ALEXANDRA CARMONA

SELECTED WORKS

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STACKED HOUSE

UNDERGRADUATE, 2002

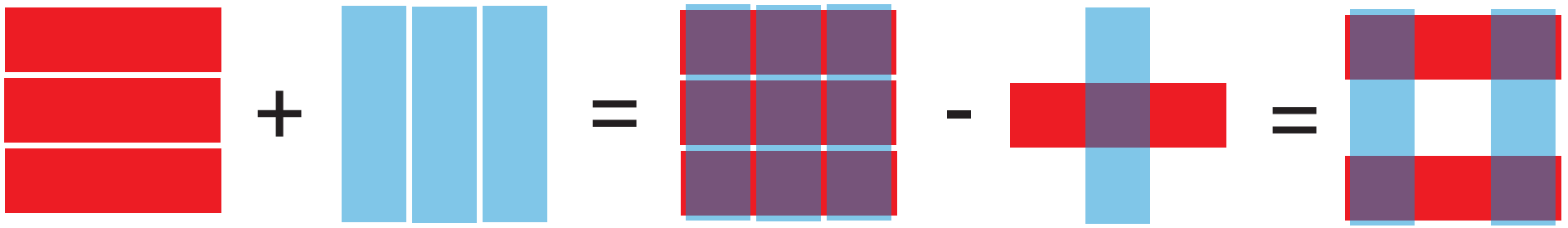
This project is located in Castillogrande, a very traditional residential area in Cartagena, Colombia, surrounded by Cartagena's Bay at north and the Caribbean Sea at south west. The assignment was to design a house for two families, with four bedrooms, living, kitchen, studio, services area and a pool, for each one. My personal challenge: to design a whole single element without symmetry nor a house repeated twice.



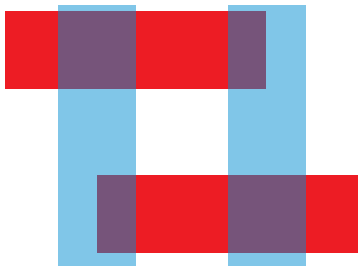

The surrounding architecture is not worthy for inspiration, despite having the wealthiest residents in the city (except for a few modernist houses from the sixties). The view toward the bay is really amazing but what caught my attention was beyond the opposite coast: the harbour, with thousands of stacked containers.

DESIGN PROCESS

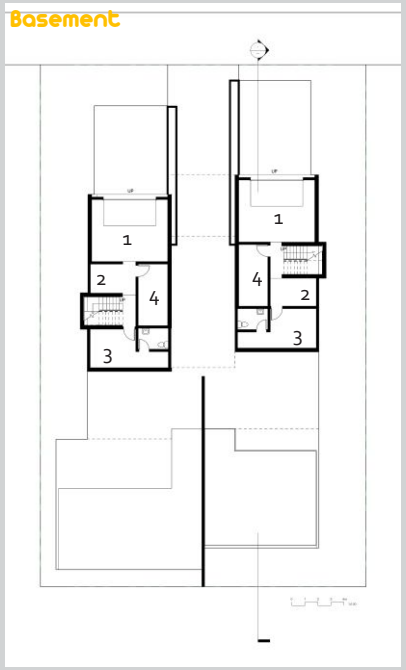
Starting with stacking elements in both axises X and Y, then in Z. Stacking could be useful if design takes into account a correct density which allows ventilation and illumination for interior spaces. That is why the central elements are removed.



Finally, to grant access to views for both modules, containers in axis X are displaced.

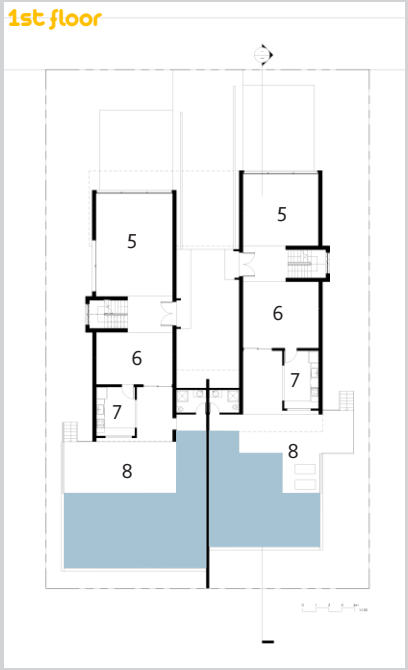


Basement



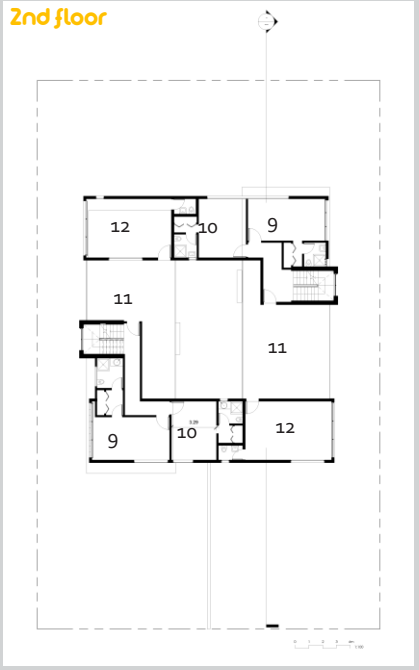
1. Garage 2. Laundry room
3. Maid's room 4. Storage room.

1st floor



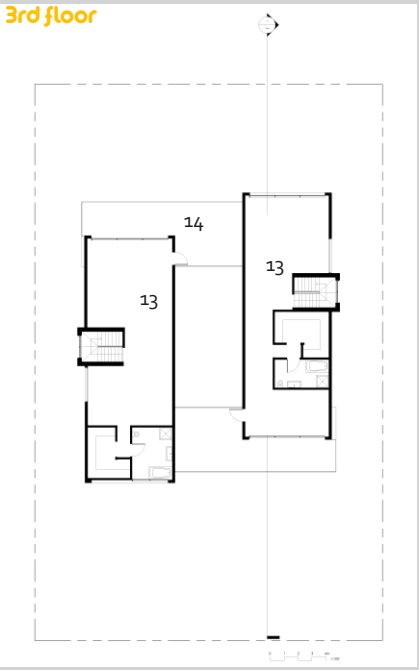
5. Living room 6. Dinning room
7. Kitchen 8. Pool deck

2nd floor

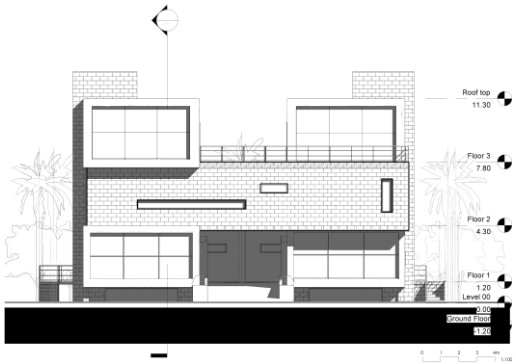


9. Bedroom #2 10. Bedroom#3
11. Terrace 12. Studio/office

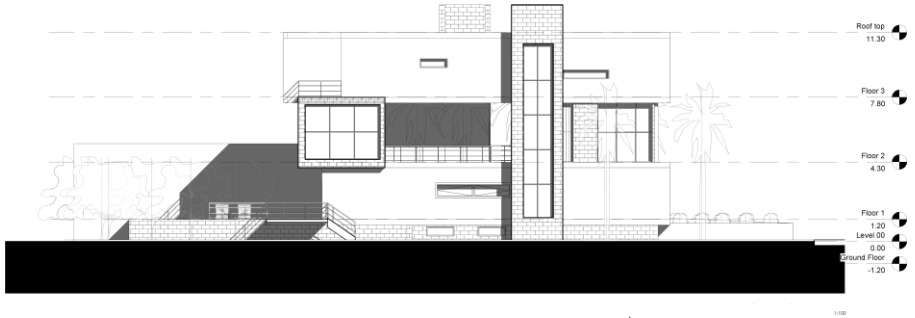
3rd floor



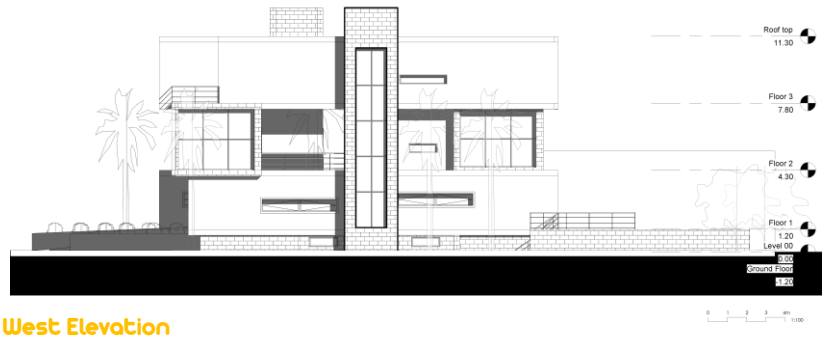
13. Master Bedroom 14. Terrace



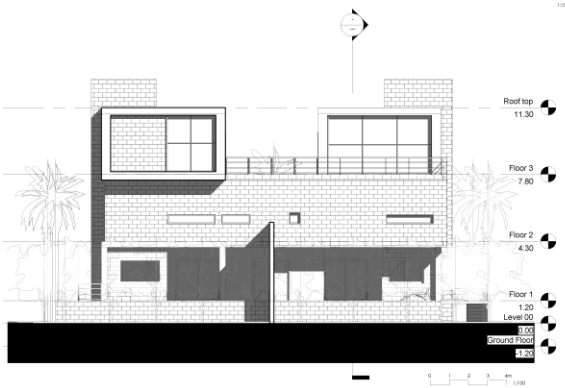
North Elevation



East Elevation

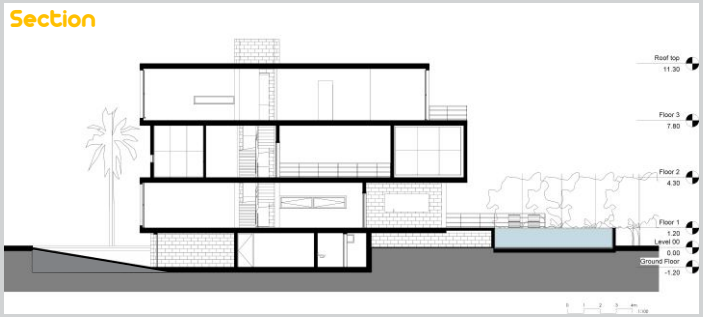


West Elevation

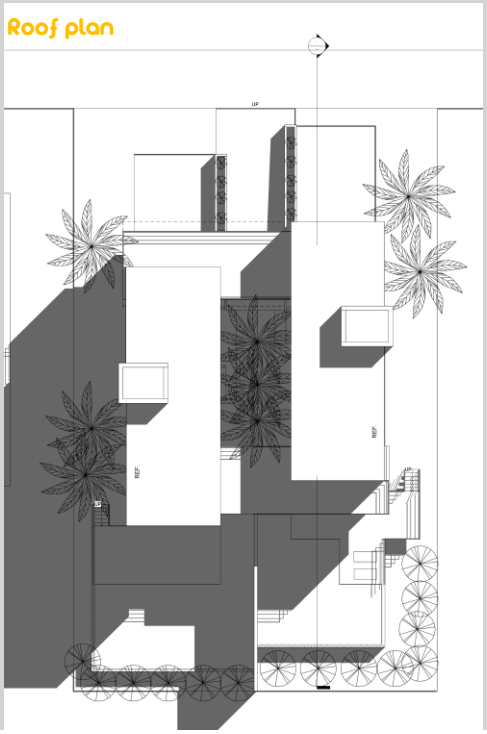


South Elevation

Section



Roof plan



View from the backyard

View from the entrance

MARBELLA APARTMENTS

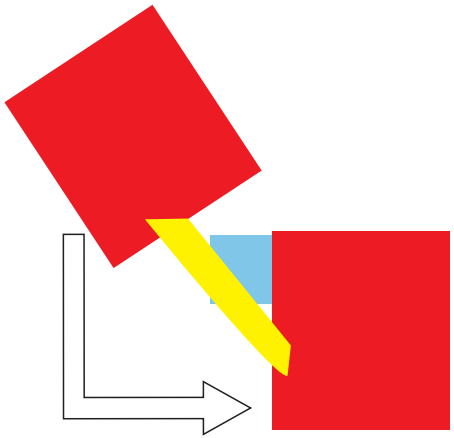
UNDERGRADUATE, 2003

Located in Marbella, in a strip of land between the Cabrero Lake and the beach. Due to its orientation is one of the most windy and sandy areas in Cartagena. The assignment was to design a multi-story building for housing, taking account of the weather conditions for this site. The sand comes across the avenue and get into the houses. Appliances and even aluminum windows get rusty very often.

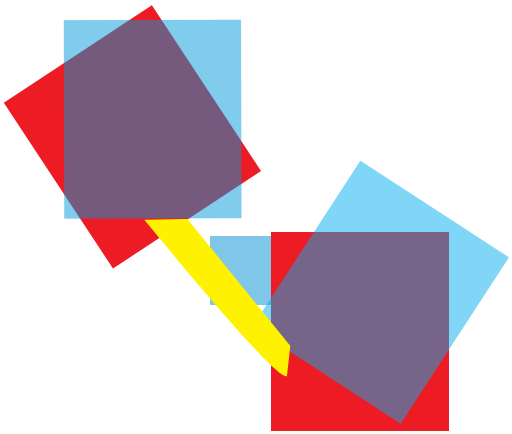
DESIGN PROCESS

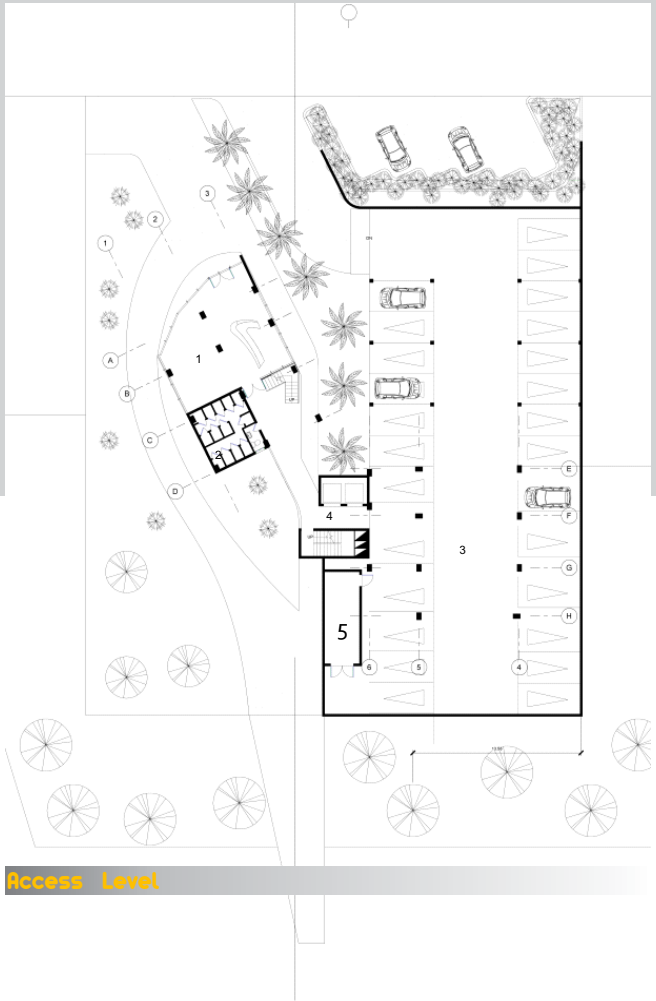
My first decision was to avoid flat and wide facades. After calculating the areas per story, a single bulk would have a lot of volume and wide surfaces, perfect to catch wind and sand.

Instead, I proposed to split it in two volumes, and with the low building density allowed in the code, it is a must to keep a single vertical circulation. The volumes then are connected by the horizontal circulation.



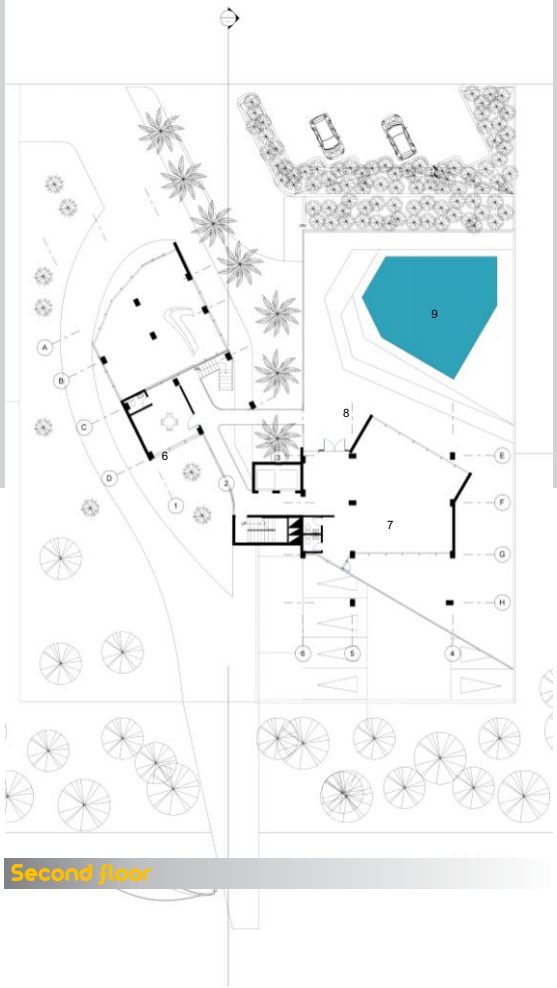
To maximize the width of views avoding widing a facade, each volume is rotated on its own axis to generate balcony slabs.





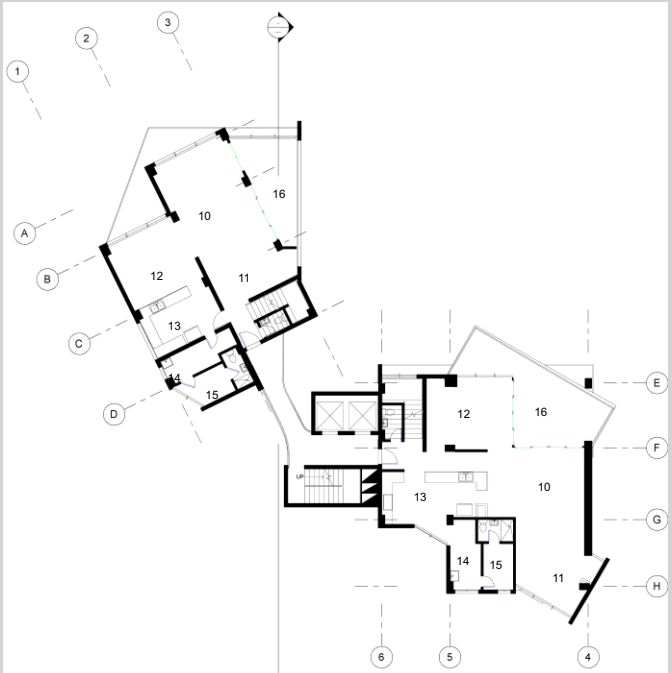
Access Level

1. Lobby 2. Storage 3. Parking 4. Vertical circulation 5. Power room.

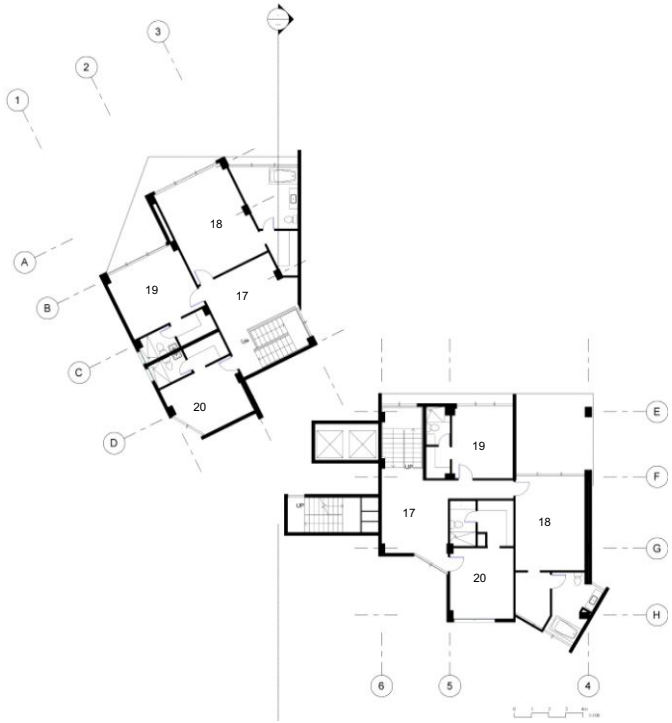


Second floor

6. Administration office 7. Multi-purpose room 8. Terrace 9. Swiming Pool.



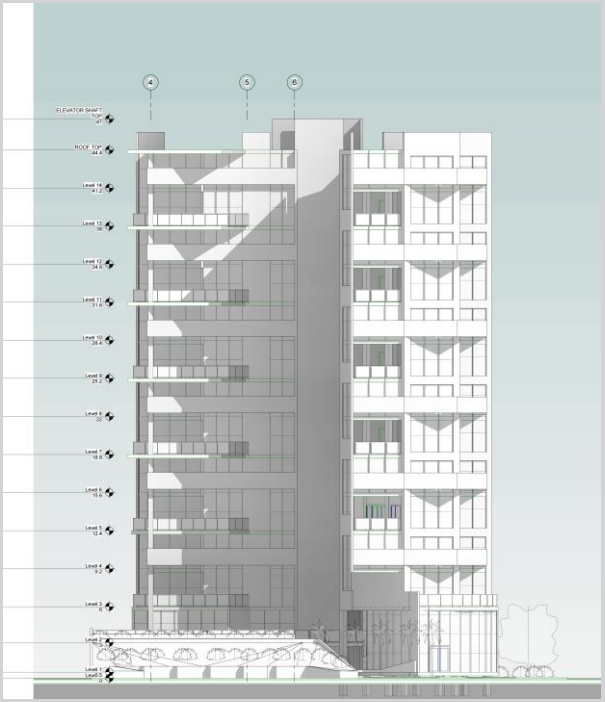
Apartment first type floor



Apartment 2nd type floor

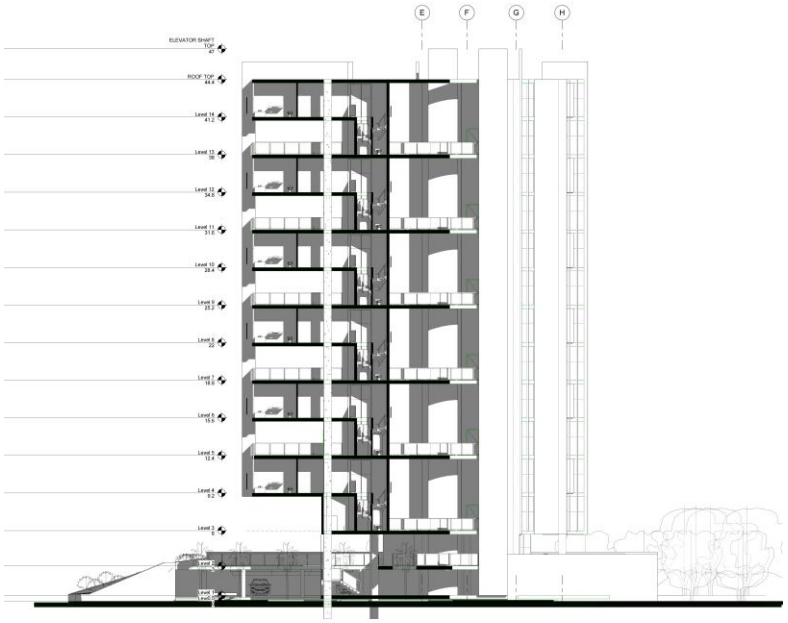
10. Living 11. Office 12. Dinning room 13.Kitchen 14. Laundry room 15. Maid´s room 16. Balcony
17. Family room 18. Master bedroom 19. Bedroom 02 20. Bedroom 03

North Elevation



South-west facade

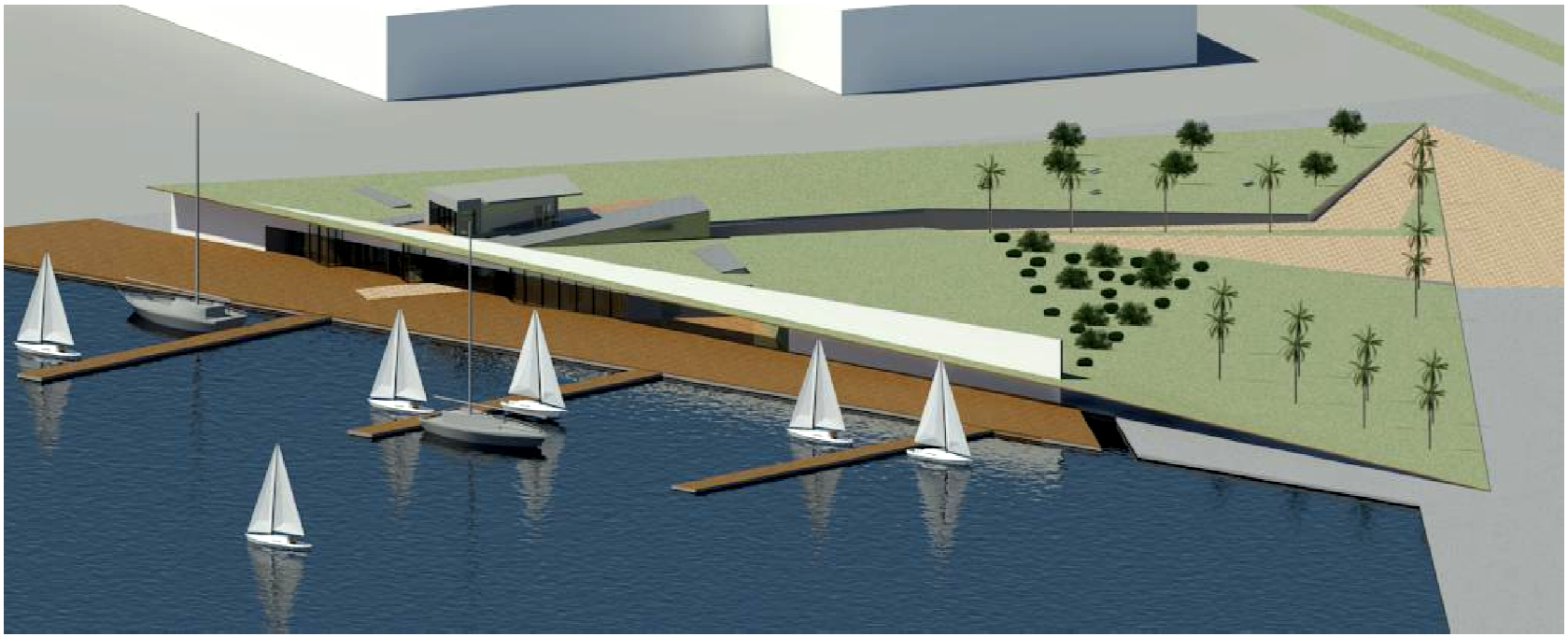
Section



A battered garden works as a barrier against the sand sand coming fron the beach. The horizontal screens of perforated aluminum protect the interior of the apartment from direct sunligth

LIMBO MARINA CLUB

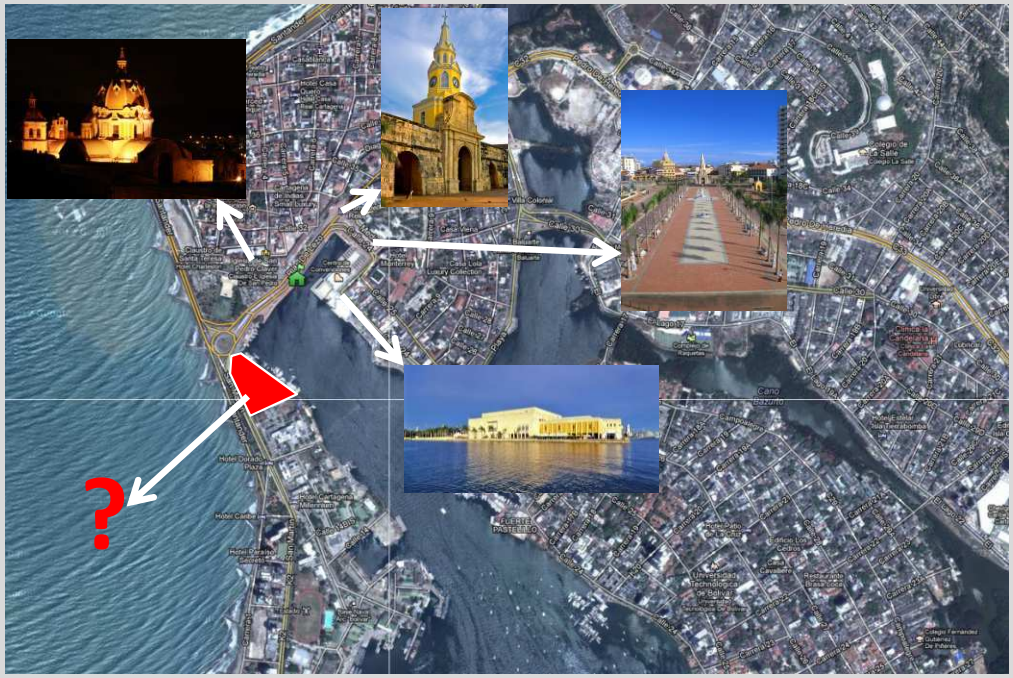
UNDERGRADUATED, 2004



This is the best project site in Cartagena: in the narrowest land between the Caribbean Sea and the stunning Bahia de Cartagena at its historic district. The area has the most iconic buildings and public spaces of the city. In such an important location, nowadays it is occupied by... well, a gas station and service center. Although the gas station serves boats as well as cars.

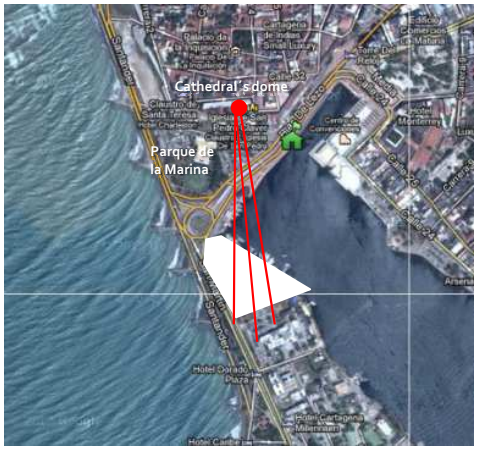
The assignment was to design the most adequate use for the site. The maximum height allowed is a two story building, and the occupation is set to the 30%. Next to the site at north is the touristic dock of La Bodeguita, where sail boats take off from. At south there is the Navy Military Base and in the opposite shore in the Manga isle is the Nautical Club, the only formally established civil marina, very small but also very active, it is over capacity almost all the time.

Given the proper conditions, this program would fit perfectly for the site.
The advantage of this activity is the positive impact it has in the city´s skyline, and the emphasis on the historical spirit of the port city.



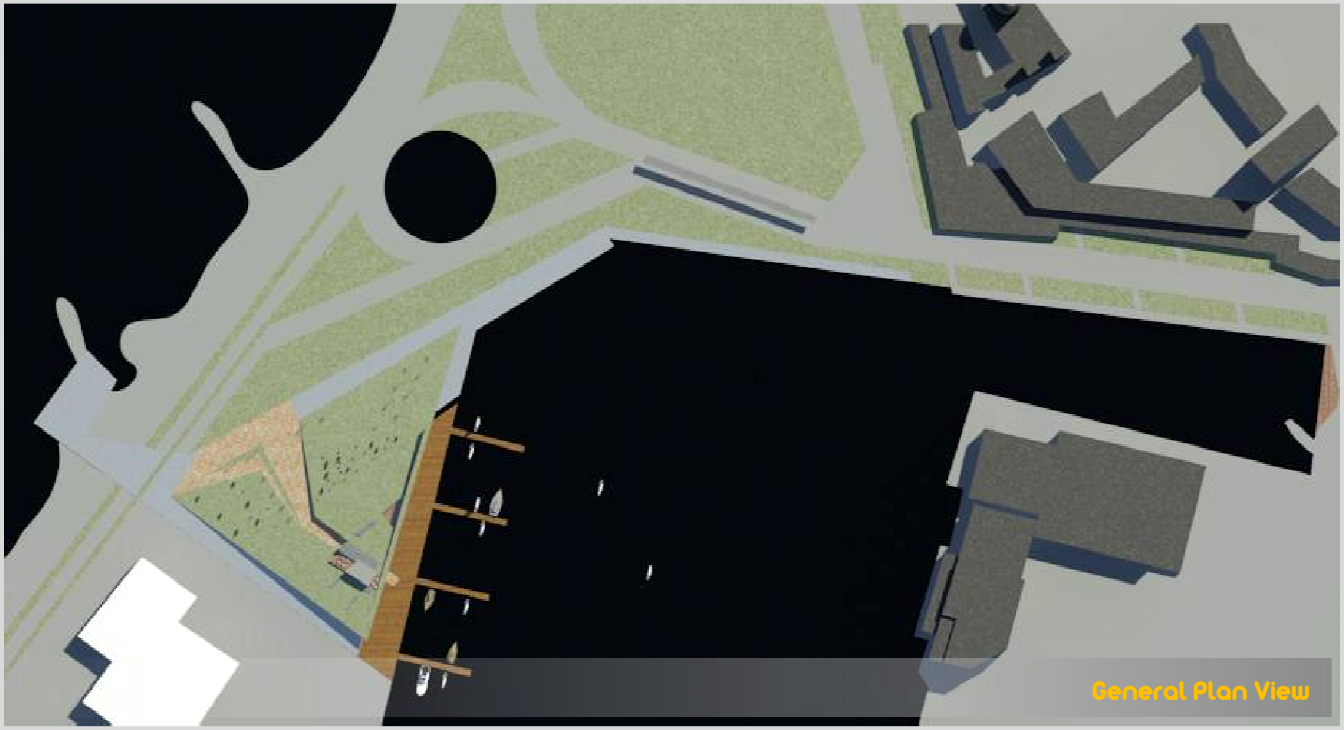
DESIGN PROCESS

My favorite landmarks in Cartagena are the San Pedro Cathedral´s dome, designed in the republican era of the city by french architect Gaston Lelarge, and the Cerro de la Popa, the only mountain in this flat city.



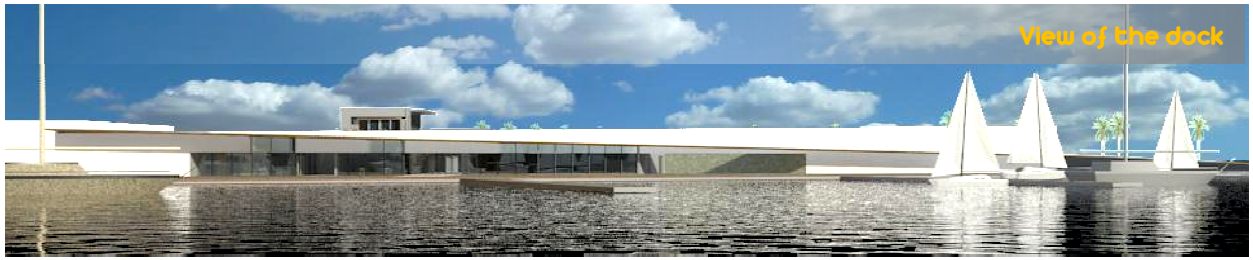
The visual link to the dome is achieved by radial "strings" centered from the dome, creating perspective lines that pulls the sight to it. The result is a set of triangles that defines the axises of my building.

Keeping this idea of triangles also for the elevation is the perfect link to La Popa: a slight inclination ending in a cliff. But the program for a marina is very short, so the free space is donated to the city, complementing the green space oppositing at north: El Parque de la Marina (Marina Park).

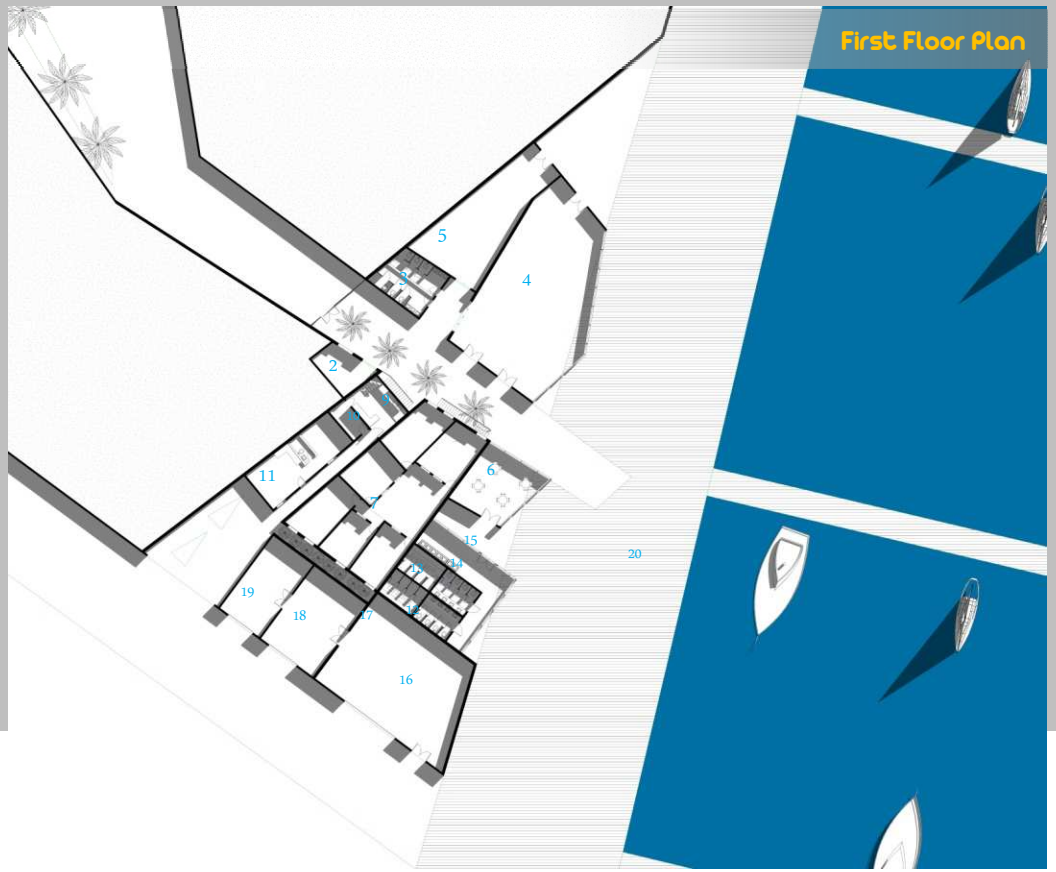


General Plan View

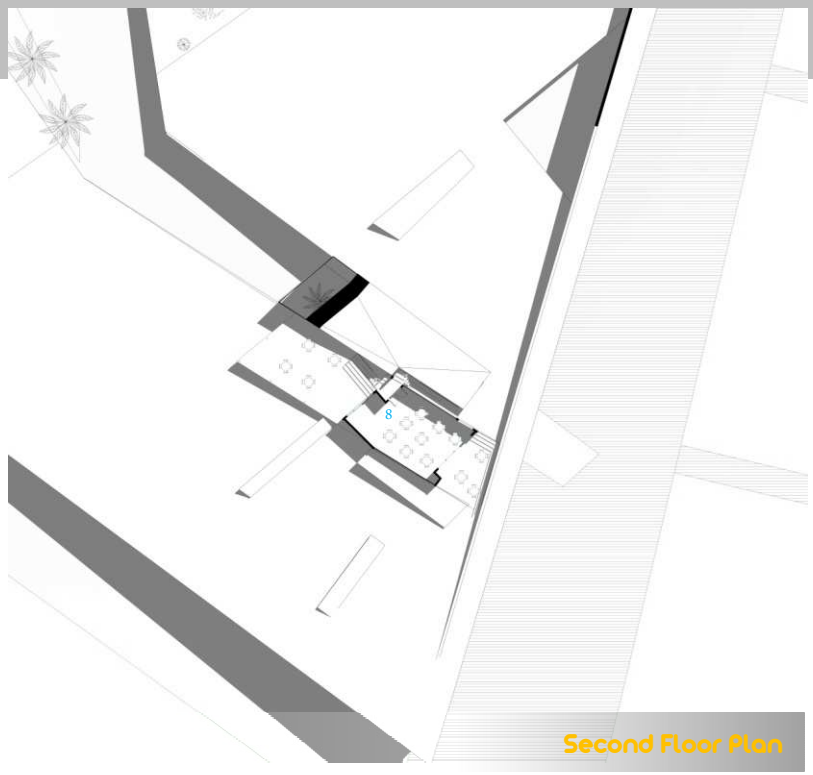
Entrance and Sloped Park



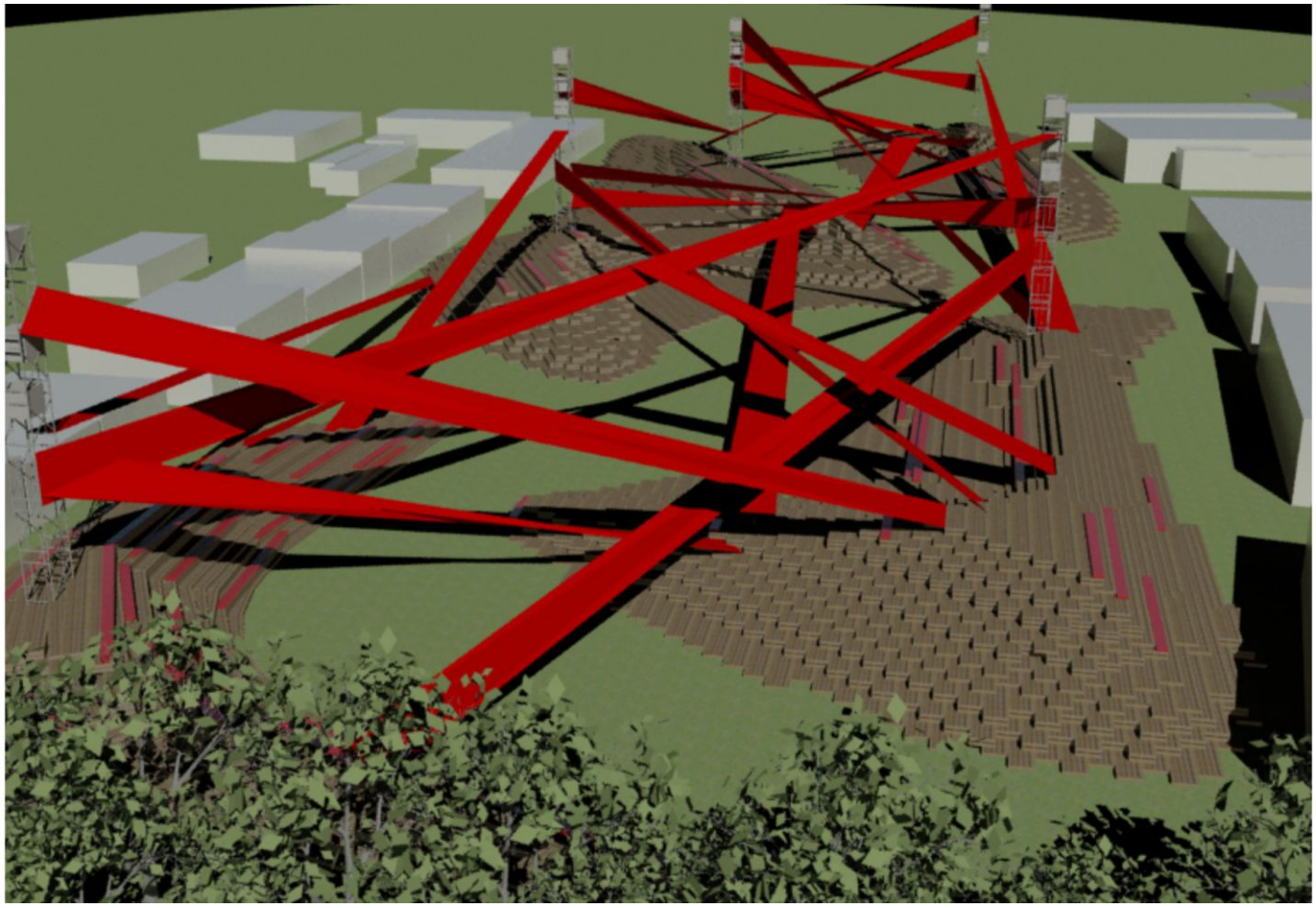
View of the dock



1	Lobby
2	Office
3	WC
4	Ball room
5	Class room
6	Library
7	Dorms
8	Restaurant
9	Kitchen
10	Storage
11	Janitor's apartment
12	Services Men
13	Services Women
14	Laundry
15	ticket window
16	Workshop
17	Tool deposit
18	Mast storage
19	Warehouse
20	Docks



BUILD WHAT HERE 2011

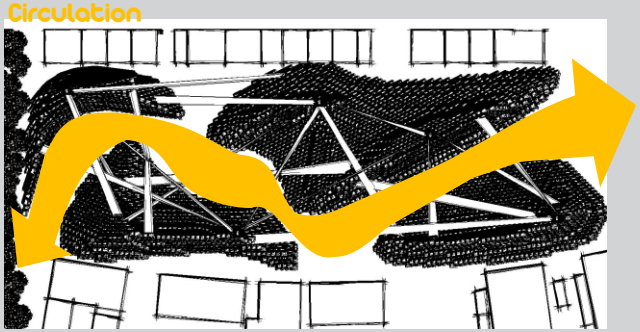


COMPETITION ENTRY
Postgraduate, 2011

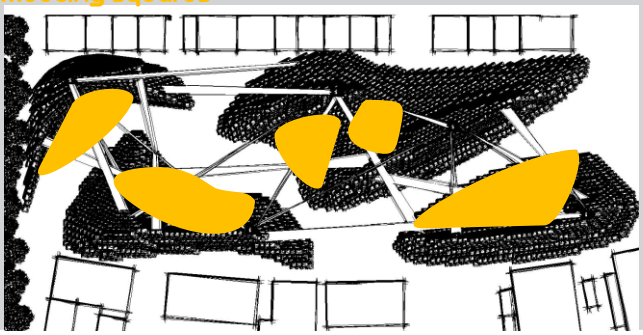
The Roskilde Music Festival launched in 2011 a competition to design one of the areas of the festival, with the assignment to provide meeting squares, vantage points, sitting and relaxing areas, and to be build with recycled or pre-builded elements.

In the picture provided by the organizer, is a field of dunes at the top, and my design was there: a temporary topography with dunes, covered whit stripes of recycled textile dyed in red.

Circulation



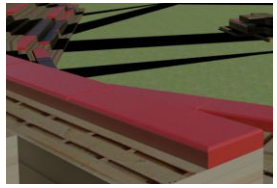
Meeting squares

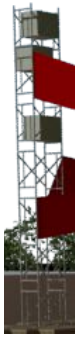


PROJECT FEATURES

Sustainability. Materials are mostly pre-fabricated modular elements:
Pallets (a lot of them, for the islands).
Scafolding (for the towers, 9 levels each = 45 modules)
Bulk containers (3 units at the top of each tower = 15 units)
Red waterproof fabric (the color and composition is optional, for ribbons and sitting lines).
Building process for this project doesn't need any special equipment, due to its easy assembly that makes it flexible, because large elements are designed with small modules. This allows to fit the site without any significant changes.

The interaction with the people takes place with the "furniture": sitting lines are made of modules of 1m x 0.4m, and must have a string to tie them easily to the pallets, so people can move them and use them as they wish (for sitting or laying down).

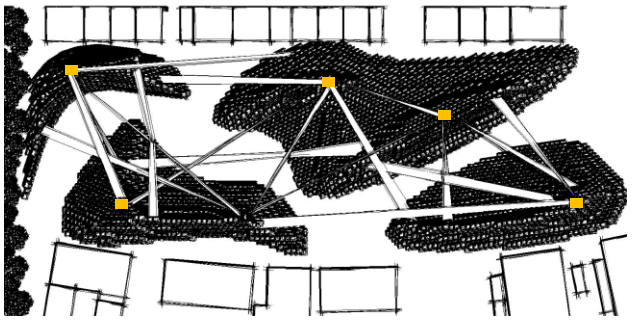




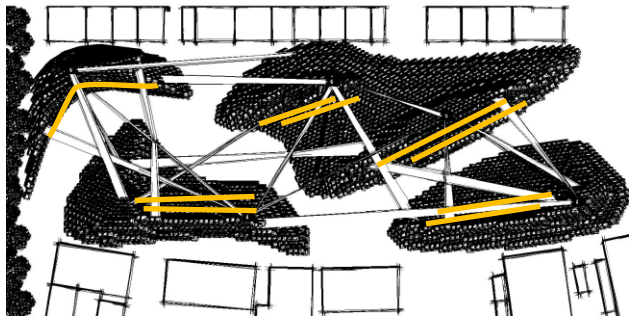
There are 5 vantage points in this project: the top of each island. People can climb them and have a view of the entire festival.

Reviewing earlier Roskilde festival projects, the use of bulk containers as lamps is a great idea to borrow, putting them in the top of the towers. Spotlights are located at the towers to illuminate the ribbons, making a special effect for the landscape at night.

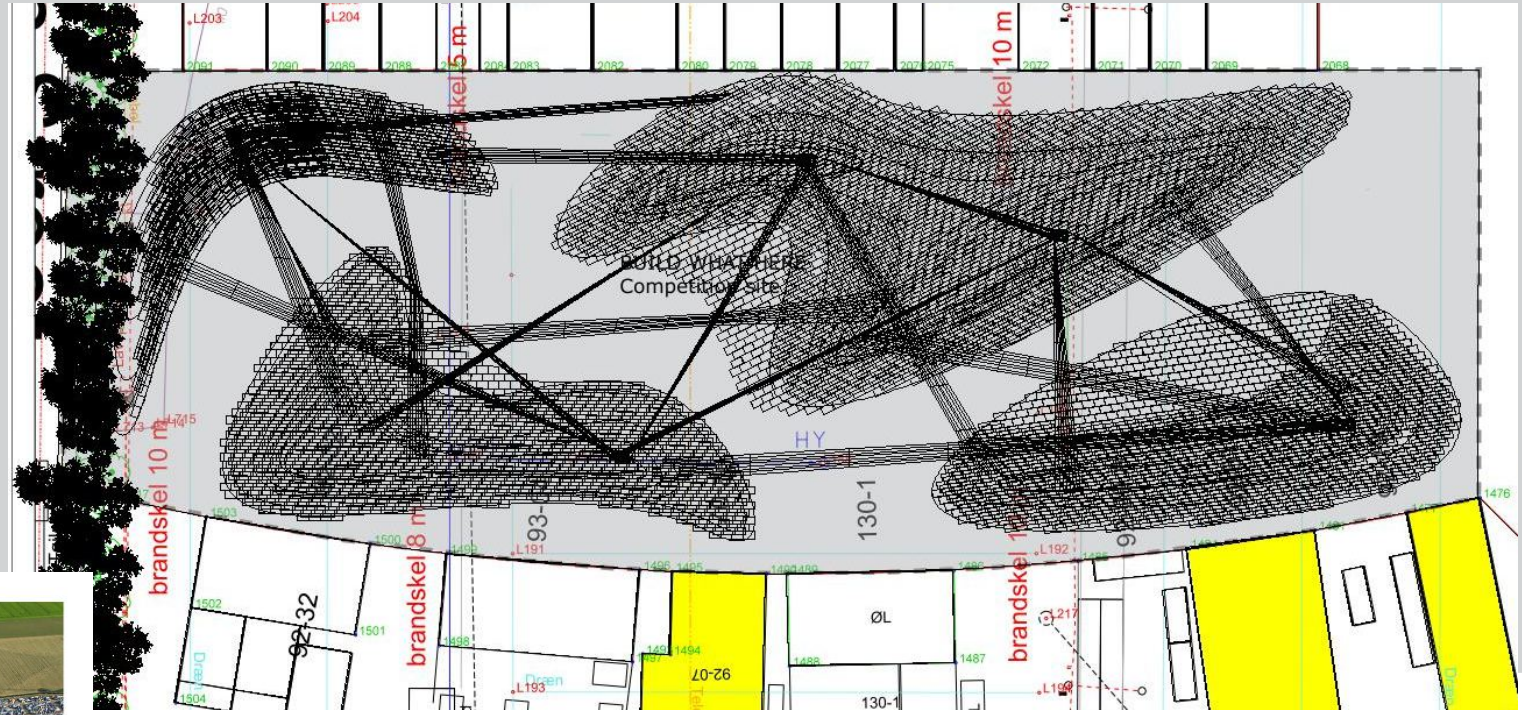
Tension towers

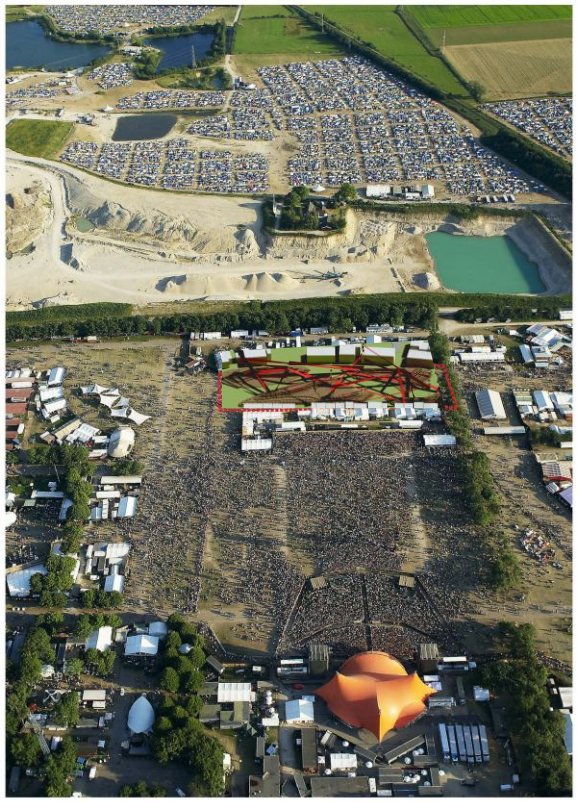


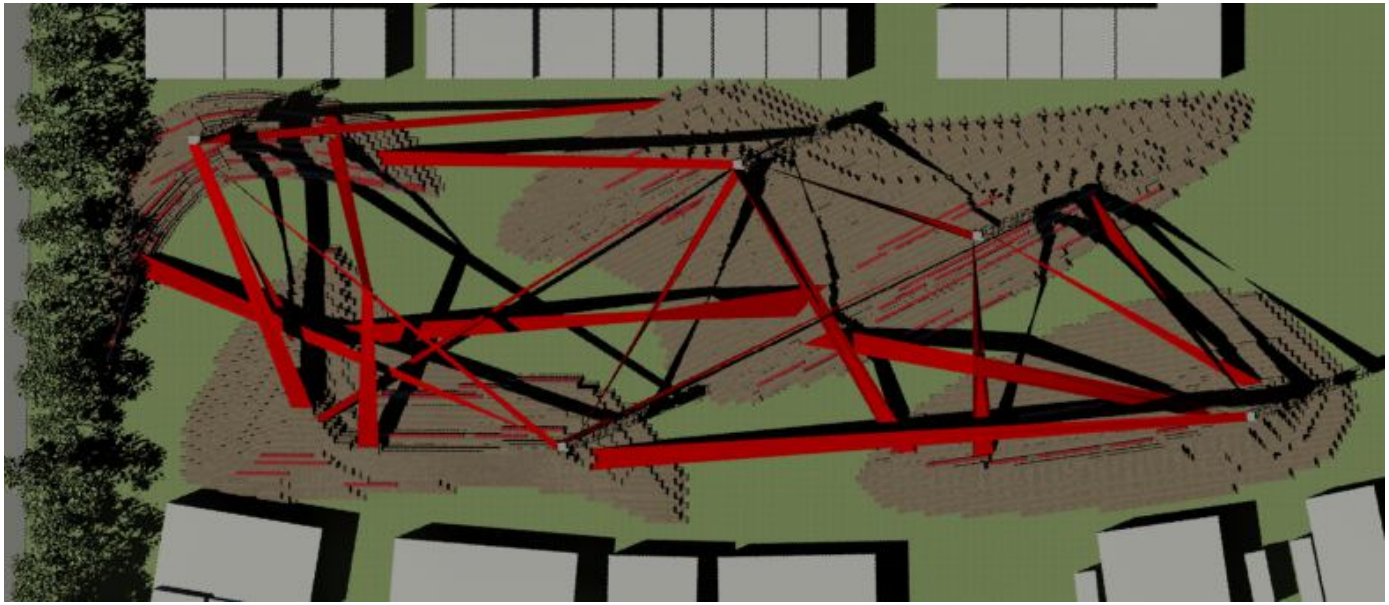
Sitting lines



Project location and Plan view

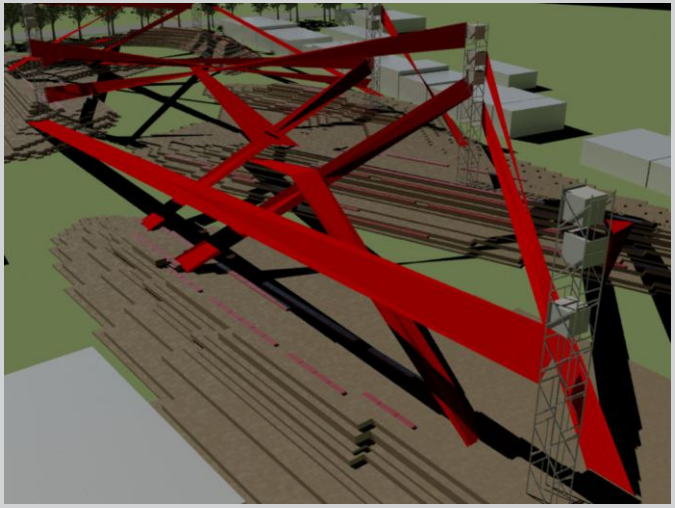


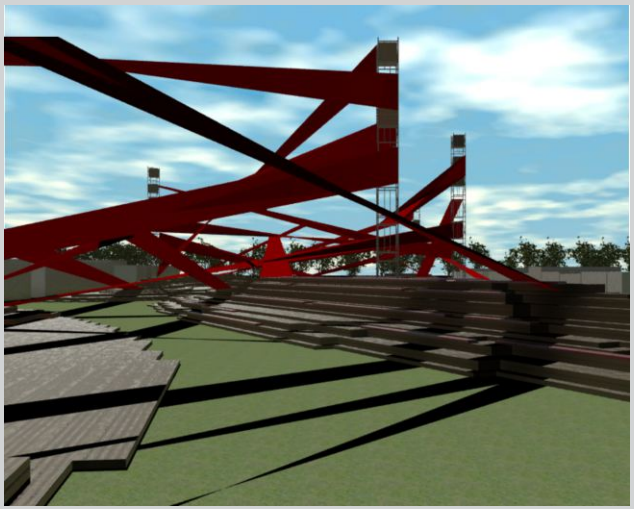


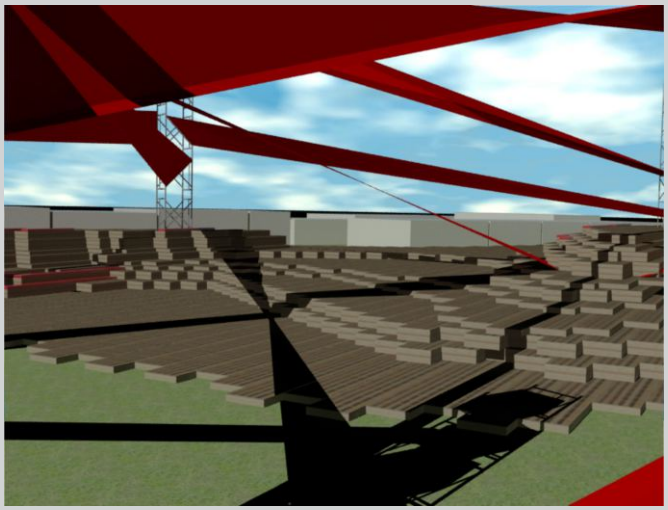


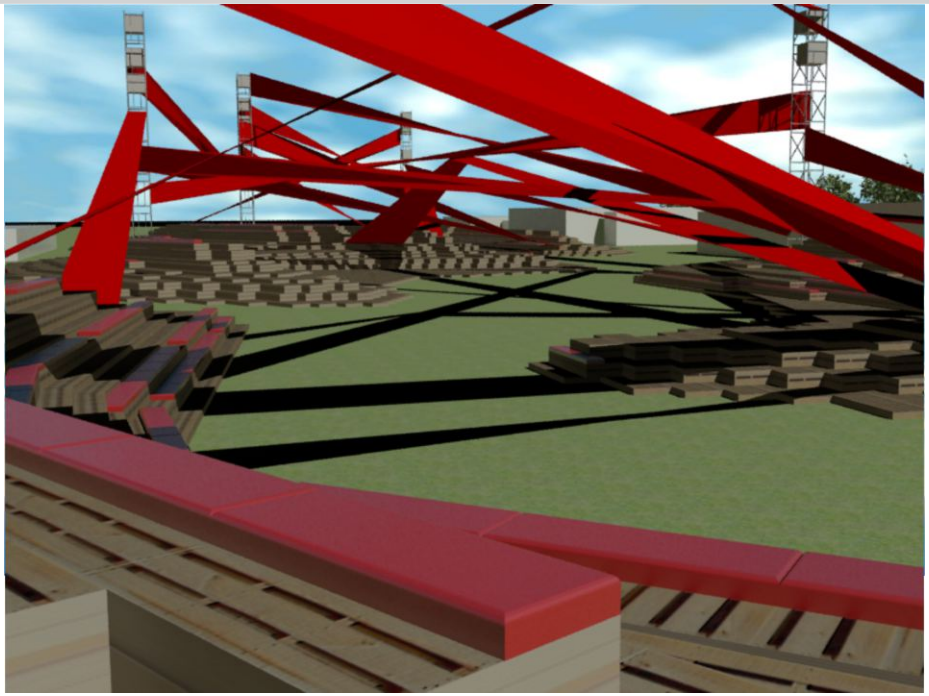
BUILD WHAT HERE > AERIAL PHOTO WITH COMPETITION SITE 3

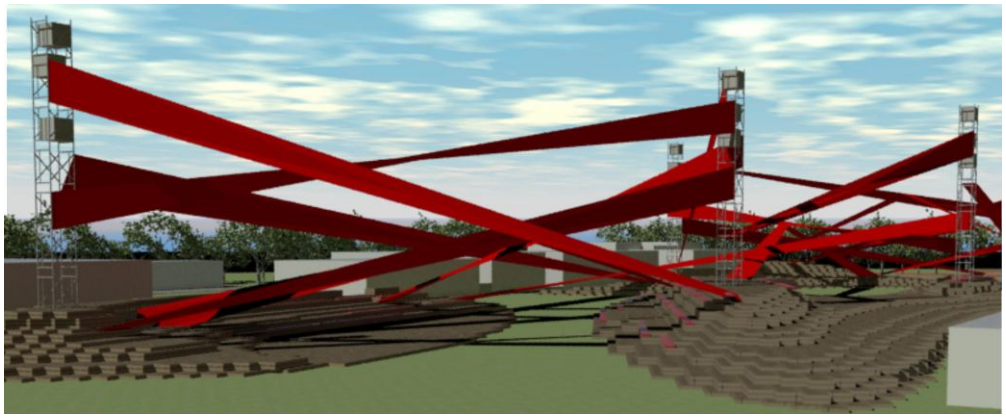
Perspective views











THE NASAKIWE PROJECT

POST-GRADUATED COURSE, 2010

The Nasakiwe tribe, also known as etnia Paez, is a native pre-Columbian tribe which still lives on their heritage territory, but they have been victimized by the Colombian conflict, as they are pushed to leave their territory to escape the war. The area is also endangered with natural treats, like volcano eruption and floods.

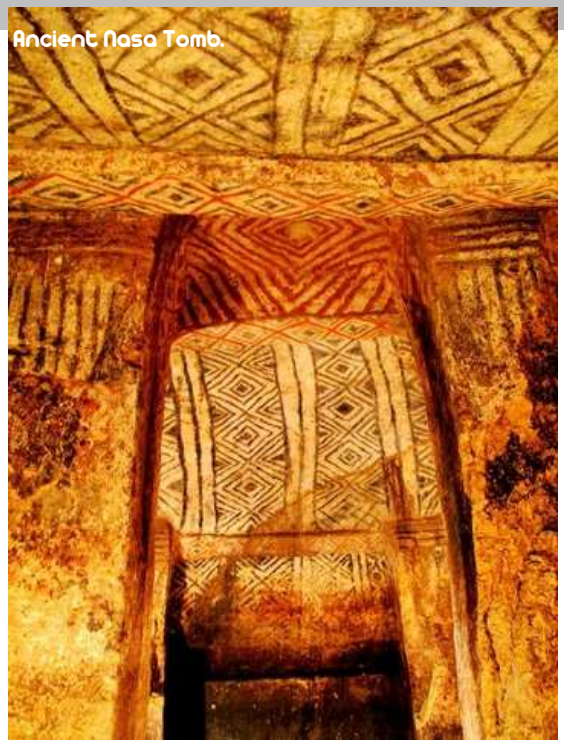
This project took place during the diploma on Bioclimatic Architecture. The class traveled to the community of Huellas, and we have the opportunity to meet the Nasakiwe people. Our task was to design a housing module for a large family, easy to build for their selves and prepared for the weather treats.

The traditional Nasakiwe house has a large module in the center of the house, and in a smaller area is a space used as bedroom. The core of the house is called "Tulpa" and it is the center of their social activity within a family. Is very usual to have a stove on it and the women and children sit around it ,to knit and storytelling. Since the newlyweds move in to the parents house, families are usually large.

The chosen material is **Guadua**, a Colombian specie of bamboo. It is very cheap, easy to plant, fast growing and very common in this region. And for the design I preferred to stick to their traditions and incorporate a hint of their cosmologic vision and traditional icons. **Concentric diamonds** are a recurring theme, but in terms of housing, there is not a formal expression that identifies the NASAKIWE culture and differentiated from other pre-Hispanic cultures.

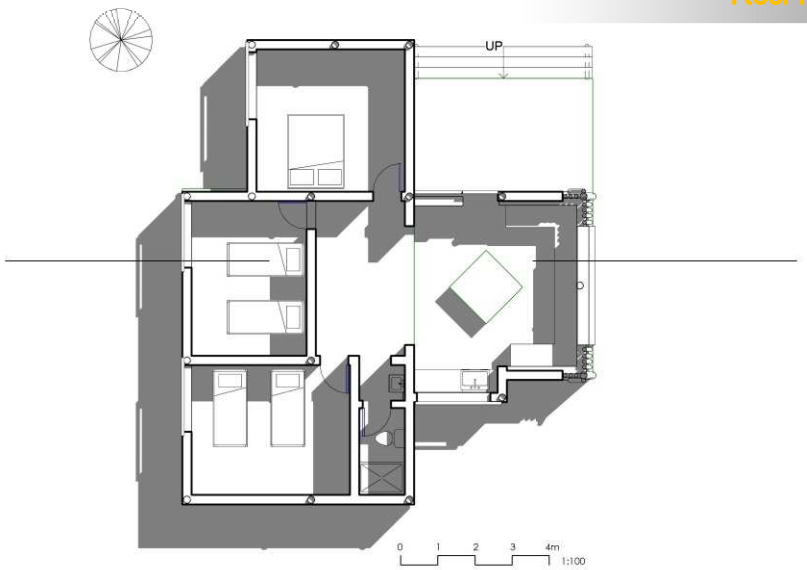

Traditional Nasa House.


Guadua


Ancient Nasa Tomb.


Nasa Handcraft

Floor Plan



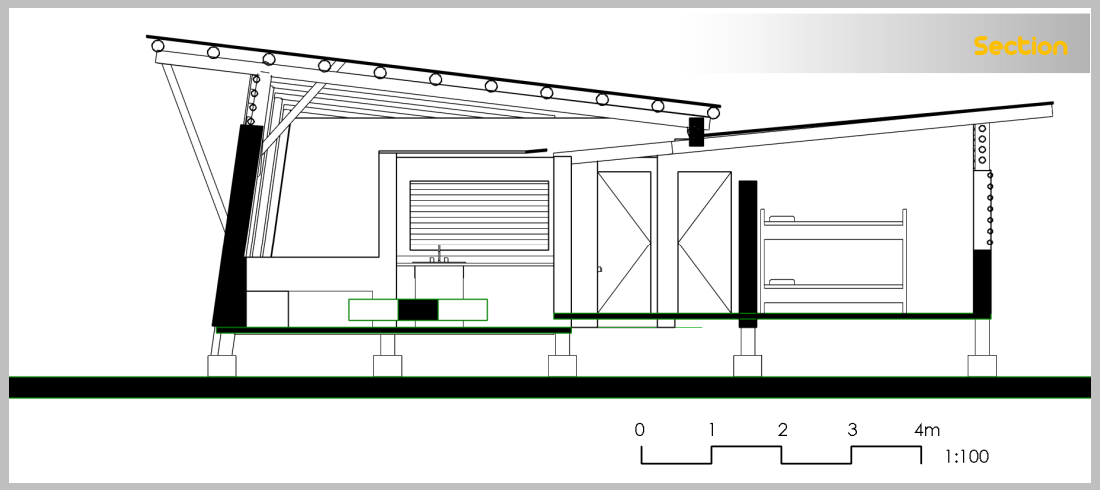
As a symbol of their culture, the concentric diamond is applied for the design of the structure and latticework with guadua.

The open spaces below the roof makes a stream of passive ventilation into the house.

In the center of the main space is located a bulk of stone, to keep their traditional "tulpa".

Tulpa Façade

Section



Façade Views