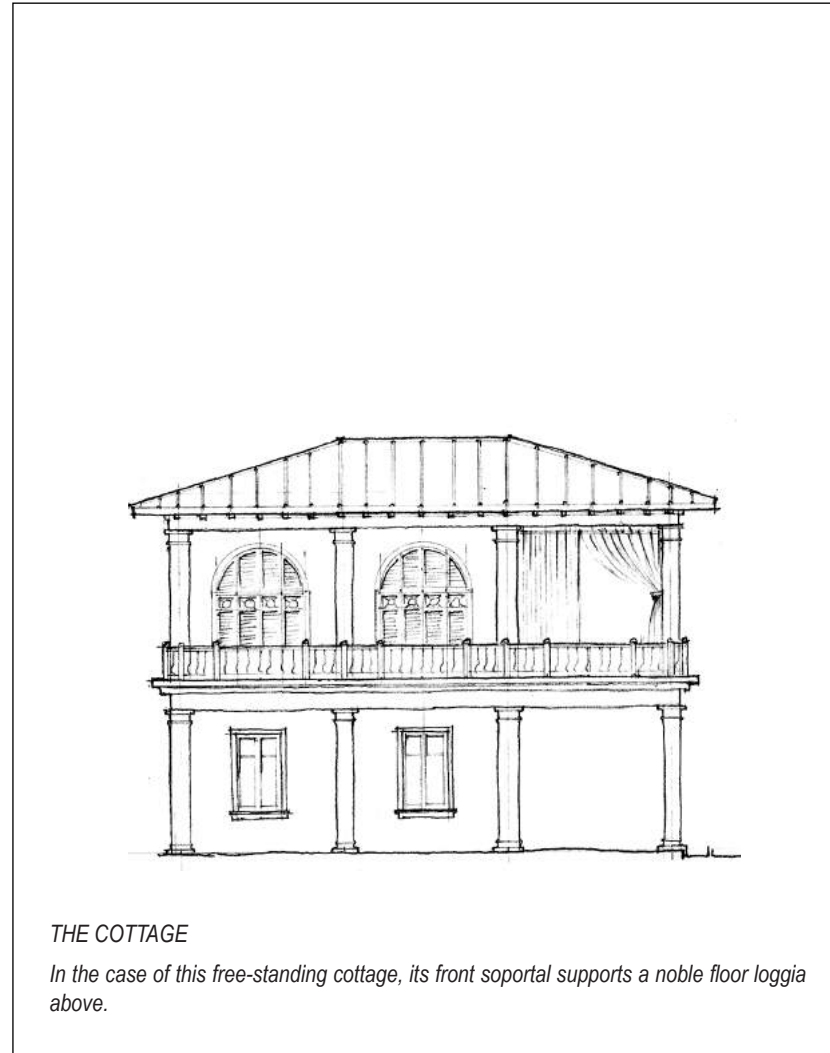
**THE BATAN BUILDING TYPES:
THE COTTAGE / THE VILLA**

The design of both small and large houses is based on the same fundamental principles of simple massing and proportion, base-middle-top, vertical alignment, and symmetry.

Both incorporate the trademarks of the vernacular: soportales, loggias, balconies, and rooftop towers.

The difference between the cottage and the villa lies in their scale, and the extent of their detailing and decoration.

Decoration is more refined in urban contexts than in rural, though the grand countryside villa may be an exception.



GUAYAQUIL, ECUADOR

THE BATAN BUILDING TYPES: THE CANAL HOUSE

Given Batan's location and local history, it was perhaps inevitable that water should become its leitmotif. Many buildings, large and small, rural and urban, residential and mixed-use, enjoy waterfront sites. Canal houses of all sorts are exceptional places to live, with shuttered balconies, loggias, and covered terraces projecting over the water.



This is a perfect example of waterfront design. A covered terrace and a bay window overlook the water.



GUAYAQUIL, ECUADOR

THE LIVING WALL

As in traditional fortified villages, buildings themselves can secure neighborhoods. In both dense and rural areas, frontages formed by buildings and garden walls restrict but also welcome access, through porticos, archways, and decorated gates.

The ground-floor façade has small windows with ironwork or shutters, providing security as well as a decorative elegance.

On the upper floors, windows, loggias, and balconies look out onto the public realm, encouraging a sense of security through passive control by the citizens themselves.

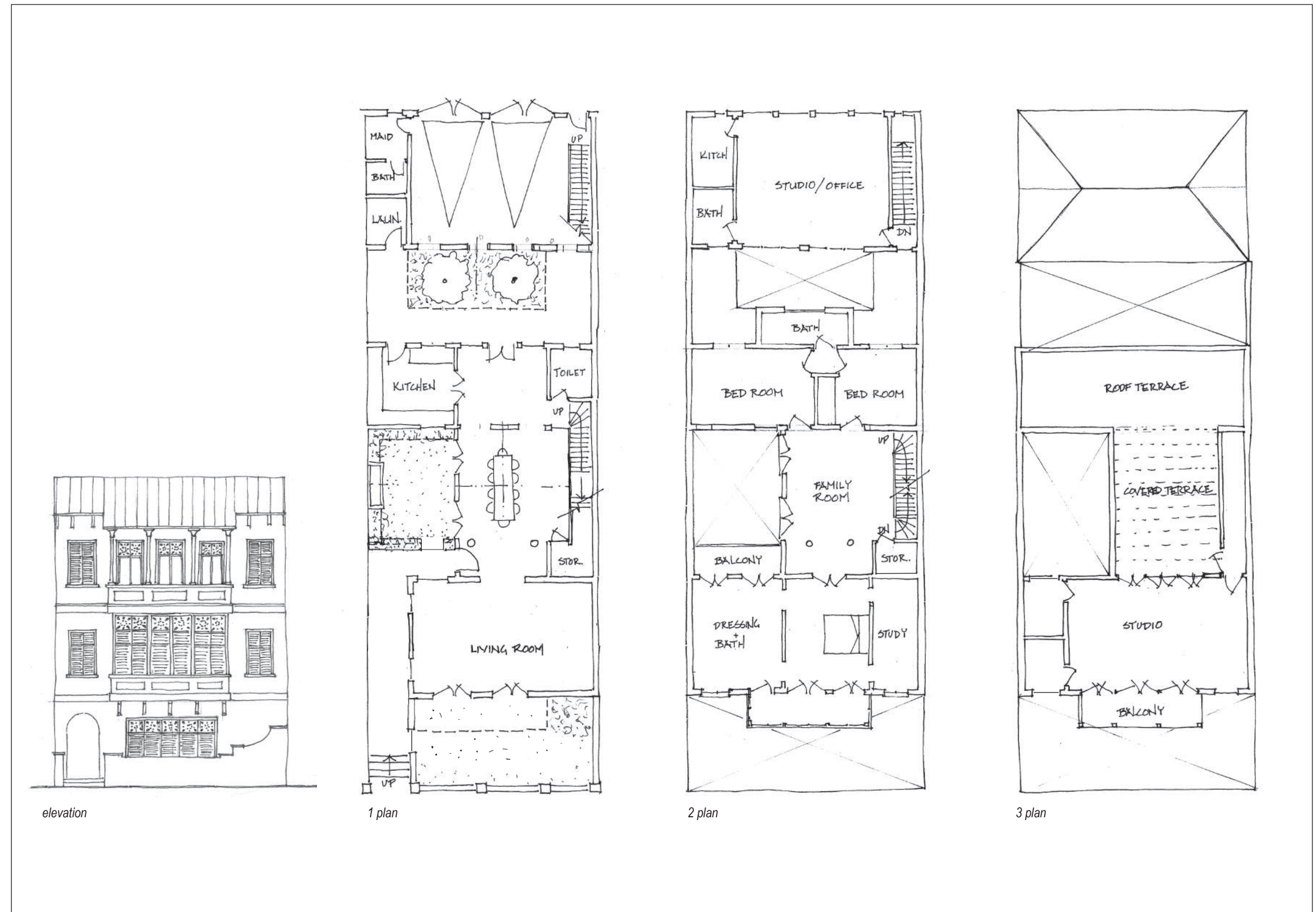


GUAYAQUIL, ECUADOR

THE ROW HOUSE

Batan row houses are contiguous town houses sited on narrow lots, allowing for greater neighborhood density. Despite close proximity to neighbors, row houses provide privacy as well as a feeling of openness through numerous indoor spaces opening onto numerous outdoor spaces.

With streets to the front and alleys to the back, row houses are accessible from both ends. Entering through the front door, one passes by an inner courtyard. From the garage in the rear of the building, one encounters a private garden before entering the house. Courtyards, gardens, and roof terraces give a sense of spaciousness in spite of the compact setting.



GUAYAQUIL, ECUADOR

INSPIRATIONAL PRECEDENTS: ROSEMARY BEACH, FLORIDA (1)

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 of the highest quality, based on the Caribbean models found in St. Augustine and the Islands.

Successful features such as balconies, loggias, roof towers, inner courtyards, and living walls are an inspiration for Batan.

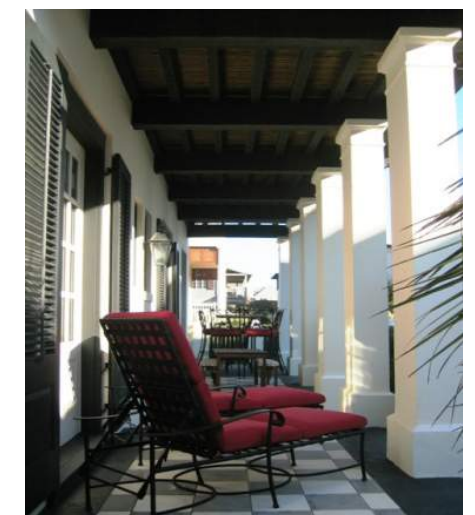


BATAN

VERNACULAR REFERENCES

GUAYAQUIL, ECUADOR

INSPIRATIONAL PRECEDENTS:
ROSEMARY BEACH, FLORIDA (2)



GUAYAQUIL, ECUADOR

INSPIRATIONAL PRECEDENTS: ALYS BEACH, FLORIDA

Similar to nearby Rosemary Beach, Alys Beach aims to be environmentally sustainable through a mixed-use, pedestrian-friendly urban plan.

Architecturally, the simple volumes of whitewashed masonry and stucco are reminiscent of styles found in Bermuda. Perimeter and connecting walls are used throughout; higher and more formal in the urban zones, lower and more rustic in the rural areas. Interior courtyards, patios, and rooftop towers are prominent features.

Though its color scheme is different, its forms and its relation to public space - sometimes open and engaged, other times intimate and distinct - serve as an interesting parallel to Batan.



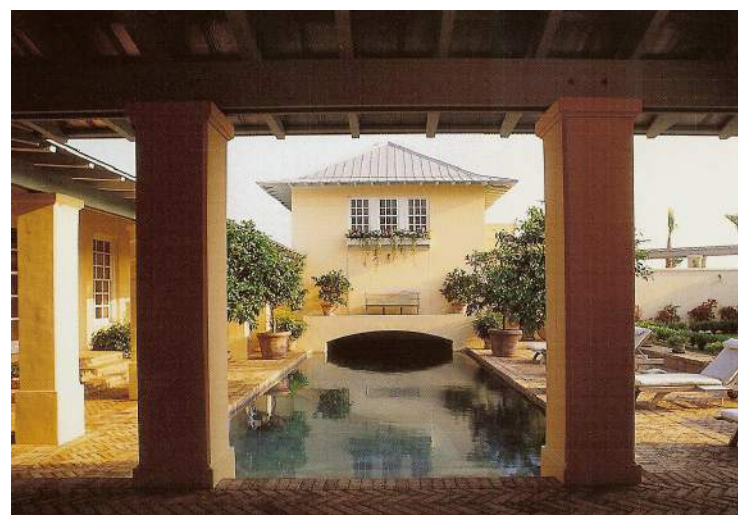
GUAYAQUIL, ECUADOR

INSPIRATIONAL PRECEDENTS: 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 façades with masonry at the first floor and wood construction above, and a variety of porches, balconies, loggias, and roof overhangs.

Windsor has quickly become the reference point for exemplary design.



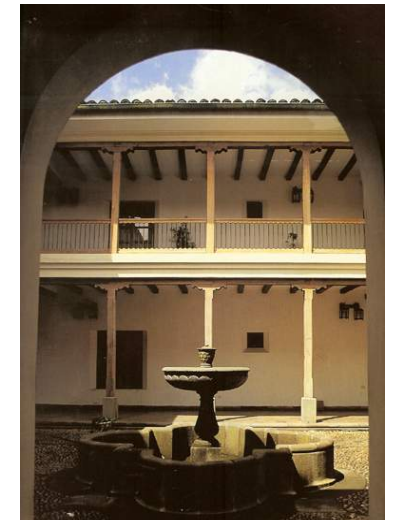
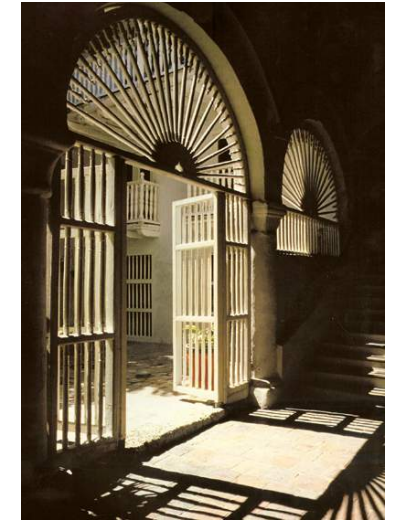
BATAN

GUAYAQUIL, ECUADOR

INSPIRATIONAL PRECEDENTS: NEW GRANADA, COLOMBIA

These pictures can be found in Casa Colonial: Domestic Architecture of New Granada, which explores the history behind the colonial architecture in present day Colombia. The architecture of New Granada is rich in influences with a vernacular that has evolved, constantly developing over time.

Its creative permutations of familiar vernacular elements such as patios and loggias make this a shining example of diversity through balanced and holistic design. As a Most-Loved place, this serves as an inspiration for Batan.



GUAYAQUIL, ECUADOR

INSPIRATIONAL PRECEDENTS: AMSTERDAM, THE NETHERLANDS

Threaded through with waterways and canals, Amsterdam has an architectural vernacular all its own.

In spite of, or perhaps because of, its long and rich history it is still a vibrant city today. Evolving with the times, its eco-friendly transportation system exemplifies both efficiency and environmental consciousness.

Though more densely urban than Batan will ever be, Amsterdam shares its leitmotif, water, and is an example of strong character, harmonious façade design, and diversity within a narrow range of patterns.



BATAN

GUAYAQUIL, ECUADOR

GALLERY OF ELEMENTS: GUAYAQUIL'S ORIGINS

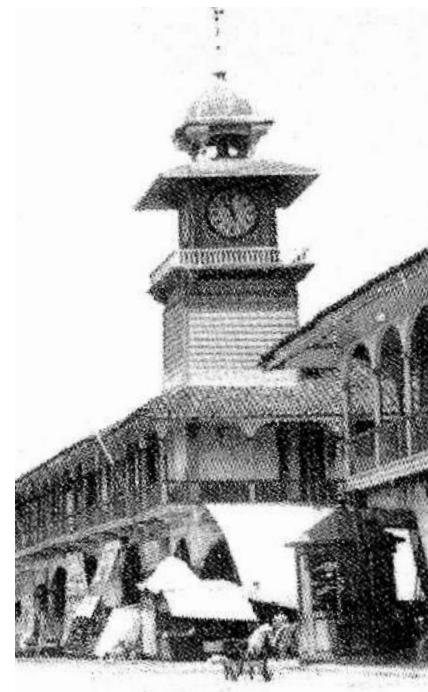
Guayaquil's historic architecture reflects a combination of native Ecuadorian and European cultures, building techniques, and local materials. What may once have been a confusing aesthetic mix has blended over time to fit the region and its people, inspiring a true sense of place.



GUAYAQUIL, ECUADOR

GALLERY OF ELEMENTS: ROOF & TOWER

Low pitched roofs of natural materials and prominent roof towers once characterized the Guayaquil skyline. Today, towers will once again be crowning features, personalizing buildings, dotting the horizon, and serving as place-markers orienting Batan's visitors and citizens.



BATAN

GUAYAQUIL, ECUADOR

GALLERY OF ELEMENTS: BALCONY & LOGGIA

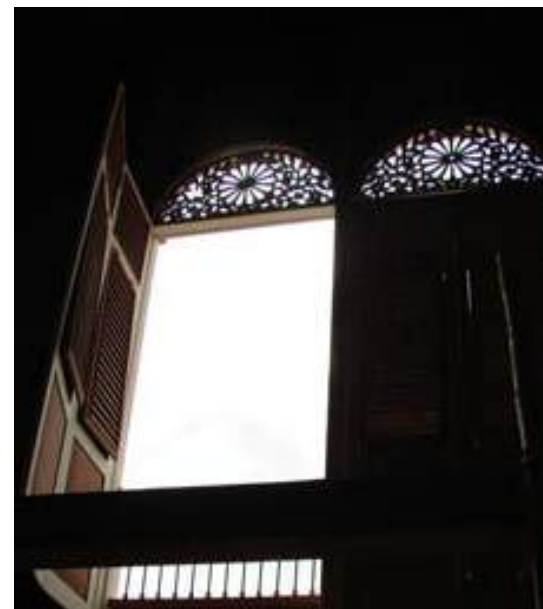
Balconies and loggias showcase Ecuadorian materials and skills. The railings and shutters add depth to the façade, and their design and colors have come to characterize this vernacular. In addition to their aesthetic attributes, balconies and loggias naturally extend part of the living area to outdoor spaces, making them an integral part of life in the tropics.



GUAYAQUIL, ECUADOR

GALLERY OF ELEMENTS: WINDOWS & SHUTTERS

Vertically proportioned windows and shutters reinforce the visual rhythm and character of Guayaquil's façades. Shutters shade and ventilate, while the light filtering through them creates wonderful light patterns throughout the interiors.



BATAN

GUAYAQUIL, ECUADOR

GALLERY OF ELEMENTS: SOPORTAL

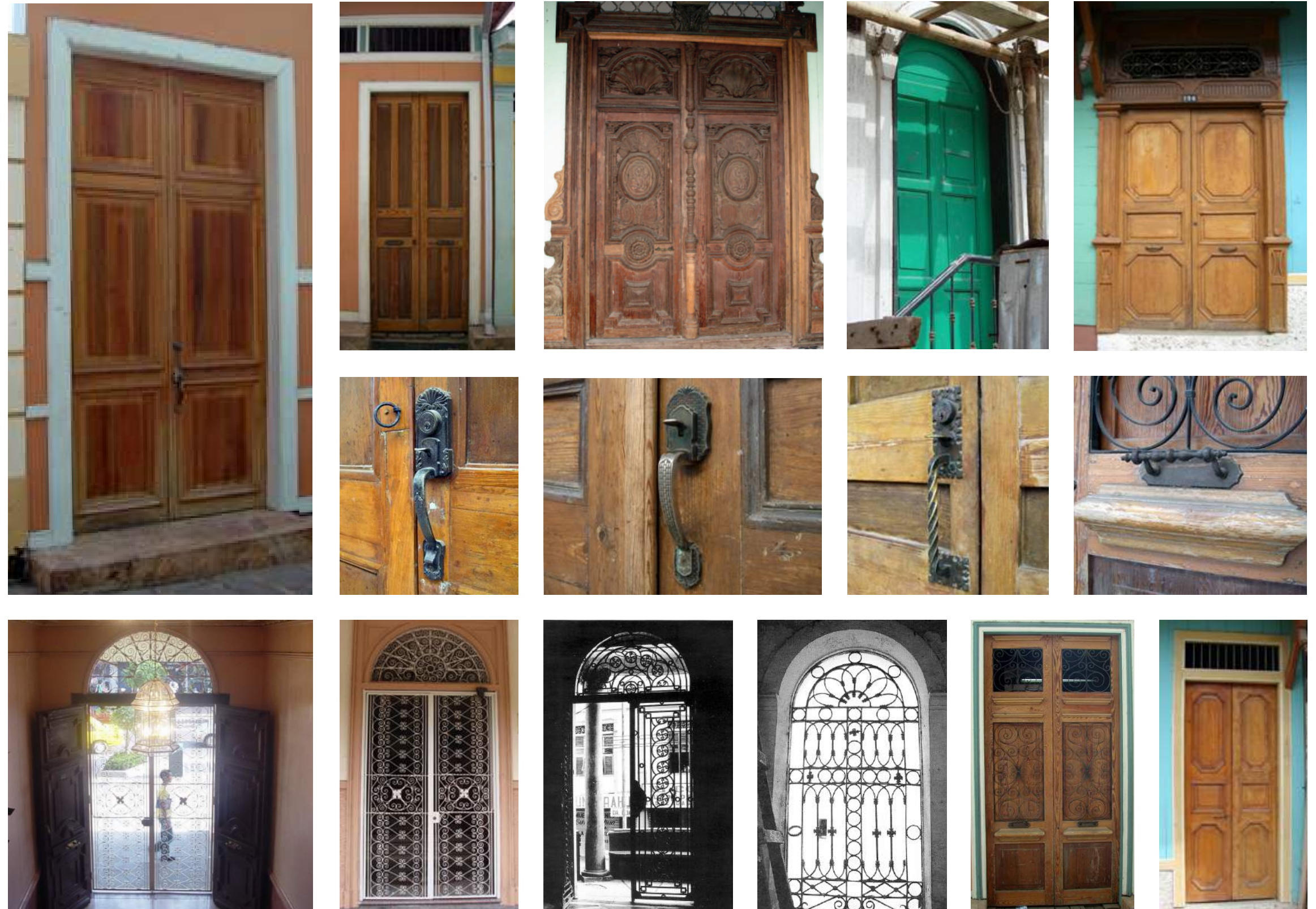
Soportales of varying heights, configurations, and ornamentation encourage street life and offer sheltered outdoor spaces for both public and private use.



GUAYAQUIL, ECUADOR

GALLERY OF ELEMENTS: FRONT DOORS

Guayaquil's wooden doors are traditionally hand-carved and enhanced with wrought-ironwork. Depending on the building's stature, this vernacular encourages variation in detailing to differentiate and identify the building it serves and protects.

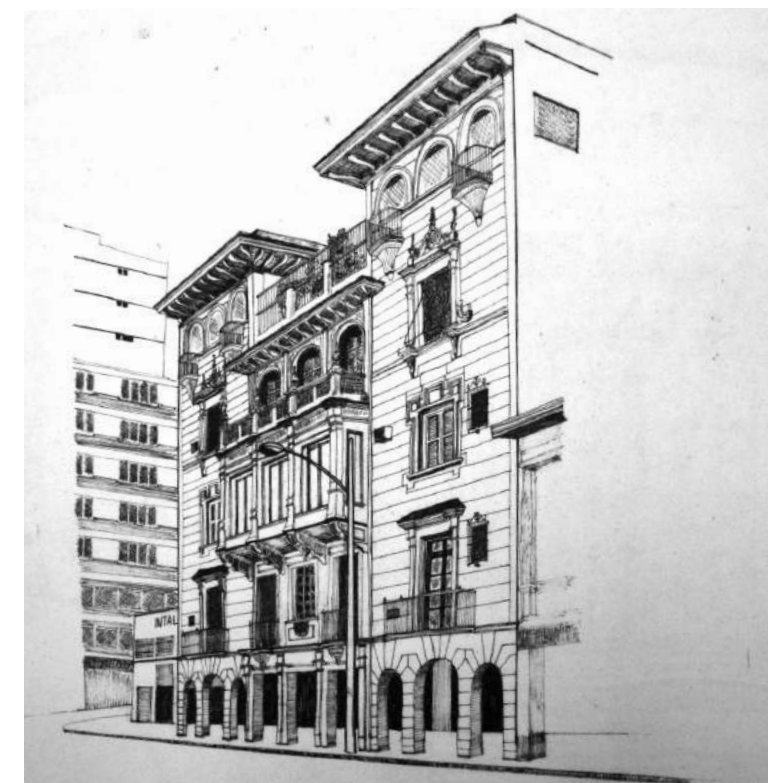
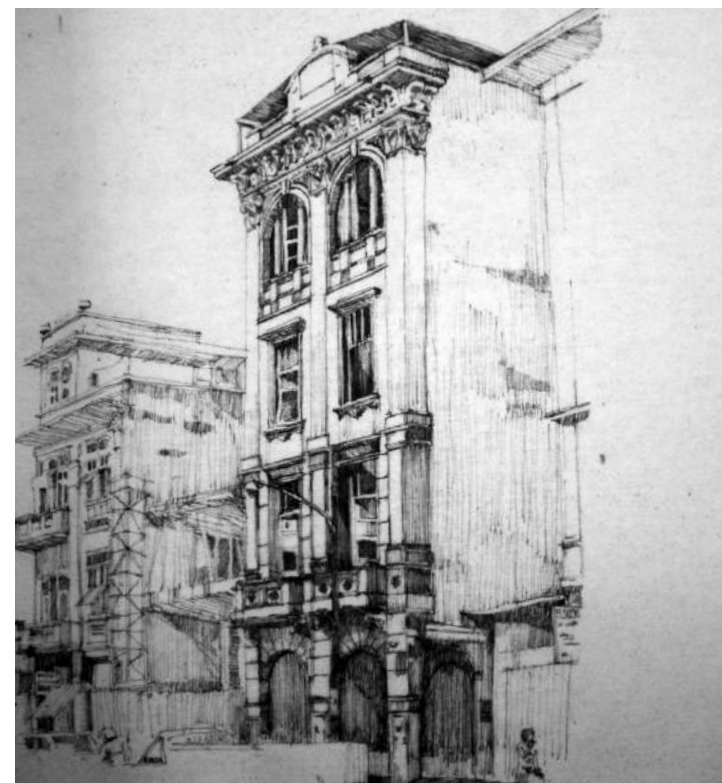


GUAYAQUIL, ECUADOR

GALLERY OF DRAWINGS: GUAYAQUIL HISTORY

On this and the following pages drawings, elevations, and plans offer insight into the richness of Guayaquil's architectural origins.

Here, seen through the eyes of a contemporary architecture student, many of the traditional elements important to the local vernacular are immediately apparent. We see how soportales, shutters, and roof towers were an essential part of the Guayaquil streetscape.

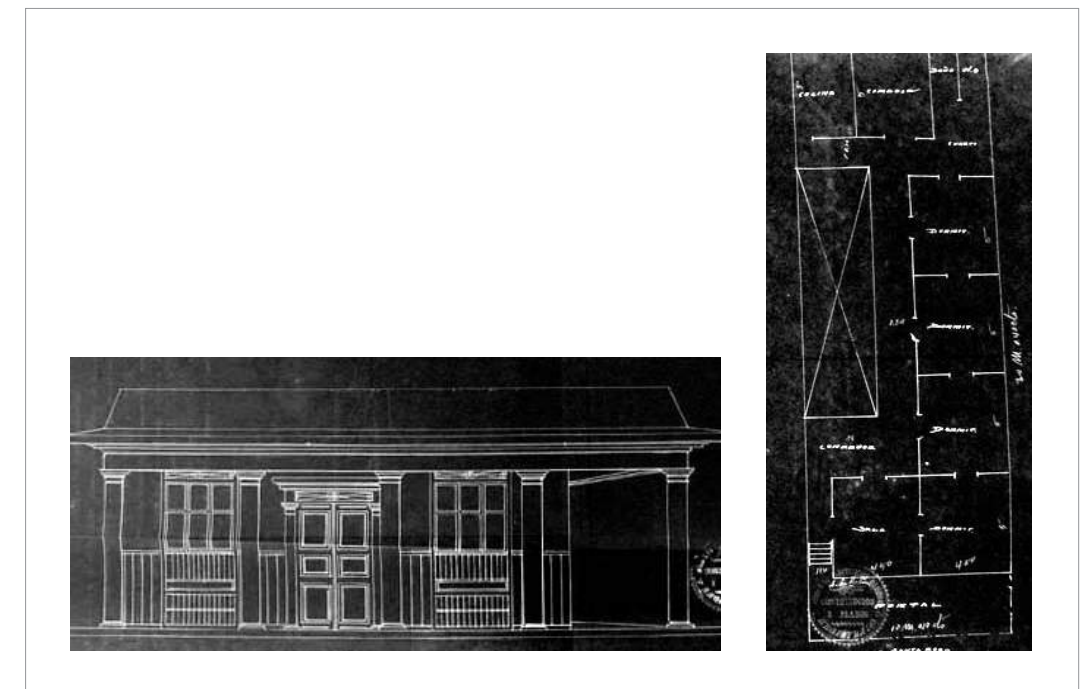
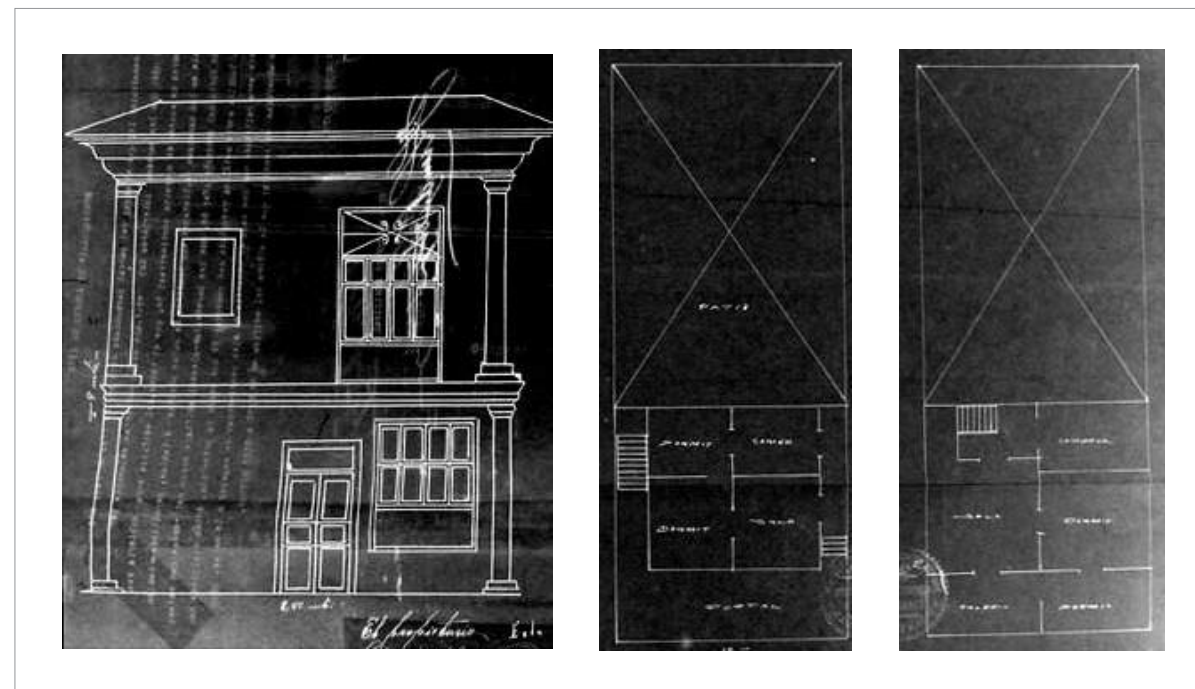
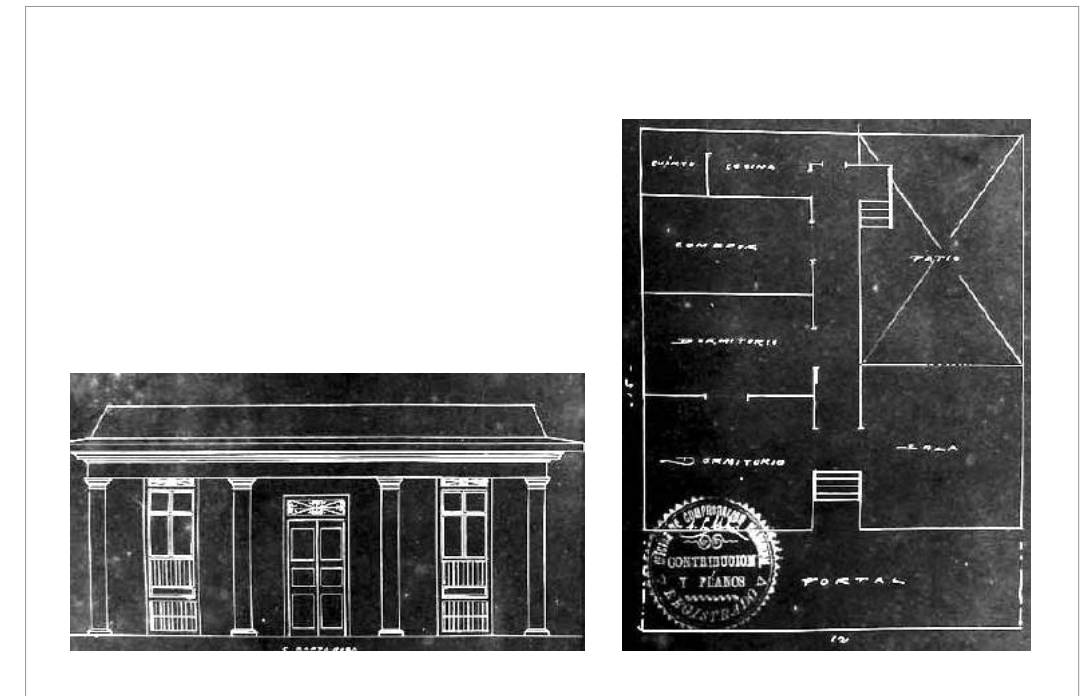
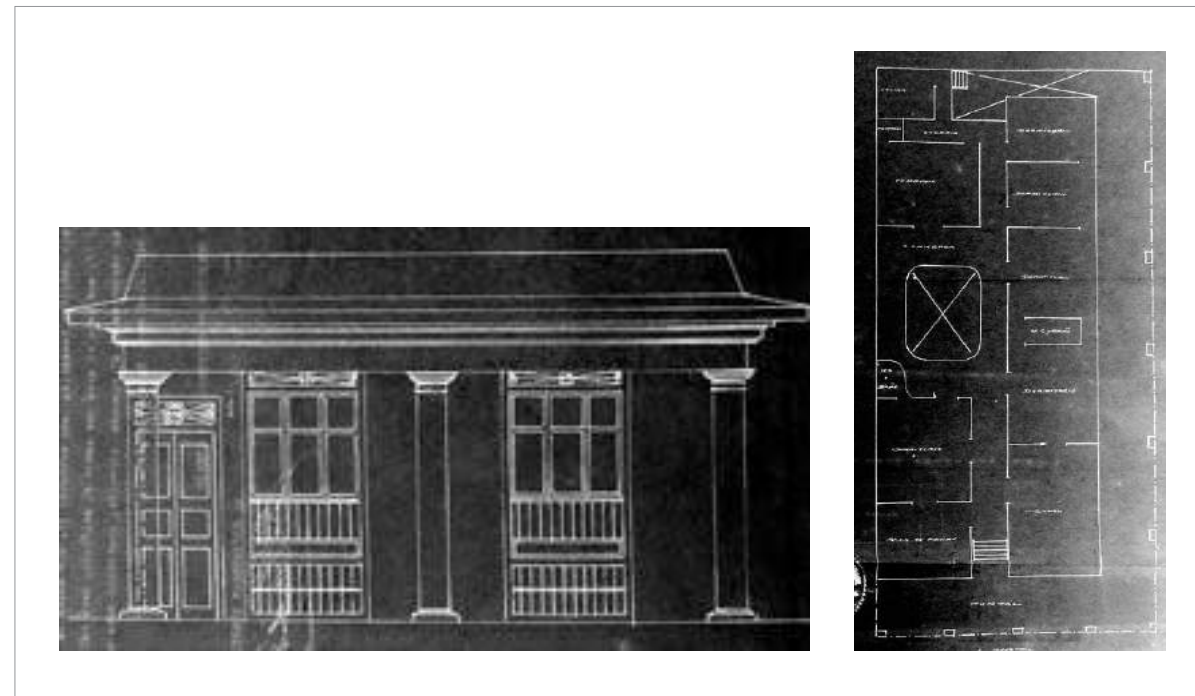


GUAYAQUIL, ECUADOR

GALLERY OF DRAWINGS: GUAYAQUIL HISTORY

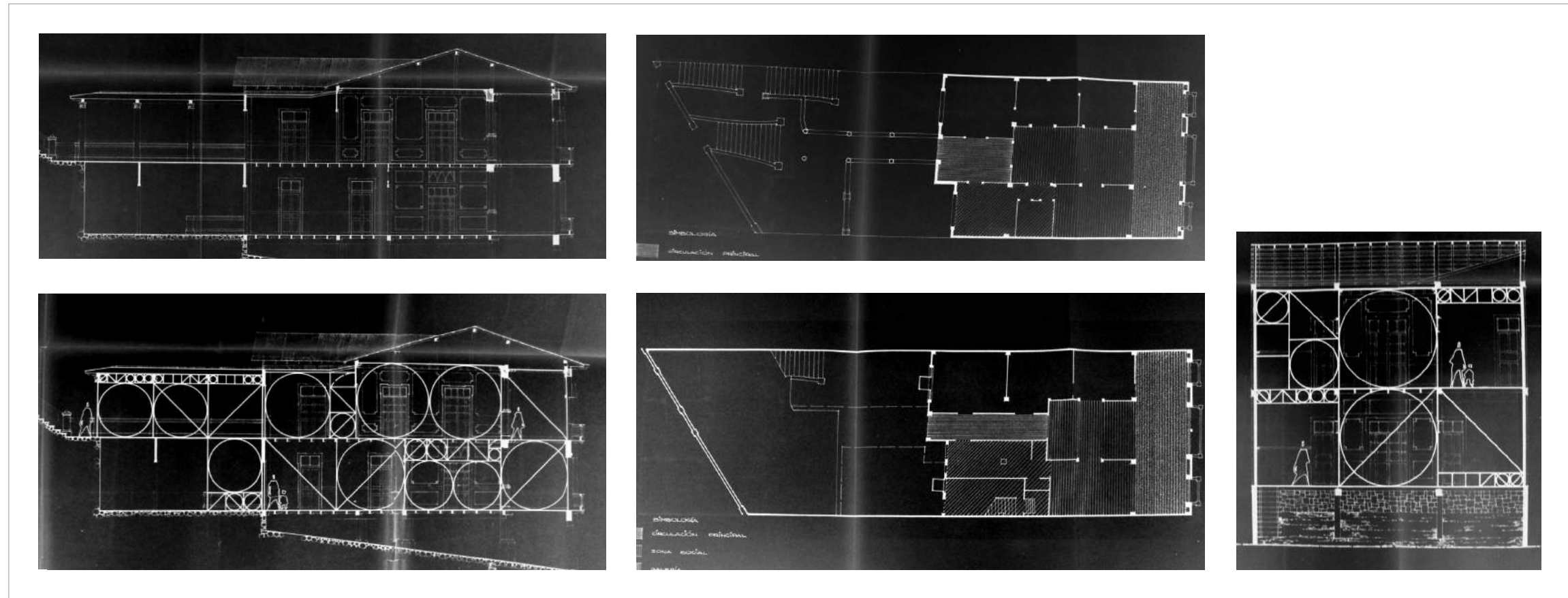
Through these old drawings, once submitted for building approval, it is clear how even the most modest buildings incorporated vernacular elements such as courtyards and soportales. Though these designs may appear awkward, all the vernacular elements are in place.

Fusing the charm and resourcefulness of the traditional with the grace of the classic, today this living vernacular has evolved with elegance to meet contemporary society's higher level of sophistication.

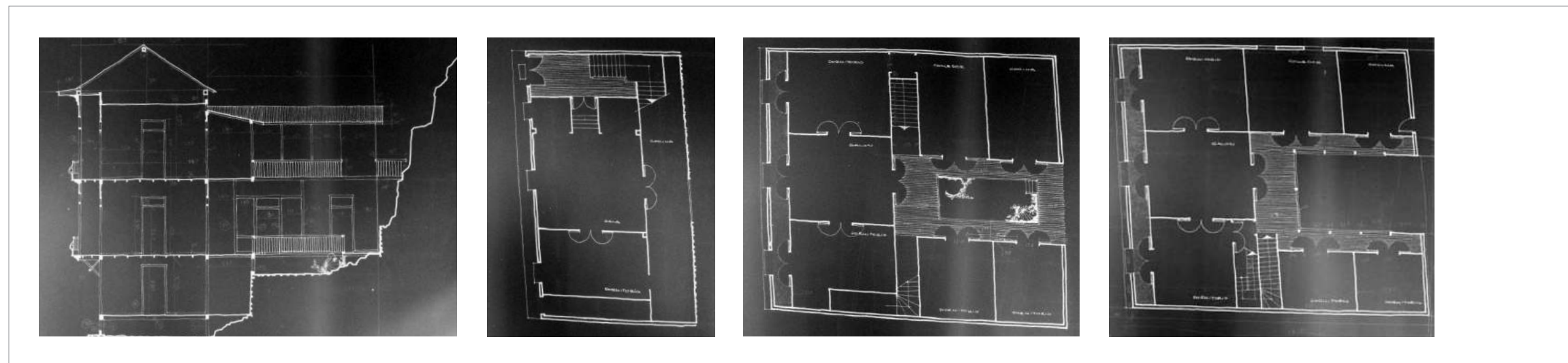


GUAYAQUIL, ECUADOR

**GALLERY OF DRAWINGS:
GUAYAQUIL HISTORY**



From the analysis of this traditional waterfront house, it is apparent that specific proportions were embedded throughout the design. These dimensions and layouts have proven worthy over time in creating comfortable, inviting, easy-to-navigate spaces.

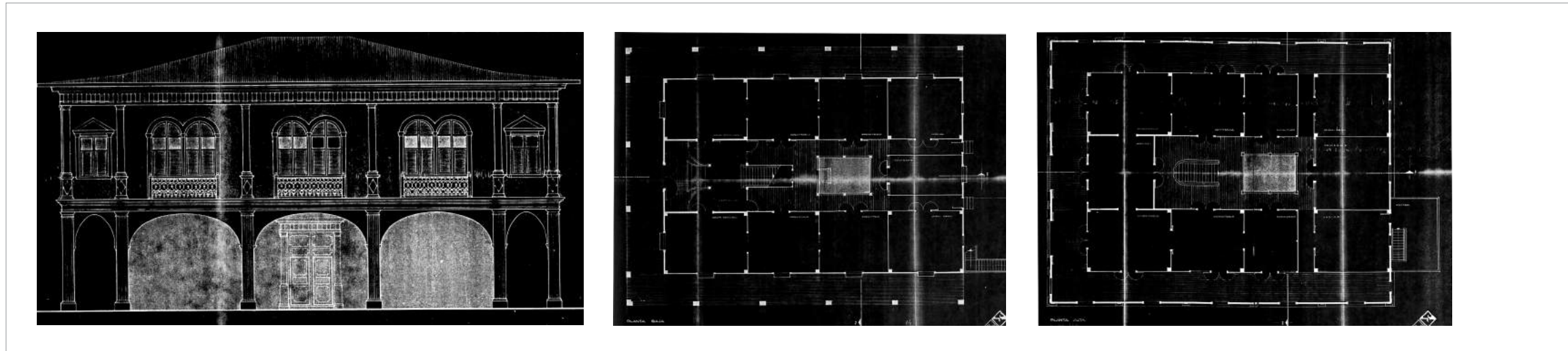


This hillside residence is an inventive example of how buildings can adapt to and take advantage of the constraints of terrain and climate. Loggias overlook the street, and the hill behind shelters the raised inner courtyard in the back.

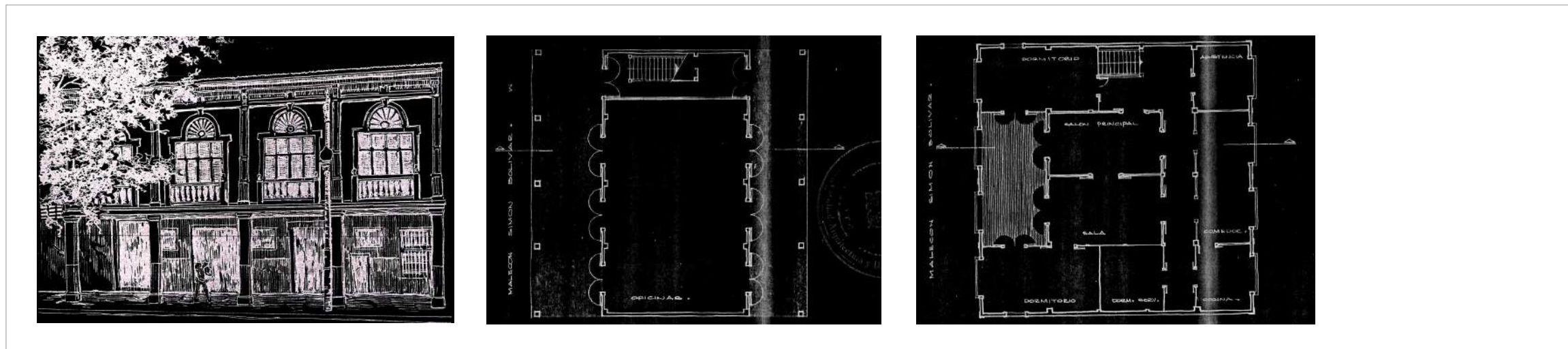
GUAYAQUIL, ECUADOR

**GALLERY OF DRAWINGS:
GUAYAQUIL HISTORY**

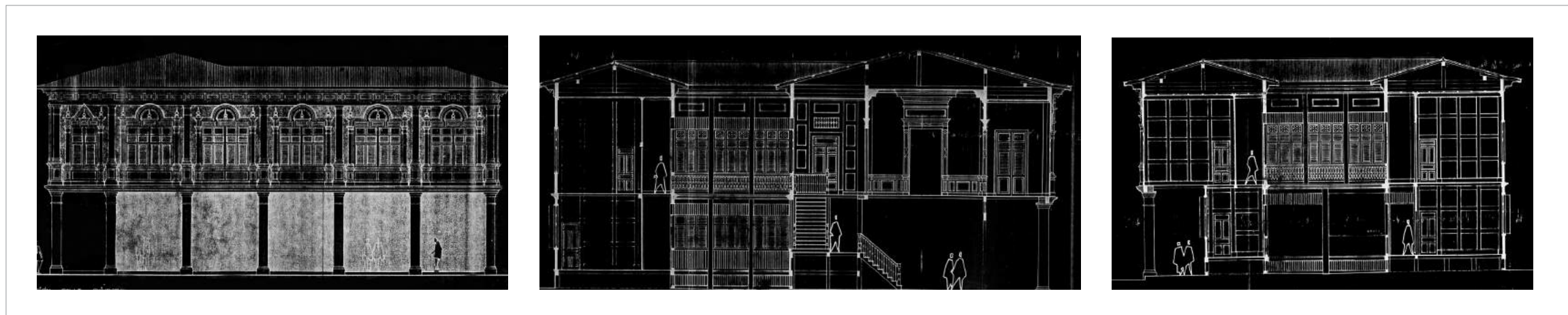
From these vernacular building drawings, it is clear how ground floor soportales, upper floor loggias, and inner courtyards are important in the overall design of Guayaquil's traditional buildings.



Soportales surround the building on three sides.



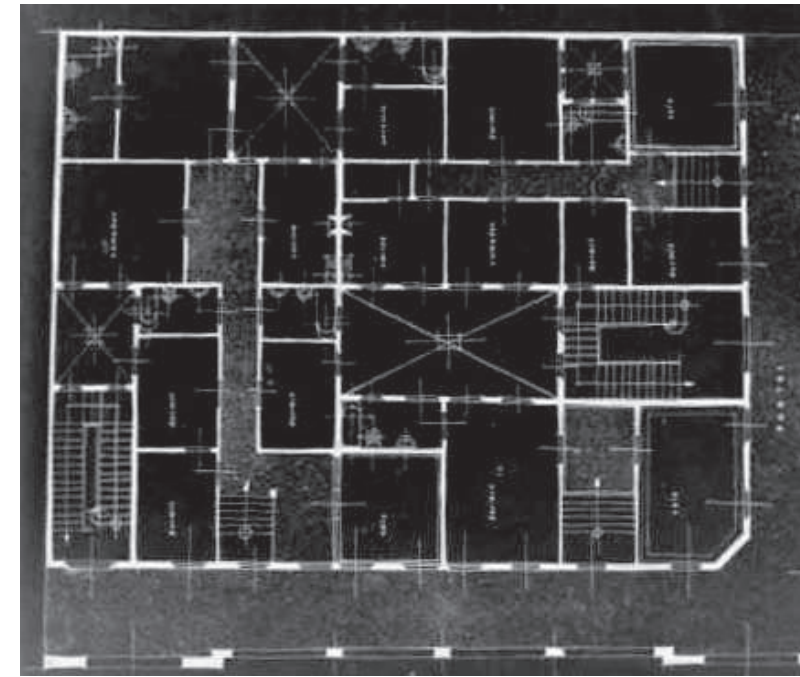
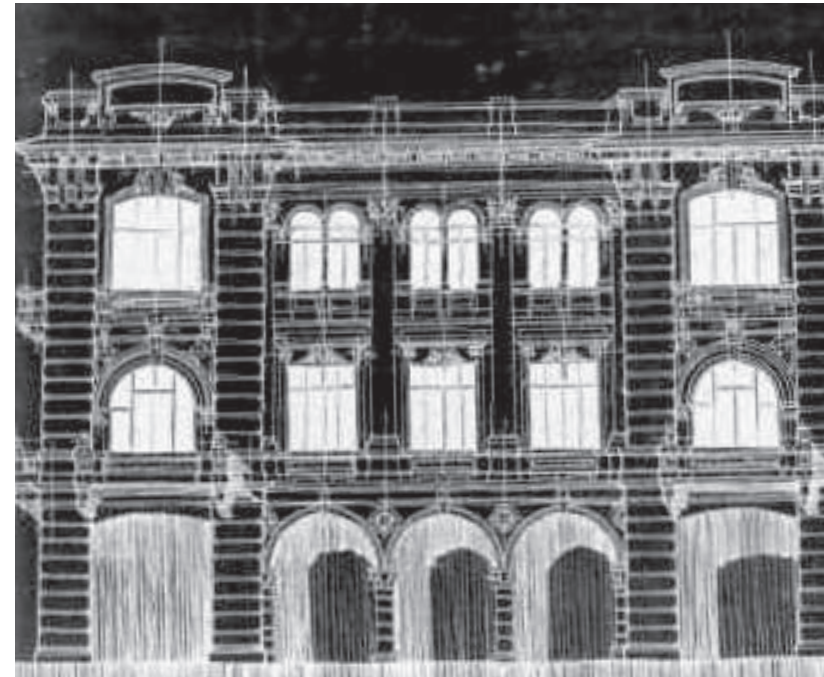
A deep loggia on the second floor functions as a porch or outdoor living room, as well as connecting inner spaces.



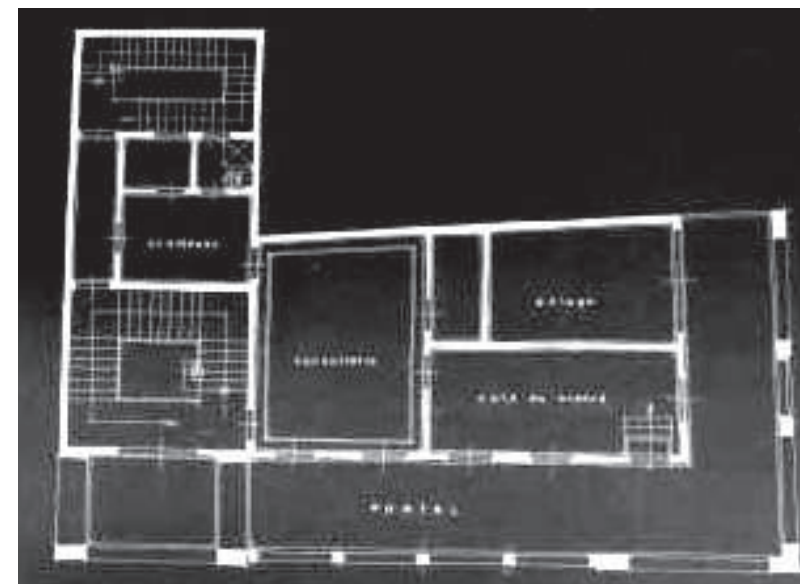
Though unseen from the outside, inner courtyards provide light and air to interior spaces.

GUAYAQUIL, ECUADOR

GALLERY OF DRAWINGS: GUAYAQUIL HISTORY



This more formal urban building has a central courtyard to light and passively cool the interior spaces.

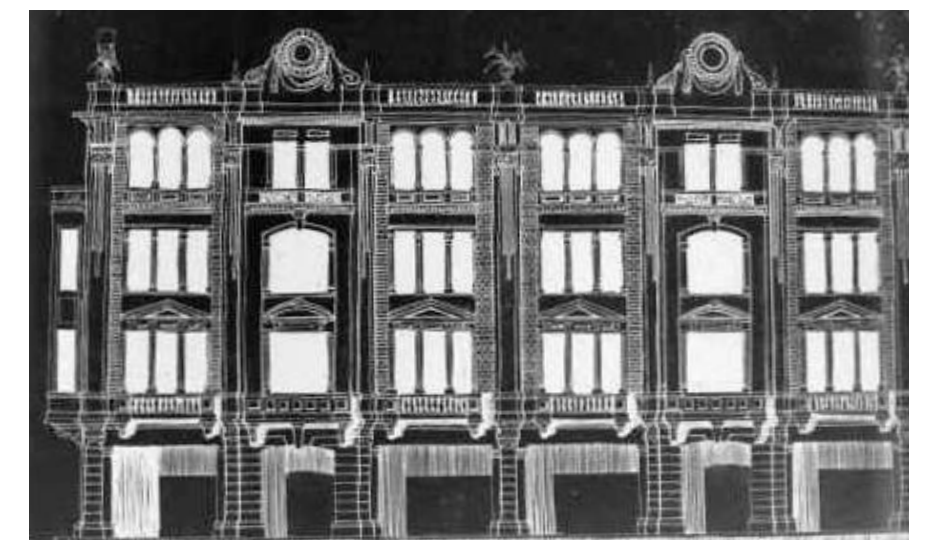
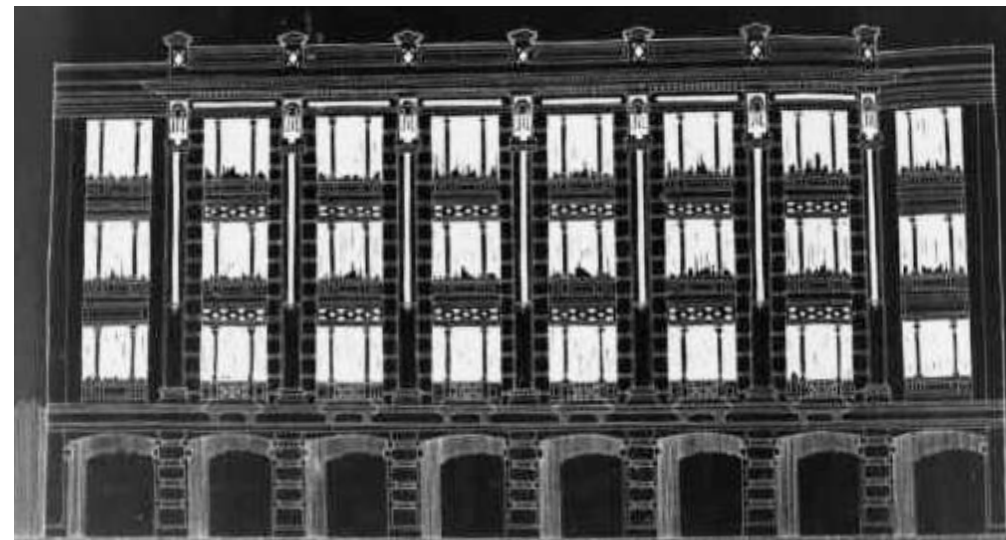
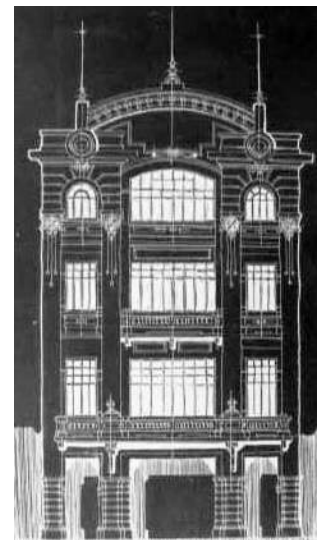
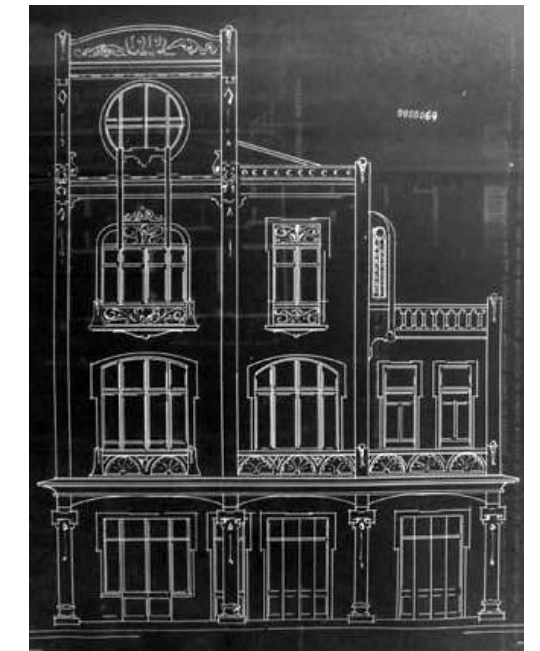
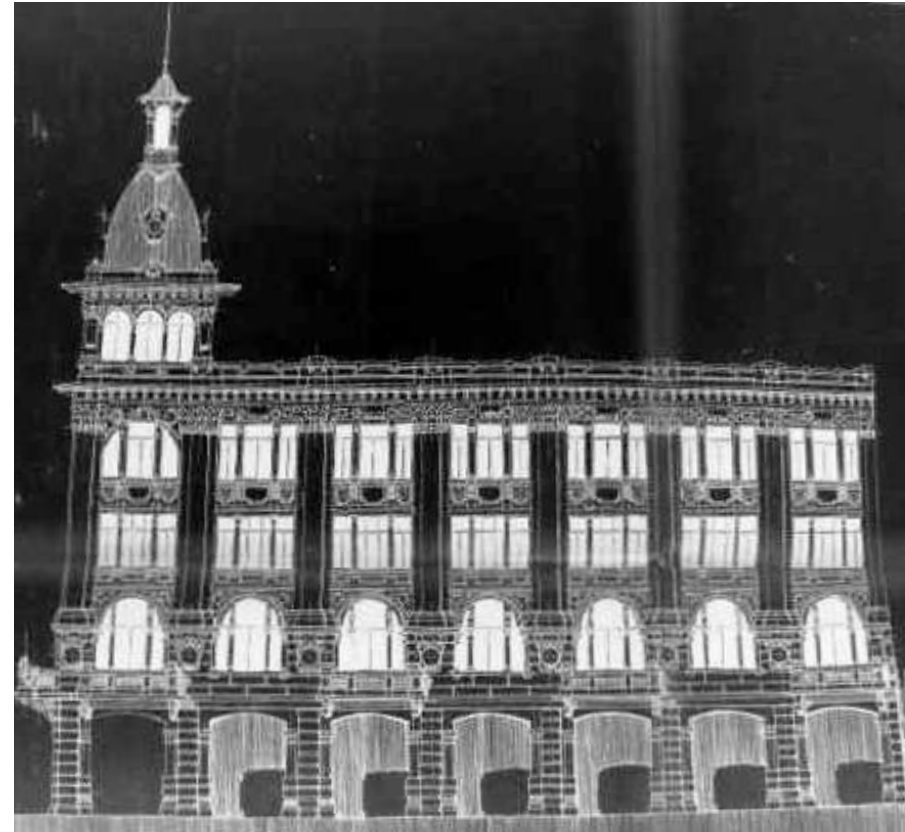


Through simple design, this corner-building engages with the public realm through a continuous soportal running along its two façades.

GUAYAQUIL, ECUADOR

GALLERY OF DRAWINGS: GUAYAQUIL HISTORY

These examples of traditional buildings all follow the rules of middle, base, and top, vertical alignment, and simplicity of proportion and design. Though all are bound by these rules, each has character of its own, exemplifying the harmony and rich diversity that can come from a limited syntax.



GUAYAQUIL, ECUADOR

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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

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BATAN ARCHITECTURAL GUIDELINES
GUAYAQUIL, ECUADOR

Zaxiony S.A.

THE BATAN CHALLENGE

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