

Architecture Portfolio

DAAD Scholarship

Florencia Ramirez

2021

FLORENCIA RAMIREZ

ASUNCION, 1338, PARAGUAY

+595981178770

• DETAILS •

Teniente Mellone, 1395 c/

República Argentina

Asuncion, 1338

Paraguay

+595981178770

flopirami@gmail.com

Date of birth
06-sept-1994

Nationality
Paraguayan

• PERSONAL •

Mother of Joaquin

• SKILLS •

Teamwork Skills

Rhinoceros + Grasshopper

Sketchup

AutoCAD

Autodesk Revit

Adobe Package

Lumion

V-Ray

Python

Microsoft Office

• LANGUAGES •

English

Spanish

German

• HOBBIES •

Being Joaco's mom, ceramics, art, traveling, sketching, science and literature

• EMPLOYMENT HISTORY •

- Architect- Aranda Benitez Studio, Asuncion
Project Development, Project Detailing, Renders, BIM Manager
August- Actual job 2021
- Junior Architect- Aurea Architects, Asuncion
Interior Designer- Construction Manager
January 2017- October 2019
- Architecture internship at Bauen', Asuncion
Project Details Drafting- Construction
December 2014 - January 2015

• EDUCATION •

- Bachelor of Architecture, School of Architecture, Design and Art/ National University of Asuncion
August 2013- June 2021
- Arts and Science Degree, Liberty School of Education. San Lorenzo, Paraguay
January 2010 – December 2012

• COURSES •

- Sequential Structures, Digital Futures
June 2021
- Circular Economy for a Sustainable Building Environment, TU Delft
November 2020- March 2021
- Generative Design for Revit, ACADIA (Granted)
August 2020
- Tensegrity CoDe, Digital Futures
June 2020
- Introduction to Python, Penguin Academy
January 2020- January 2020

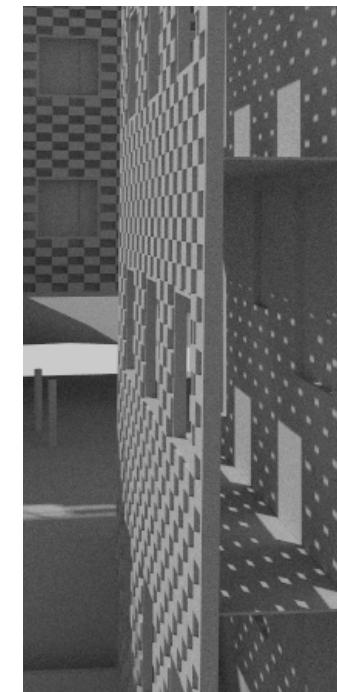
• EXTRA-CURRICULAR ACTIVITIES •

- Young Researchers/ Paraguay/ Selected for Young Researchers (AUGM Chile)
July 2021- November 2021
Article published "Design exercise and simulation of ventilated facades and upper enclosures cases: Ayfra building and the First colonos del Chaco school"
- "Calle Idea" competition winners with Exponencial team
July 2021
"Tava pyaha" proposal made with parametric design for "weaving" public spaces in the metropolitan area of Asuncion
- "Calle cultura" competition winners with CMYK team
December 2019
Tactical urbanism proposal for a connection of public spaces and an iconic park in Asuncion "Parque Caballero"
- Voluntary at Center of Investigation Development and innovation (CIDi) FADA UNA
June 2020- December 2020
Printing Farm Project. COVID-19 Faceshield kits for public hospitals
- Voluntary at UPEA (Paraguayan Architecture Students Union) (NGO)
June 2018- December 2019
Content Commissioner
- Voluntary at TECHO Paraguay (NGO)
June 2014/ April 2015
Constructions for social settlements. <https://www.techo.org>

• INTERNSHIPS •

- Fab Lab Intern at Center of Investigation Development and innovation (CIDi) FADA UNA
October 2019- December 2019
- Digital Fabrication tools training

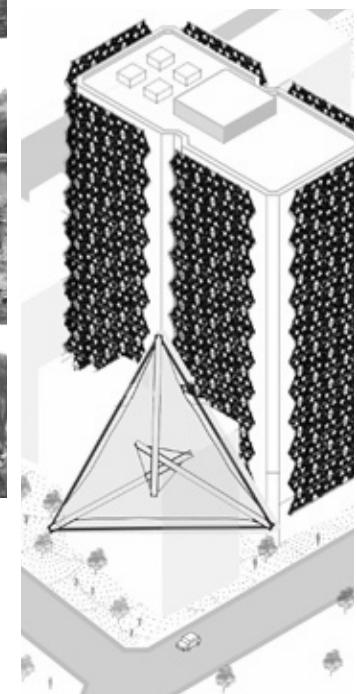
CONTENTS



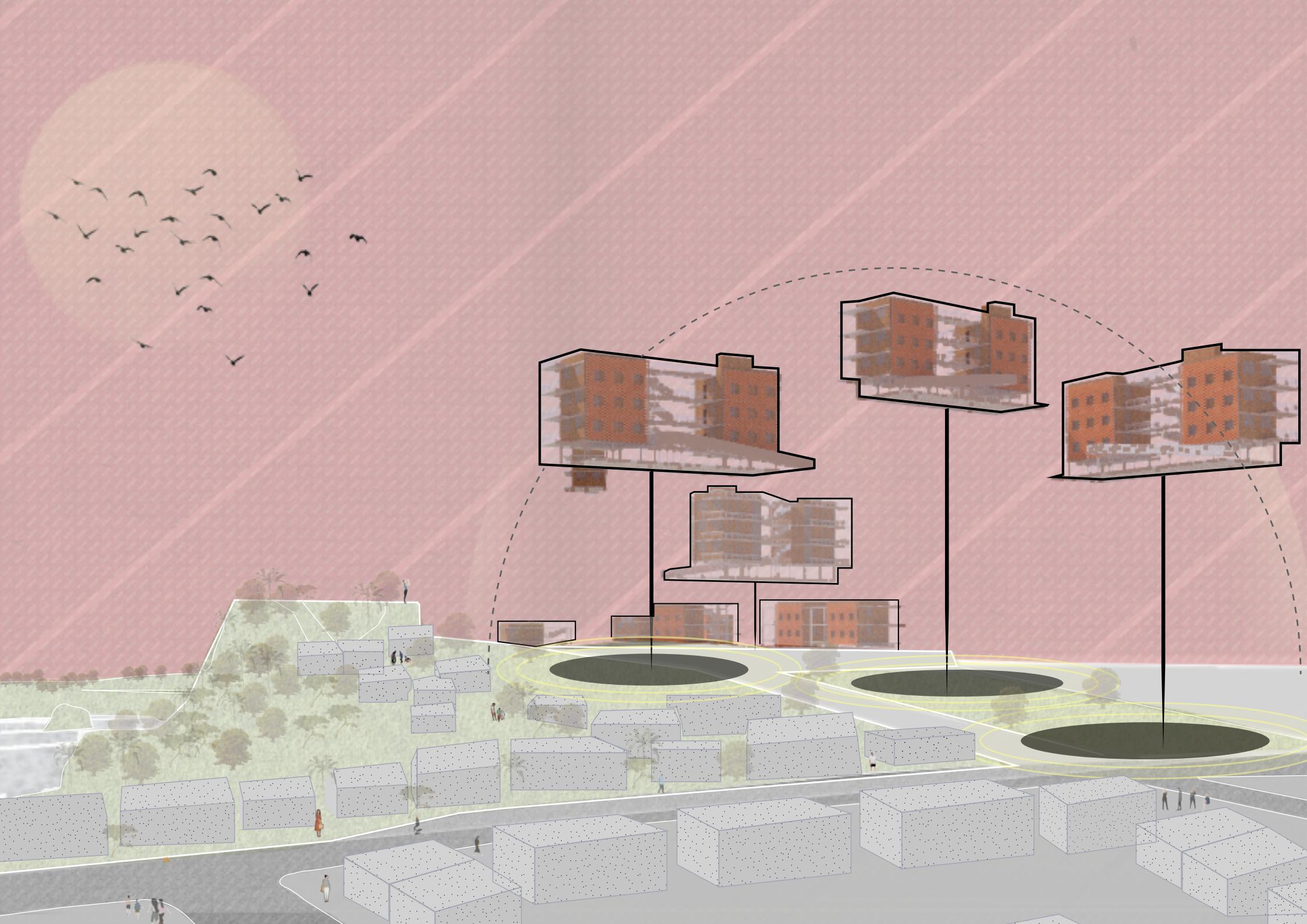
01



02



03



01

ACUPUNCTURE

SOCIAL HOUSING

"First life, then spaces, then buildings – the other way around never works."

-Jan Gehl-

Year: 2017, 4^o Academic year
Project achievements: First place recognition in class

University: National University of Asuncion
Location: Tacumbu, Asuncion, Paraguay

On the skirts of the former quarry "Tacumbu", which was utilized for building the roads that led to the expansion of the city of Asuncion back in 1950 and now has become a lagoon because of its over-exploitation, there are settlements occupying this site with a curious way of disposition, making passages connecting the lookout to the streets these places are a sort of public/private spaces without legal definition. There is also occupation in illegal zones, that tend to flood.

The project implantation was chosen in empty lots that could merge punctually, creating an acupuncture intervention, into the settlements and relocate families that are in territory of risk. The passages are considered, which is why it was amplified by keeping the essence and make them wider to be well-defined public spaces.

The buildings are three story tall, since it's a social housing unit, the budget is limited, this choice was made because considering an additional floor pressurized stairs are mandatory which will considerably elevate the cost, for inclusive housing, the ground and first floor have ramps and elevators. The density of the population is also considered, which is adequate for the site.

The topology elected is an adaptation from the "culata jovai" which was a very used disposition for our climate before the colonization.

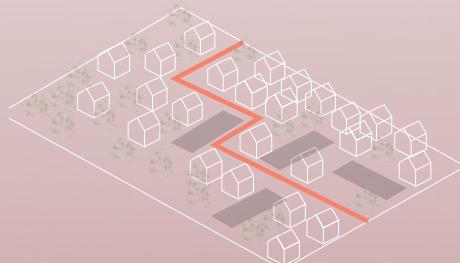
Three criteria were prioritized for this project:

-Save the Nature and biodiversity

-Social equality

-Divide the landscape and take advantage of the best views

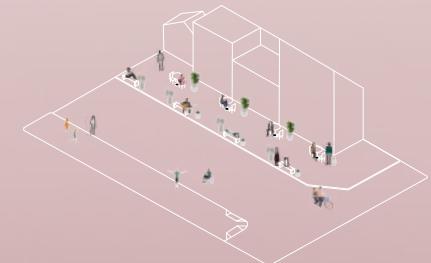




Amplify existing passages.



Nature first. Preserve the Tacumbu lagoon.



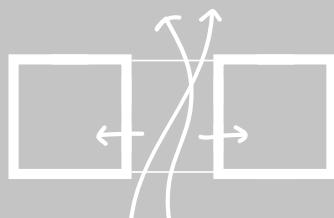
Create vibrant public spaces stimulating social interaction.



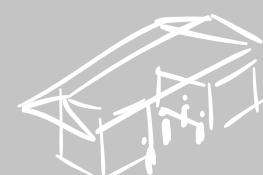
Building Typology



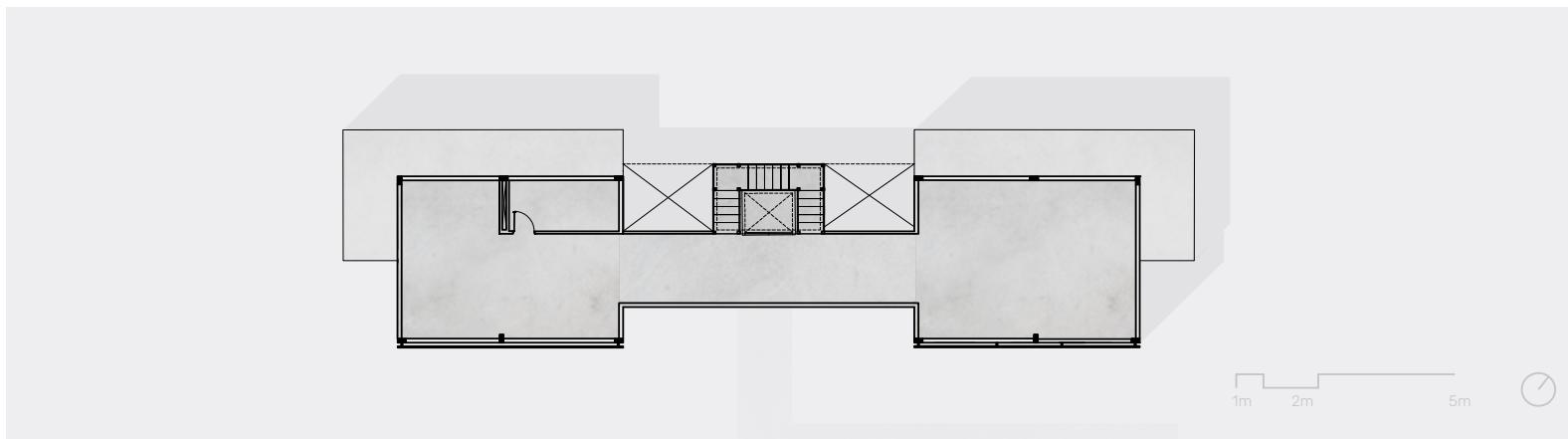
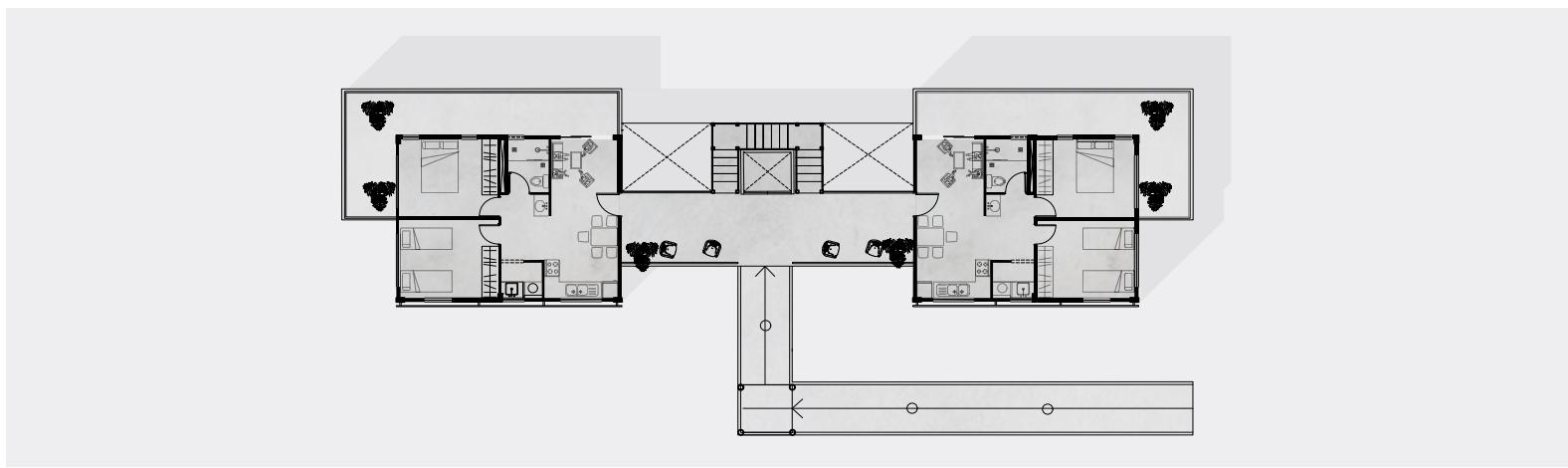
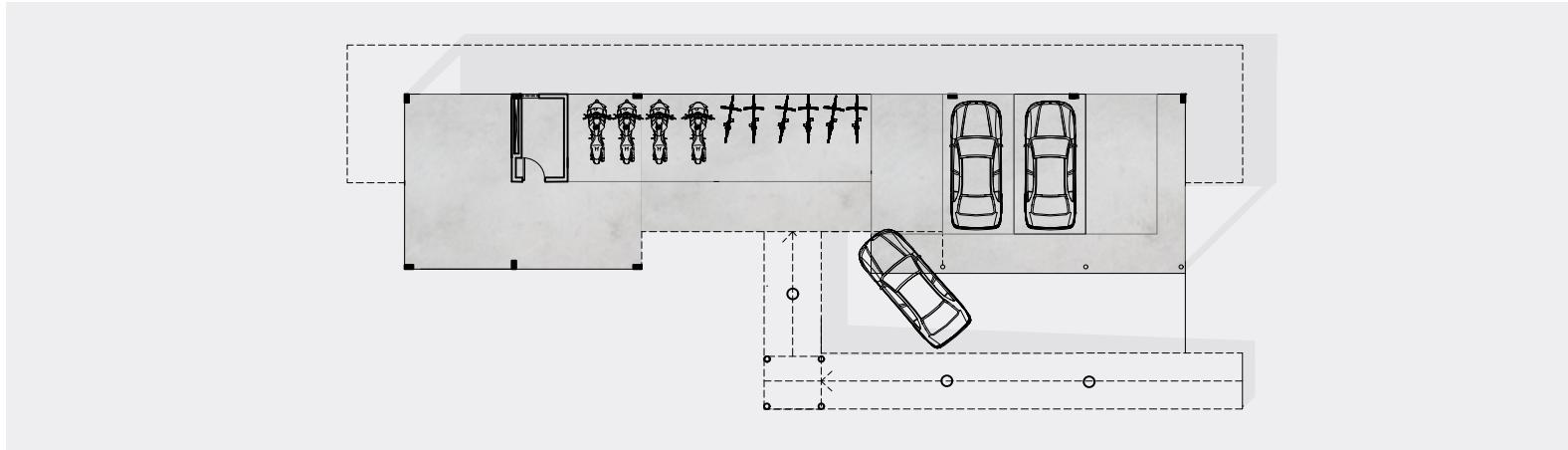
Culata jovai is a typology, this solution was used for native houses from the precolombus era in the region of the Guarani tribe.

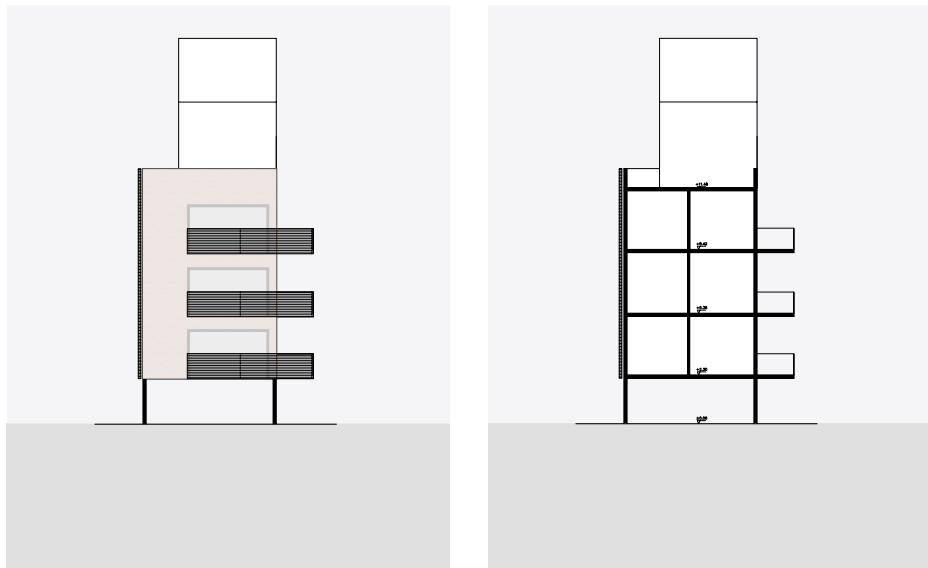
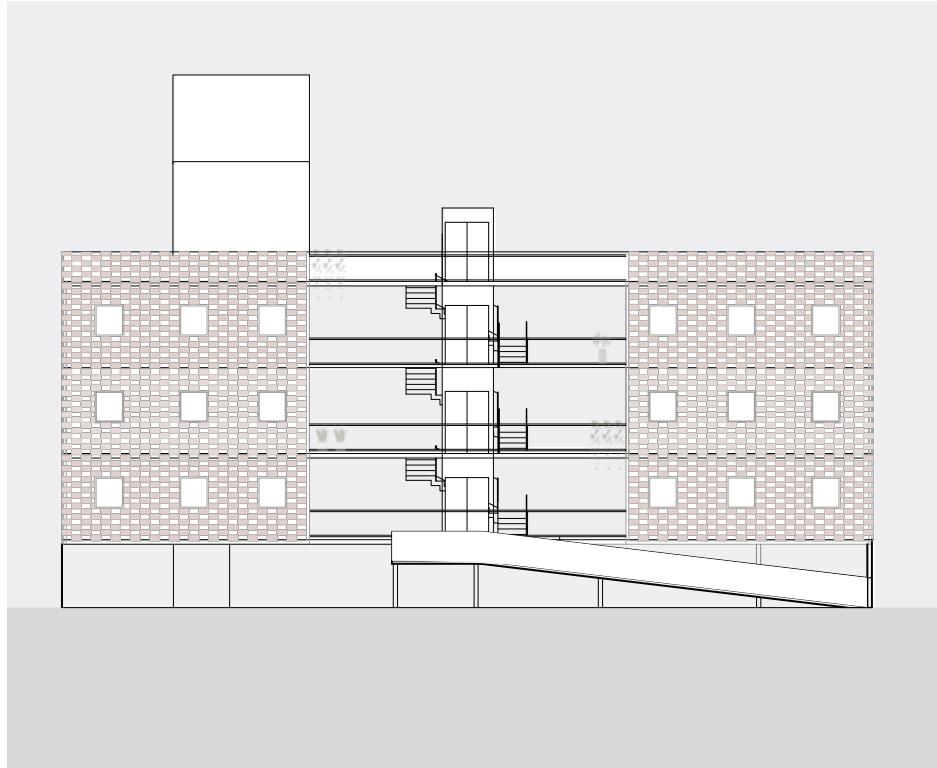


It is well adapted to the climate hot and humid from Paraguay (region of the Guaranies) for the natural ventilation.



This brings together people to refugee from the climate conditions and social interaction is a consequence.









02

THE NORTH COASTAL RENEWAL

URBAN INTERVENTION

"If you will stay close to nature, to its simplicity, to the small things hardly noticeable, those things can unexpectedly become great and immeasurable."

-Rainer Maria Rilke-

Year: 2019, 5° Academic year
Project achievements: Alumni publication and exhibition

University: National University of Asuncion
Location: Franja Costera, Asuncion, Paraguay

The north coast is a complex territory, this includes socio-economic, natural and physical spatial aspects. In the natural aspect we have various components: the Mburicá stream (the most symbolic of the capital), lagoons, the bay of Asunción, the wetlands and the San Miguel bank, the Paraguay River that includes its floods.

Throughout history, industries were established on the edge of streams and especially in the Mburicao, these are dedicated to the manufacture and slaughter of animals, so the waste ends up contaminating the water.

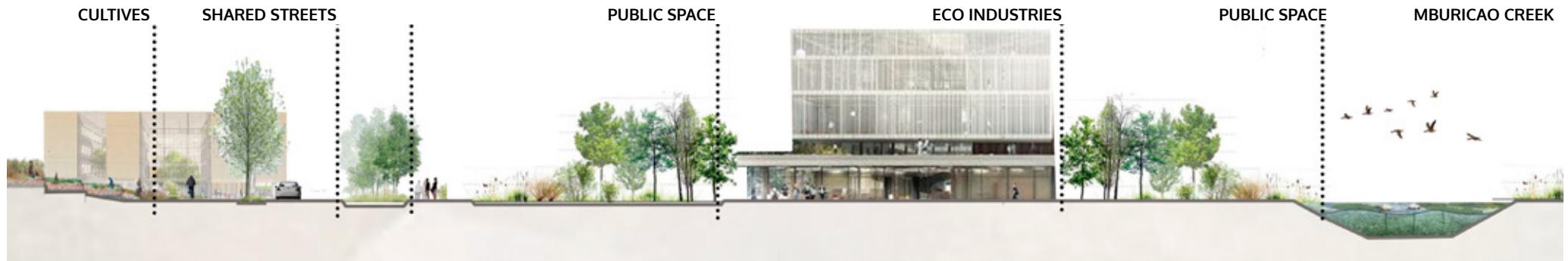
The inhabitants who migrated from the countryside to the city were forced to locate in informal settlements in flood-prone areas, in this case in the territory of biodiverse bodies important for the functioning of the damping of floods, specifically in the wetlands of the Paraguay River. are affected by floods.

The project pretends to be a regenerator for this area, by tackling the mentioned aspects with innovation. The natural aspect would be regenerated in order to let the biodiversity follow its natural rythm, since the streams were connected by tubes, the idea is to liberate them retrieving to the original state.

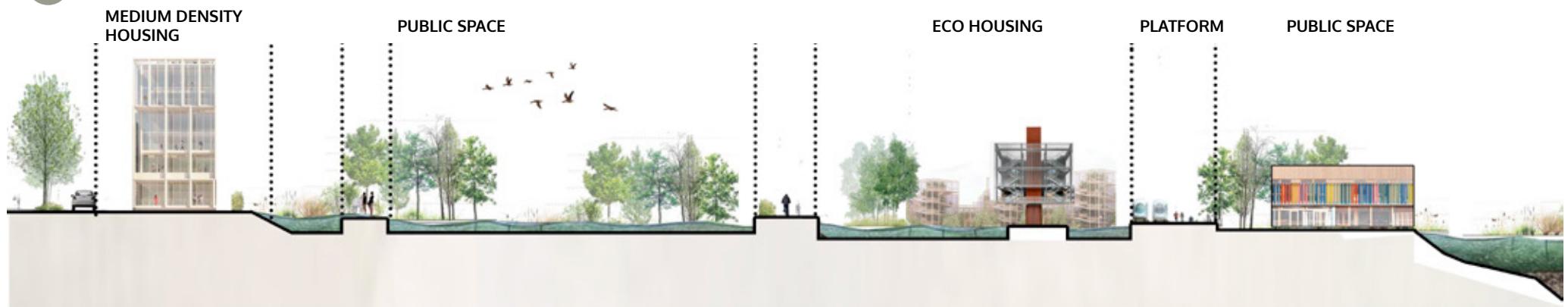
To follow up this regeneration, the industries are proposed as to be more sustainable, with the model of symbiosis industries. As well to the social housing planning with moduled resilient units.



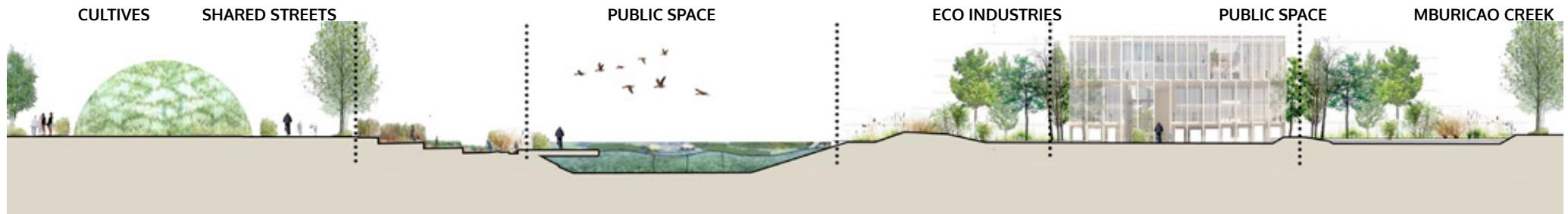
A

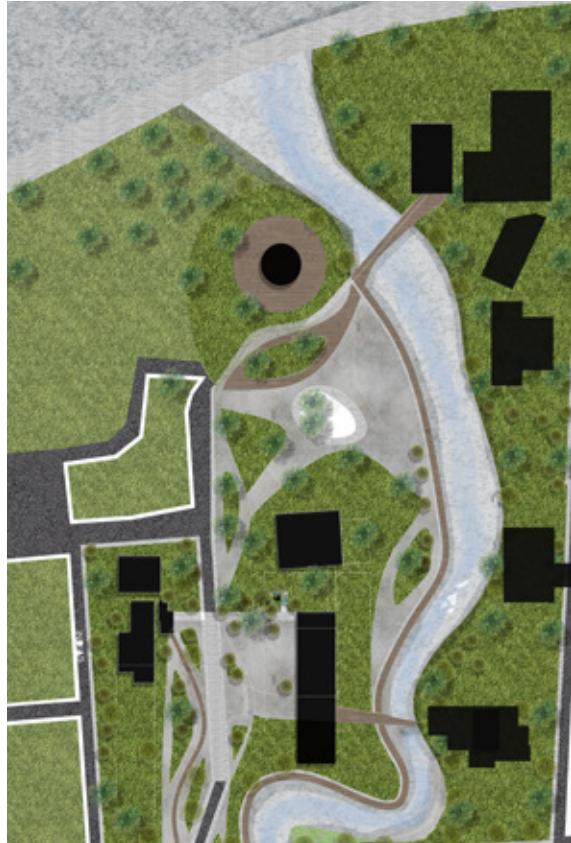


B

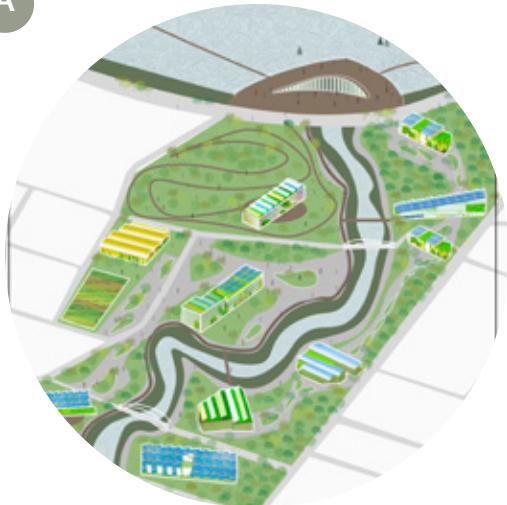


C





A



B

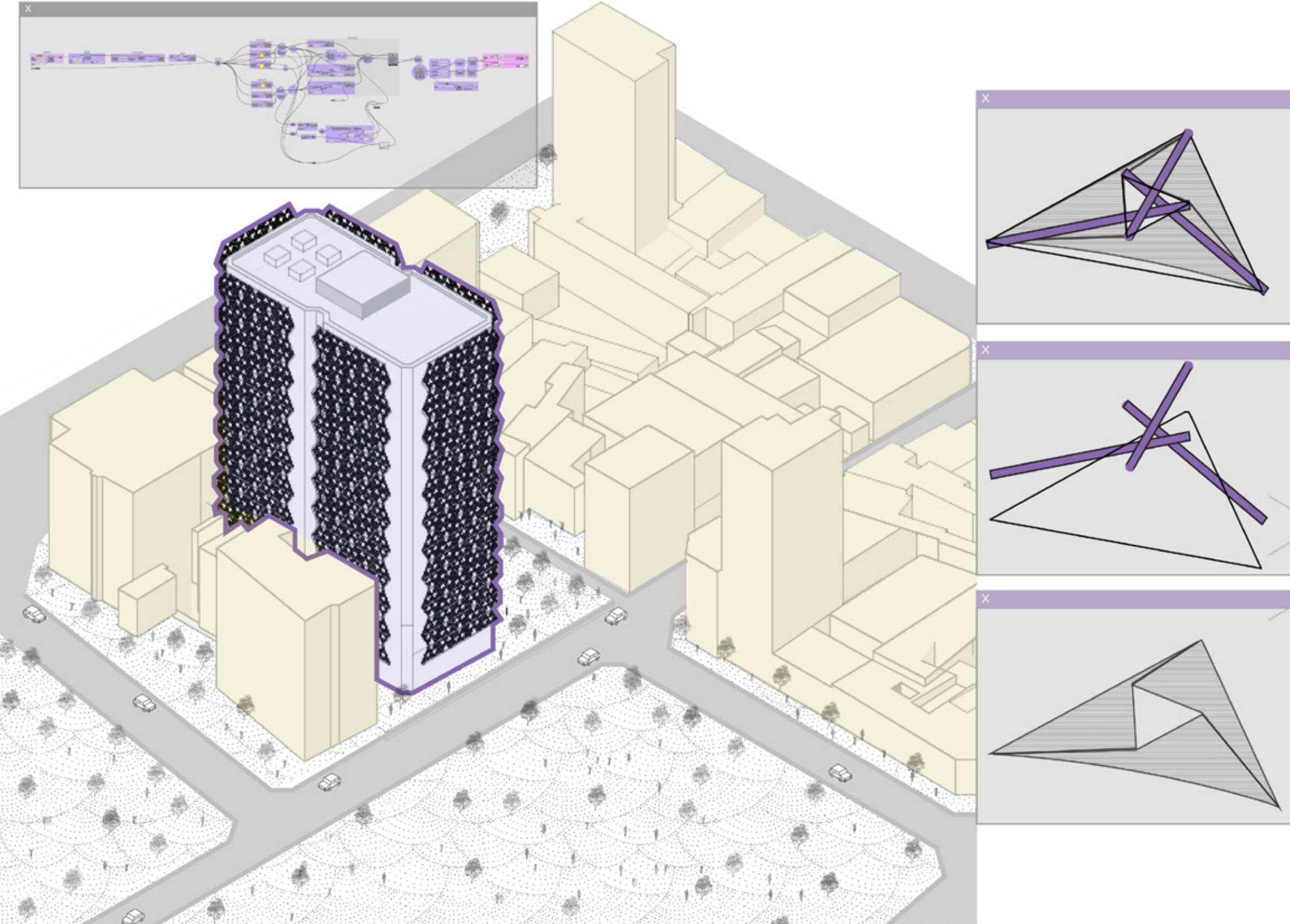


C



BAHIA NEGRA
8 DE JUNIO
CANDELARIA





03

RETRO-FIT TENSEGRITY

FACADES

"Don't fight forces, use them."

-Richard Buckminster Fuller-

Year: 2021, Thesis project
Project achievements: Publication in Young Researchers
Paraguay and Chile

University: National University of Asuncion
Location: Asuncion, Paraguay

The Historical Center of Asuncion is where the case study is located: The Ayfra building. The Center has suffered abandonment gradually, today we have more than a hundred empty buildings.

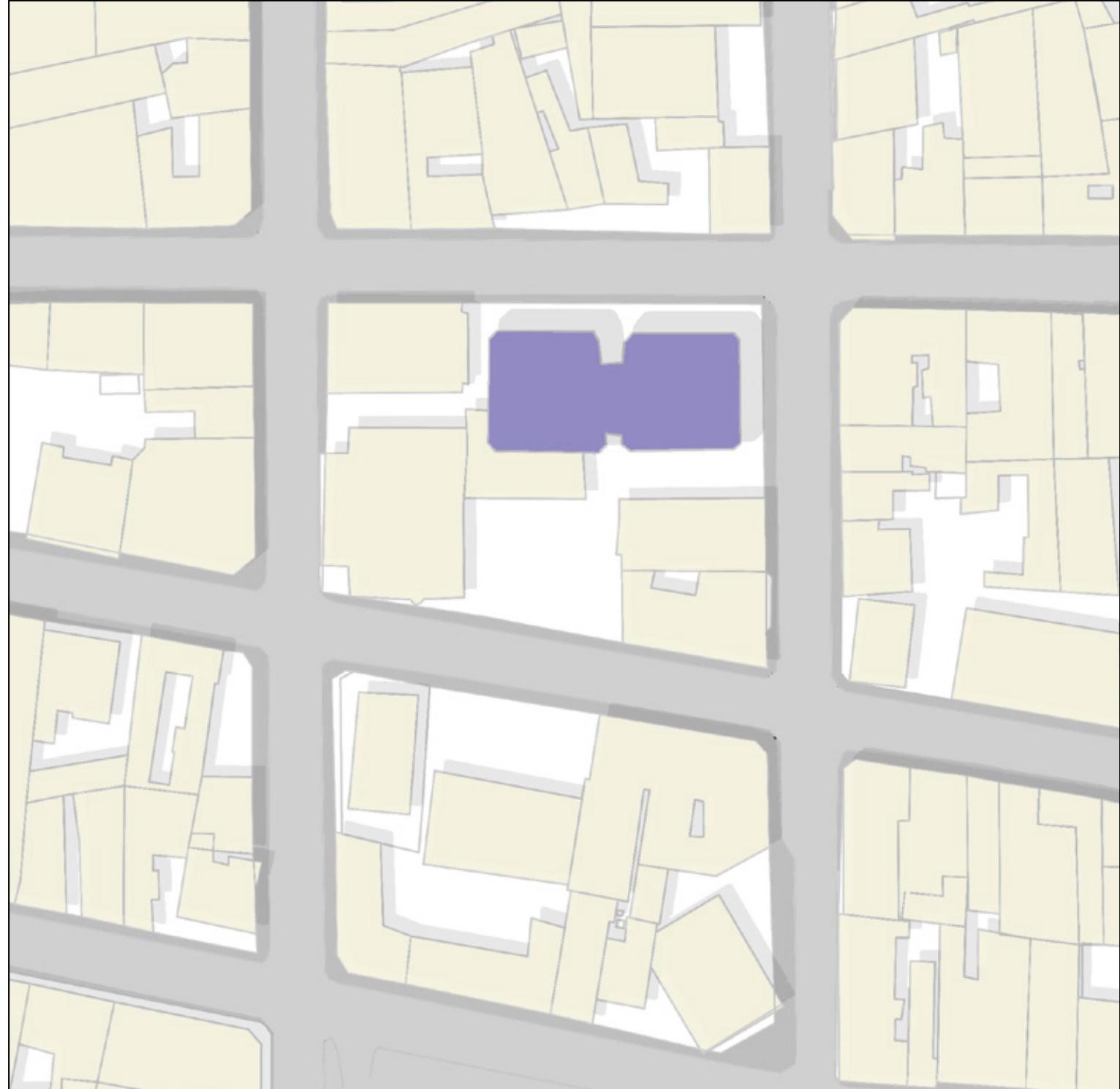
There are buildings that are not fit for the climate context of Asuncion, which is hot and humid: subtropical. In the 80s the international style was utilized for new projects such as the Ayfra building.

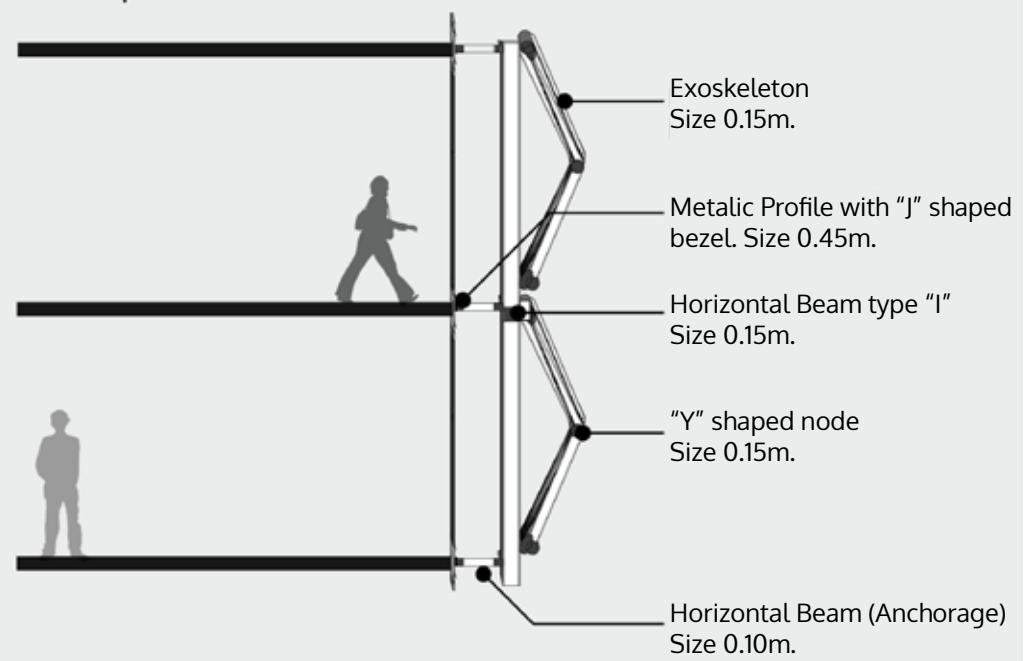
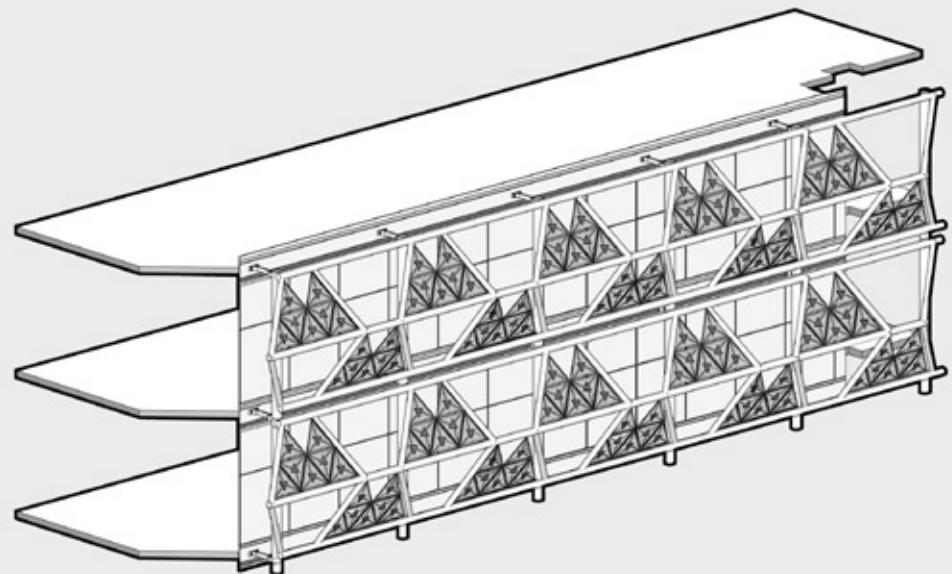
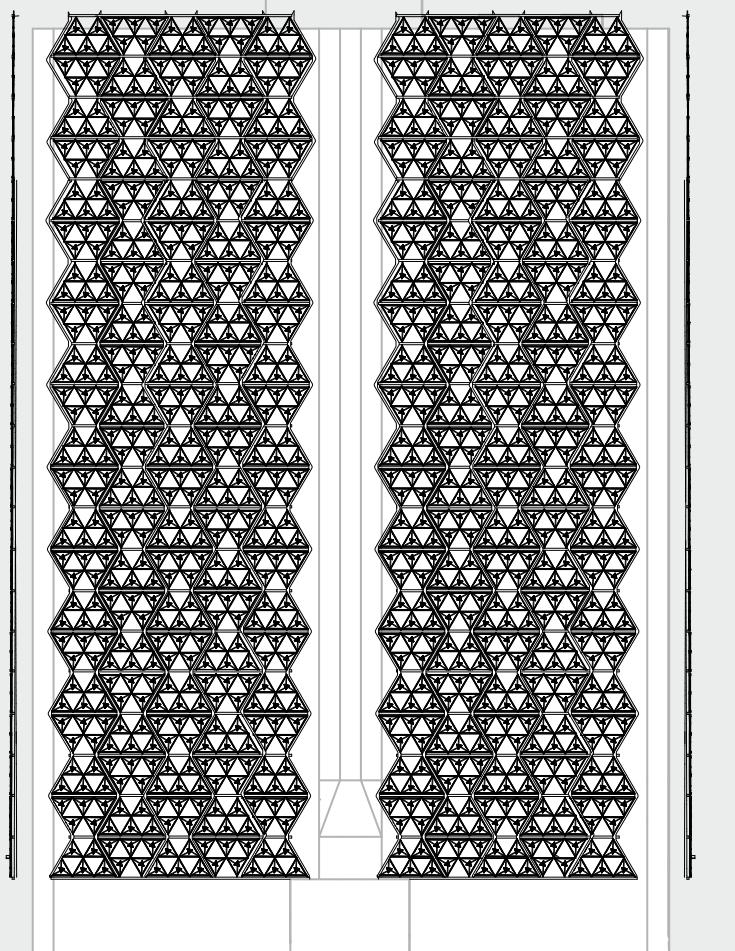
The Ayfra is a bulding is made of curtain gold glasses, concrete and metal, whithout doubt an icon in the skyline of the capital. Today this building is very controversial because of its energy consumption due to the sun and heat exposure leading to an unsustainable future for its lifespan.

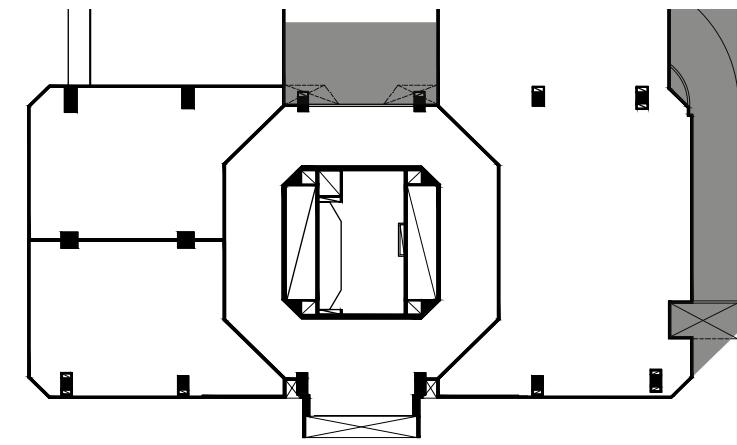
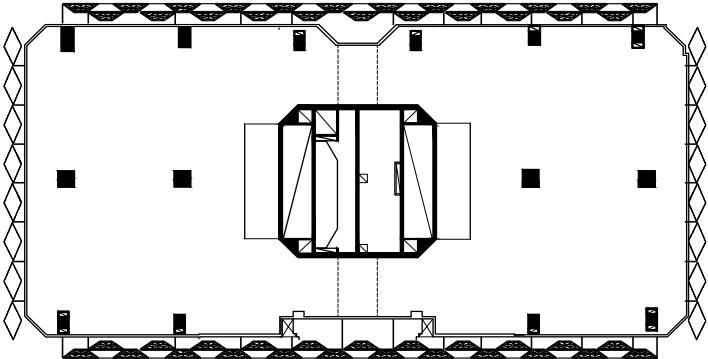
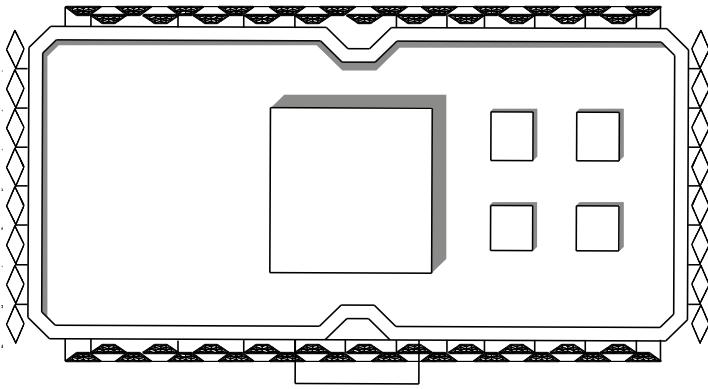
The environmental impact is now a priority world-wide and in this investigation the issue of thermal performance is analized to make a proposal of retro-fitting the facade of the Ayfra building to adapt to our climate, social and environmental aspects to expand its use and create a more comfortable space for work.

For the proposal tensegrity structures were chosen given they're light-weighted feature covering the facade having an equilibrium with daylight and sun protection.

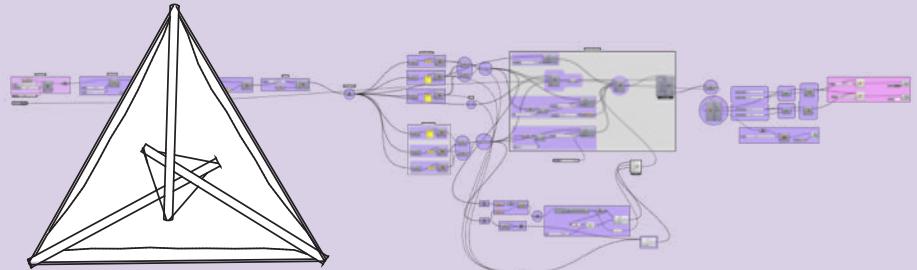
To develop the double skin facade, according the data outcome of a simulations with digital tools such as Grasshopper, Kangaroo, Ladybug and DIVA.







Design process



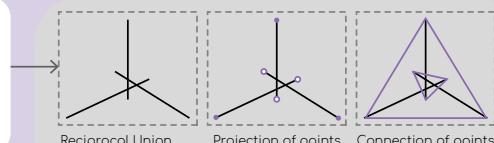
Simplex Module*

*A minimum unity for tensegrity structures

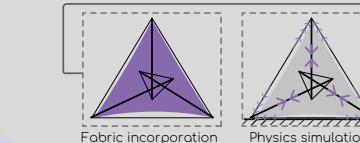
PARAMETER



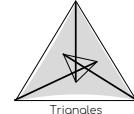
Triangle Shape



PROCESS

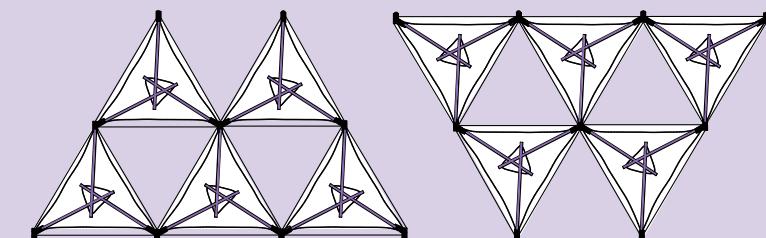


RESULT

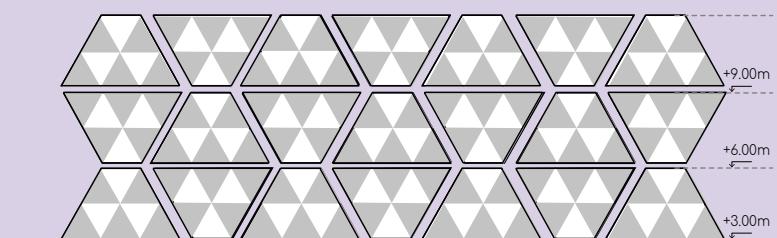


Triangles
"co-planars and reciprocal union"

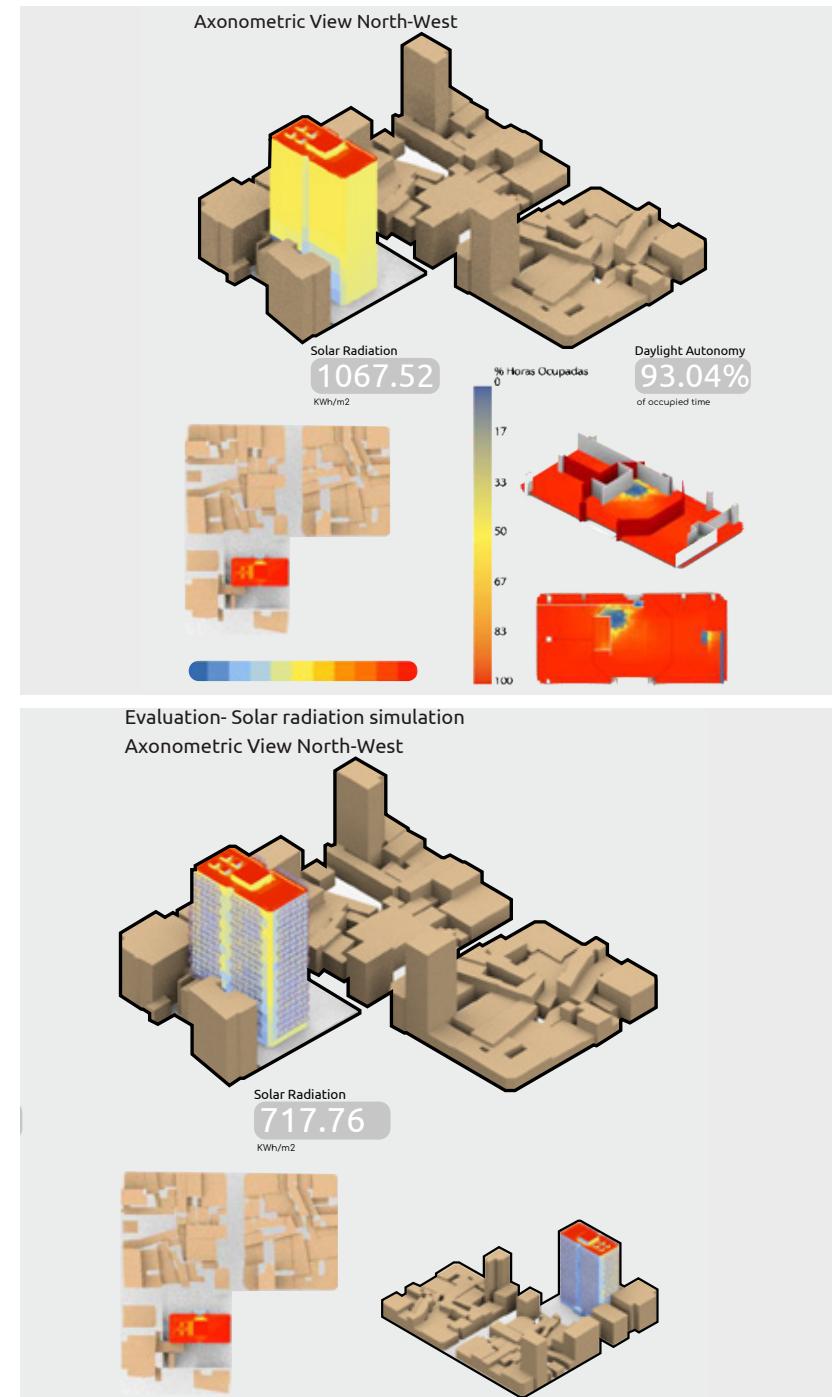
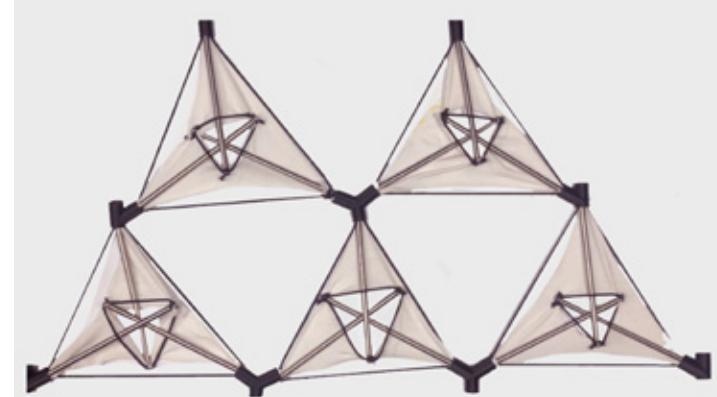
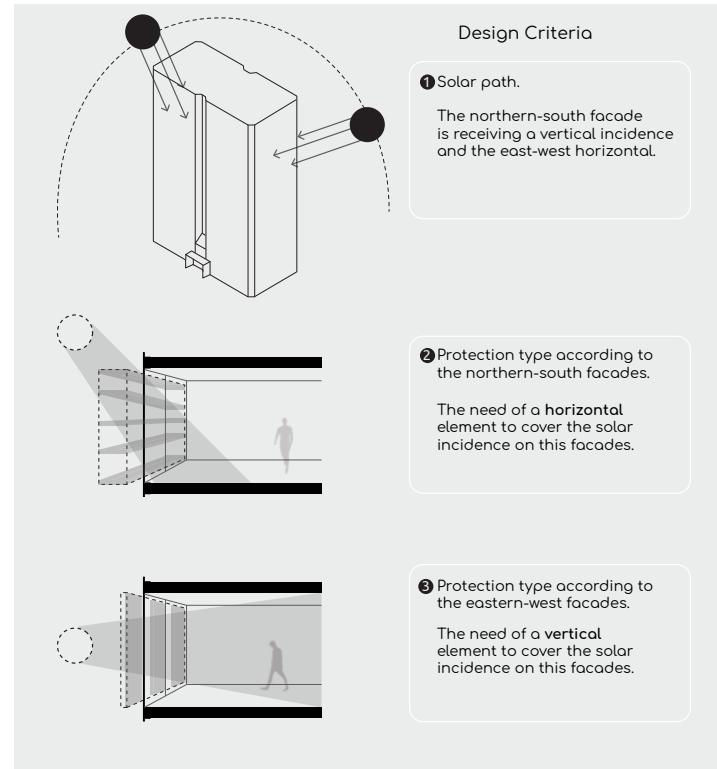
*term adopted of Kenneth Snelson's work



Group A



Groups disposed in the facade







DAAD Stipendium

Florence Ramirez