



ALEJANDRA LOAIZA

PORTFOLIO

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ACADEMIC PROJECTS

Architectural Thesis
Urban Collective Residence

ARCHITECTURAL THESIS

Rehabiting Agriculture: Sitopia at the Edge of Chiche River

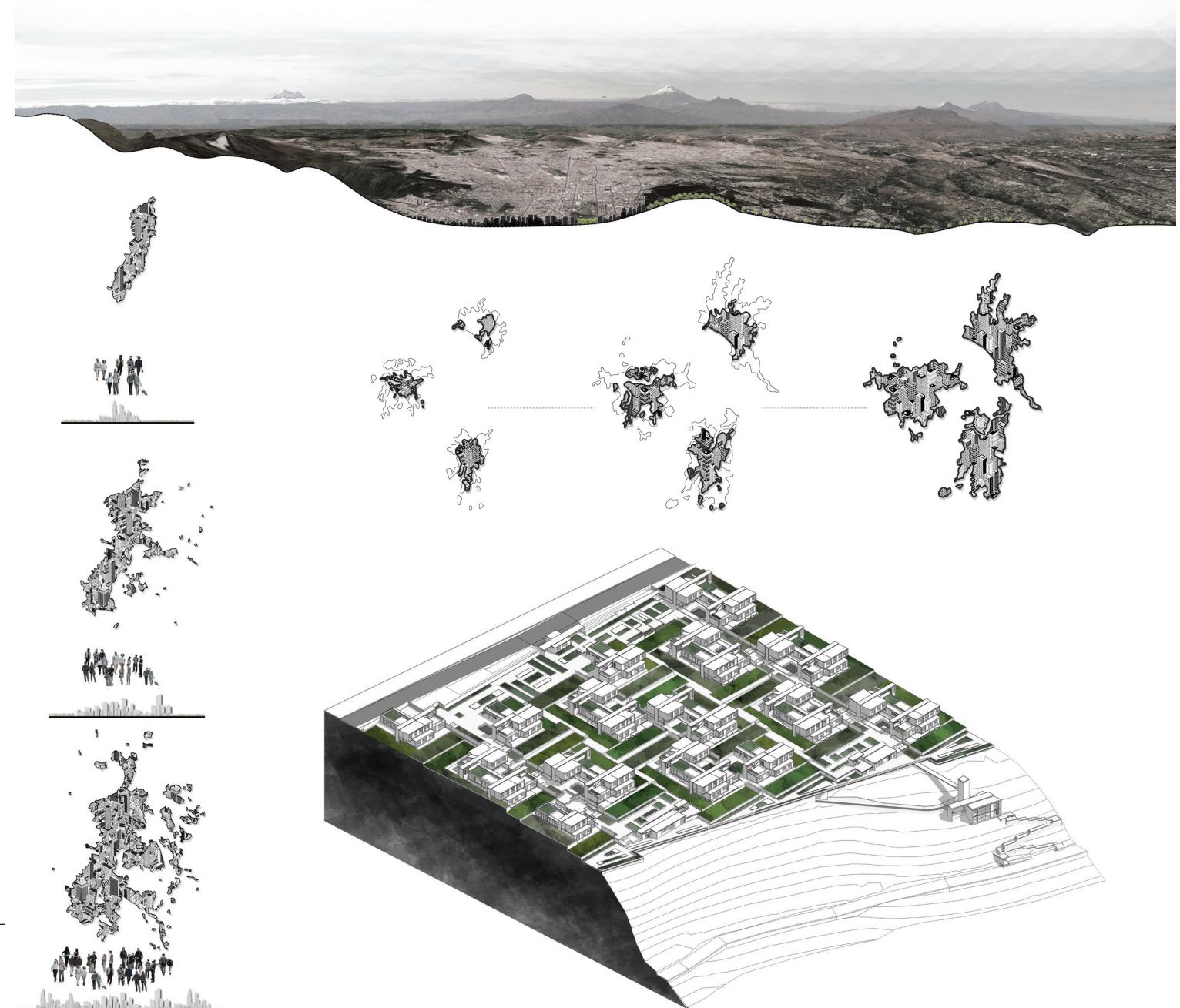
Tutor:
Karina Cazar Recalde, Arch. MSc.
2018

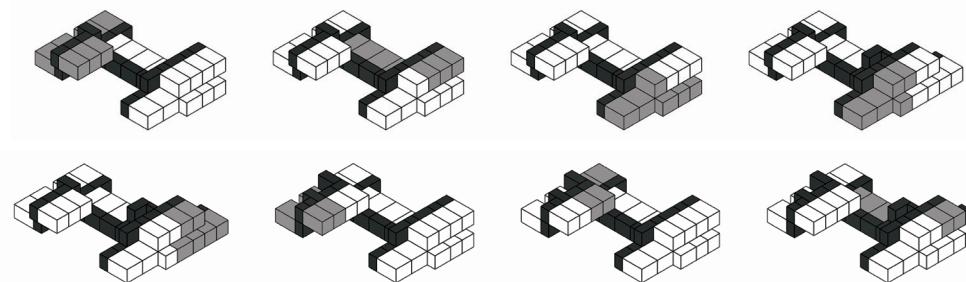
The Sitopia project proposes a combination between urban living and agriculture, with the objective of consolidating itself as a way for the city to grow sustainably. There exists a need for the city to expand without completely taking the place of agricultural parcels at its border, reason for which the project offers a highly replicable and adaptable net that combines housing with farmable plots.

The project proposes a large-scale alternative to the problem and demonstrates its viability by planimetric implementation in 3 hectares of land.

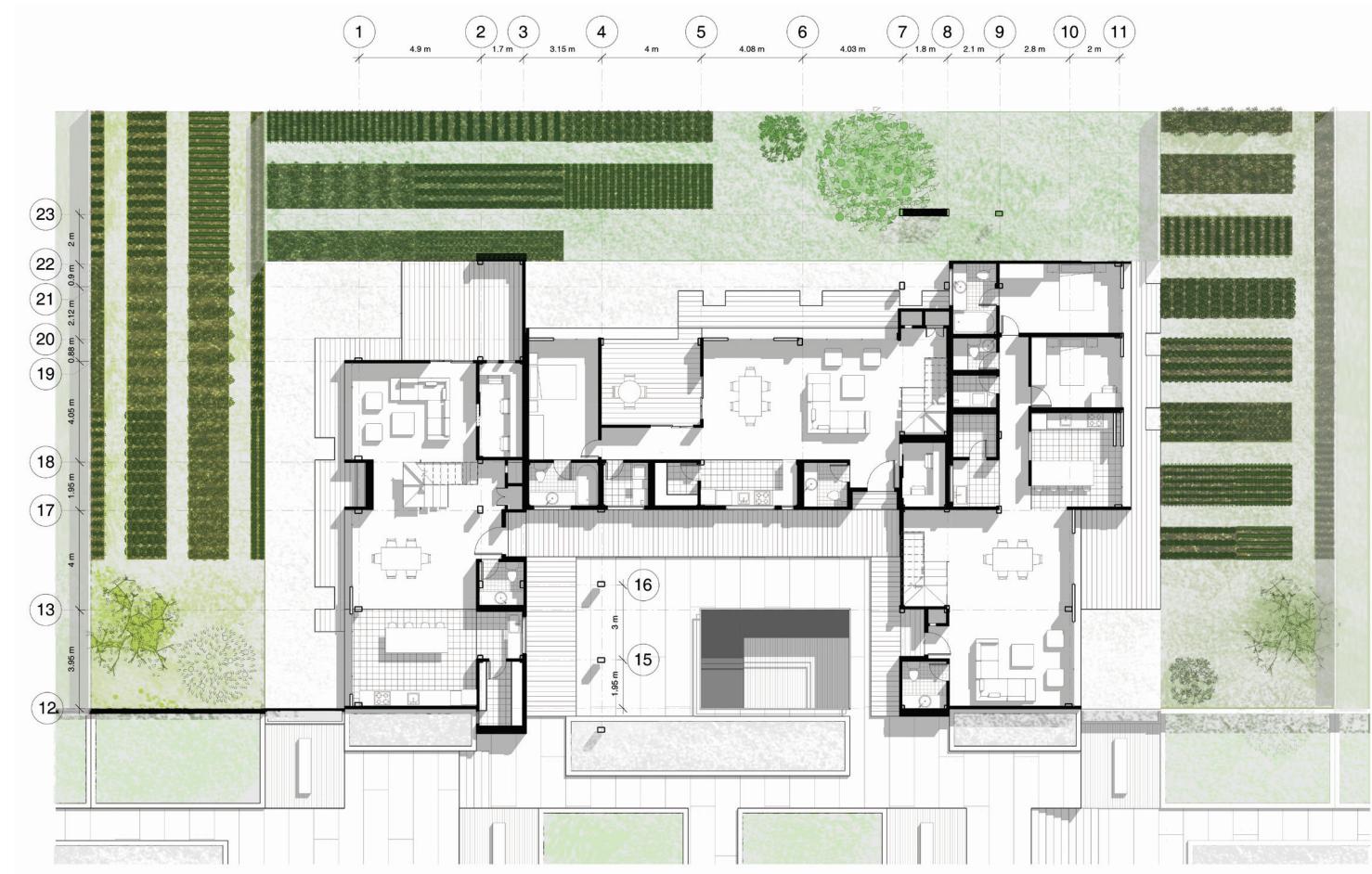
Software Used:

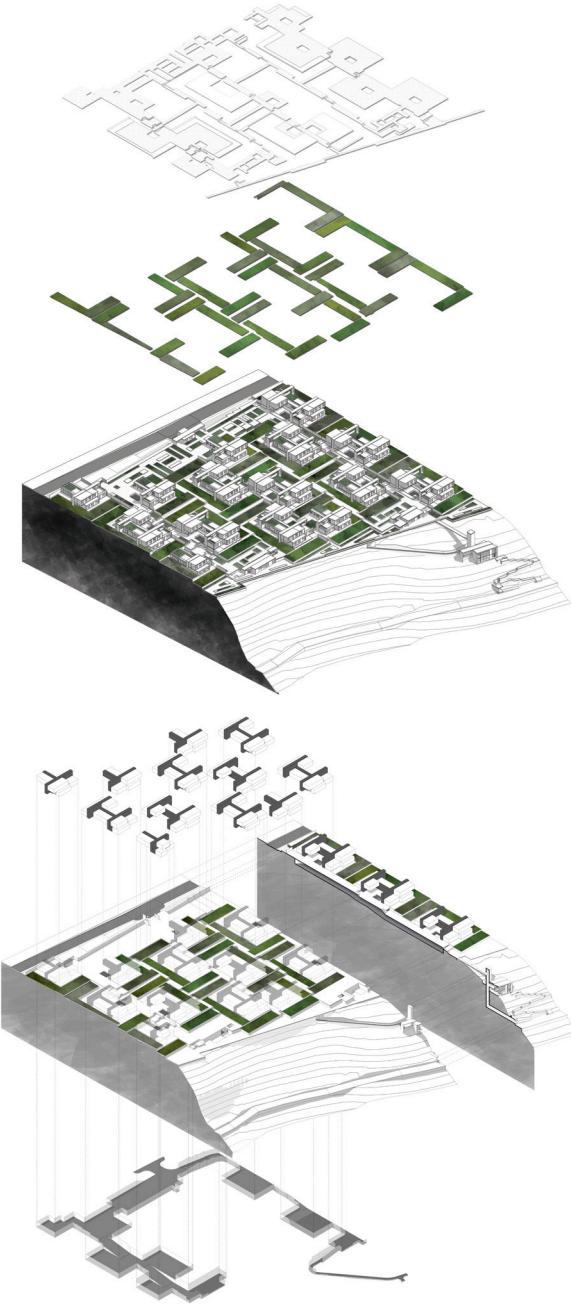
- Revit
- Photoshop
- Autocad
- Illustrador
- Sketchup
- Indesign





Its structure combines variable residences, differentiated circulations, and plans the layout and production of the crops within the land parcels. In differentiation with the isolated, single family type of houses at the city's edge, the living units in Sitopia propose a denser occupation with gardens and predominating farmable parcels.







Traditional houses tend to be consumist, while Sitopia houses are productive. In traditional residential complexes vehicles are given hierarchy, while in Sitopia houses pedestrians are prime.

URBAN COLLECTIVE RESIDENCE

"Four Nuclei of living"

Alejandra Loaiza
Alejandro Viteri
2018

"Four Nuclei of Society" is a project based on the development of four different stages of society through time; birth, growth, consolidation, and uncertain future. This idea is represented and supported in the four parts of the project.

JOINT

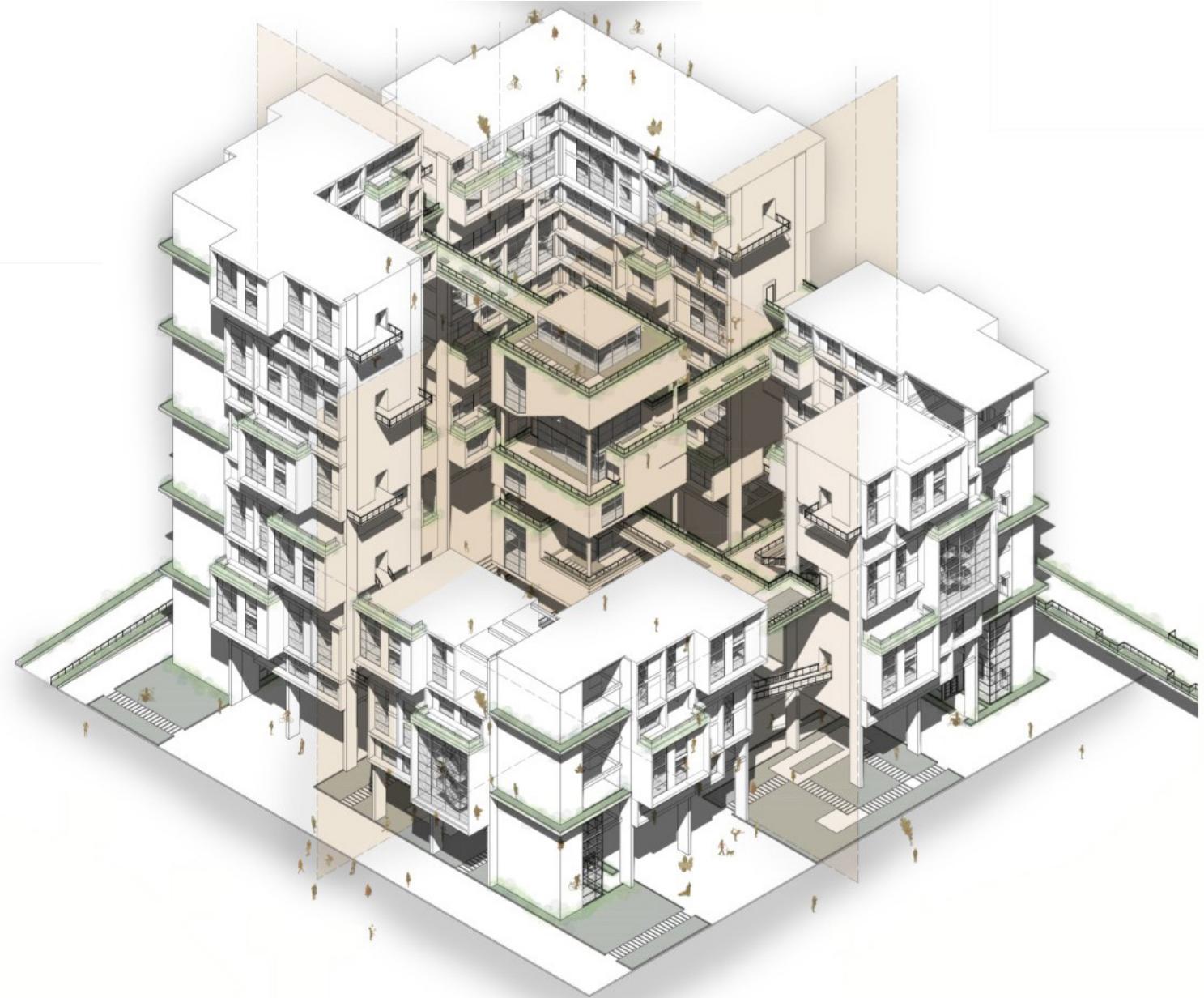
Defined as the union of knowledge, society and housing through the eutopia, this nucleus is characterized by its condition of interconnectivity, being the joining force between all other elements. Its principal function is to create intersection points for dialogue and critique.

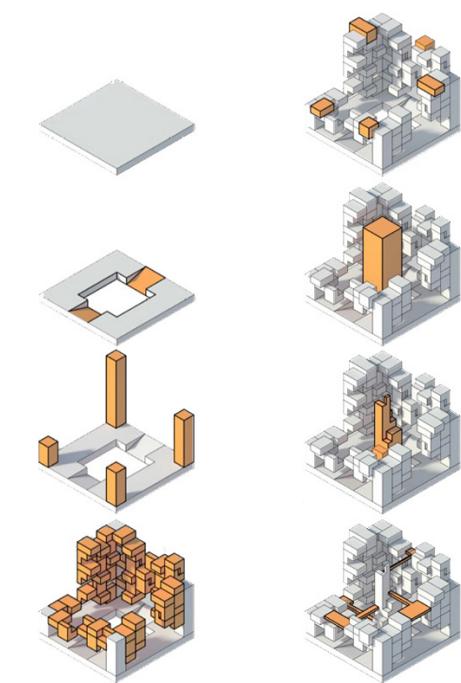
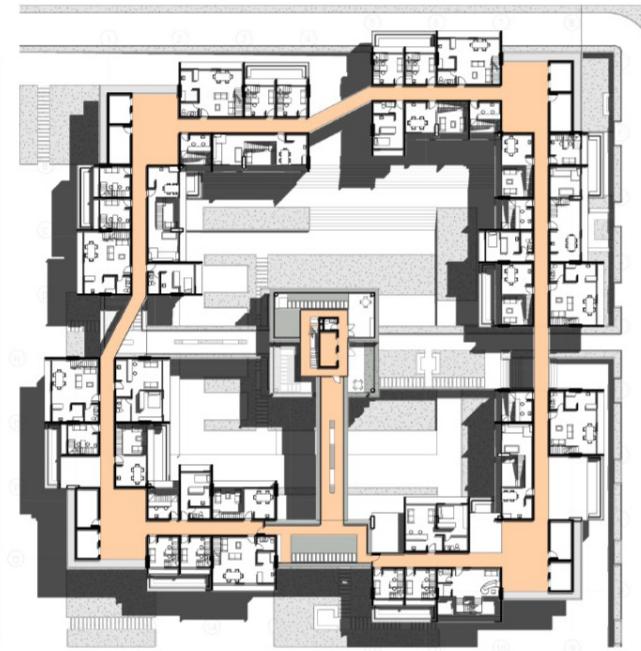
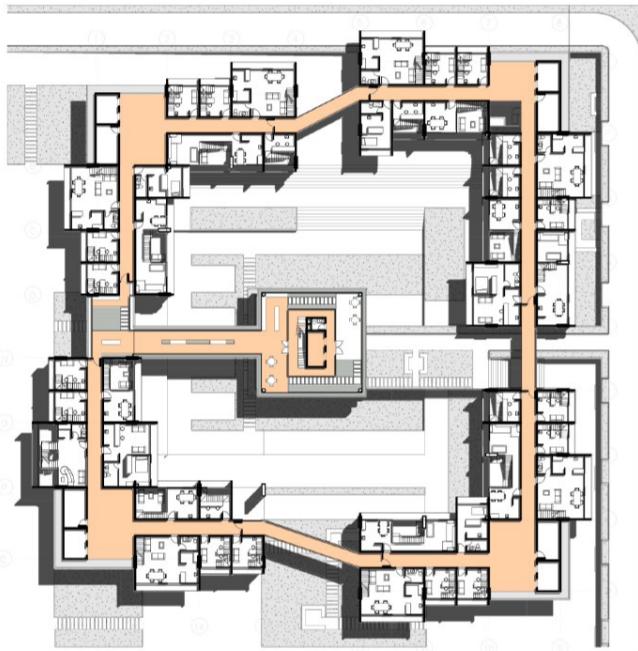
INCLUSION

Characteristic of connecting different spaces in order to produce bonds between individuals in the project, achieving connections between levels.

Software Used

- Revit
- Photoshop
- Autocad
- Illustrador
- Sketchup
- Indesign



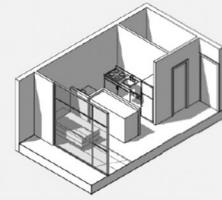
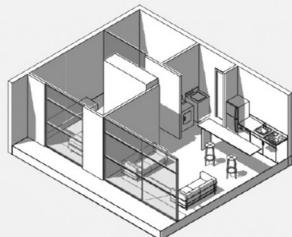


CONFLUENCE

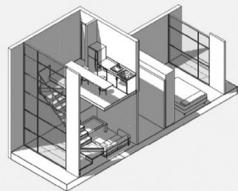
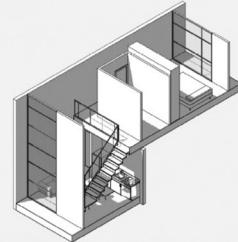
Present as semi public spaces that serve all residences in the project. These are meeting areas for its inhabitants.

INTROSPECTION

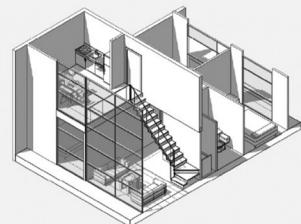
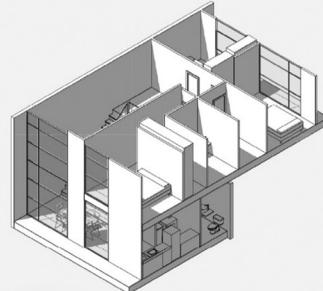
Spaces that respond to the necessities of the individuals. These exist throughout the perimeter with inward focus.



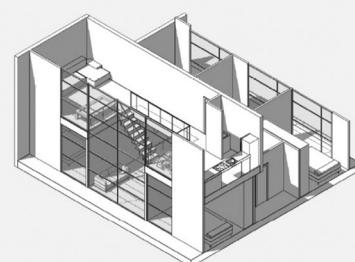
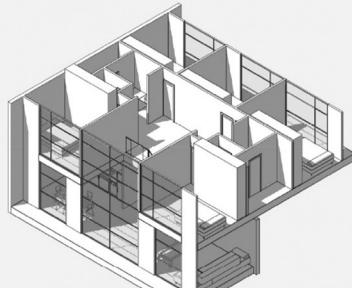
MÓDULO VIVIENDA STUDIO



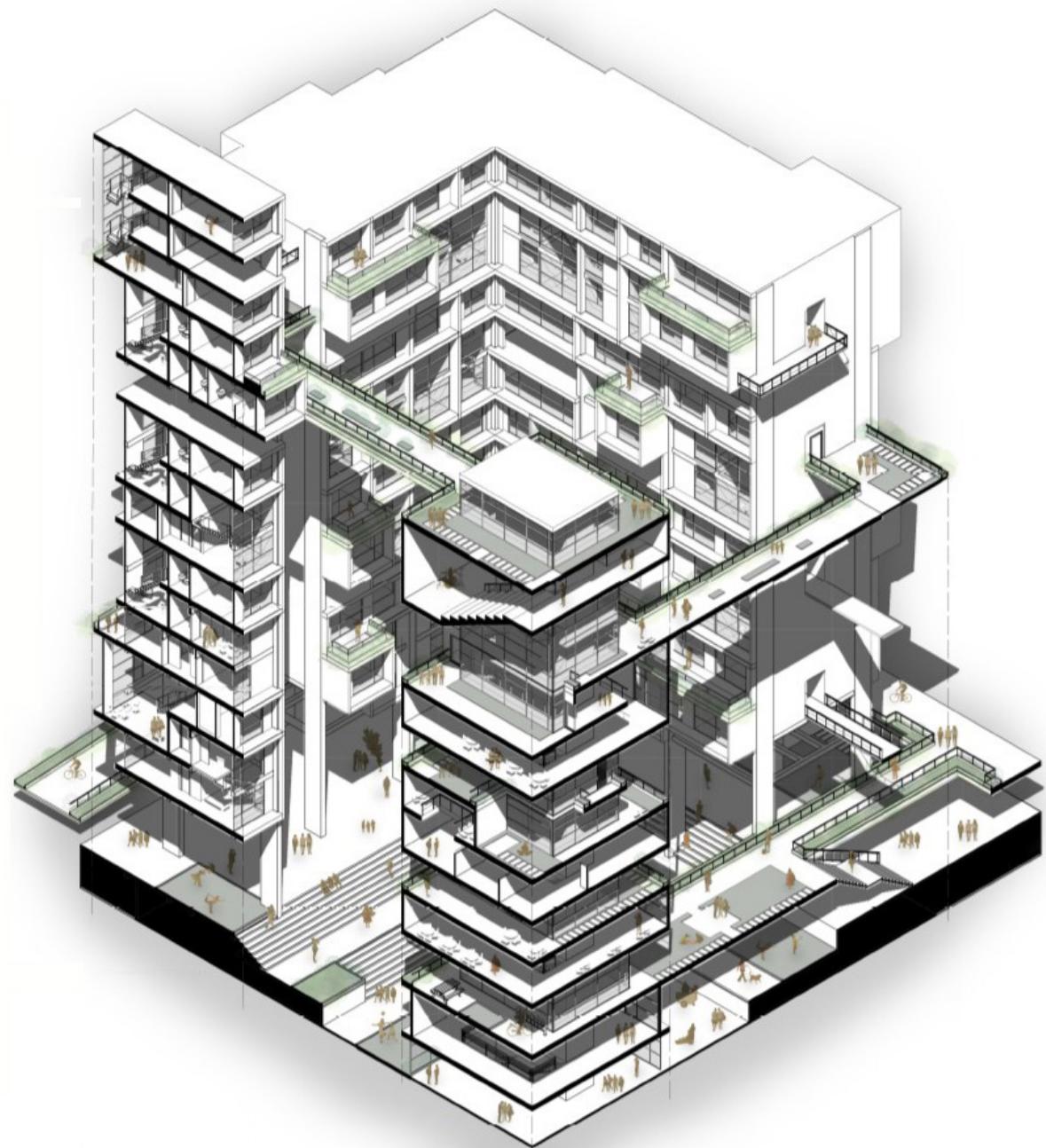
MÓDULO VIVIENDA INDIVIDUAL



MÓDULO VIVIENDA FAMILIAR



MÓDULO VIVIENDA COLECTIVO



POST-PRODUCTION, 3D MODELING, AND DETAILS

Diagrams for Publication
Image Post-production
Perspective Post-production
3D Modelling and Views
Post-production of Views
Constructive Details in Section Perspective

DIAGRAMS FOR PUBLICATION

Natura Building

Project by:
Diez + Muller Arquitectos
2020

Using existing floor plans and sections, diagrams expressing the characteristic elements of the Natura project were created. The project is a mixed use building located in the Tumbaco valley in Quito, Ecuador designed by the architects Diez+Muller.

The resulting diagrams were used as graphic elements for the publication of the project in Archdaily and Gooood.

Links of the Publications

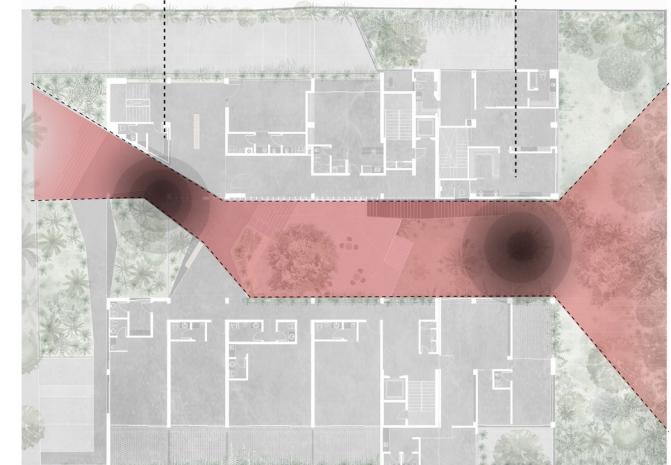
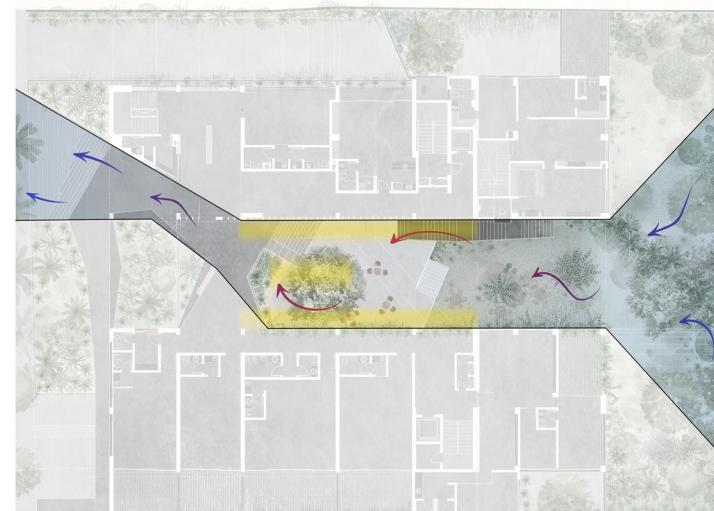
<https://www.gooood.cn/natura-building-by-diez-muller-arquitectos.htm>

<https://www.archdaily.com/937102/naturabuilding-diez-plus-muller-arquitectos>

CLIMATIZACIÓN PASIVA DEL ÁTRIO



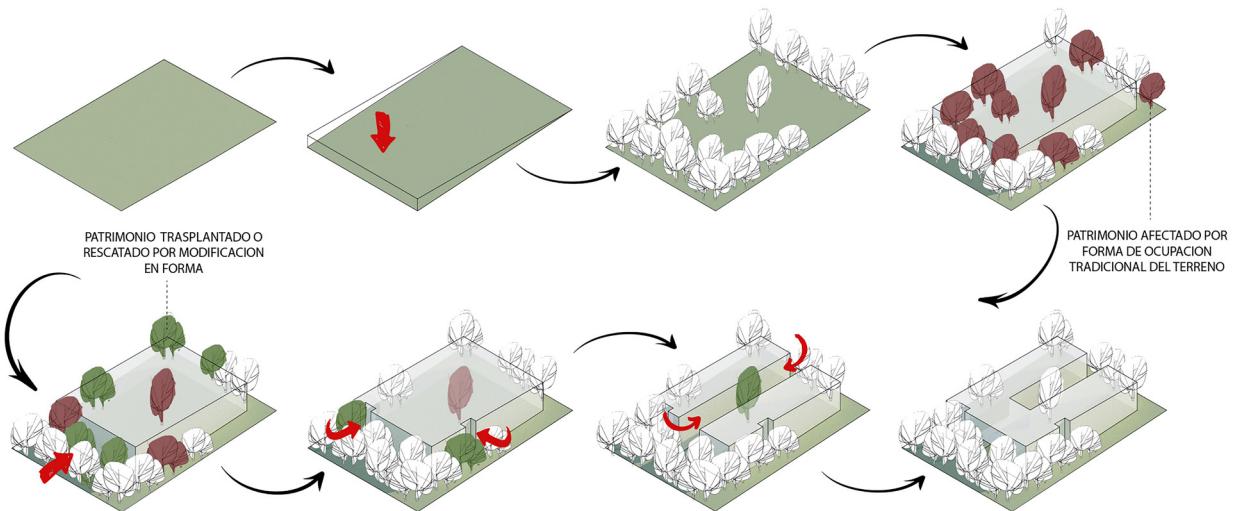
COMPRESIÓN Y DILATACIÓN DEL ESPACIO



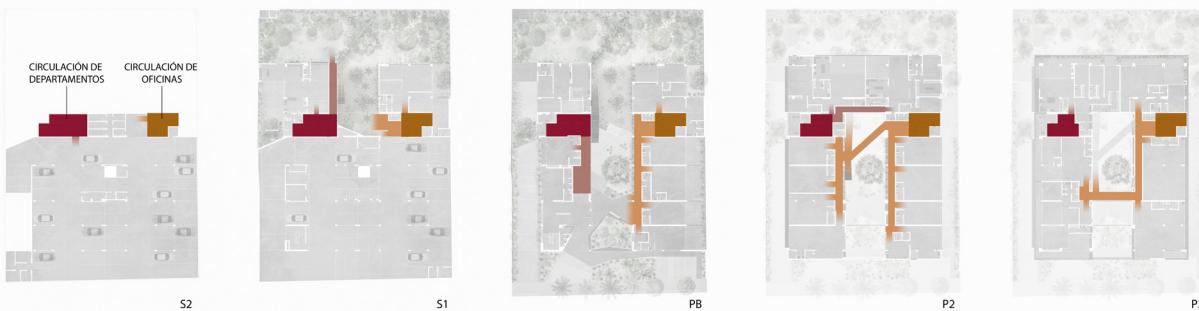
Software Used

- Photoshop
- Sketchup
- Illustrador

PROCESO DE IMPLANTACIÓN EN EL TERRENO



CIRCULACIÓN



DISTRIBUCIÓN OFICINAS/DEPARTAMENTOS

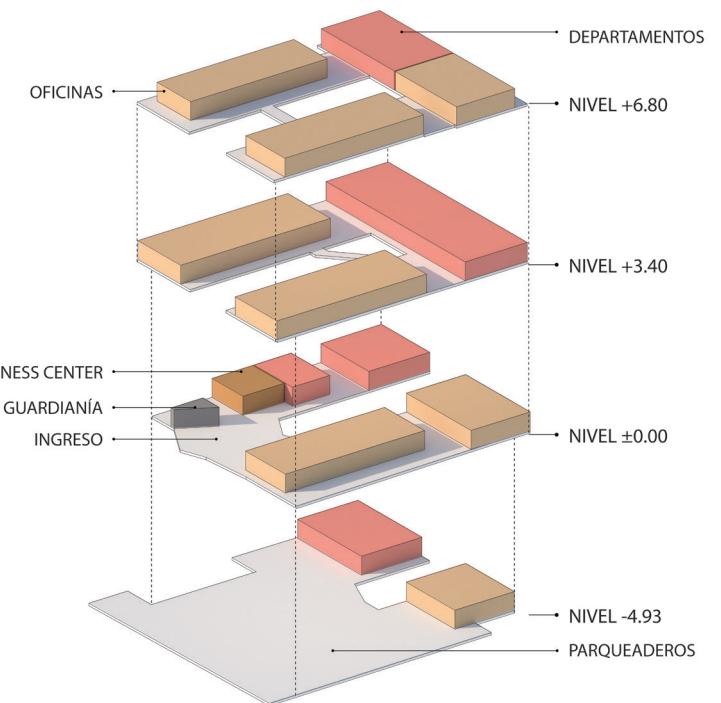


IMAGE POST PRODUCTION

Main view for Academic Project

Project by:
Natalia Bautista
2019

Using shadow and shape renders created in sketchup, texture, vegetation and ambient were added using photoshop. The project is implanted in the Galapagos Islands, reason for which research was conducted to use vegetation texture endemic to the area.

Software Used

• Photoshop



ARCHITECTURAL VIEWS POSTPRODUCTION

Views for an Academic Project

Project by:
Romina Correa
2019

Using shadow and shape renders created in sketchup, texture, vegetation and ambient were added using photoshop. As it was seeked for the view to have an artistic effect, a watercolor brush texture technique was added and a defined color scheme was used to make sure all the views used the same representation.

Software Used

• Photoshop





3D MODELING AND VIEWS

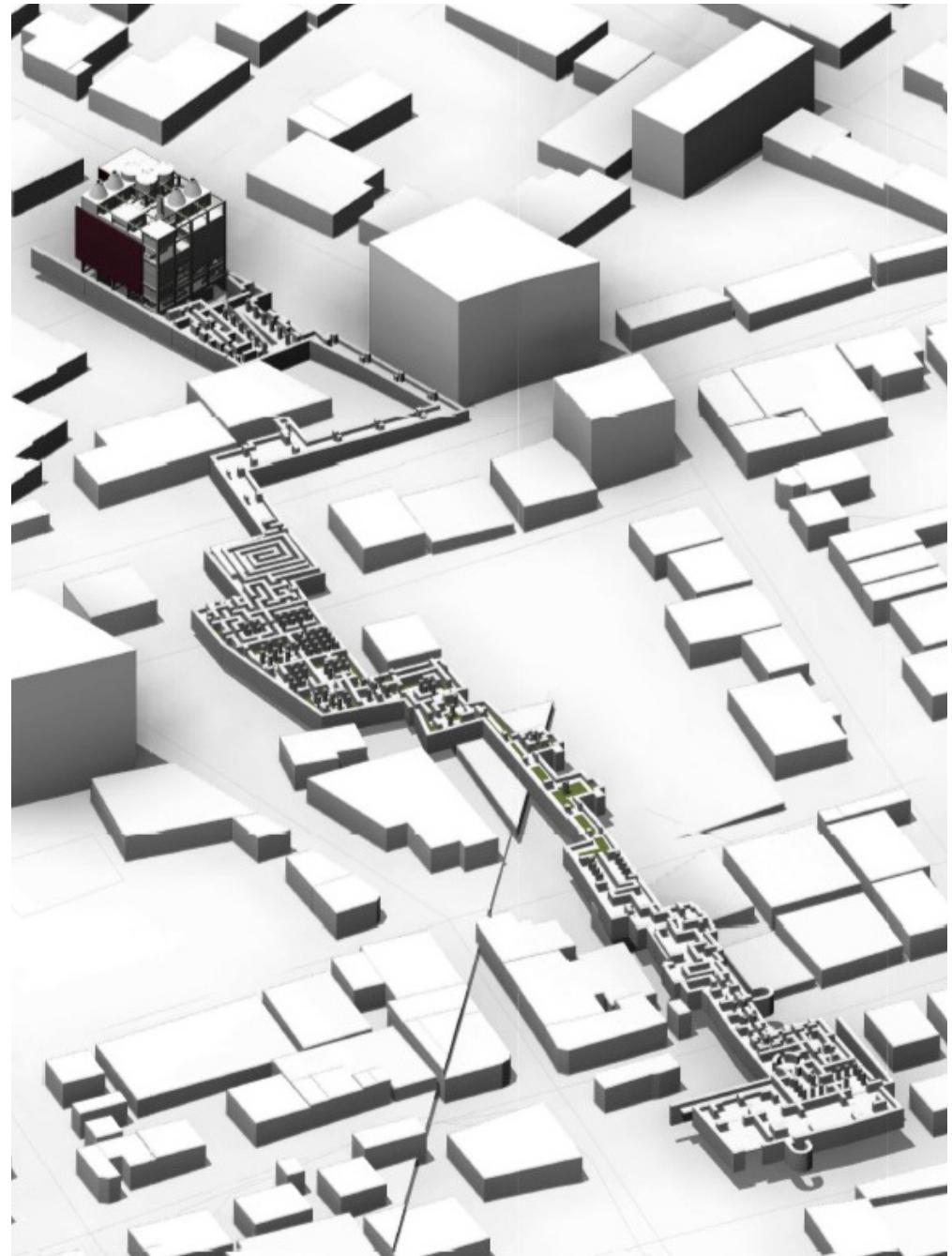
Academic Architectural Project

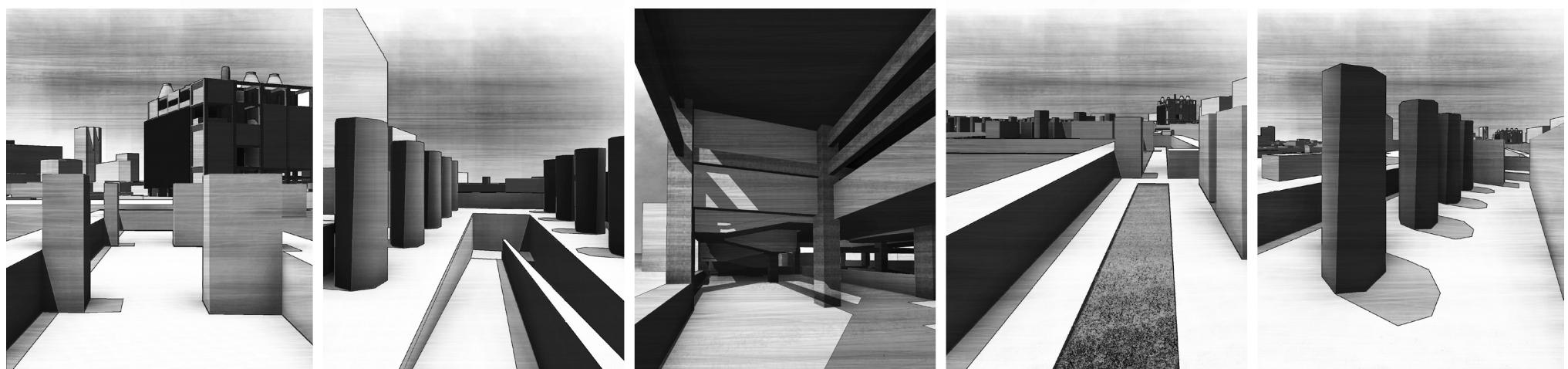
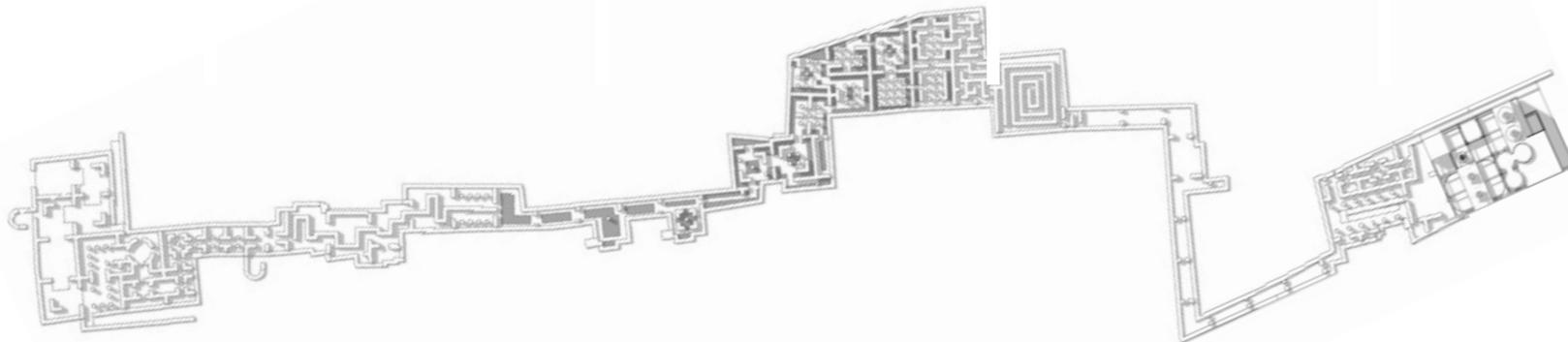
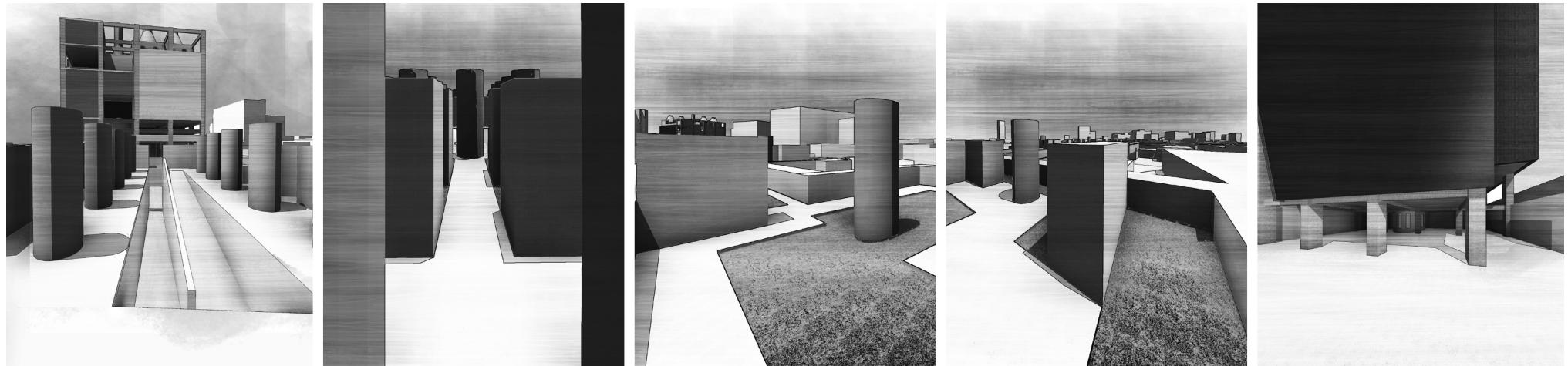
Project by:
Carolina Cevallos
2019

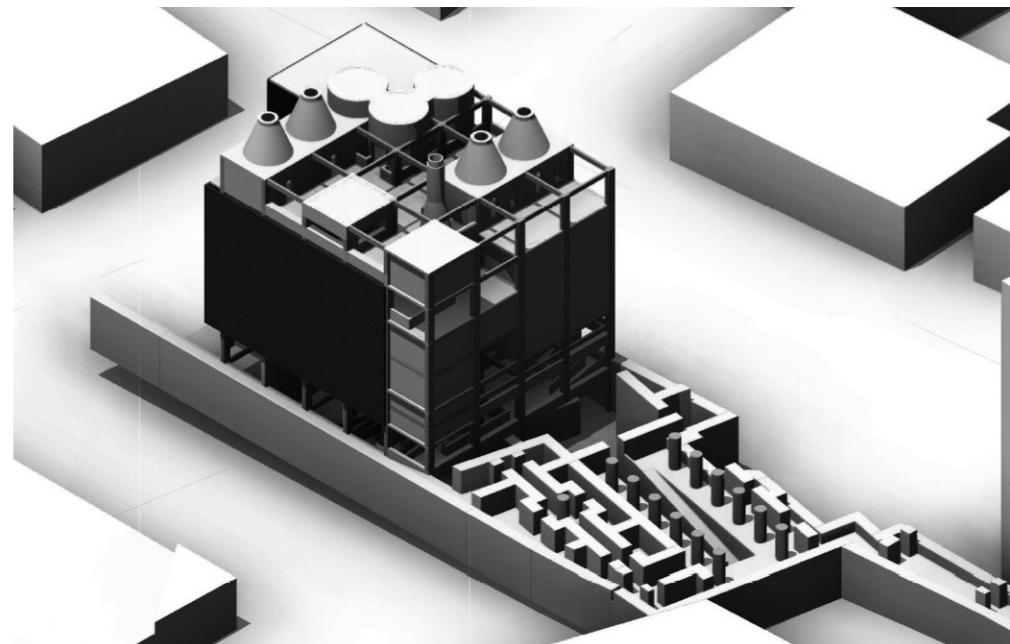
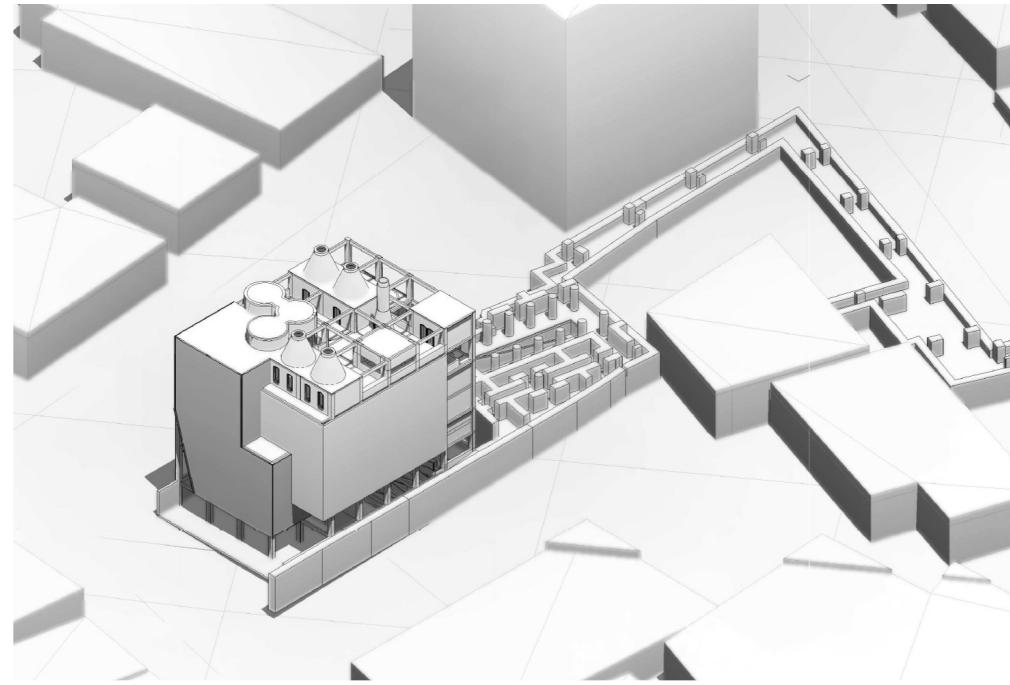
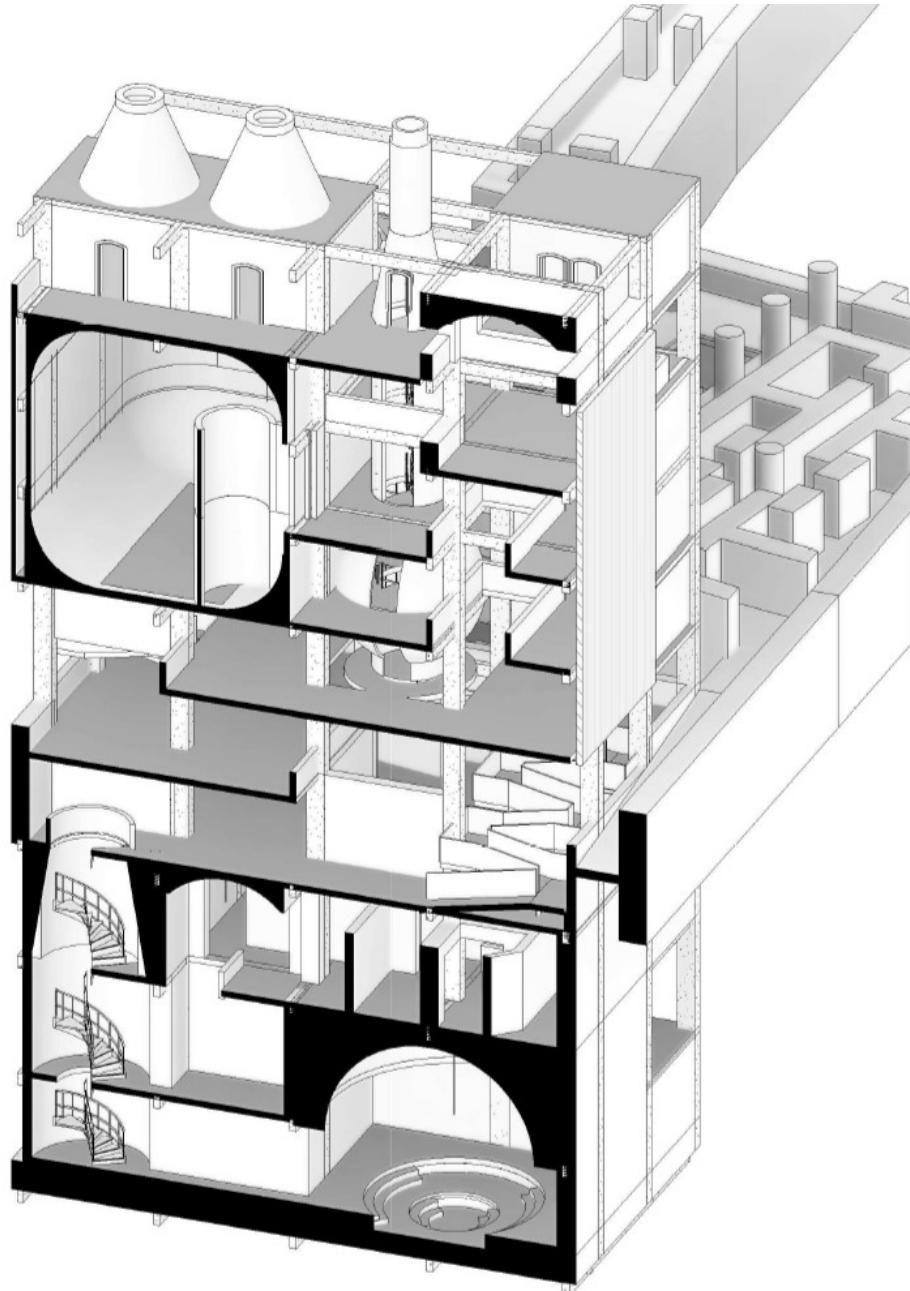
The project was modeled in Revit using existing floor plans. It was implanted in a context created through Rhino in order to create various architectural perspectives (section perspective, floor plans with shadows, axonometric views, among others). View angles were chosen for the perspectives, after which different layers of each view were exported (lines, shadows, materials) in order to compose the final image in photoshop and add a charcoal drawing texture.

Software Used

- Revit
- Autocad
- Rhino
- Photoshop







ARCHITECTURAL VIEW POSTPRODUCTION

Academic Architectural Project

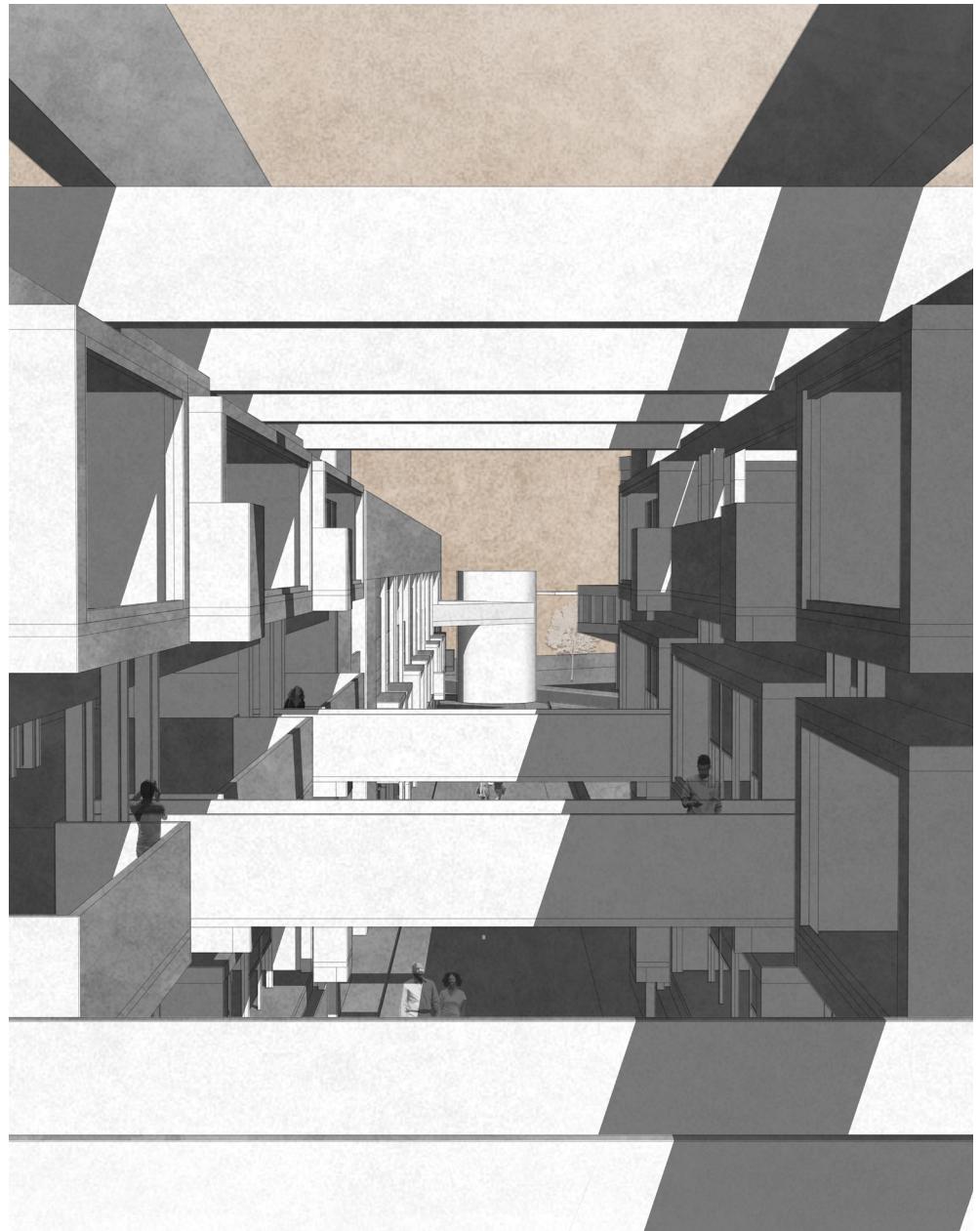
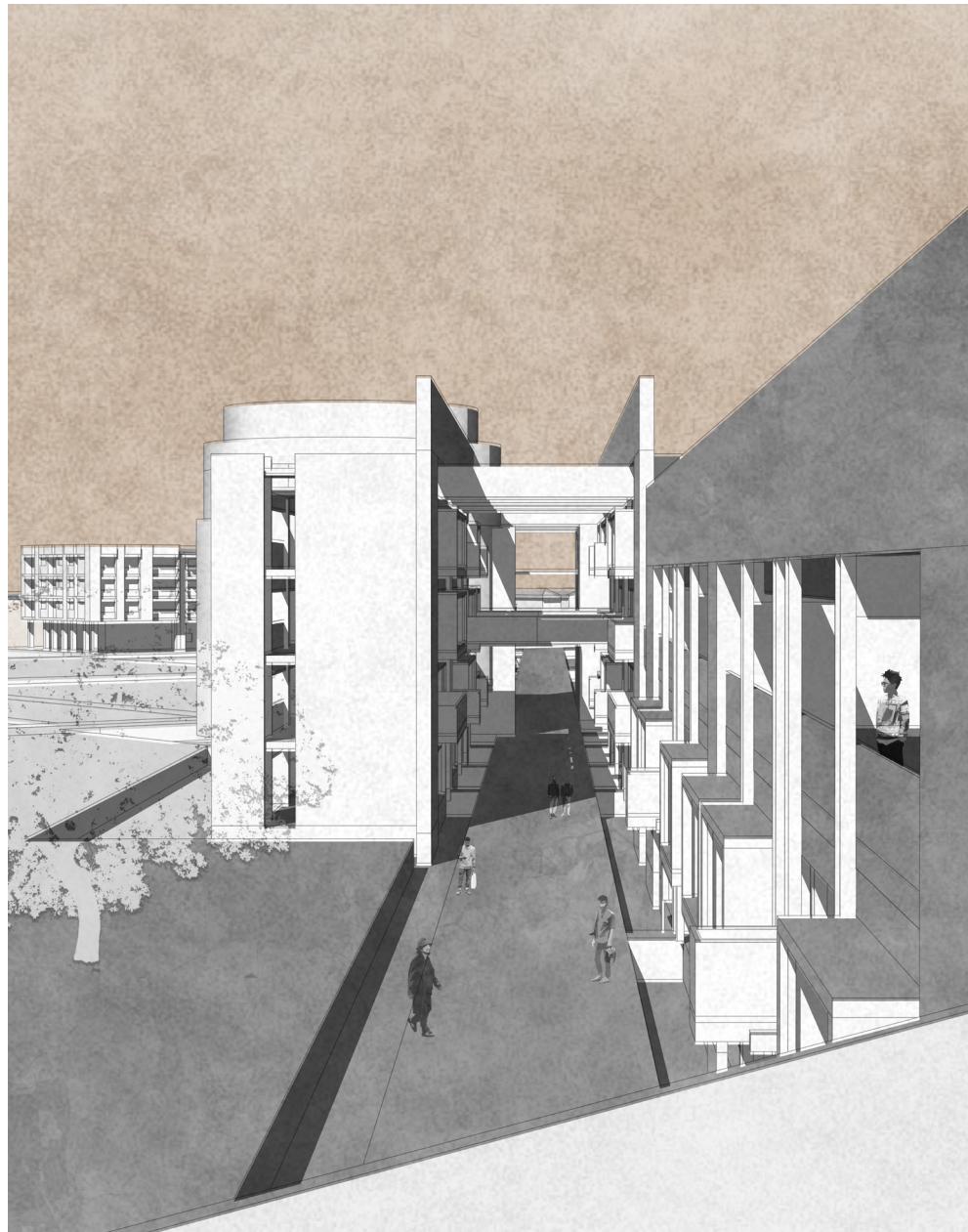
Project by:
Luigi Valentino Sierra
2019

Views were chosen on an existing model in Sketchup and exported using different view settings (lines, colors, shadows), after which they were joined and composed using Photoshop. Textures and ambience were added.

Software Used

- Photoshop
- Sketchup





CONSTRUCTIVE DETAIL IN SECTION PERSPECTIVE

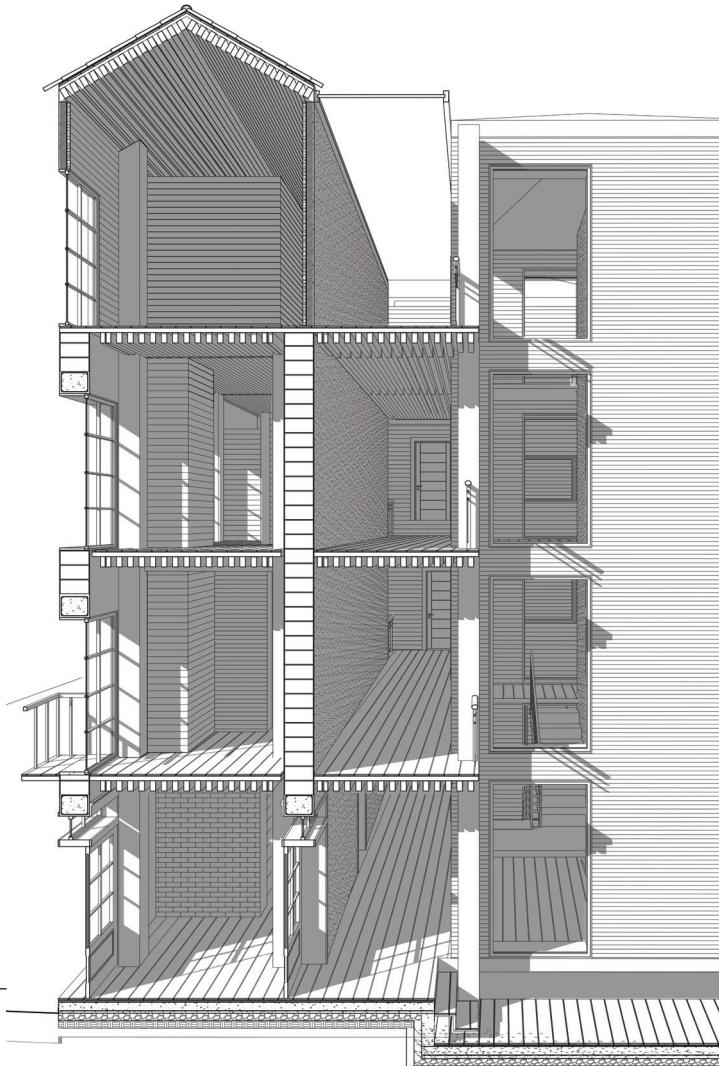
Detail for Academic
Architectural Project

Project by:
Cristina Garces
2019

Using the project model in revit, a view was exported to AutoCAD in order to complete the 2d details in the construction section. Different versions of the view were exported from Revit (colors, lines, shadows) and unified with the Autocad Drawing using photoshop. Textures were added and the contrast and saturation were adjusted.

Software Used

- Revit
- Autocad
- Photoshop



DIVERSE PROJECTS

Sketches for International Study Tour
Digital Fabrication and Rapid Prototyping

INTERNATIONAL STUDY TOUR

Sketches in Site

Cities:

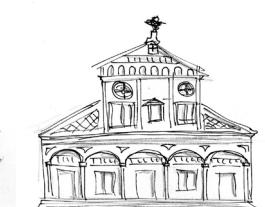
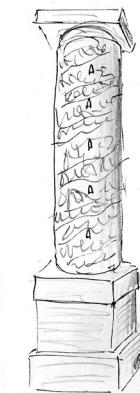
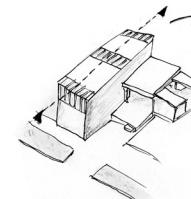
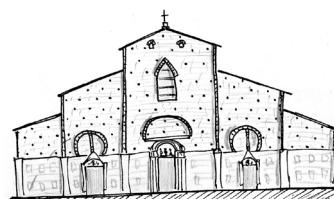
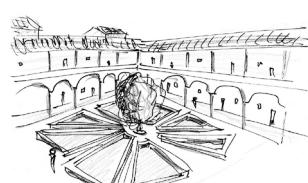
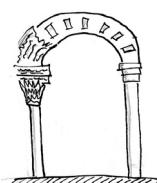
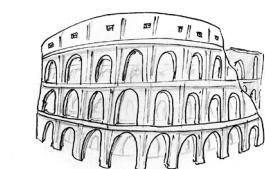
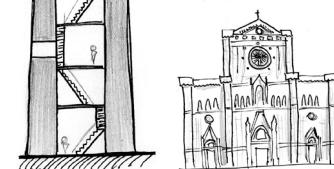
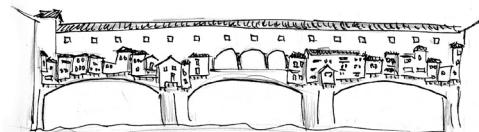
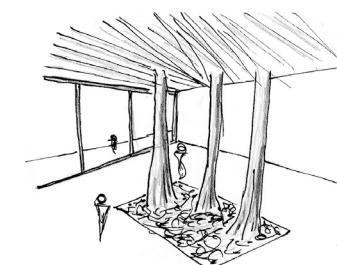
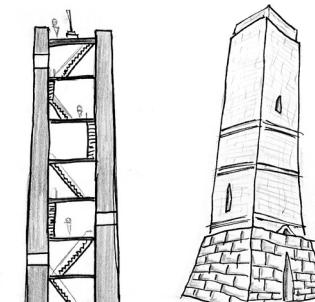
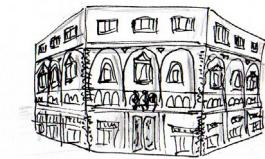
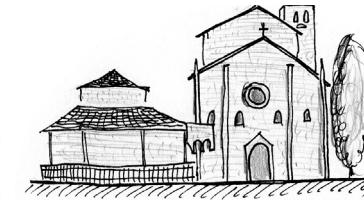
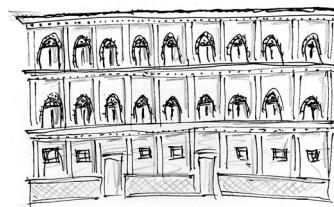
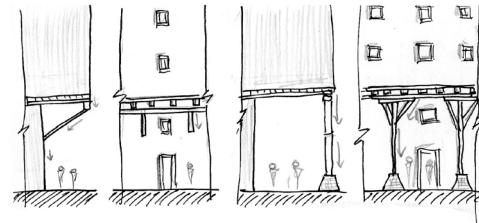
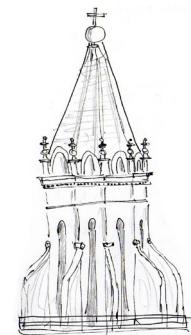
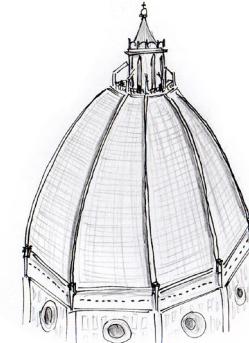
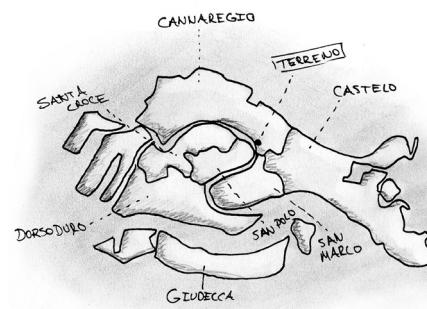
- Venice
- Bologna
- Florence
- Rome
- Milan

2018

In the International Architectural Study Tour by Universidad San Francisco de Quito, many cities in Italy were visited to see their architectural icons. Sketches were made of the buildings in order to decompose their parts and understand the shapes and composition.

Materials Used

- Rapidograph
- Mechanical Pencil 0.75mm 2B



DIGITAL FABRICATION AND RAPID PROTOTYPING

FabAcademy

| 2019

FabAcademy is a fast prototyping course through digital fabrication, based on the MIT class "How to Make Almost Anything". It is taught in a distributive manner by Neil Gershenfeld (director of Bits and Atoms Lab in MIT) and Local Lab Instructors.

Each week a different skill is reviewed (project management, input and output devices, laser cutting, 3D printing, parametric modelling, etc.) for a total of 20 weeks, and at the end of the course all skills must be combined to create a project. My final project was the creation of a Geodesic Dome using: recycled bottles; 3D printed, molded and casted, and laser cut joints; sensors; led lights and a bluetooth connection. The vertices of the dome were designed so as to contain a solar panel connected to an electronic plaque programmed to connect through a bluetooth module to an app on an android smartphone, through which the led lights inside the bottles could be controlled.

The documentation of the course was done through the creation and continuous update of a webpage created by each student in HTML code and uploaded to a FabAcademy's Server. The documentation for my webpage can be found at the following address:

[http://fab.academany.org/2019/labs/zoi/students/
alejandra-granda](http://fab.academany.org/2019/labs/zoi/students/alejandra-granda)

