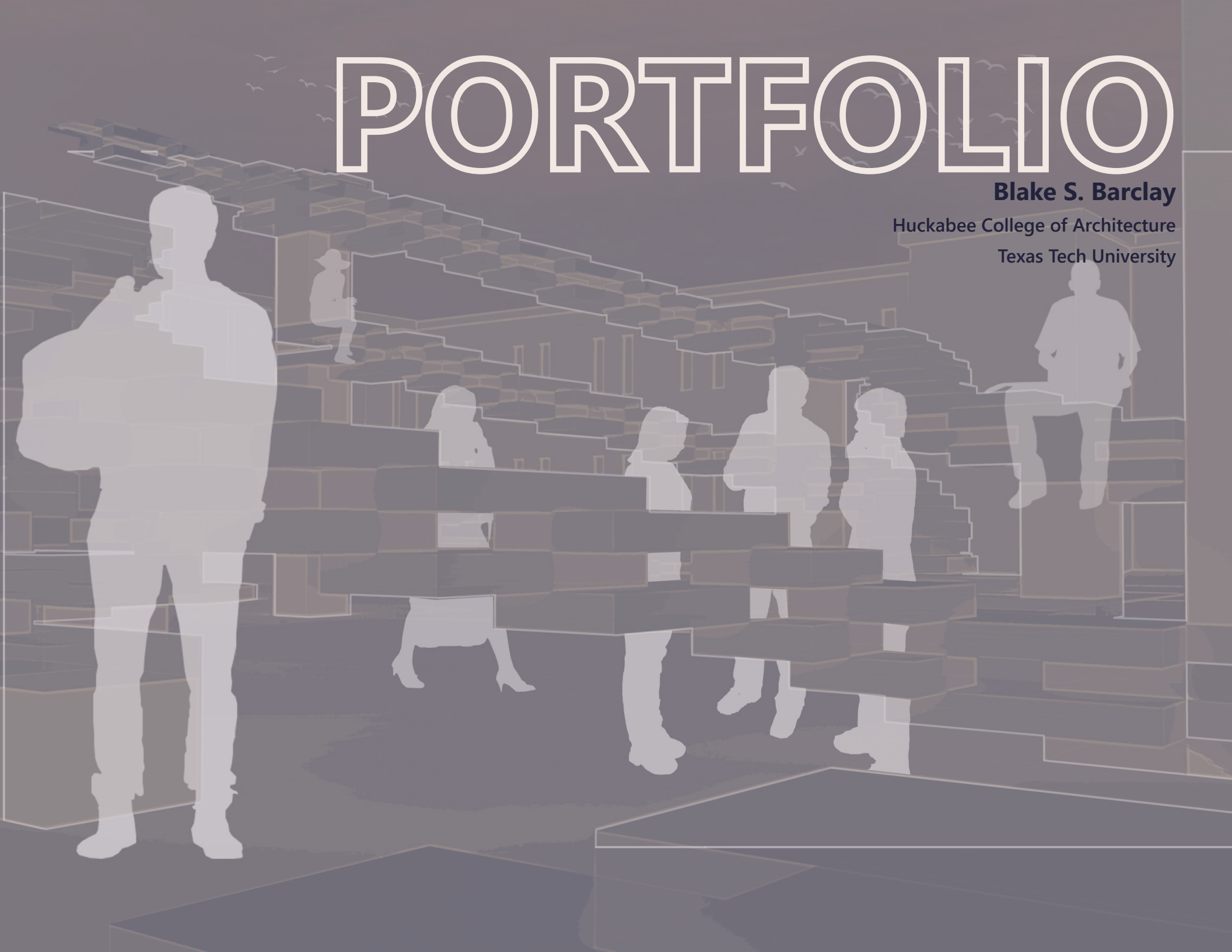


PORTFOLIO

The background of the entire page is a stylized, monochromatic illustration in shades of purple and grey. It depicts a large, multi-level architectural structure, possibly a set of wide stairs or a terraced plaza, composed of numerous rectangular blocks. Several human figures are shown in silhouette, interacting with the space: one person stands on the left holding a bag, another sits on a higher level, and a group of four people stands on a lower level. The sky is filled with small, stylized birds in flight.

Blake S. Barclay

Huckabee College of Architecture

Texas Tech University

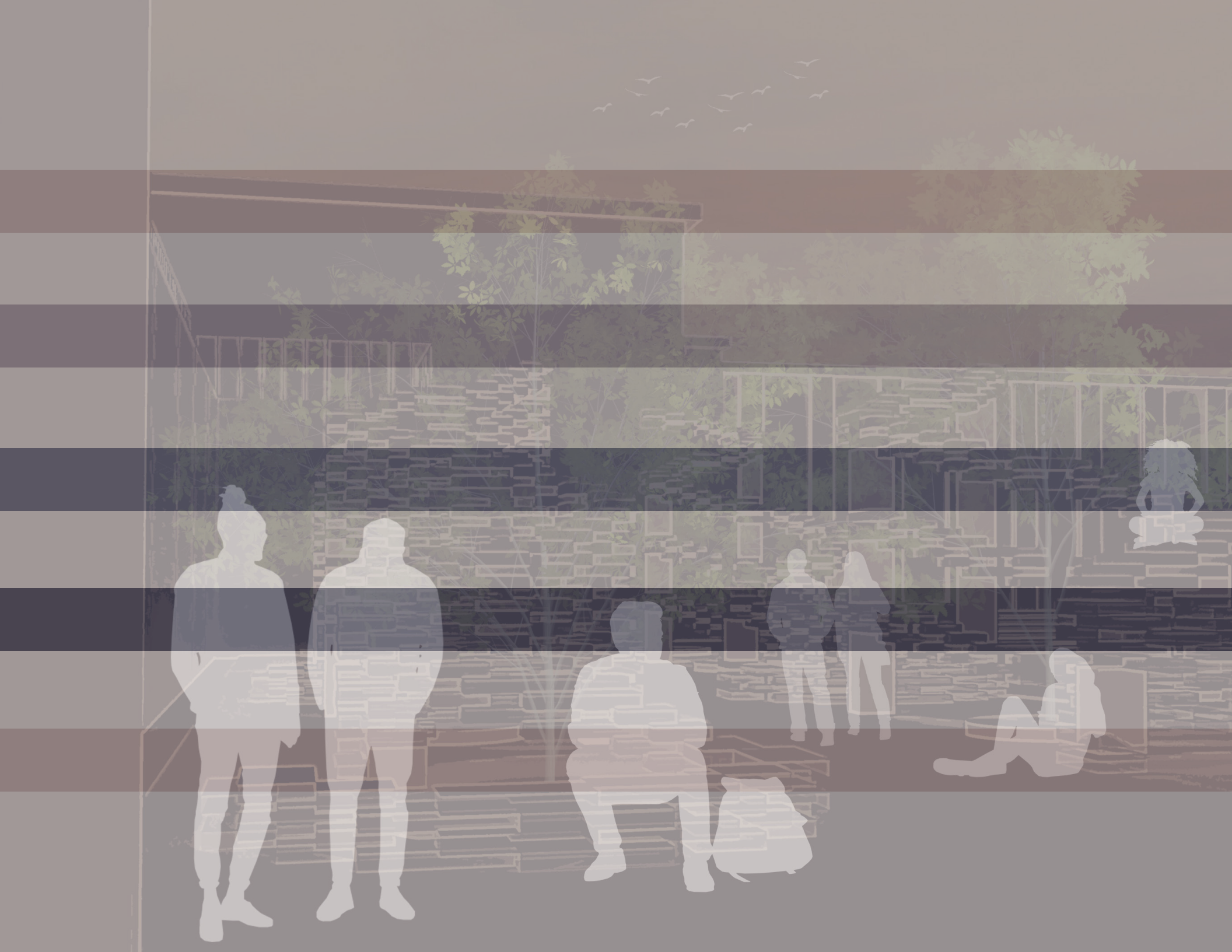
The background of the page features a detailed architectural rendering of a modern courtyard. In the foreground, several stylized human figures are shown in various poses: two standing on the left, one sitting on the ground with a bag, and others further back. The courtyard is filled with lush green trees and plants. In the background, a modern building with a flat roof and large windows is visible. The sky is filled with numerous small birds in flight. The overall color palette is muted, with earthy tones and greens.

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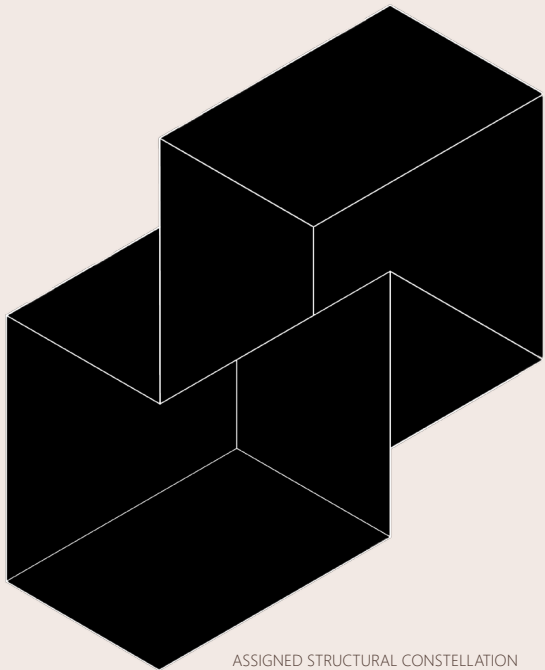
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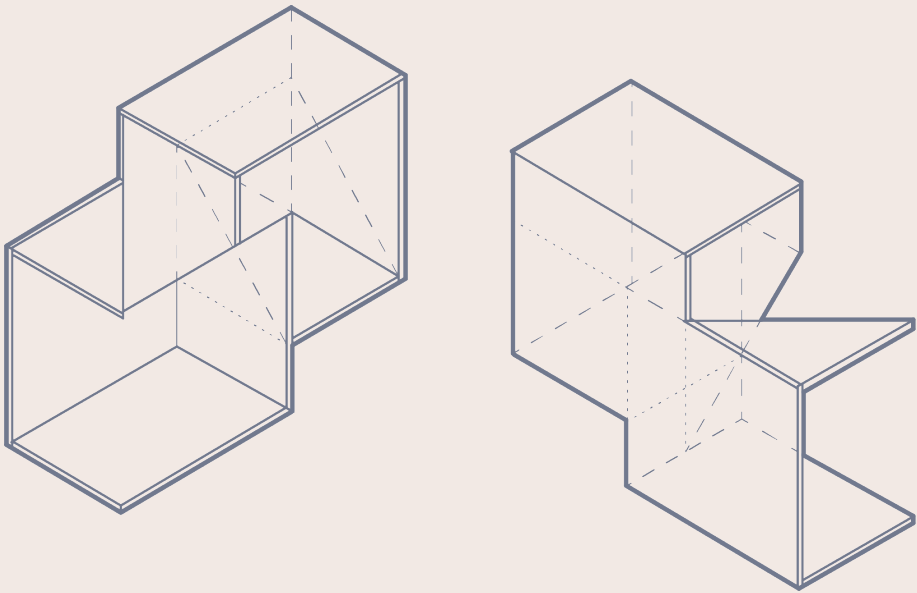
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01. Translating Albers

The Translating Albers phase of ARCH 1301 stems from the works of Josef Albers and the structural constellation. A structural constellation is a two-dimensional rendering of a three-dimensional object. For this project, students were each assigned a structural constellation that they had to “solve.” To do this, the students had to physically create a solution to the constellation and further elaborate with drawings. Shown below are the study model used to develop the solution to my structural constellation.



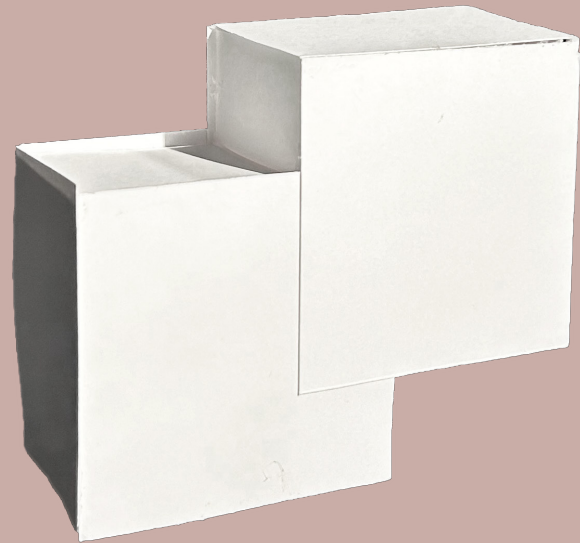
ASSIGNED STRUCTURAL CONSTELLATION



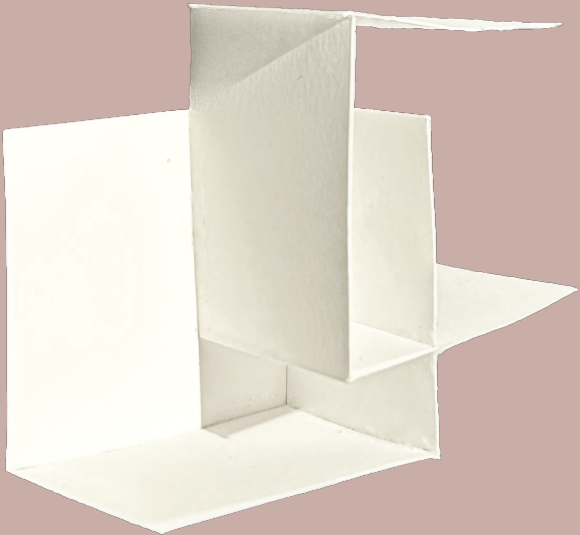
FINAL MODEL ISOMETRIC DRAWINGS
FRONT VIEW (LEFT), BACK VIEW (RIGHT)

Final Model

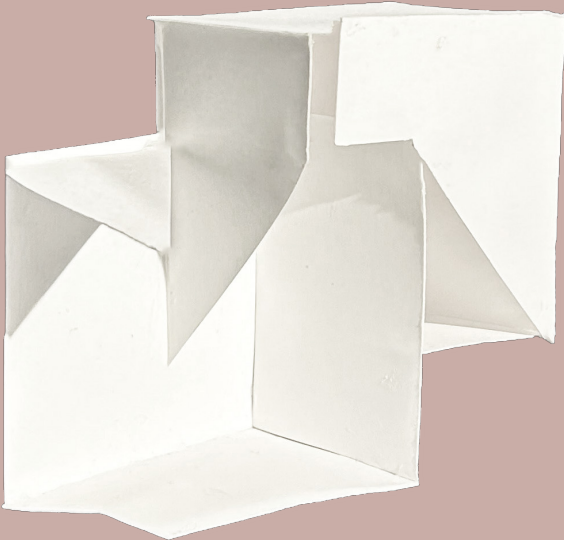
The final model, shown in the bottom left corner, is a complex three-dimensional recreation and solution to my structural constellation. Made of 1/8” museum board, the model is composed of two halves: bottom and top. The bottom is simple in design, with a triangle on top to give the illusion of the original constellation. The top cube is more complex, with multiple odd-shaped faces recreating the original structural constellation.



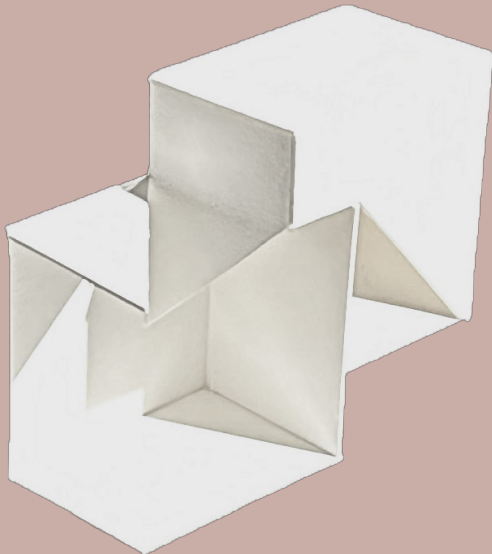
STUDY MODEL 1



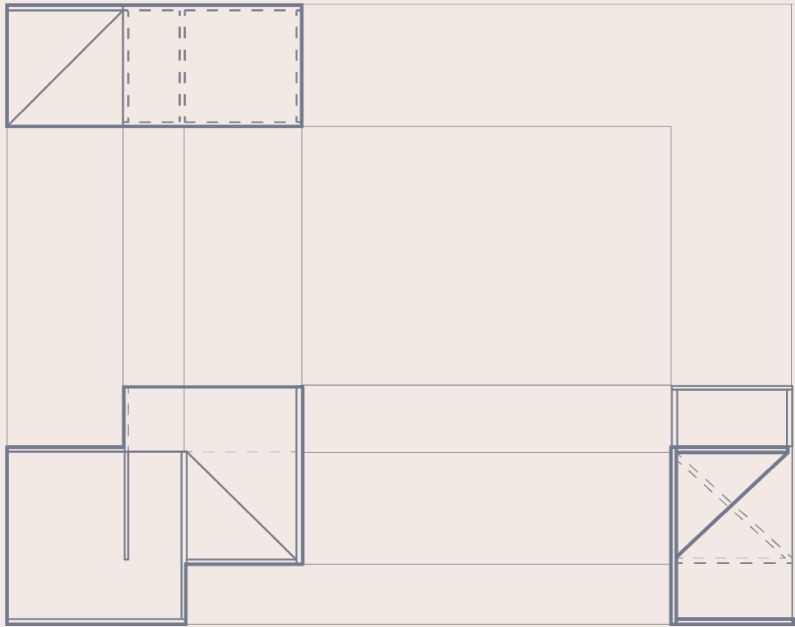
STUDY MODEL 2



STUDY MODEL 3



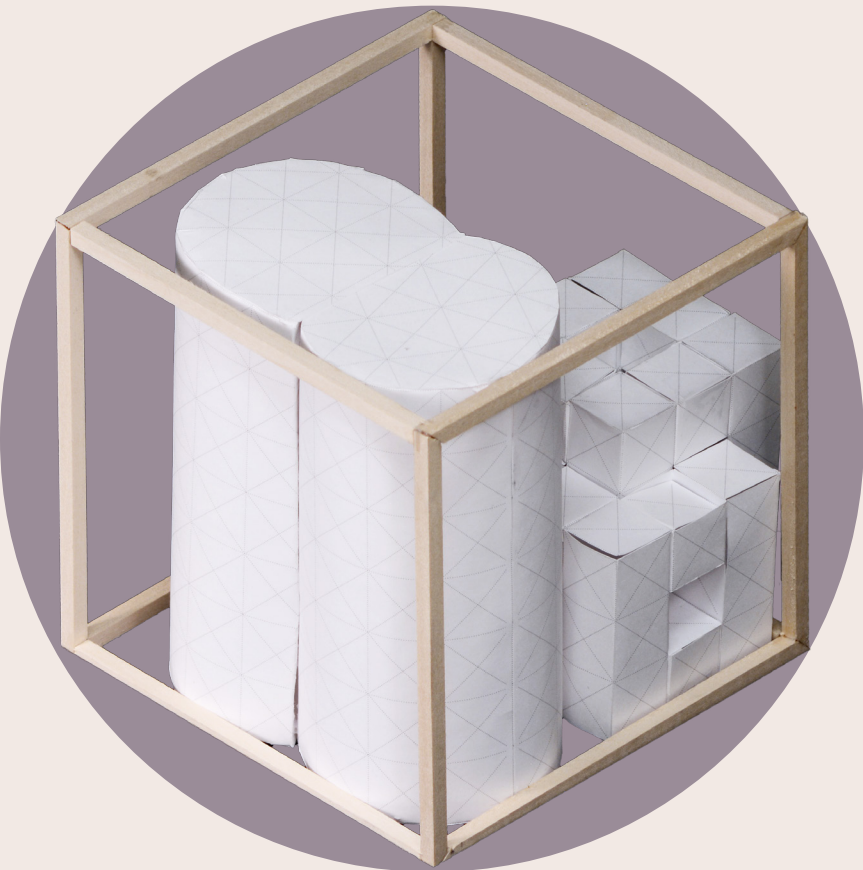
FINAL MODEL IN ISOMETRIC VIEW



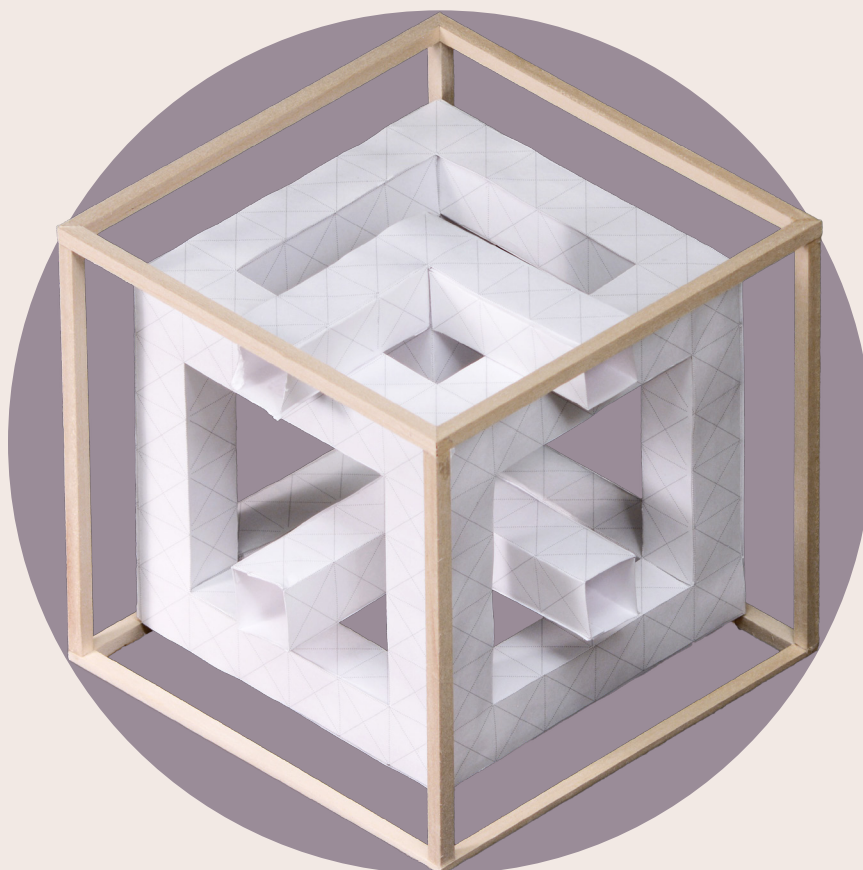
FINAL MODEL ORTHOGRAPHIC DRAWINGS
TOP VIEW (TOP LEFT), FRONT ELEVATION (BOTTOM LEFT),
SIDE ELEVATION (BOTTOM RIGHT)

02. Spatial Relations

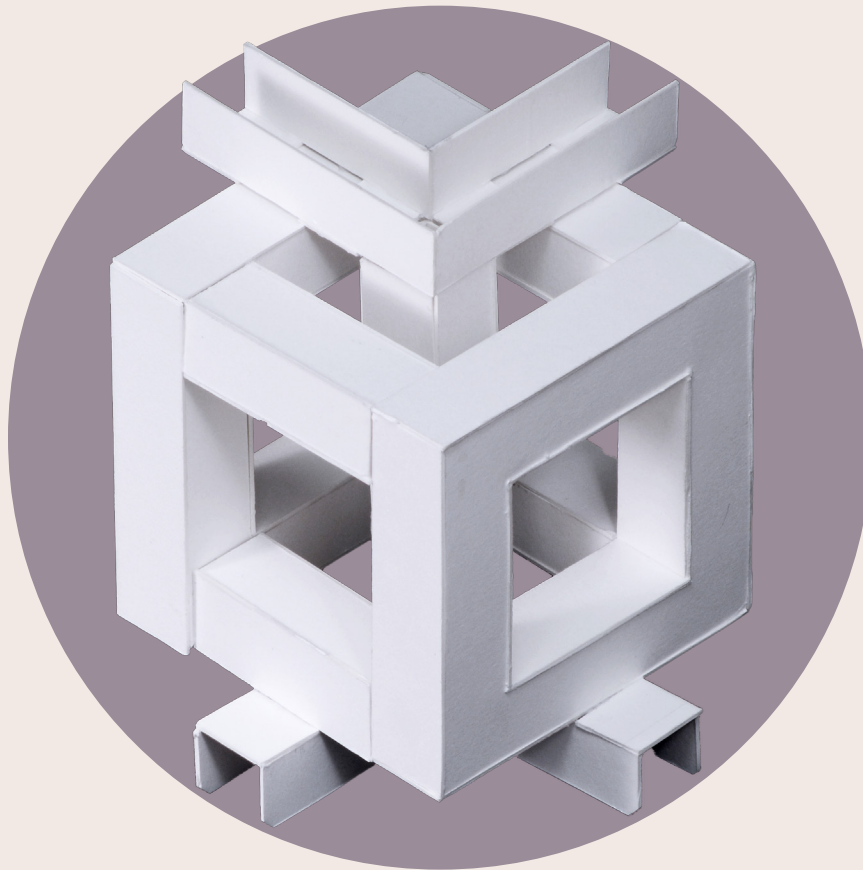
The Spatial Relations/ Vessel Project personifies the spatial qualities of two verbs and their interactions with one another within a 7" by 7" cube boundary. The two verbs I chose for this project were "interlock" and "adjacent." The first phase of this project consists of two frame models. These models were used to gain knowledge and direction before moving on to the vessel models. The concept of these models came from the idea of interlocking wedding bands.



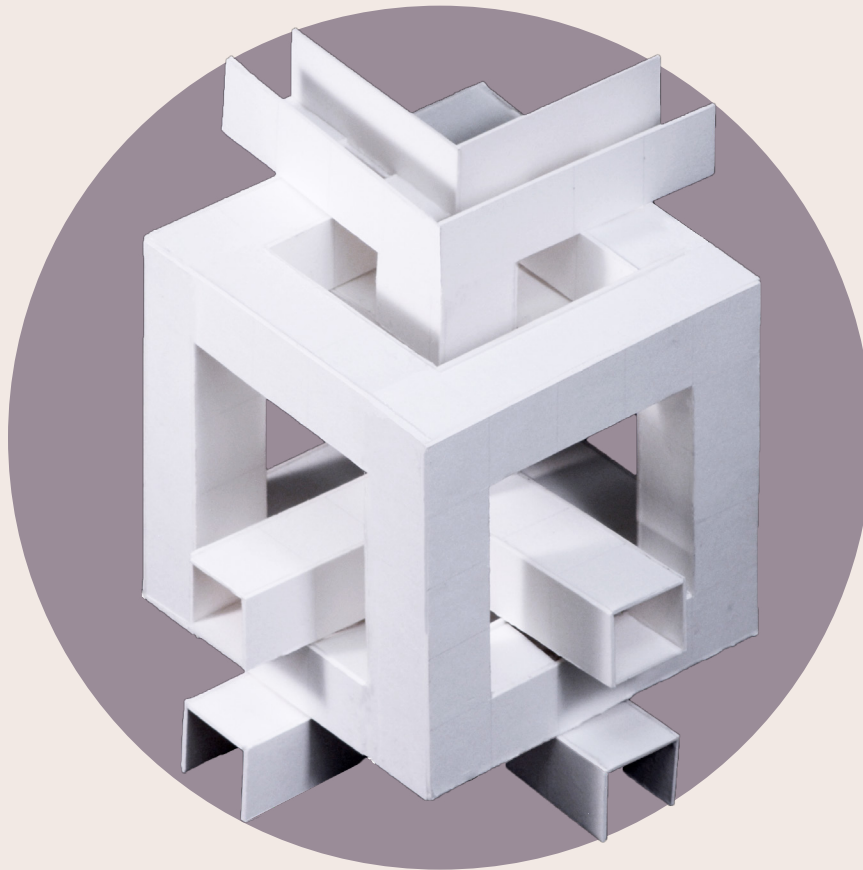
FRAME MODEL 1



FRAME MODEL 2



VESSEL MODEL 1



VESSEL MODEL 2

Vessel 1 & 2

Vessel Model 1 continues the cubic skeleton concept from Frame Model 2; however, the main cubic frame is reduced to 5" by 5" and centered relative to the origin. Additionally, a secondary frame is added that stems from the origin; this frame is mirrored and reflected, happening in both parts of the model. Where the two frames meet or reach the boundary, openings occur. The second and finished vessel model further develops this concept.

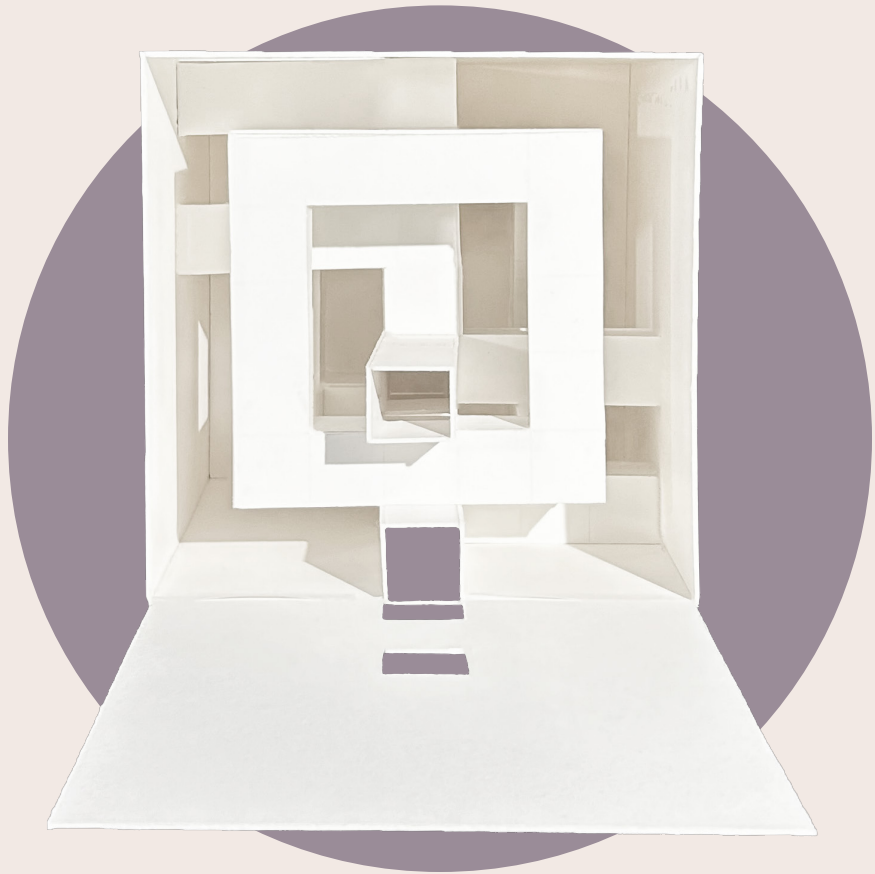
Increased in complexity, the secondary cubic frame is given two additional extrusions; again, this frame is mirrored and reflected across the origin to occur at the bottom and top of the model. The result of the interaction between the two cubic frames creates a complex space of alternating volumes that compress and expand as you explore different parts of the vessel.

Vessel 3 & The Box Model

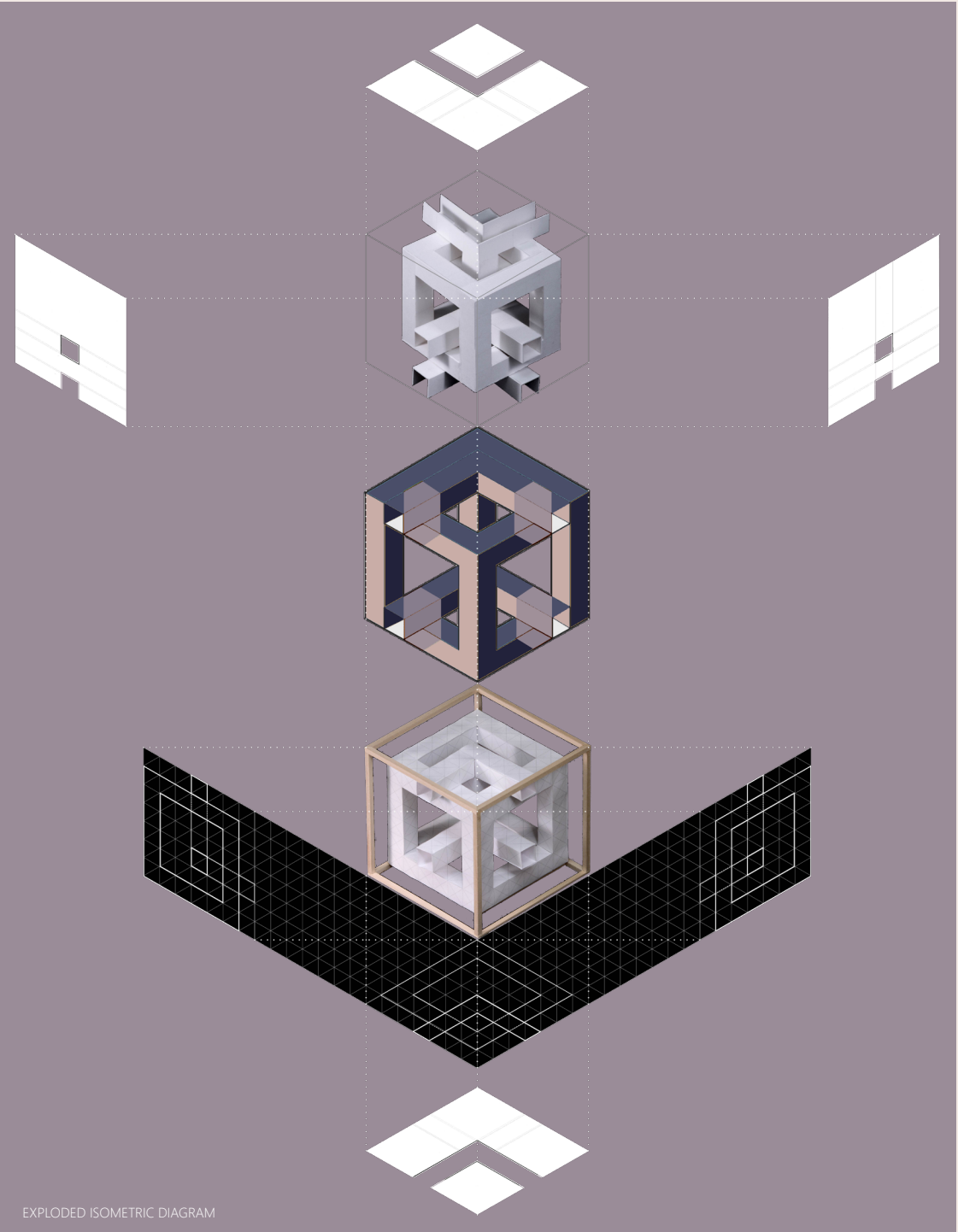
The Box Model is the physical representation of Vessel Model 2 enclosed within the 7" by 7" cube boundary. When closed, you can see into the final vessel through its openings. On the other hand, Vessel Model 3 is the representation of the negative space created by Vessel 2. The Section-Cut Model shows the changing volumes formed from the interaction between the two cubic frames, highlighting the labyrinth-like nature of the model.



VESSEL MODEL 3 (SECTION-CUT MODEL)



THE BOX MODEL, OPENED

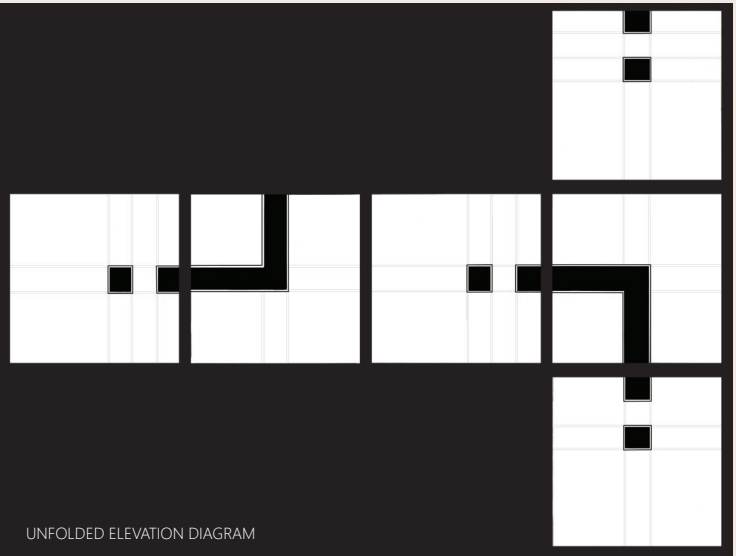


EXPLODED ISOMETRIC DIAGRAM

Exploded Diagrams

The Exploded Isometric Diagram displays the entirety of the design process for the Spatial Relations project. On the very outsides of the diagram are shown the openings of Vessel 2 when against the 7" by 7" cube boundary. At the bottom of the diagram, Frame Model 2 and its corresponding elevations are shown; above this is a diagram depicting the interaction formed between the two cubic skeletons of Frame Model 2. The finished Vessel Model 2 is found above this diagram.

The Unfolded Elevation Diagram shows the openings of the vessel relative to its 7" by 7" cube boundary. These elevations are also present on the Box Model.



UNFOLDED ELEVATION DIAGRAM

03. Occupation & Collage

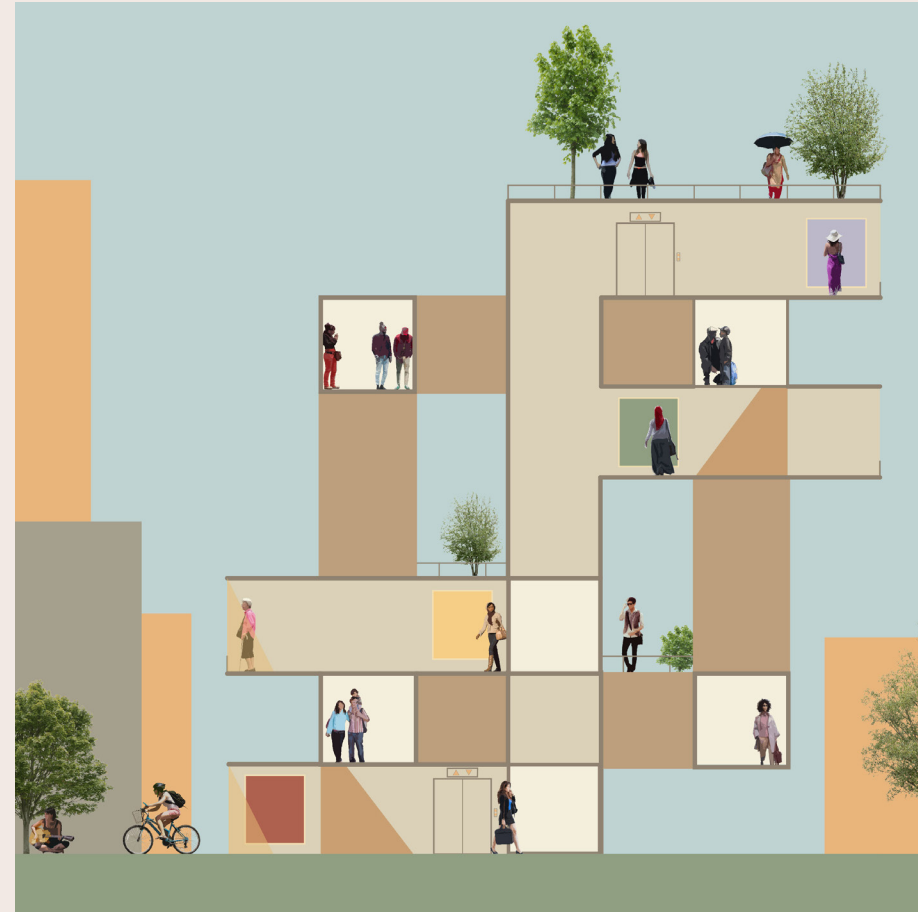
Inspired by the previous Spatial Relations phase, this project involves taking Vessel Model 2 and turning it into an occupiable space through collage. Through these collages, Vessel 2 is envisioned to be a public art gallery.

Placed in an urban park or setting, people have the opportunity to view paintings, art exhibitions, or use the space for social gatherings. Patrons are encouraged to explore the elaborate structure while enjoying the greenery and unique instances of lighting.

Patrons are given many hallways and corridors to explore throughout the space. Elevators and stairs are strategically placed to help people navigate this maze-like structure. Trees and shrubs can also be found in and surrounding the space.



INTERIOR PERSPECTIVE COLLAGE, VESSEL MODEL 2



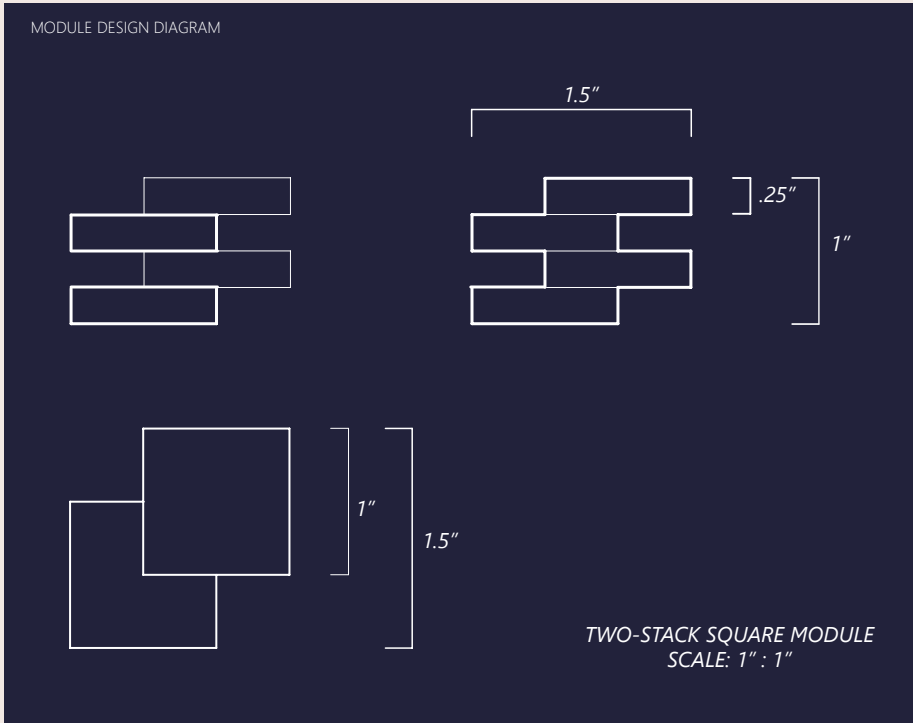
ORTHOGRAPHIC SECTION-CUT COLLAGE, VESSEL MODEL 2



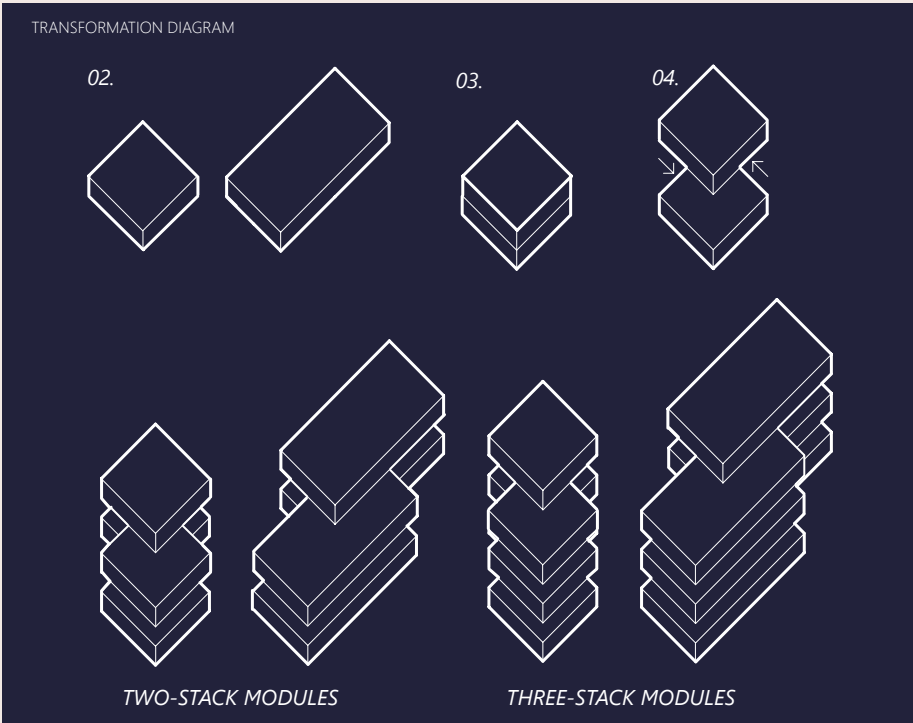
EXTERIOR PERSPECTIVE COLLAGE, VESSEL MODEL 2

04. Aggregates & Modularity

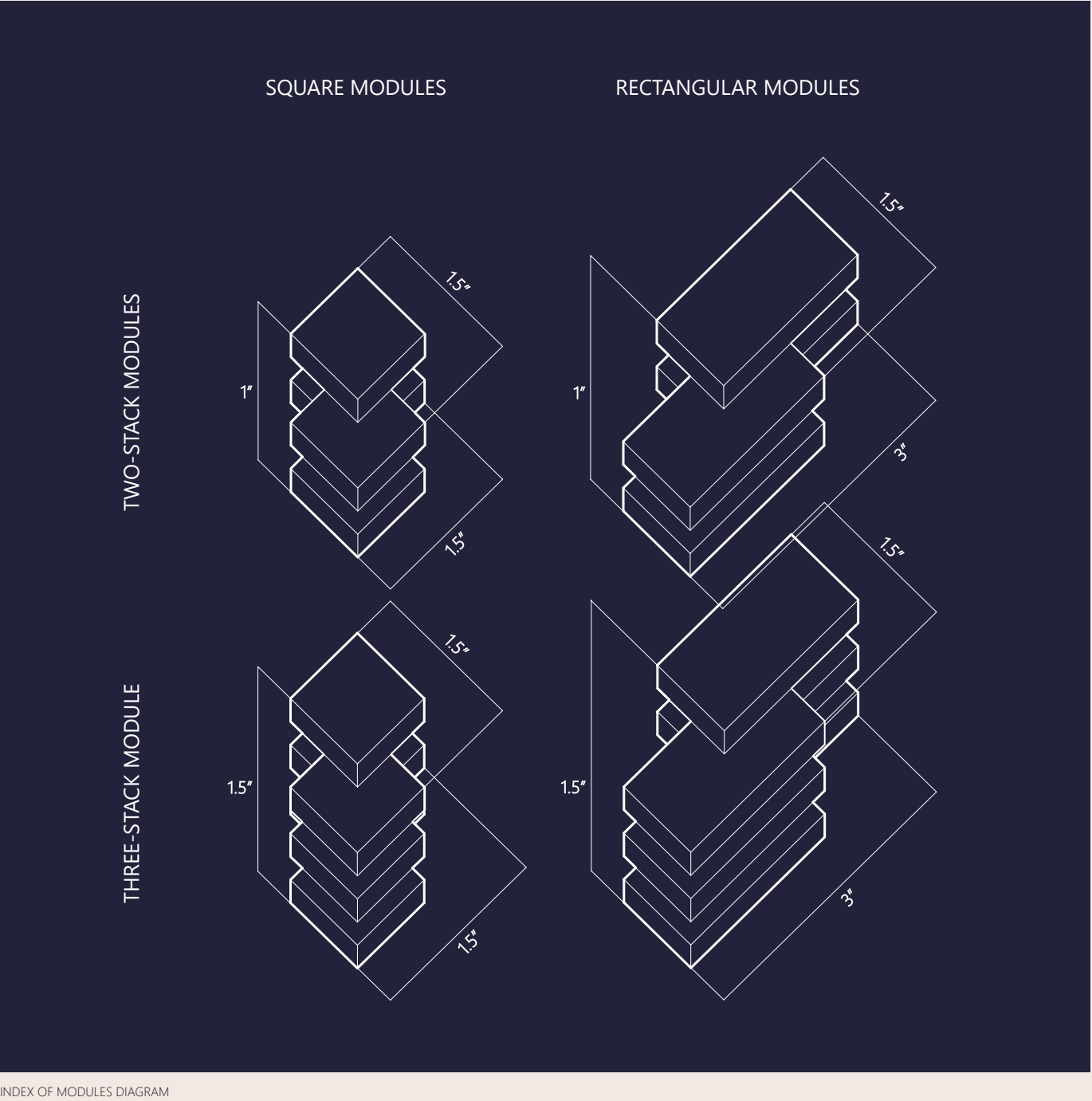
The Aggregates & Modularity Phase of ARCH 1302 involves designing and constructing a modular system. For this phase, my method of aggregation was tiling and layering. There are several iterations of my module, falling into two categories: square/rectangular and two/three-stack modules. The Module Design below shows the dimensions of a two-stack square module. The Transformation Diagram shows the process of creating each module and each resulting module. The steps of transformations are shown to the right.



- Steps of Module Construction:**
- 01. Cut sheet of acrylic into 1" by 1" or 1" by 2" tiles (all tiles are .25" thick).
 - 02. Set tiles aside to begin process.
 - 03. Place another of the same tile on top of previous tile.
 - 04. Shift top tile (shift depends on tile type) and glue with adhesive.
 - 05. Repeat steps 02-04 and glue together.
 - 06. Repeat steps 02-04 twice for two-stack module and three times for three-stack module.

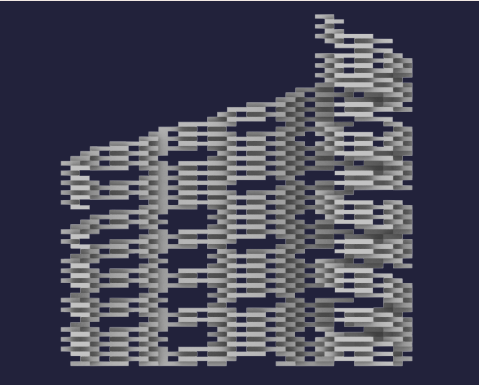


The Index of Modules shows the four iterations of modules and their respective dimensions. The different variations ensure a unique and interesting interaction between modules in terms of aggregation and through material. Modules are composed of several shades of blue and clear acrylic; this creates a gradient of shades and captivating interaction with light.



Final System

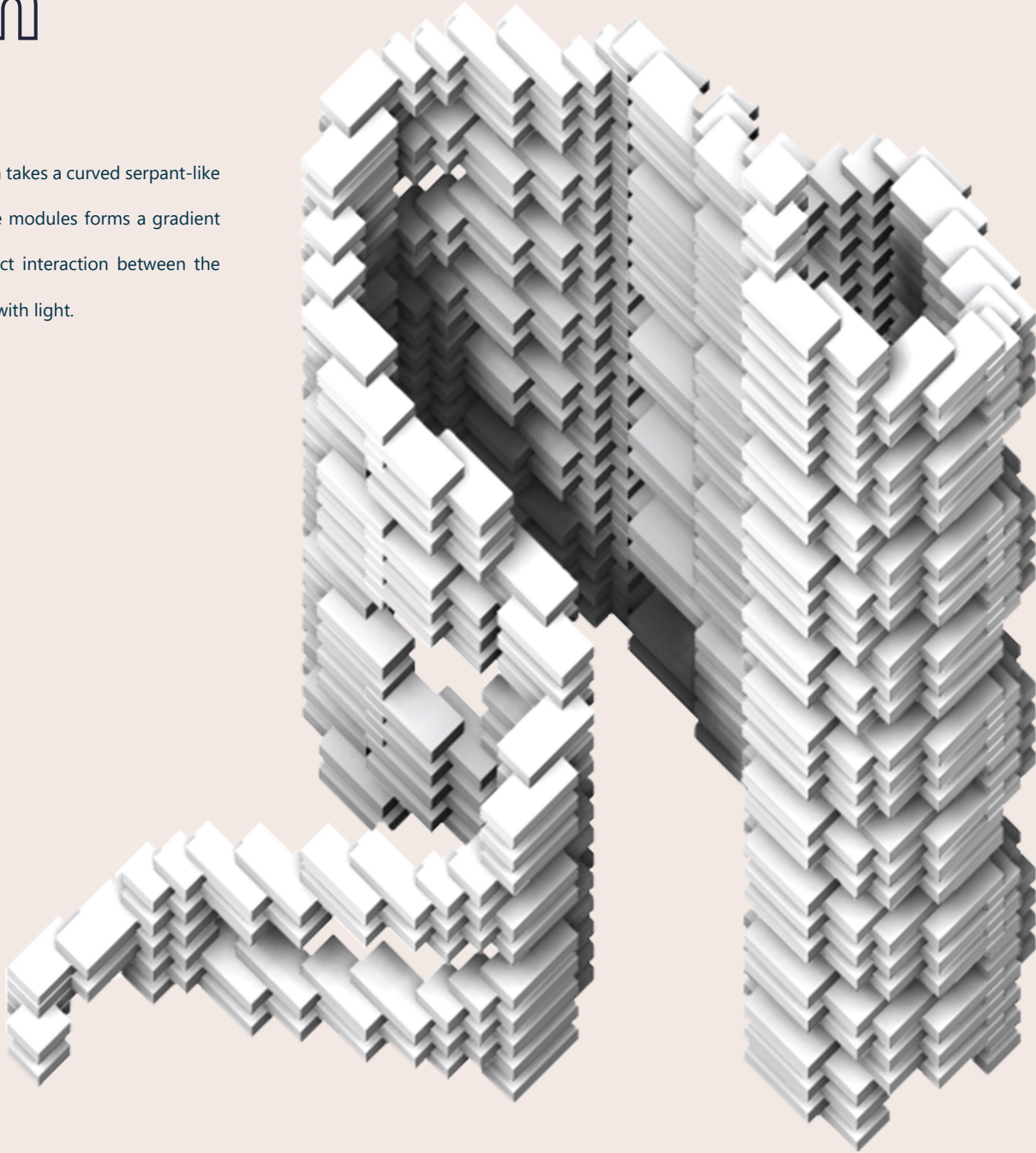
The Final System is a complex and unique modular system. The system takes a curved serpant-like shape composed of rectilinear modules. The interaction between the modules forms a gradient of apertures, as shown from the Section-Cut Rendering. This distinct interaction between the modules and materiality creates an illuminating effect within contact with light.



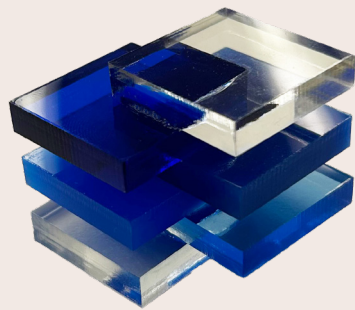
FINAL SYSTEM SECTION-CUT RENDERING



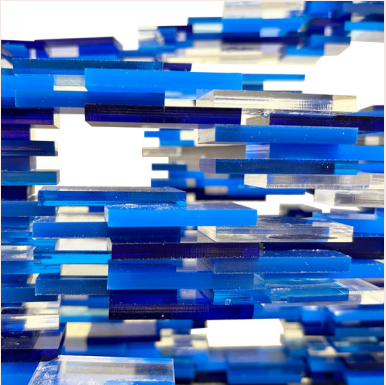
FINAL SYSTEM AERIAL TOP VIEW RENDERING



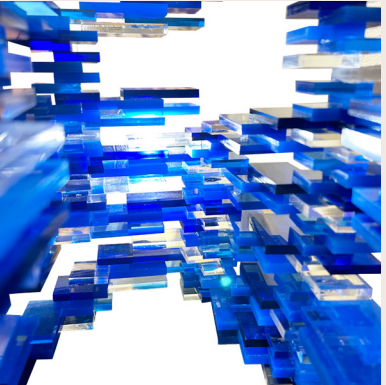
FINAL SYSTEM AXONOMETRIC RENDERING



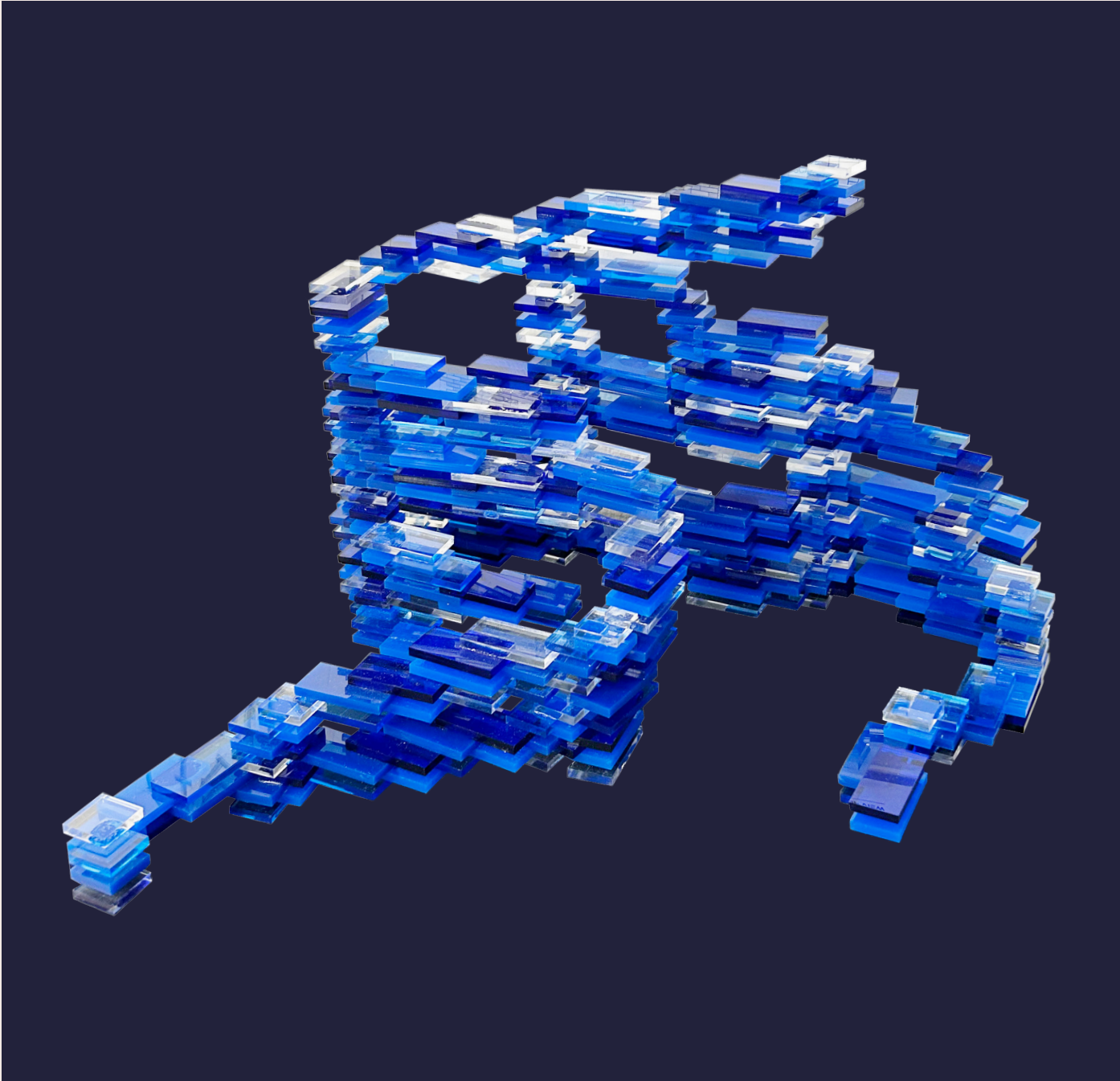
THREE-STACK SQUARE MODULE



FINAL SYSTEM MODEL FACADE



FINAL SYSTEM MODEL FACADE, ILLUMINATED



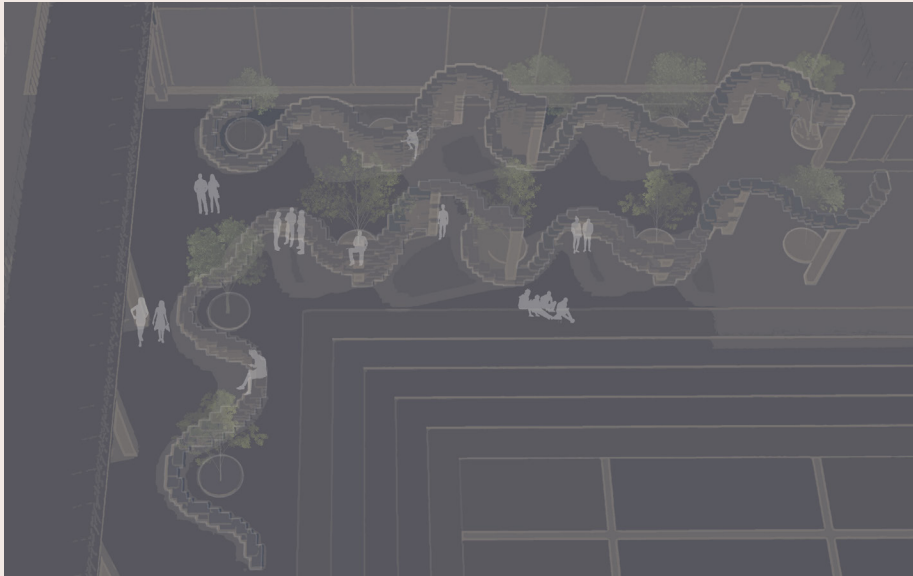
FINAL SYSTEM MODEL

05. On Scale, Site, & Use

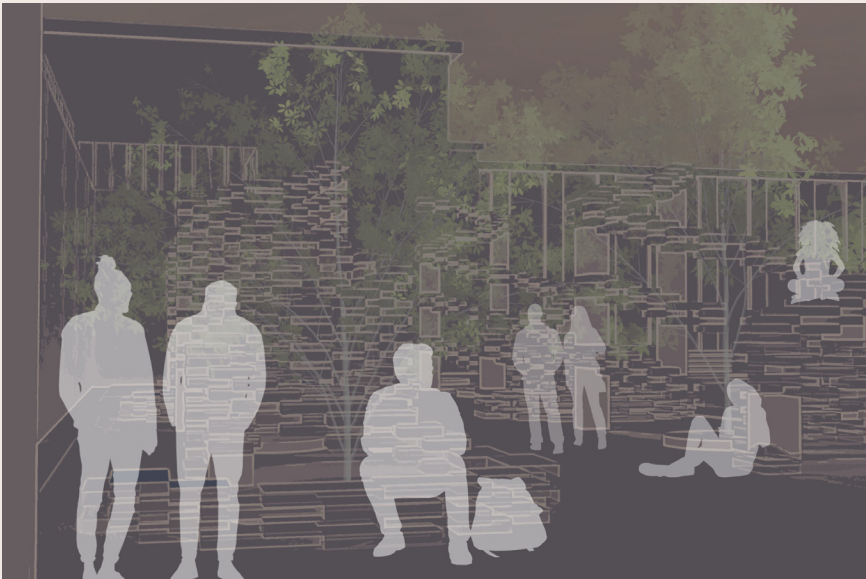
The On Scale, Site, & Use Phase of ARCH 1302 is a continuation of the previous phase. Students were tasked to construct a pavilion using the same modular system from Phase 3. The site for this pavilion is the Huckabee College of Architecture courtyard.

Several elements were modified when designing the pavilion- most notably, the facade of the walls. The facade closest to the steps is thin, while the facade near the wall is thick; this creates two different types of spaces: public and private. The private areas can be used for more discreet, intimate activities, while more casual activities can be done in the open space.

The height of the pavilion changes throughout the facade, allowing opportunities for seating both in high and low places. Depending on the time of day, people may also utilize the placement of trees and the facade for shade or to avoid weather conditions.



FINAL PAVILION COLLAGE - AERIAL PERSPECTIVE



FINAL PAVILION COLLAGE - EXTERIOR PERSPECTIVE



FINAL PAVILION COLLAGE - INTERIOR PERSPECTIVE



SECTION MODEL, SIDE VIEW

The pavilion space can be utilized in many ways. It can be used as a space for public events and formal gatherings, such as orientation or student exhibitions. The pavilion can also be used for more casual purposes, such as a study space or a place for students and faculty to get some fresh air in between classes. The circular planters found throughout the pavilion help to provide shade and shelter from the natural elements.

The section model depicts the use of modules for seating and use of greenery. The tree at the center of the model provides shade while vines can be weaved in between modules to increase the foliage.

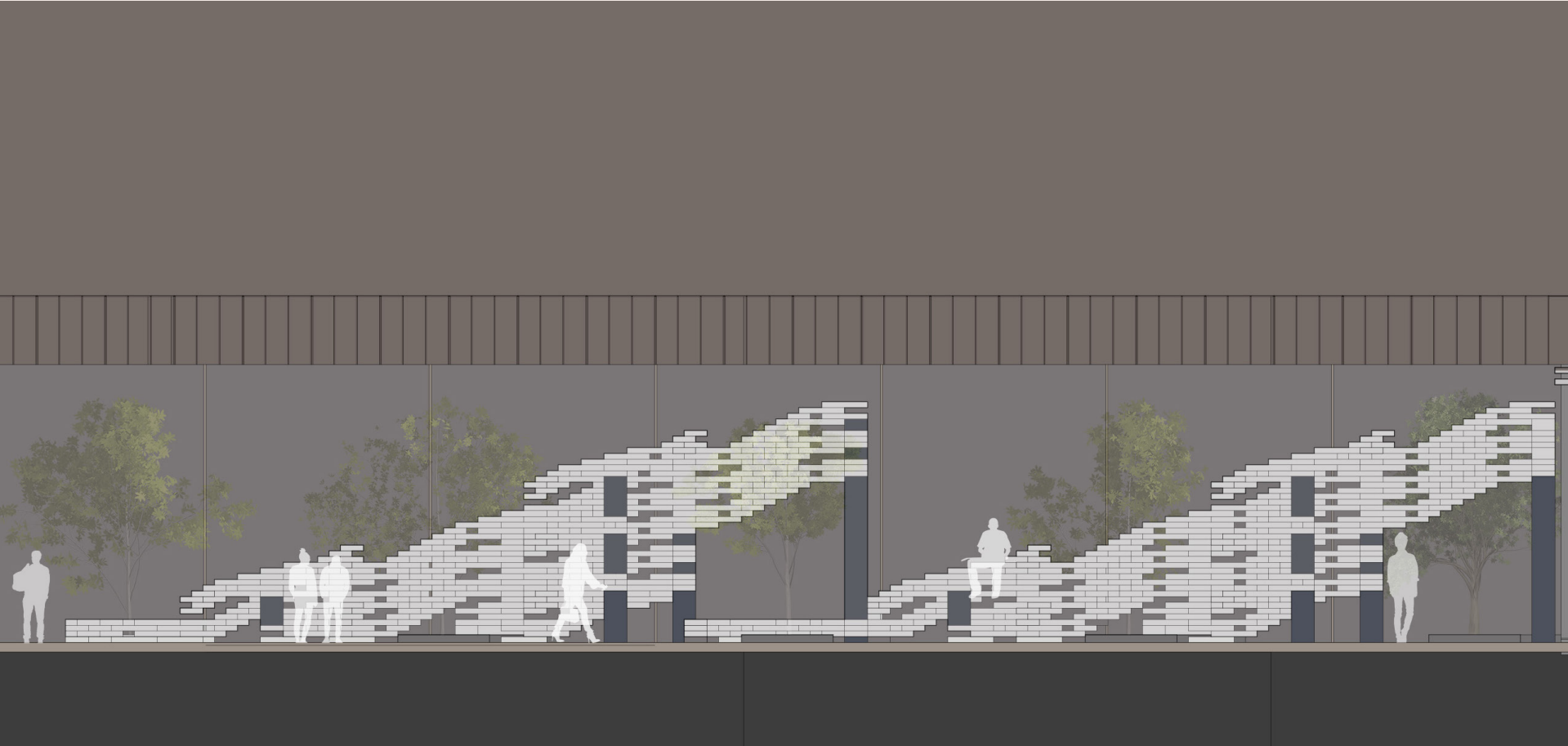


SECTION MODEL, FRONT VIEW

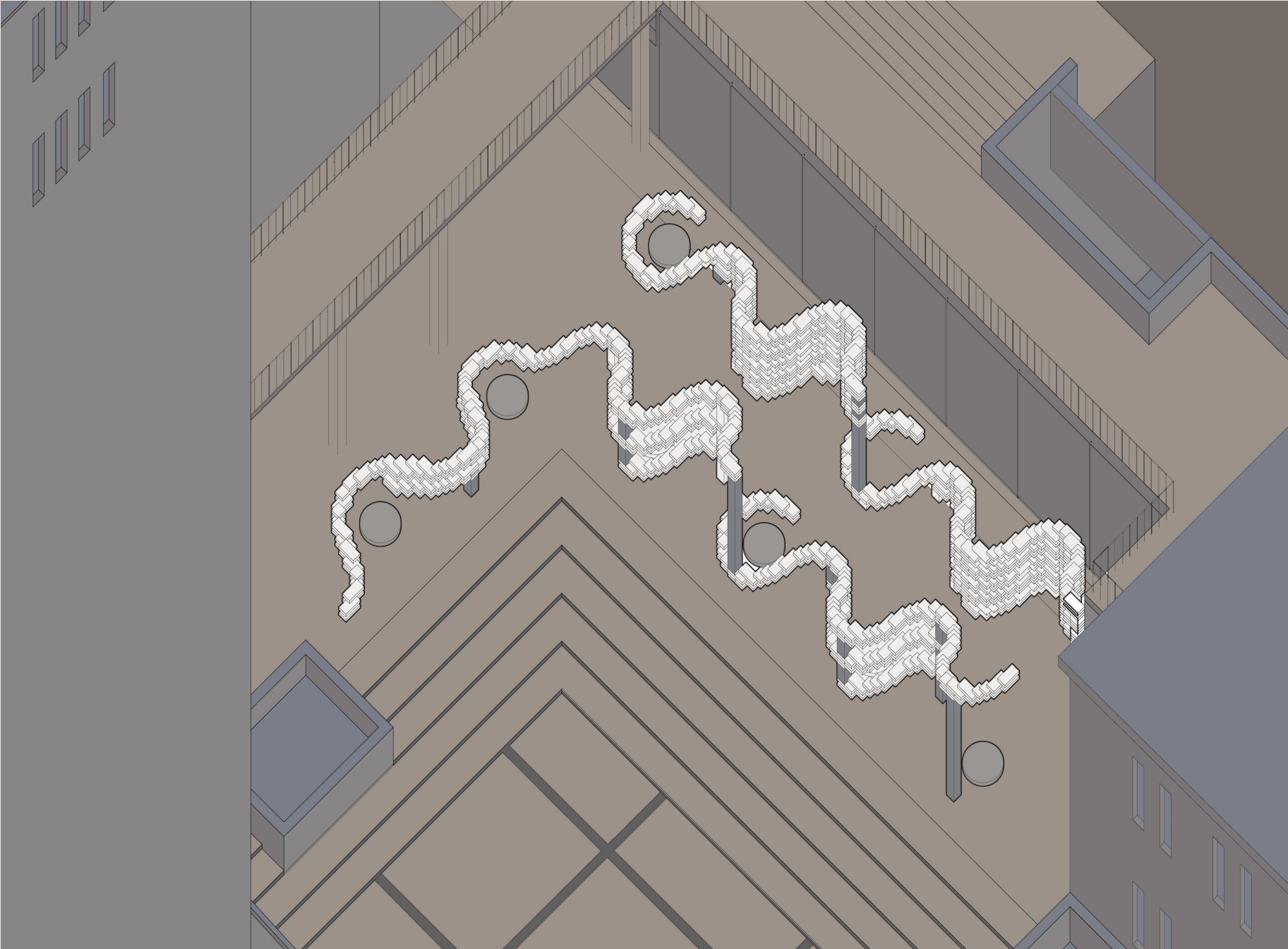
Hills & Valleys Pavilion

I chose to name to name this project The Hills & Valleys Pavilion. The name is derived from my experience as a college freshman and from life, where change is constant and consistent. These changes, both good and bad, **high and low**, are inevitable. The design choices also reflect this name with the repeated use twists and turns of the pavilion facade and change in elevation.

The Section-Cut Diagram displays the utilization of the pavilion space. Students can sit, rest, or study in the more intimate sections; in the more open spaces, people can converse with friends, take a stroll, or simply enjoy the outdoors without physically leaving the college. The Axonometric Diagram, displayed on the right, shows the overall layout of the final pavilion.



SECTION-CUT DIAGRAM



FINAL PAVILION AXONOMETRIC DIAGRAM

