Benedict Tan

Architecture Portfolio 2018

Benedict Tan
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benedict_tan@mymail.sutd.edu.sg

An architecture student who loves to explore how technology elevates designs and ideas, thereby enhancing the experiences of life.

Not assuming what architecure should be, but what it could be is how he strives to tackle each project.

01–12 Yaqzans' Space
Studio – Meditative Space

13–22 Points
Vietnamese Skinny House

23–32 Crescendo
Studio – Learning Space

33–40 Beyond 14!
Personal – Visual Optimisation

Education

Singapore University of Technology and Design

Bachelor of Science (Architecture and Sustainable Design) May 17 to Present

SUTD Undergraduate Scholarship May 17 to Dec 17

Work Experience

Republic of Singapore Air Force

Admin Support Assistant Jul 15 to Apr 17

- Organised monthly squadron catering events for more than 100 personnel per event total ling upwards of $10,000 by liaising with external caterers.
- Guided and trained more than 40 new personnel for their shift duties.
- Entrusted to allocate work to the unit’s NSmen and manage their In–Camp–Training (ICT) affairs to make their stay during the ICT period more productive and meaningful.
- Re–designed data collection and scheduling of interview processes to improve efficiency and reduce human error. Duration needed to complete all interviews were reduced from 3 months to 2 weeks. Biannual audits came back with no findings.

Co–Curricular Activities

Red Cross Youth Chapter

Blood Donation Officer July 17 to Present

- Organised and coordinated blood donation events to accommodate the staff and students of SUTD.

Freshmen Orientation Camp 2018

Food IC Oct 17 to May 18

- Liaised with various external companies to organize meals for 570 students over a period of 3 days under a budget of $18,000.

Project: Electric Piano Workshop

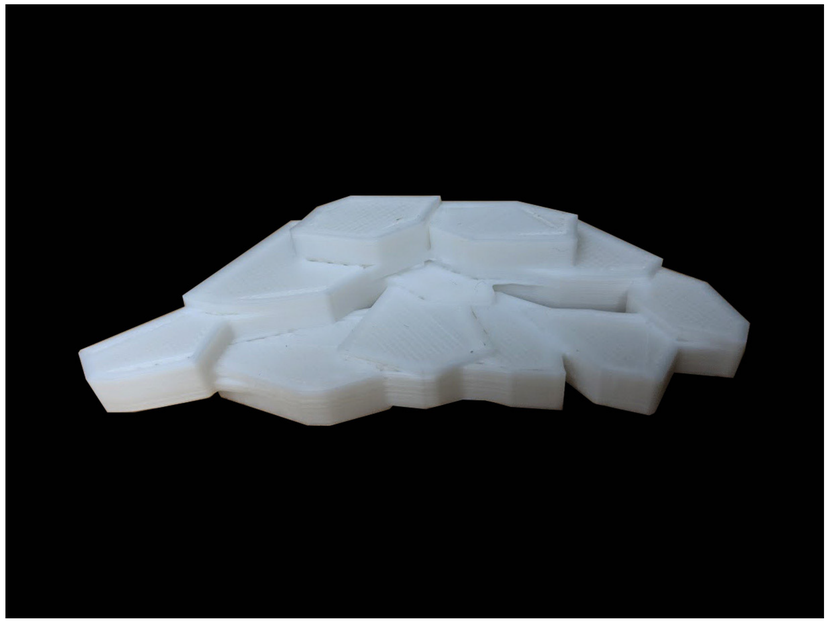
Facilitator Mar 18

- Taught JC students’ electrical concepts and guided them towards building their own piano made from electrical components. Troubleshooting of their piano was done on the spot to fix any electrical issues.

Additional Information

- Photoshop, Illustrator, Indesign, Premiere Pro
- Solidworks, Rhino, Grasshopper, V–Ray
- Python, C , HTML, CSS
- Word, Excel, PowerPoint
- Stock Trader
- Loves Technology, Sports and Music

Yaqzans' Space



Fall 2018 | Core Studio 1 | Instructor: Carlos Bañón, Subarquitectura

Before, during and after.

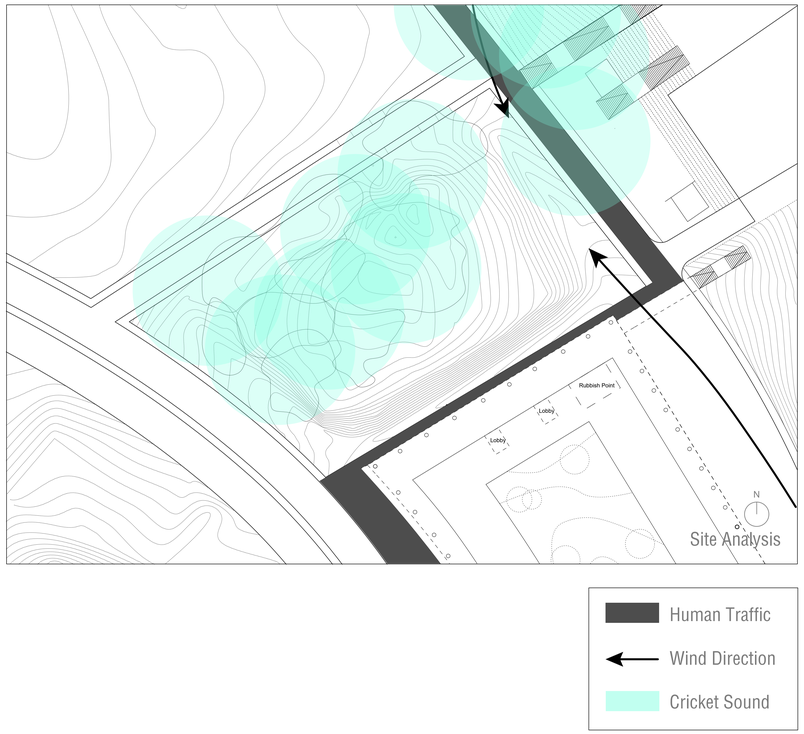
These are the events that happen for a meditative process.
Each one is reliant on the other to create a positive experience.

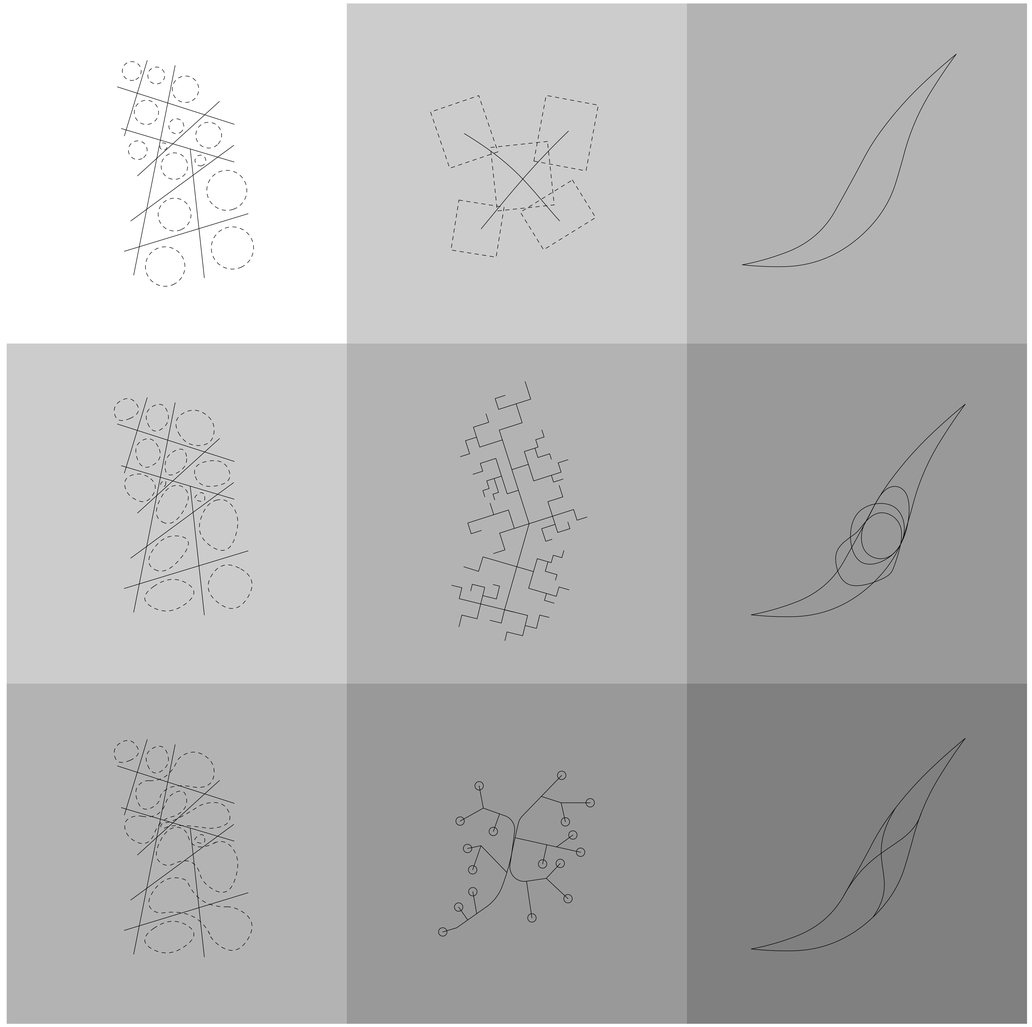
Before: The preparation stage as the user is brought to the right state of mind for meditation.

During: The meditation process as the person undergoes reflection, contemplation etc.

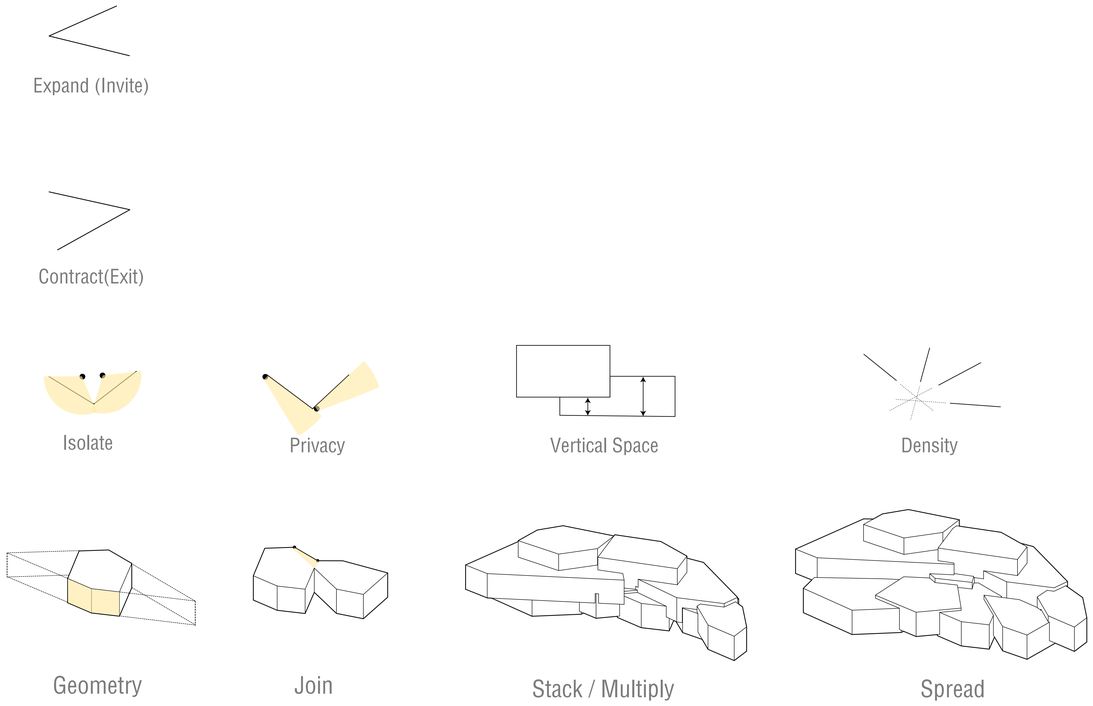
After: The right closure is desired so that the person is not immediately distracted by exter–nal stimuli.

These events can all be complemented by the lack of distraction in the surroundings and a smooth transition between these states of the meditative process.

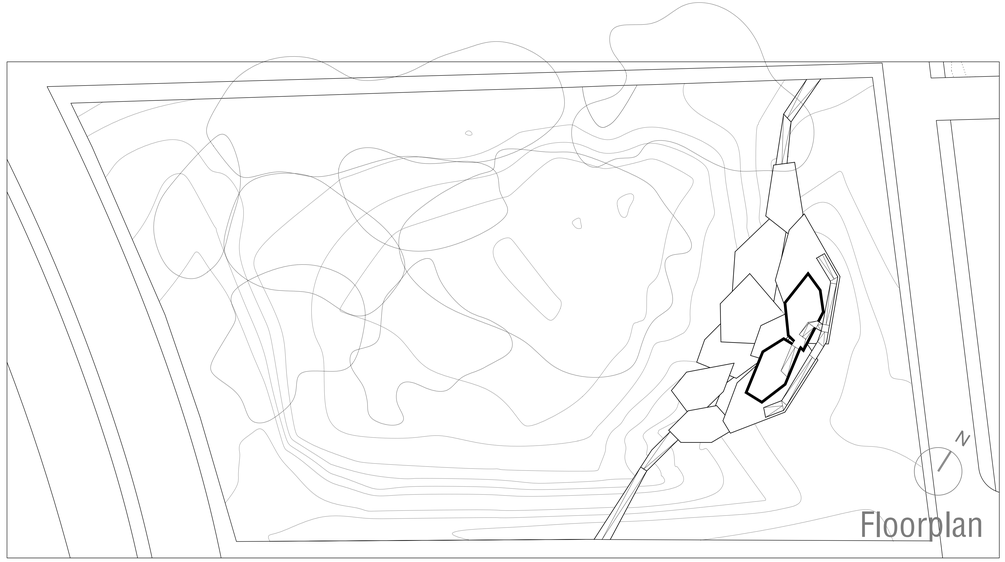




Exploration of a variety of circulation systems addressing the functional aspect of contemplative and transitional spaces.



+27.00
+28.00
+26.00
+29.50
+24.00
+23.50
+28.00
+26.00
N
Site Plan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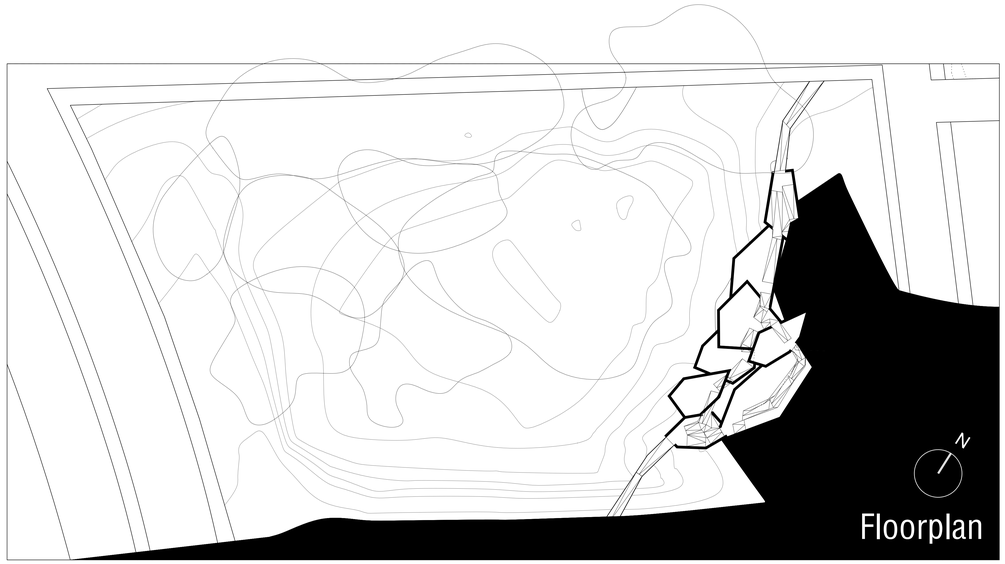
Floorplan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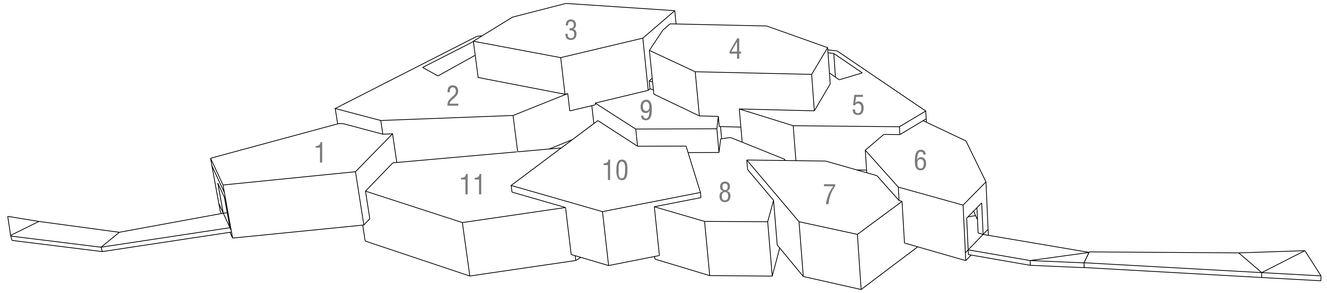
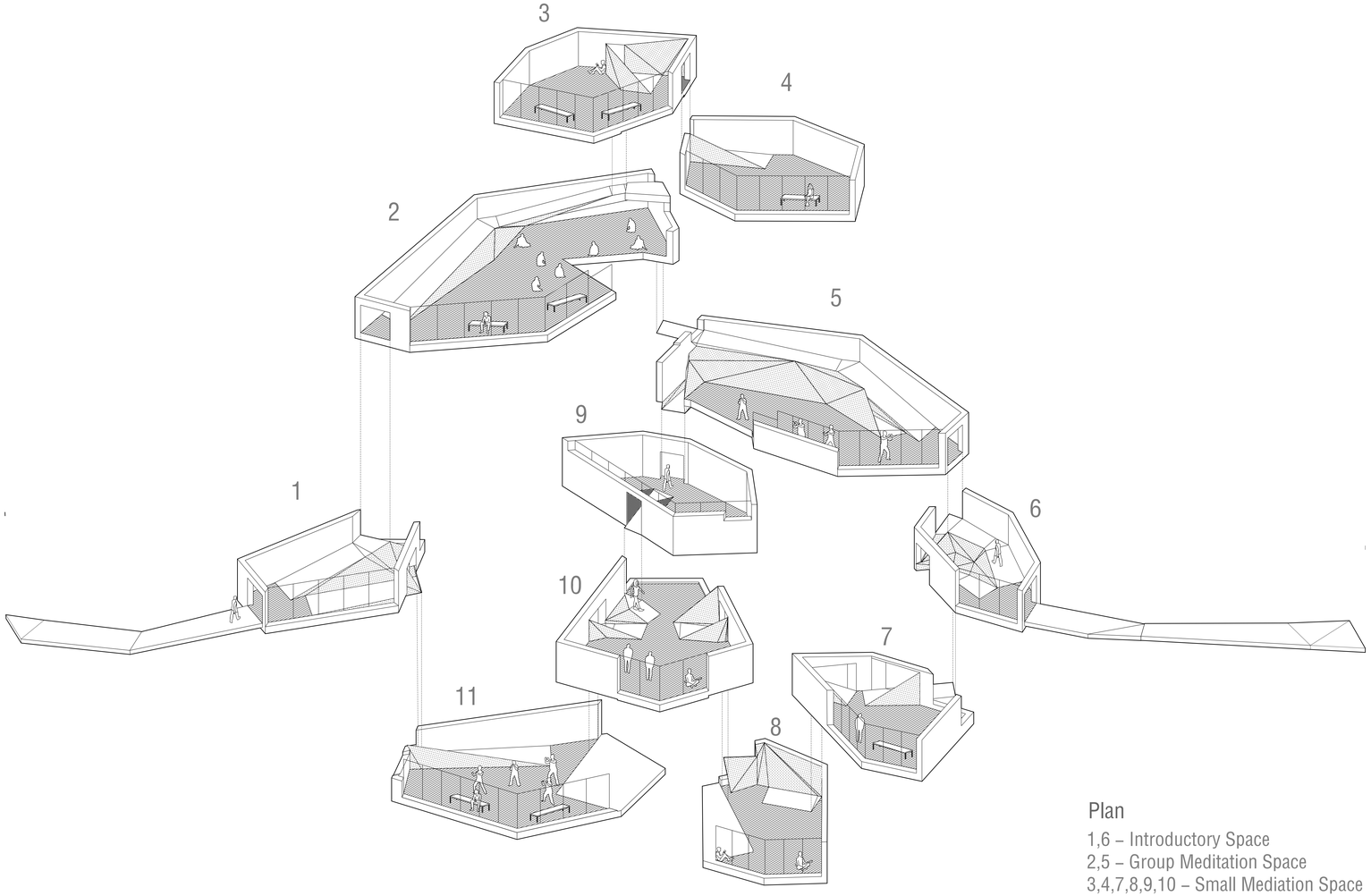
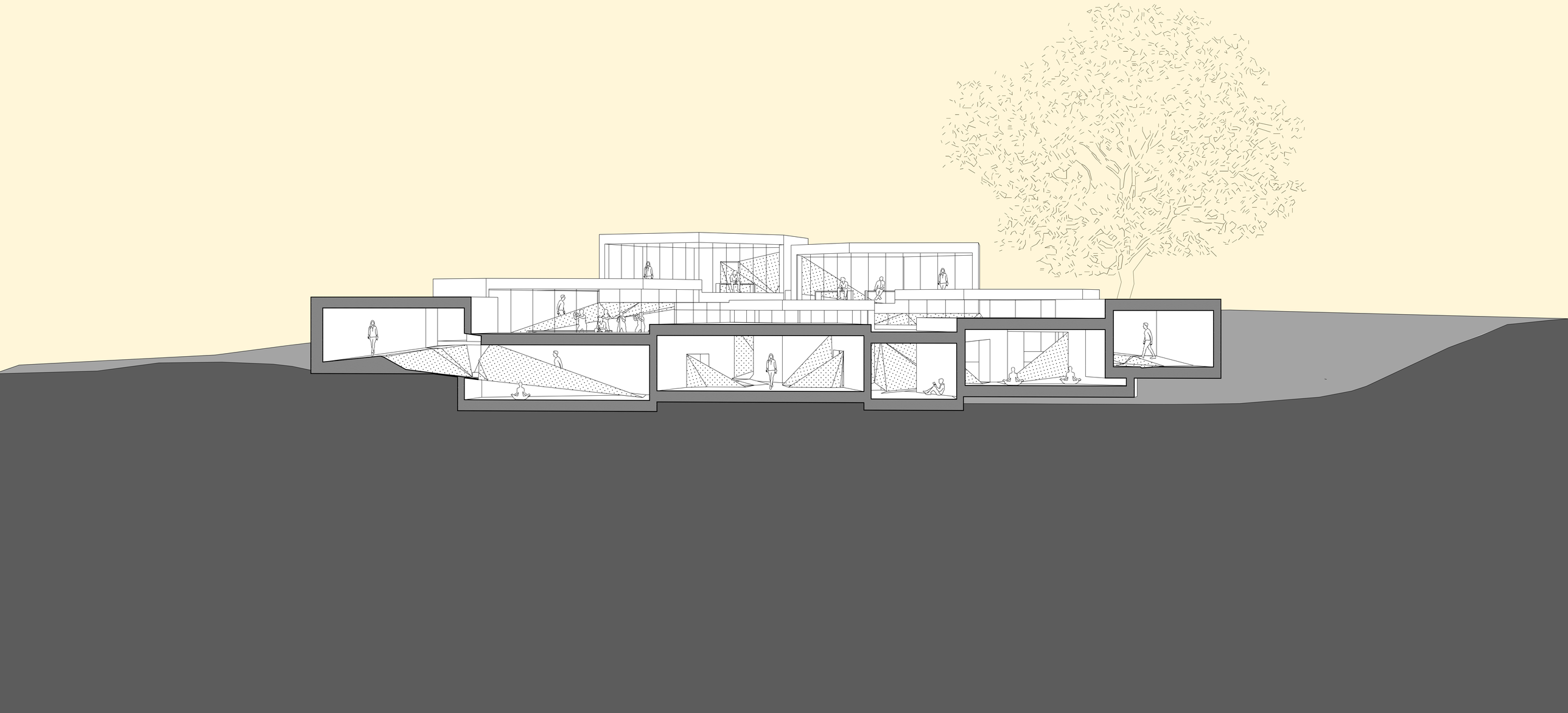
Floorplan





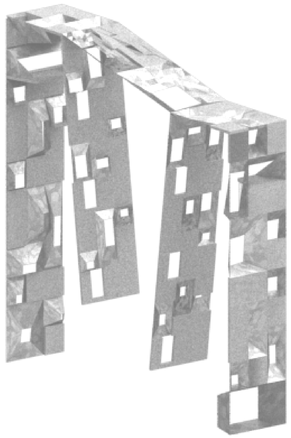
Plan

1,6 – Introductory Space
2,5 – Group Meditation Space
3,4,7,8,9,10 – Small Mediation Space



Points

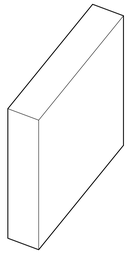
Fall 2018 | 2D Week | Team: Arissa Teriyapirom, Benedict Tan, Rachael Lau, Xu Zike



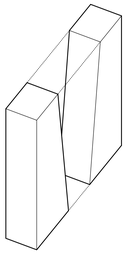
A modern hostel situated at a local area of Ho Chi Minh, Vietnam aiming to expose the city life to the occupants.

This week long project explores how a facade can not only be a visual artifact, but also a climate control element that interacts with both passerbys and occupants differently.

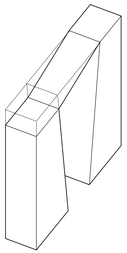
As houses grow vertically, unique spaces and visuals are demanded to provide an inspiring experience for travellers. Individual facades are tailored according to these spaces while maintaining its' over–all form.



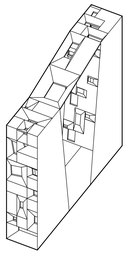
Vernacular Form



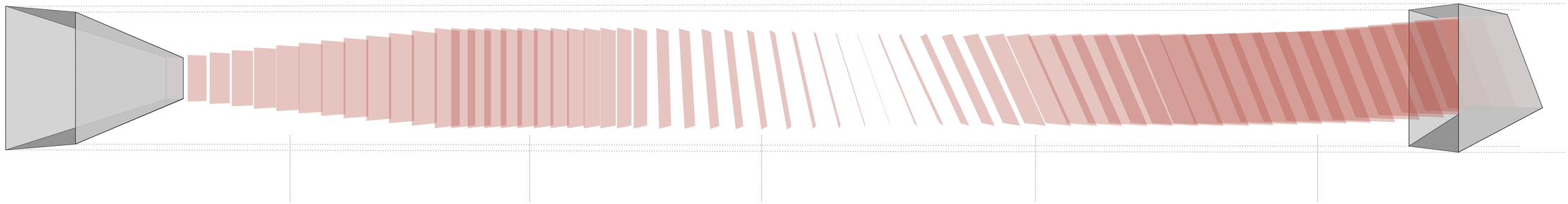
Maximise Sunlight

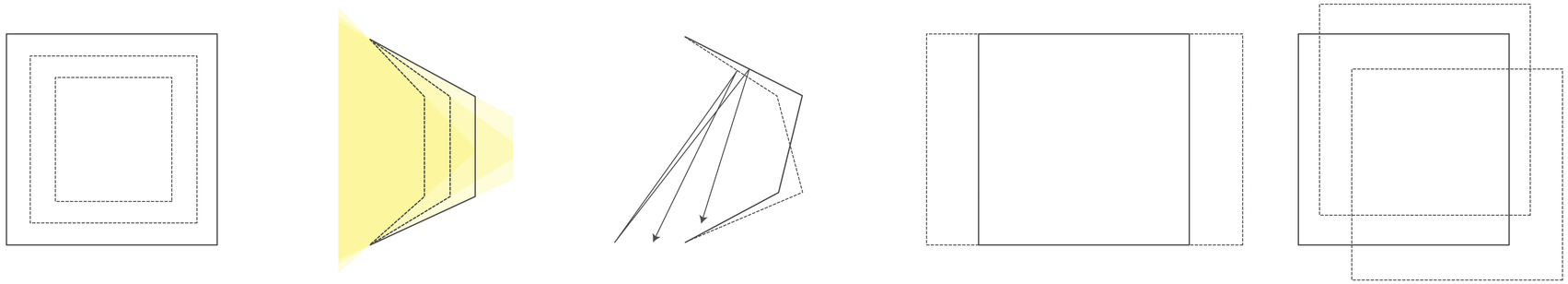


Sloped Shelter

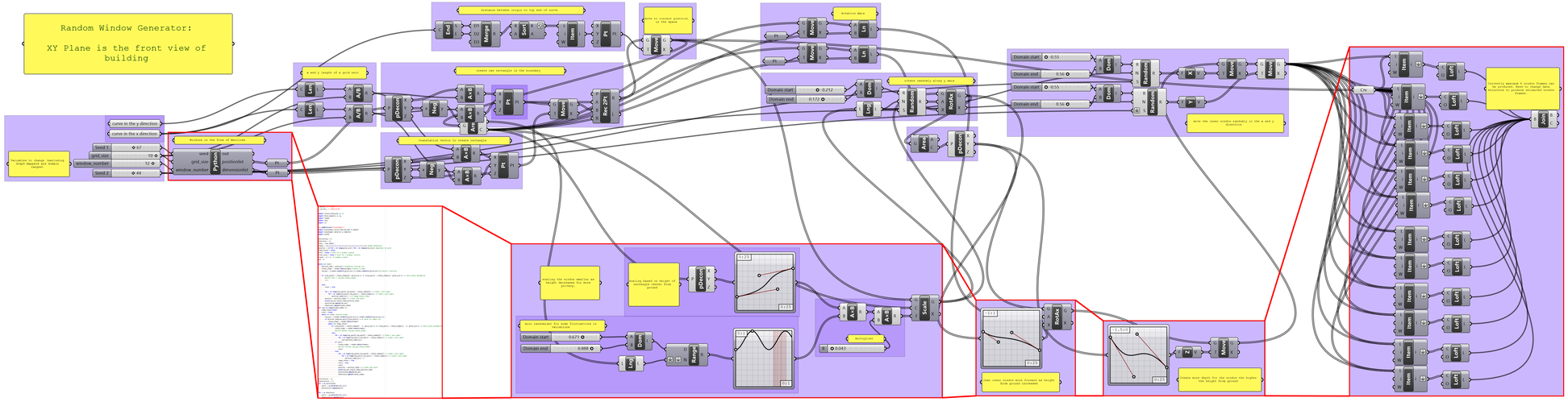


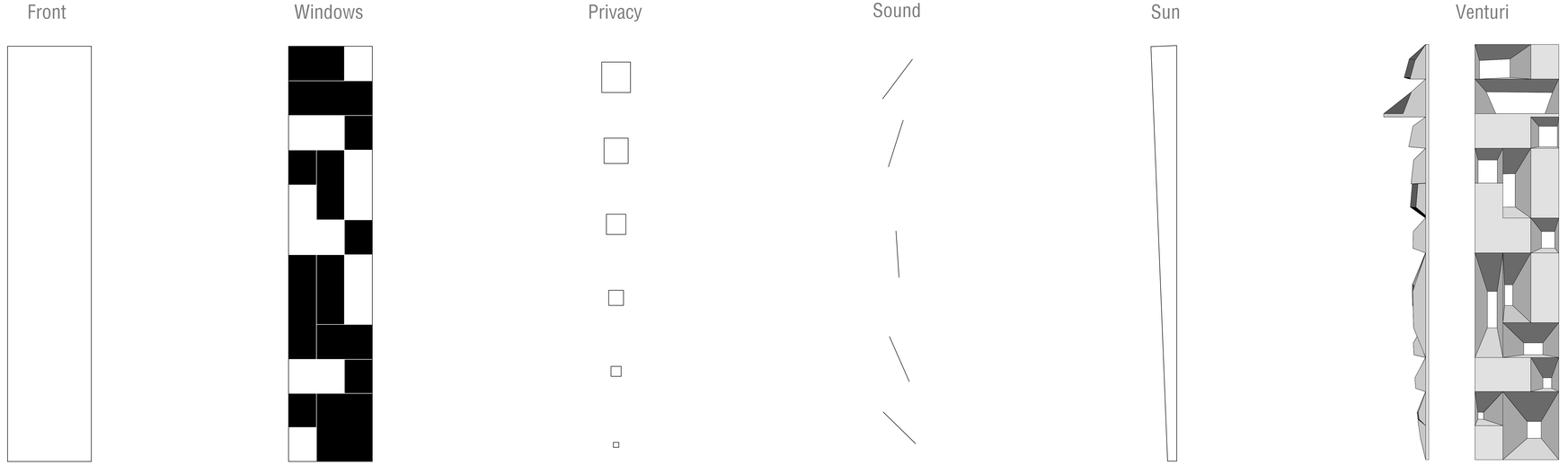
Facade



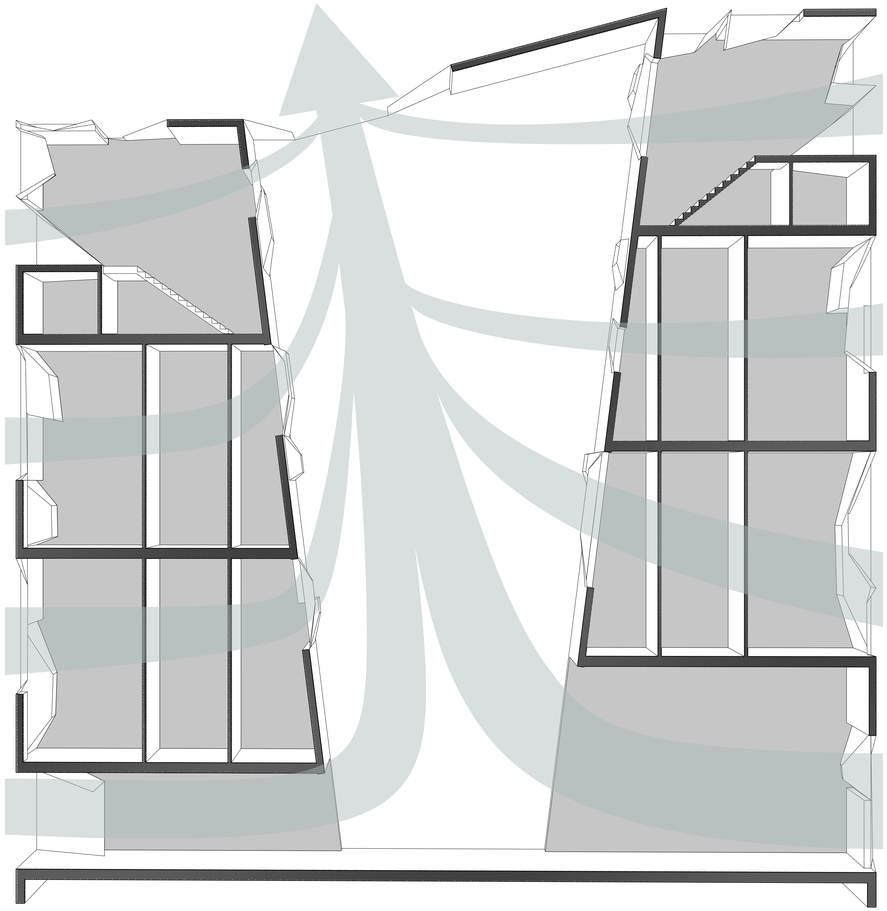


Window Generation

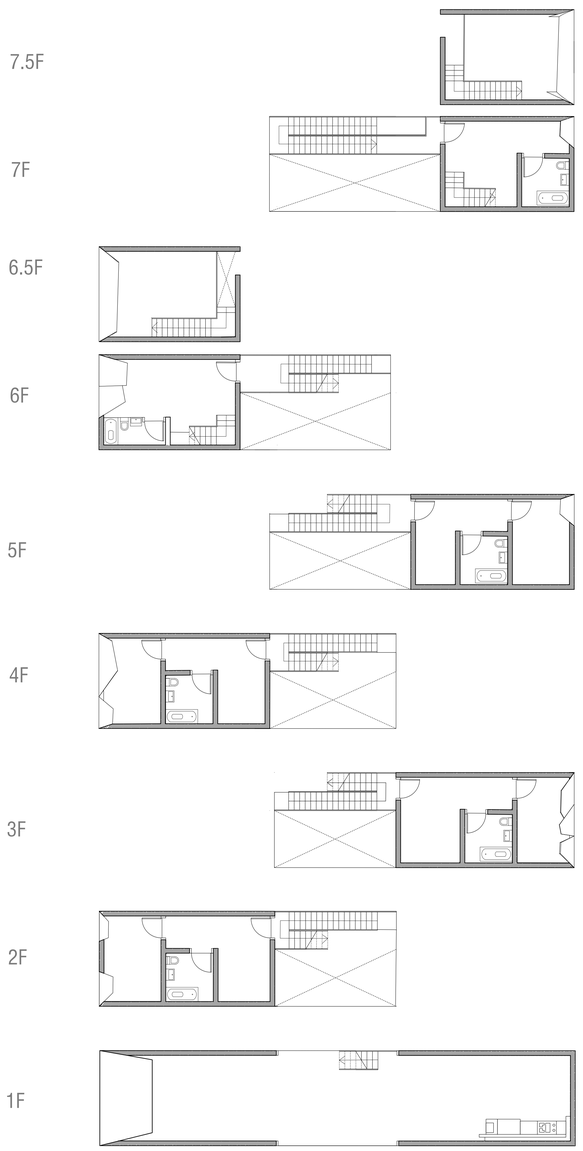




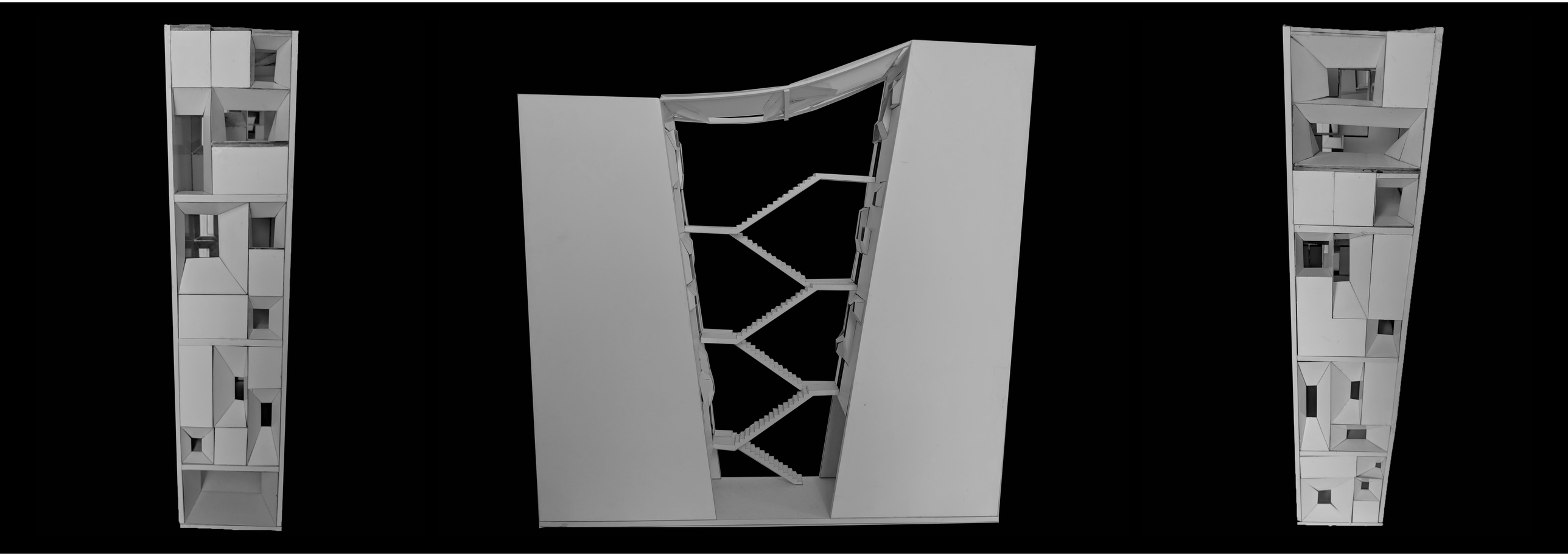
Facade Generation



Venturi Effect



Floorplan

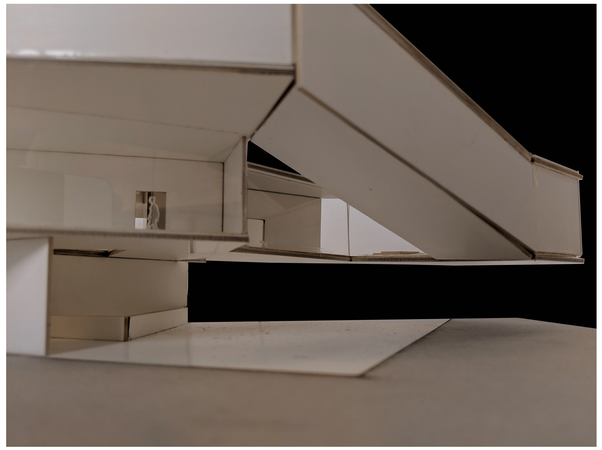


Front

Right

Back

Crescendo



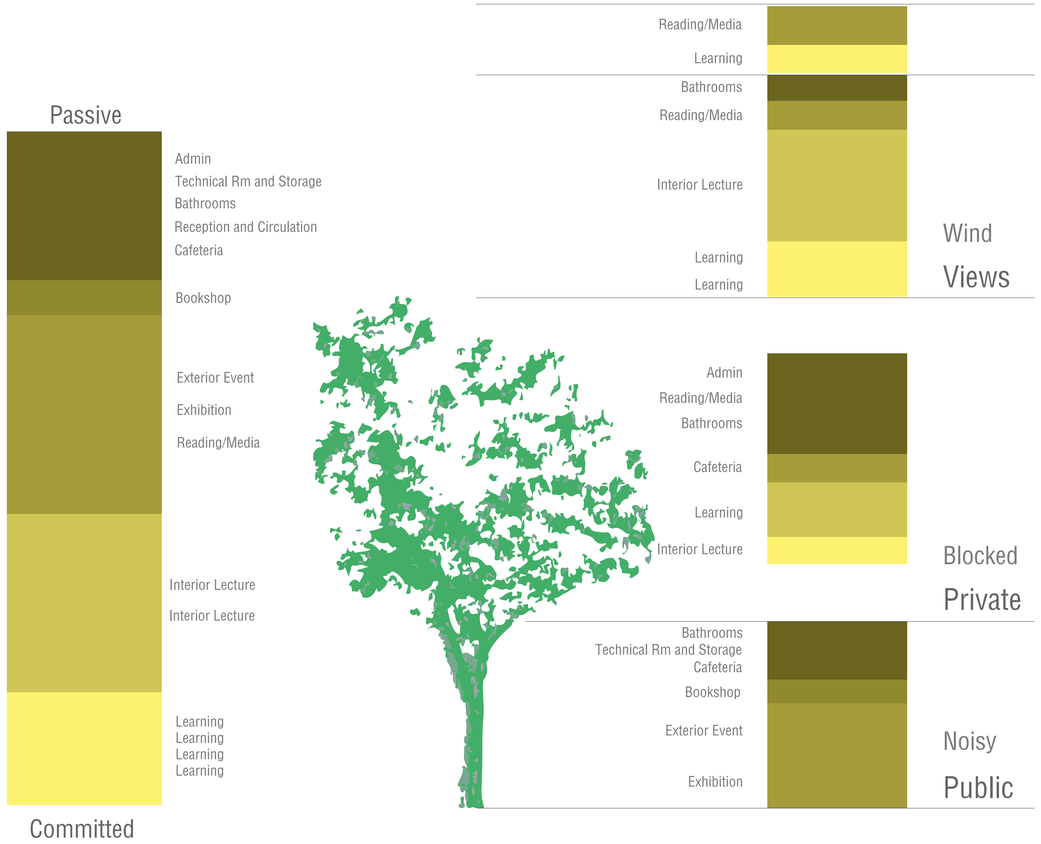
Fall 2018 | Core Studio 1 | Instructor:
Carlos Bañón, Subarquitectura

An inviting ground space is introduced with the inception of the learning centre.

The user experience is crafted to gradually assimilate into the act of active learning.

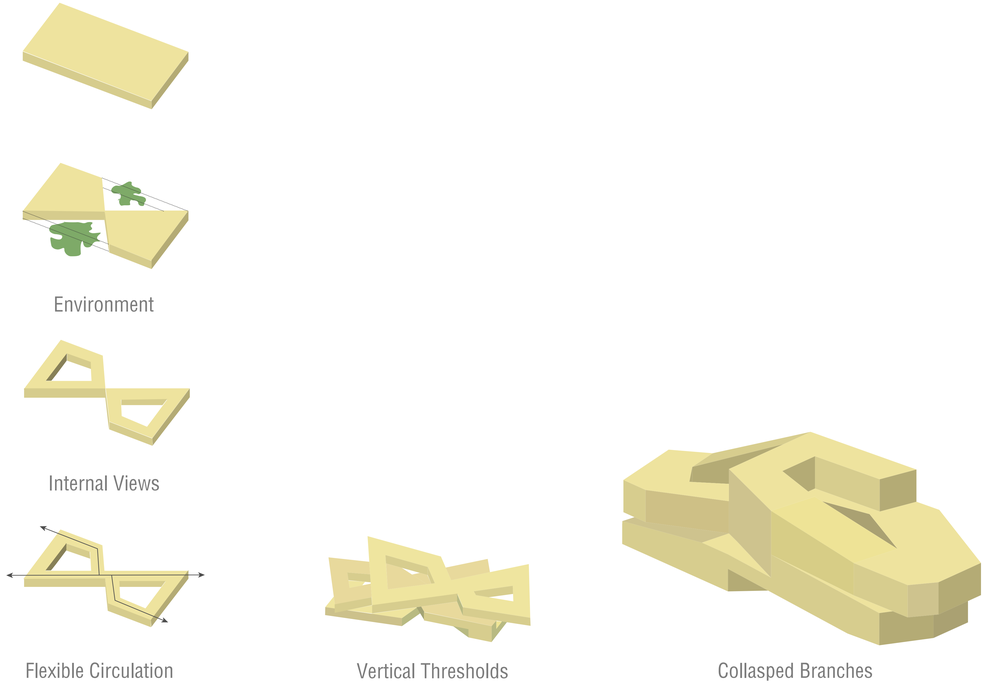
Education is devised into space. Spaces are crafted to cater to a specific level of learning.

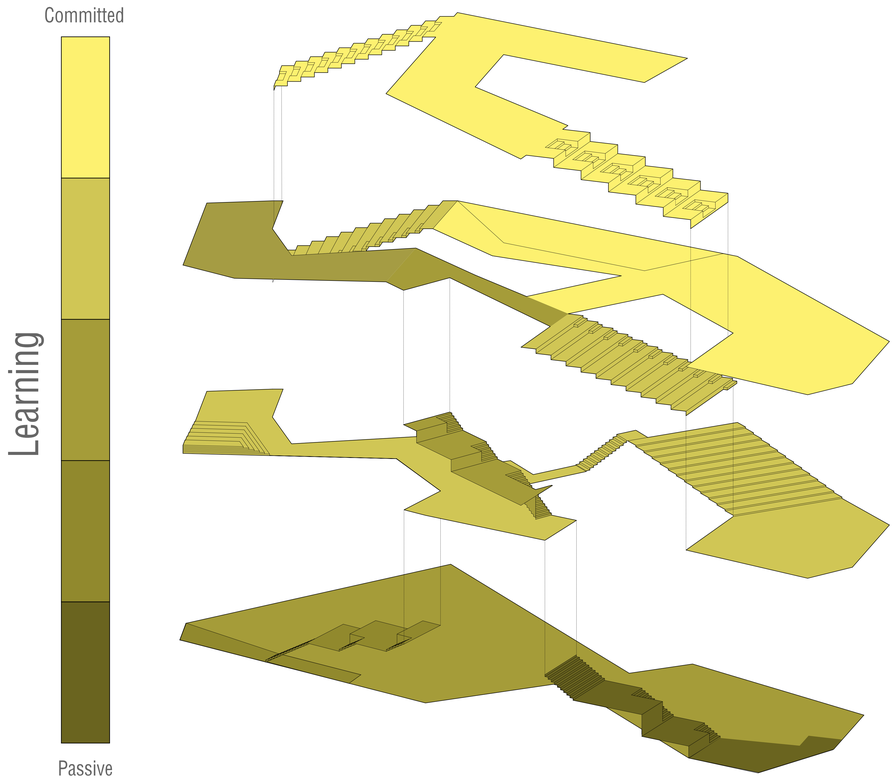
These spaces are then strung together both visually and au–ditorily to create spaces that inspires even more learning.



Program Distribution

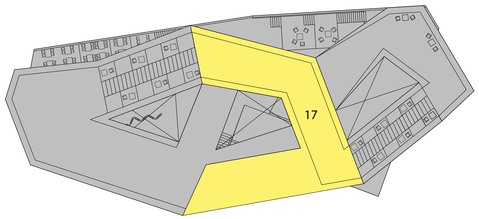
N
Site Analysis
Human Traffic
Sunlight
Wind Direction


Environment
Internal Views
Flexible Circulation
Vertical Thresholds
Collasped Branches



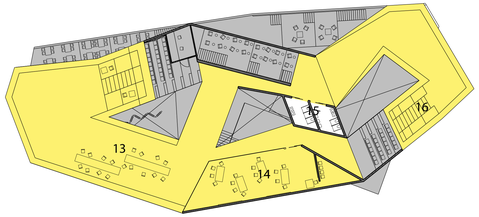
L4

17 Outdoor Learning Space 2



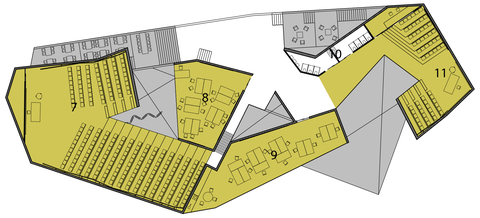
L3

13 Outdoor Learning Space 1
14 Classroom
15 Toilet
16 Staircase / Study Area



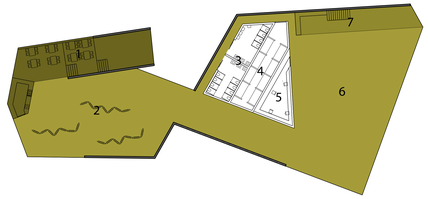
L2

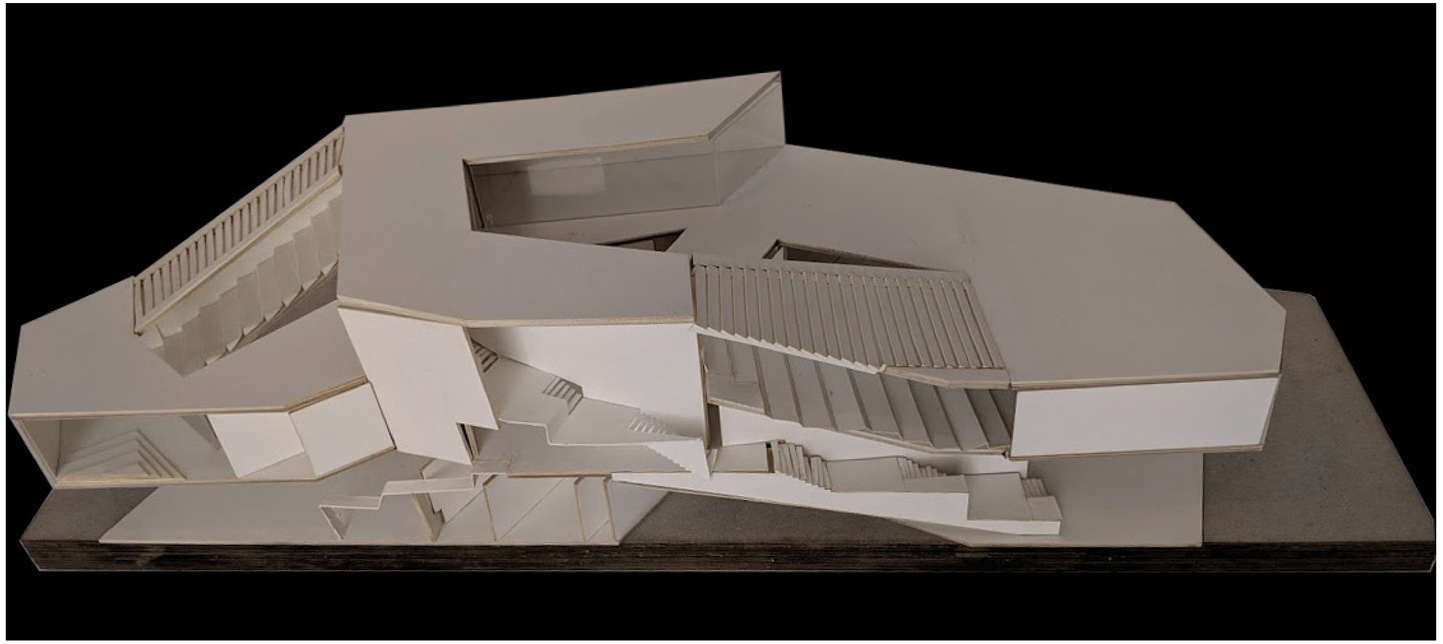
8 Lecture Theatre (Large)
9 Classroom
10 Admin / Office Space
11 Toilet
12 Lecture Theatre (Small)

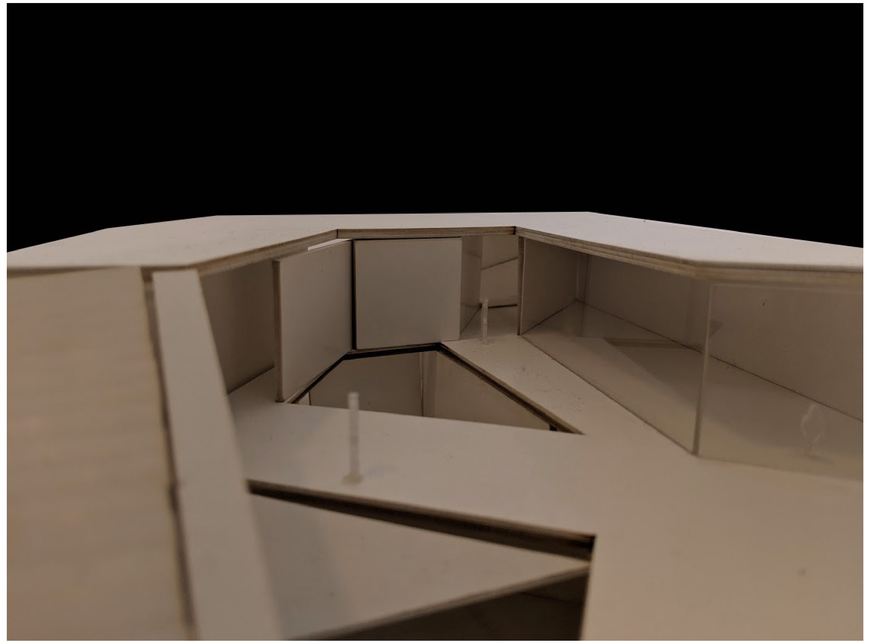


L1

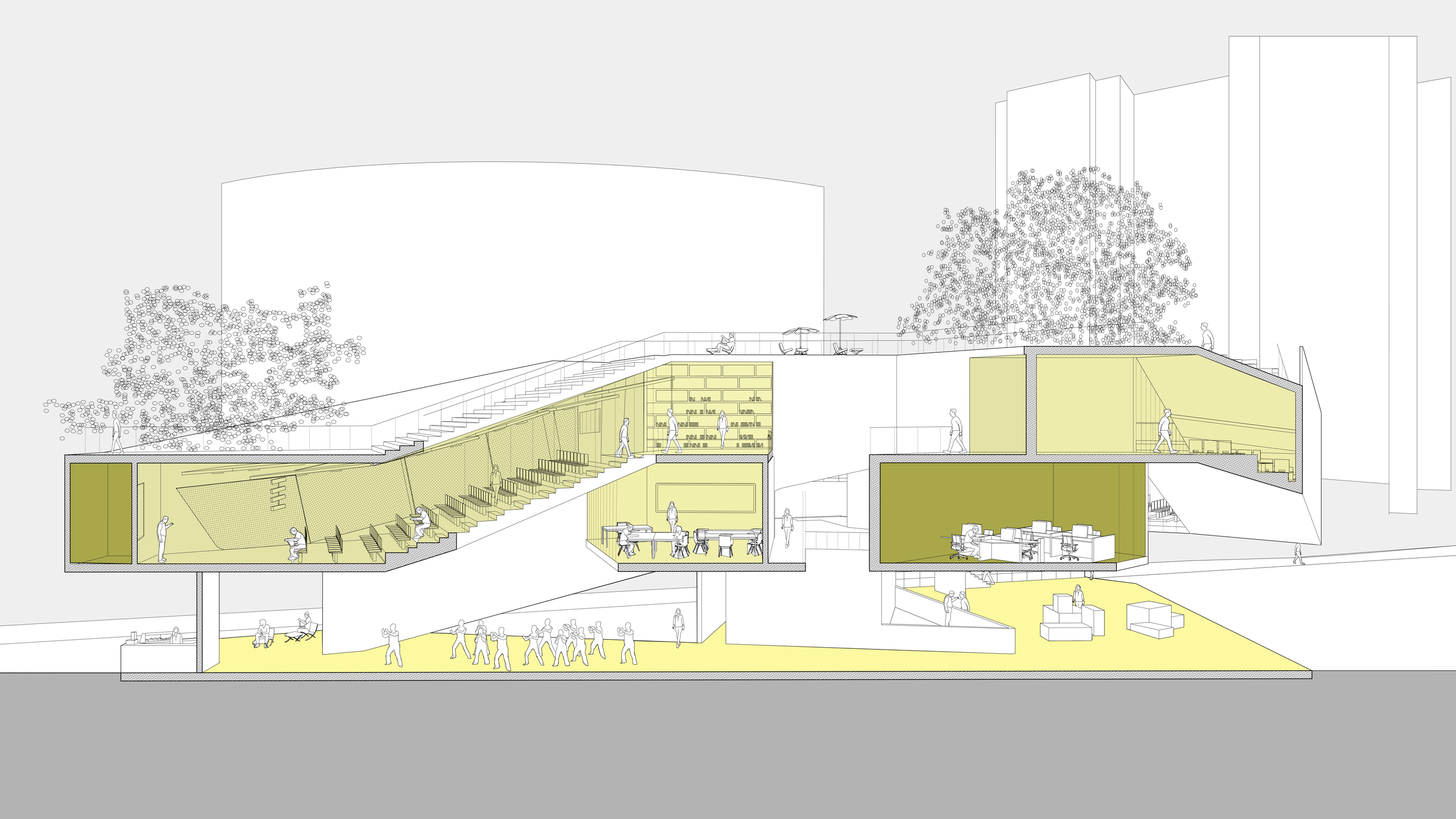
1 Cafe
2 Exhibition Space
3 Toilet
4 Store Room
5 Reception
6 Multipurpose Event Space
7 Bookstore



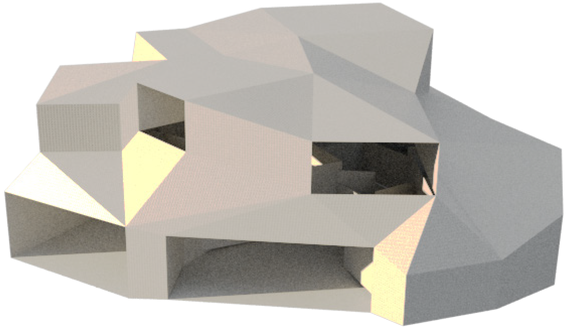




Section Model



Beyond 14!



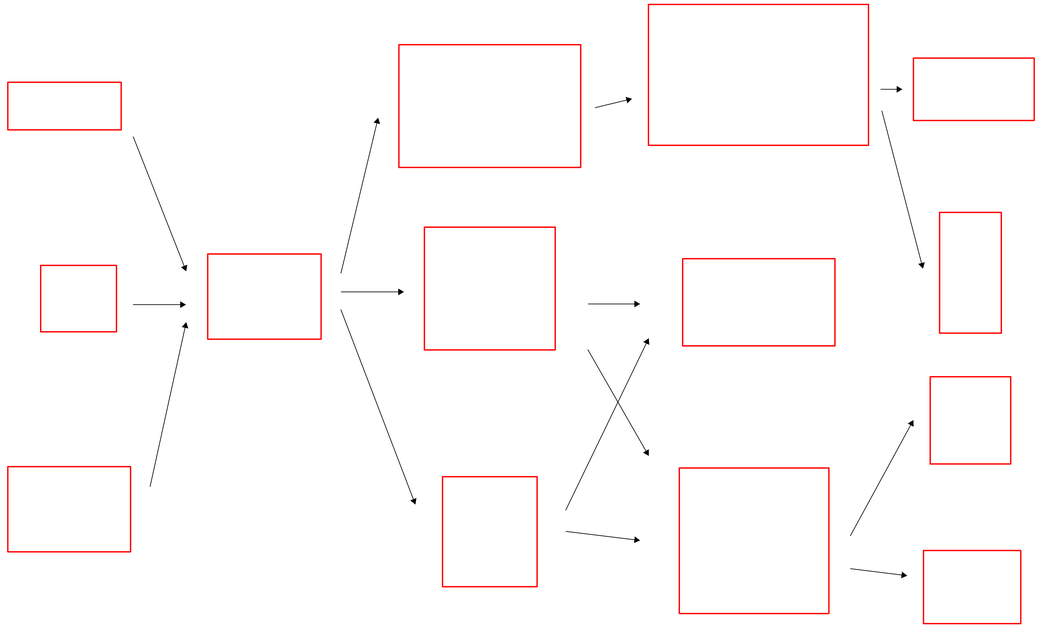
Fall 2018 | Personal

Spaces can be treated just like objects in a photograph; some contribute as the foreground, while others form the background. A person moving through these spaces can see different dominant spaces and different locations. This idea can be extrapolated to influence how a person travels.

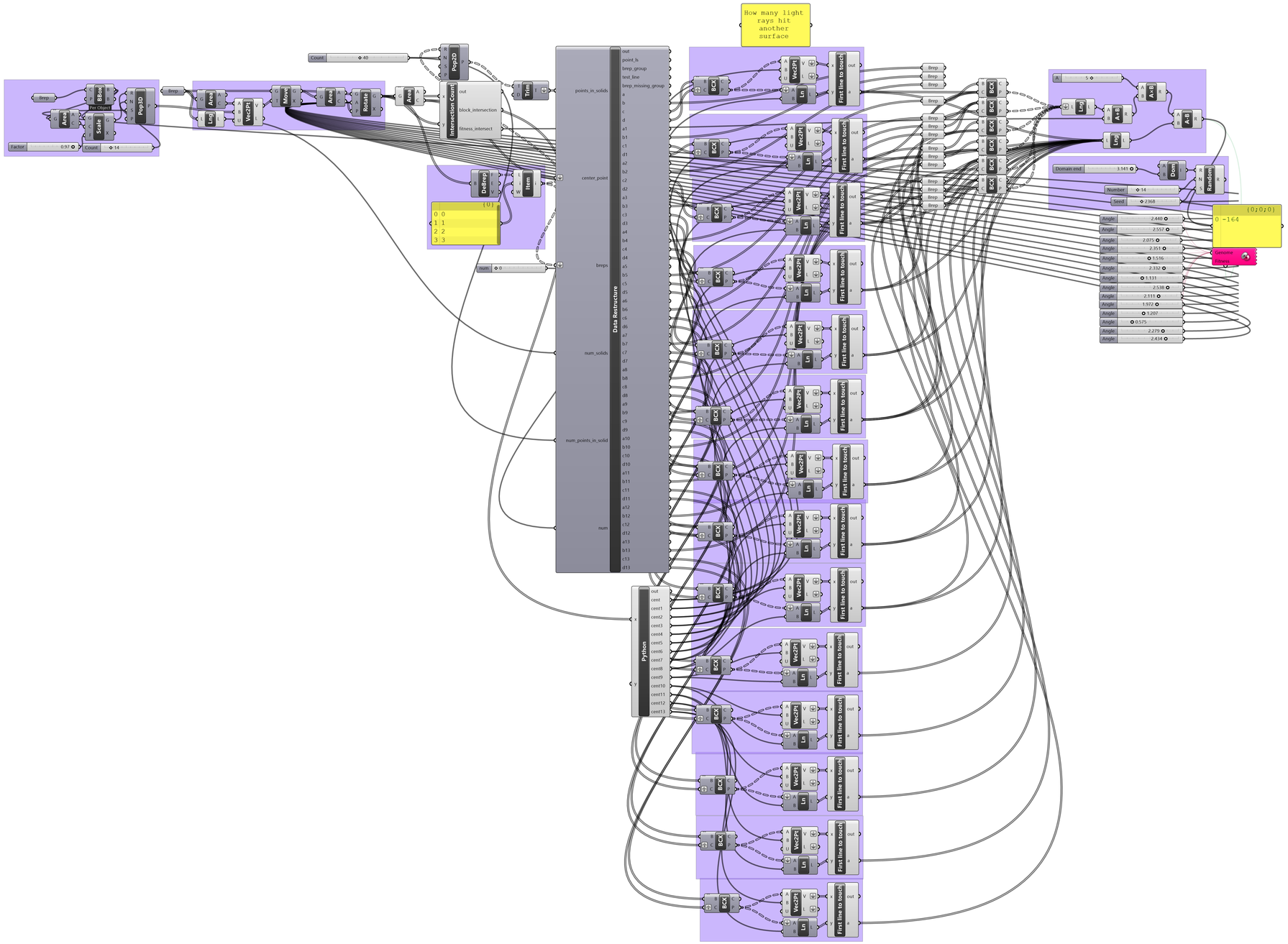
Given 14 spaces that are related to each other in a visual network system, there are numerous ways to arrange these spaces to fulfill the criteria of the network.

Just by defining the location and rotation of these spaces, there are countless ways to create the desired network. But they are unlikely to be visually optimised.

Machine learning was used to explore the highly optimised geometries created for this purpose. A task not possible by human potential and effort alone.

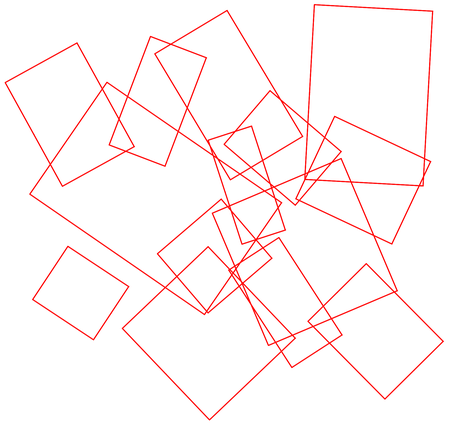


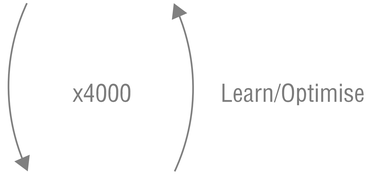
How the spaces are connected to each other visually.



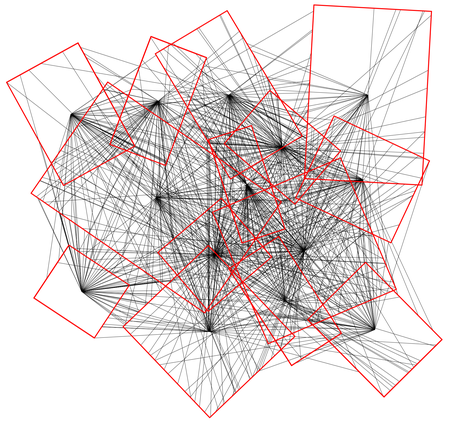
Form Creation through Galapagos

1:Arrange



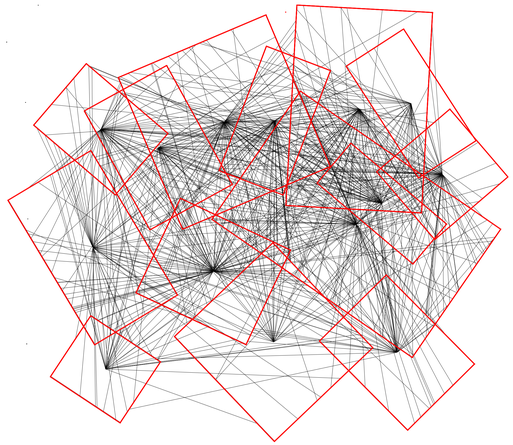


2: Evaluate Visual Connections

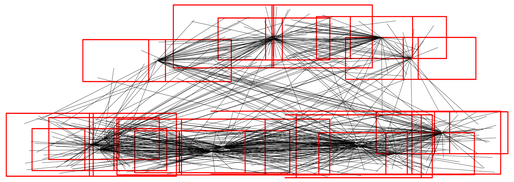


3:Optimised

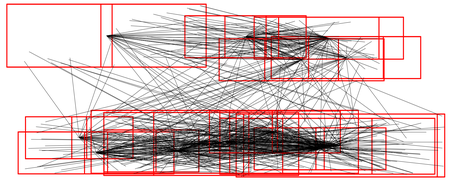
Top

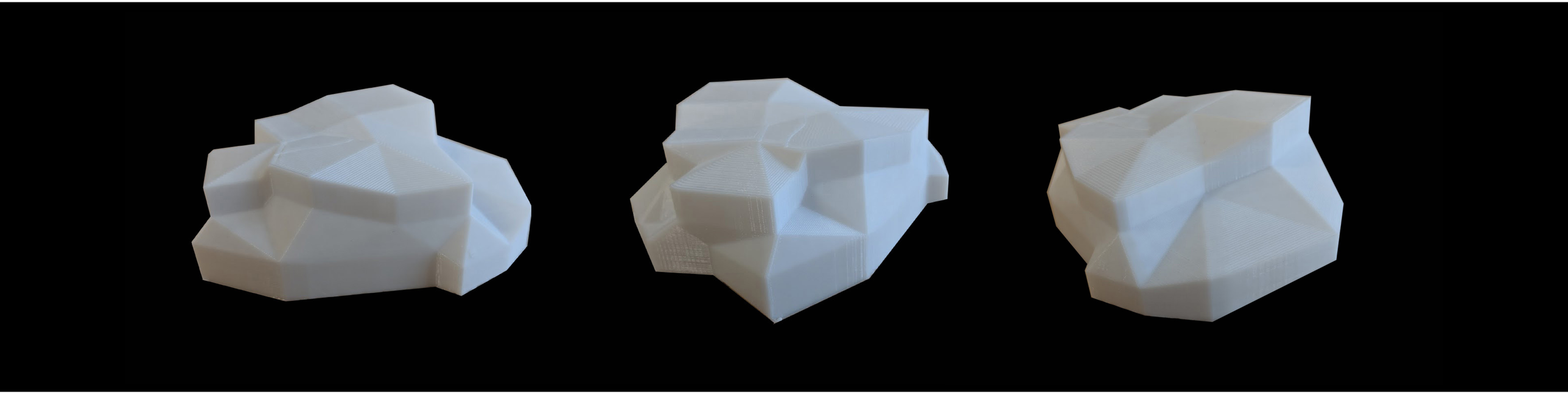


Front



Right





Massing Model

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