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Reclaiming Vieques

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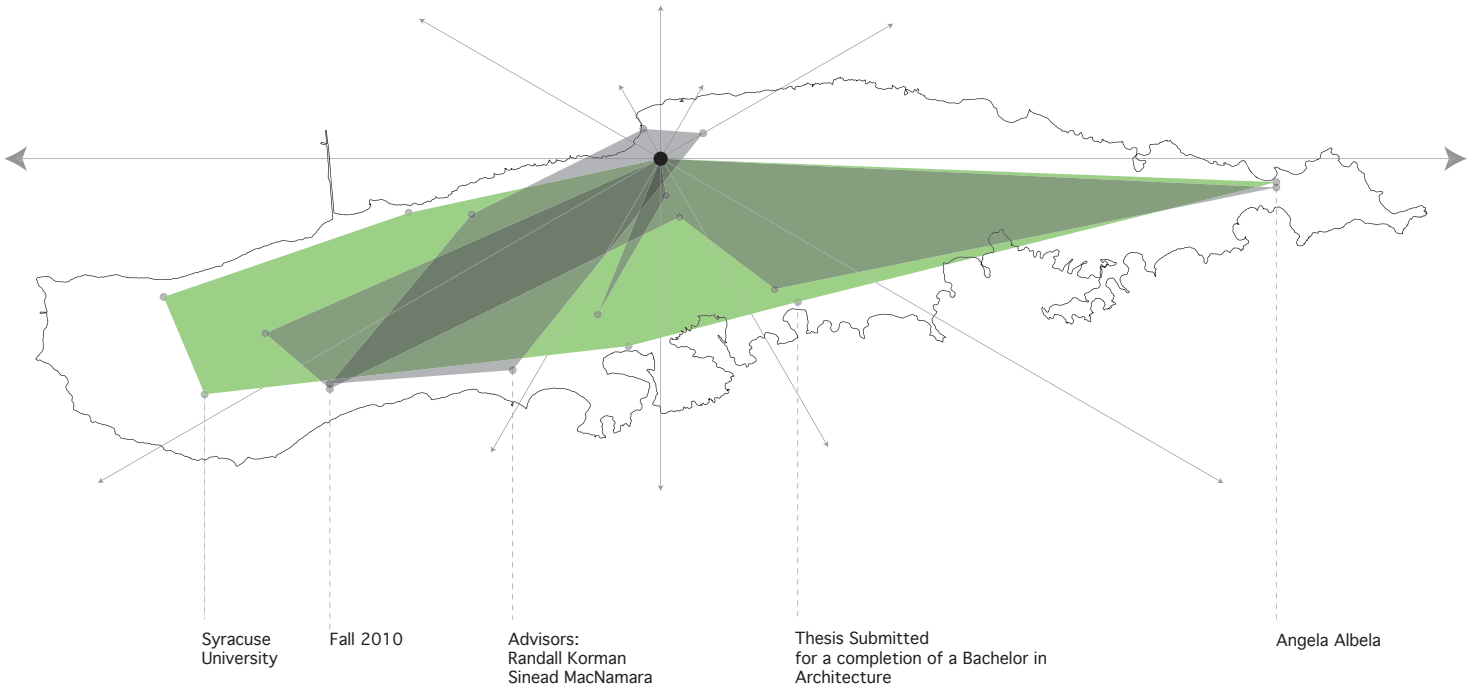
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R E C L A I M I N G
V I E Q U E S



Architecture, as any other form of art, manifests the sensuality, the emotions, the repressions, and the pleasures of a culture. It reflects the ways in which people relate to each other and to the world, the theatricality of everyday life, the ways in which we move around space, of looking and reflecting about what we are looking. The act of designing is a conscious struggle, it is not a spontaneous and intuitive of relating shapes and uses using the constructive technologies available. The process of designing relies on experience, in the tradition transmitted by the most talented and experienced, in the individual knowledge and accumulated collective. Architecture development of an ideal place should be framed in a wider context of relationships, influences and investigations of the past .

Quiles Rodriguez, Edwin R.; Influencias en el Desarrollo de la Arquitectura de los Balcones , La Ciudad de los Balcones.(Original Language: Spanish)

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At every instance, there is more than the eye can see, more than the ear could hear, a setting or view waiting to be explored. Nothing is experienced by itself, but always in relation to its surrounding, the sequences of events leading up to it, the memory of past experience.

-Kevin Lynch

Documentation is the basis for the study of history; without it, there would be no evidence of past events. This is how generations make their mark in history. Through documentation and objects that endure in our environment is how we manage not to forget history. This way we are participants in history and we can relate ourselves to it.

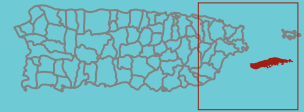
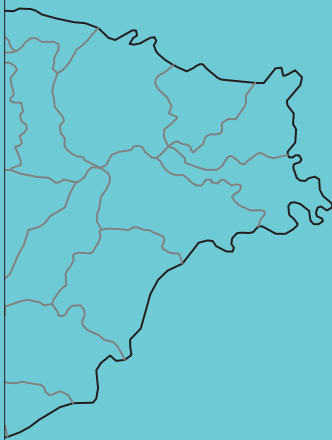
The fact that we should celebrate the history does not mean that we should forget the present. A way in which we could combine both is by considering the fact of historical layers and how, in this case, architecture could be the vessel to combine the old and the new.

There are some existent architectural models that provide designers with a set of guidelines. The one brought into consideration is the model based on palimpsest, defined as a manuscript or a piece of writing material on which the original writing has been effaced to make room for later writing but of which traces remain. In architectural terms, palimpsest allows for the building of architecture on a site that has historical value, creating space as a narrative approach to past and current events.

accumulated iterations of a design or a site, whether in literal layers or archeological remains, or by the figurative accumulation and reinforcement of design ideas over time. In other words, architecture would be the tool to manage the historical layers by means of its space in a specific site.

The final product, the building, would be a response to the physical and the historical context. By doing so, the building would engage in the experience of the visitor. A plan to achieve this goal is to contextualize all the historical layers on the exterior of the building, making it a visual statement from afar.

The physical environment at any point in history is the result of all the various events of the history of that place prior to that moment. It tends to manifest itself as a palimpsest of artifacts and mentifacts. It is my contention that architecture has the capacity to create a space of education and reflection about history. The objective of this process is to create an architecture that reclaims and presents the history that may have vanished.



Vieques represents the outcomes of a post-colonized territory, thus representing the layering of events that form a palimpsest of artifacts and mentifacts. Vieques is a small island located just a short six miles off the southeast coast of Puerto Rico. This island is filled with rich history, one that helped the development of the main island because it served as a defense mechanism from European conquerors in the 16th C. From this moment on, Vieques provided sugar to other Caribbean islands, became a tourist destination, and more than half a century ago the US Navy took over two thirds of the island to serve as a major training ground for ensuring combat readiness.

At all events, in retrospect I became preoccupied not only with the unaccustomed sense of freedom but also with the paralyzing horror that had come over me at various times when confronted with the traces of destruction, reaching far back into the past, that were evident in that remote place

-W.G. Sebald, *The Rings of Saturn*

The history in Vieques could be divided into three sections: the pre-columbine period, the period in which was dominated by the Spanish, and the dominance of the island by the Navy and its outcomes. Each of these periods has contributed towards the physical development of the island.

Thesis Discussion

Pre-Columbine Period

Spanish Reign

US's Colony

Vieques, Puerto Rico was inhabited by Native American peoples between 3000 and 2000 BC. The Igneri people originating from Venezuela, arrived around 200 BC and in 1000 AD merged with Hispanolia (Dominican Republic) and Cuban groups to form the Taíno culture.

In the 1600's the Spanish arrived and decimated the population by killing, imprisoning and enslaving the entire Taíno population. After a 300-year period of lawlessness, pirates and outlaws, Europeans fought for control of Vieques.

In the beginning of the 19thC, the Spanish secured and settled Vieques Island and in 1811 Puerto Rico began the annexation of Vieques. Vieques was formally annexed to Puerto Rico in 1854. Sugar Cane plantations dominated the island in the 19th C and many black immigrants arrived in Vieques to work on the plantations. Some were brought in as slaves and others as independent economic migrants.

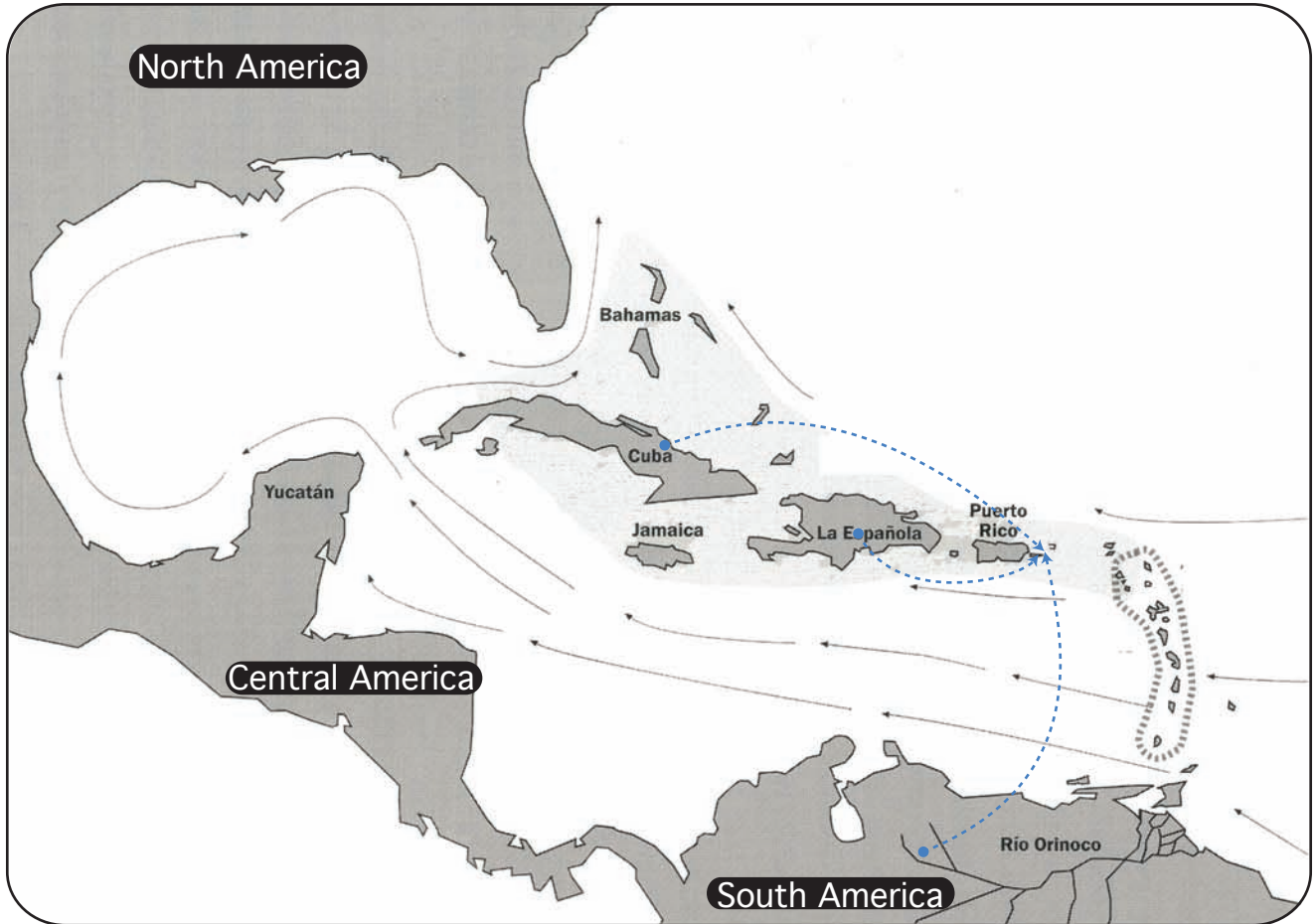
After the Spanish-American war in 1898, Puerto Rico and Vieques were ceded to the United States.

In 1940 the Navy considered Vieques as a possible practice area for combat readiness. In May 2003 the Navy withdrew from Vieques, and the land became a protected National Park Preserve, administered by the Fish and Wildlife Service. Today Vieques island is the Caribbean's largest national wildlife refuge, home to wild horses, sea turtles, migratory and resident bird populations.

3000 BC - 1600

1600 - 1898

1898 - Present





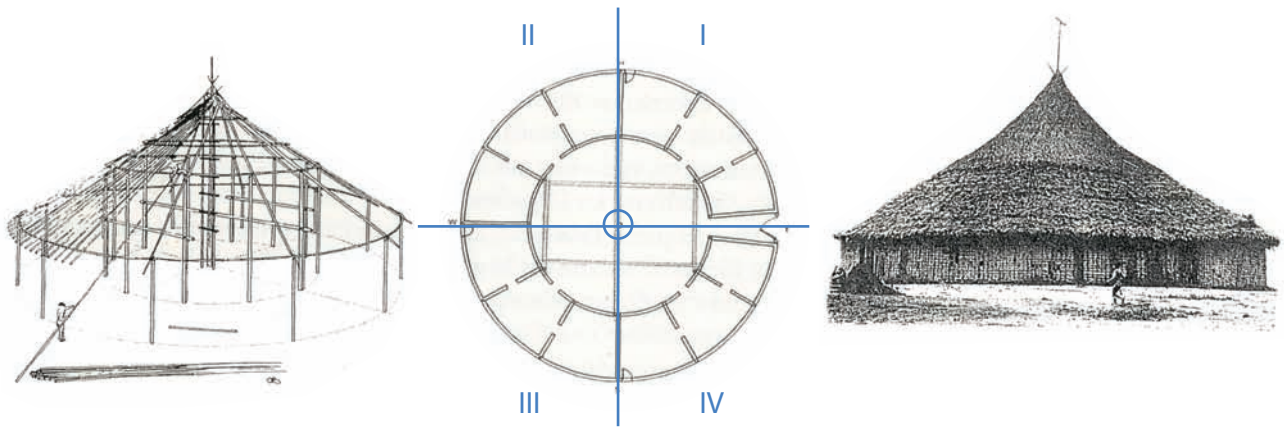
Between 3000 and 2000 BC Native American people already populated Vieques. Years later the Ta'nos became the known race that began the development in Vieques: socially, culturally, architecturally, etc. The Ta'nos are a mix of races between South American and Caribbean Natives. The Igneri people originating from Venezuela, arrived around 200BC and in 1000AD merged with Hispanolia (Dominican Republic) and Cuban groups to form the Ta'no culture.

The areito is the ritual where, by means of singing and dancing, the origins of their beliefs, the feats of the past, the commanders genealogy, the good and the bad times, and the history were remembered and we transmitted from generation to generation. The significance of this ritual is that it was the moment where the real and the imaginary blended and became an ideal reality, something that helped towards the development of their communities.

By means of these rituals the Ta'nos communicated with the gods, by reciting the myths along the rhythms of the cosmos. Through this communication between the earth and the higher-powers the Ta'nos narrated the events of the creation of humanity, the sun, and the moon. While receiving this inspiration is when they received the influence to design and organized their spaces within the community.

Thus, the ritual recitation of myths areito was revived as the time of the origins, is recreating the primordial era of gods and heroes, that is, he turned to sacred time. The repetition of the sacred time that had to be made into a sacred space; the whereabouts where heaven, earth and underworld converged. This ceremonial space was the batey, the central plaza of the village .

This quote was translated from the Spanish to the English language. The original text was taken out of the book by Sebastián Robioun Lamarche; pages 95-96.



A single totem, representing the nucleus of the town, the plaza, identified this sacred space. The totem was the center point between the streets that were design in form of a cross, which divided the plaza in four sides, representing the symbolic and social regulations. The streets became a projection out of that center symbol, the totem.

Now that the sacred public place has been settled, other matters evolved out of the rituals celebrated in this public place:

- The hierarchy of the spaces was decided between the four spaces created by the intersection of the streets.
- The living arrangements were a reflection of the cosmology.
 - Ta'no Geomancy: practice of selecting magically a place in harmony with the cosmic forces of nature .
- The circular shape of the shelters (bohíos) idealized the course of the stars
- Entrance to the bohíos: placed on the east, towards sunrise
- The central pole: sacred center that connects the three levels of the universe, while the roof would represent the sky

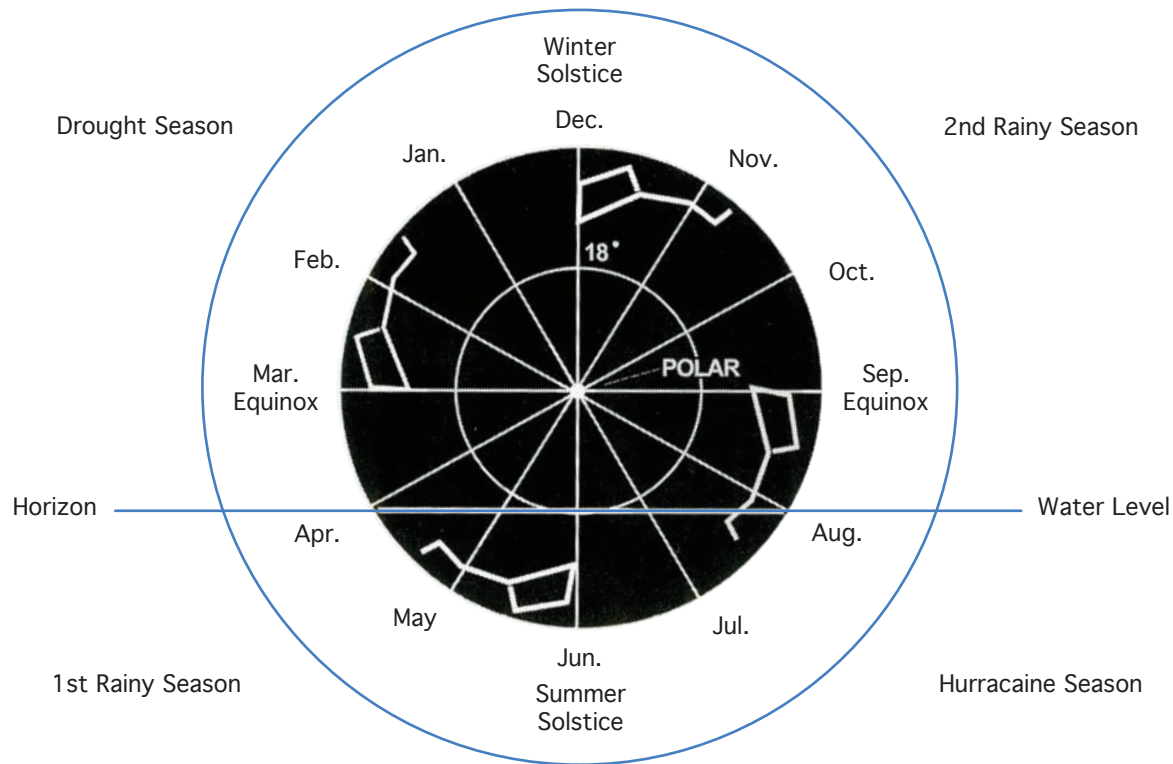
The basic dwelling of the Ta'nos was the boh'o, described as a hut of primitive design providing the essential living needs. One of the basic design principles found within the boh'o is the provision of shelter for the specific climate condition found on the island of Vieques. The techniques used during the design process created a model that was used for the next 500 years.

The materiality in which the boh'os were made depended on the resources the Ta'nos had available, which basically consisted of the flora found on the Island. A common plant found within the Caribbean landscape is the Royal Palm (*Roystonea regia*), which was used as the principal material that formed the traditional boh'o.

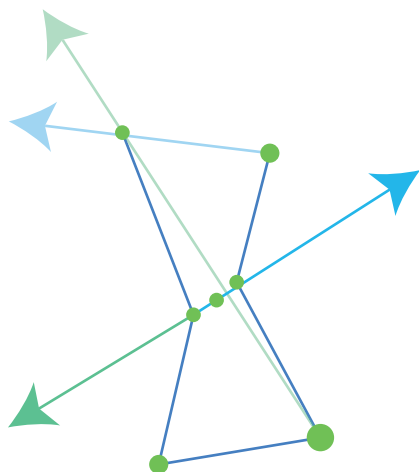
Primitive boh'os were initially rounded huts formed of posts, with either woven walls or walls made of reeds or straight sticks, lashed or sewn together between the posts. The roofs were conical, formed of palm frond thatch or reeds. As it evolved, the basic design of the indigenous houses resembled the traditional tent shape. A rude ridge framework was initially constructed out of strips of the palm s trunk, a dense, fibrous material which has enormously supple qualities. Open at both ends, this framework was thatched with the palm fronds. The triangular open ends of the tent-shaped hut were then filled with walls made from strips of the yaguas, the thick palm frond bases, which are elastic and waterproof. These were woven together with lengths of fibre, stripped from the centre of the palm frond and from strips of the palm s bark. The front wall of the boh'o included a doorway which could be closed with a square frame made in the same way as the walls (Gravatte 7).

The climate in Vieques, Puerto Rico is tropical, consequently the boh'os needed to provide with shade for the sun, shelter for the rain, and resistance against the heavy winds from the hurricanes. So perfectly adapted to the Caribbean climate was the design of the Amerindian boh'o and the materials from which the primitive structure was made, that, many years after the indigenous population had been exterminated, the boh'o remained a feature of the landscape of the Greater Antilles.

The Royal Palm has a straight silvery trunk which can grow to 100 ft, culminating in an exuberant burst of green fronds, or pencas, which sprout with every new moon from their thick green bases, known as yaguas. The palm s trunk was found to be resistant to insect attack and rotting, yet was easy to carve and shape.



Matutinal cycle of the Great Bear around the polestar, a possible Antillean seasonal calendar.



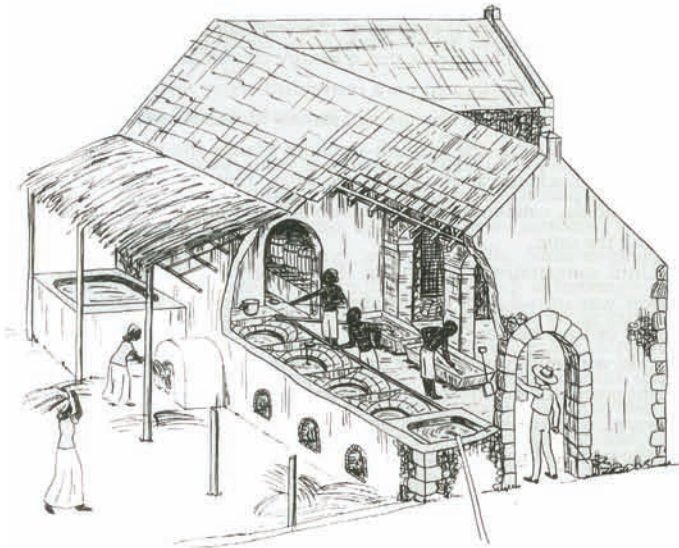
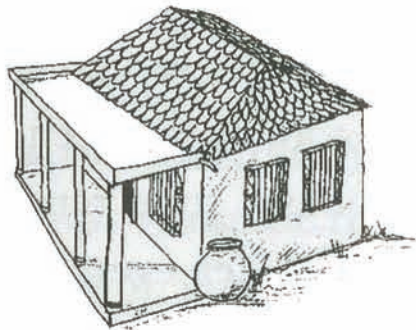
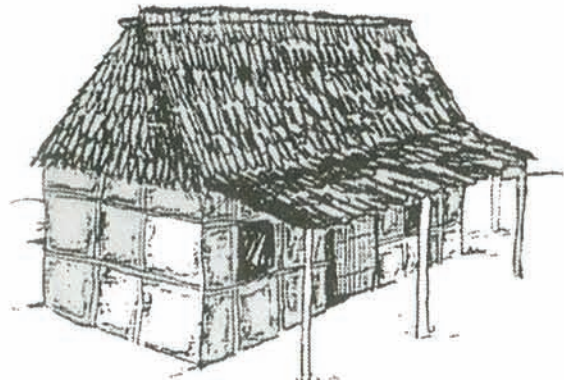
Orion: is a very useful as an aid to locating other stars. By extending the line of the Belt southeastward, Sirius (α CMa) can be found; northwestward, Aldebaran (α Tau). A line eastward across the two shoulders indicates the direction of Procyon (α CMi). A line from Rigel through Betelgeuse points to Castor and Pollux (α Gem and β Gem). Additionally, Rigel is part of the Winter Circle. Sirius and Procyon, which may be located from Orion by tracing lines, also are points in both the Winter Triangle and the Circle.

A historian, Aurelio Tió, has stated that Vieques was the first Puerto Rican land Christopher Columbus discovered after travelling through the known Virgin Islands, this goes back to 1492. At this moment the Spanish were invading the Taíno domination of the island, taking over their 'government', agriculture, civilians, and architecture. All of these elements influenced one another, as we can see through the study and analysis of a case study; then several local colonial-style buildings would be presented.

The settlers that came on that first voyage were used to their regional house styles, which all differed according to the local climate. Since the climate from Vieques differs to that of Europe, the settlers were faced with an 'architectural challenge', which focused on deciding whether the 'new' architecture would follow the model of their villages in Spain or would adapt to the vernacular found in Vieques. At this moment in history what mattered the most was the availability of resources, which were very scarce. Therefore the construction of their new living quarters were still made out of palm leaves and grass, what they did was to adapt the traditional Amerindian bohío to their own designs.

As the Spanish were more used to houses with walls, they first embedded four corner posts in the planned rectangle of their house. Four walls were then constructed between these corner posts in the same way, and of the same material, as that which the Amerindians had used to construct the walls of their bohíos. A framework of lathes made from strips of the Royal Palm trunk was erected above the walls, with sides sloping outwards from a central ridge. From the ridge downwards, the palm fronds or pencas provided an excellent thatch, proven over centuries by the Amerindians. The ridge was then neatly finished by interweaving with fibres from the center of the palm's pencas. A doorway was naturally left in one side of the oblong bohío and a door fitted which hinged on loops made from the same material" (Gravette 10).

This was the first Spanish adaptation of the bohío; from here on changes kept on being made on the original model. After being changed from a circular shape, it was design with a rectangular shape, after reaching this shape it was when the settlers found a need for expansion, hence the addition of a verandah or porch to the front of the structure, giving shelter above the doorway and single window, if any.



Referring to the European influence on the island of Vieques, a common practice was the building of the main towns around a military or religious centre, with the administrative buildings ranged around a square or plaza. In Vieques these factors could be found throughout the whole island, starting with the main plaza in Isabel II (the main town), which would be studied in the upcoming sections of this book.

“Two letters by Don Diego to his Majesty Philip II as early as August 1519 mention the existence of this construction and that gold was being forged there”.
http://www.cuba-junky.com/santiago-de-cuba/santiago_de_cuba_to_do.htm

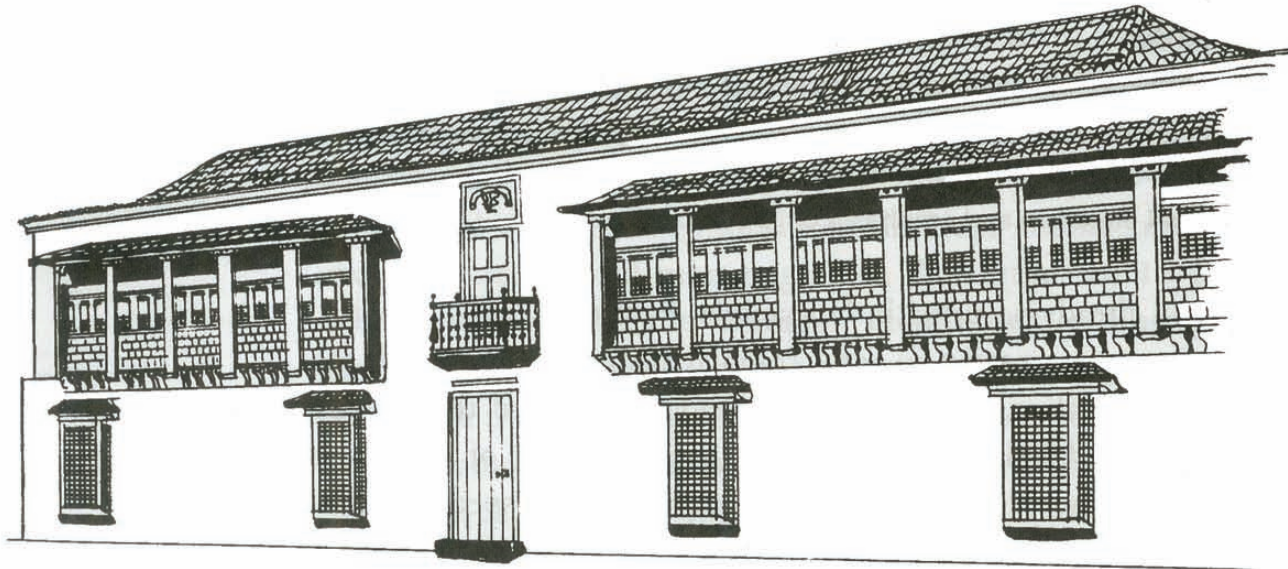
As time passed, materials were changing; for example: from pencas, grass, and mud to wood, tiles, and stones. The materials in the architecture of these times were shifting along with the European mode of time, in other words there was always present an architectural dialogue between Spain and, in this case, Vieques, Puerto Rico.

The Spanish architecture provided Puerto Rico, not just Vieques, with an architectural organization plan that was adapted to those buildings/houses designed during the colonial period of the island. It all evolved out of the centre of the design, focusing on the hierarchy of the spaces provided in the building.

The issue of organization went hand-in-hand with what the climate demanded. Having a tropical, hence warm climate, as it is the case of Vieques, the proper ventilation was needed. Thus, shade and shelter became a priority.

The Velázquez house in Cuba (another island colonized by Spain) was studied in order to explain the specific layout of the architecture influenced by Spain.

- Courtyard in the center of the structure
- Wide verandah
- Cloister-like roofing overhangs
- Balcony running on the exterior and interior
- Hardwood supports
- Wide doors, letting ventilation run through the entire building
- High windows on the exterior
- Deep long windows around upper storey
- Wooden fretwork screens
- Double-hinged full or half-doors, allowing privacy but encouraged refreshing breezes
- Pitched and tiled roofs
- Rooms were airy, with high ceilings and huge doors
- Highly ornamented interiors
- Hardwood ceilings
- Great cedar beams
- Carved embellishments
- Finely paneled doors
- And in some cases:
 - Buildings constructed within large gateways
 - Closed by big and heavy doors



“The house has a notable Moorish influence, with a wonderful carved cedar ceiling (most of which had to be reconstructed after a fire). The top floor was the living quarters; the ground floor was the commercial part of the house, where Velázquez maintained offices and horse carriages were kept. The majority of the house's elaborate frescoes have been supplemented by very amateurish reproductions, a real sin against the authenticity that is so apparent elsewhere. The museum aims to depict the varied styles and epochs of colonial life, seen through period furnishings from the 16th to the 19th century.”

<http://www.nilegui.de.com/destination/santiago-de-cuba-things-to-do/casa-velazquez-museo-de-ambiente-colonial-cubano/9927>
29

Antepecho

Half height window screens used especially when a window looks out directly onto the sidewalk. Made out of ornamental wrought iron and often-built flush with the walls. They are usually quite decorative, and the screens offer protection as well as access to light and air.

Balcony

An outside platform fitted to the wall of a house, sometimes known as a gallery or loggia. It is often open and balustraded and is accessed either from the upper floor through a window, or by means of a stairway from the ground floor.

Barrotes

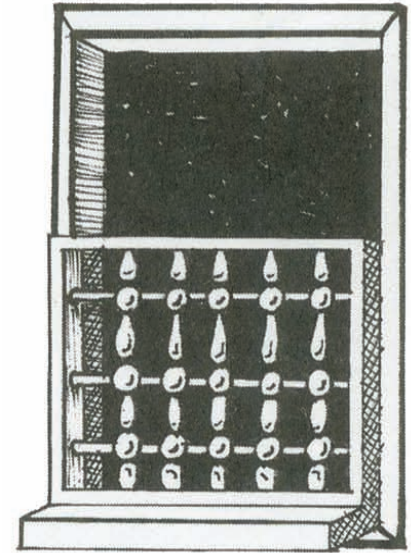
Window screens, which protect the window openings from the street, were sometimes fashioned out of beautifully turned decorative hardwood rods known as barrotes. These not only offered protection, but allowed air and light into the room. Later, these were made from wrought iron and became known as rejas.

Ceilings

The most dramatic internal feature of Spain's colonial construction was the use of the Mudéjar, or Moorish, style of ceiling. This usually involved the use of precious woods, like teak, or cedar. Huge beams supported the upper floor, and the spaces between were wood-clad, forming square panels.

Courtyards

Most early Spanish colonial buildings were constructed with a large gateway, closed by huge, heavy doors, through which the occupier could drive his carriage directly into the courtyard. In order to increase the amount of shade in the cobbled or paved courtyard, trees were often planted in strategic positions. A well often featured in the courtyard, surmounted by an elaborate wrought-iron arch from which a pulley and the well bucket would be suspended.





The Entresuelo

Occasionally in some grander Spanish buildings external windows or openings were constructed between two floors, letting light into a storeroom or into the servants' quarters. This device was known as the entresuelo (literally, between floors) or mezzanine window. This opening enabled goods to be passed into the storeroom or out onto the street without using the main doorways, but it was to be too small for a person to pass through.

Gables

The triangular part of the end walls of a building with a pitched or ridged roof is known as the gable. These can be simple or ornate.

Jalousie, or Louvre

This is the name for the slatted wooden shutter or blind, which, when opened, admits air and light but not rain. It can be seen in use over window openings, covering postigo openings, sometimes covering the doorway to a balcony or a verandah, in gables and in roof lanterns.

The Patio

This is the classic feature of the traditional Spanish colonial home, adapted from the Moorish style housing. It is generally the term for the central courtyard of a house, the main meeting area, often shaded with trees, and decorated with flowering plants and the site of the well or water butt. Patios vary in size depending on the design of the house, mansion or palace.

Persianas

From the inside of a house, removable wooden slats, or Venetian blinds often control the light from the windows and open doorways. In Spanish architecture these are called persianas, possible relating to the Arab origins of regulating light and air in a room. They also ensure privacy while allowing the occupant to see outside.

Porch

This is the name for the ubiquitous covered approach to a building, synonymous with most urban and rural Caribbean housing design. It is occasionally railed in, sometimes raised above the ground, with a planking floor.

Portales

Columned, covered walkways and arcades extending the length of the house frontage, which were a popular feature of colonial architecture, are known in Spanish as portales. Many of these can be seen in the grandiose palaces and early official residences on the plazas of the Spanish colonists' earliest town and cities.

Postigos

Spanish colonial architects adapted Moorish ideas by designing small, barred windows into door structures. These openings in the doors, which allowed the occupier to look out, items to be passed in or out, and cooling breezes to waft into the house interior, are known as postigos.

Rejas

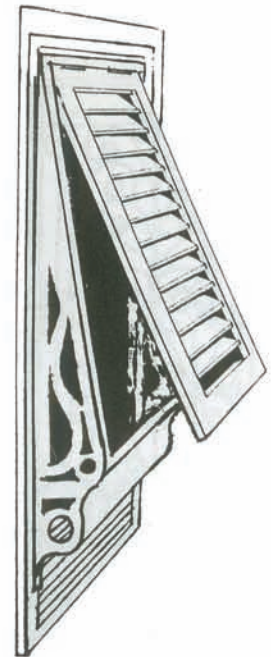
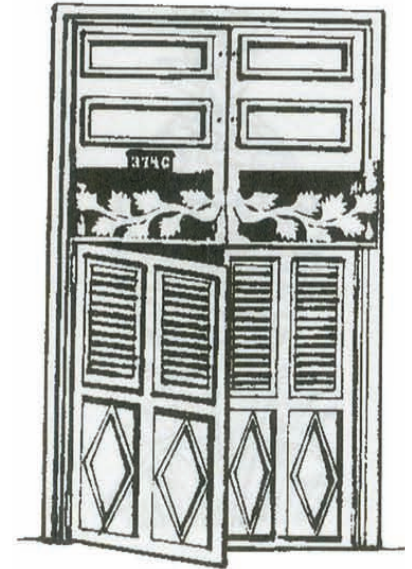
In Spanish colonial architecture, the windows of houses were often ornamented by protective, but decorative, wrought-iron window grilles or screens, known as rejas. These are like cages, which stand proud of the window or sometimes from the doorway, projecting out onto the sidewalk.

Roofs

The usual style is the pitched roof, with two sloping sides meeting at a ridge along the top. This forms a gable at each end. Other types are: hipped, lean-to, mansard, helm, cranked, and bracketed roofs.

Shutters

The most common is the storm shutter, a featureless heavy wooden shutter, usually side-hinged. Shutters can be either side-hinged or top-hinged.





Tiles

Red earthenware roofing tiles are a feature of many Spanish colonial houses. In very early times, these specially made interlocking tiles were imported from Spain.

The Verandah

The verandah is an open or usually railed portico or gallery, generally running along the front of a house, with a roof supported on posts, pillars or columns. As with the *balcón*, access usually comes from an upper room.

Wells

Before aqueducts brought water to Spain's colonial houses, wells were located in strategic parts of each town, as were water sprouts and fountains bringing natural spring water to the populace. In the villas of the wealthy, a well was the central feature of the courtyard or patio.

Lighting

Ornate metal gaslights and delicate iron railings add to the artistic ambiance of the colonial architecture. Decorative hanging lamps are a feature of the Spanish courtyard, as are metal torch-holders fixed to the walls which once held flaming brands to light the streets.

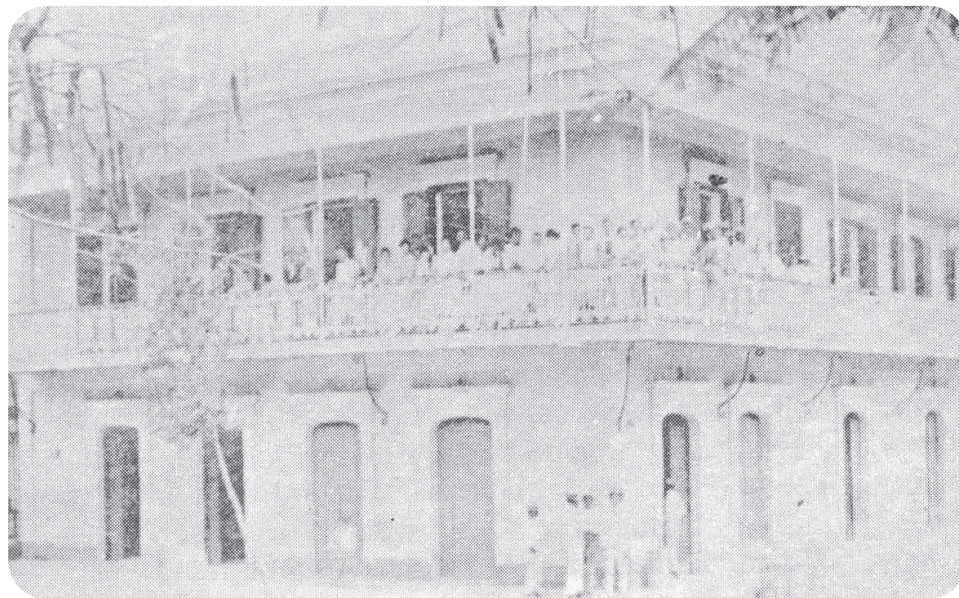


Catholic Church
Isabel II, Vieques



Catholic Church
Isabel II, Vieques
2010

Educational Building
Isabel II, Vieques
c. 1917



Educational Building
Isabel II, Vieques
2010



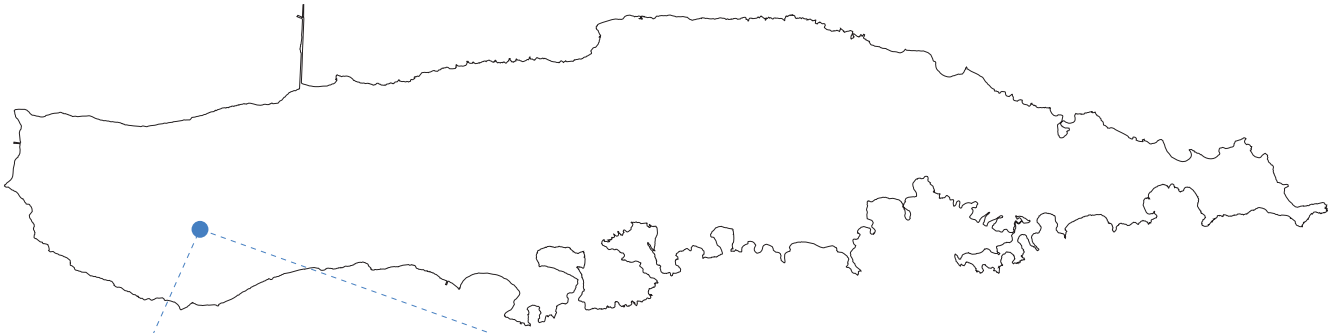
In May 2003 the Navy withdrew from Vieques, and the land became a protected National Park Preserve, administered by the U.S. Fish and Wildlife Service. Today Vieques Island is the Caribbean's largest national wildlife refuge, home to the wild horses, sea turtles, migratory and resident bird populations and other wildlife .

While the Navy occupied Vieques the only construction that was going on was that of the bunkers, which were used as ammunition storage of: artillery shells, bombs and bullets used in live-fire exercises on the East end of the island. The form and shape of these structures imitated that of the mountains that surrounded the area. Some are embedded within the mountains, while others are simply rectangular boxes erected from the earth. The bunkers do not represent any architectural language, simply comply with the necessities the navy had. In other words they were just functional, not representing any kind of beauty. Today, some of these structures are empty, others are being used by some of the federal government agencies working on the island, and recently one of the bunkers was converted into a restaurant/nightclub .

Architectural development started with the opening of the Vieques Martineau Bay Resort , which was the first self-contained tourist franchise on the island, which opened in 2003 (Arbona), the same year the final military practices took place.

After having studied and analyzed the Ta'no and Spanish influences on the island we could trace some of those common characteristics within the architectural language of the tourist complex.

Starting with the incorporation of the flora into the designs, the Wyndham Martineau Bay Resort used as a motif of decoration the image of the palm. Dan Nelson, the interior designer, composed a pattern that intertwined the palm and raffia to decorate the headboards in the hotel. The important fact is, that the use of the flora (in this case the palm) kept the illusion of paradise intact.



Map Of Vieques.



Bunkers. They served as ammunition storage. These bunkers are covered with local flora.



Bunkers back view. This represents how these structures are blended in between the landscape.

Vieques is a paradox. The Navy's 60-year occupation has left the island largely undeveloped and free of the commercialism common to other parts of the Caribbean. But the pollution the military left behind may imperil paradise. Even so, apart from the likelihood of nasty sunburn, a short-term tourist faces little health risks, say experts. And the lack of development means that the visitor has naught to do but bike, hike, kayak, ride horses, and honor the island's painful past by enjoying its hard-won peace and charm

-Shane DuBow,
Smithsonian

Looking at the images from the resort, we could deduce which are the elements from the past brought to live through the design of this resort:

- Pitched roofs
- Balconies, all around
- Open/Airy structures
- High ceilings
- Consideration of the local flora
- Providing shade against the sun
- Community of cabins
- As the Ta'nos had a community of boh'os

The opening of this hotel alarmed the residents of Vieques since it represented the first monumental change on the Island. A resident once said that as far as future developments, [the resort] will set the stage.

The development situation in Vieques represents a paradox; on whether it was convenient or not that the Navy left the Island. On one side the military practices that the Navy celebrated in Vieques harmed the island in such ways that a great mass of land is still contaminated by the chemicals the bombs carried.

The real nature of the island is today concealed by a carefully constructed camouflage. Official sources promote the island's landscape as representing untouched nature, preserved from development by its former military use. But the island had a long history of [] use before the military took it over, and today's supposed natural areas hide high levels of toxic contamination (Arbona).

[The] Department of the Interior created, arguably as a kind of absolution for earlier governmental policies, the largest fish and wildlife refuge in the Caribbean, all of it on a single island. One important, and positive, legacy this leaves for Vieques is that development will be kept severely limited and perpetually in check.

The resort has been, so far, the biggest development project that has happened on the Vieques Island. Smaller projects, such as houses, have been designed and constructed, located outside of the main towns of Esperanza and Isabel II. Carlos Betancourt, a Puerto Rican architect, won an honor prize for his design of 'Casa Mirador'. His design led judges to the conclusion that he conquered the interesting views from atop the house. The shape of the buildings is what let Betancourt achieve this goal, since the mass of the house is vertically. High ceilings and ventilation were also an integral part of the design.



Martineau Bay
Resort & Spa.
Vieques, PR.
Now replaced by
the W Retreat and
Spa; currently using
the same
installations.



Casa Mirador.
Vieques, PR.
Carlos Betancourt.
2009.

Left:
Visible underwater
UXOs



Right:
Cleaning process.
Locating and
disposing of the
found ammunition.



Left:
Amphibious ramps
into the beach.



Right:
Crater formed by
the bombing
practices.

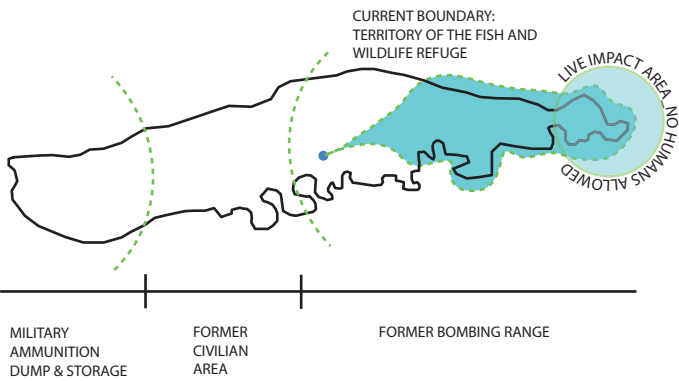




Left:
Empty bomb
shell.



Right:
Amphibious
ramps into the
beach.

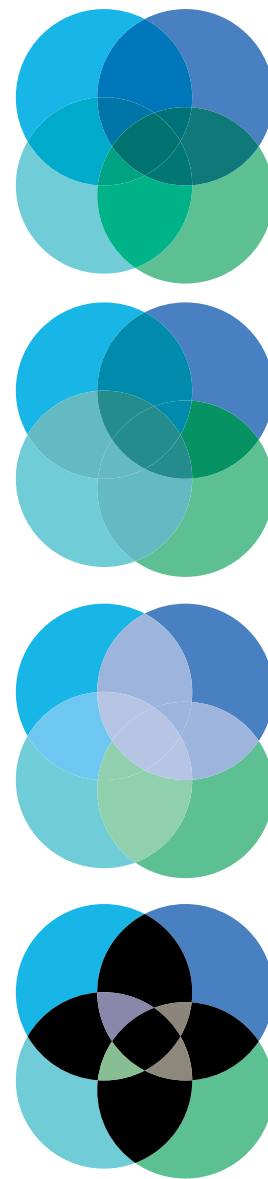
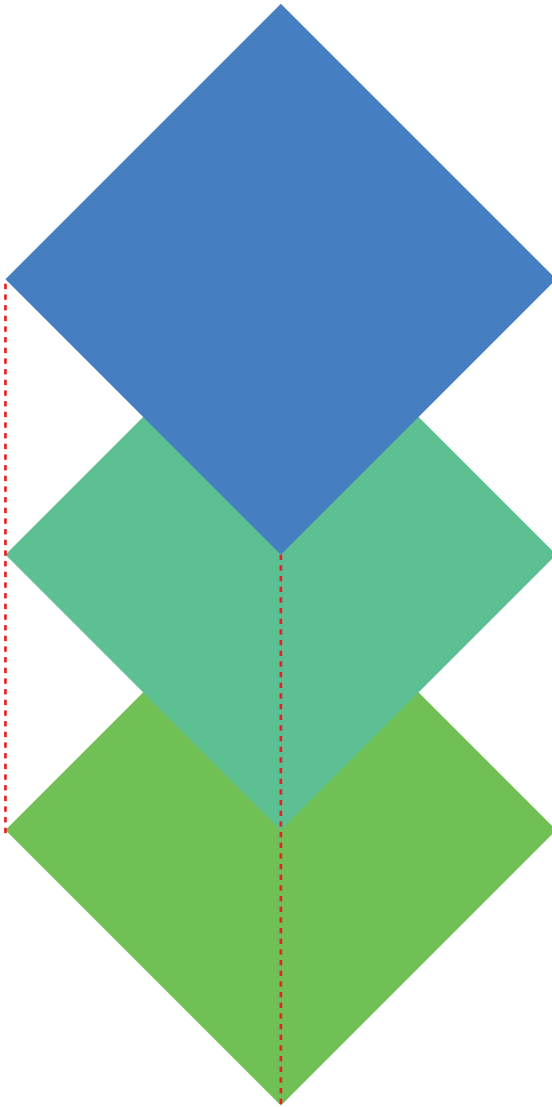


Right:
View from the
water. Former
Navy bombing
range.

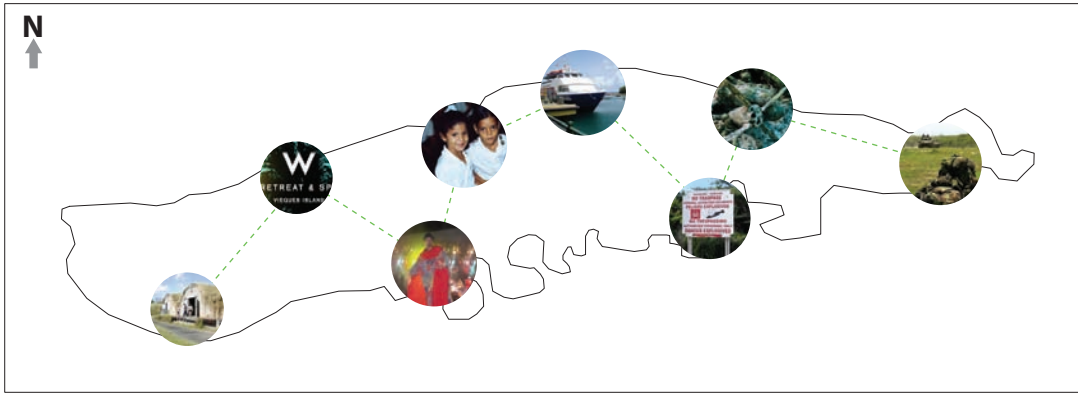
“THE NETWORK OF LAYERS COMMUNICATES THE SHARING OF PHYSICAL, CULTURAL, AND INTELLECTUAL KNOWLEDGE OF PLACE AND CONTEXT TO ALLOW FOR THE TOTAL CIRCUMSTANCES TO GAIN UNDERSTANDING AND MEANING

lpa-limp-sestl
a manuscript or piece of writing material on which the original writing has been effaced to make room for later writing but of which traces remain.

The circular diagram represents all the historical layers in Vieques trying to find common grounds within each other.



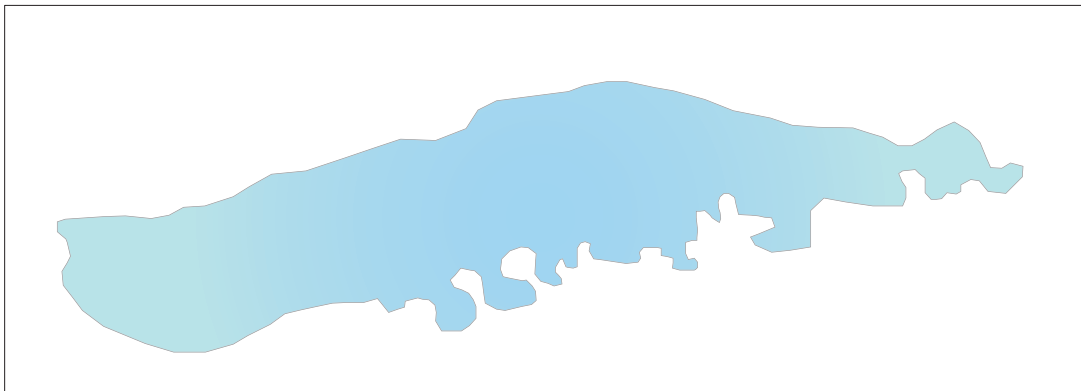
The study and analysis of the history of Vieques, through the lens of architecture, is the vessel to design a space for the education and reflection of the past. To achieve this goal all the historical layers will be juxtaposed, as an architectural palimpsest. By doing so, the architecture itself would reclaim and present the history that may have vanished.



Connecting all the artifacts, through history, within the Vieques context.



Once located and studied, the artifacts have created a division in the physical and the psychological realm within the local civilians.



Vieques as a united site through the presentation of history by means of the contextualization of its history.

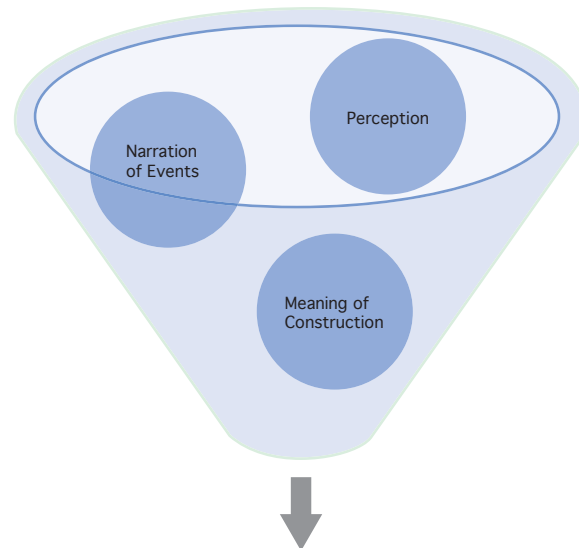
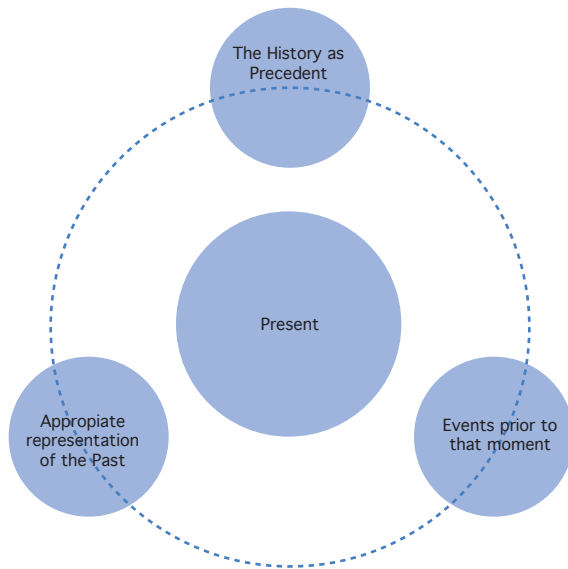
The Architecture of the past in the present thus is not an issue of inheritance. Instead it is a symbolic act that helps construct a collective of desire for a new time at the moment of crisis.



Particular form of architectural expression that prevailed in the past



Remain powerful in the present (Palimpsest)



Architecture ---> Conditions that form our Existence

1950



c. 1890



1718



2010



16. Total Expropriation by the Navy (1941-1952)
15. Expropriation by the Navy (1950)
14. Expropriation by the Navy (Feb/24/1943)
13. Expropriation by the Navy (Feb/5/1943)
12. Expropriation by the Navy (June1942)
11. Expropriation by the Navy (May 1942)
10. Expropriation by the Navy (Feb. 1942)
9. First expropriation by the Navy (1941)
8. Principal farms (c. 1923)
7. Vieques, its towns and neighborhoods.
6. Conservation Zones
5. Conservation Zones
4. Conservation Zones
3. Natural Resources
2. Hydrology
1. Highest points and streets on the island of Vieques.

From map 1 to map 8, the documentation of the Vieques Island is shown. Maps 9 to 16 show the expropriation of land through out the years. The documentation and the history of geographical boundaries are intertwined (as seen through the background diagram).

Program

Because of the role public space plays as a catalyst for urban development and in the quality of civic life, how these palliative spaces are treated is ultimately a reflection of our culture

Hales, Linda.
"Landscape Architects Stake Their Reclaim (washingtonpost.com)." Washington Post - Politics, National, World & D.C. Area News and Headlines - Washingtonpost.com. Washington Post, 26 Mar. 2005. Web. 04 Dec. 2010.
<<http://www.washingtonpost.com/wp-dyn/articles/A2301--2005Mar25.html>>.

"CONNECTIONS IN ARCHITECTURE AND URBAN DESIGN | RUDI - Resource for Urban Design Information." RUDI - Resource for Urban Design Information. Web. 01 Dec. 2010.
<<http://www.rudi.net/books/4701>>.

The physical environment at any point in history is the result of all the various events of the history of that place prior to that moment. It tends to manifest itself as a palimpsest of artifacts and mentifacts. It is my contention that architecture has the capacity to create a space of education and reflection about history. The objective of this process is to create an architecture that reclaims and presents the history that may have vanished.

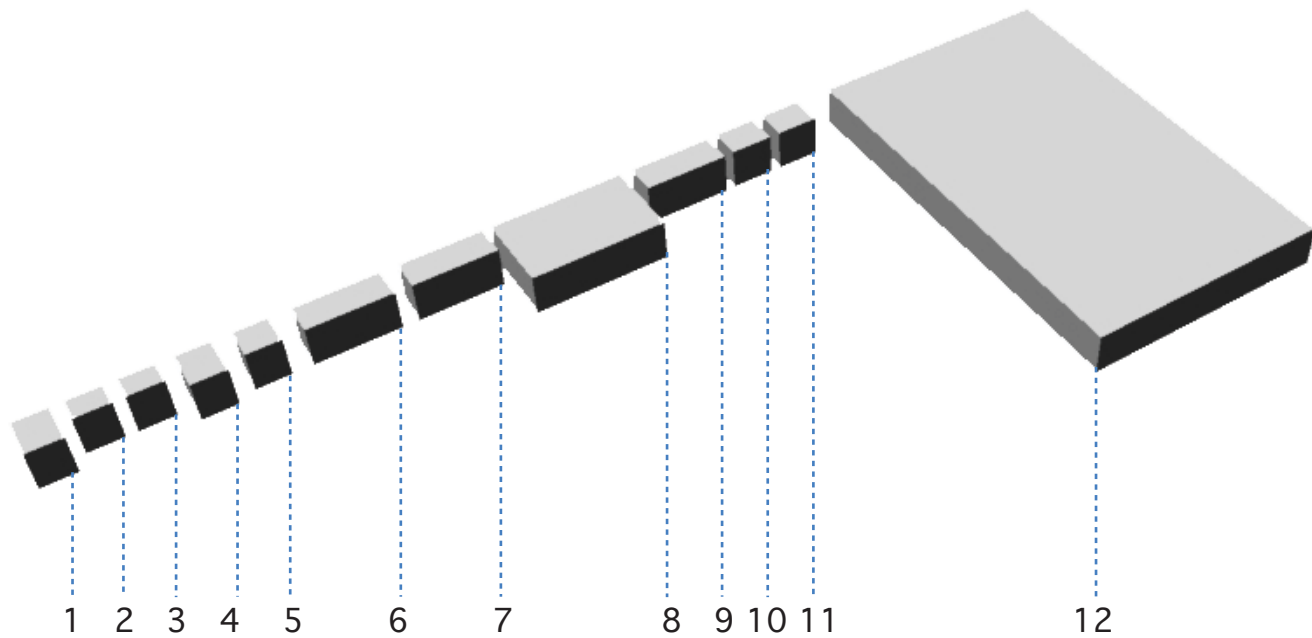
Following the contention of this thesis, the proposed program would aim to create a network of physical elements that relates to each other by means of the history of Vieques and its natural resources. The network of sites would be linked to the nucleus, the main site; which was chosen due to the history it represents through its built form.

The Vieques Fort is would be the main site; currently is a museum with limited exhibition area. In order to reclaim and present the history that has vanished, the intention is to extend the museum with more exhibition areas. By doing so, the history of the island could be narrated.

Through the network of physical elements, the history of the island would be narrated by providing the users with a direct interaction with the physical environment, hence the network of sub-sites; fragments of history would be presented in each of the locations by means of a secondary program, depending on the events that occurred in that specific location.

visual connections are necessary for orientation, and for creating a coherent picture of an urban setting.

Every element in an urban setting has a meaning insofar as it relates to human activities. A complex process of organization connects the different nodes of the urban web.



1. Lobby/Entrance/Information Center: 500 sq ft
2. Pick-up/Drop-off Area: 300 sq ft
3. Bus/Shuttle Parking: 300 sq ft
4. Bathrooms/Lounge: 500 sq ft
5. Storage: 400 sq ft
6. Rental Shops: 1,000 sq ft
7. Activity Center: 1,000 sq ft
8. Exhibition Area: 4,000 sq ft
9. Offices: 1,000 sq ft
10. Photo Lab: 500 sq ft
11. Snack Bar: 500 sq ft
12. Open Gathering Area (Plaza): 38,000 sq ft



Dimensions for the photo lab were taken out of: Design considerations for Creating An Educational Photo Darkroom. Paul J. Sebastian, PE. <http://www.sebastiandarkroomprod.com/design-considerations.pdf>

Highlighted area is the location of the museum's extension.

- Cultural and Historical Enrichment
 - oGalleries
 - Permanent
 - Temporary
 - oMap Rooms
 - Storage
 - Display
 - oInformation and Visitor's Center
 - oMulti-Media Rooms
 - oStorage
 - Public Services
 - oEntry and Lobby
 - oGift Shop
 - oRestrooms
 - oFunction Room
- Building Staff Areas
 - oLunch/Lounge Area
 - oRestroom
 - oCuratorial Room

- Business and Meeting Facilities
 - oAdministration
 - oOffices
 - Historical Society
 - Neighborhood Associations
 - Board of Trustees
 - oConference Rooms
 - Large
 - Small
 - oMail/Copying Room
- Building Maintenance
 - oStorage/Utility Room
 - oService/Delivery Area
 - oElectrical/Mechanical Room
 - oTrash/Recycling Room
 - oCustodial Room



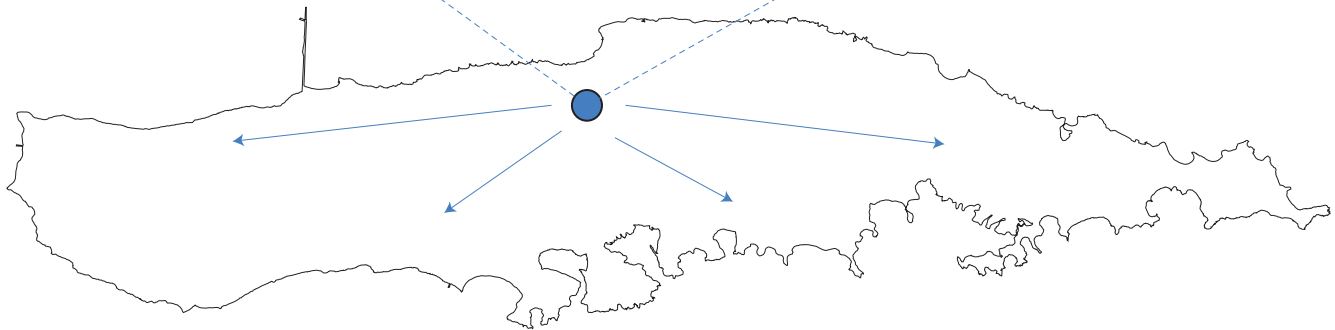
Site: Vieques, Puerto Rico



The selection of the site, for the contextualization of this thesis, was chosen by way of the study of the past, through the lens of architecture. The Vieques Fort represents one of the most influential architectural stages during the development of the island. It was erected in 1845; years after the Spanish first took over Vieques, thus it embodied the characteristics of Spanish Architecture, which is the model that is still visible throughout the Island.

By the selection of this site an architectural stage would be presented. The other stages would be intertwined, meaning that the ideas of the Ta'nos and the present architectural language would be adapted to the Spanish architecture of the Fort. By doing so, the building would be a tool for the visitors to engage with the islands history.

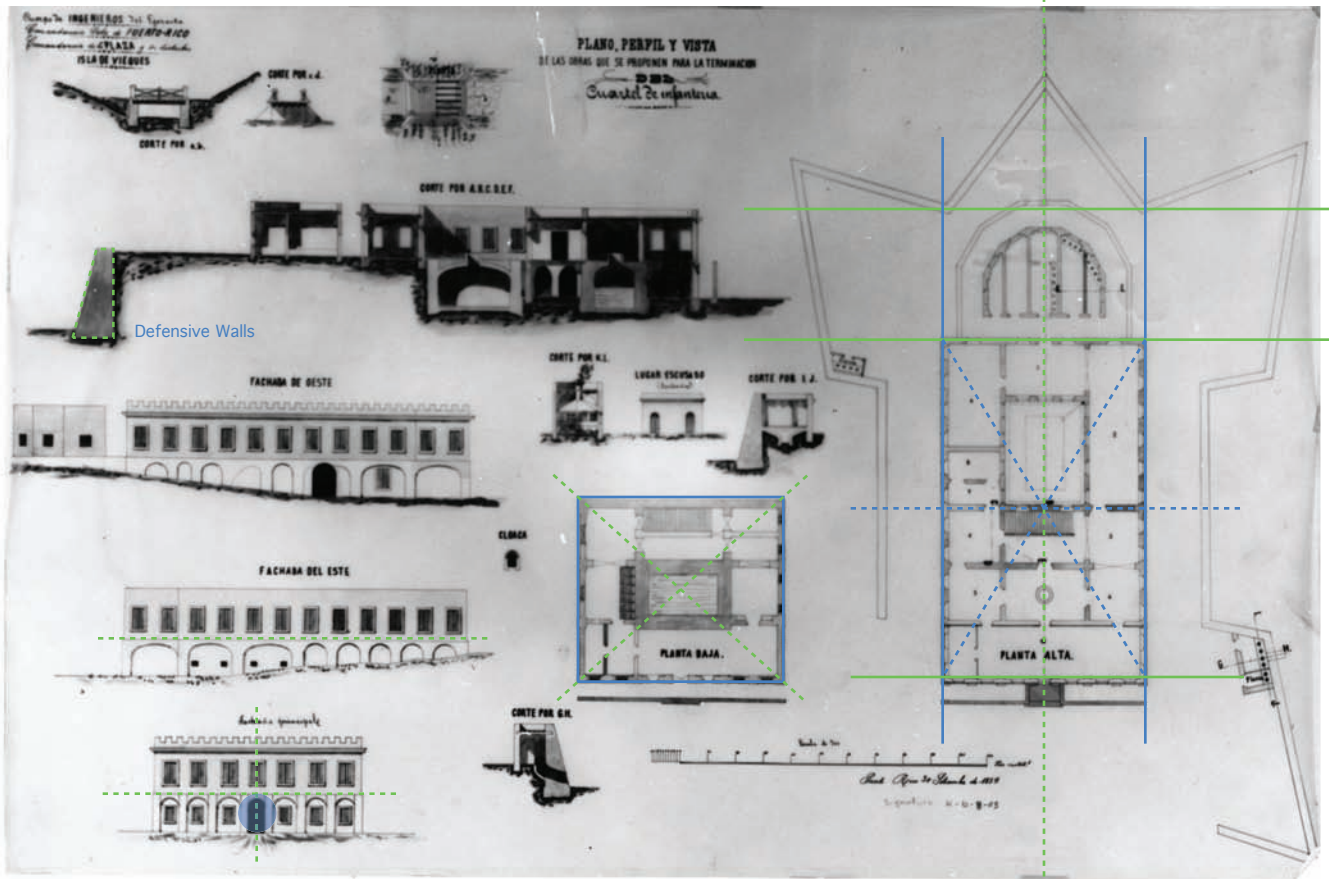
The Fort itself has gone through various architectural stages. First, it was constructed with the purpose of defending the island from European and South American conquerors; the canons were never used and the defensive walls were never finished because it was never used as an actual fort. After, the fort served as a jail for prisoners of war. Then the US took over the control of Vieques and the fort was considered a monument; years after it was converted into a museum. In 1992, the Culture Institute of Puerto Rico renovated the building maintaining the original structures. Taking this into consideration, the site where the fort is located represents an architectural palimpsest because this thesis contends to take the present history (fort) and blend it with the history that have vanished, such as the one from the Pre-Columbine period.

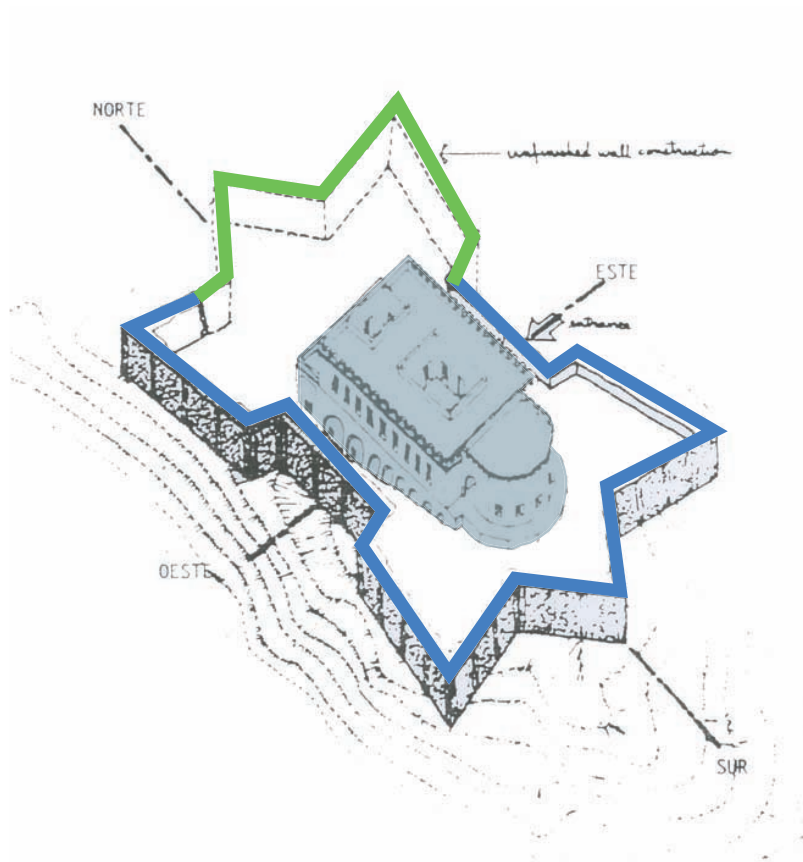


The challenge of this thesis is to reclaim the history by a contextualization into architecture, creating an engaging space between the user and the built environment. In order to achieve this goal, this thesis intends to expand the site, linking sub-sites to the main one, the nucleus. In these sub-sites a smaller scale version of the principal historical contextualization would take place.









Former Building:

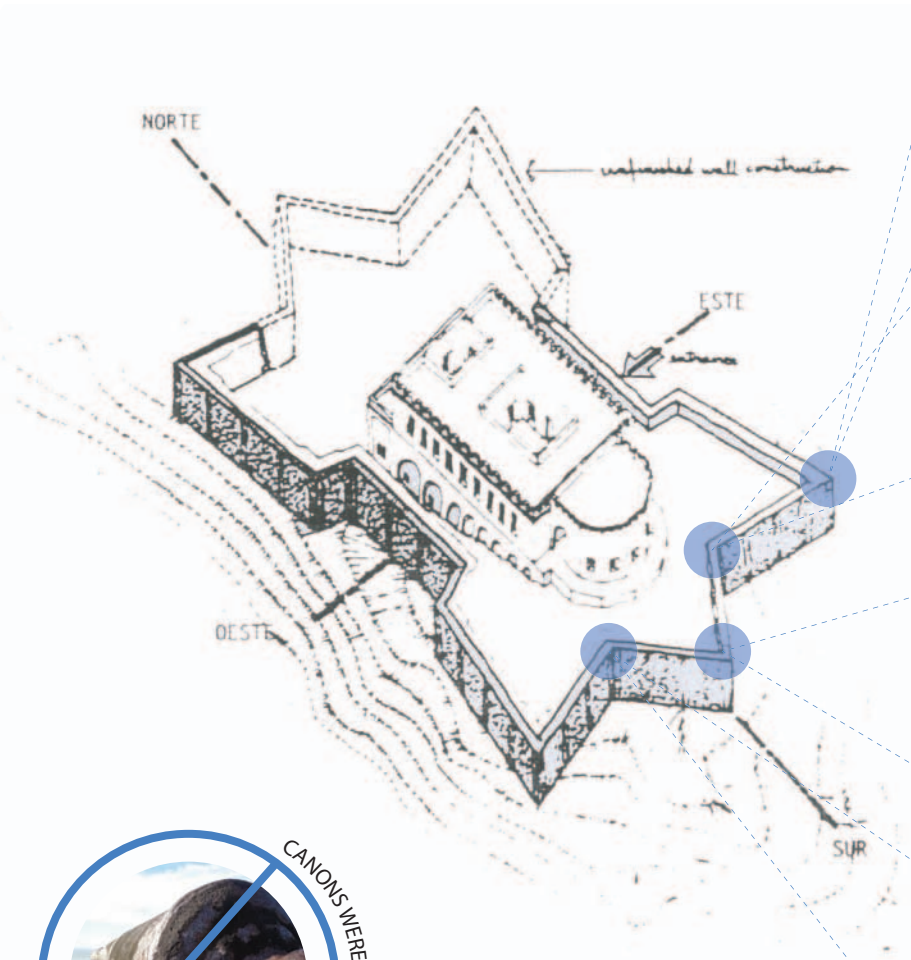
- to hold a group of 50 military men
- used as a prison, when the fort was not being used

Present Building:

- Museum
- Historic Archives

Due to budget management this area of the defensive walls was never completed.

The system is 150ft long and 70ft wide.





Top Left:
The defensive walls measure 30 - 36 wide at the top and 6 - 8 wide at the bottom.

Top Right:
Section of the defensive walls, when they stopped its construction.

Bottom Right:
The Building sits atop a hill, allowing for the visibility of Isabel II and the coast.

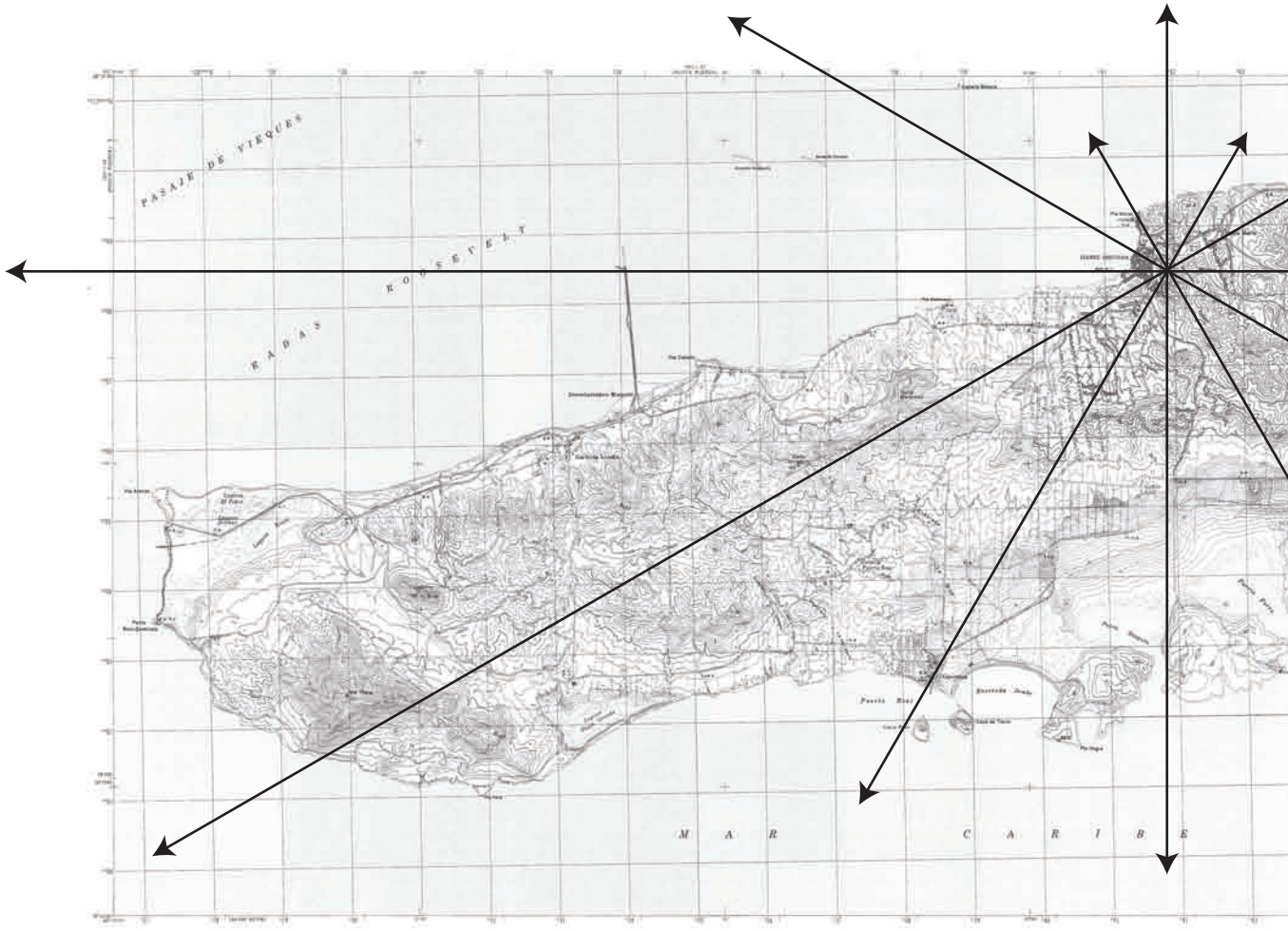


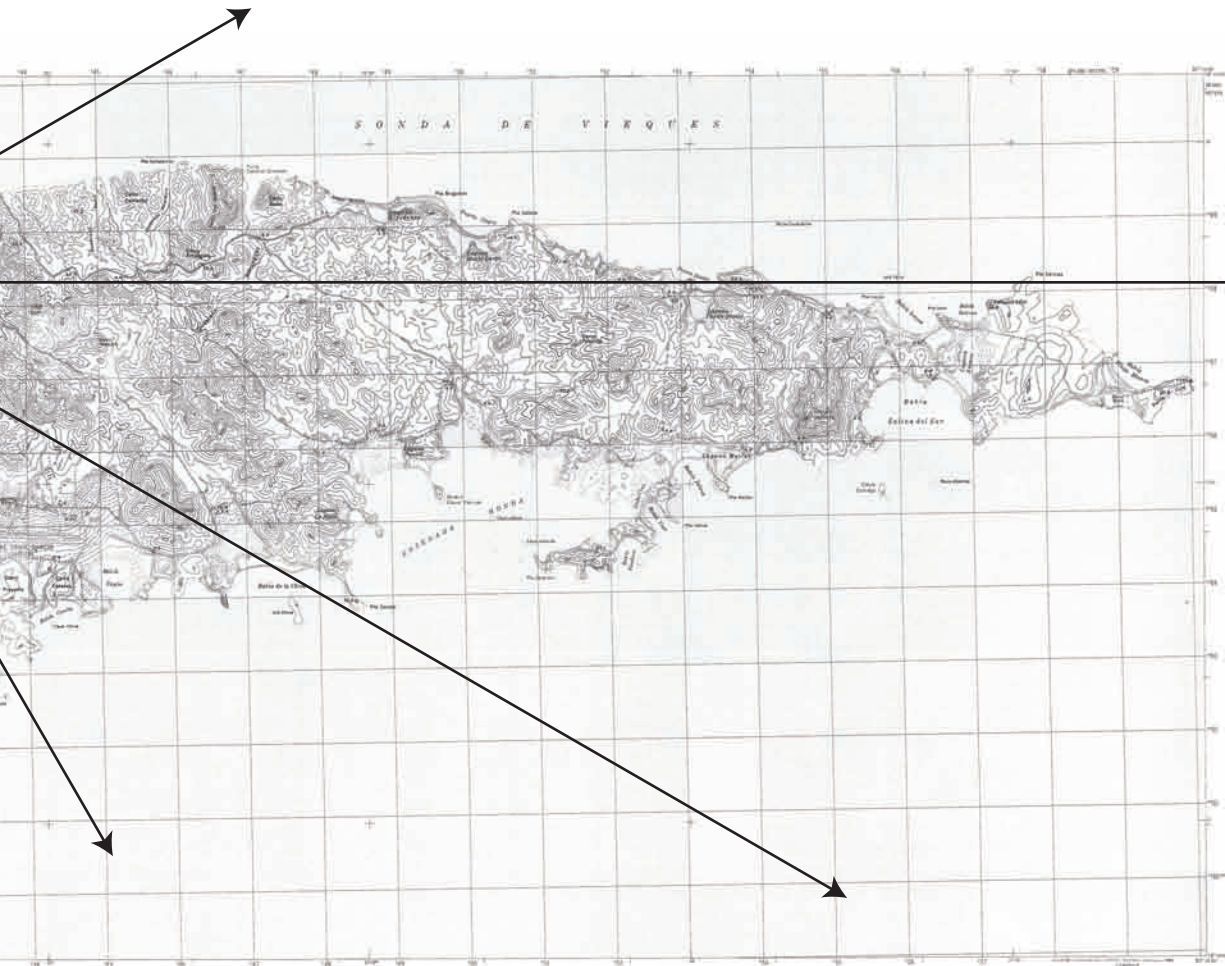




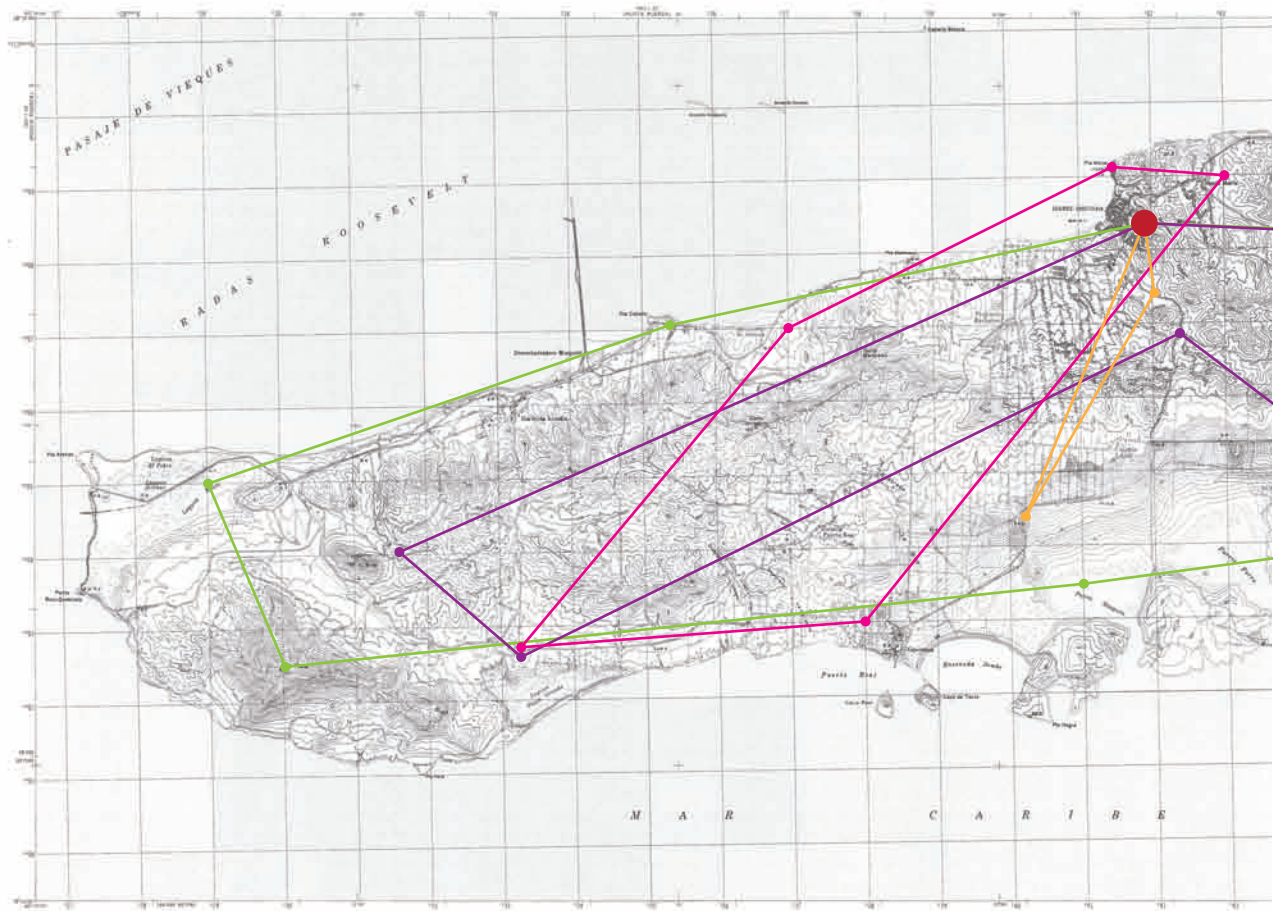


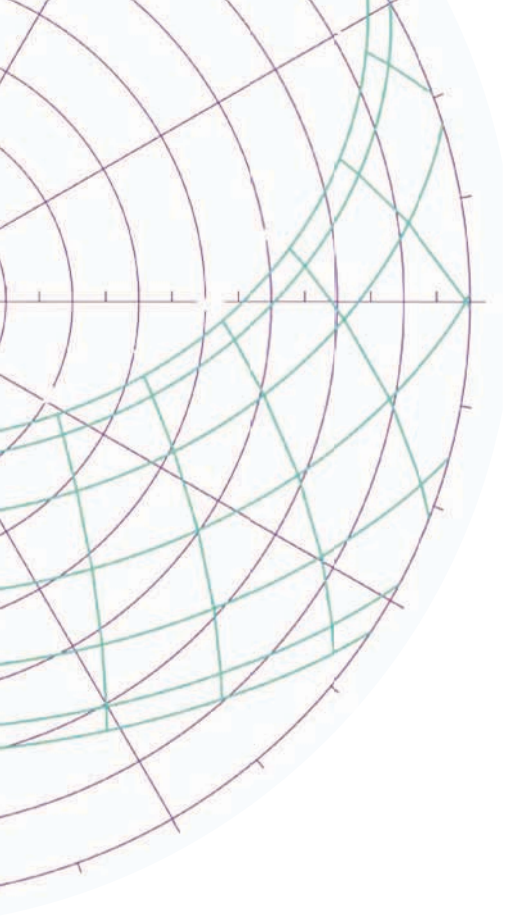


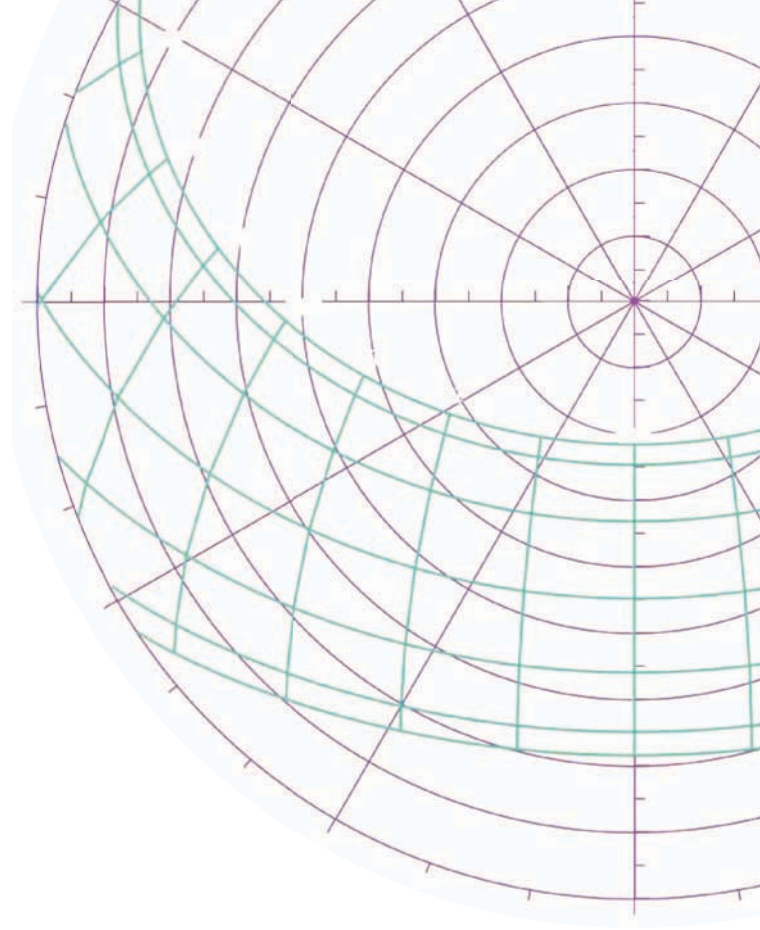


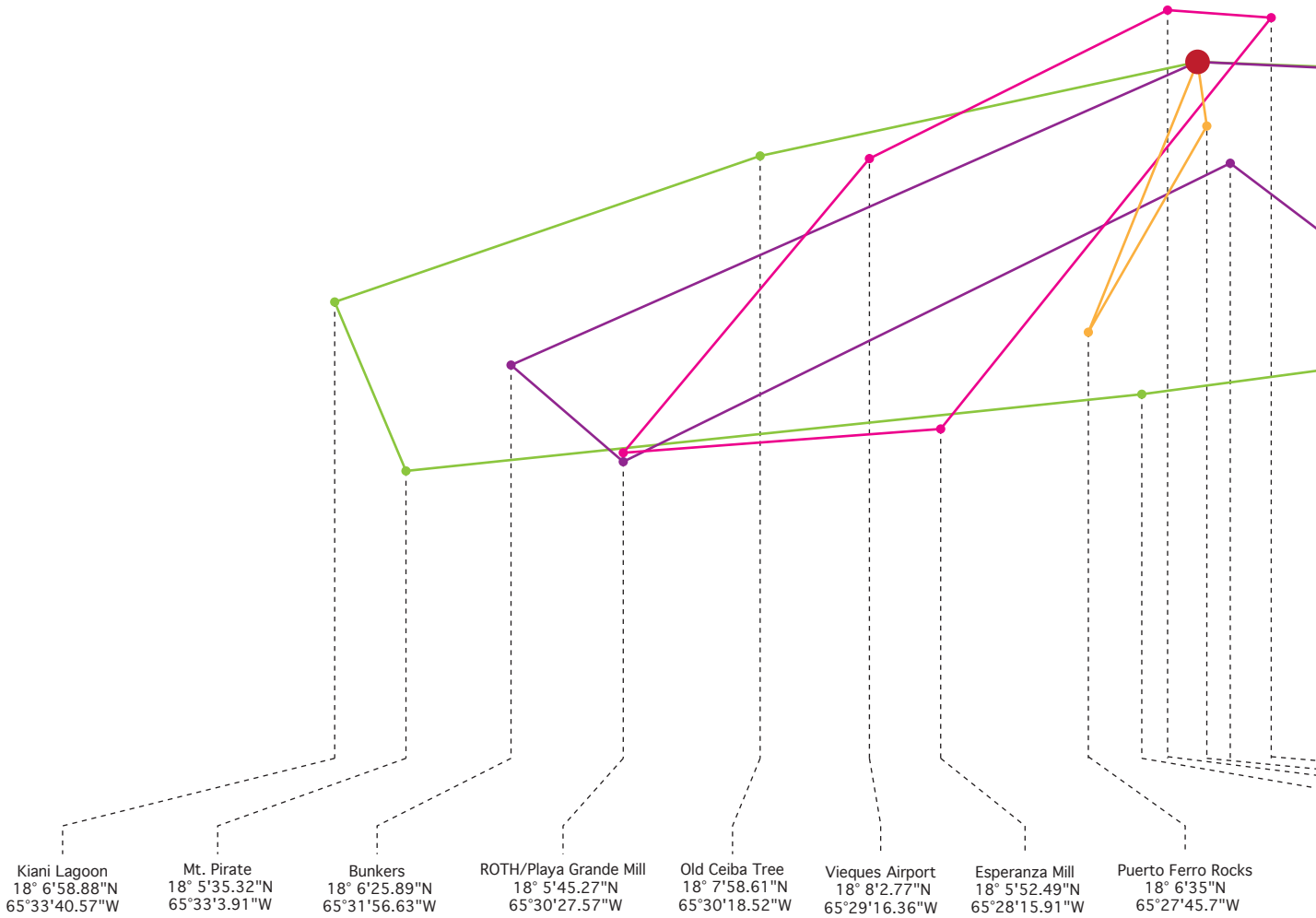


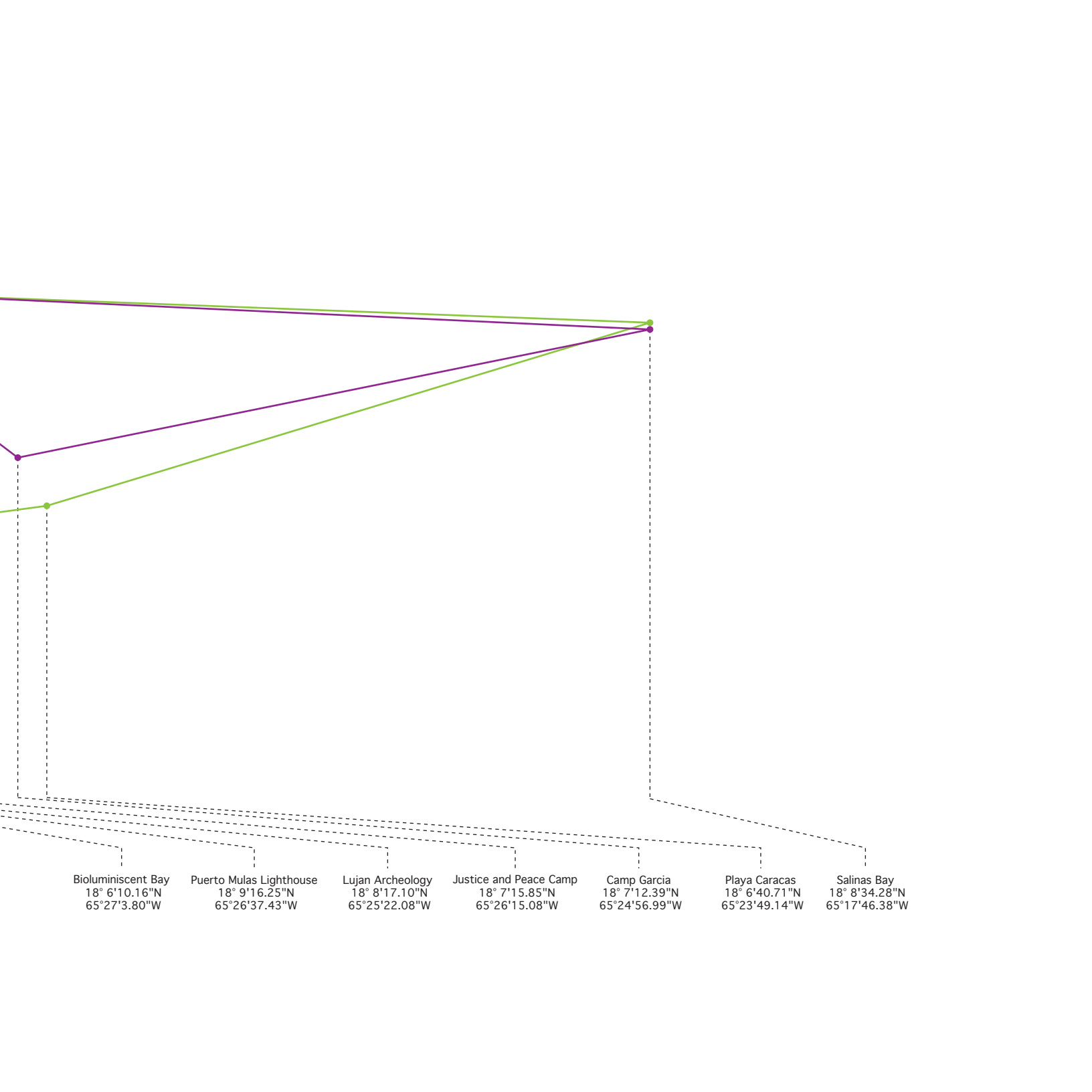
Map Source:
United States
Geological Survey:
Isla de Vieques,
P.R.











Urban nodes are not entirely defined by structures such as a prominent building or monument. They can be more fleeting or modest, such as a hot-dog stand or a shaded bench. Nodes have to attract people for some reason, so a building or monument will mark a node only if there is a well-defined activity there as well

"CONNECTIONS IN ARCHITECTURE AND URBAN DESIGN | RUDI - Resource for Urban Design Information."
RUDI - Resource for Urban Design Information | Resource for Urban Design Information. Web. 01 Dec. 2010.
<<http://www.rudi.net/books/4701>>.

For the narration of history through the built form, several sub-sites were chosen based on their historical value to the island's development. Since Vieques has gone through several historical stages, the sites were categorized in three different categories, such as: Natural Resources, Pre-Columbine Period, Colonial Period, and the Navy Period.

Natural Resources

Kiani Lagoon

Recipient of water on the west coast of Vieques; October is the wettest month. On the entrance to this Refuge there is an informational booth that leads you towards a boardwalk in order to enjoy the local flora; most common: mangroves.

Mt. Pirate

Highest peak on the Vieques Island; 967 feet above sea level. At the bottom of the mountain the Navy had hidden over 100 bunkers.

Old Ceiba Tree

[] the more than 450-year-old tree that has served as a symbol of perseverance and strength to the people of this island for centuries. Their heritage, symbolized by the tree's roots are African, French, Spanish, Dutch, German as well from other Caribbean Islands like Tortola, St. Croix, Martinique and Guadalupe to name a few. The prophetic biblical quote "No weapon formed against you will prosper" frames the island's present struggle to decontaminate and return the land to the Viequenses.

Playa Caracas

This beach was located on the eastern zone of the Vieques Island that belonged to the Navy. Since the Navy left, this beach marks the moment in history where the Viequenses felt freedom after more than 60 years of bombing practices.

Salinas Bay

The eastern section of the island was under the dominance of the Navy; therefore no civilian could go through the established boundary. Since this is the area that was used for bombing practices the contamination levels became a health risk for the civilians west of this area. The Navy left in 2003; it is 2010 and this area is still closed to the civilians due to the high levels of chemical contamination, it has been said that there is still live ammunition that have not been found. By the use of this area as one of the sites for this thesis is a commemoration of the Viequense's vanished power of their own island.

Pre-Columbine Period

Puerto Ferro Rocks

In this site was found a complete skeleton called "The Man of Puerto Ferro" ---the

oldest skeleton of a Viequense [] It is believed that these rocks are part of a ceremonial pre-Columbian complex.

Lujan Archeology

Unique in its class in the Caribbean, the settlement discovered in Lujan consisted of a round communal house with smaller huts around it. Also excavated, was intact burial of a mother and child, with a ceremonial bead collar. Law 112 of the Puerto Rico Legal Code forbidding plunder is inscribed on the border.

Colonial Period

Playa Grande Sugar Mill

In 1940, with 48 hours of warning, families were evicted from their homes and land. Since the notification letter was in English, few understood why the bulldozers had appeared in front of their homes that day.

Vieques Airport

The airport was constructed by the Martineau farm where Don Marcial Santana [] labored for many years. The first archeologists that studied the Amerindian sites in Vieques credited Don Marcial for guiding them to the sites, and preserving the artifacts from plunder.

Esperanza Mill

During the sugar mills heyday, Vieques had six active sugar mills. The sugar cane was transported via trucks to Esperanza s dock (its ruins still visible) where ships took them to the Big Island, Puerto Rico, to be processes into sugar. The archeological study commissioned by the Navy at the request of the Puerto Rican government stated that the remains of the Campa-a Mill, show architectural details of the Second French Empire.

Puerto Mulas Lighthouse

The Spaniards built the lighthouse in 1896; it was restored in 1992. It is located on the northern coast of the Island, a few steps away from the ferry dock. From this point you can enjoy the view from the main island, Puerto Rico, Culebra, and the islands of St. John and St. Thomas.

Navy Period

Radar

The ROTHR would be part of a surveillance network, which designed to monitor flight over an area encompassing more than 1 million square miles in South America.

Bunkers

The bunkers served as the Navy s storage for ammunition used during the military training.

Justice and Peace Camp

The US Navy attacked numerous times those who resisted the expansion of Camp Garcia. Attacked with helicopters and pepper gas, the members of the Pacifist Resistance, inspired by Do-a Luisa de Guadalupe, now deceased obstructed the opening of another access point to the military installation.



Top Left:
Puerto Mulas
Lighthouse



Top Right:
Ceiba Tree
http://en.wikipedia.org/wiki/File:The_300-year-old_ceiba_tree,_Viques,_Puerto_Rico.JPG



Bottom Left:
Bunkers



Bottom Right:
Playa Grande Sugar
Mill



Top Left:
Bioluminescent Bay



Top Right:
Bunkers Back View



Center Left:
Justice and Peace
Camp (Entrance to
Camp Garcia)



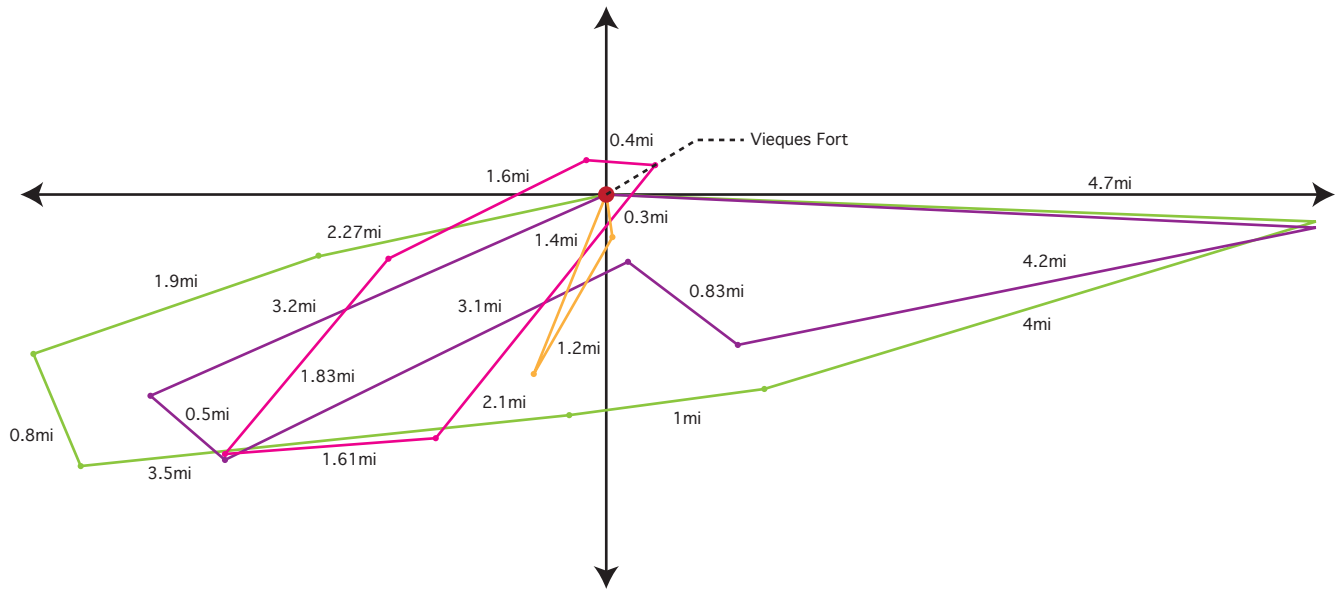
Center Right:
Puerto Ferro Rocks



Bottom Left:
Playa Caracas



Bottom Right:
Vieques Airport



The networks of sites runs along the length of Vieques, some distances are not walk able. Through the engagement with the natural environment, the connection between these sites would be achieved through a system of transportation where the user would have direct contact with the natural setting of the island. By doing so, users would be aware of the physical state of the island.

Once arriving at the main site [the addition to the museum and visitor s center-, the user would have the opportunity to choose which kind of transportation he/she would like to use to have the experience of the island s history by visiting the sites through out the whole island.



The Bicycle Share Program is a system that allows people to share bicycles, if one is not owned. This system is usually used in more urban environments than Vieques. The reason why this is one of the proposed modes of transportation is because there are sites in proximity to the visitor s center, giving an opportunity for visitors (or Viequesenses) to have a direct contact with the environment, while engaging with the historical narrative provided by the sites altogether.

How It Works:

- Types
 - oBecome a member of a BSP company
 - oPublic Agencies
 - oPublic/Private Ownerships
- Deposit
 - oA deposit is required to release the bicycle from the locks
 - oThe deposit would be given back when the bicycle is returned at the same or different direction
- Rental Terms
 - oThe bicycle could be checked out for long or short periods of time

The terrain in Vieques is the opposite of a flat surface; it has many hills and mountains. Therefore, alternate modes of transportation had to be considered.

- Shuttle System

- The shuttle/trolley system would allow visitors with disabilities or children to have the same experience through the site of the Vieques Island

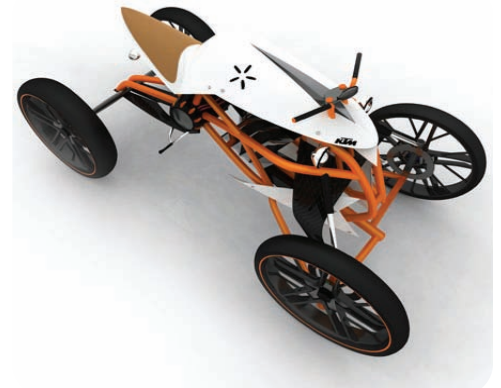
- The system would be the type of hop-on/hop-off, providing the opportunity for extra time in those sites that are most desirable to some visitors.

- Not only visitors could use this system, the point is to make the experience of education and reflection of history available to every one.



- All Terrain Vehicles (ATV s)

- Considering the fact that Vieques is not a flat terrain, the ATV s became a viable mode of transportation, since they have the power and resistance to navigate through rocky and steep paths.



- Funicular

- By means of a funicular would be a viable way to reach the highest point in Vieques, which is at 301 meters above sea level.

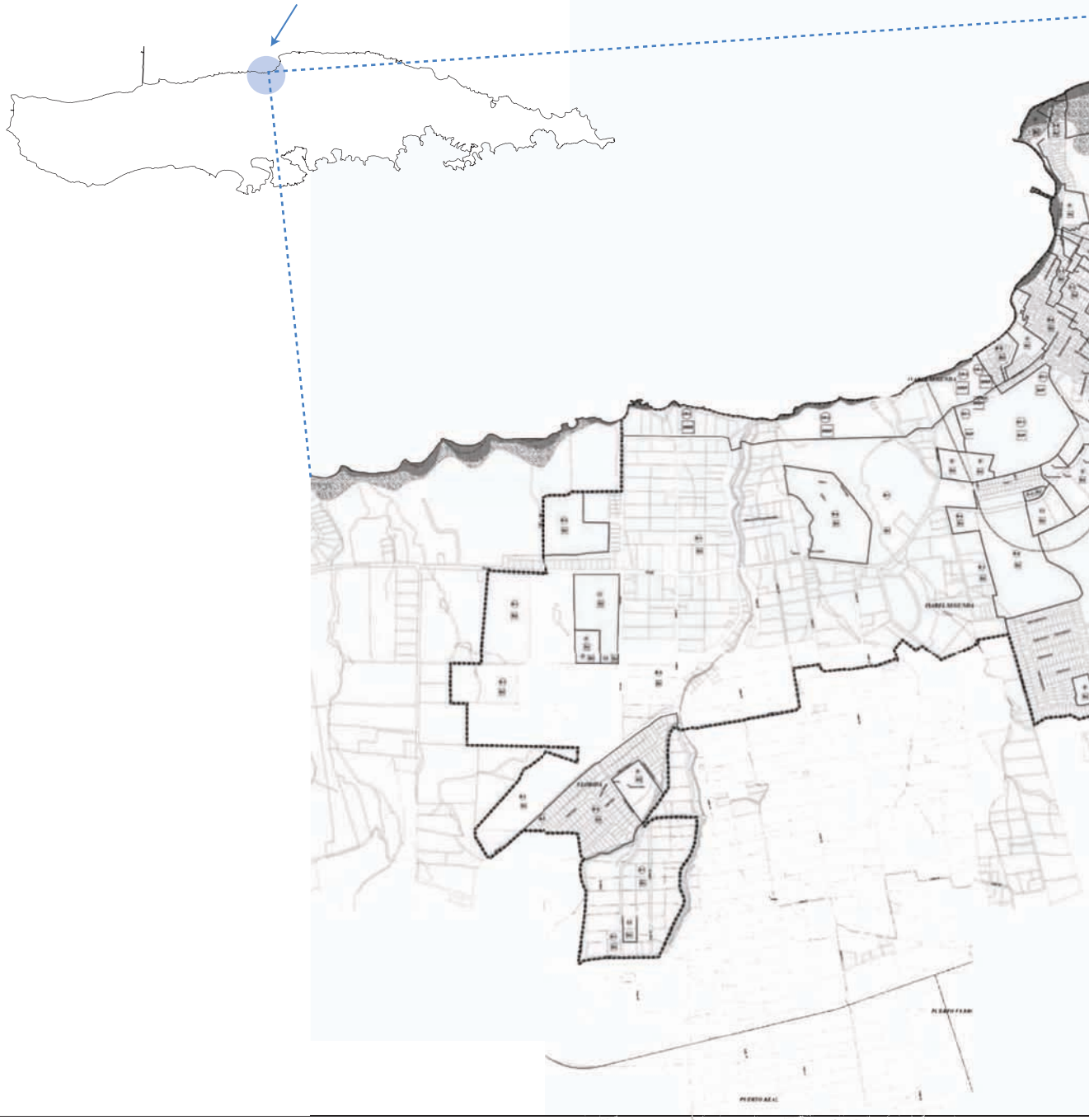
- There is an exiting path on the mountain so pedestrians could hike up to the top, unfortunately not everybody could reach the destination by foot.

- Making use of the existing path, there is the possibility of adding the necessary construction of rails in order to make the funicular work.



The RC4 all terrain concept vehicle has been designed in a more environmentally friendly manner to be used on the road. The electric drive train of the car is powered by a lithium ion battery that enables the vehicle to run up to 80mph. To make it more alluring than the conventional electric vehicles, the designer has integrated sharp aggressive lines to create a dramatic shape with plenty of visual movements. Moreover, making the position of the rider more effective has been emphasized by the designer to enhance the rider's emotional experience. The RC4 can turn and carve through its corners, which makes it more exciting for the riders. The geometrically organic frame is molded around the battery with its backlit cooling fins.

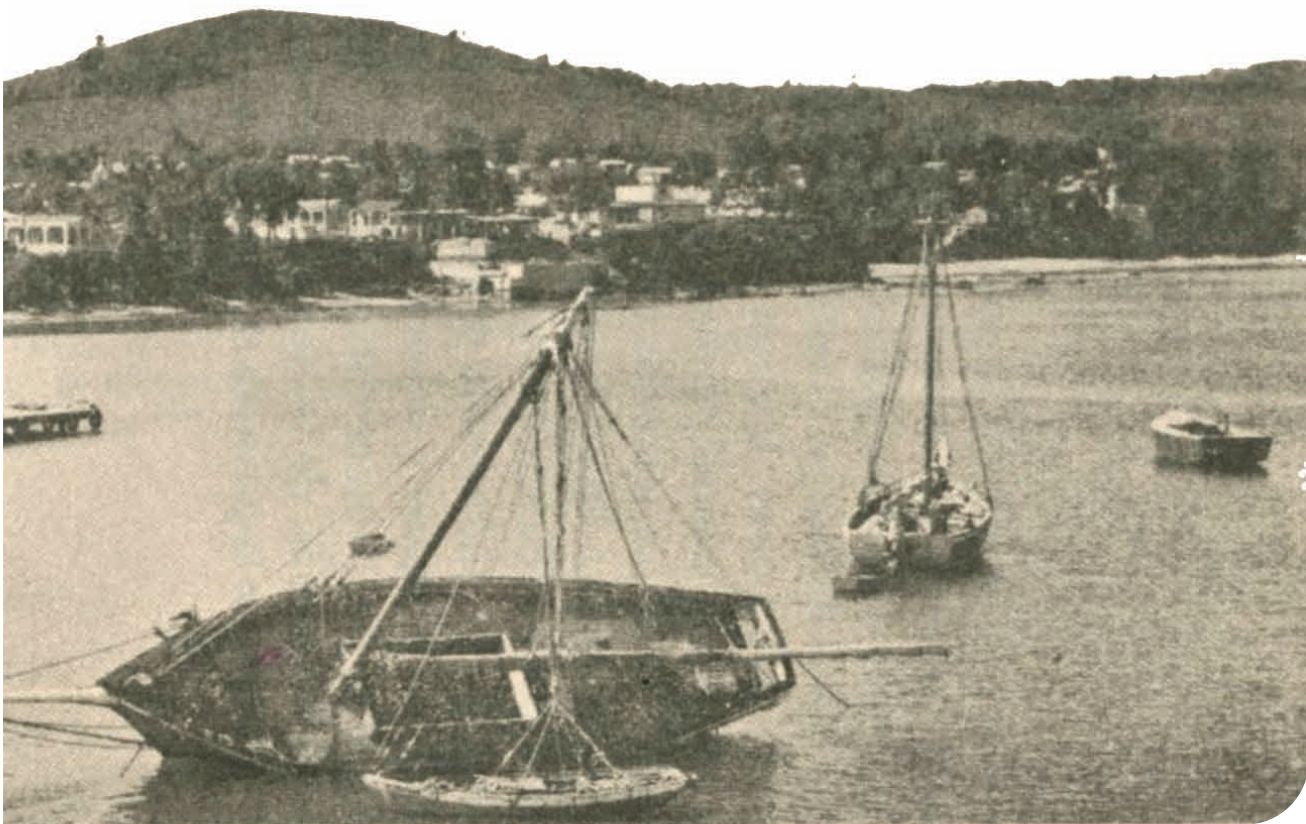




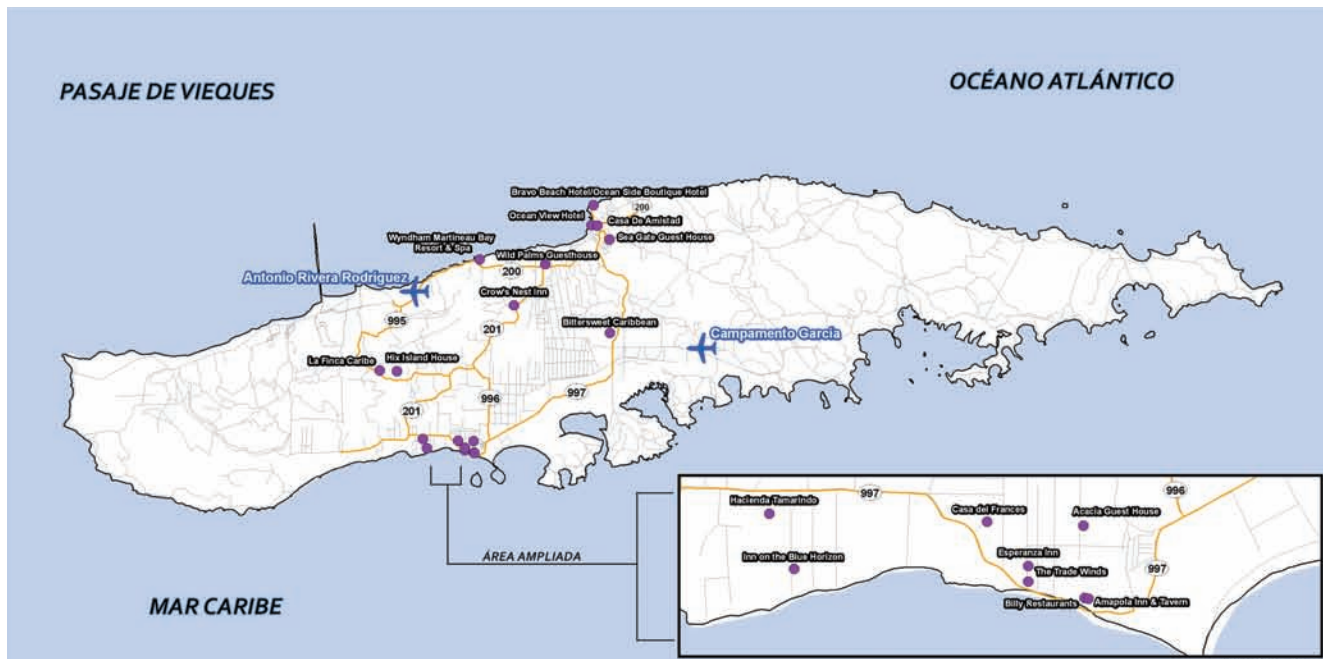








Opposite as the places of interest being on the territory of the Navy, most of the tourism and main roads are on the other side of that geographical boundary; this condition is still existent.



Large-scale ecological destruction of the land is another result of more than a half a century of bombing and experimentation with new weapons systems.

The destruction of the natural and human resources of Vieques violates the basic norms of international law and human rights.

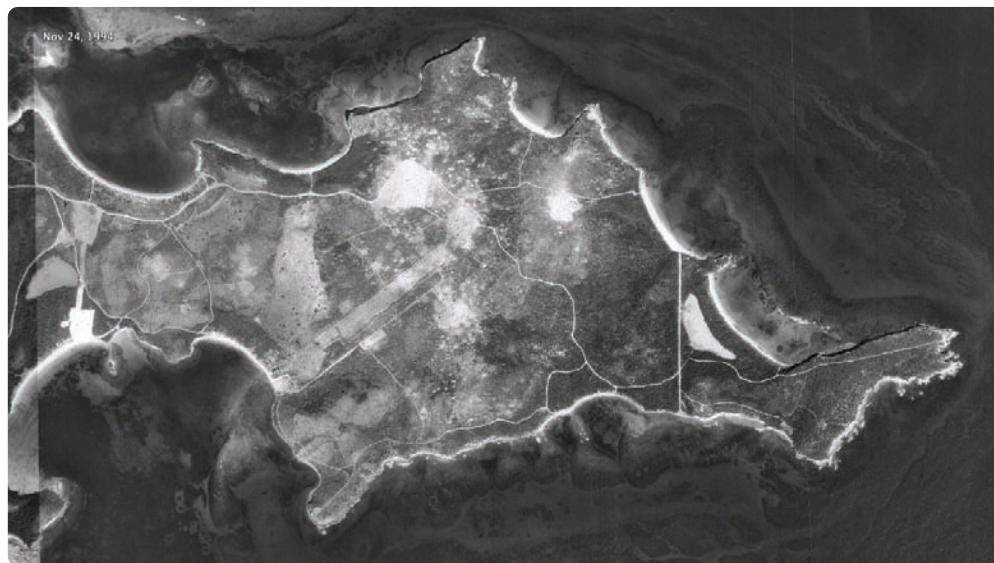
The effective concentration of particles over the civilian area of Vieques exceeds 197 micrograms per cubic meter and therefore exceeds the legal federal criteria for clean air.

Almost ten years after the Navy left Vieques, one can find areas that are still closed to the public because they are contaminated from the chemicals that the bombs contained.

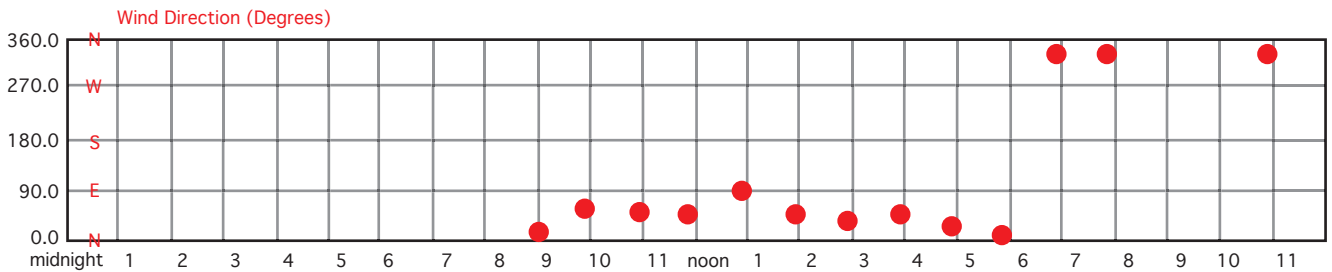
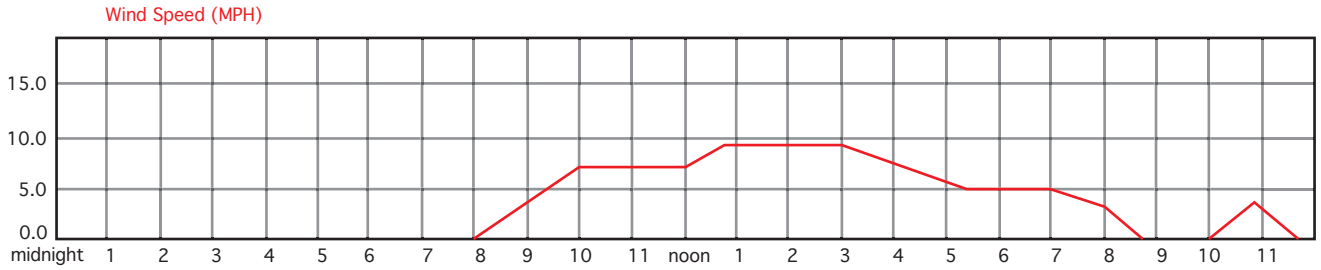
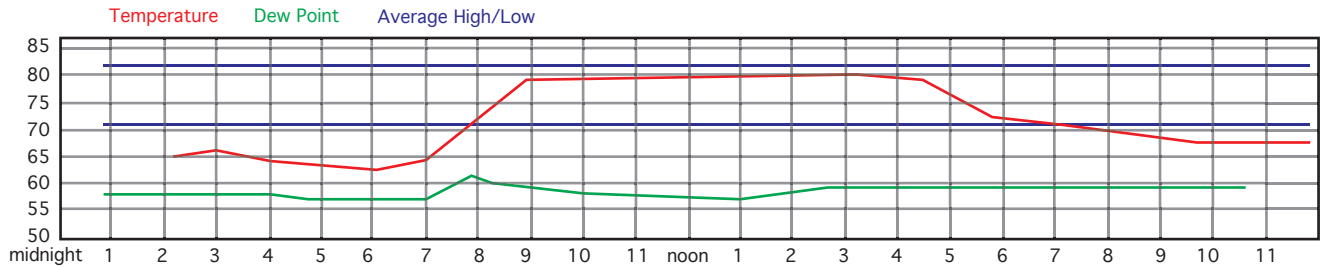
As an opposition to the contamination of the lands, the vessel to achieve the goal of this thesis would be Eco-Tourism.

It was mentioned before (in the Introduction section) that the Navy's presence on the island represented a paradox; on one side it contaminated most of the lands, while today the development in Vieques has not been exploded because of the contamination, in other words the contamination has protected the island from being exploded with touristic resorts, and so on. This explains why there are still many empty lots of land in the island. Taking advantage of this matter, this thesis aims to raise awareness of the environment and protect it.

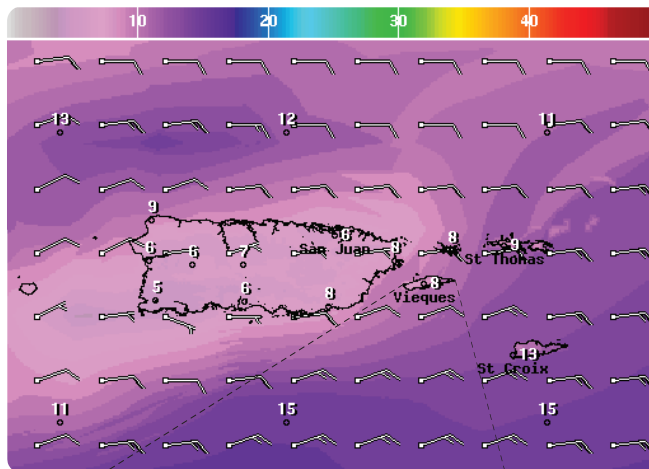
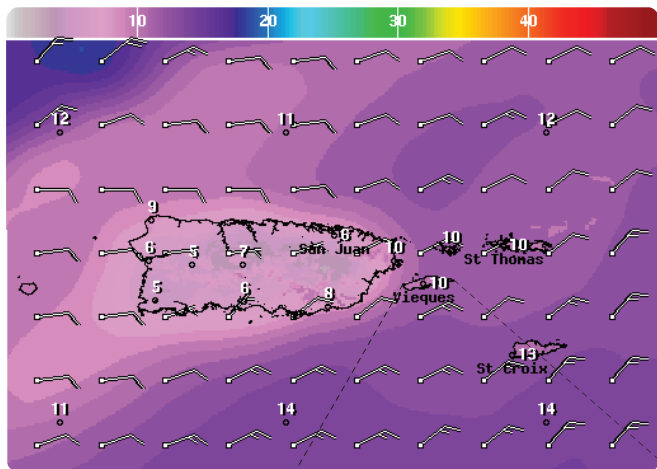
In order to protect the lands, the network of sites would be connected through a system of eco-tourism, meaning that the users would have a direct interaction with the environment. This is due to the fact that the history is presented in various locations on the island that overlap with natural elements, such as: beaches, mountains, lagoons, and past farms.



Now that the Navy has left, Vieques has taken a direction into the conservation of the environment. The area shown in both these images is the eastern end of the island, used as the bombing range. Today, this area is under the protection of the Fish and Wildlife Refuge.



"History : Weather Underground."
 Welcome to Weather Underground : Weather Underground. Web. 05 Dec. 2010. <http://www.wunderground.com/history/airport/TJNR/2010/12/4/DailyHistory.html?req_city=NA&req_state=NA&req_statename=NA>.

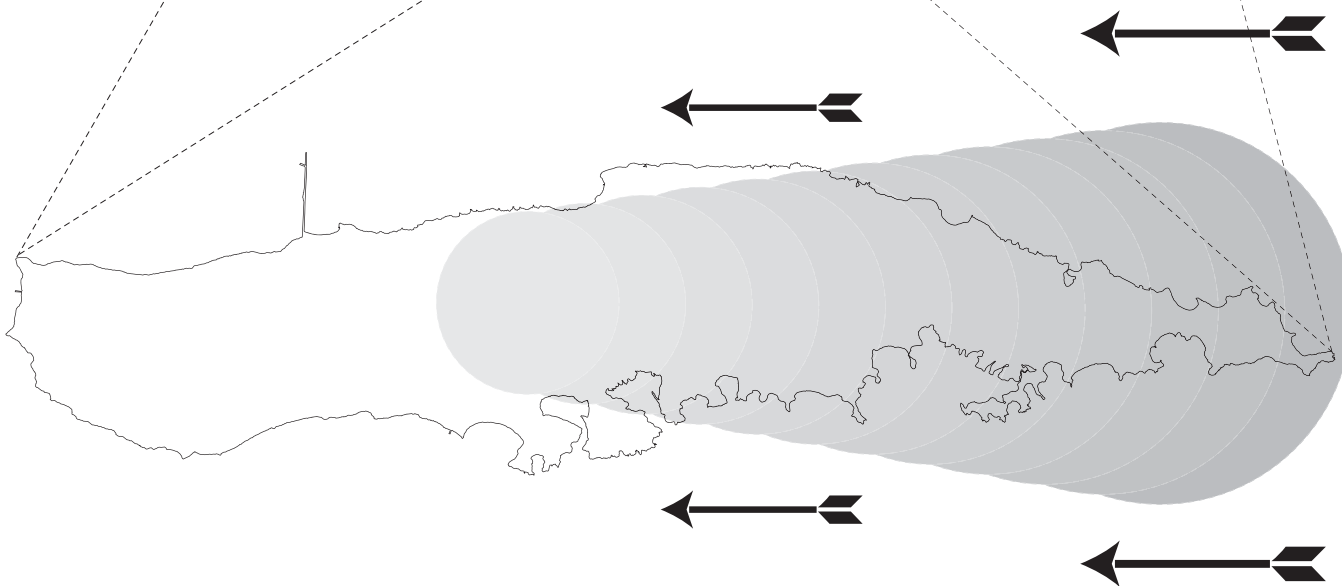


Wind Speed and Direction

Top Left:
8:00 am

Top Right:
5:00 pm

"NOAA Graphical Forecast for Puerto Rico." NOAA's National Weather Service. Web. 05 Dec. 2010.
<<http://www.weather.gov/forecasts/graphical/sectors/puertorico.php#tabs>>.

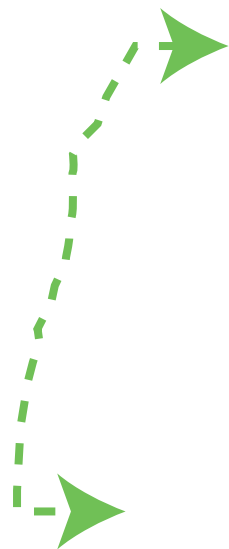


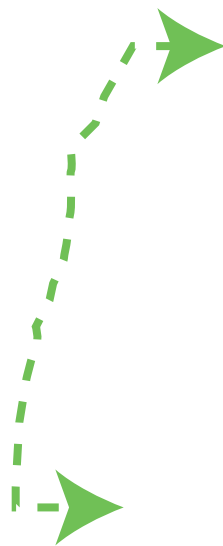
Vieques Prevailing Winds:

The eastern end of the island was used for the military bombing practices. All the toxins of the bombing would be carried away by the wind from the east end to the central section; area left out for the civilians.

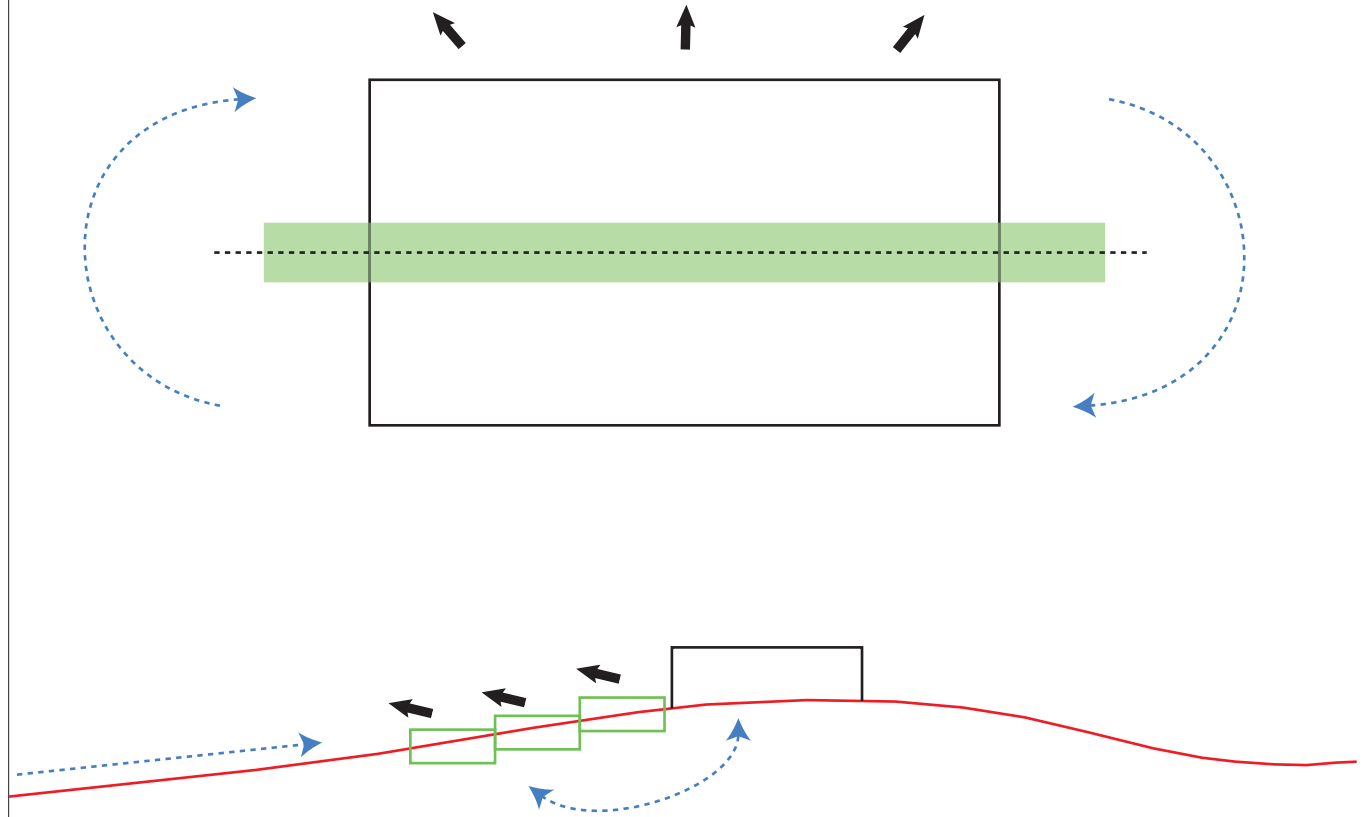






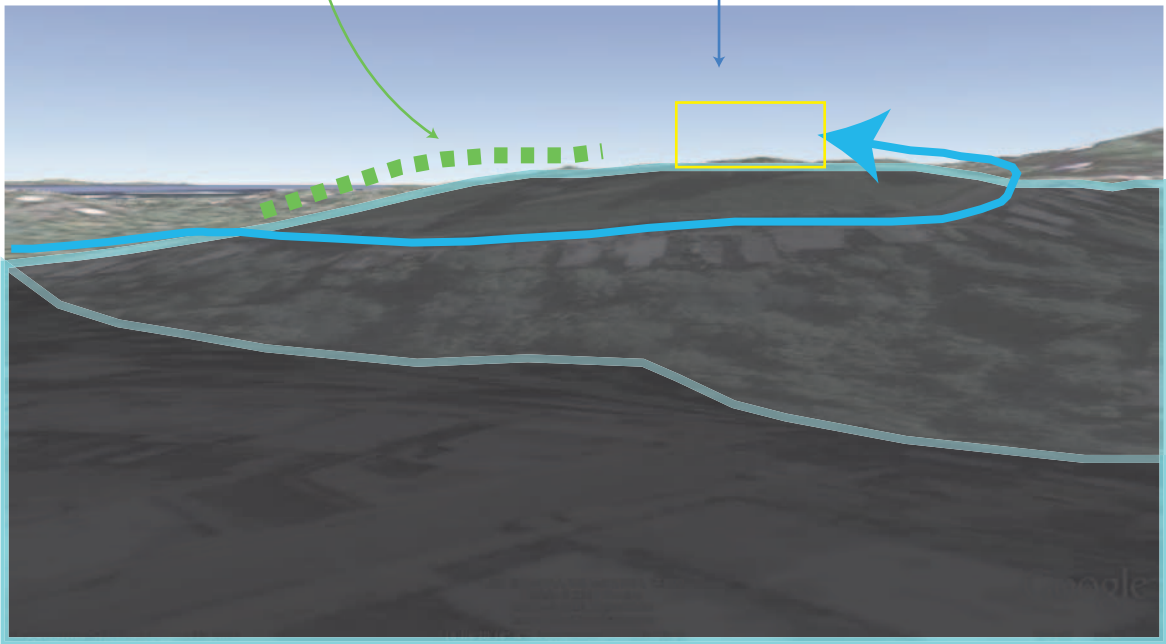
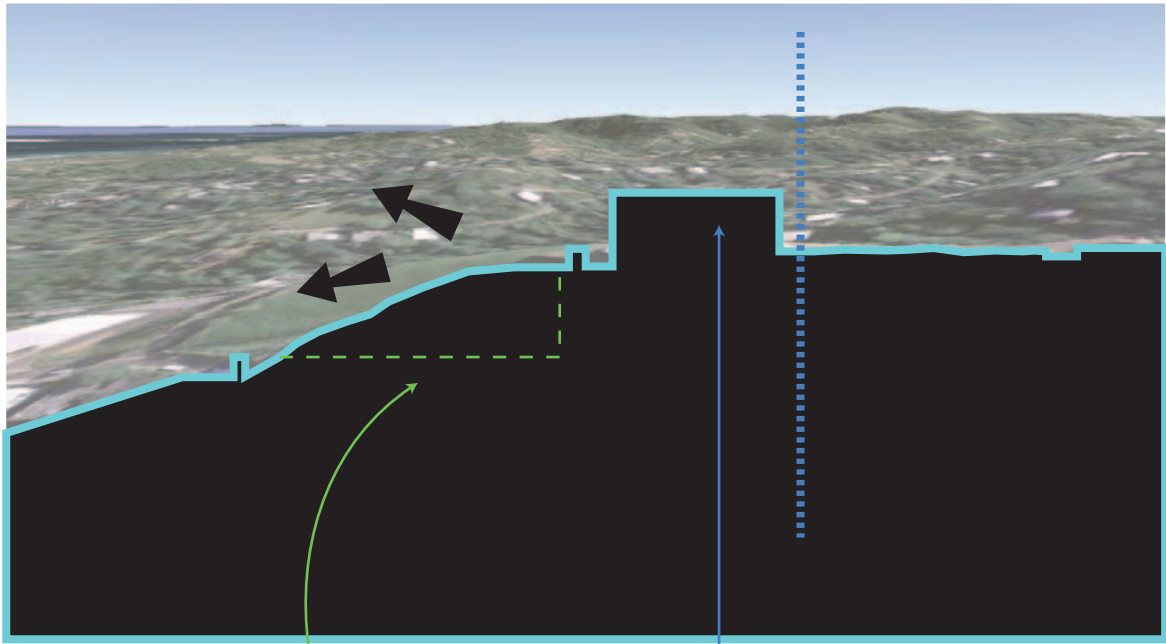


Program Site / Fit



The nucleus of the network of sites is located adjacent to the Vieques Fort, which sits atop a mountain overlooking the northern coast of the island. Since the site is on a slope, an opportunity is presented to engage with the views.

The immediate views from the site are those of the coast and of the main town, Isabel II. This thesis aims to make a connection between the other sites, these connections might not be visible, but they could be achieved by means of a similarity between them; for example: materiality, color palette, geometry, etc.



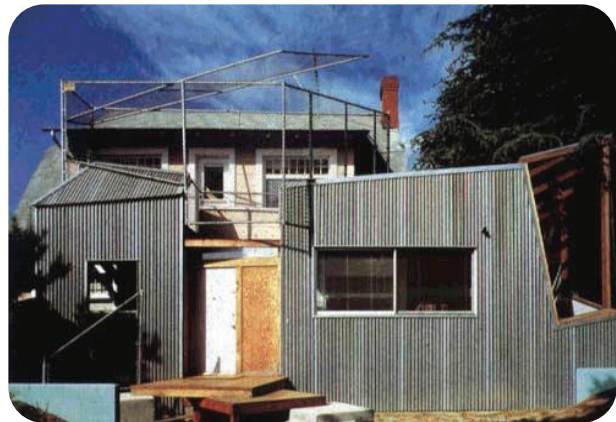
The traditional role of architecture has been not only to realize a sheltering function, but to represent and symbolize it as well

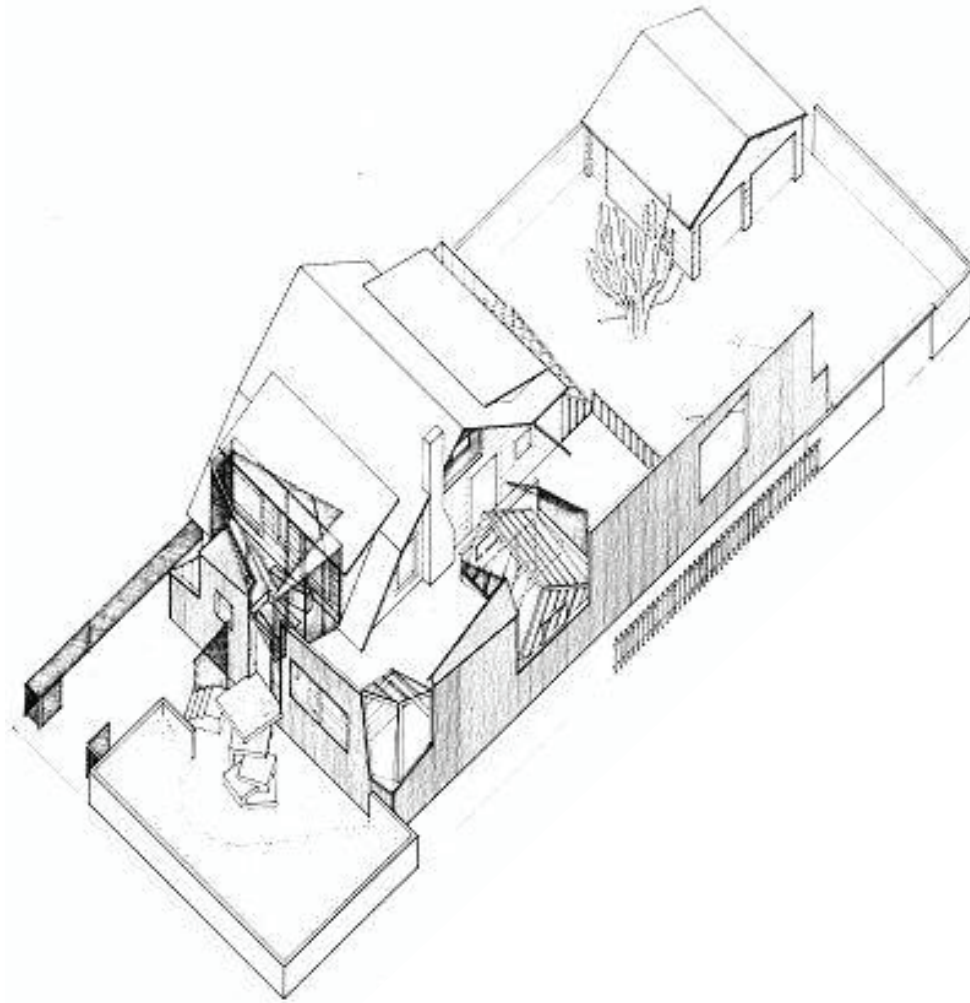
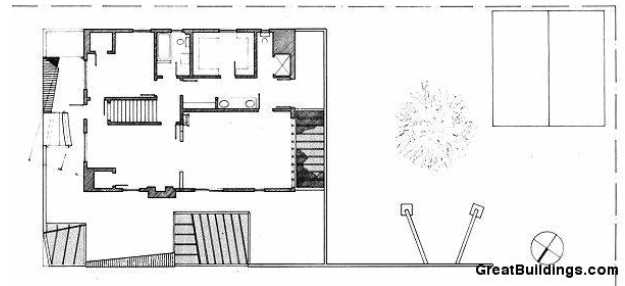
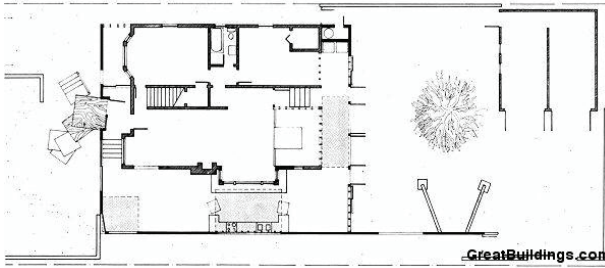
-Peter Eisenman

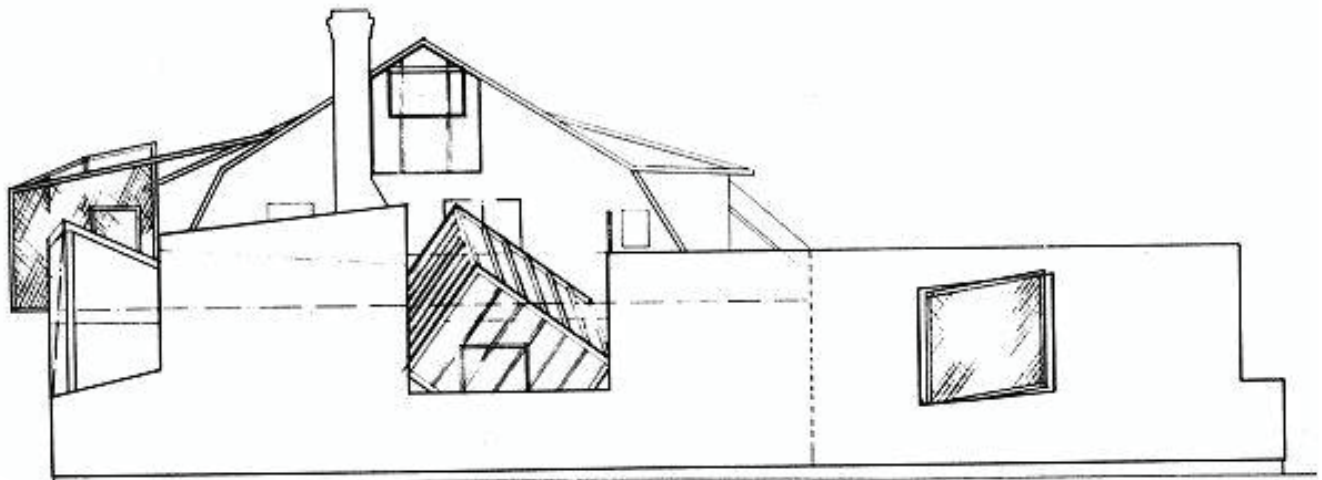
Precedents

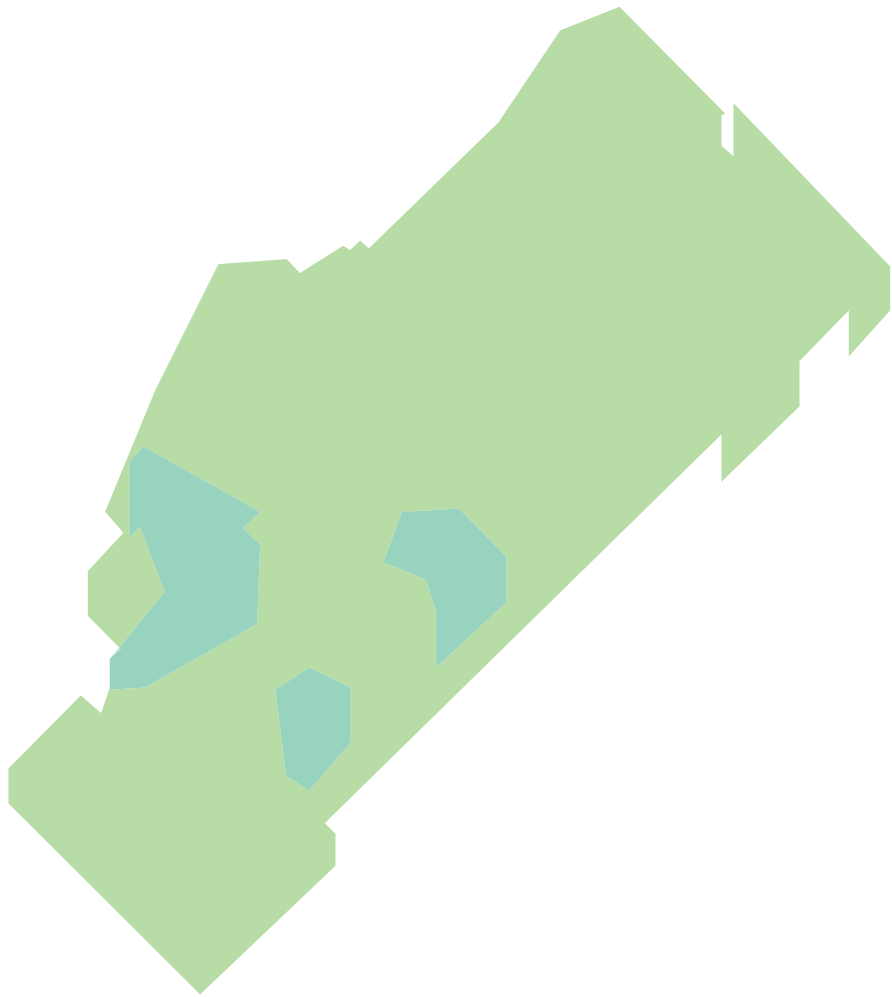
"With the original house almost intact formwise, Gehry, in effect, lifted back the skin to reveal the building as layers, with new forms breaking out and tilting away from the original, to create a forerunner of the Deconstructionist spirit of the eighties. It is almost an idea of 'wrapping' à la Christo, but where Christo seeks through a veil to transform the original to a new sense of being and meaning, Gehry rather produces a discontinuous juxtaposition where one system collides with another resulting in, to quote Bernard Tschumi, a 'super position or disjunctive disassociation.' Where Johansen assembles technological-like elements freely seeding dialogue through the combination, Gehry, through collaging, also basically (but with a different aesthetic) derives an approach to design from the methodology and respect for construction and its architectonic potential as a form maker and space generator."

-Paul Heyer. *American Architecture: Ideas and Ideologies in the Late Twentieth Century*







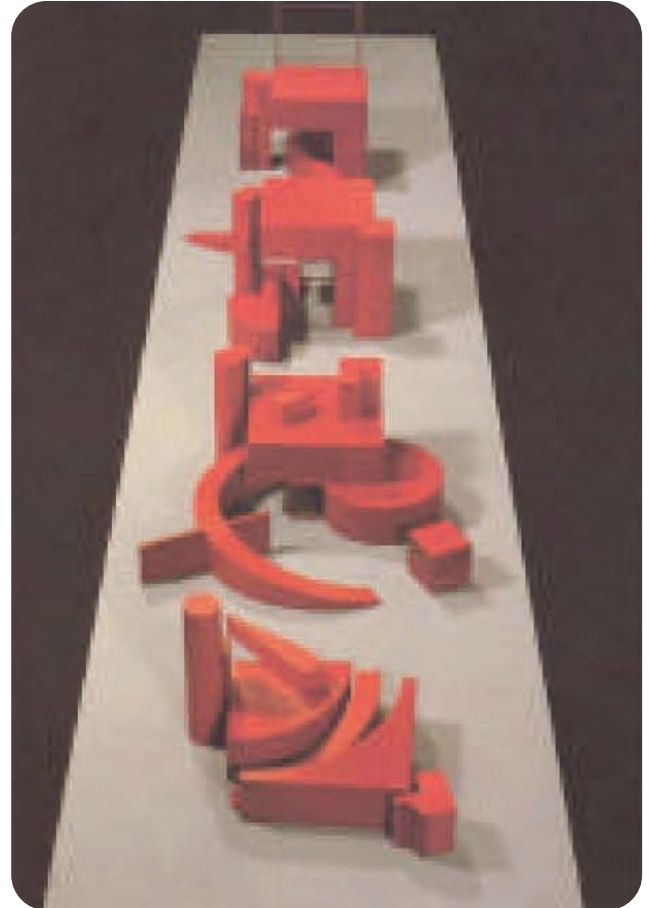




Boulevard Périphérique and Seine-Saint-Denis suburb are surrounded by Parc de la Villette, which is considered the biggest fully landscaped park in Paris. It covers 55 hectares, which half of it is dedicated to open, green space.

Bernard Tschumi designed this park for a competition; he then consulted Jacques Derrida, a deconstructivist philosopher. The park was constructed for an urban development project.

This project represents what an architectural palimpsest could do, because it was built on a site filled with rich history. Parc de la Villette was built on what used to be the national wholesale meat market. The site was also where the Parisian abattoirs or slaughterhouses, which were built in 1867 and relocated in 1974, used to stand.



When confronted with an urbanistic program, an architect may either:

- Design a masterly construction, an inspired architectural gesture (a composition)
- Take what exists, fill in the gaps, complete the text, scribble in the margins (a complement)
- Deconstruct what exists by critically analyzing the historical layers that preceded it, even adding other layers derived from elsewhere—from other cities, other parks (a palimpsest)



Lines:

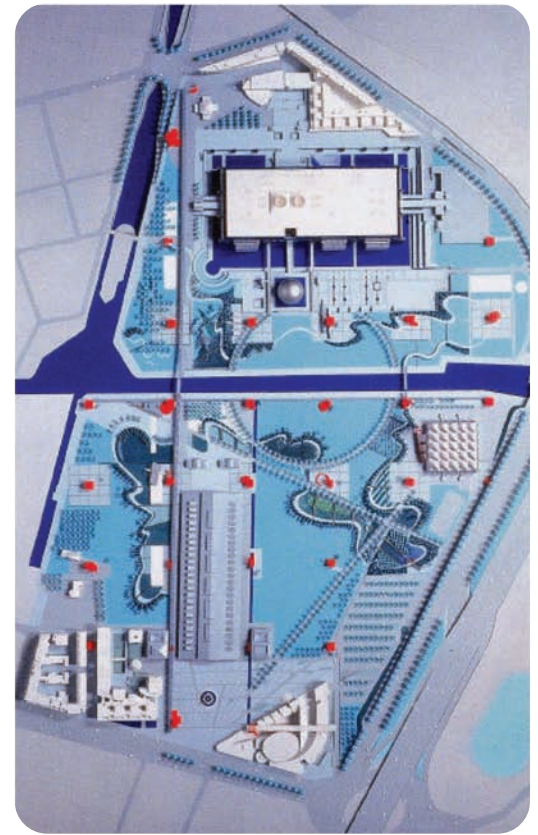
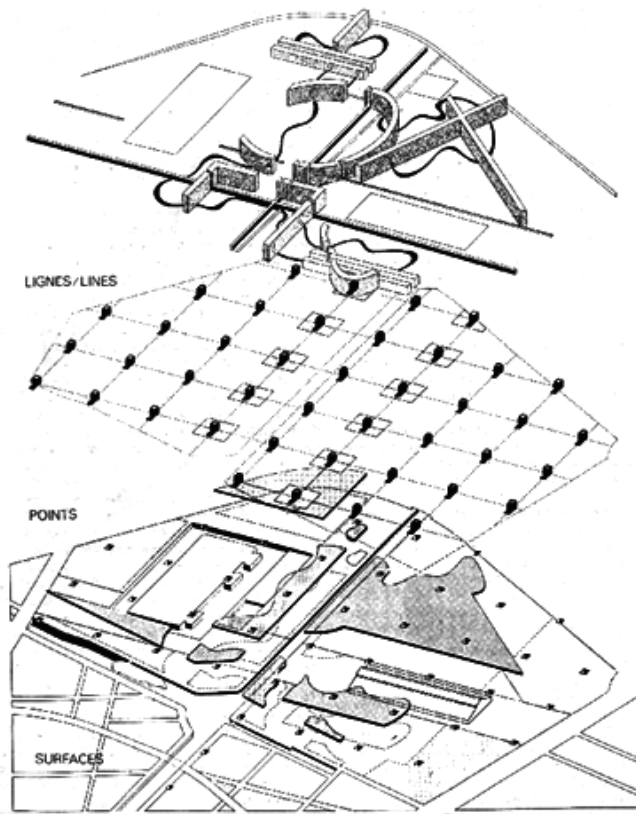
- Grid
- Orthogonal system: guides pedestrian movement
- Path of Thematic Gardens
- Path that intersects the coordinate axes and provides unusual and unexpected encounters with nature
- The lines also connect the two subway stations, N-S axis
- E-W axis joins Paris to the Suburbs

Points:

- Grid system, 120 meters (393.7 ft)
- 10x10x10 meters (32 ft) cubes that could be changed to accommodate specific needs
- repetition creates the language in the park

Surfaces:

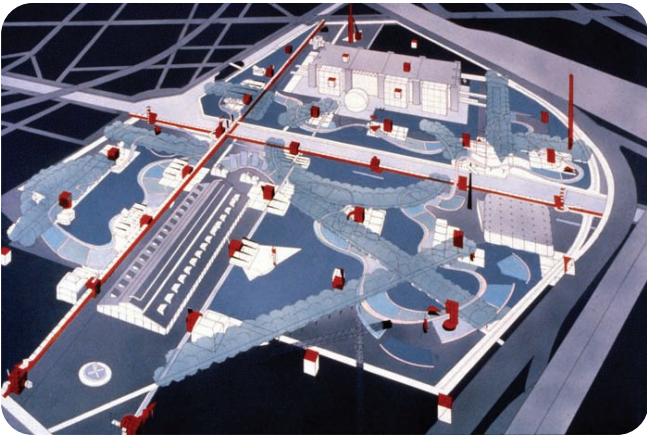
- Host activities
- Others are constructed of compacted earth and gravel and are more free and varied in form



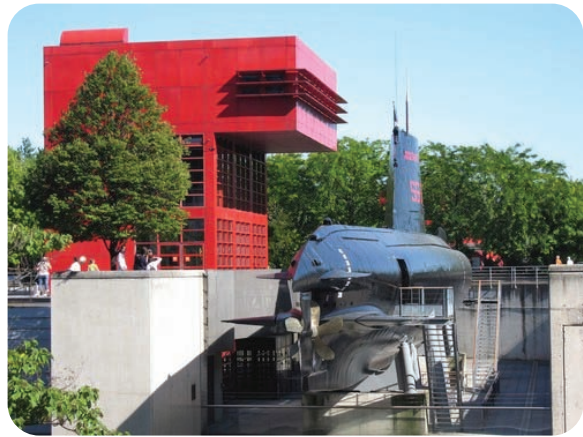
Slaughter House
c. 1920



Left:
Scene along a
canal in Parc de la
Villette
Right:
The Folies at de la
Villette



Left:
3D Representation
of Parc de la
Villette
Right:
The Folies at de la
Villette



The Folies at Parc
de la Villette

The superb structure of Castelvecchio (literarily "Old castle") houses one of the most interesting museum, not only in Italy, but in the whole Europe, not only for the interesting art collections that are exhibited there but also for the historical and architectural value of the building. Castelvecchio was built in 1355 by the Scala family, the ruling family of Verona in the middle age and was successively modified by future invaders such as Venetians, the French and the Austrians. During the second world war Castelvecchio witnessed the dramatic Verona trial (Processo di Verona), in which Mussolini condemned to death the traitors of the regime together with his own son in law.

In 1923 it became the seat of the of the new Verona museum project. In 1957 started the great restoration by Carlo Scarpa which made Castelvecchio one of the most interesting exhibition structure in the world.

When Carlo Scarpa intervened in these project it was clear that the original essence of the now museum should be conserved, this includes the structures. As it is apparent in the pictures from the museum the new structure is sliding through the original one, like it is present but not there. This is a good example on how the modern history could be adapted to the previous history; this is how the historical layers were conceptualized.

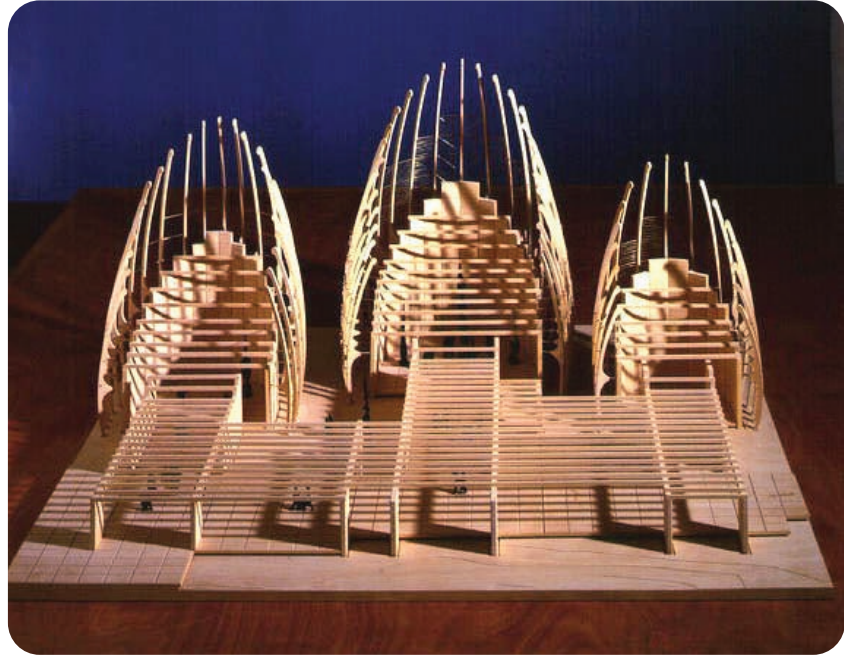
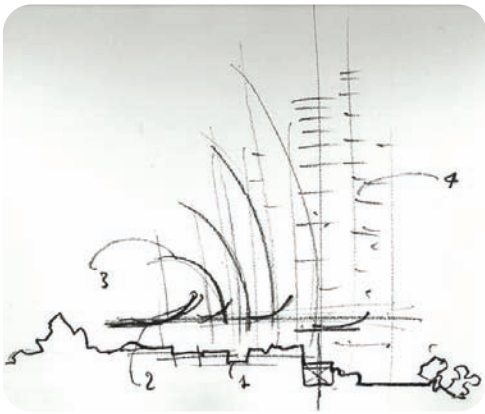


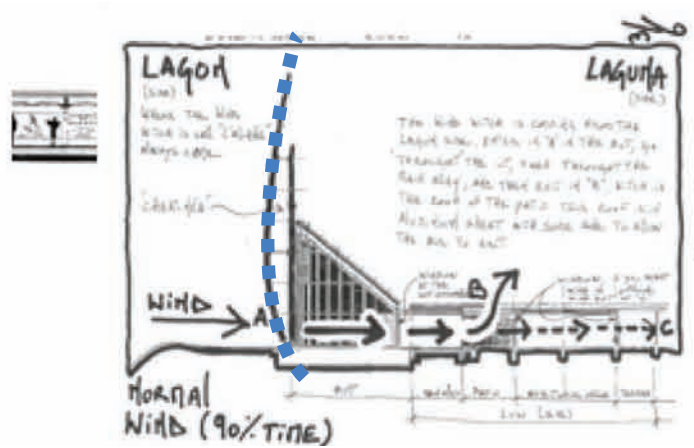
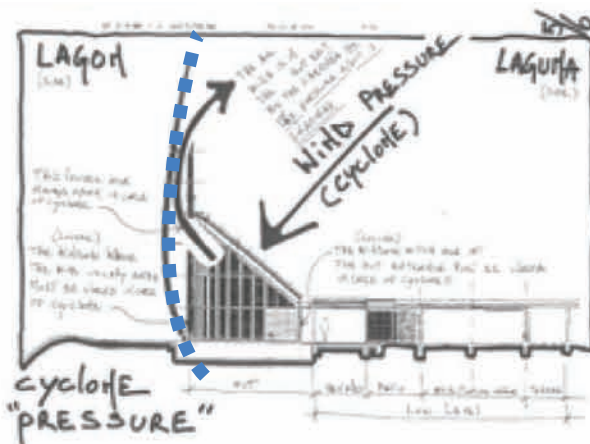
"expressing the tradition of the Pacific in modern language"

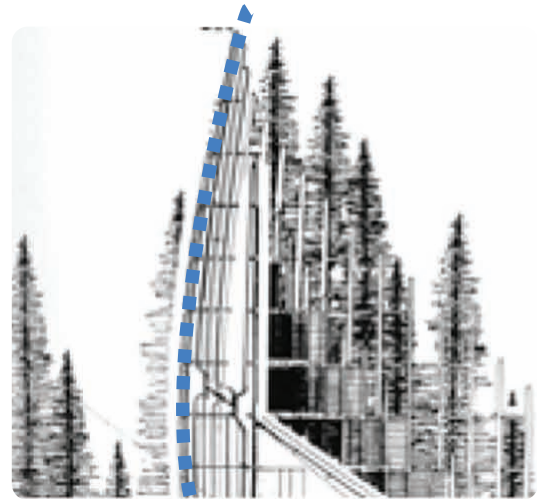
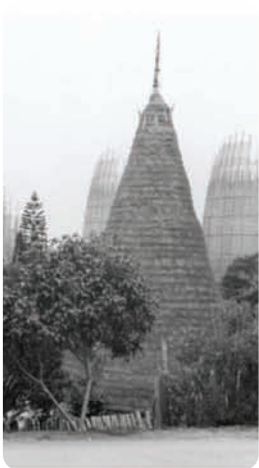
The centre is composed of ten "houses", all of different sizes and with different functions intended as a celebration of Kanak culture.

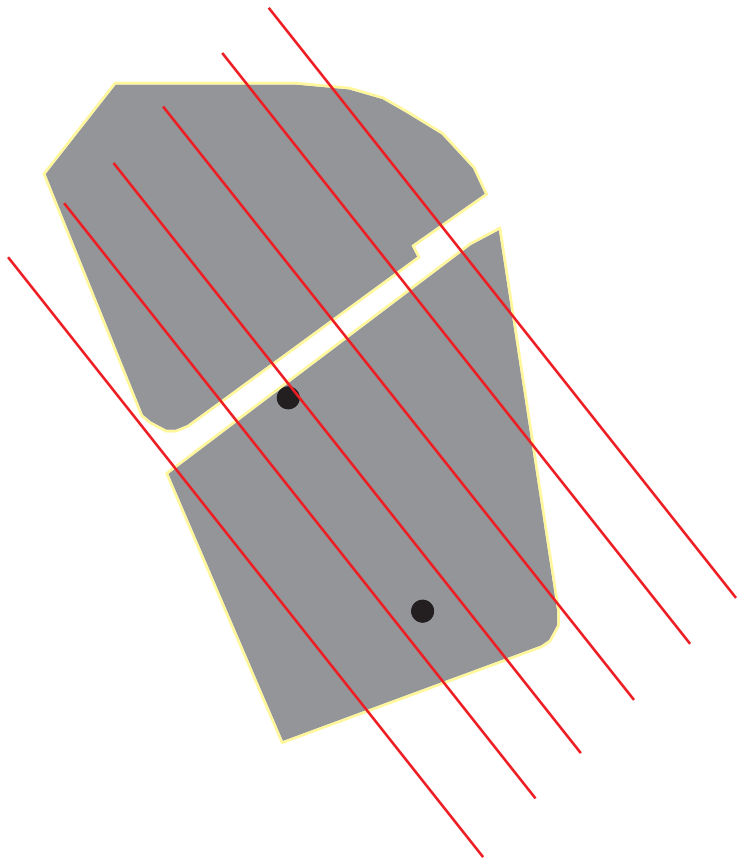
The visual link between these and traditional Kanak villages is made not just through the arrangement of the constructions, but through their form as well. They are curved structures resembling huts, built out of wooden joists and ribs; they are containers of an archaic appearance evoking the intertwined plant fibers of the local constructions, whose interiors are equipped with all the possibilities offered by modern technology.

Piano was inspired by traditional Kanak architecture drawing upon the shape of the interior skeleton of traditional houses for his contemporary interpretation in laminated wood and metal. One of the characteristics of the project is an investigation of the texture of materials: "we have used laminated wood and natural wood, concrete and coral, aluminum castings and glass panels, tree bark and stainless steel, always in a quest for richness and complexity of detail... Light and air flow freely through each."







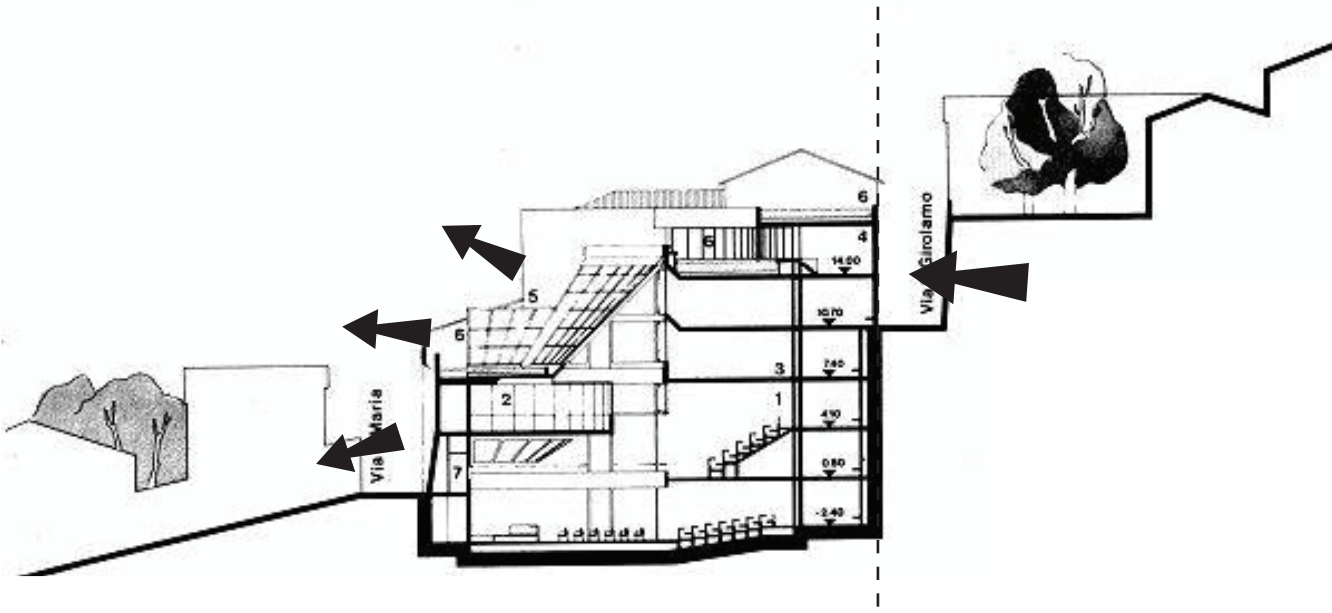
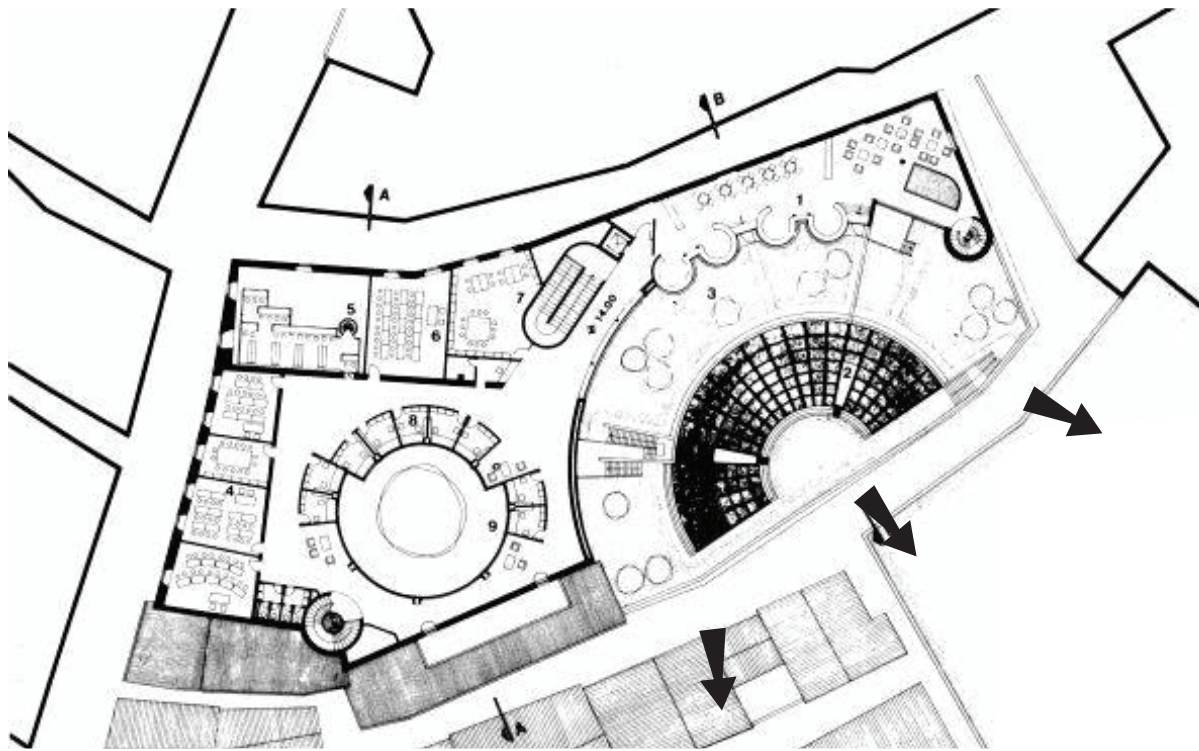




De Carlo sees architecture as a consensus activity. He generates his designs from the inherent conflict that occurs in the site and historical context of architecture.



GreatBuildings.com



Appendix

Historical Layers

Historical events that have helped towards the development of the community

Reclaim History

Bring to the present the history that may have vanished

Architecture of Memory

An architecture that provides the impression of historical events

Palimpsest

Architecturally, it allows building in a site where previous history has occurred. The new architecture would be a representation of the historical layers.

Artifacts

The physical things that the history conveys, such as the built form

Mentifacts

The memories that the civilians hold, in reference to the historical events pertaining a specific site

Community

Formed by the culture, politics, economy, and the built form

Geographical Boundaries

The division of territory that developed throughout history

Interact

Act in such a way as to have an effect on another; act reciprocally

Narrative Approach

Using the historical layers to contextualize them into architecture, by means of a narration of the events.

Nucleus

Representation of the main site; where a link would be established with the sub-pavilions.

Sub-Pavilions

Extension of the main site. The location of these would be based on the past and modern history of the Vieques Island.

Architectural Stages

The moments in history where architecture was being introduced into the island.

Culture

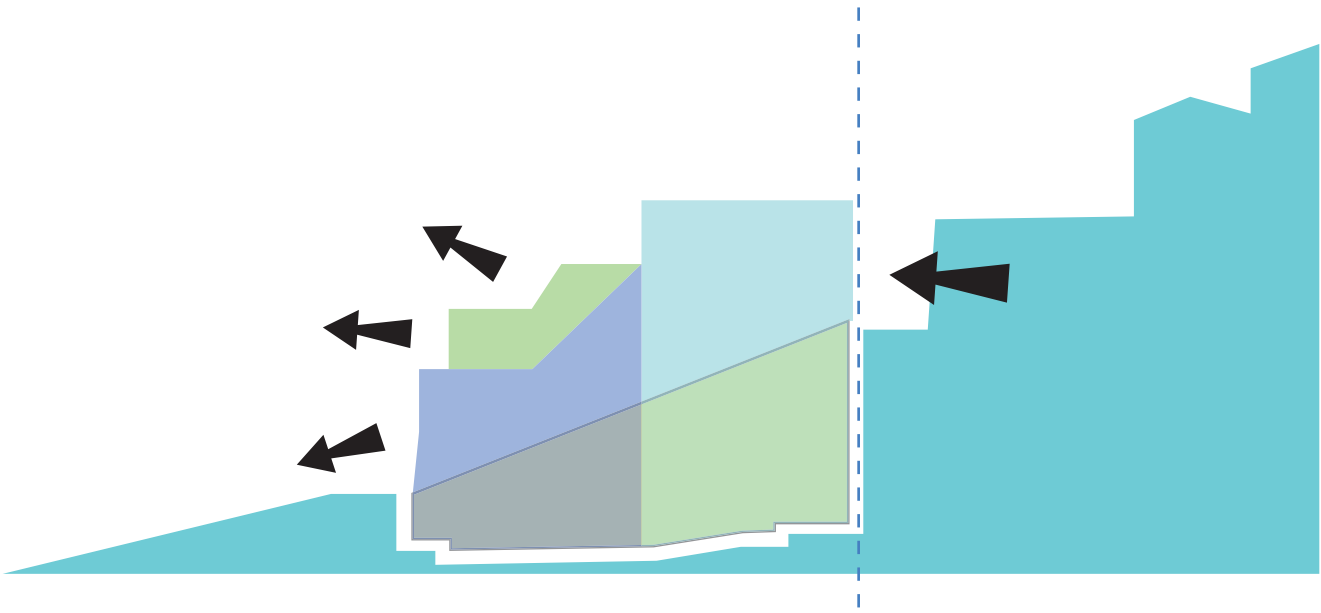
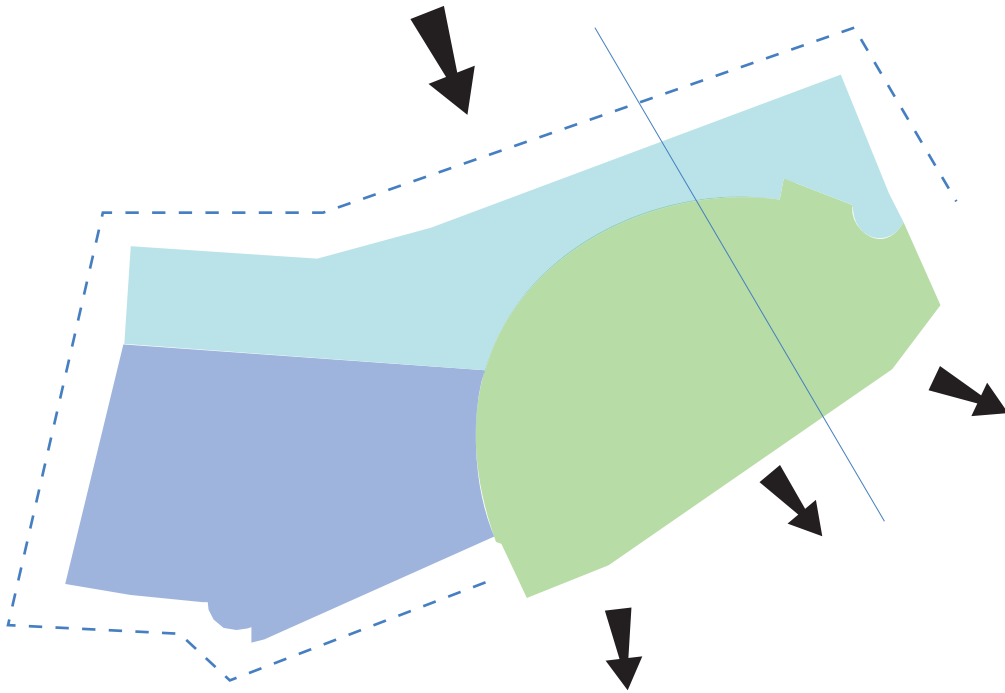
The customs, arts, social institutions, and achievements of a particular nation, people, or other social group







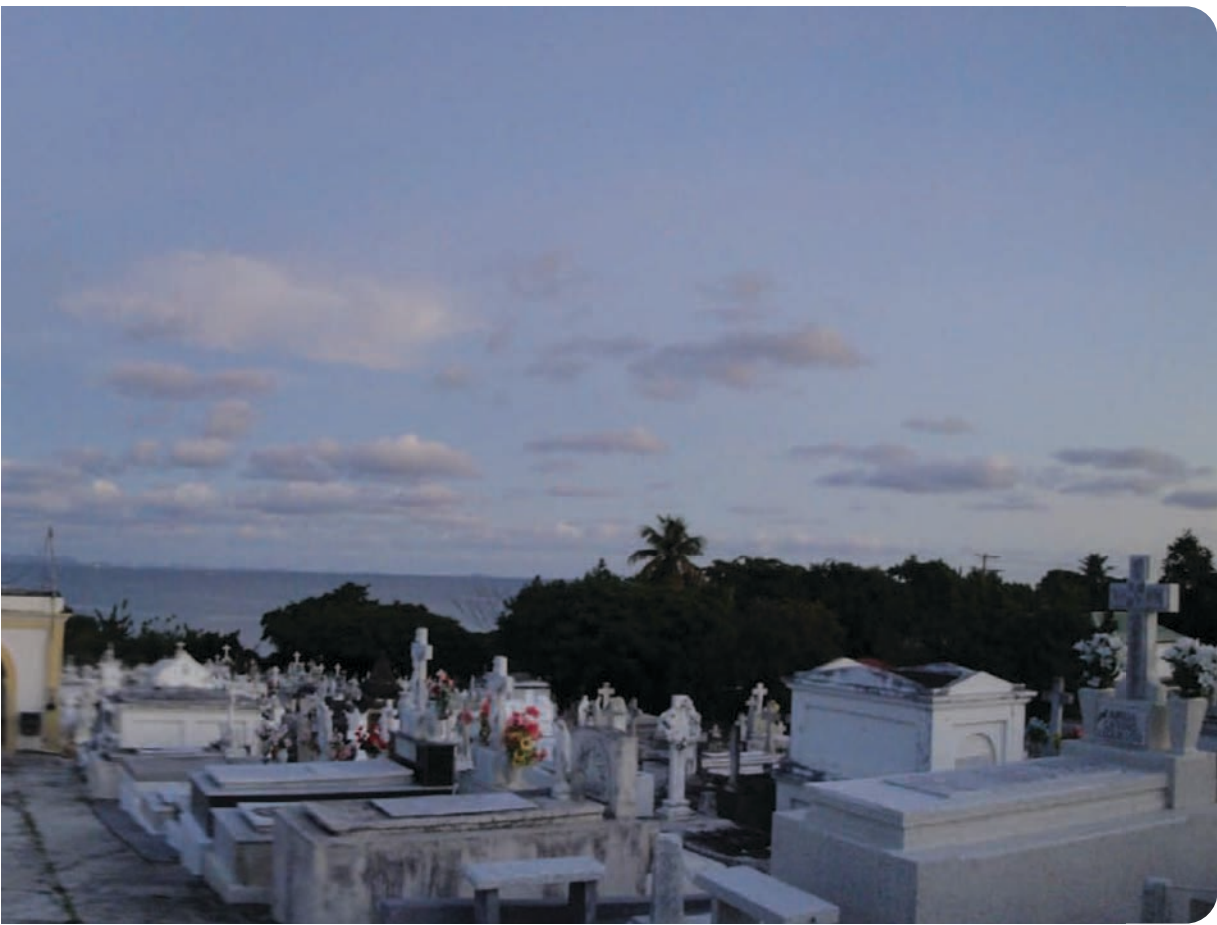


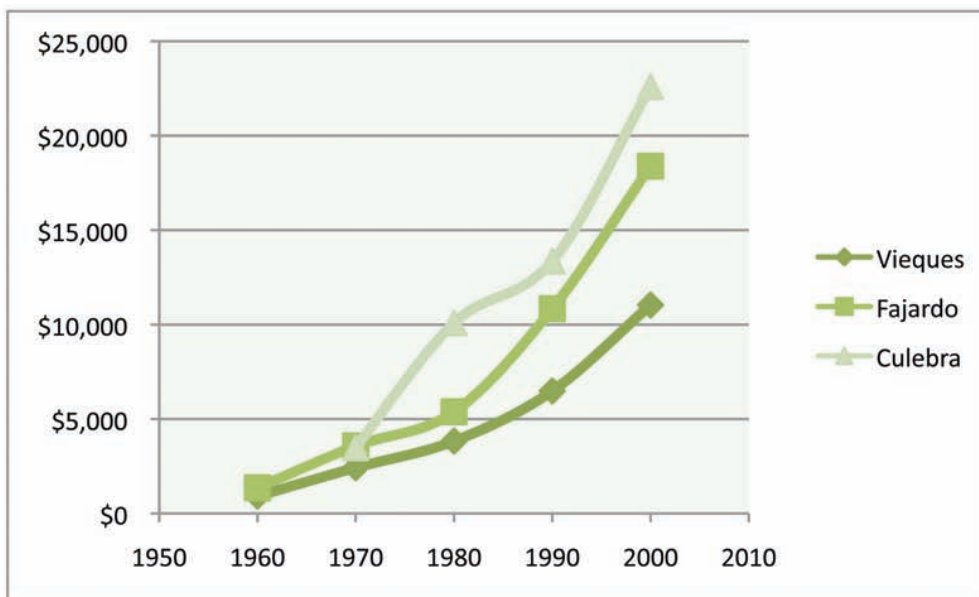
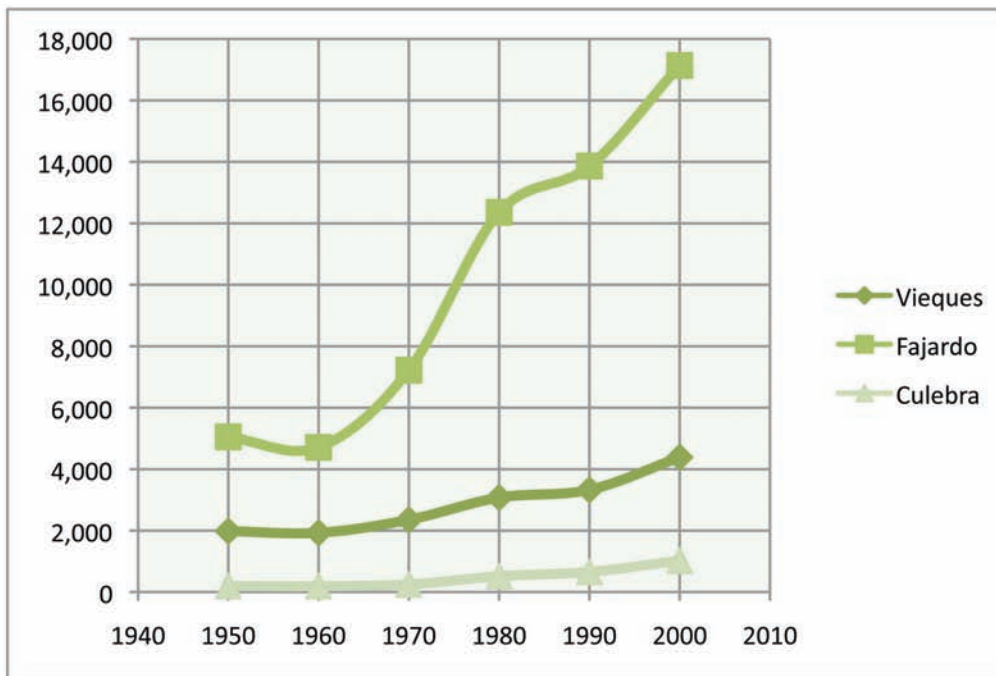


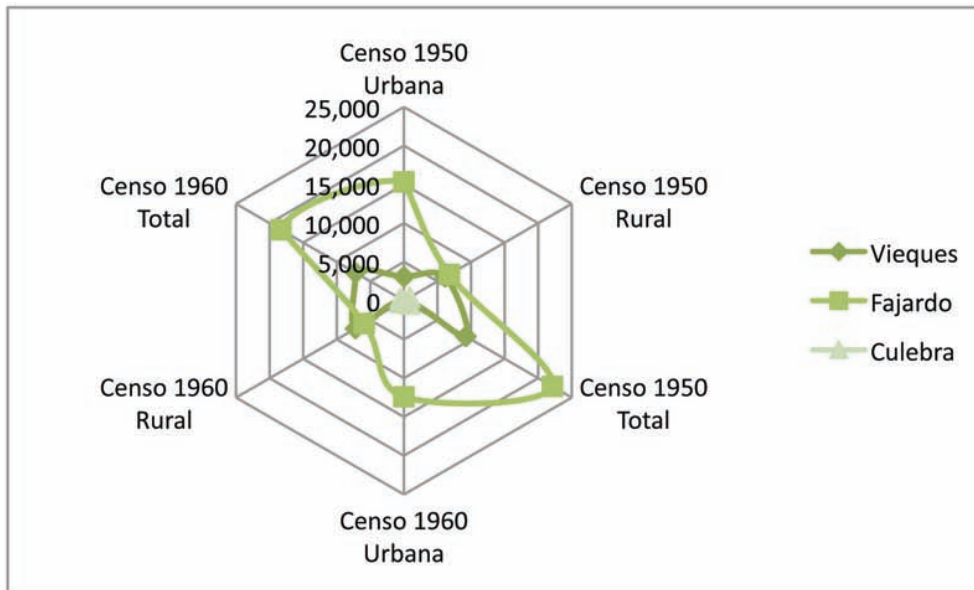
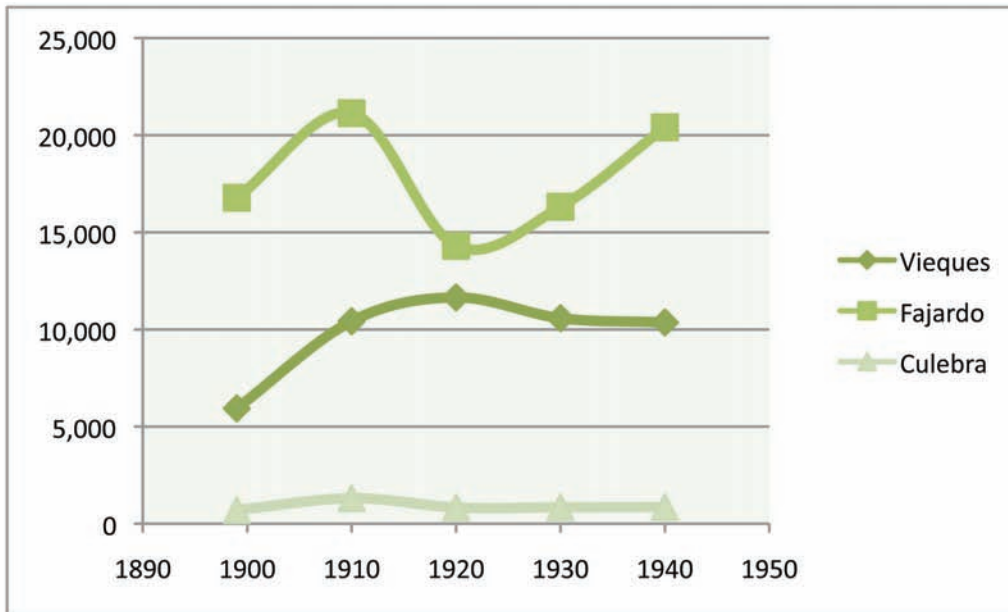












Altinyildiz, Nur, and Gulsum B. Nalbantoglu. "At the Threshold of Architecture." JADE 20.2 195 (2001): 195-204. Print.

Czerw, Kathleen C. Boundaries and Thresholds: Maintaining Diverse Identities. Thesis. Syracuse University School of Architecture, Fall 2005. Print.

Davis, Jeffrey Sasha, Jessica S. Hayes-Conroy, and Victoria M. Jones. "Military Pollution and Natural Purity: Seeing Nature and Knowing Contamination in Vieques, Puerto Rico." GeoJournal 69.3 (2007): 165-79. Print.

Description of Vieques as a bombing range, and how the nature is degraded. It helps to understand the kind of contamination affecting Vieques.

Gonzalez, Juan. "Vieques Libre." AlterNet. In These Times, 16 May 2010. Web. 11 Sept. 2010. <<http://www.alternet.org/module/printversion/1011>>.

The section used as a bombing range has been off-limits to local residents since the 1940's. Not only the United States used these facilities, but also the navies of NATO and Latin American countries so they too could fire their shells at it.

González-Velázquez, Joanisabel. "Soñando Con Vieques: Una Era Después De La Salida De La Marina." PUERTO RICO HERALD: The Voice of Puerto Rico Self-Determination, Volume 9, Numbers 33, 34, Ed. 400. Puerto Rico Herald, 1 Aug. 2003. Web. 11 Sept. 2010. <<http://www.puertorico-herald.org/issues/2003/vol7n31/DreamingVQ-es.html>>.

The people of Vieques want development, improvement, but they do not want to lose the little they got. Therefore, this information presents proposals for a sustainable development of the island, taking into consideration the contamination of the lands previously occupied by the Navy's bombing range.

Gravette, Andrew G. Architectural Heritage of the Caribbean: an A-Z of Historic Buildings. Kingston, Jamaica: Ian Randle, 2000. Print.

Information on the evolution from the bohío to Spanish Architecture.

Santiago, Miguel A. Militarismo Y Clases Sociales En Vieques, 1910-1950. San Juan, P.R.: Ediciones Huracán, 2007. Print.

Historic development of the geographical boundaries caused by the US Navy on the Vieques Island.

"History of the Navy in Vieques. "A Vieques Island Travel Guide, Puerto Rico Caribbean . Web. 8 Sept. 2010. <<http://www.vieques-island.com/navy/>>.

Never again shall we tolerate abuse of a magnitude and scope the likes of which no community in any of the fifty states would ever be asked to tolerate. Never again shall we tolerate such abuse: not for sixty years, and not for sixty months, or sixty hours, or sixty minutes.

"Isla De Vieques Basic Facts. Getting to Vieques, Getting Around, Things to Do." Vieques Island Puerto Rico. Hotel Guide. Isla De Vieques PR Beaches, Photos, Air. 2010. Web. 8 Aug. 2010. <<http://www.viequestravelguide.com/basic-vieques-facts.html>>.

Topography: Vieques is made up of hills and valleys. The highest point on the island is Monte (Mount) Pirata which is 987 feet above sea level. The coastal areas consists of lagoons and mangrove swamps. Location: Vieques is located just a short 6 miles off the Southeast coast of Puerto Rico, the Star of the Caribbean.

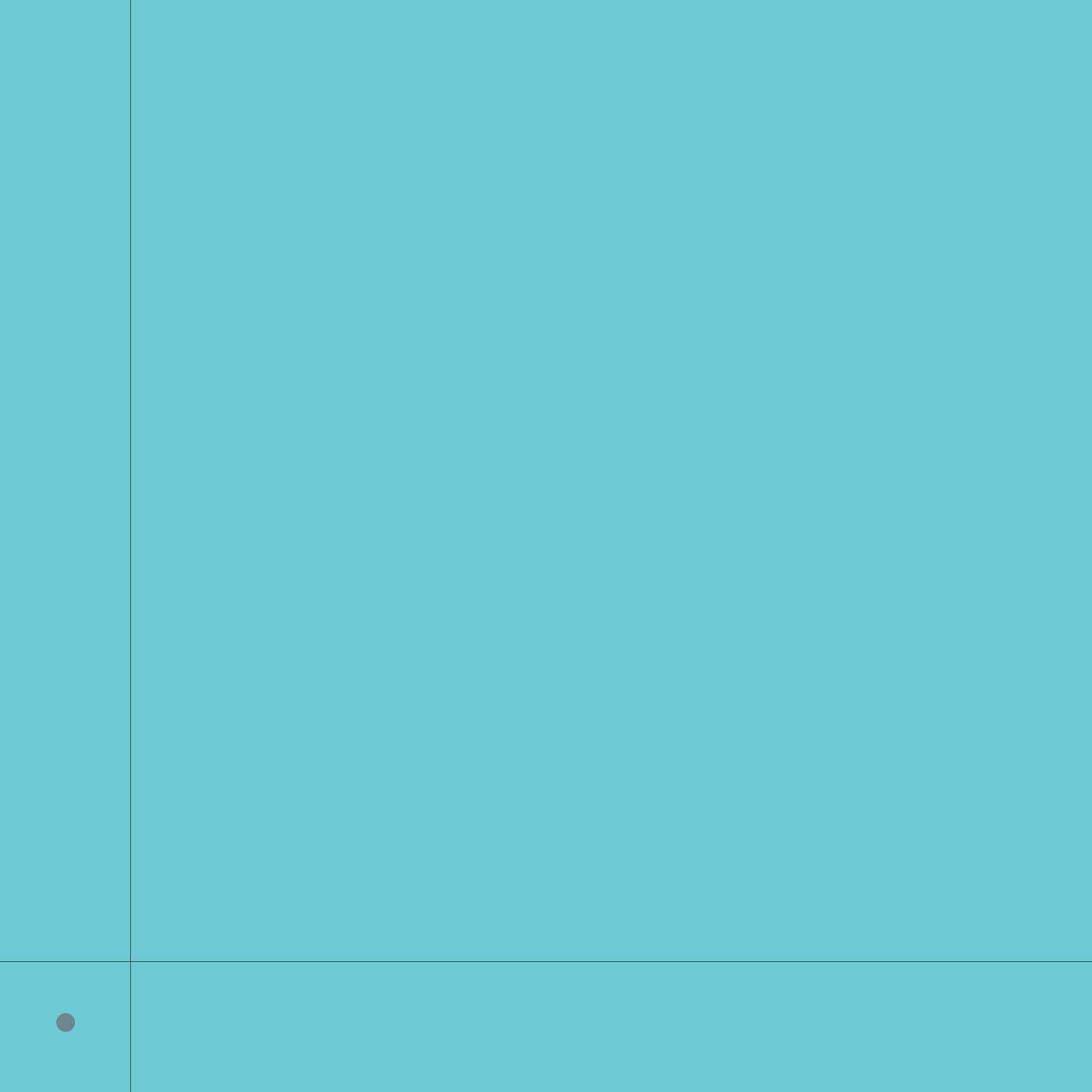
Lim, Tae K. Defining Blurred Boundaries of Fragmented Syracuse. Thesis. Syracuse University School of Architecture, Spring 2008. Print.

Mc Namara, Benoit. Exploring Threshold. Thesis. McGill University, Montreal, Canada, Fall 2008. Print.

Palm, Erwin W. Arquitectura Y Arte Colonial En Santo Domingo. Santo Domingo, Republica Dominicana: Editora De La Universidad Autonoma De Santo Domingo, 1974. Print.

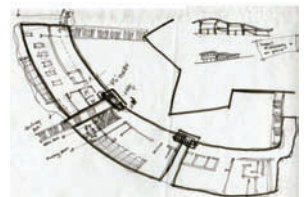
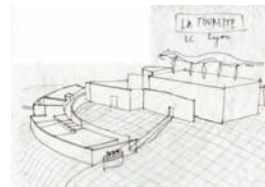
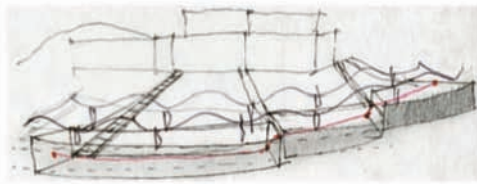
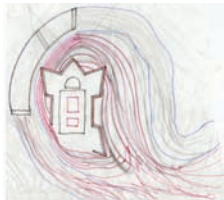
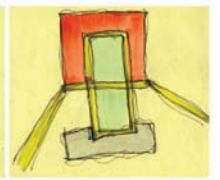
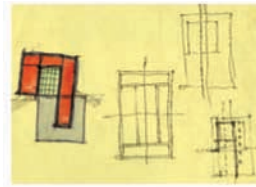
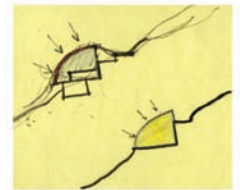
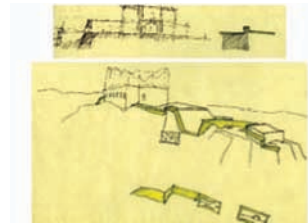
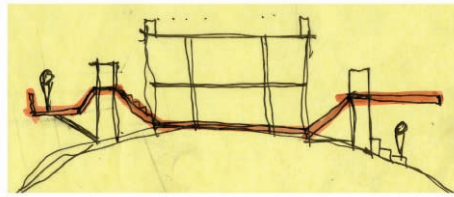
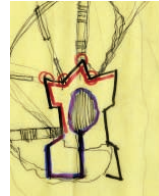
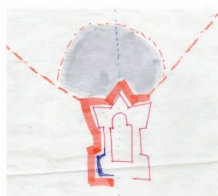
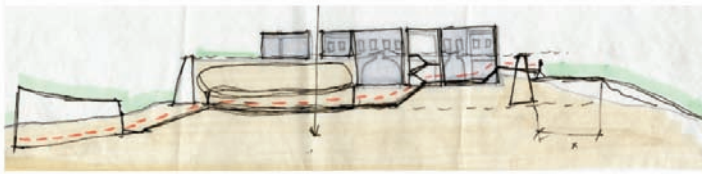
Architecture from other Caribbean Islands that were colonized by the Spaniards.

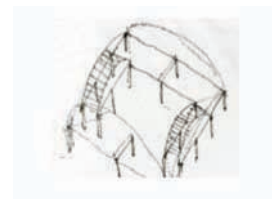
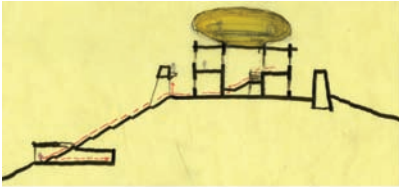
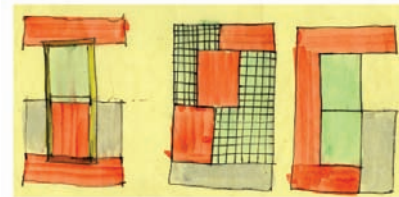
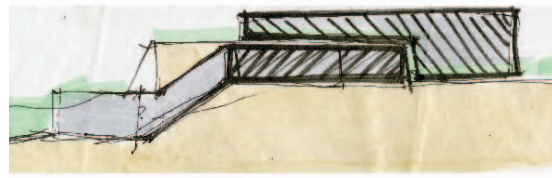
Robiou, Sabastian. Ta' nos Y Caribes: Las Culturas Abor' genes Antillanas. San Juan, Puerto Rico: Editorial Punto Y Coma, 2003. Print.
Culture, Architecture, and Astronomy of the Ta' nos.

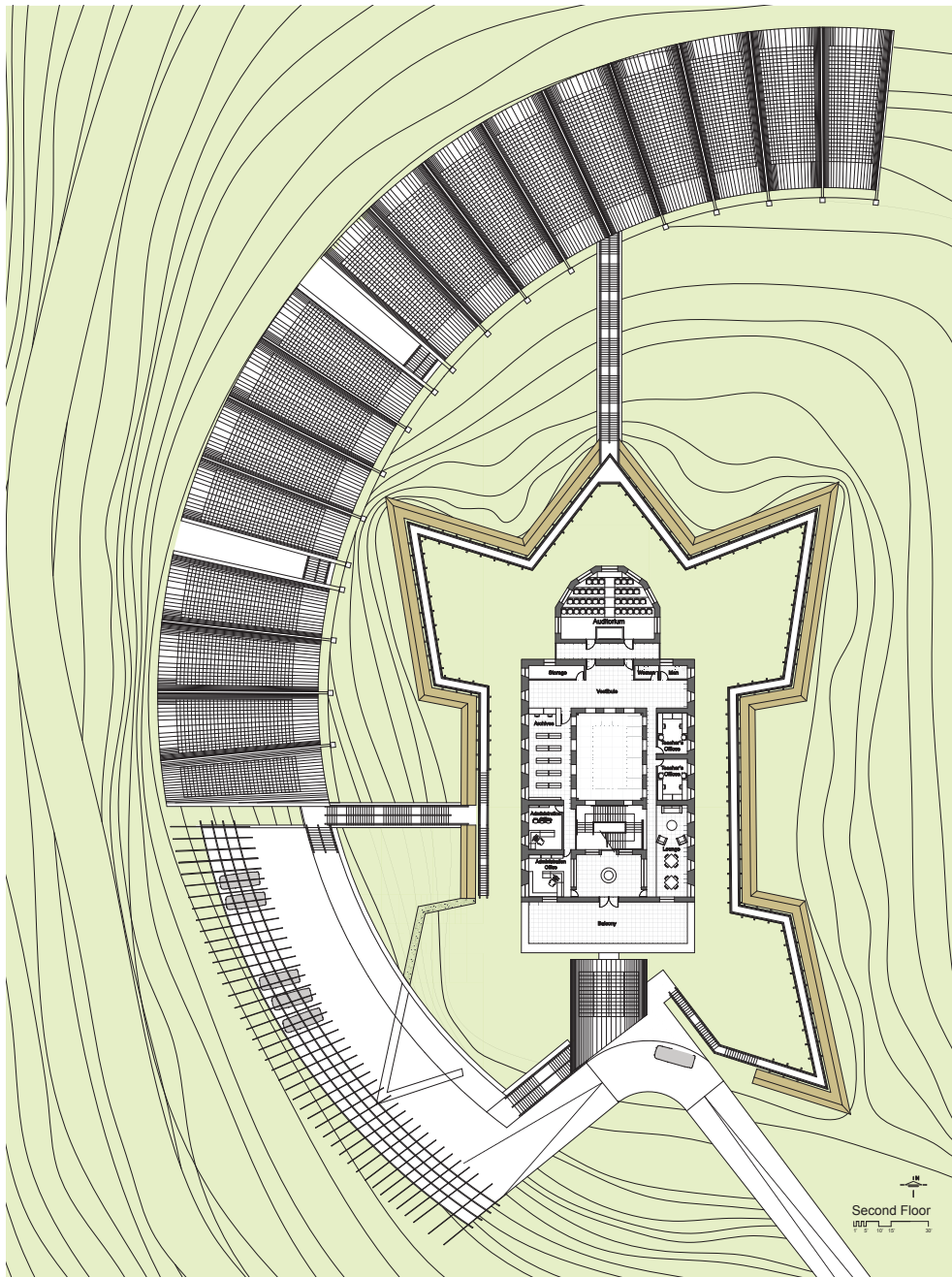


Thesis Design

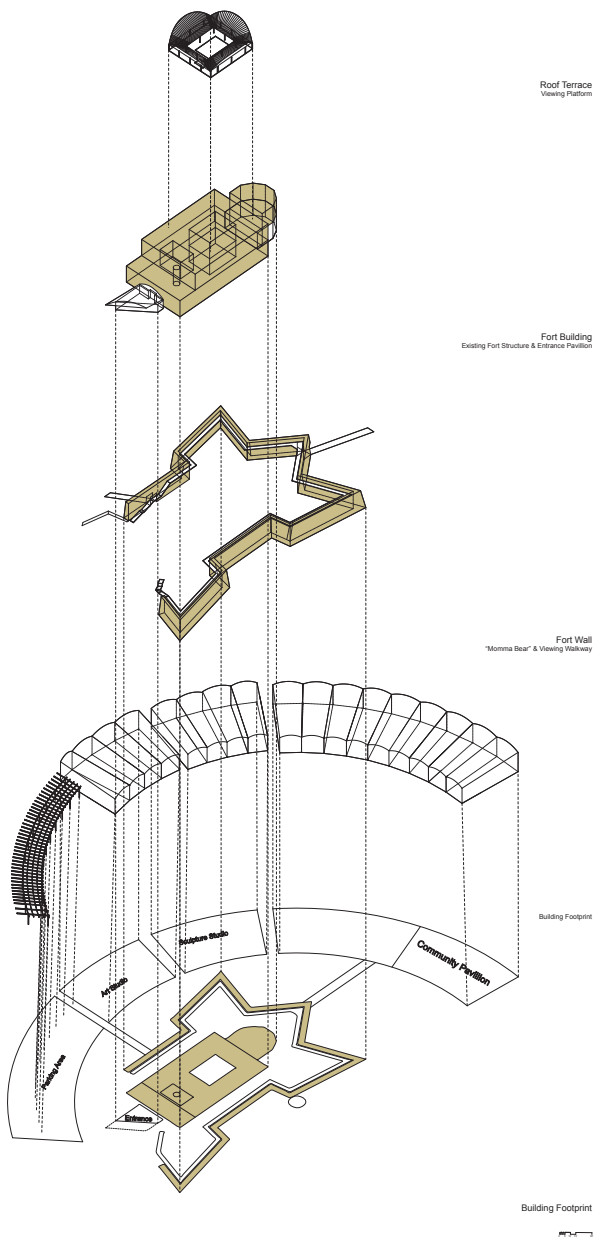
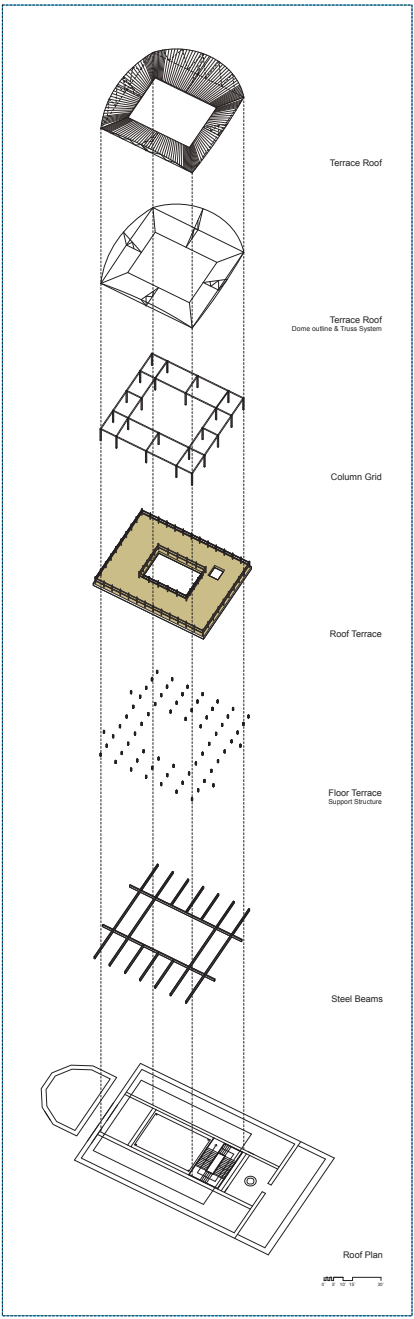


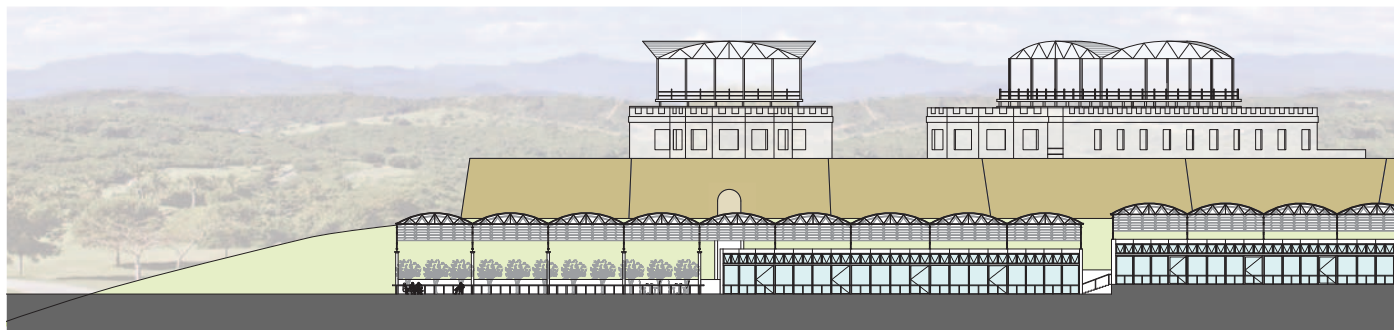
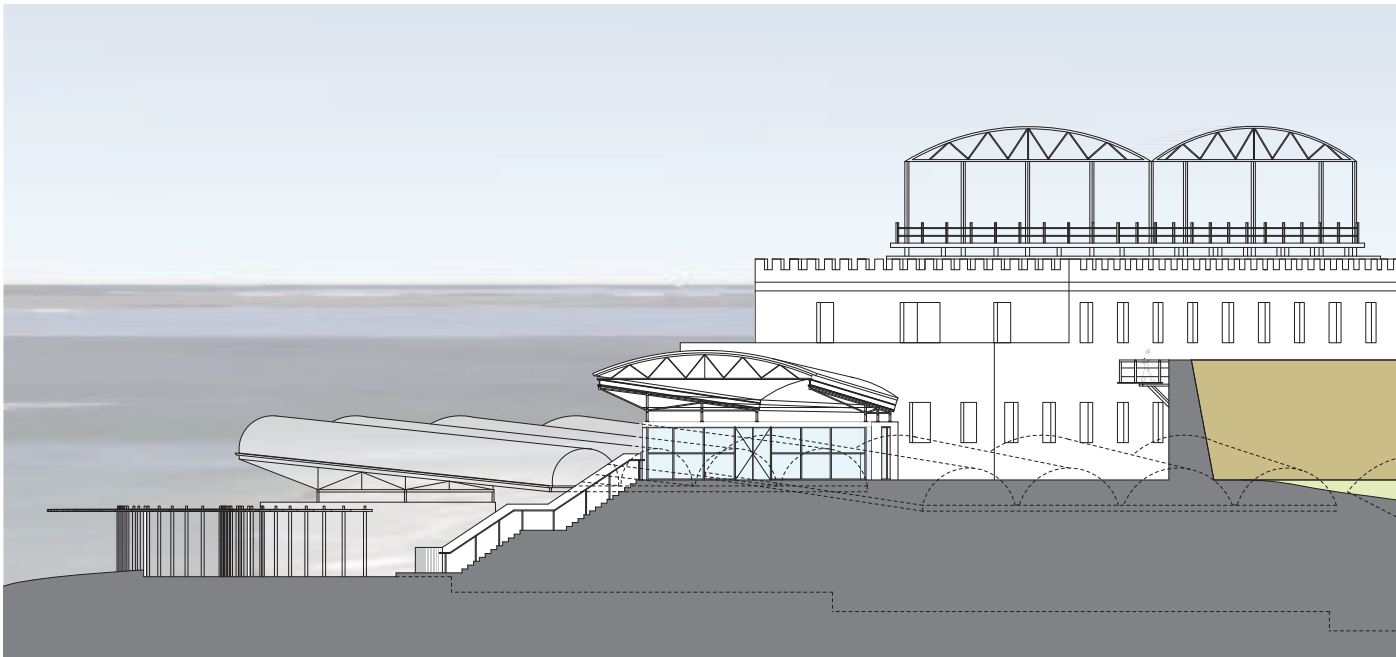


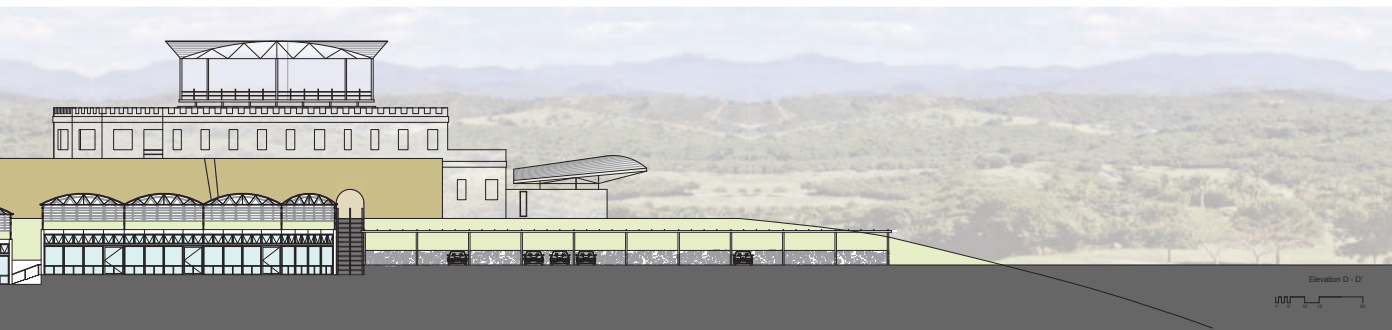
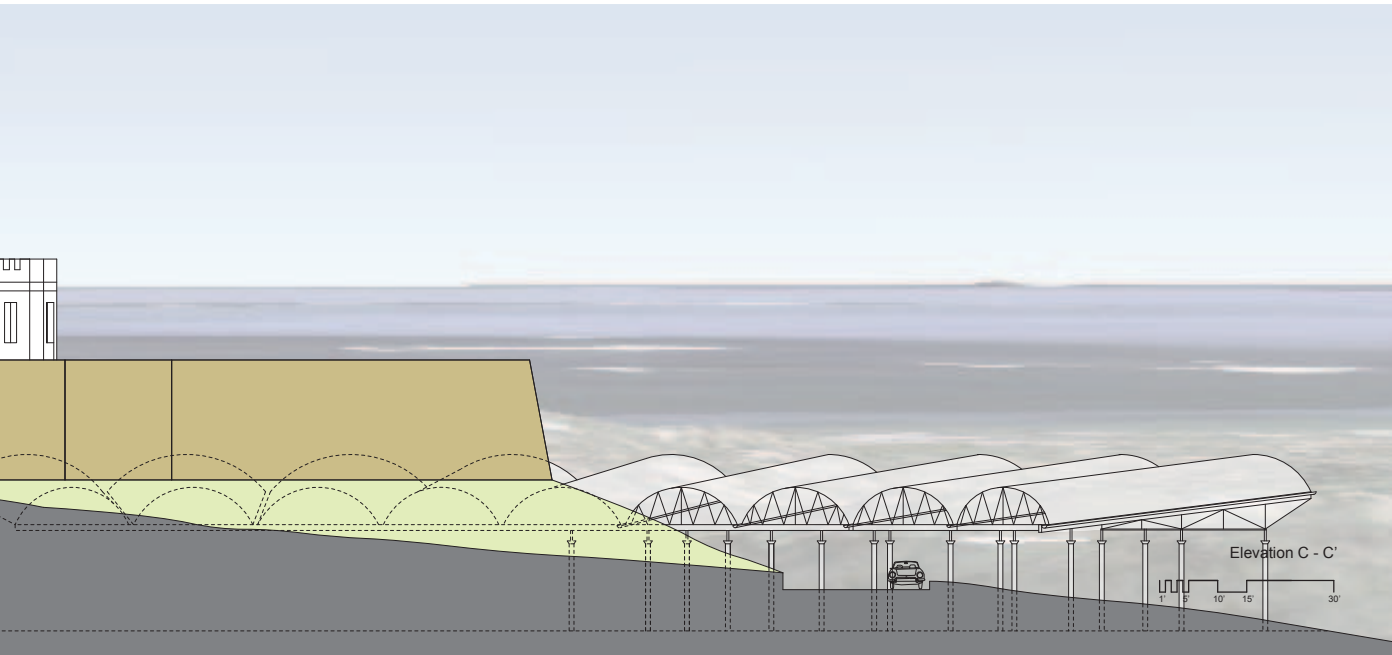


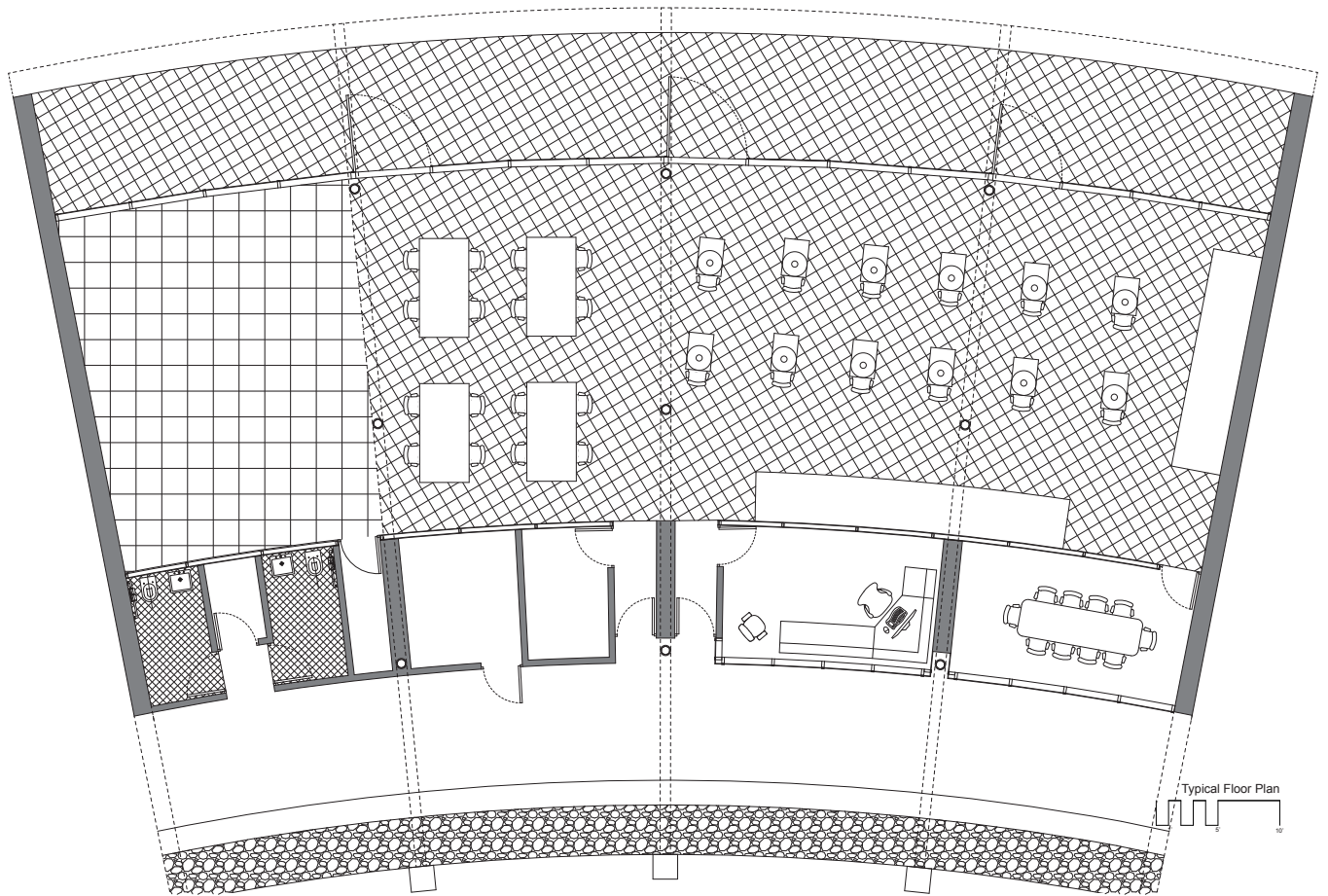


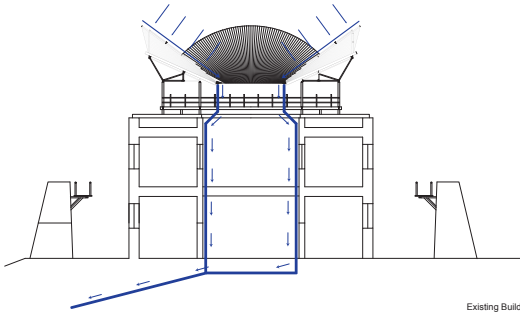
Second Floor Plan



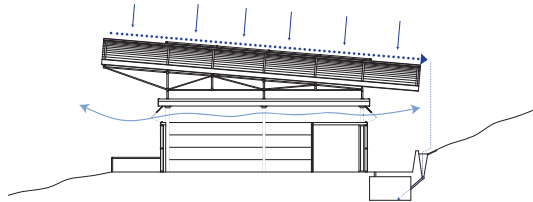




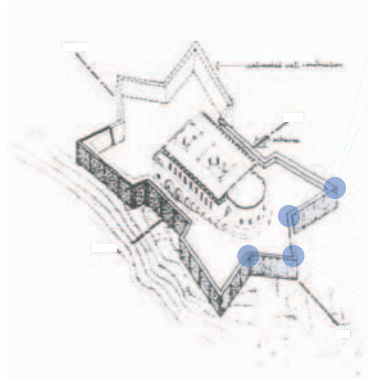




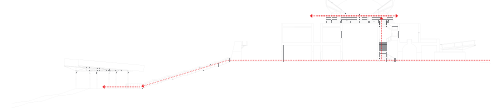
Existing Building
Water Collection System



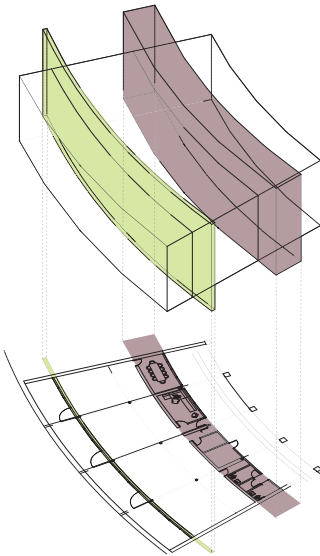
Pavilion Water Collection and
Ventilation Systems



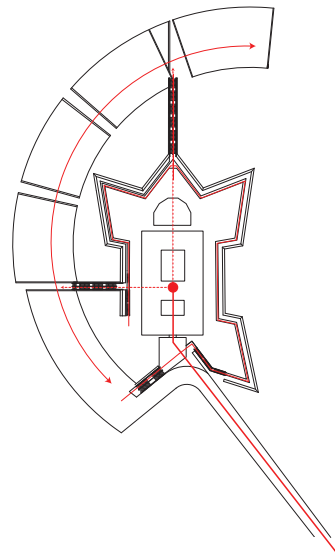
Canons Setting the Views



Circulation: Main Entrance / Fort / Pavilions

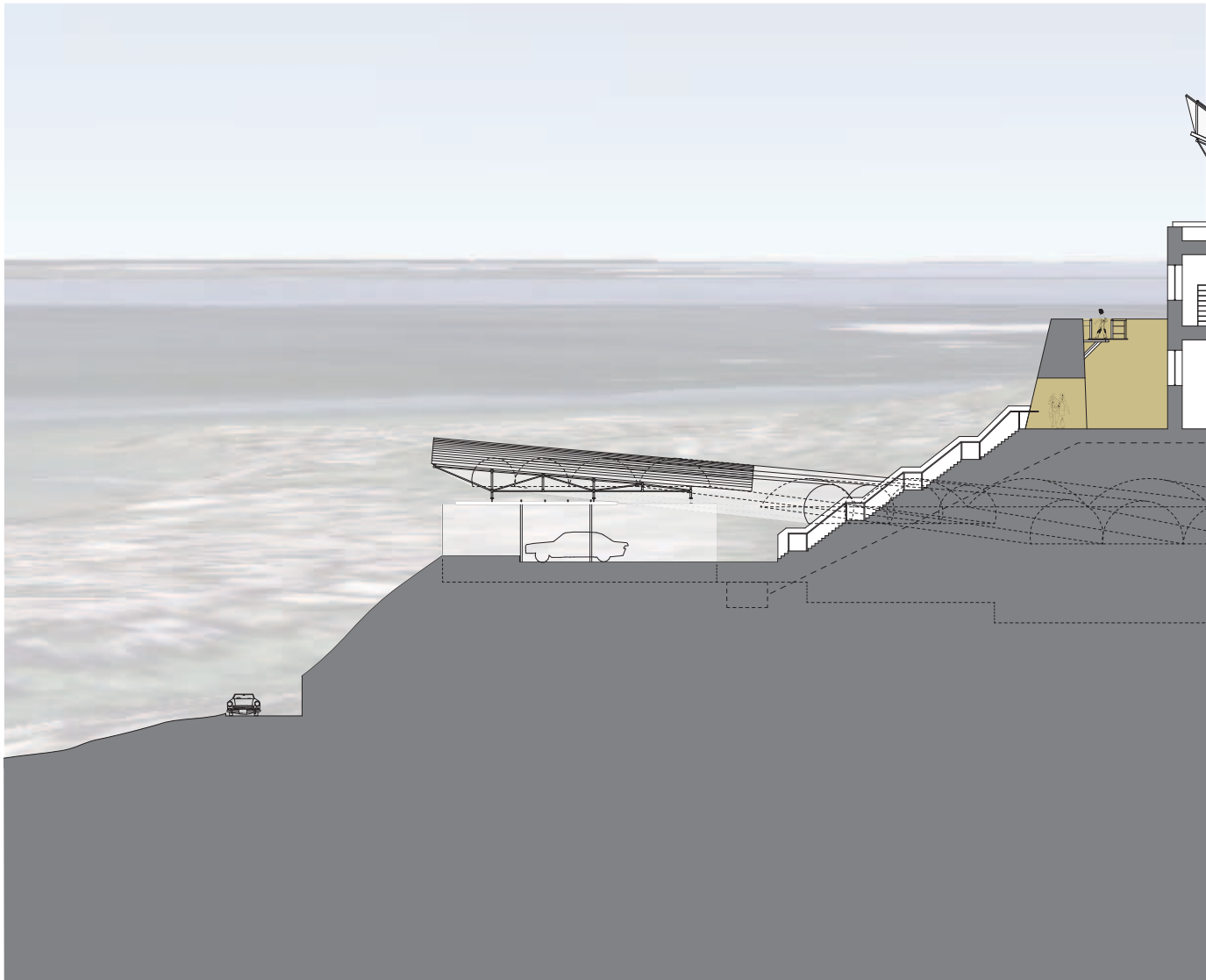


Depth of Facade

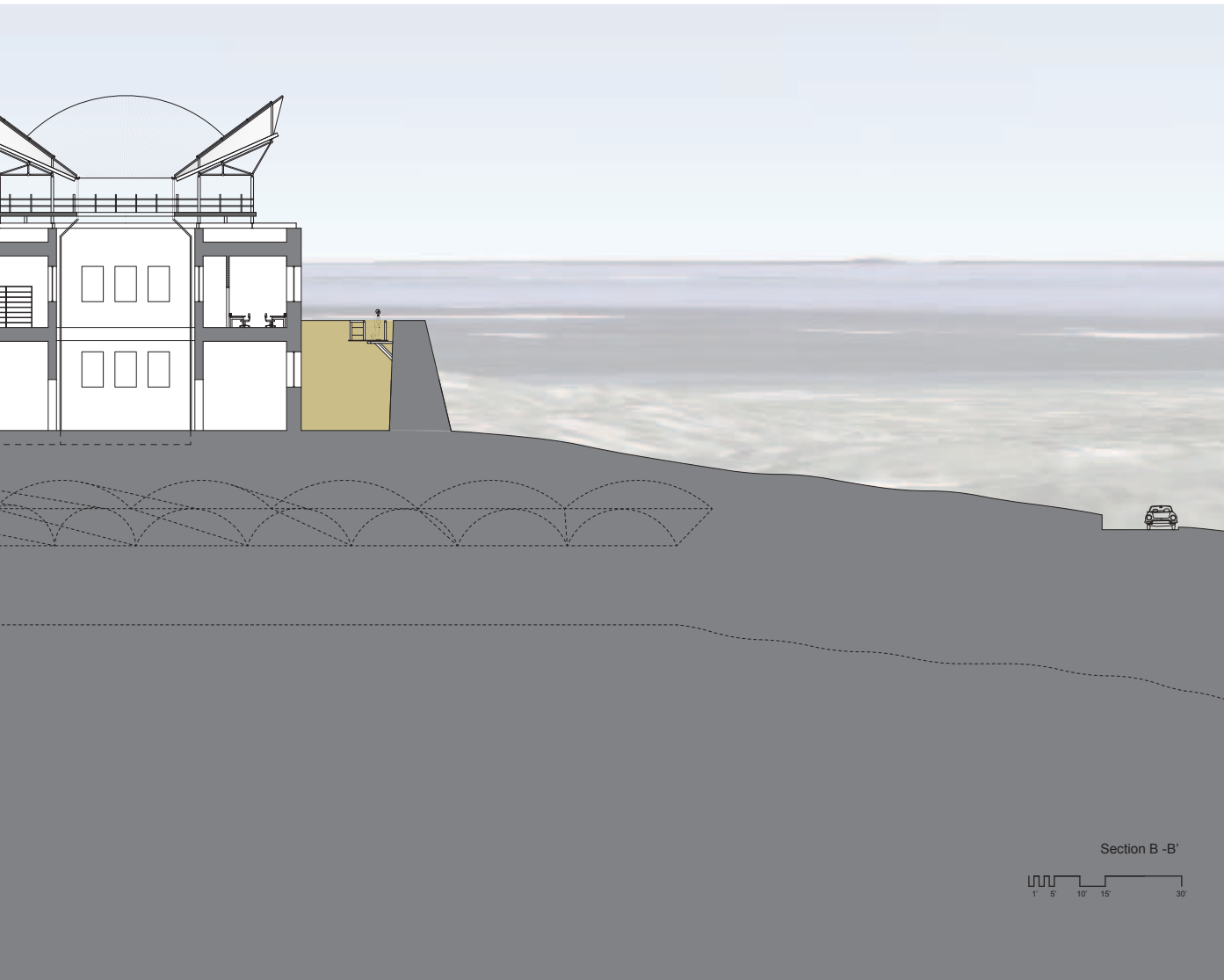


Circulation: Street / Entrance Pavilion /
Walkway / Existing Building / Pavilions

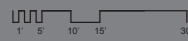




East - West Section



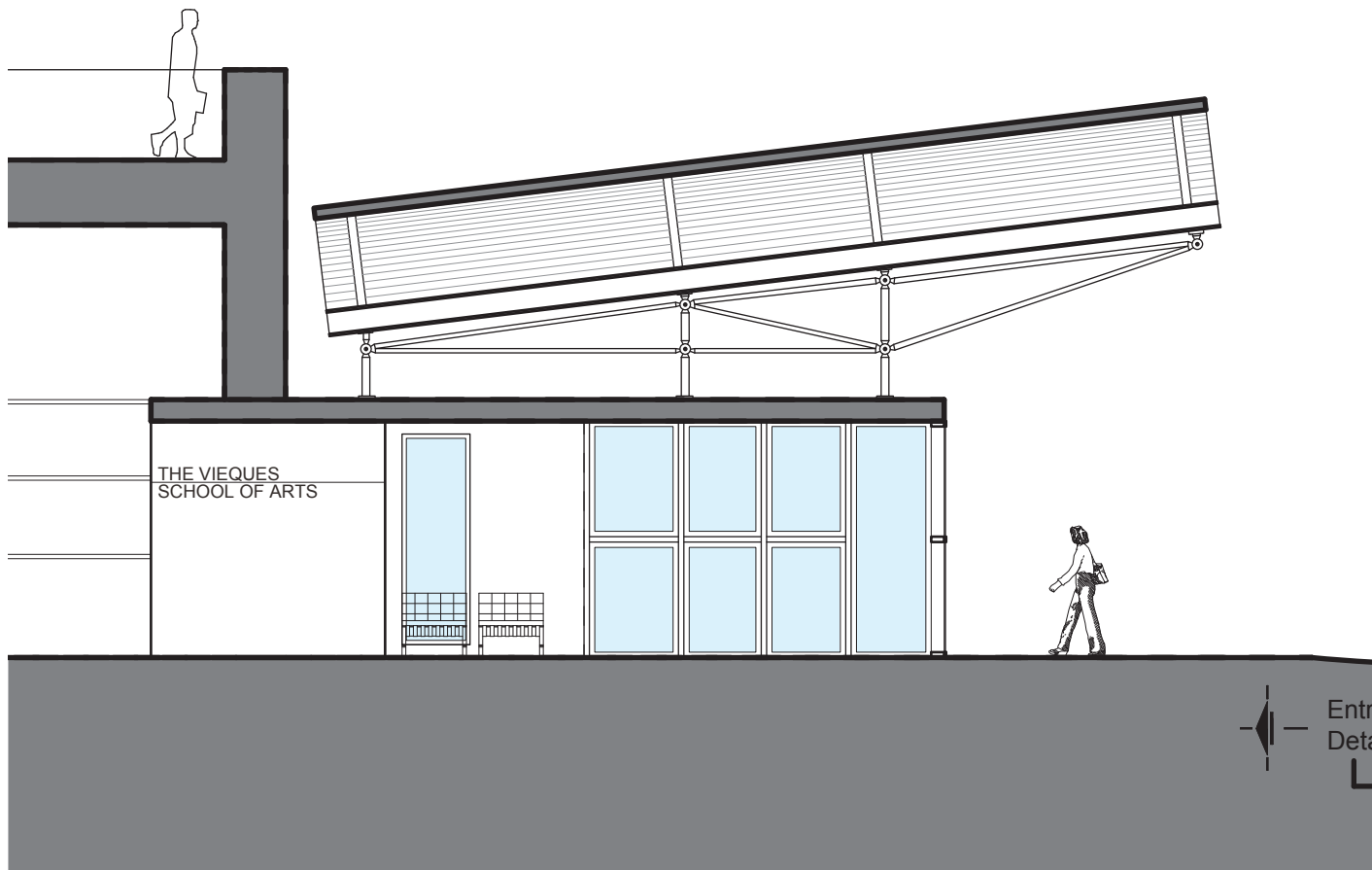
Section B -B'





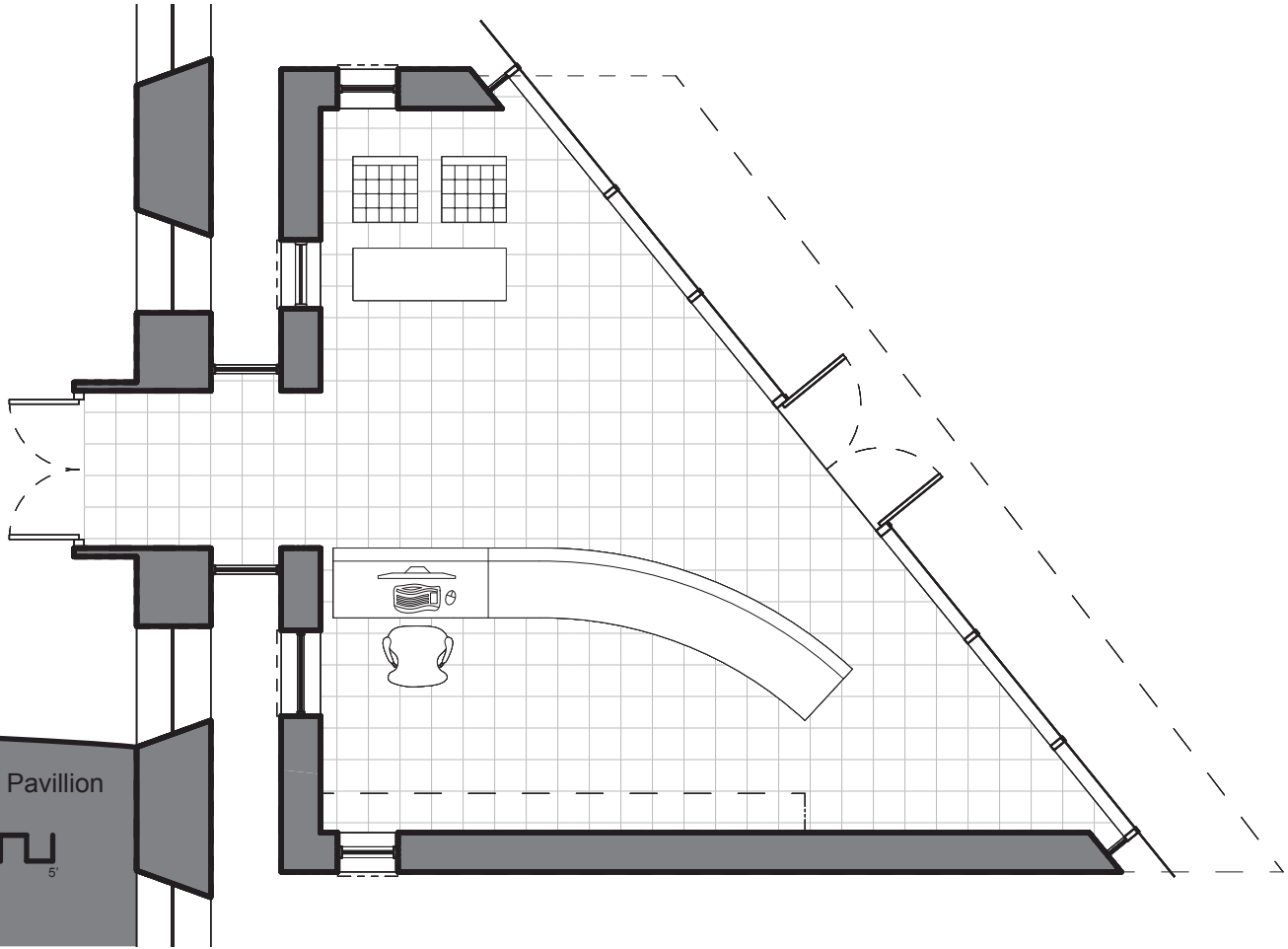
North - South Section

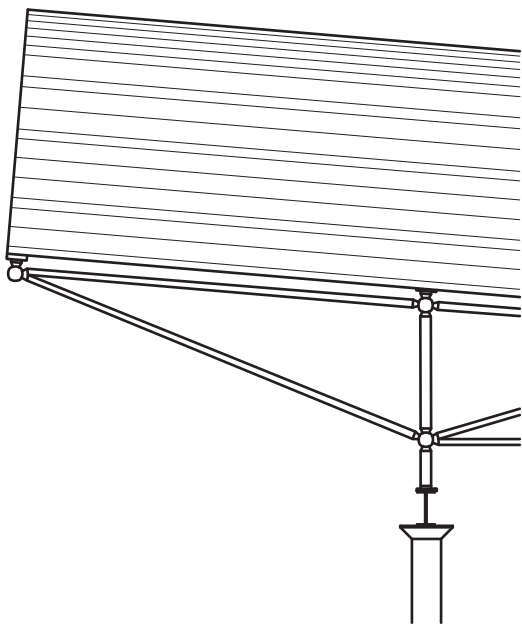




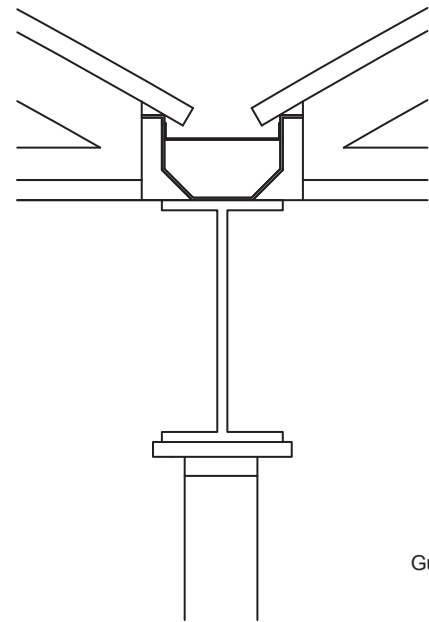
● Entrance Pavilion Detail

France Pavillion
tail





Structural Joint Detail



Gutter Detail



