COLLEEN DUONG

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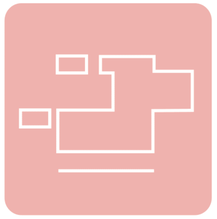
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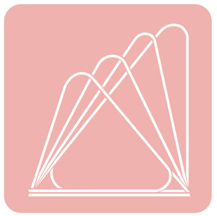
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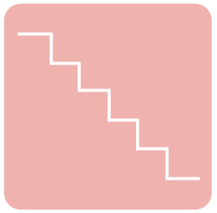
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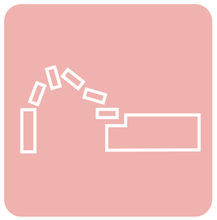
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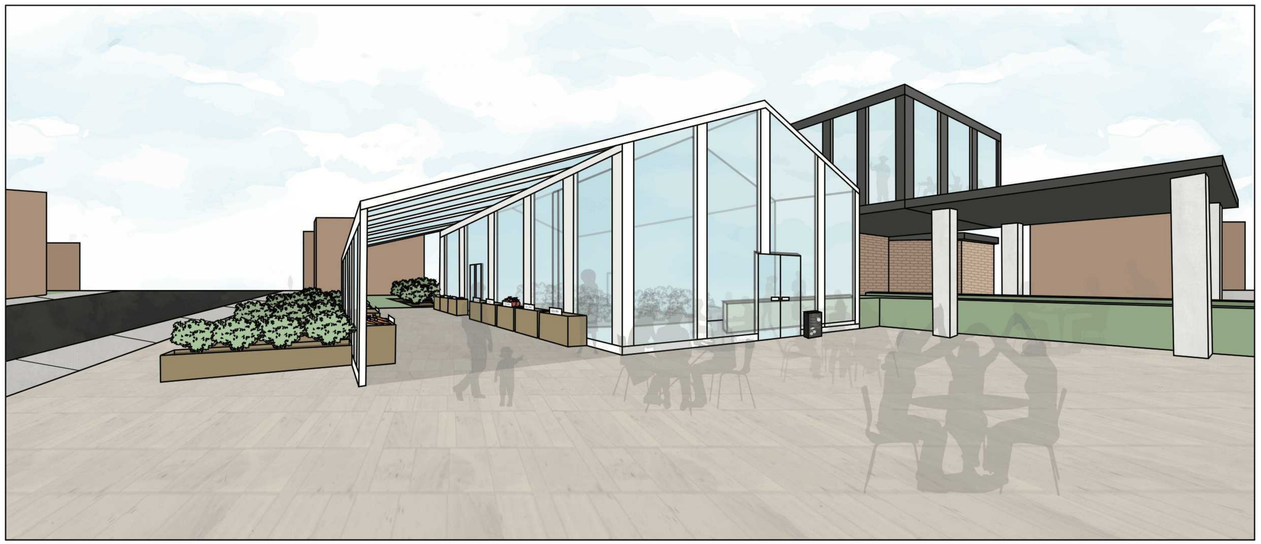
URBAN AGRICULTURE CENTER 01

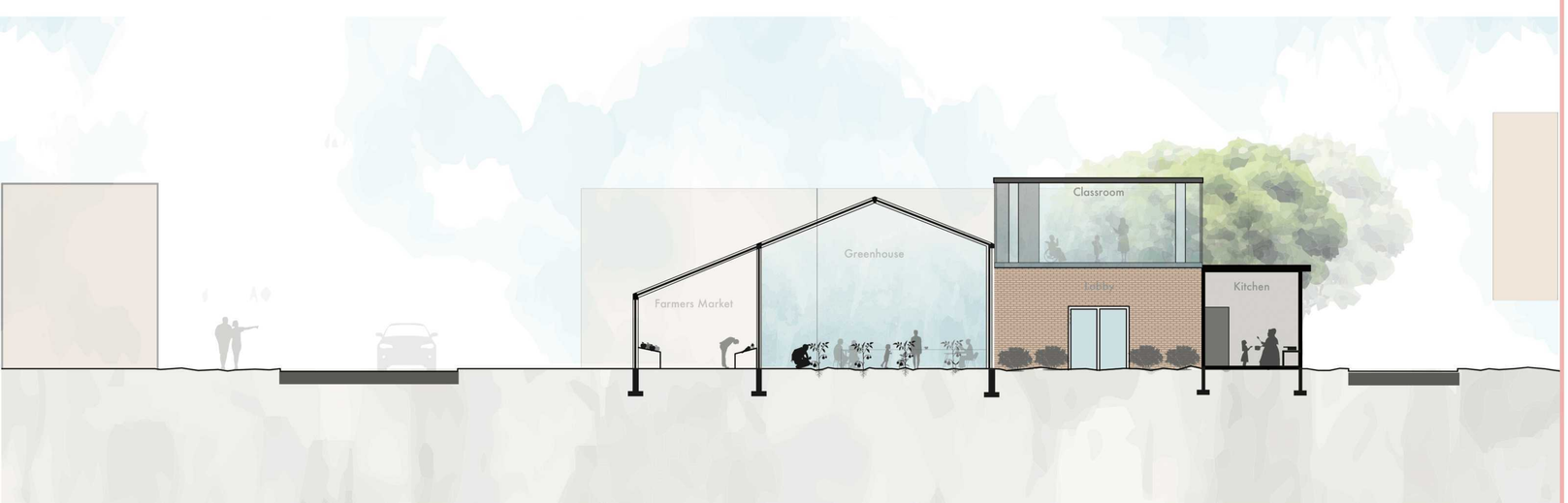
YEAR: FALL 2017
LOCATION: SANKOFA COMMUNITY GARDEN IN HOMEWOOD, PENNSYLVANIA
PROJECT: DESIGN PROPOSAL

Each student developed a building proposal for a new center for Urban Agriculture in Pittsburgh. The site was Sankofa Community Garden located in Homewood. The center will serve as a hub supporting urban gardening and farming activity in Pittsburgh. The center will also become an outreach center allowing for education and community engagement from the citizens of Homewood. I focused on the main circulation aspect of the area when creating a design proposal.



Front View Render

The design incorporates the idea of having different types of buildings depending on the type of person: visitors, residents, pedestrians, etc. This render showcases the side that is seen by the visitors and contains the farmer's market, greenhouse, and front entrance. The other side of the site, seen by the residents, contains outside growing spaces and a straightforward path to the staircase that leads to the classroom. This aimed to help encourage the people of Homewood to learn more about the concept of growth through a visual setting.



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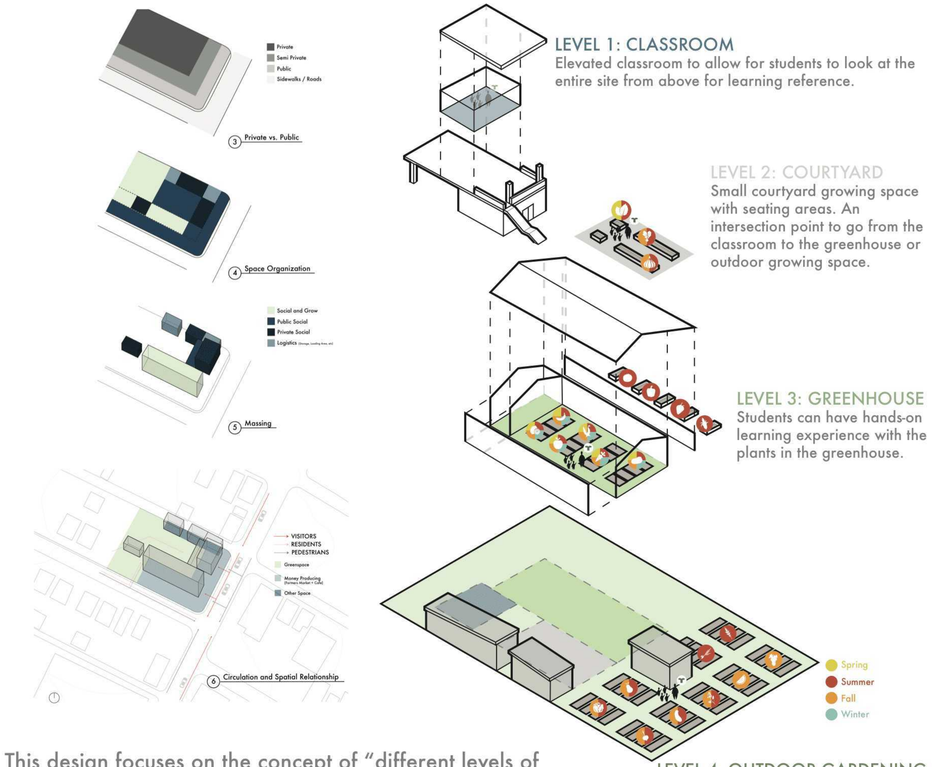
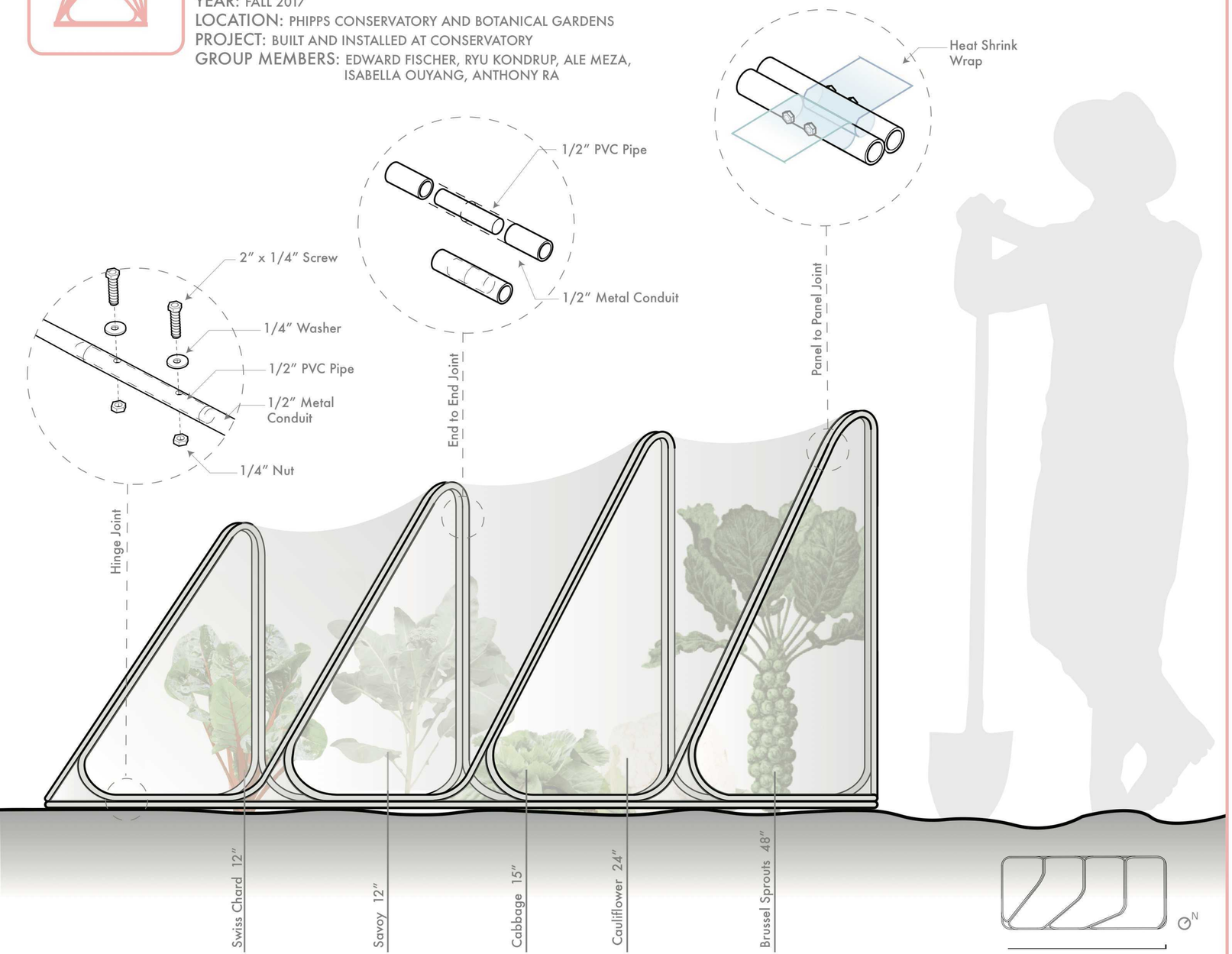


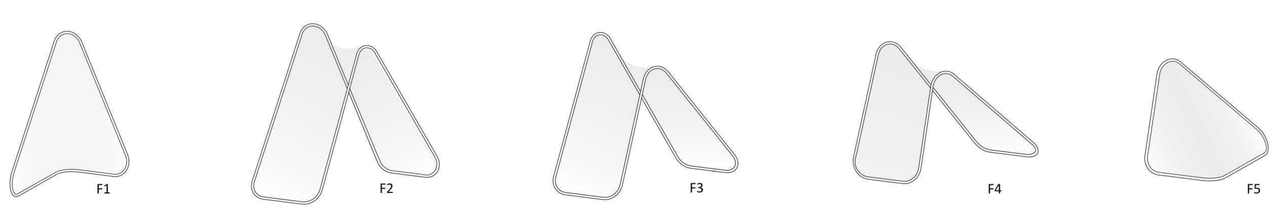
This design focuses on the concept of "different levels of learning" to encourage the children of Homewood to learn different types of growing in different days.

Back View Render

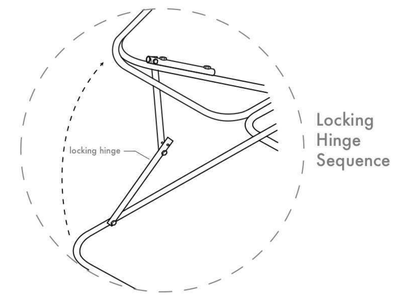
HOOP HOUSE 02

YEAR: FALL 2017
LOCATION: PHIPPS CONSERVATORY AND BOTANICAL GARDENS
PROJECT: BUILT AND INSTALLED AT CONSERVATORY
GROUP MEMBERS: EDWARD FISCHER, RYU KONDRUP, ALE MEZA, ISABELLA OUYANG, ANTHONY RA

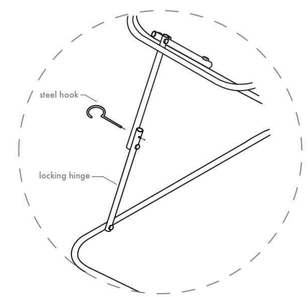


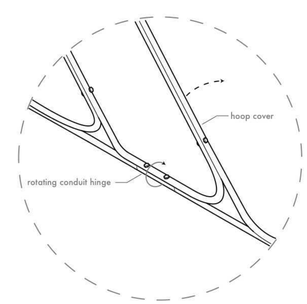


Each group designed a hoop house for the Edible Garden at Phipps Conservatory after being assigned a specific planting arrangement. Our group's planting arrangement was a 16 foot long planting plot that was partially blocked from the sun by a towering building. Key components that had to be kept in mind were: are the plants easy to maintain and water? Is the hoop house to assemble and diassemble seasonally? Will the plants be protected from frost and get enough sunlight?

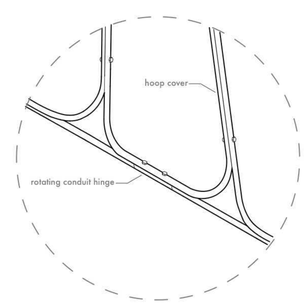


Locking Hinge Sequence





Rotating Hinge Detail



Front View

Open Front View

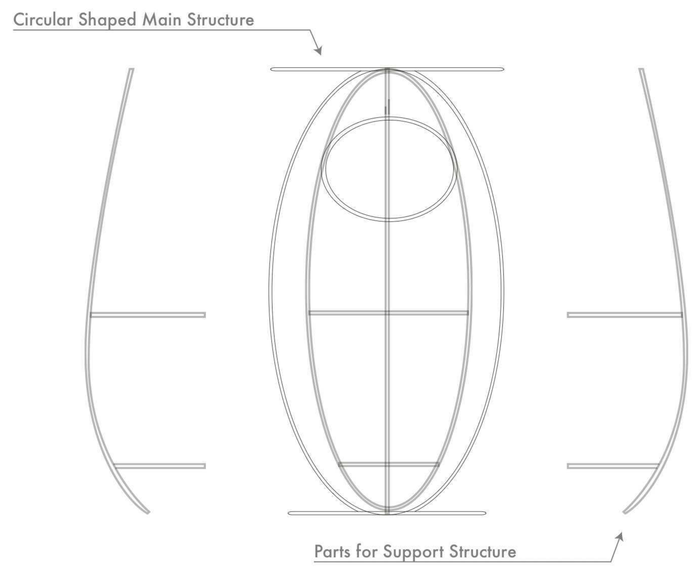
Opening Hinge Detail

The angles of each panel was based on specific angles that were calculated on the sun position at different times of the day and by producing an angle perpendicular to the sun to maximize the sunlight collection through the hoop house surface. The dynamic, gradually increasing size of the hoop house from front to back was designed to house different types of plants since the botanical garden at Phipps grew a wide range of plants.

FOLDED GARDEN 03

YEAR: FALL 2017
LOCATION: PHIPPS CONSERVATORY AND BOTANICAL GARDENS
PROJECT: BUILT AND INSTALLED AT CONSERVATORY
PLANT: PARSLEY

Folded Garden is a project focused on constructing a growing armature to sustain a plant through the season's first frost. Students were given the opportunity to explore different shapes and plant properties that they wanted to take into account when constructing an armature for their given plant. The materials that were given included 0.062" or 0.032" thick wire and heat shrink wrap. This design aimed to create an armature that focused on certain issues that were faced while taking care of the parsley plant during the week. These problems consisted of its vase-like shape and the amount of times the plant had to be maintained. Considering these factors, the design aimed to create an armature that was tall enough to support the height of the plant and have an open area to give a person easy access to the plant's stems, leaves, and roots. The shape of the planter was designed to provide the plant with enough space to freely grow without being too tight.



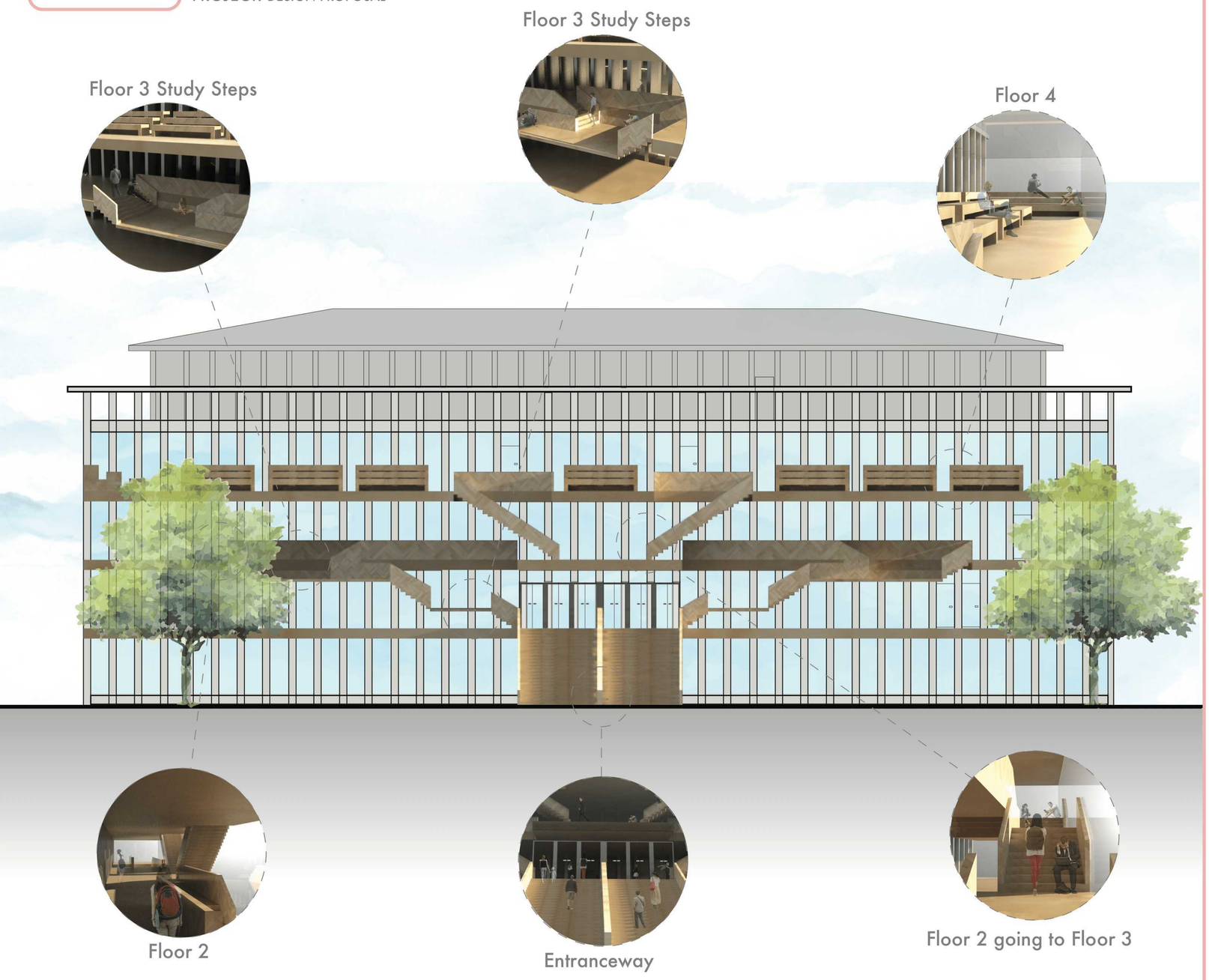
Side Elevation

Front Elevation

Top Elevation

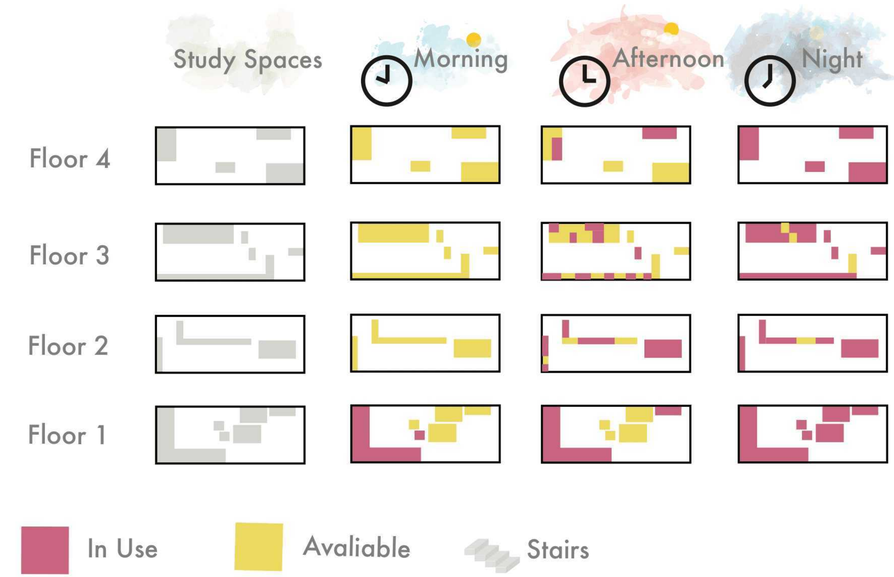
PARASITE 04

YEAR: SPRING 2017
LOCATION: HUNT LIBRARY AT CARNEGIE MELLON UNIVERSITY
PROJECT: DESIGN PROPOSAL

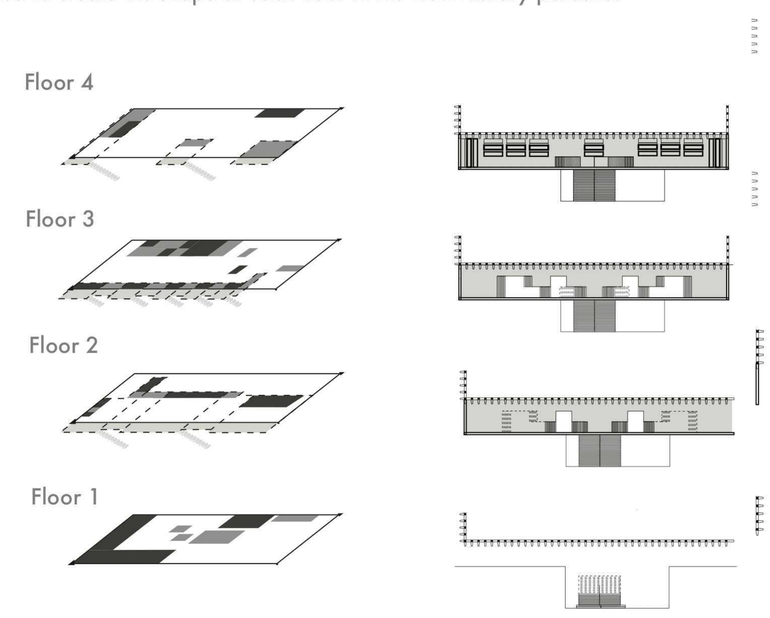


People can use the stairs for both circulationand for study. Each floor has a different program, whether its individual study spaces, group study spaces, or a little bit of both. Circulation increases with all of the stairs that are added improving student conveniency no matter which building they are coming from because of the grand entrance at the very center of Hunt Library.

The design proposal aimed to try and add more study spaces to an existing building, Hunt Library, which is located on Carnegie Mellon University's campus. For my design proposal I tried to create an "ant farm" system to the library to allow people outside to be able to have a sense of what is happening inside through all of the stairs and study spaces that visitors will constantly be moving around.

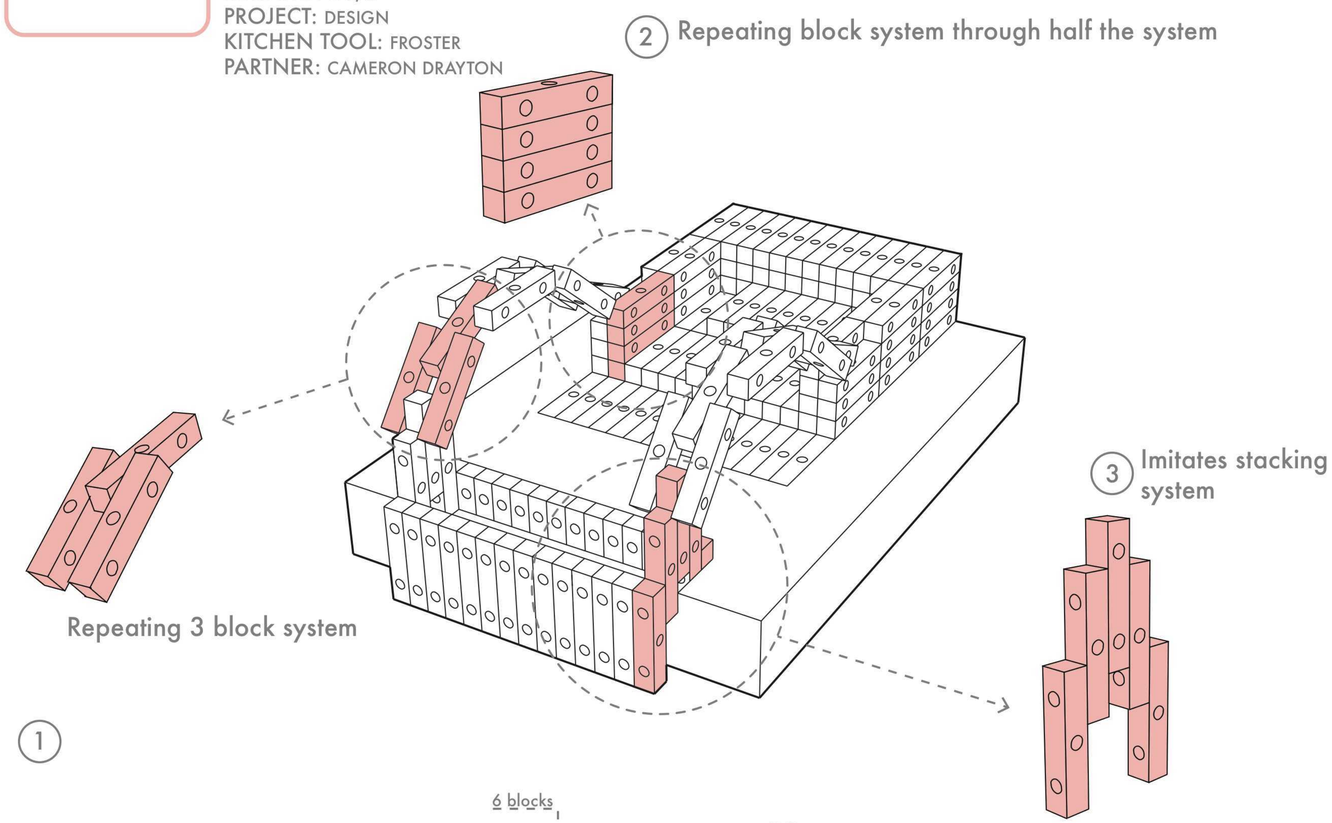


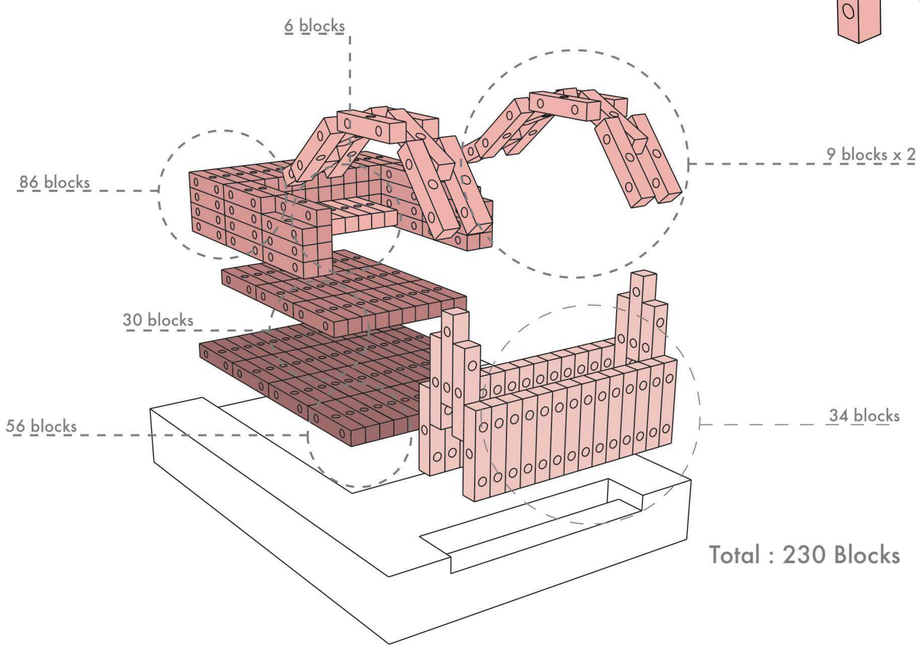
The different study spaces in hunt are used at different times throughout the day, but the most crucial time is the afternoon when students are out and about, going to and from classes. Using that diagram, spaces outside of the library were extruded from those spaces being used and were used to create the shape of each floor in the Hunt Library parasite.



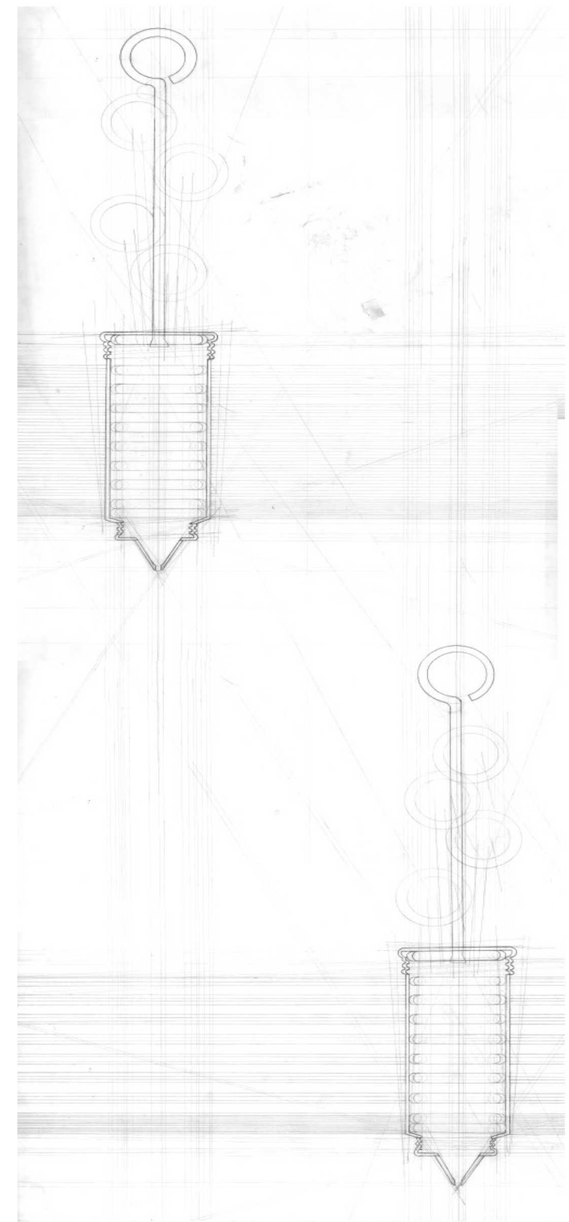
MOTION 05

YEAR: SPRING 2017
LOCATION: n/a
PROJECT: DESIGN
KITCHEN TOOL: FROSTER
PARTNER: CAMERON DRAYTON

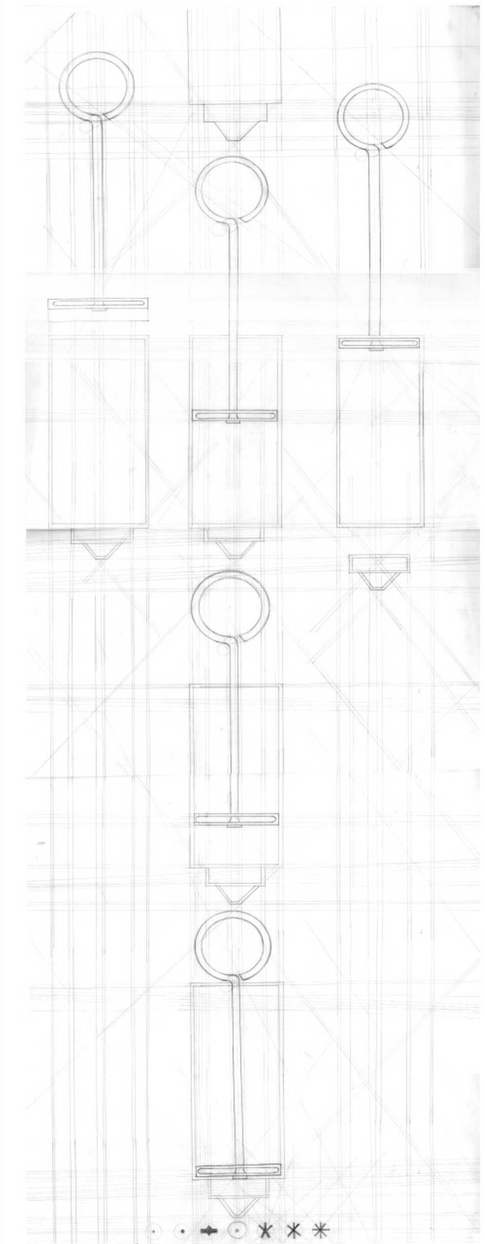




Each student was given a different kitchen tool. After studying the shape of the tool and studying how it moves, students were paired up to try and create a motion model that represented both of their kitchen tools. My partner's tool was a potato cutter. The concept of our model was to make the entire model using the exact same piece repetitively over 200 times. The verbs we were trying to aim for in our model were: layering, splitting, time, and bending. There are two sides to the model to represent the two different kitchen tools, the left represents the froster and the right more rectangular part represents the potato cutter being bridged together with the same sized piece.



Froster Motion Drawing



Froster Object Drawing

CUBE HOUSE 06

YEAR: FALL 2017
LOCATION: LAKE ERIE
PROJECT: DESIGN PROPOSAL

Wedding pavillion proposal that incorporated space and site strategies. The cube (wedding pavillion) is dimensioned at 20′ x 20′ x 20′. Spaces are carved out using 8′ tall hedges that encompass the entire lot. There were several different types of areas that were placed on the site such as: the pavillion entry/arrival space, pavillion ceremony area, pavillion preparation area (upstairs), reception garden spae, meal serving space, restroom, storage space, etc. This design aimed to create a straightforward path for the visitors so that they would be able to directly go from one program to the next.

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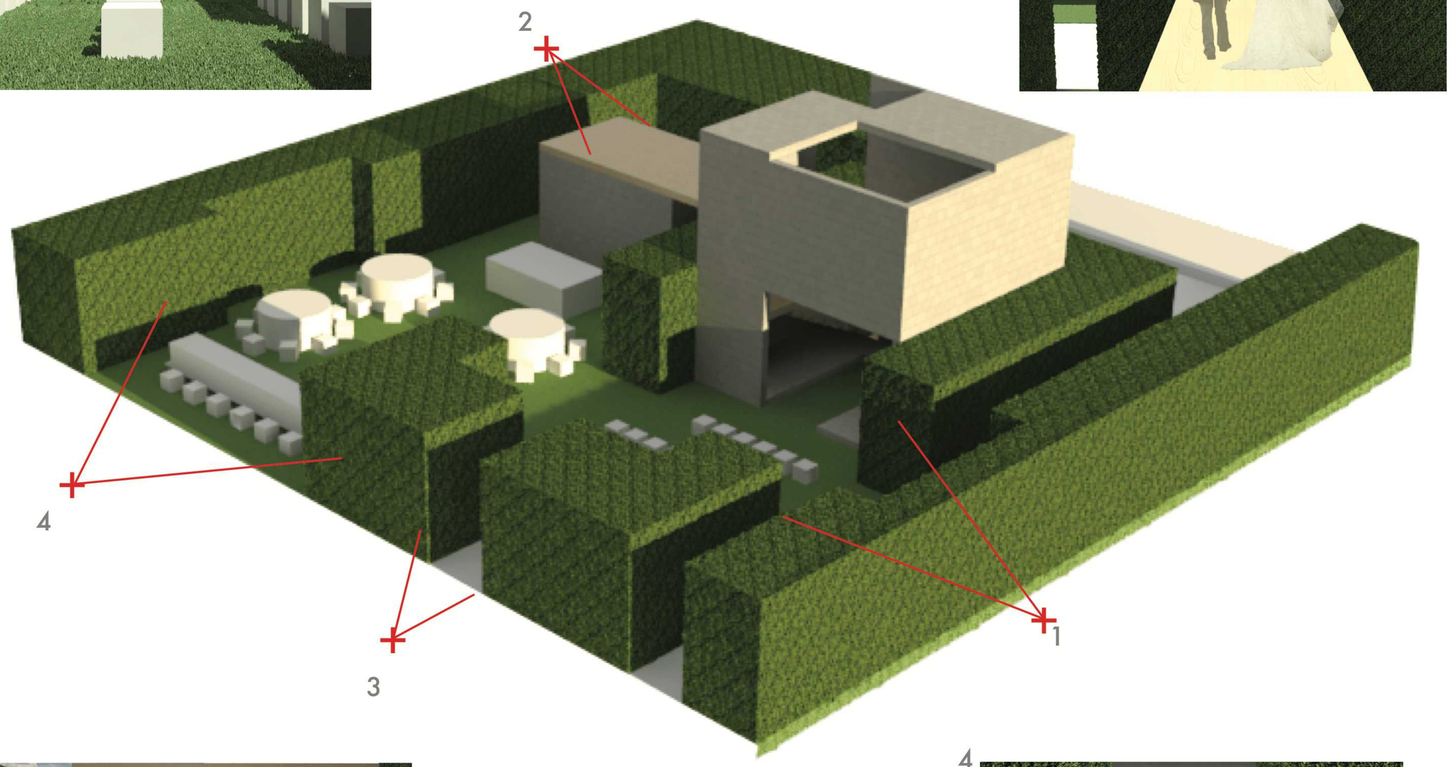

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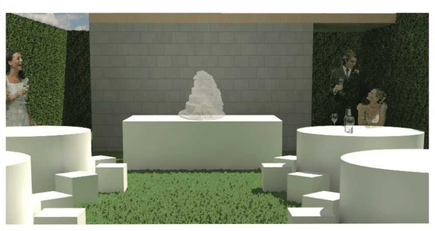
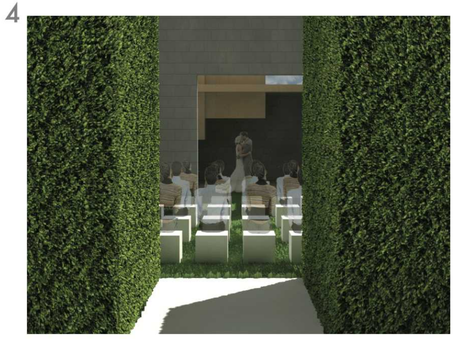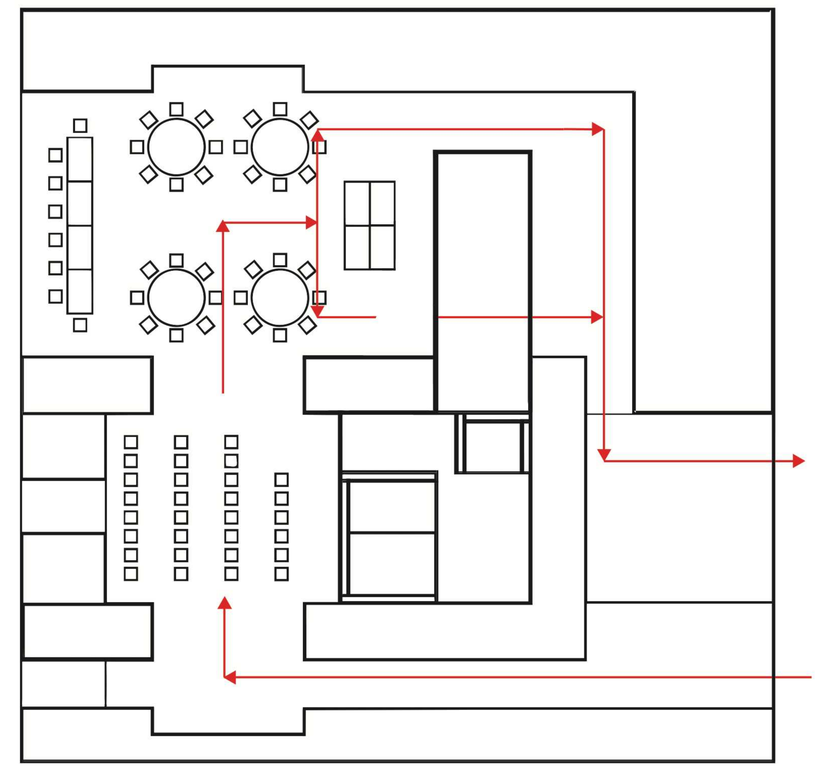
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