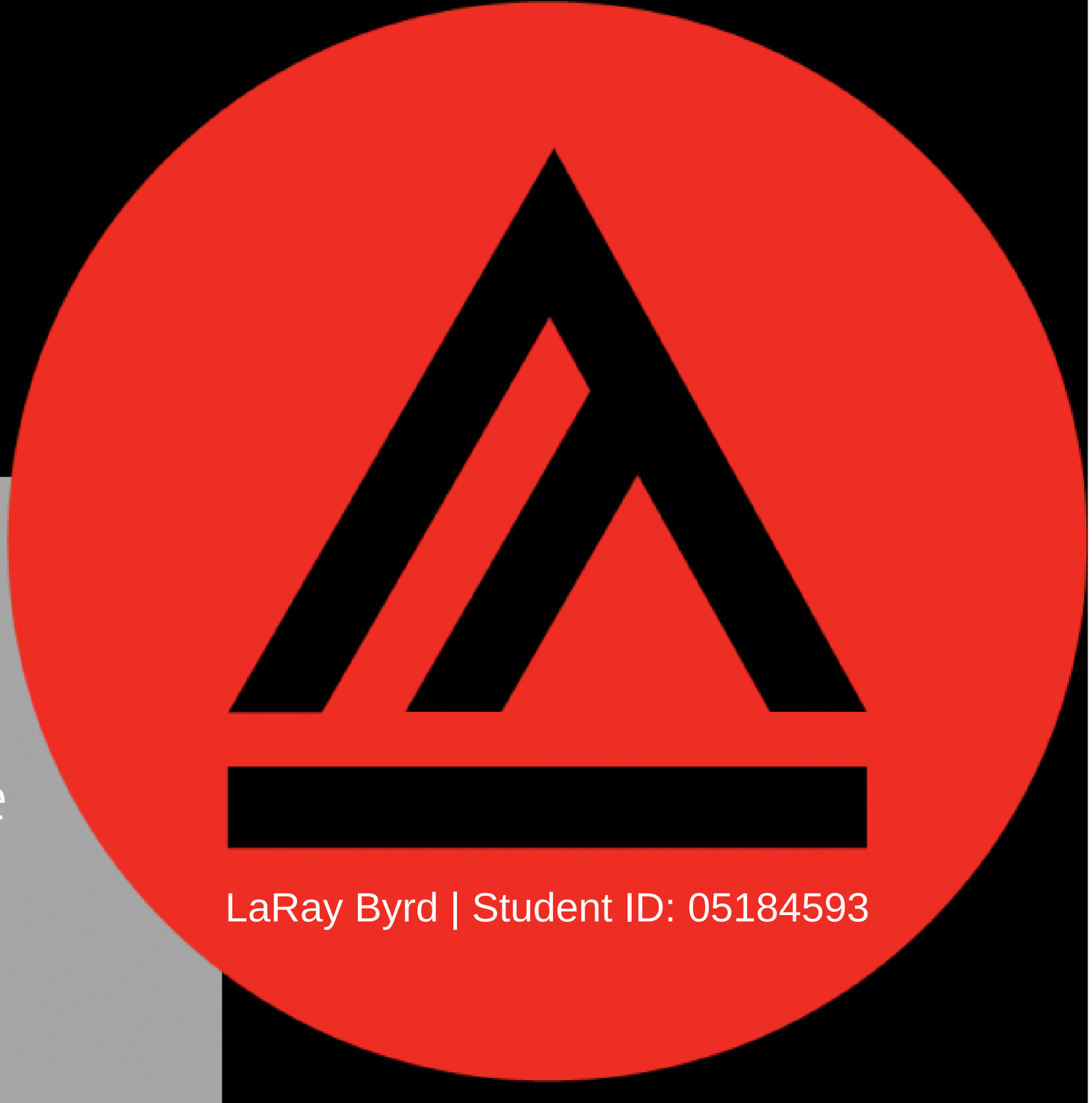
School of
Architecture
Student Work Archive
ARH 150 Spring 2021

Studio 2: Spatial Ordering & Form
Online Section 2 Faculty Paul Burgin
LaRay Byrd | Student ID: 05184593



ACADEMY OF ART UNIVERSITY

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STACKED PLANTERS HOUSE

ARCHITECTS: **VTN (VO TRONG NGHIA) ARCHITECTS**
LOCATED: HO CHI MINH CITY, VIETNAM
COMPLETED: 2017

LARAY BYRD
ARH 150 OL2: STUDIO 2: SPATIAL ORDERING AND FORM
SPRING 2021
PAUL BURGIN

The Stacked Planters House by Vo Trong Nghia (VTN) Architects, located in Ho Chi Minh City, Vietnam, a high-density neighborhood that faces serious air pollution and risk of floods. It was completed in 2017, during a time of rapid urbanization and loss of tropical green space. These factors inspired VTN Architects to create green space within the high-density neighborhood in order to bring together the disconnect of nature and human experience.

This beautiful multi-family design offers independent private spaces with congregation areas (semi-outdoor spaces that serves as living and dining areas), which compliments for gatherings. The overall design can be viewed as a concrete box that includes stacked dwellings separated by horizontal concrete slabs and accented with trees that emerge from within its constraints. Spatial ordering, at first glance, would seem random. However, this neatly planned site was strategically built to maximize living spaces, allowable height standards, and to bring greens back to the urban area. The result of VTN Architect's vision unfolded as a house of small parks in a densely populated neighborhood.

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PROJECT 1

CASE STUDY

STACKED PLANTERS HOUSE

ARCHITECTS: **VTN (VO TRONG NGHIA) ARCHITECTS**
LOCATED: HO CHI MINH CITY, VIETNAM
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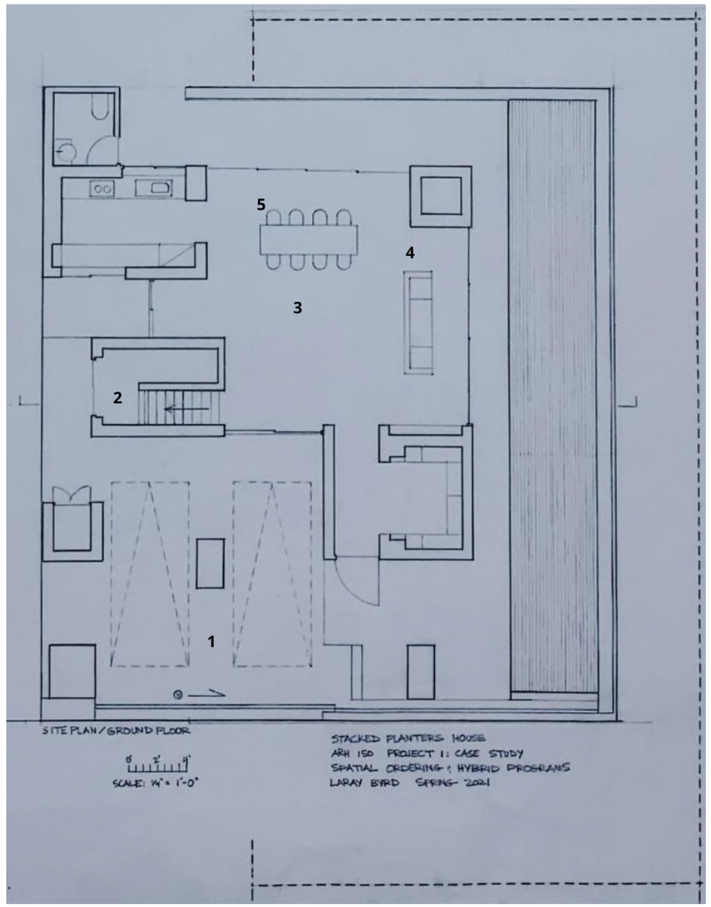
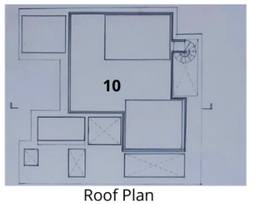
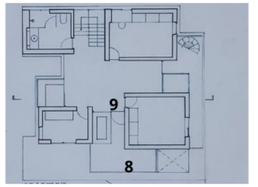


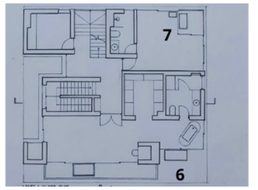
Site Plan / Ground Floor Plan



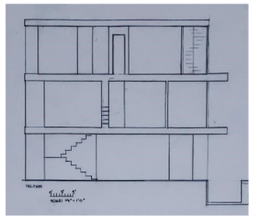
Roof Plan



2nd Floor Plan



1st Floor Plan



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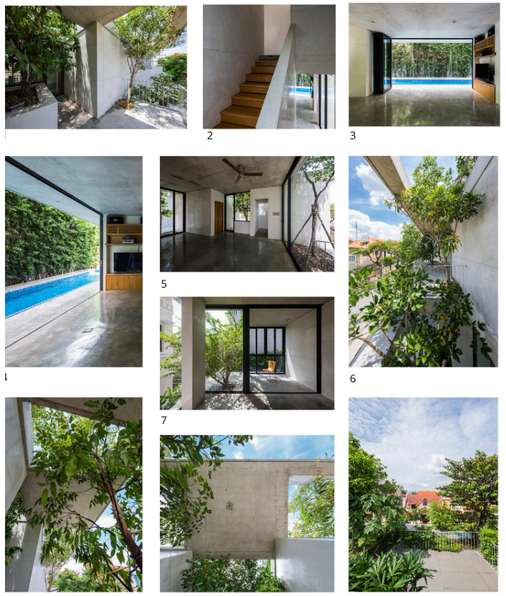
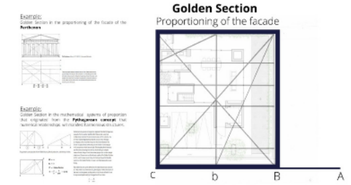
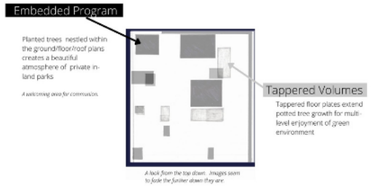
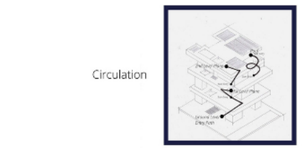
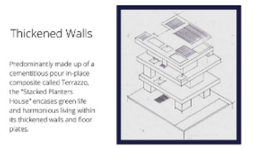


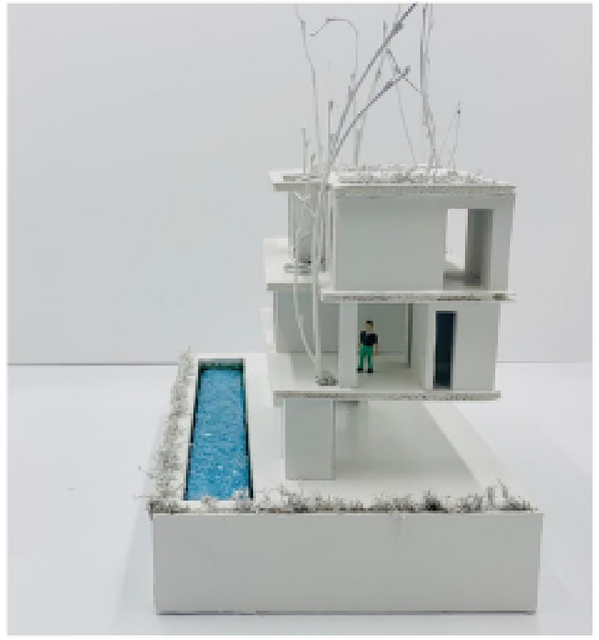


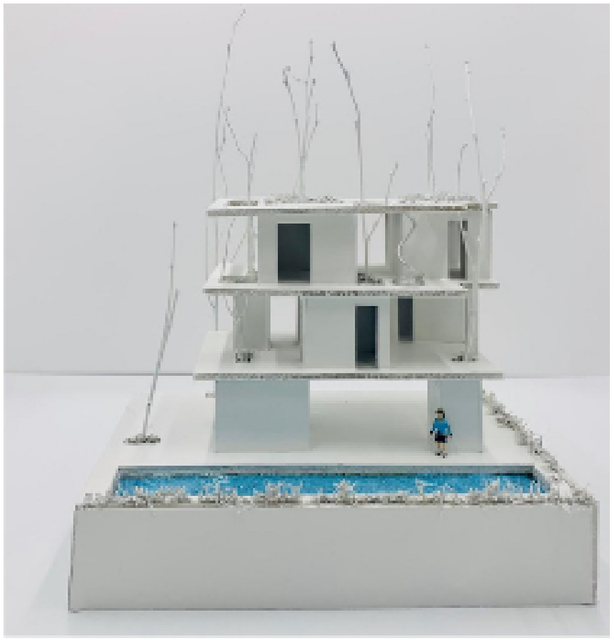


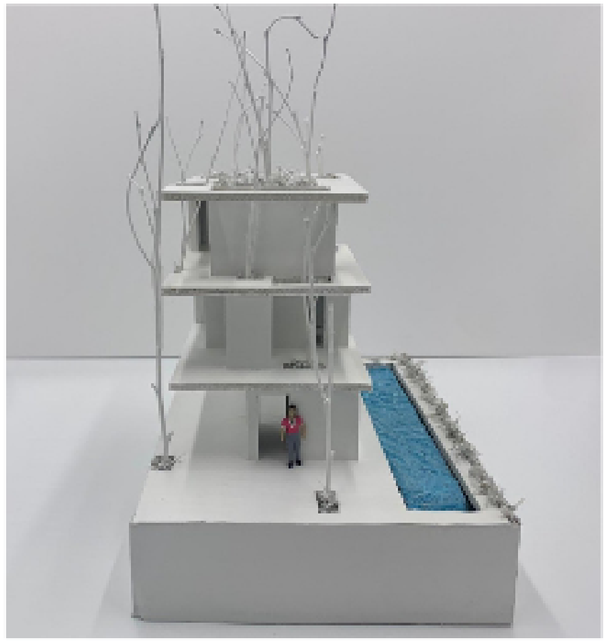




2.1 Case Study Model







PROJECT 1
CASE STUDY

3.1 STACKED PLANTERS HOUSE

ARCHITECTS: **VTN (VO TRONG NGHIA) ARCHITECTS**
LOCATED: HO CHI MINH CITY, VIETNAM
COMPLETED: 2017

PROJECT ARCHITECTS: MASAAKI IWAMOTO, NGUYEN QUYNH HAN, KUNIKO ONISHI
PHOTOGRAPHY: HIROYUKI OKI

in Ho Chi Minh City, Vietnam, a high-density neighborhood that faces serious air pollution and risk of floods. It was completed in 2017, during a time of rapid urbanization and loss of tropical green space. These factors inspired VTN Architects to create green space within the high-density neighborhood in order to bring together the disconnect of nature and human experience.

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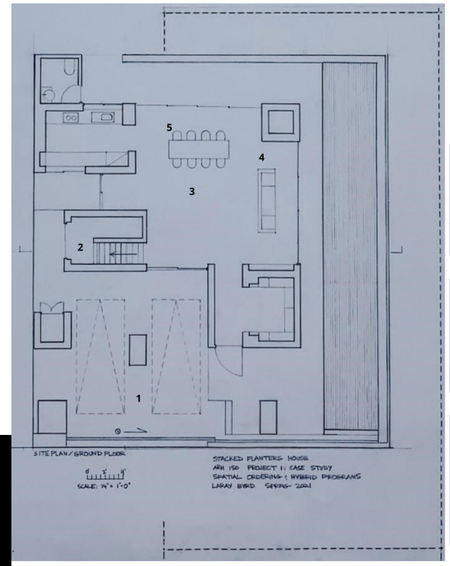
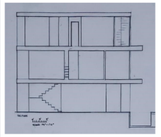


Site Plan / Ground Floor Plan

Roof Plan

2nd Floor Plan

1st Floor Plan



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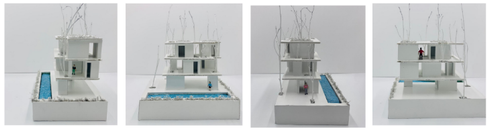
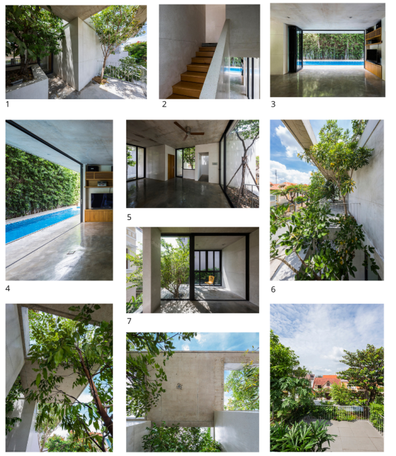
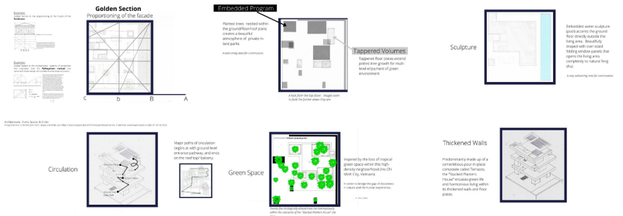
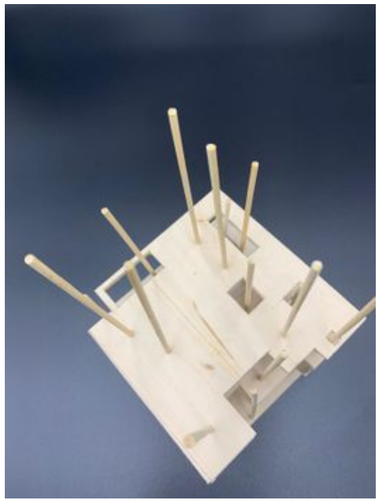




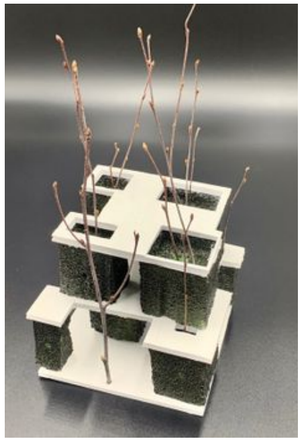


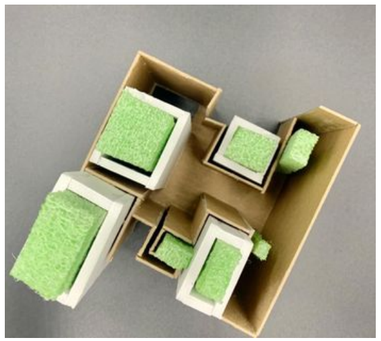
ARH 150 OL2
STUDIO 2: SPATIAL ORDERING & FORM
SPRING SEMESTER 2021
INSTRUCTOR: PAUL BURGIN

PROJECT 1: CASE STUDY
BY LARAY KOTI BYRD









PROJECT 2

4.1 Cube Construction and Transformations

Cubes: Mass, Container and Frame

Cube 1: Intersecting / Interlocking

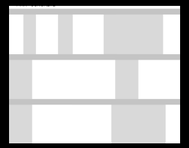
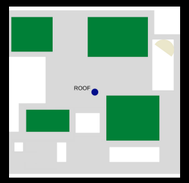
The Stacked Planters House is a production of VTN Architects. They are an architecture firm that centers their designs around "Houses for Trees". It is challenging to display a model that does not show how trees are incorporated. This model exhibits the intersecting/interlocking operation as the trees emerge into its higher elevations. I wanted to show how this action occurs in this residence. Each stick is a representation of each instance. You can also see how the perforated floor plates welcomes tree growth.

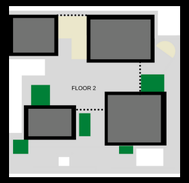
Cube 2: Embedding / Thickened Walls

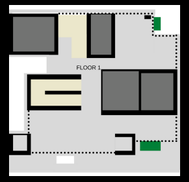
In this model you will see how the trees are stabilized. Each tree is embedded within load-bearing walls and stretch upwards beyond its contained units. It also demonstrates "Thickened Walls", which are made from a pour-in-place concrete mixture called Terrazzo. This method of building allows manipulation of form which accommodates for the embedding process.

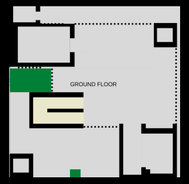
Cube 3: Subtraction / Addition / Transformation

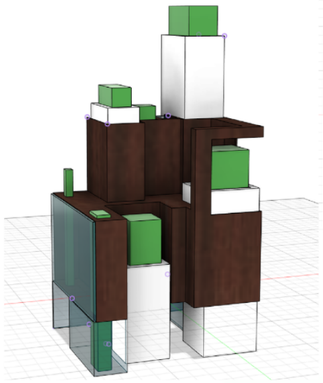
Although the instructor gave me authorization to build a molecular structure that I am interested in, it has too many components and is not playing out the way I envisioned. I believe I will have to make this project another time. Instead, I have presented a model that shows techniques used by VTN Architects to combine the trees with construction. It shows how they subtract trees from the ground, then insert them into containers (base) that promote green-life within the over-crowded Vietnam area, which suffers from the disconnect of green space.

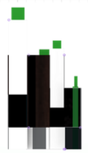











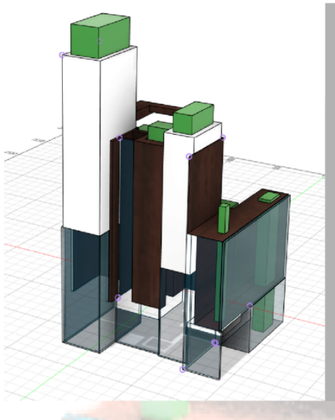


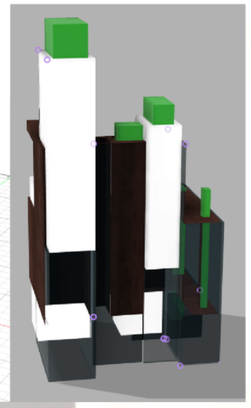
REBUILD STABILITY

Spatial Ordering & Form

BY LARAY KOTI

LOGIC OF SOLIDITY:
EXPLORING POSITIVE & NEGATIVE SPACES
MATERIALS: WOOD, GLASS, STONE





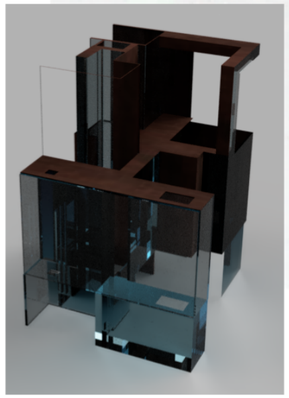
MISSION:
To manifest a built construction that applies conceptual space recognition and the consideration of material, solidity, and solid/void placement.

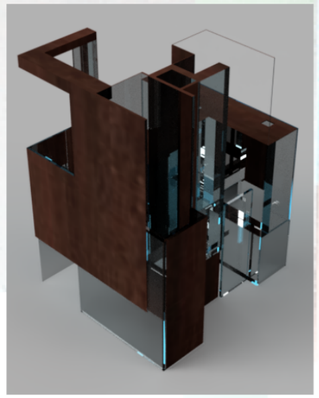
This operative design, built around the footprints of the "Stacked Planters House", offers spaces that are stacked, embedded, perforated, and interlocked.

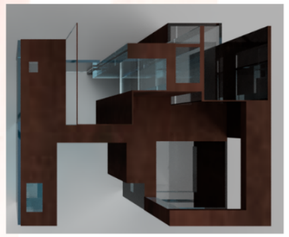
The combination of textures used are arranged to compliment transitions and highlight solid/void areas built among a family of spaces, functions, and interactions.

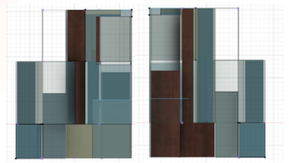
POETRY OF SPACE FEATURES:

- Glass walls (Transparency)
- Wall Apertures / Perforated Floor Plates
- Expanded placements and elevations





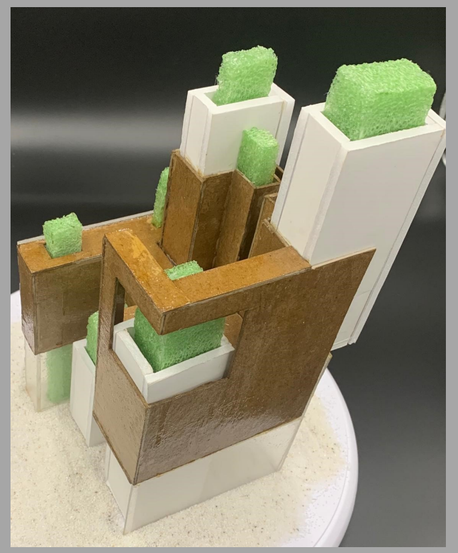


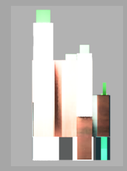


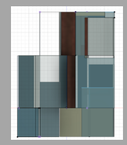
PROJECT 2

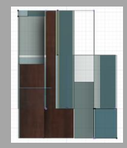
5.1 Cube Construction and Transformations

Preliminary Work









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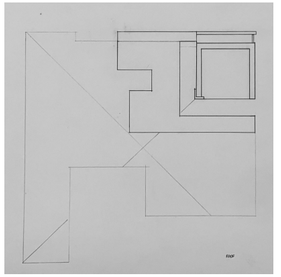
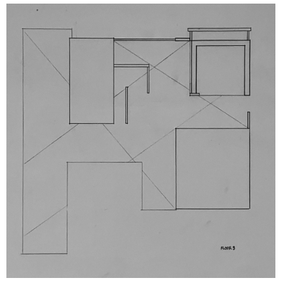
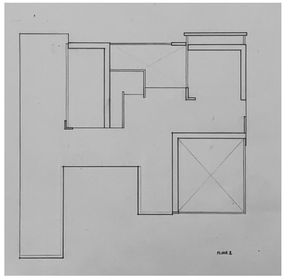
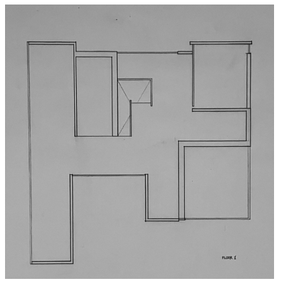
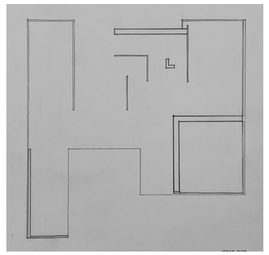
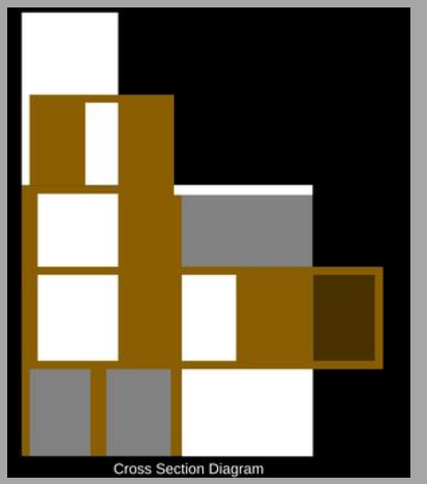




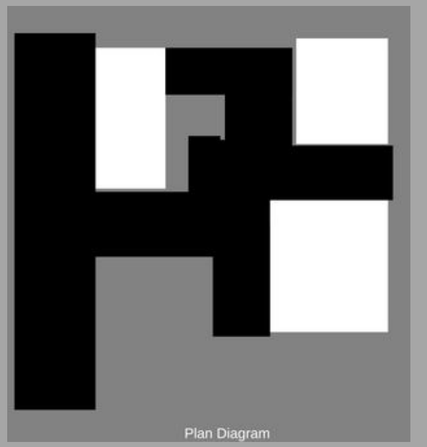




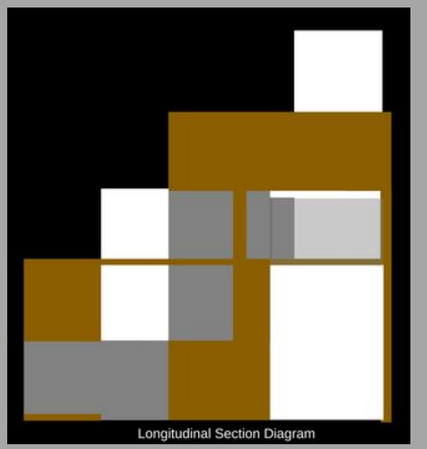




Cross Section Diagram



Plan Diagram



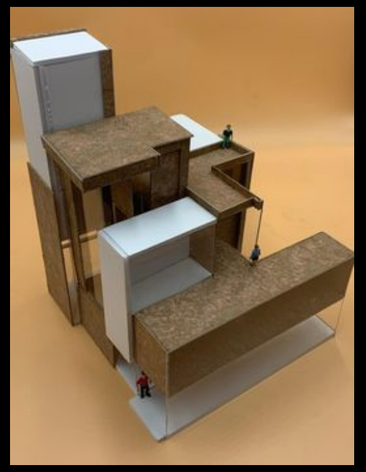
Longitudinal Section Diagram

PROJECT 2

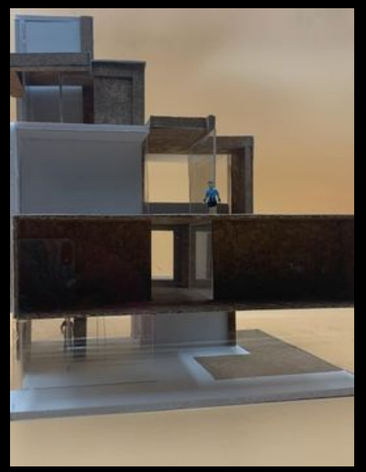
7.1 Cube Construction and Transformations

Preliminary Work



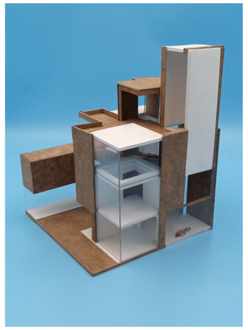



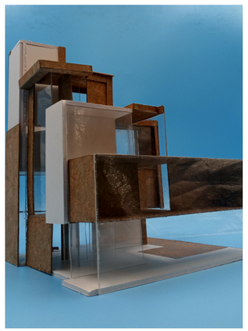




PLANTERS CUBE

ARH 150 OL2: STUDIO 2: SPATIAL ORDERING & FORM
MODULE 8
CUBE CONSTRUCTION AND TRANSFORMATIONS
SPRING 2021
LARAY BYRD





An abstract transformation of the "Stacked Planters House" design by VTN Architects.

Volumes of spaces that extrude, embed, and taper within the confinements of thickened walls that are vertically interlocked by a cavity (elevator) used as passage to and from each level.

PROJECT 2

8.1 Cube Construction and Transformations

PROJECT 2
8.1 CUBE CONSTRUCTION AND TRANSFORMATION

FINAL PASSAGE MODEL

Final Passage Design Model This design, inspired by my Project 1 Case Study, "Stacked Planters House", has a seemingly arbitrary design at first glance. However, its spatial and transformative composition is very simple and easy to decipher. It is amorphous by nature and haphazard to say the least. I have taken the Stacked Planters House's design focus of creating green space for high-risk air pollution and flood zones in order to bring together the disconnect of nature and human experience. In this design I also welcome nature as a lived experience and promote containment from elemental factors. In developing this project, "Planters Cube", I explored generative potential of VTN Architects precedents. In order to create a unique space that offers seclusion and accessibility as a lived experience, I decided that wood, glass, and concrete would be complimentary for dramatic changes in space and form. Materiality and construction consists of pour-in-place concrete implants that penetrate wooden pathways of circulation and uses over-sized glass panels to allow nature’s influence inside, which creates a union of the inhabitants to nature. This multi-level modern design exhibits private and community living. Veranda style thresholds blurs the line of inner and outer limits while over-sized glass infills opens to surrounding green space and natural light. It demonstrate an open plan layout that consists of open circulation surrounding private quarters used for served space. At the center of this design, and possibility one of the most intriguing attributes, stands the elevator. It stands in a concentric location, interlocking each level at the heart of the site plan. This building's atmosphere exemplifies a sleek, tranquil, and harmonious environment that flows both within and outside of its constraints with ease. The Planters Cube has a unique Poetry of Space. It is best to consider its design as a lot for containers, which are placed along a vertical grid and extends within the depths of its height. Each contained area are embedded and extrude