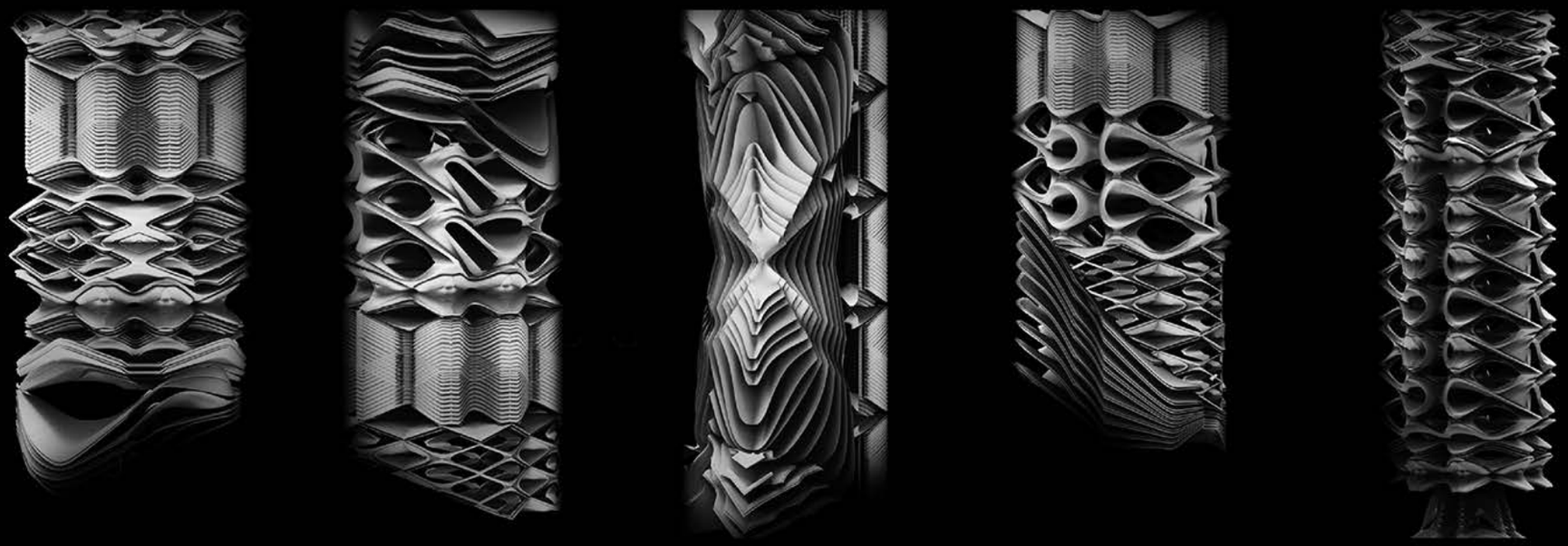


A B C D E

After working for more than 5 years as an **Architectural Designer** in leading international firms, I've noticed how architecture is a representation from hidden stronger forces. Environment, politics, economy, culture and society are all interrelated, continuously transforming the context where buildings will be made. In this way, our challenge as designers is to innovate inside this context, through the creation of physical and digital objects- **matter**- that will not only transform the natural and built landscape -**space**-, but also a society, a culture, an economy - **time**-.

I strongly believe space-time can be modified through the creation of remarkable objects.

For these reasons the selected projects presented in this portfolio come from different contexts and interests, have multiple scales, programs, as well as diverse design methodologies and design techniques with a single objective: Show my way of thinking, researching, designing and innovating through singular objects that warp the existing fabric.

DANIEL CELY

ARCHITECTURE PORTFOLIO/FALL 2017

INDEX

MATTER: INTRODUCTION

CURRICULUM VITAE

DANIEL CELY

MS.DAAD, M.ARCH, B.ARCH,SCA

1919 MARKET STREET,1214.19103, PHILADELPHIA, PA / (267)461-4720 / ANDDA@UPENN.EDU / WWW.DANIELCELYARCHITECTURE.COM

WORK EXPERIENCE

1. ARCHITECTURAL DESIGN LEADER
El Equipo Mazzanti

2. DESIGNER/ ARCHITECT
El Equipo Mazzanti, GX Samper,Ana Echeverri

3.1. DESIGN INTERN
Contemporary Architecture Practice New York

3.2. STUDENT AMBASSADOR AND G'A.
University of Pennsylvania

3.3. COMPETITIONS
Evolo Skyscraper 2017, Uniandinos 2016, Plaza de la hoja 2013, Parque bicentenario 2012.

SKILLS

SOFTWARE
Adobe Design Suite
Autocad
Archicad
Keyshot Rendering
Maxwell Rendering
Maya
Microsoft Office
Revit
Rhinoceros
Sketch Up
Vray

LANGUAGES
Spanish(100%), English(100%), French(65%)

ACADEMIC

UNIVERSITY OF PENNSYLVANIA
Philadelphia, Pennsylvania, USA, 2016-2017

MS.DAAD
1.5 years Master of science in design with a concentration in Advanced Architectural Design.

UNIVERSIDAD DE LOS ANDES
Bogota. DC, Colombia. 2005-2012

M.ARCH
2 Years Master in architecture.

B.ARCH
5 years Bachelor in architecture.

ARCHITECTURAL DESIGN LEADER

- Leading Junior architects and interns .

- Concept, schematic design, design development and construction documents. Drawing direction and production.

- BIM model coordination with MEP and Structural consultants.

- Design presentations to clients, stakeholders and local authorities.

EL EQUIPO MAZZANTI. 2013-2015

Atrio Towers RSH+P/Nov 2014- Nov 2015
Public Realm and North tower Belly
Bogota, Colombia.
19.000 SqMt of 250.000 SqMt.
500 million dollars.

Microsoft innovation Center/March 2015
Concept Design, Design development.
Cartagena, Colombia.
10.000 Sq Mt

CCI Tower/ March 2014-Nov 2014
Concept design, Design development
Barranquilla, Colombia.
31.680 SqMt

Kapikua Residences /June 2014-Aug 2014
Concept Design.
Santa Marta, Colombia.
Housing 17370 SqMt.

Il Giardino/ Nov2013-March 2014
Concept design,DD ConDocs
Barranquilla, Colombia.
19.000 SqMt

El Retiro Building /July 2013- Dec 2013
Concept Design, Design development
Bogota, Colombia.
Housing 13.900 Sq Mt

2. DESIGNER/ ARCHITECT

- Assisting the Project architect in schematic design,design development and construction documents elaboration.

- BIM model production under the supervision of a Project Architect.

- Technical coordination with structural engineers.

EL EQUIPO MAZZANTI. 2013-2015

Mirador del lago Housing Project
Construction Documents production

Medellin's Velodrom
Design Development documents production

Santafe's Foundation Hospital
Technical coordination with MEP and Structural consultants.
Construction documents elaboration.

Villavicencio's Hospital
Construction Details elaboration.

GX SAMPER ARQUITECTOS. 2011-2012

ASJ Alameda San Juan / Jan 2011-Dec 2012
Concept Design, Design Development
Barranquilla, Colombia.
Urban Planning. 24 Hectares.

UKUA House/ March 2012-Dec 2012
Concept Design, Design Development, Construction documents.
Palomino, Colombia.
Private residence. 300 SqMt.

ANA ECHEVERRI ARQUITECTOS. 2010

Infinity building/ November 2010- Jan 2011
Local regulations and Construction documents

3. OTHER

- Academic, internships and other relevant working experiences.

CAP NEW YORK- SHANGHAI.2017

Summer Design Internship
SD and ConDocs/Web design

CCTQ Headquarters
Construction Documents Production
Nanjing, China/30.000 SqMt

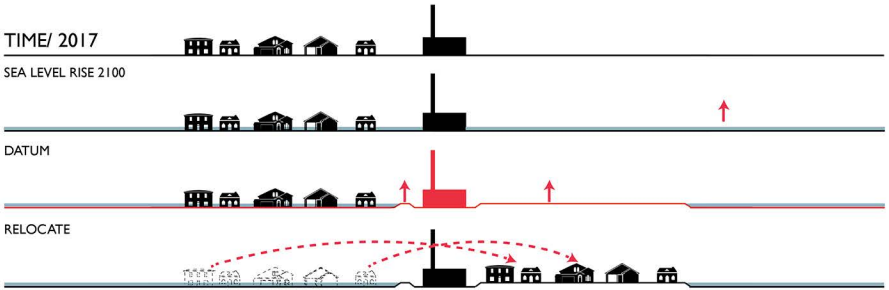
Huang Residence
Design Development and ConstructionDocs
Shanghai, China/200 SqMt

Theater
Concept Design

UNIVERSITY OF PENNSYLVANIA. 2017

MS.DAAD Student Ambassador

Graduate Assistant for Ali Rahim's Advance Architecture Studio. Fall 2017.



MATTER : RESILIENT BOSTON

01_ Boston Waterfront Redevelopment
Fall 2017

MSDAAD
Matthijs Bouw and Kai Uwe Bergmann Studio
University Of Pennsylvania,Philadelphia, Pa.

How do buildings adapt to Sea level rise?

The emphasis of this studio is to identify strategies in which buildings and infrastructure can adapt to internal and external changes, having the ability to recover from disasters.

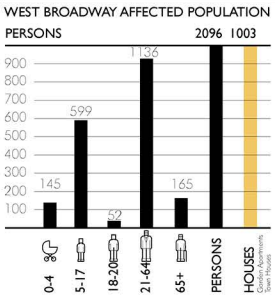
By 2100, more than 120 buildings will be underwater due to the sea level rise with the main economic loss in the industrial and commercial sector.

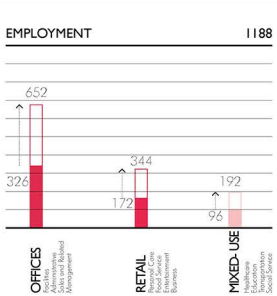
However, the main priority should be to protect residences affected by flooding since lives are involved.

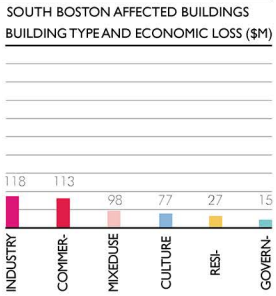
The adaptation into retail/offices of the Conedison plant, and the new yacht club are used to attract private investment. The revenue will be used to develop 1000 houses and a green barrier+datum to relocate and protect the affected West Broadway population from sea level rise.

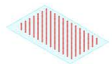
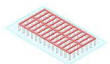
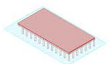
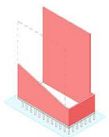
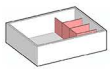
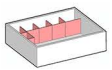
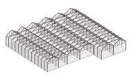
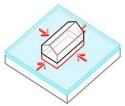
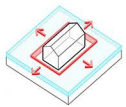
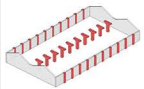
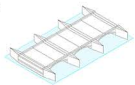
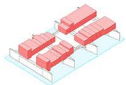
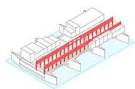
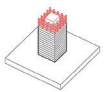
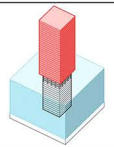
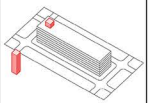
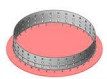
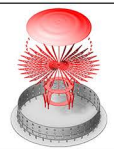
This strategy could be replicated in adaptable buildings creating a larger flood barrier through private investment.

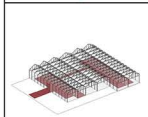
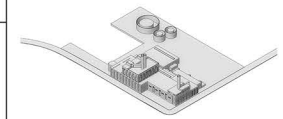
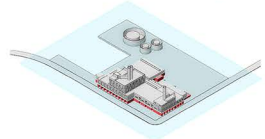
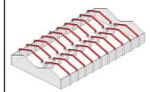
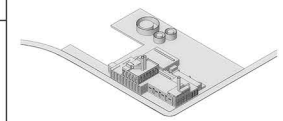
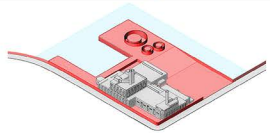
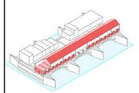
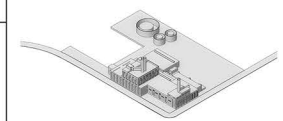
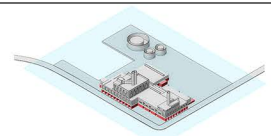
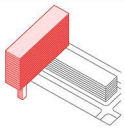
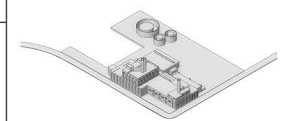
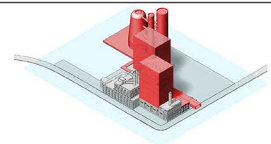
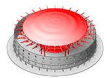
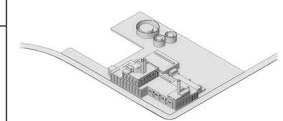
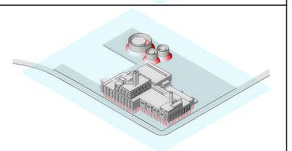
The following images are Work In Progress.



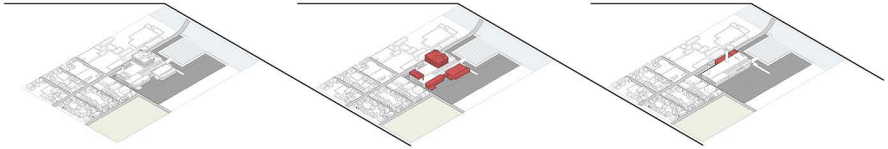




HOW DO BUILDINGS ADAPT?					
ADJUST	A				
Furniture, fixtures and equipment, can be re-configured easily to accommodate tasks.	Oversized structure on the exterior. De-mountable structure in the interior				
TRANSFORM	A			B	
To change the spatial layout of a room.	Flexible Space Plan			Preserve Shell and Structure, Transform interior space plan	
REFIT	A			B	
Changing the performance of a building by altering its space services, or skin	Protect from flooding through external systems			Preserve Shell and Structure, Interior Expansion.	
CONVERT	A			B	
Refers to a change in use prompted by alterations in the market, social demands, ownership or occupancy	Infrastructure, to retail			Retail to mixed-use	
SCALE	A			B	
Relates to the building's capacity to change size.	Scale X, Y and Z			Pre-built core for future scaling.	
MOVE	A				
Refers to the capacity of a building to move from one place to another.	Move and preserve existing facade for new use.				

				B	
				Simple Form, Multiple Functions	
	C				
	Change of ground floor use				
	C				
	Preserve building and protect through impermeable building+landscape				
	C				
	From factory to redevelopment project.				
	C				
	Expand Factory with mixed-use project				
	B				
	Move and preserve existing factory				

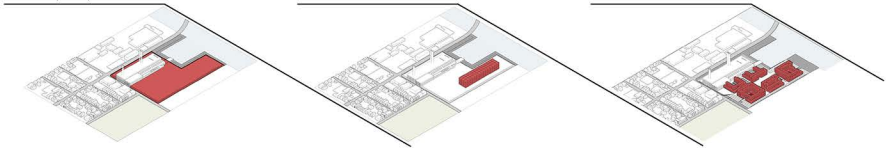
EXISTING FACTORY



DEMOLITIONS

SPACE FOR BARRIER

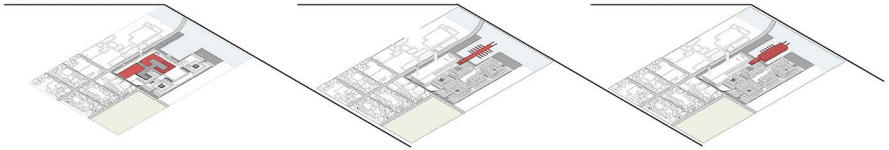
DATUM (+6FT)



1000 RESIDENCES

BLOCKS

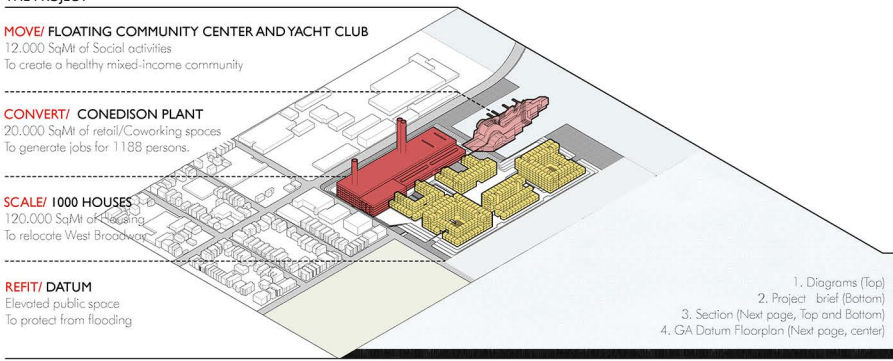
OFFICES+RETAIL



PIER

YACHT CLUB

THE PROJECT



MOVE/ FLOATING COMMUNITY CENTER AND YACHT CLUB
12.000 SqMt of Social activities
To create a healthy mixed-income community

CONVERT/ CONEDISON PLANT
20.000 SqMt of retail/Coworking spaces
To generate jobs for 1188 persons.

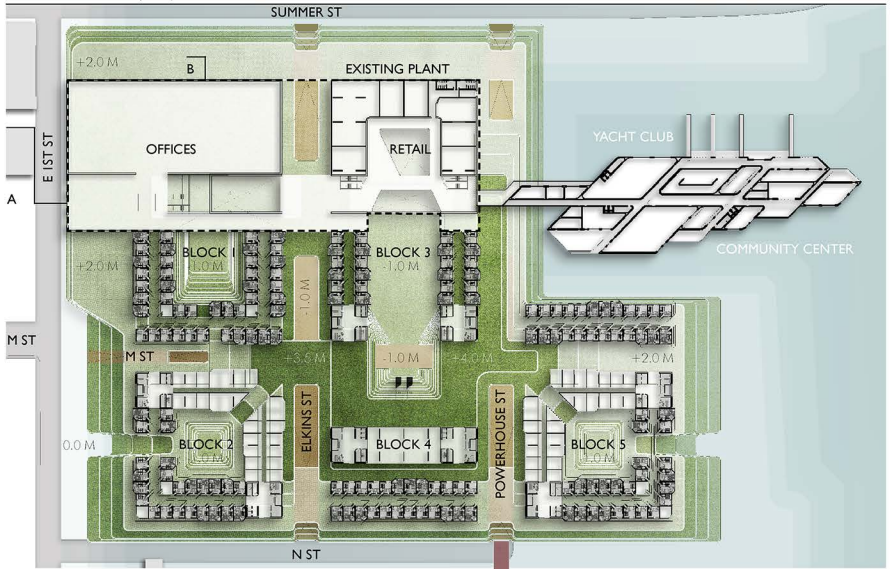
SCALE/ 1000 HOUSES
120.000 SqMt of housing
To relocate West Broadway

REFIT/ DATUM
Elevated public space
To protect from flooding

1. Diagrams (Top)
2. Project brief (Bottom)
3. Section (Next page, Top and Bottom)
4. GA Datum Floorplan (Next page, center)

SECTION A

DATUM FLOORPLAN (+6FT)



SECTION B

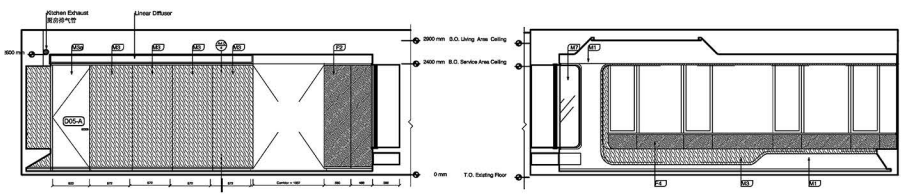
MATTER :WORK AT CAP

02_ Summer Design Internship
Summer 2017

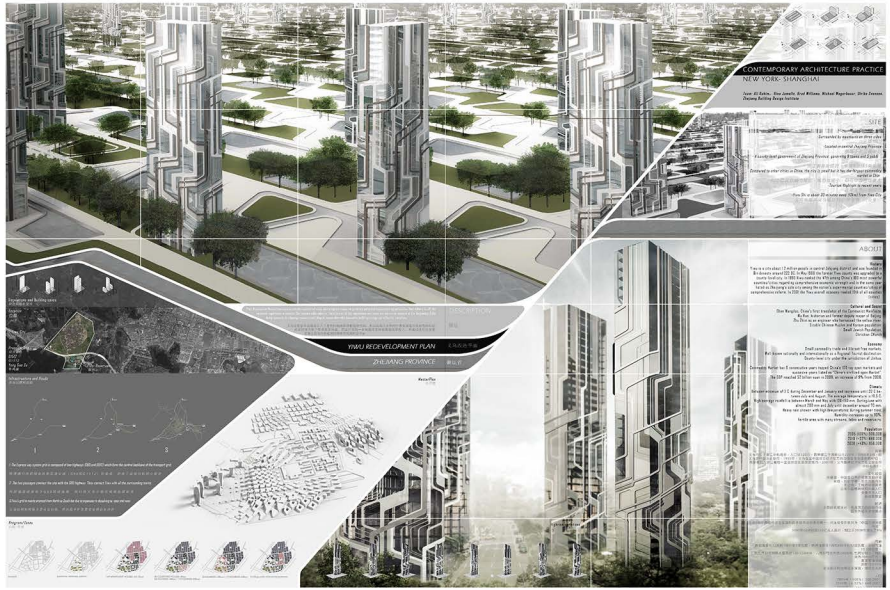
MSDAAD
Contemporary Architecture Practice New York- Sh.
University Of Pennsylvania,Philadelphia, Pa.

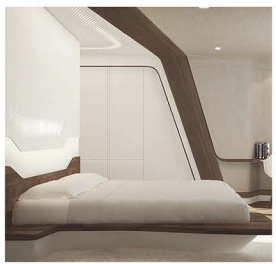
As part of my Master of Science in Design at the University of Pennsylvania, I decided to do a three month Curricular Practical Training during the summer of 2017 in an international Design firm -CAP New York-Shanghai, to understand how architecture firms work in the United States.

Under the direction of Ali Rahim and Hina Jamelle, I worked in two projects, a competition and an exhibition in China as well as the re-design of their website.



1. Huang Residence Living room North and West Elevation (Top)
2. Yiwu City Exhibition Boards (Next page, Top)
3. CCTQ (Next page, Bottom Left)
4. Theather (Next page, Bottom Center)
5. Huang Residence (Next page, Bottom right)





TIME/ 2017

1.Spray and fire image (Top Left)

2.Diagram of Combustion Produced through the collisiion of Spray with fire. (Next page, Top Right)

3. Architectural Section (Bottom)

MATTER :THE NEW ELEGANCE

03_ The New Elegance | Hina Jamelle's Spring Seminar | MSDAAD, School of Design,University Of Pennsylvania,Philadelphia, Pa

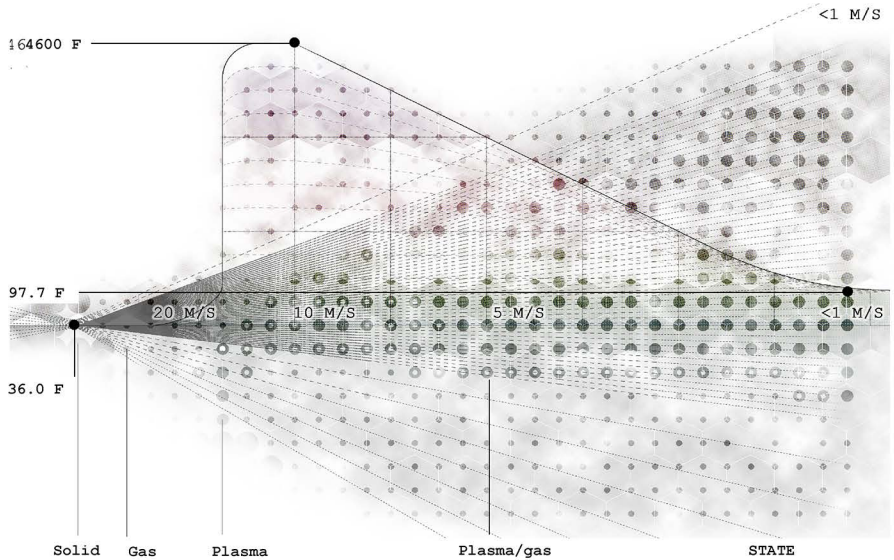
The New Elegance seminar studied how architecture has reached advanced aesthetics where new design methodologies are required to innovate.

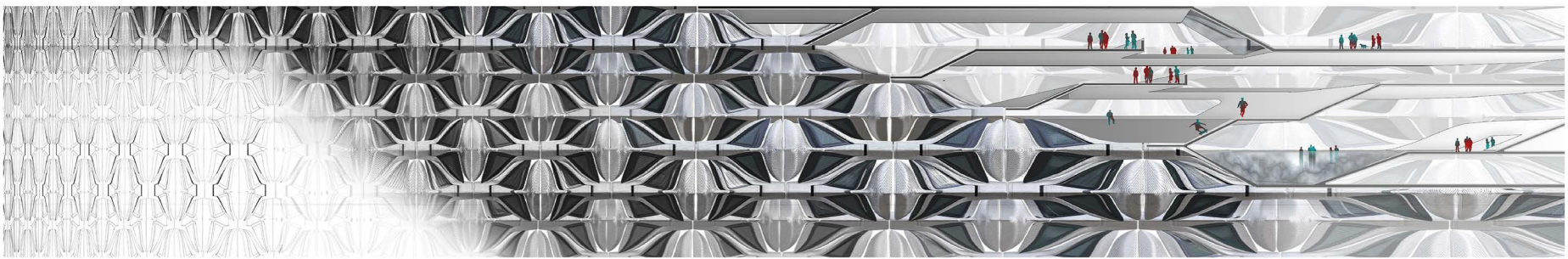
Nowadays the use of advance digital techniques has created a new elegance where a single element has the ability to be structure, surface and space. Fluidity, Continuity, and transformations, were some of the topics studied every week through in-class discussions.

As an innovative methodology, the class used the diagram as a tool to achieve complex aesthetics. Through the graphic analysis of transforming phenomena, the main qualities where extracted and transformed to an architectural section .

I studied the combustion process. A flame in contact with gas, changing from solid(spray-can), to gas, to plasma. Qualities such as the temperature, the state of matter, and the speed where measured,and drawn.

This section shows a transformation from an object, to a field, through the accumulation of parts to form the whole. Each of the three segments has the qualities of the states of matter described in the diagram. The first part (left) shows the initial quality of the gas. The second part (middle) shows the combustion when the gas collides the plasma- from one state to the other. The third part shows how the plasma starts to dissolve in the medium, reducing its temperature .





MATTER : MUSEUM IN TOKYO

04_ Andy Warhol Museum in Tokyo, Japan.
Spring 2017

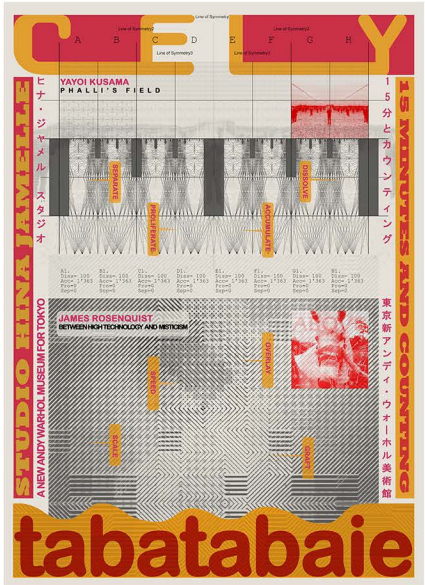
MSDAAD
Hina Jamelle's Advanced Studio.
University Of Pennsylvania,Philadelphia, Pa.

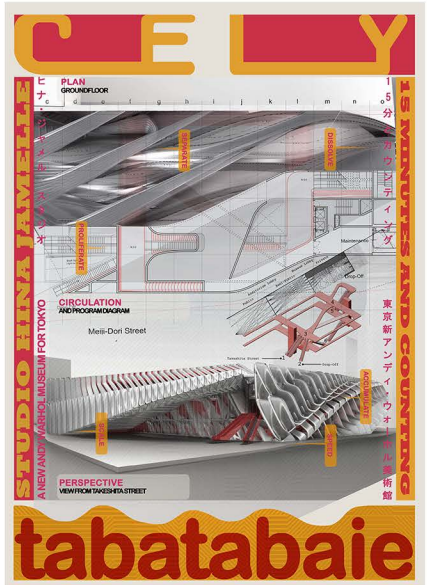
The studio explores the diagram as a tool to develop new typologies and new types of aesthetics for a Museum in Japan. Through the analysis of two contemporary pop art pieces and their qualities, the diagram is built, to be later transformed into architecture. Through this process the main qualities, effects and affects of the art pieces are embedded in the final design for the building, creating unusual spaces with outstanding characteristics.

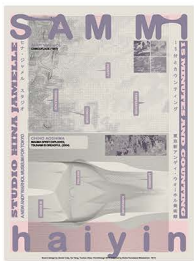
The two large boards in the following page were done for the 'end of the year exhibition' at Upenn. The first board shows the analytic diagrams made for Yayoi Kusama's installation, and James rosenquist painting. The main qualities identified are marked with a yellow tag on each.
The second board shows how each of these qualities are also present in the architectural design, making evident the direct relation between the diagram and the building.

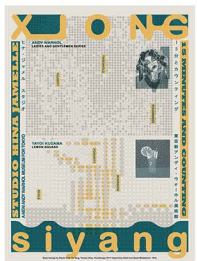
1.Diagram based on Kusama and Rosenquist (Top Left)
2. Museum general plans and perspective (Top Right)
3. Board template design for other teams. (Bottom)

*The design of the boards was inspired by Kisho Kurokawa metabolist poster (1970).





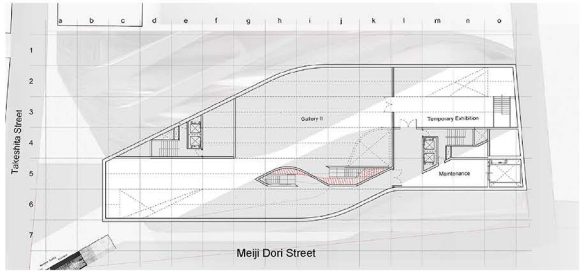


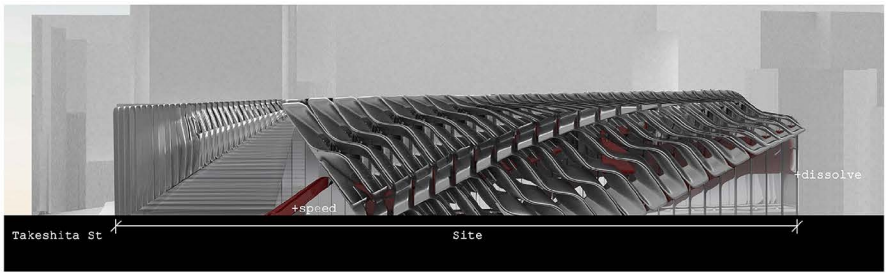


SITE

The Pop art museum is located in Shibuya, Tokyo in the intersection of one of the most dinamic streets -Takeshita and Meiji Dori Street. However, on the north is limited by the Togo Shrine which has a sacred character.

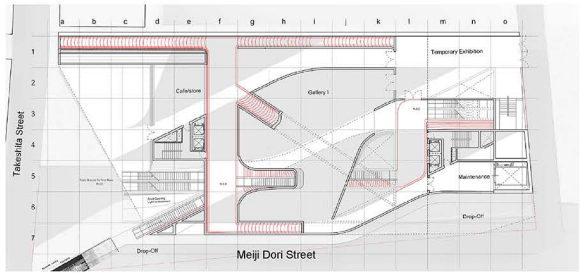
The architecture of the building acts as a buffer between the two situations, decreasing the speed from takeshita street to meet the character of the shrine though its geometry and inner circulation.





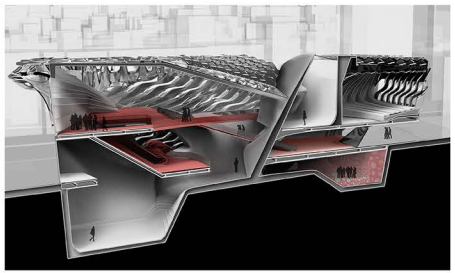
00_GROUND FLOOR

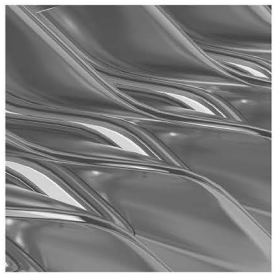
The ground floor has a public caracter: with the cafe/ store in front of a open space,and active meeting point is created.
Then, to transform the mood from visitors, the access to the museum is on the first floor, creating a limit between common/sacred.



FACADE

The facade- on Meiji Dori- shows the transformation from the fast to the sacred environment reducing its scale and thickness.





1. Location (top)

2. Facade on Meiji Dori St. (Center)

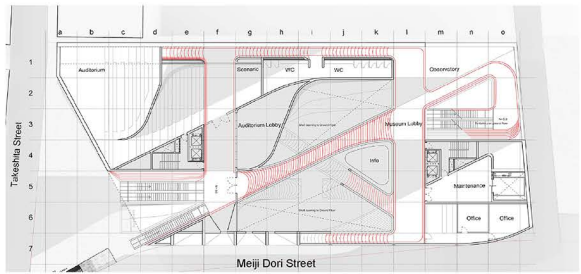
3. Section (Bottom Left)

4. Srf Detail (Bottom Right)

01_FIRST FLOOR

Once the visitors access the museum they can circulate freely through a continuous path that will guide them, and will show the art pieces from different perspectives -above, bottom, front- . Through their movement and actions, they become part of the pop culture as they take photos of themselves and from others walking on this path(catwalk) post them online and become social icons.

5. Basement Plan (Top)
6. Ground Floor Plan (Middle)
7. First Floor Plan (Bottom)



MATTER : ASSET ARCHITECTURE

05_ Asset Architecture NYC The SpeedTrader I
Fall 2016

MSDAAD
Ali Rahim's Adv. Architecture Fall Studio
University Of Pennsylvania, Philadelphia, Pa.

Time is money. In fact, a trader could lose $4 million in revenues per milisecond. When every milisecond counts, is crucial to reduce latency.

The current distance between financial headquarters in Manhattan and their data centers in New Jersey is near 33 miles-275 microseconds-. A long distance where investment is at risk due to the speed and hacker attacks.

The 'Speed-trader' is a High Frequency trading data center in Midtown, New York, capable of reducing the latency by 272 microseconds through its location and performance (form), generating additional profit of 27 million per year.

1.Physical model (next page)
The speed trader tower is on the left.

The Speed-Trader

Time is money. In fact, a trader could lose $4 million in revenues per millisecond. When every millisecond counts, reducing the latency is crucial.

The current distance between financial headquarters in Manhattan and their data centers in New Jersey is near 33 miles ~27microseconds~. A long distance where the investment is at risk due to the speed of connection, and possible hacker attacks. Howcould we increase the speed of execution, while protecting the financial data?

The 'Speed-Trader' is a High Frequency Trading Data Center in the hearth of Midtown, New York, capable of reducing the latency by 272 microseconds through the proximity between infrastructure and financial headquarters, generating an additional profit of 27 million dollars per year.

What?

High Frequency Trading

characteristics:

1.Robotization without human intervention to increase execution, speed and latency .

2. Employment of a certain finite amount of capital and profit maximization by turning over positions.Since the profit per transaction is small, investment in infrastructure is compensated through millions of shares.

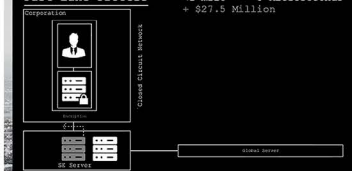
How?

Current Process

33 miles= 275 microseconds

Fast Lane Process

<1 mile = 3 Microseconds
+ $27.5 Million



Spaces and relations

Water Collectors

The water collected through the creases in the facade,is filtered using vegetation,gravel and coarse sand. Then,it's storaged in multiple micro-reservoirs along the tower.

This water is cooled using the natural flow of wind (available especially on the top of the tower) through a 'crossflow' cooling system.

the cold water is used to cool the servers (liquid cooling tech),increasing the performance while reducing carbon footprint.

Air Intakes

To effectively cool the interior spaces of the building, the facade has a variety of air intakes orientated towards the strongest wind flow, using positively the downdraught effect produced by tall buildings.

All of the intakes have a variable section increasing the speed of the wind when passing through each of them. This reduces the dependence of the building in traditional Computer room air conditioning (CRAC)units.

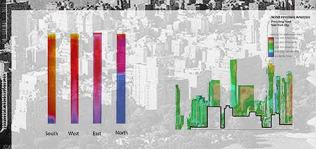
Fog Harvesting

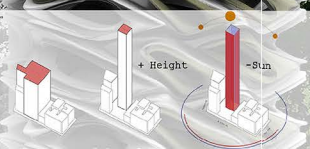
Wind

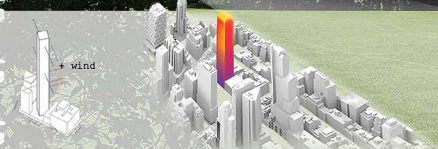
The existing humidity in the air, is captured through a fog harvesting system: a delicate and intricate membrane that collects rain and fog as an editional cooling resource for the data center.

Steam Electric Generator

The New York City steam system is used to generate the energy required to operate the high frequency trading data center reducing operation expenses .
Located in the basement, multiple steam electric generators use the high pressure available in the steam system to rotate turbines which generate electricity.







Perspective from Central Park

0336-1

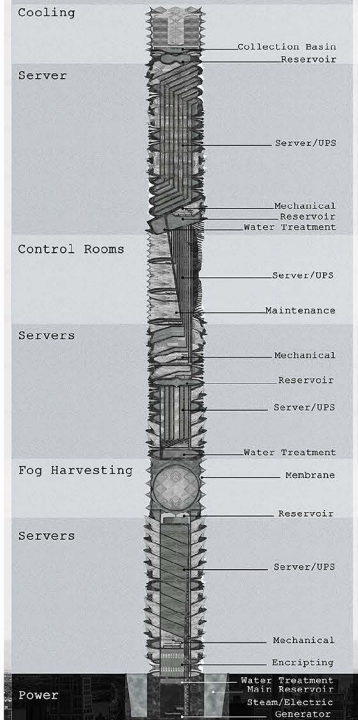
1. FAR: A traditional building would have a 10 FAR. making the cost of the land too expensive in relation to the profits.

2.Open Space: Then, a public plaza is created in the bottom of the skyscraper, increasing the FAR to 20. To maximize the useble area for servers, a series of vertical layers are compressed (milefeuille effect)increasing the quantity of servers. With these concepts, in the same volume as other skyscrapers, the speed trader has doubled the usable area, and therefore its profits.

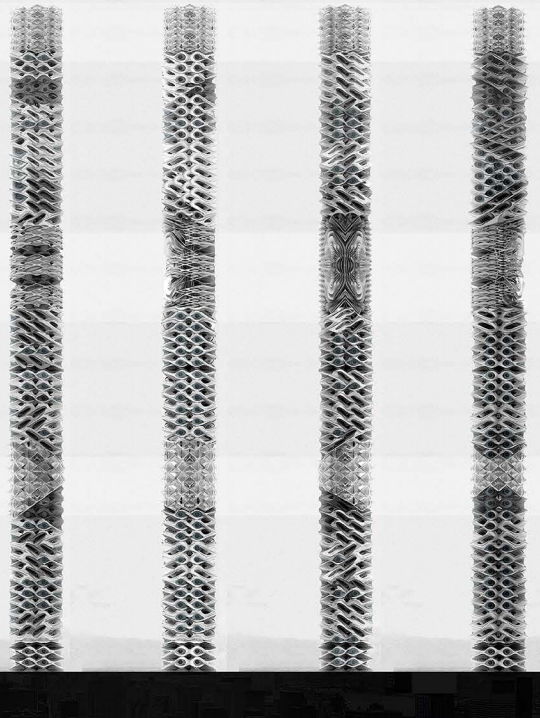
3.Sun: To avoid the excess of solar heat gain in the interior of the building, the skyscraper is rotated 45 degrees, locating the core towards the SouthEast.

4. Wind: The geometry of the facade follows the direction of the wind,guiding it through the interior of the server room, creating an optimal temperature for the data center,reducing the costs of operation.

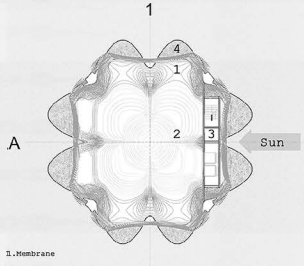
The Speed-Trader



Facades



Fog Harvesting



1.Membrane

2.Reservoir

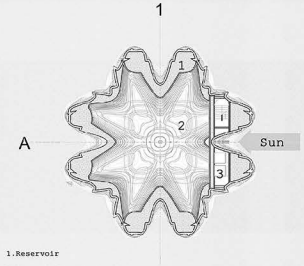
3.Core: Maintenance elevators and emergency stairs.

4. Water Collectors.

The fog harvesting system is located in 1/3 of the total height of the skyscraper, where the fog accumulates due to the temperature difference between the warm air near to the ground, and the cold air in the top of the skyscraper.

The breathable membrane enables the collection of water drops captured during rainy or foggy days, which is then stored in some of the water reservoirs.

Reservoir (Collection basin)



1.Reservoir

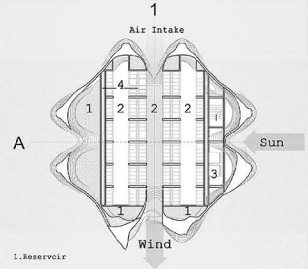
2.Water Collection Basin.

3.Core: Maintenance elevators and emergency stairs.

The tower has four cold water reservoirs (on top of each served area) feeding the server rooms through gravity. This water comes from the fog harvesting, as well as the rain water collectors located in the facade.

The water flows vertically along the tower cooling the servers. Then(after it has been used), it is treated, and storaged in the 'main reservoir' where is ready to be re-used.

Servers 0336-2



1.Reservoir

2.Server Aisle

3.Core: Maintenance elevators and emergency stairs.

4. Cold water system.

To maximize the quantity and performance of servers, they are stacked vertically along the tower, making use of the vertical typology of the skyscraper. With these strategy the available area for servers is doubled.

If maintenance of a server is required, each of the 'aisles' have a robotic system which extracts the server and takes it to the control room, where it can be fixed either by a human or a robot.

Perspective

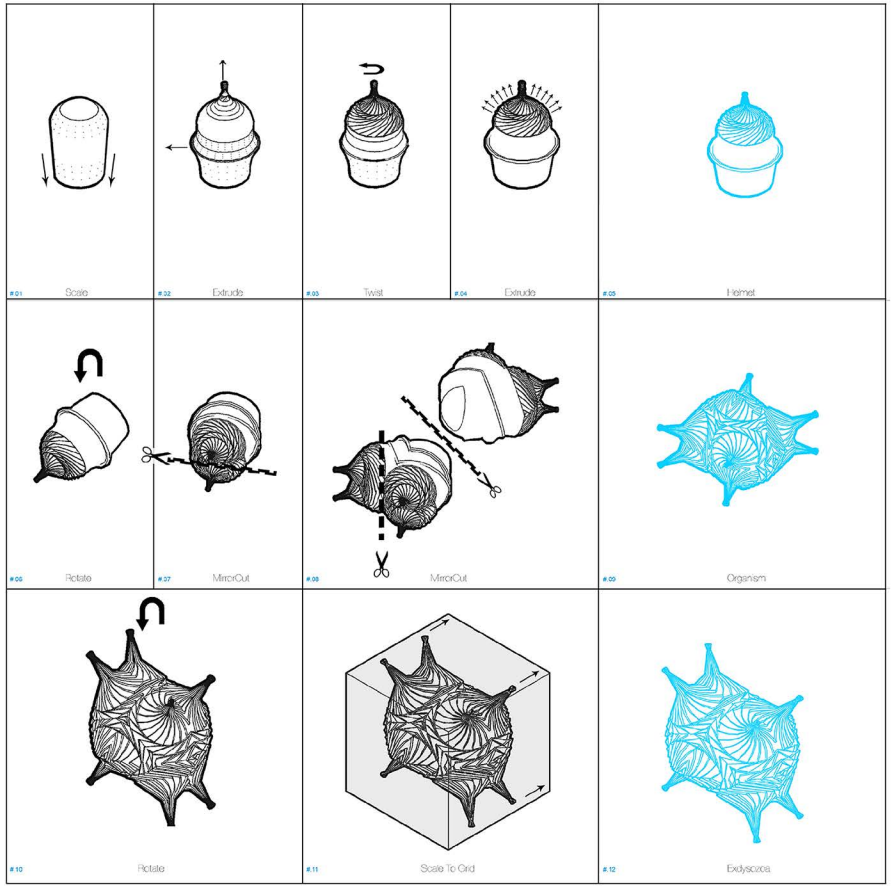
MATTER : DIGITAL TECHNIQUE

06_ Ecdysozoa | Moma PS1 |
Summer 2016

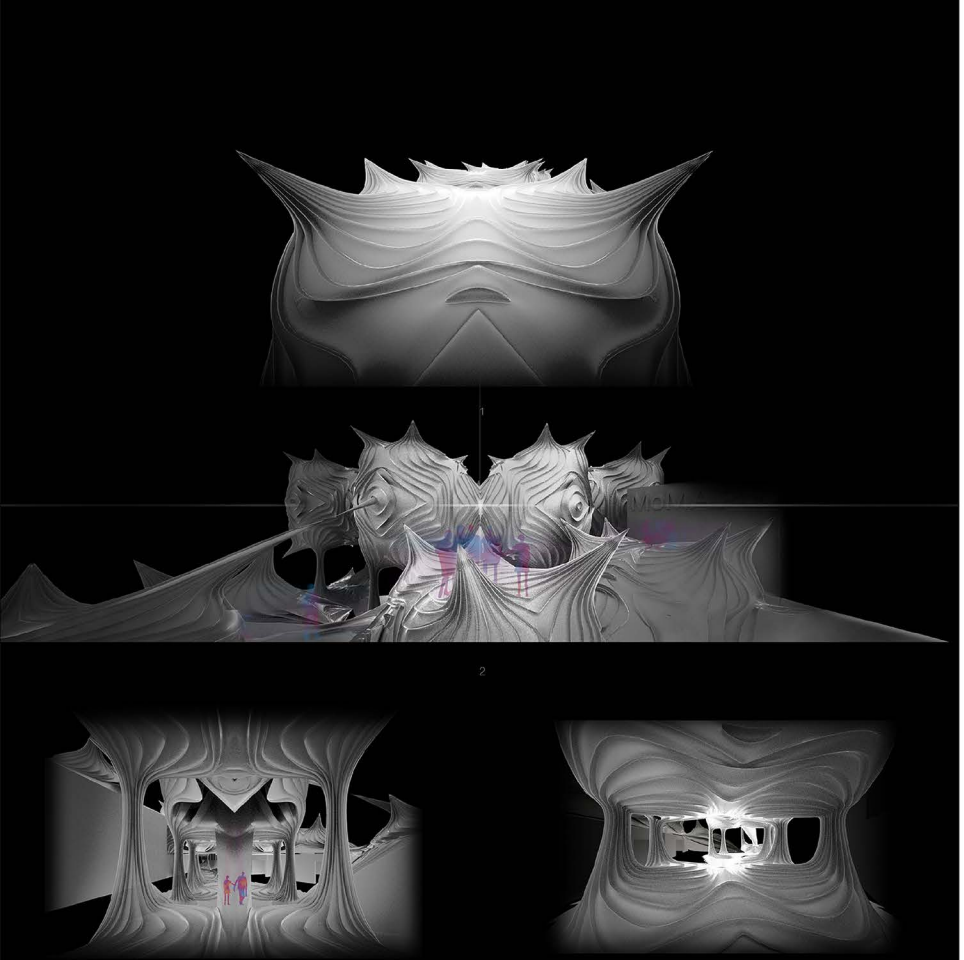
MSDAAD
Digiblast Summer Workshop |
University Of Pennsylvania,Philadelphia, Pa

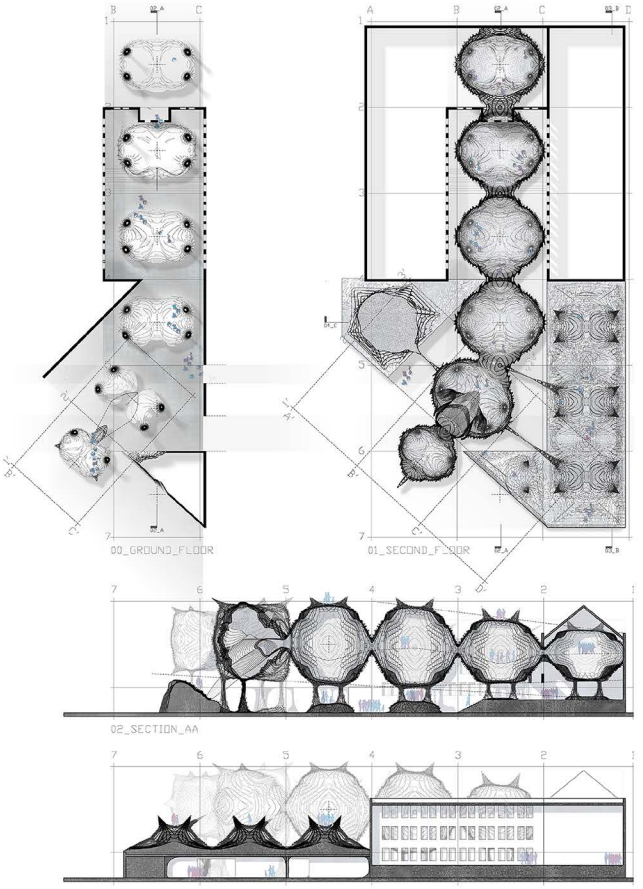
As part of the MSDAAD a summer digital workshop is required to learn the design software that will be used along the program. As a result from this workshop, a competition between all the students is held, to design an advanced pavilion for the Moma PS1.

Ecdysozoa explores the transformation from an armory helmet to a pavilion with animal appearance through the use of simple design techniques.
This was the winning entry for the 2016 MSDAAD Digiblast .



1.Perspective of the roof surface (top)
2. View From the terrace (middle)
3. View from the entrance (Bottom left)
4. View from the 'promenade' (Bottom right)




00_GROUND_FLOOR
01_SECOND_FLOOR
02_SECTION_AA

MATTER : COMPETITION

07_Uniandinos club
Dec 2015- Feb 2016

Independent work
Public competition
Bogota, Colombia

The competition for the new Uniandinos club was a short but challenging project since it had many constraints that had to be taken into account.

First, the existing club had to be integrated to the new construction, but it couldn't be modified since its a historic building.

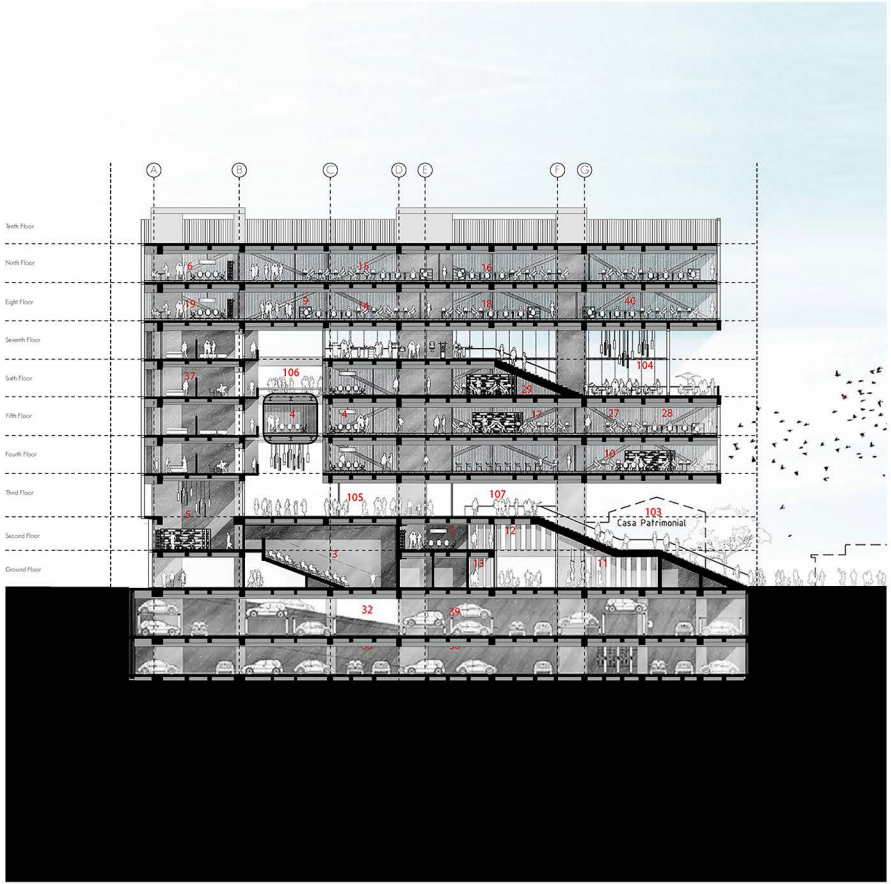
Second, the site was conformed by three smaller sites each of them with different regulations which controlled the program and the height.

Third, the program included cultural spaces -like auditoriums and Galleries-, educational spaces -classrooms for students-, Hotel-guest rooms, studios, and restaurants-, and offices which implied a challenging vertical and horizontal circulation.

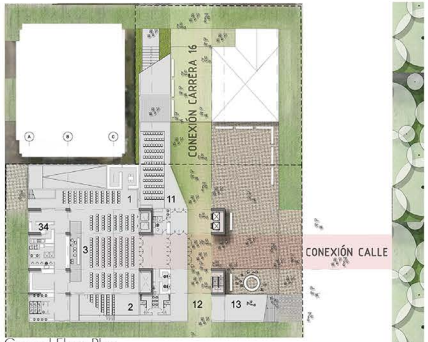
Instead of doing a closed building, where all the action occur indoors, I decided to use a void as the connector to show the movement.

This public space became an extension of the plaza in front of the building, succesfully connecting and separating the different programs through the communal spaces such as restaurants, meeting rooms, terraces and open auditoriums.

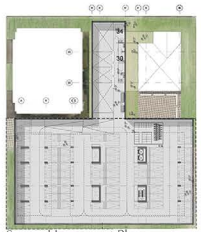
The platform (3) has all the cultural spaces connected to the existing two story building, the west building(37) is the hotel, the east building (28) is the educational spaces, and the top volume are the offices.

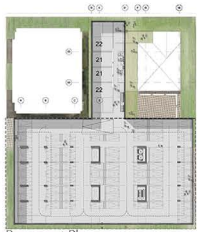


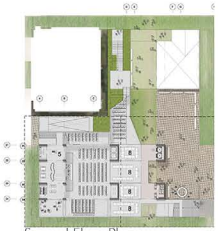
1.Section through the platform entrance showing the void(106), the different programs, and the existing club (103) (right)

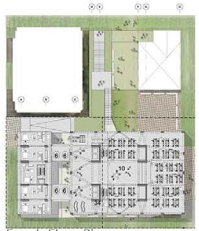


Ground Floor Plan

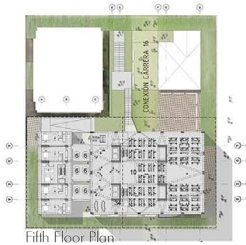

Second basement Plan

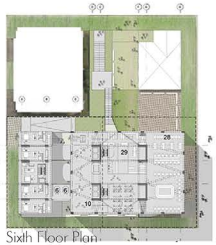

Basement Plan

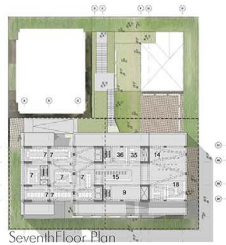

Second Floor Plan

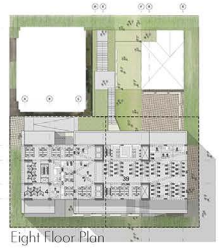

Fourth Floor Plan

Third Floor Plan (Main Entrance)


Fifth Floor Plan


Sixth Floor Plan


SeventhFloor Plan


Eight Floor Plan

SeventhFloor Plan

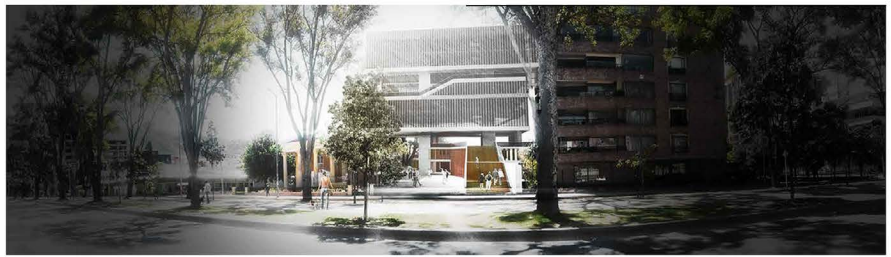

Entrance

1. Floor Plans (Top, left and right page).

2. Main entrance rendering (next page, middle right).

3. Bird's eye view (Bottom Right).

4. View over 92nd Street (Next page, bottom)..



MATTER : TOWER

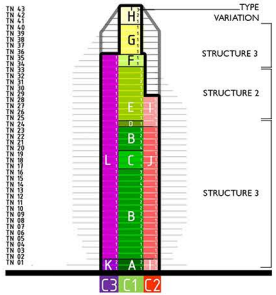
08_ Atrio Tower
Nov 2014- Nov 2015

El equipo Mazzanti+ RSH P
Architectural Design Leader
Public Realm and North tower Belly
Bogota, Colombia
19.000 SqMt of 250.000 SqMt.
500 million dollars.

Plot Area : 2845 SqMt.
Gross Floor Area: 250.000 SqMt.
Communal Area: 10.000 SqMt.

In El Equipo Mazzanti, I worked in the design development of a 250, 000 SqMt project in Bogota, Colombia. Designed in partnership with Rogers Stirk Harbour and Partners, the design and construction represented an enourmous challenge since its the first project of this scale built in the city. As an Architectural design manager, My role was to lead the junior architects and interns in the production of the ConDocs for the public realm (19.000 SqMt), the coordination of the revit model for the whole project (250.000 SqMt), coordination with MEP and structural consultants, and presentations in the Design Team Meetings and Workshops

1.Physical Model.
Image from Archdaily, property of Rogers, Stirk, Harbour and Partners+ El Equipo de Mazzanti



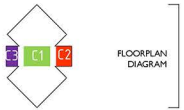
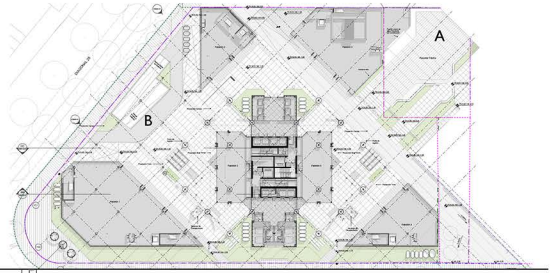


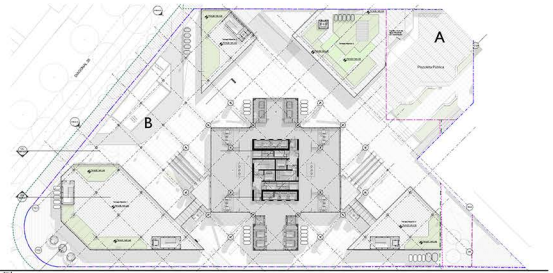
DIAGRAM Made for revit BIM model and project Coordination for the North

The selected drawings are part of one of the construction document sets we designed, coordinate and drew in partnership with the architects from Rogers Stirk Harbour.

As Arch. design manager for the public realm, I was responsible for the coordination of the Revit model (public realm, basements, and towers) ensuring the quality of the project and the drawings.

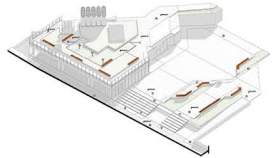


Ground Floor

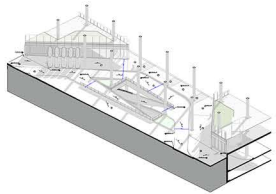


First Floor

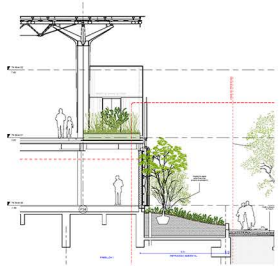
Section Through Pavilion and tower



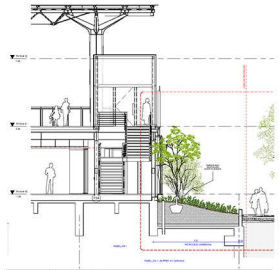
A. Axonometric view of the third pavilion



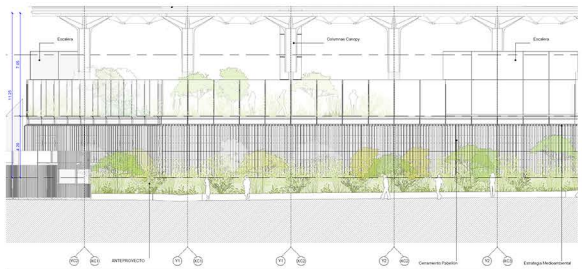
B. Axonometric view of the Drop-off



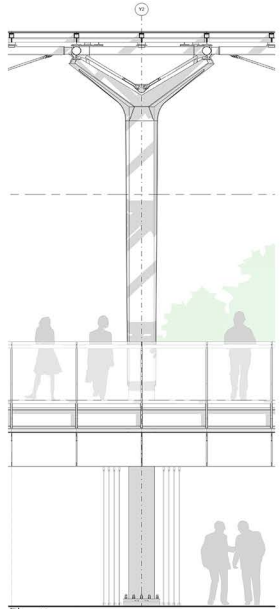
Green Buffer Section 1



Green Buffer Section 2



Green Buffer Elevation



Elevation

Also, leading our local team to meet the schedule, as well as coordinating the design with the engineering team (Arpro/Ellis Don, Poch/Arup), and the lanscape architects (Gillespies/ Diana Wiesner), meeting the requirements of our client (Qbo) and the local authorities.

All these documents were presented on time, and succesfully approved by the local authorities and our client . Currently they are being used for the construction of the Phase 1.

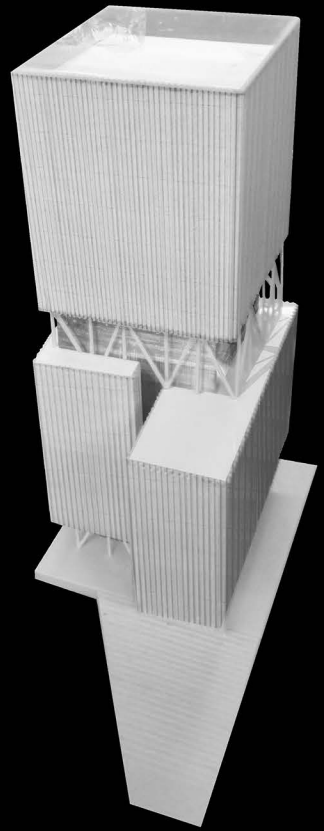
TIME/ 2014

MATTER : MIXED USE

09_ CCI Tower
March 2014-Nov 2014

El equipo Mazzanti
Architectural Design Leader
Concept design, D. development
Barranquilla, Colombia.

Gross Floor Area: 31.680 SqMt



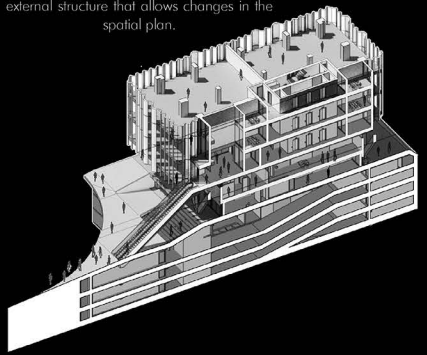
Nowadays, office buildings are conceived as static blocks, unable to change in time due to the lack of flexibility. In fact, these buildings usually have only one type of activity/use, which make them commercially unattractive due to the excesive offer of these type of projects.

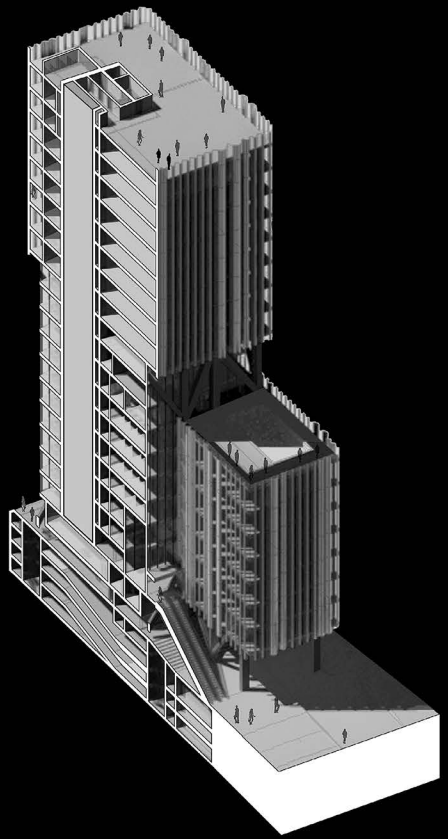
The CCI tower aims to have the maximum flexibility stacking three volumes connected through communal spaces.Each of them has different types and sizes of offices, and in the future they can change their use to hotel or residences without significant cost.

1.Physical Model.
Physical model scale 1:200 (left)

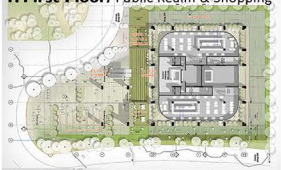
2. 3D Section showing Lobby, and Core interior. (right)

To make this possible a detailed study of vertical circulation, and users was made; as well as a very precise modular structural unit. The result is a mixed-use tower with a central core that connects the whole building and a external structure that allows changes in the spatial plan.





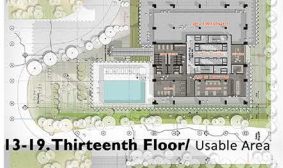
1. First Floor/ Public Realm & Shopping



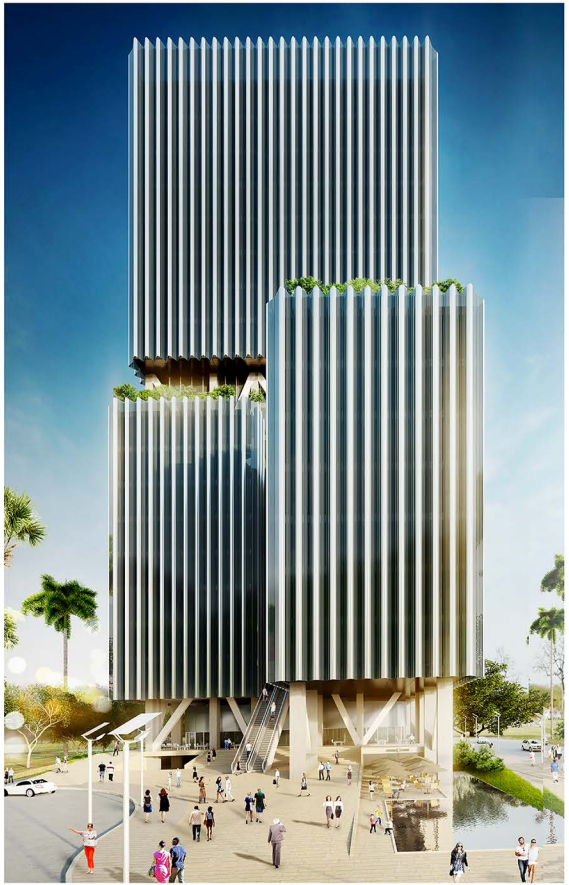
3. Third Floor/ The Main Lobby

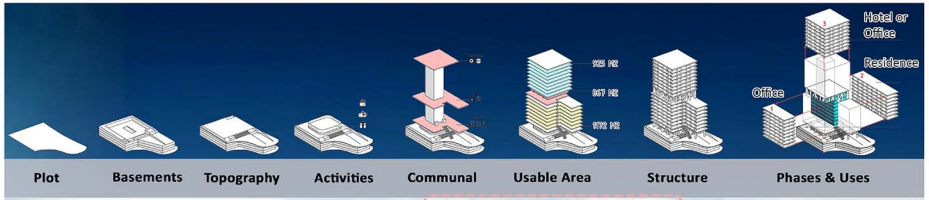
4-9. Fourth Floor/ Usable Area

10-12. Tenth Floor/ Executive Club



13-19. Thirteenth Floor/ Usable Area



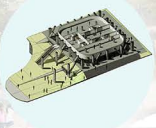


1. The Club

The club on the tenthfloor, has a restaurant, a gym, an spa,and retail stores. This floor also works as an skylobby where users may change from the express to the local elevators.

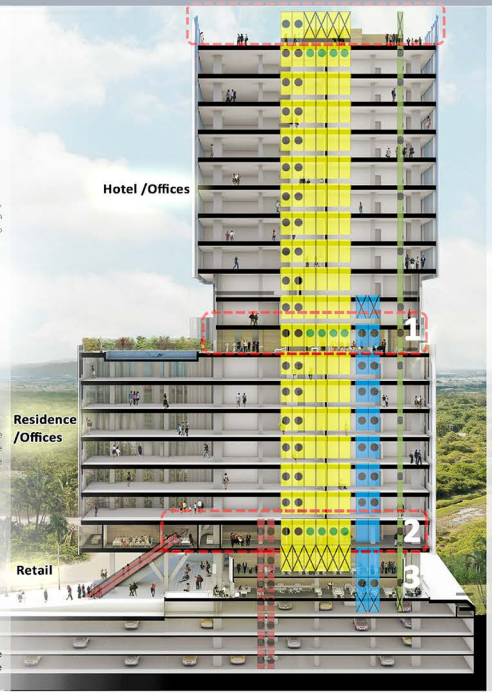
2. The Lobby

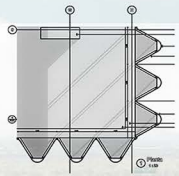
The lobby on the third floor is the first of the three communal spaces inside the building. It has the access control, and two auditoriums. The central core begins here.



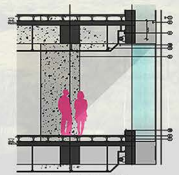
3. Shopping

A commercial volume is created to generate activity over the public space. This transforms the access plaza into an active, safe and live place.





Facade Detail



Facade Section

MATTER : MASTER PLAN

10_Kapikua
June 2014-Aug 2014

El equipo Mazzanti
Architectural Design Leader

Concept Design.
Santa Marta, Colombia

Plot area: 57.945 Sq Mt
Gross Floor area: 17370 Sq Mt.
Communal facilities area: 2171 Sq Mt.
Green Forest area: 28.000 Sq Mt

HOW TO DO IT

The topography has been modified to generate a direct relation between houses and nature.
Following the new topography a green forest is created within. A space for contemplation that connects the whole project, giving each house a forest-front view and a direct access to pedestrian paths.
In order to separate vehicular from pedestrian mobility, roads are conceived as a ring-road allowing cars to circulate fastly and pedestrians to have a 'promenade' experience in the forest.

Kapikua is a residential complex located in the city of Santa Marta, Magdalena. A tropical city surrounded by the Caribbean sea. The 5.7 Hectares site has a unique view over the sea, as well as the trace of an old river that crosses the site. Two determinant factors for the urban design of the project.

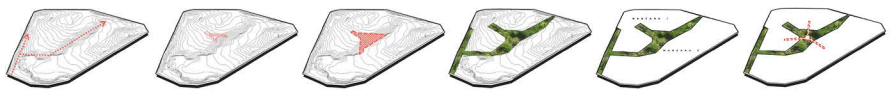
Even though our client´s initial statement was to create tall buildings next to the sea, it was not possible since there is an existing hotel that had to be involved in the design, and the local regulations would not allow to create such an invasive structure.

For these reasons, we decided to invert completely the scheme. We understood the path of the old river as the essence of the project, creating a communal space where all the houses were equally distributed, in direct relation with nature.

Concept

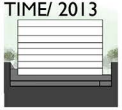
Transform the old river in the main space – Heart- of the project, through the creation of a Green Forest that allows a direct relation between habitants and nature

1.Section through the green forest.
2. Master plan (Next page, top).
3. Diagrams (next page, Bottom).



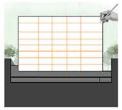
1. The Site	2. Topography	3. Communal	4. Green forest	5. Phases	6. Pedestrian
Existing trace of an old river.	Modify Topography	Creation of Communal spaces where the different streams intersect.	Create a green forest as the main connecting structure.	Divide the project in two phases to facilitate its development.	Connect the different blocks and the communal spaces using pedestrian bridges.

TIME/ 2013



Traditional Building

Calculation of the maximum FAR for the site.



Divide

Subdivision of the mass in equal structural units to facilitate construction process

Cut

Creation of communal spaces along the section of the building

Hide

Cover the comunal spaces with vegetation to dissolve the building with the surrounding mountain

Cover

Creation of a double active facade to control the amount of sun, heat, and avoid the use of HVAC systems

Active Facade

Transformation of the facade performed by the users of the building.

MATTER : RESIDENTIAL

11_El Retiro Building
July 2013- Dec 2013

El equipo Mazzanti
Architectural Design Leader

Concept Design
Bogota, Colombia

Plot area: 2.329 Sq Mt
Gross Floor Area: 13.900 Sq Mt
Usable Area: 6.860 Sq Mt
Communal Area: 7.040 Sq Mt

How to Dissolve the existing boundary between the buildings and the mountains in Bogota?

.El Retiro Building is located in Bogota, in the neighborhood 'Rosales'. This place is the boundary between the city and the mountains, a fact that has been ignored by other buildings for years.

The building is an extension of the mountain, through an strategy of 'camouflage',using patios and vertical gardens
it becomes invisible from the distance, giving also to its users a 'garden in the sky'.

West Facade (Entrance)

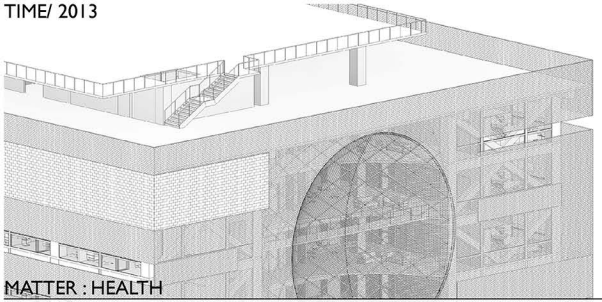
West Facade (Entrance)

West Facade (Entrance)

East Facade (Entrance)

East Facade (Entrance)

East Facade (Entrance)



MATTER : HEALTH

12_Santafe Hospital
February 2013- July 2013

El equipo Mazzanti
Design Architect

Design Development

Gross Floor area: 30.000 SqMt

Technical coordination with MEP and Structural consultants.
Construction documents elaboration.

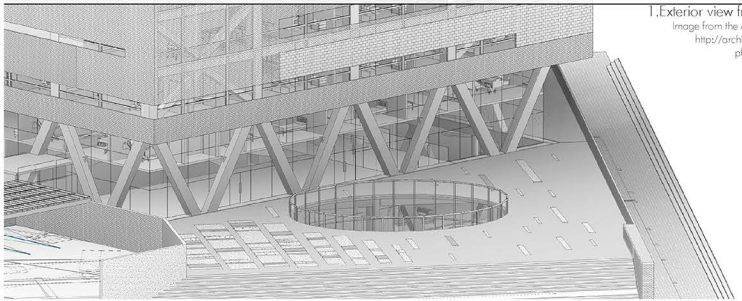
The Santafe Foundation hospital is located in Bogota, Colombia as part of the expansion of a private reknown hospital.

The main goal of the design was to change the traditional image patients and staff have from hospitals by introducing the concept of Biophilia.

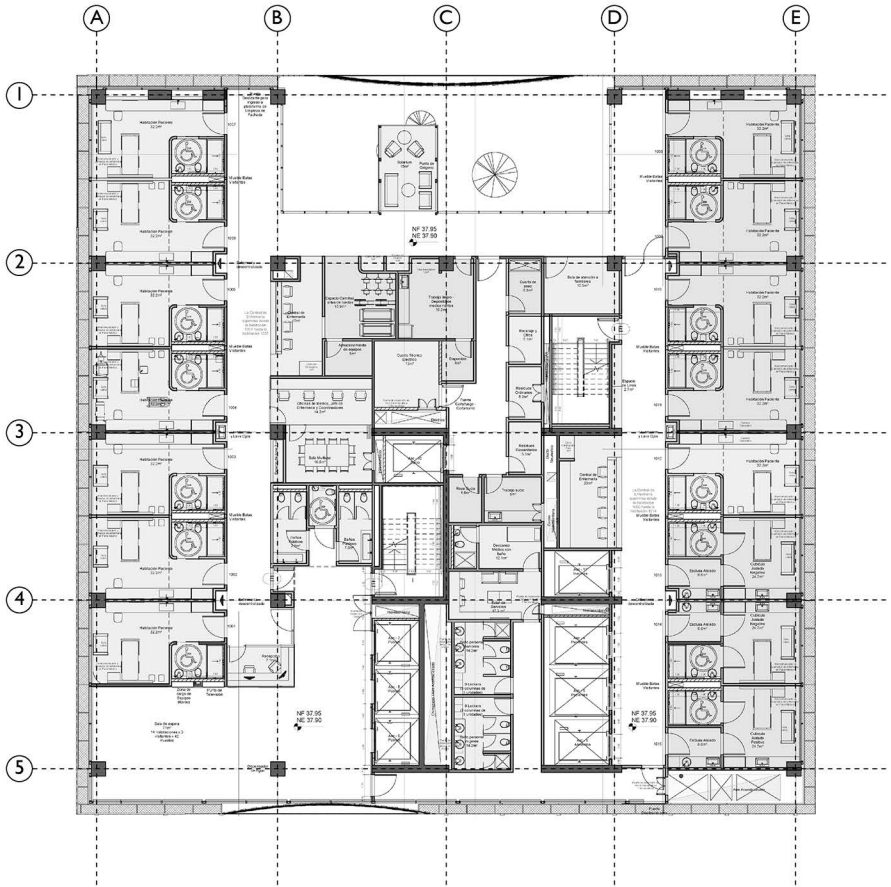
The inclusion of green spaces along the tower, generates a vertical forest which can improve the healing process by reducing patient's blood pressure and stress.

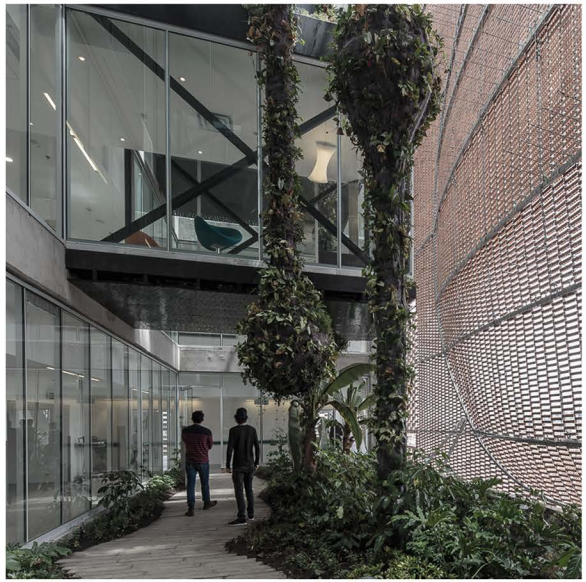
As part of the design team my main responsiblity were performing the technical coordination with the MEP engineers, and producing the construction drawings (GA's and details).

The project was succesfully constructed and has won multiple awards including the American Architecture Prize 2017.



1.Exterior view from the entrance (Right)
Image from the American Architecture Prize 2017
http://architectureprize.com/winners/winner.php?id=2995&count=0&mode=





1.Level 10 Floorplan

2.Interior view from the Solarium
Image from the American Architecture Prize 2017
http://architectureprize.com/winners/winner.php?id=2995&count=0&mode=

3.Interior view from the waiting room
Image from the American Architecture Prize 2017
http://architectureprize.com/winners/winner.php?id=2995&count=0&mode=

4. Axonometric section of the solarium.

TIME/ 2012

MATTER : MIXED USE

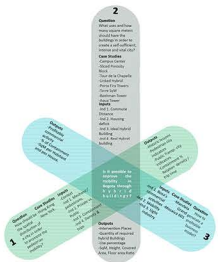
13_M Arch Thesis I Hybrid Building
Spring/Fall 2012

M Arch
Universidad de los Andes
Bogota, Colombia

Nowadays, Bogota suffers an enormous mobility problem caused by the increasing number of private vehicles, the lack of road infrastructure, the lack of mass transit systems, and specially the city's zoning

Daily millions of persons that live in the periphery of the city travel downtown for different reasons, such as obtaining goods and services, work, study, or others.

This situation may be solved through interventions of urban acupuncture with hybrid buildings that condense all types of activities inside, which arranged in strategic places of the city, may attract local population.These proposals avoid the long commuting, through a new type of mobility, the tridimensional mobility.



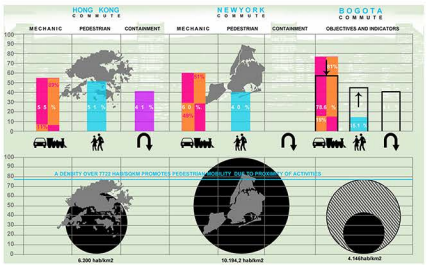
Case Based Design Tool

A CBD tool was used to organize this research. Its composed by a main question, which is answered overlaping the conclusions of three secondary questions

Main question: Is it possible to improve the mobility in Bogota through hybrid buildings?

1. How should be the spatial distribution of a city in order to promote the pedestrian mobility?
2. What uses and how many square meters should have the buildings in order to create a self-sufficient intense and vital city?

3. How to generate a profitable business model



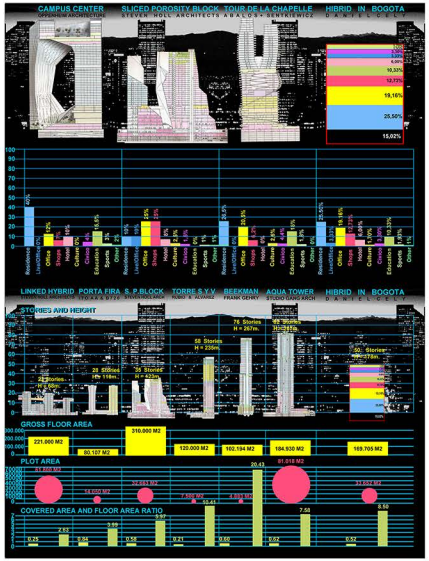
1. How should be the spatial distribution of a city in order to promote the pedestrian mobility?

A city must be dense, compact and intense to promote the pedestrian mobility

•In Bogota pedestrian trips should be promoted, increasing their percentage to 45.5%, and mechanical trips should be reduced to 54.5%

•In Bogota is recommended to reach a district self-containment close to 41% as in Hong Kong. This action should be done through mixed use buildings that allow proximity between activities, so they promote pedestrian trips.

• The desired density for a pedestrian city should be over the 7722 Hab/SqKm. That means increasing Bogota's density in 3576 Hab/SqKm

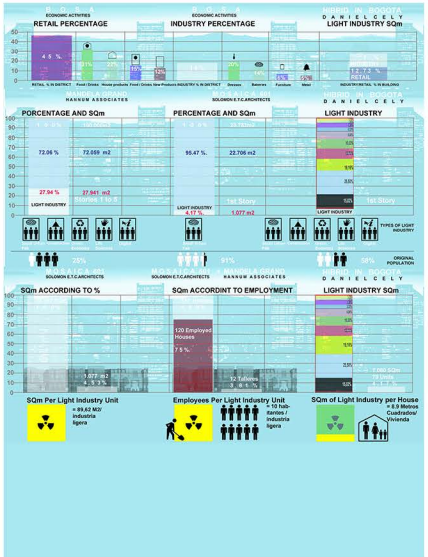


2 . How should be the spatial distribution of a city in order to promote the pedestrian mobility?

•The intervention places chosen to house the prototipology of hybrid buildings are Bosa, Ciudad Bolivar, and Usme since they are the 3 districts with the longest daily commuting to obtain goods or services

•Living is one of the main components in this type of building with a percentage near to 25.50%

•A Hybrid Building should have 169.705m2, 50 Stories, with 178m of height. Also, an ideal plot would have -3.36 ha- , with a 52% of covered area, and a floor area ratio of 8.50 .



3. How to generate a profitable business model

•Bosa has a great opportunity in the commercial and industrial sector. However, industry may be a difficult activity to mix with housing -due to its congestion, contamination, and activities- creating an opportunity for light industry

•According to (ORA,2012) the recommended light industry for Projects that involve housing is the small urban fabric, construction and related businesses, Clean/green economy and clean technology, life sciences/ biotechnology, digital media and information technology.

• The hybrid building should have a total of 7080 SqMt of light industry- that represent a (4.17%) over the total of constructed square meters- in 79 independent spaces .Light industry is placed in the first two floors .

MATTER : RESIDENTIAL

14_Ukua House
March 2012-Dec 2012

GX Samper Arquitectos
Design Architect

Concept Design, DD, Con Docs.
Palomino, Colombia.

Private residence. 300 SqMt.

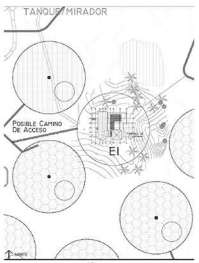
Ukua is a residential development near la Guajira, Colombia; a site with spectacular view to the caribbean sea. One of the main regulations of the urbanization is to build with local materials such as brick, and palm trees in order to have a homogenous appearance in all the houses.

There were to conditions of the site that guided the design: The main view towards the north -where the sea is-, and protecting from the sun.

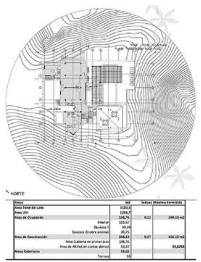
A simple inclined roof fulfills the objective of framing the view from the first floor, protecting from the sun on the East and West.

Then, for the social spaces the palm tree roof has a great finish but for the rooms and bedrooms, is preferable to use masonry walls and flat roofs.

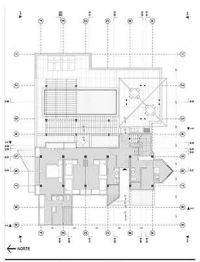
The house was divided in two levels. A masonry ground floor for the rooms, and a palm-tree first floor for the social spaces with a unique view over the caribbean.



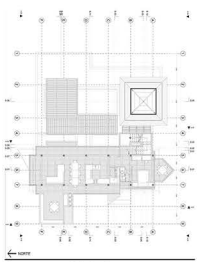
Site



GA and Areas

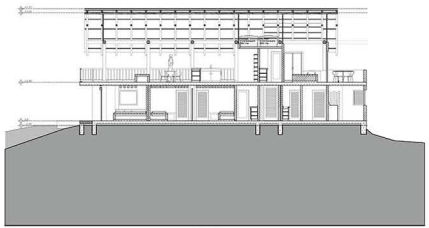


Ground Floor



First Floor

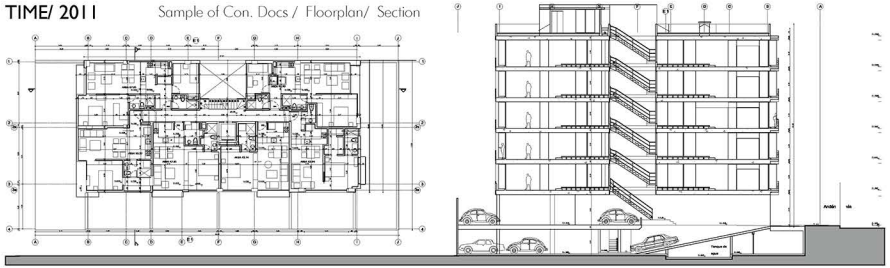
Section



Section

TIME/ 2011

Sample of Con. Docs / Floorplan/ Section



MATTER : RESIDENTIAL

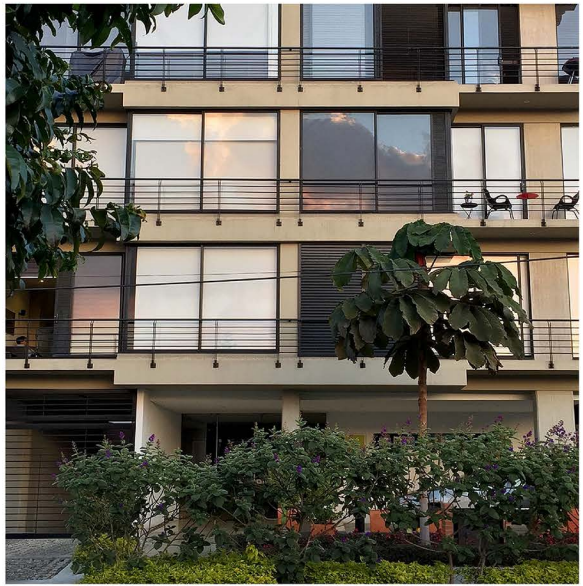
T5_Infinity Building
November 2010- Jan 2011

Ana Echeverri Arquitectos
Design Architect

Construction Documents
Bogota, Colombia

Gross Floor Area: 14.000 SqMt

1. Perspective (bottom)
2. Main Facade (right)
3. Perspective (next page)



TIME/ 2010

MATTER : MIXED- USE

16_ B Arch Thesis I Water City
Mixed use and Public space
Spring/ Fall 2010

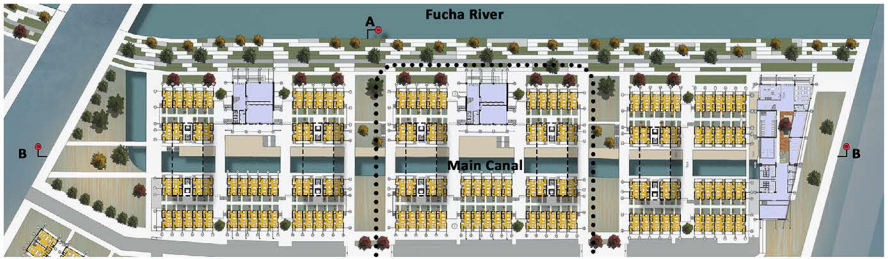
B Arch
Universidad de los Andes
Bogota, Colombia

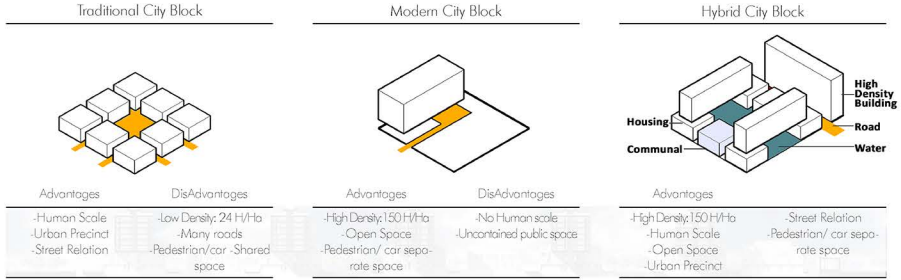
Due to its fast and unplanned growth, Bogota has been suffering from bad urban mobility for more than a decade.

Daily, millions of commuters travel from the periphery to downtown generating an unsustainable mobility.

How could we imagine a new type of city where everything is reachable in short time and distance, improving environmental quality and human interaction?

1.Perspective from the Fucha river.
2. Housing Master Plan
3.The 'Main canal' perspective. (Top)
4. Concept Diagrams. (Bottom)





WOULD YOU LIKE TO KNOW MORE?

DANIEL CELY
MS.DAAD, M.ARCH, B.ARCH,SCA

1919 MARKET STREET
PHILADELPHIA, PA
(267)461-4720
ANDDA@UPENN.EDU
DANIELCELY.ARQ@GMAIL.COM
WWW.DANIELCELYARCHITECTURE.COM