architecture portfolio

STUDIO | DESIGN COMMUNICATION | ENVIRONMENTAL TECHNOLOGY





YEAR 01

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YEAR 01

exploring ideas

"starting over is not a sign of failure, but a sign of courage and a willingness to strive for something better." - unknown

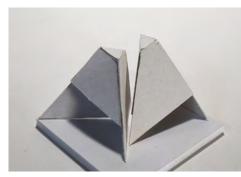
STUDIO I | SCHLEIFER YEAR 01 | FALL 2021

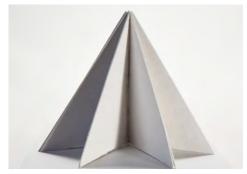
OBSERVATIONS

DRAWING TECHNIQUES

KENNESAW STATE UNIVERSITY, MARIETTA









Contour Drawing, Hand-Drawn with Pencil; Study Model, Hand Cut; Study Model, Hand Cut; Final Model, Hand Cut

In Studio I, our first module taught us to use our eyes, minds, hearts and hands to draw what we see and not what we think we see. This module aimed to develop our ability to see the environment through different filters and techniques - mainly drawing and modeling. These filters are the basic elements through which a designer perceives, thinks about, and thinks through the world: lines, planes, and light/shadows. This module was meant to stimulate the ability to produce drawings and models as a way to analyze the world in visual and verbal terms, not simply a representation of the world.

CONTOUR DRAWINGS

For the first part of the model, we worked on continuous contour and regular contour drawings. The goal of this section was to learn to draw what you see and not what we thought we saw, improve our observational skills by looking at the lines, shapes, and patterns of objects and how they combine to form what we see, improve eye-hand coordination, see the world exclusively as lines, and to develop the ability to distinguish a good drawing from a bad.

GESTURE DRAWINGS

The second part of the module was learning how to create gesture drawings. We were introduced to "gesture" lines to capture motion, weight, mass and essence. This also introduced us to the notions of solid/void, form, and metamorphosis, how to document the human body as an object and in motion, and document environments as objects and in motion.







Gesture Drawing, Hand-Drawn with Charcoal; Final Models, Hand Cut







Tonal Drawing, Hand-Drawn with Charcoal Pencils; Final Models, Hand Cut

TONAL DRAWINGS

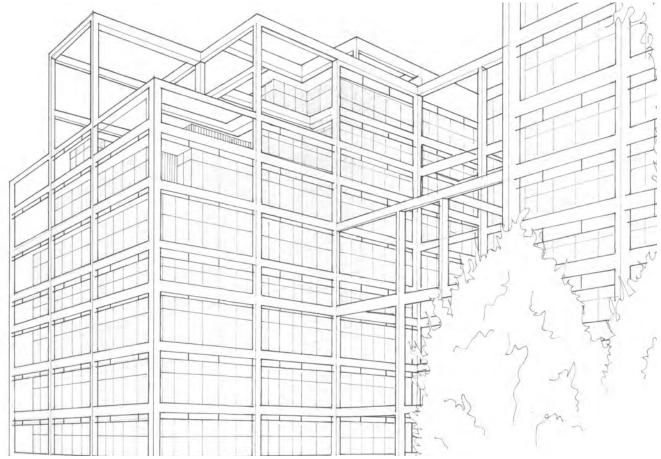
With tonal drawings, the aim of this section was to introduce perception of space and forms as tones and planes and develop the ability to see depth as shades and shadow. Here, we were to build skills in seeing the shape and nuances of relatively small objects, seeing and describing the built-environment as planes and ones, and build skills in drawing ability to capture phenomena of light, shade and shadows.

STUDIO I | SCHLEIFER YEAR 01 | FALL 2021

TERRACES NORTH

TRANSFORMATION THROUGH DRAWINGS

DUNWOODY, GEORGIA



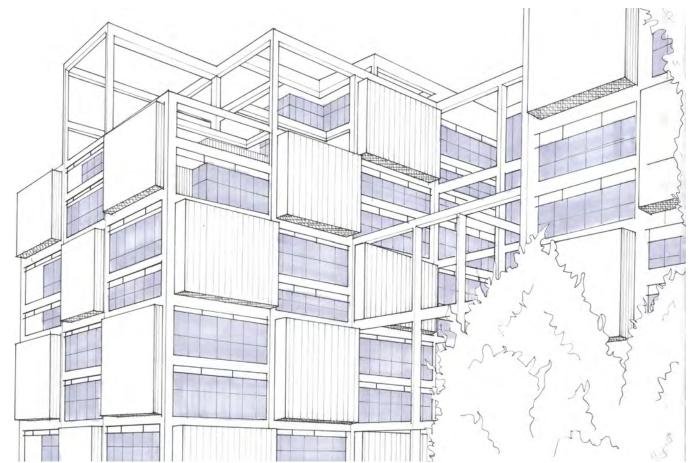
Perspective Drawing; Hand-Drawn with Microns

For the second module, Invisible Lines, the main purpose was to develop the ability to see the environment, both cultural and natural, man-made and organic, through different filters. In particular, the section introduces the way to comprehend the environment as it filtered through rational means, to recognize elements that are not directly visible to the eyes, and it introduces
The first part of this section was to learn how to do basic the notions of accuracy, precision, and conventions.

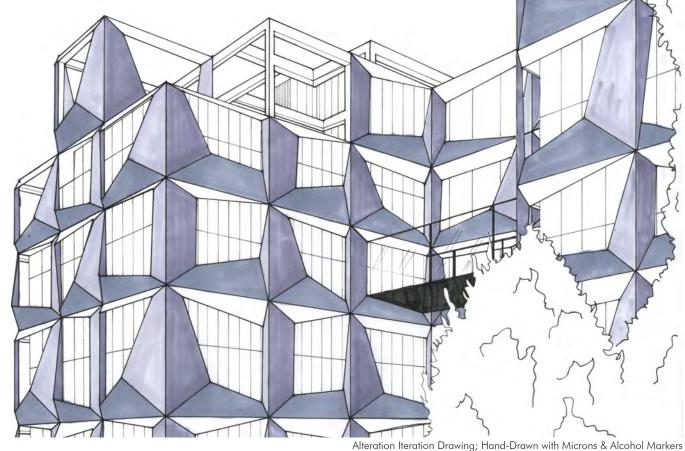
The goal of this section was to introduce the notion of abstraction, order - including the concepts of geometry, morphology, and proportion, basic geometric shapes, reinforce drawing as a methodical and systematic process following drawing conventions, develop the ability to produce precise and accurate drawings, reinforce the notion of construction

and regulating lines, develop the understanding and ability to visualize in 2D and 3D through orthographic and paraline projections, and to continue to build skills and ability to think through drawings.

perspective drawings, and the second part to learn how to analyze and alter through diagramming. The goal of this was to develop the ability to analyze drawings as precedent to learn about the principles of design that relates to 3D forms, structure and surfaces and its organizational principles, and to develop the ability to read information recorded int he drawings and to identify potentials for design interventions.



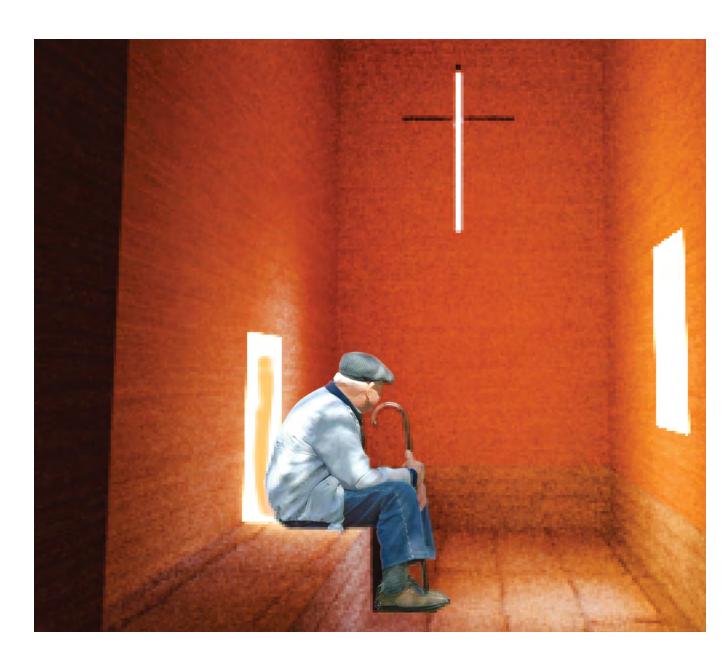
Alteration Drawing; Hand-Drawn with Microns & Alcohol Markers



WOODEN CHAPEL

CASE STUDY

LUTZINGEN, GERMANY



In Design Communication I, we were taught the basics of Rhinoceros 7, Photoshop, Illustrator and InDesign. We were taught this through mimicking an established structure, and the structure I chose to use was the Wooden Chapel, by John Pawson in Lutzingen, Germany.

John Pawson's Wooden Chapel is a chapel located in Lutzingen, Germany. Pawson became part of a longstanding tradition of building chapels as spiritual and architectural features in the landscape. The chapel is part of the Seven Chapels project

which aims to provide cyclists places to seek shelter, and pause and reflect. The structure is built out of solid wood - specifically timber, which was a decision made to minimize intervention. Inside the chapel, light levels are kept low, and narrow clerestories are set high to control the influx of natural light. The resulting dimness allows the visitors to focus only on the two other sources of light - the elevated cross set into the end wall and the low unglazed opening that frames a view of the nearby village across the exterior landscape.

Facing Page: Interior Render

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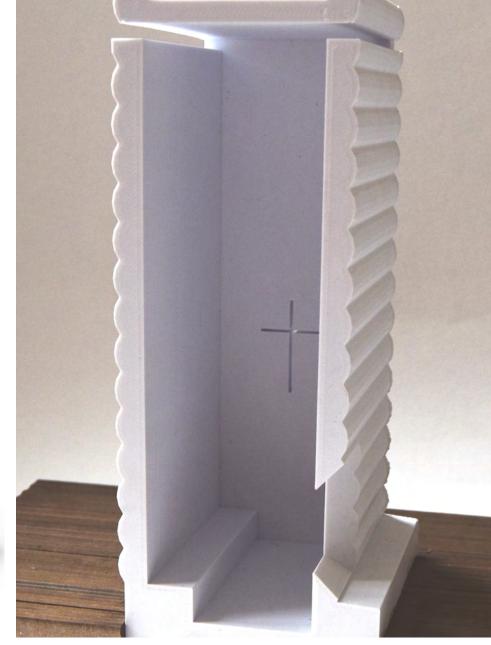
Section Model; 3D Printing, Laser Cutting

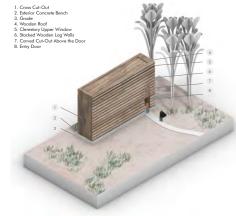
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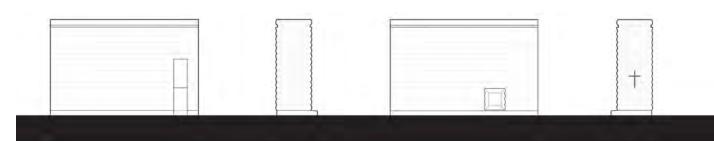
Axonometric Diagram Elevations

Software:









STUDIO II | PIRRONE YEAR 01 | SPRING 2022

WOODNEST CABIN

PRECEDENT STUDY + ALTERATION

ODDA, NORWAY



small cabin, we started with a precedent study and an alteration to the design. For my precedent, I chose to study the Woodnest Cabin by Helen & Hard in Odda, Norway. The cabin is one of two and was completed in 2020. The structure surrounds a tree trunk and was designed to mimic a pine cone and blend into the surrounding environment.

While studying the structure, I associated the building with four words. The first word I thought of was organization, as with such a small space, the organization of programs was carefully studied to make sure that the cabin's visitors have an efficient circulation pattern. The next word was mimicry, as the shape of the cabin itself mimics a pine cone, and enclose as the structure encloses a tree. The last word that I thought of was framing. First, the framing of the structure was intricate as it had to surround a tree, and second, in the interior are large panoramic windows that frame a view of the exterior. This large panoramic window is the main focal point inside the cabin as it extends the outside world inside, while keeping its visitors secure inside.

For the first project of Studio II, which involved designing a For the alteration of the structure, I mainly focused on the fact that the views created by the windows are the only opportunities visitors have to look outside, so I wanted to create additional views and experiences to help extend the outdoors inside. My alterations to the cabin are a skylight directly above the bed, and a viewing deck attached to the central trunk of the tree.

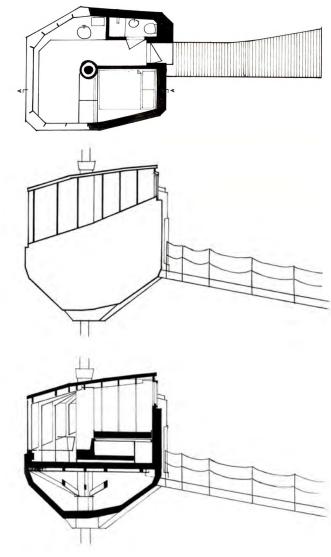
> In the cabin, there is a built-in, lifted bed platform, and directly above it is the skylight. This is done so the connection with the outdoors doesn't stop when you go to bed - visitors can look up at the trees and the stars before they go to sleep.

> For the observation deck, I wanted to create a space where visitors could be outdoors and see the view fully - instead of just the composed view created by the panoramic windows. The deck is attached to the central trunk of the tree with a ladder, which is located on the side next to the kitchen. This was done to allow a half circle with the edge starting with a hatch to allow access to the deck, and make it movable when visitors are on

Facing Page: Final Model; Hand Cut

This Page, Right::

Original Floor Plan; Hand-Drawn with Microns Original Elecation; Hand-Drawn with Microns Original Section (AA); Hand-Drawn with Microns Final Model - Alterations; Hand Cut Final Model - Structure Section; Hand Cut





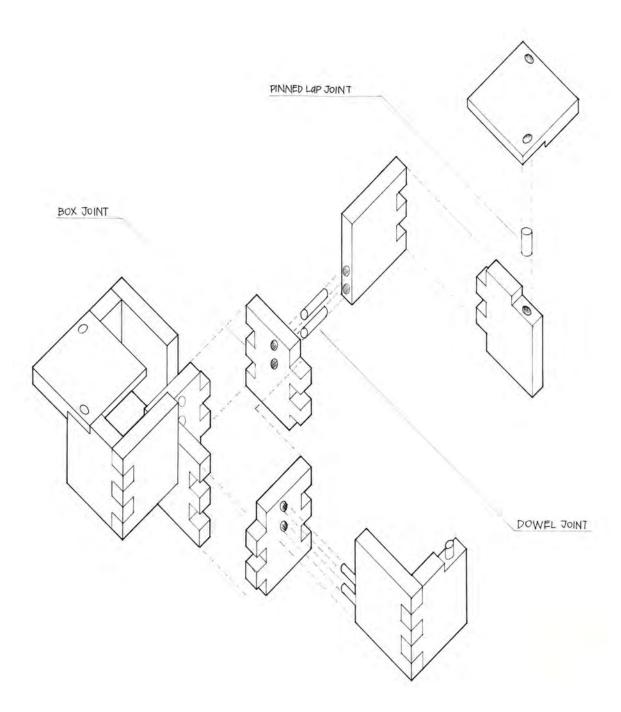


STUDIO II | PIRRONE YEAR 01 | SPRING 2022

CUBE CANOPY

WOODSHOP EXPLORATION

KENNESAW STATE UNIVERSITY, MARIETTA



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wood joints. The design of the structure is inspired directly by the precedent, the Woodnest Cabin by Helen & Hard. The main inspiration of the precedent is the tree that the cabin encloses.

The three main parts of the structure are the trunk, branches,

The Cube Canopy is a wooden structure built entirely made of and the platform - which represent the canopy that trees create. For the trunk, box joints were used to connect the four sides. When it came to the branches, dowel joints and box joints were used to connect the two faces to the branches to the trunk. Lastly, for the platform, pinned lap joints were used to attach the squares to the branches.

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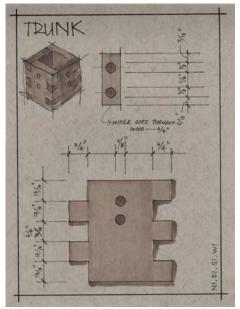
Exploded Axonometric Diagram; Hand-Drawn with Microns

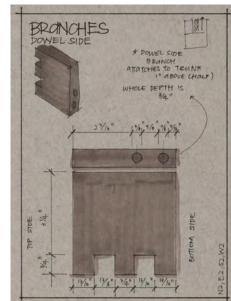
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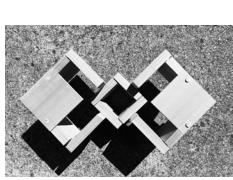
Woodshop Measurement Cards; Hand-Drawn with Microns & Alcohol Markers

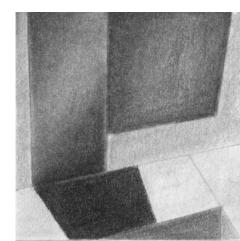
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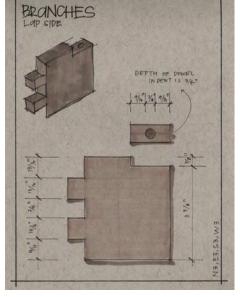
Final Model; Poplar wood Drawn Renders; Hand-Drawn with Charcoal Pencils Elevations; Hand-Drawn with Microns

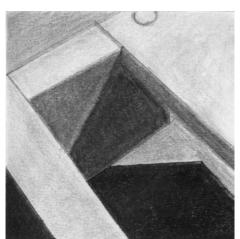


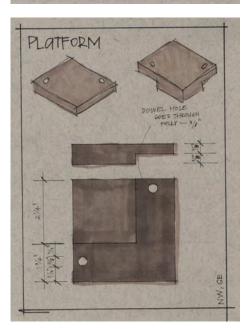


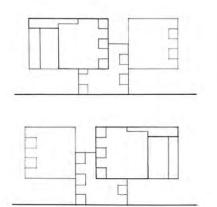










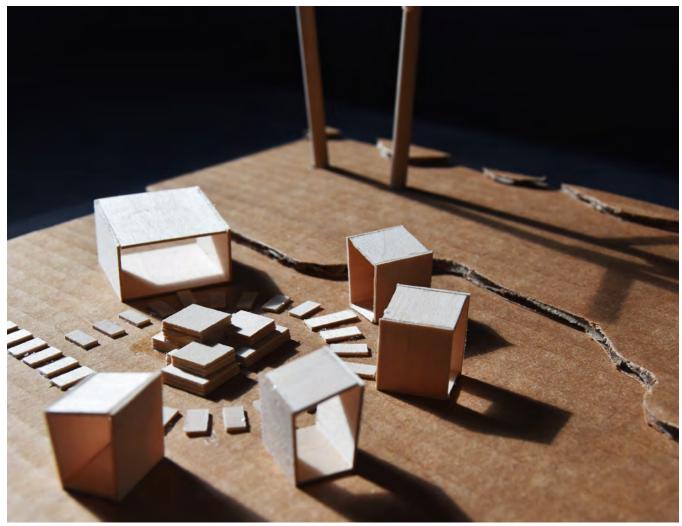


STUDIO II | PIRRONE YEAR 01 | SPRING 2022

THE HUB ON THE GREEN

STUDY SPACES

THE GREEN ON KENNESAW STATE UNIVERSITY'S MARIETTA CAMPUS



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Final Model; Hand Cut

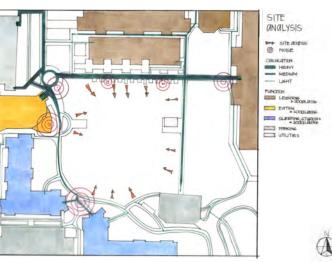
The Hub on the Green is a study space on the Kennesaw State University, Marietta campus. This site was chosen for this project as it was an open space with flat topography and it is a centralized space between different kinds of buildings dormitories, food halls, parking lots, and classrooms.

With the site analysis, views, noise, access points, privacy, and visibility were taken into account in choosing the specific point on the Green. From the analysis a spot was chosen on the South-East region, as it wasn't utilized as much, it had little incoming noise and distractions, and good access points.

In designing the pods, the desired programming was study spaces - having multiple structures throughout the green. With study spaces, study structures were able to be built, but at the same time not creating a whole new "building" to add onto the green and it allows the openness of the field to stay the same with the free flow of pedestrians.

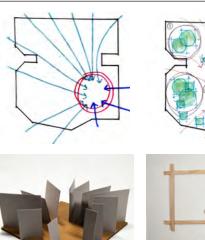






SITE ANALYSIS

When conducting a site analysis, a basic analysis was done, focusing on topography, vegetation, existing surroundings, access, noise, circulation, and function - those analyses can be seen above. After a formal analysis was done, a site gesture analysis was conducted, where the site analyses were diagrammed with gesture lines - on the right are the gesture site analysis of access and vegetation with their accompanying models. With these two kinds of analyses, a spot was chosen and the massing of the pods was influenced.

















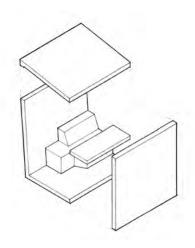


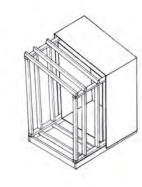


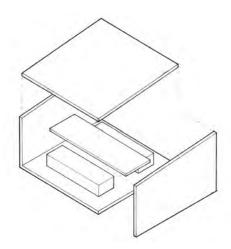
CONCEPT DEVELOPMENT

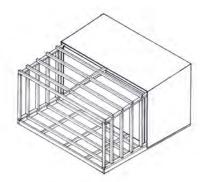
The concept of the structure took inspiration from the gesture site analyses, specifically the access analysis. I focused on this piece which had a similar shape repeated throughout the analysis. With these pieces as a starting point, I extruded and subtracted the shape creating the two variations - one for the personal pods and one for the shared pod. I chose to keep the ends open to allow the extension of the outdoors, indoors.

Lastly, as I went with the program and organization that radiated from a center, I wanted to create a centerpiece to give the circulation around the hub some formality, and an open bench/platform area was what resonated with me. When I got to the design of the bench, I took inspiration from the tree gesture models I made and stacked them on top of each other, found some formal shapes and plans, and raised them creating some mass. On the first level, one can sit on the second level, one can sit with their legs out, and on the top platform, one can sprawl out.













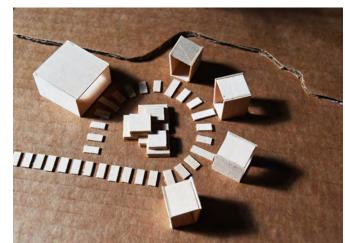


Facing Page:
Site Plan; Hand-Drawn with Microns on Mylar
Individual Pods Axon & Structure; Hand-Drawn with
Microns on Mylar
Central Bench Plan & Elevations; Hand-Drawn with
Microns on Mylar

This Page, Above: Greyscale Renders; Hand-Drawn with Microns & Alcohol Markers

This Page, Right: Final Model; Hand Cut







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YEAR 02

exploring ideas

"it takes a lot of courage to go out there and stake your claim, to front up with your ideas, and to take risks with those ideas." - zaha hadid

MAPLE ROCK RESIDENCE

CASE STUDY

PORTLAND, OREGON



The Maple Rock Residence is a Northwest contemporary home located in Portland, Oregon. It was designed by Scott Edwards Architecture and was completed in 2021. The home was built to entertain and showcase the owner's extensive art collection. The owner of the home was on the cusp of retirement and the design of the home plays a role in how their future would look. The home has a gallery like feel and focuses on indoor-outdoor connection.

A challenge in the design process was the steep slope of the site - the grade change of the site is over 20 feet. The client wanted to stay in the neighborhood, as the site itself has amazing views of the Coastal range. Due to the access to amazing views, the design of the home needed to work with the slope, resulting in the home stepping down with the natural topography.

The interior of the home is bright and spacious and the main level opens from the foyer to a double-height living room, a two-story granite fireplace, and a 40-foot-wide sliding door that connects the great room and dining to the patio. The second story has a separate wing for offices and another for bedrooms - the two separate wings are connected by a bridge.

In the design of the interior, the client's art collection was considered, especially in balancing open spaces with the need for walls. Natural and artificial lighting was considered in the design as well, due to it affecting the art collection. The exterior of the home has contrasting elements that allude to a Japanese aesthetic. The exterior is clad in western red cedar with a black finish. The home also has vertical warm-toned wood slats that create interesting features and privacy allowing natural light to shine into the home.

Facing Page:

Exterior Render

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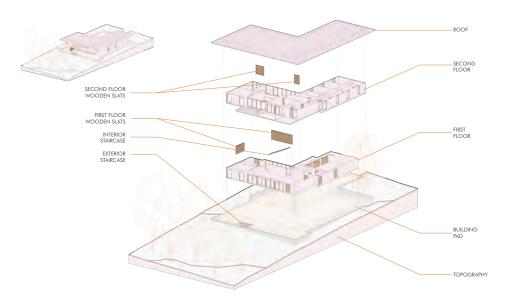
Site Plan North Elevation East Elevation South Elevation West Elevation

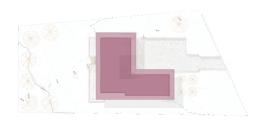
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Exploded Axonometric Drawing Section Axonometric Drawing First Floor Plan Second Floor Plan

Software:

















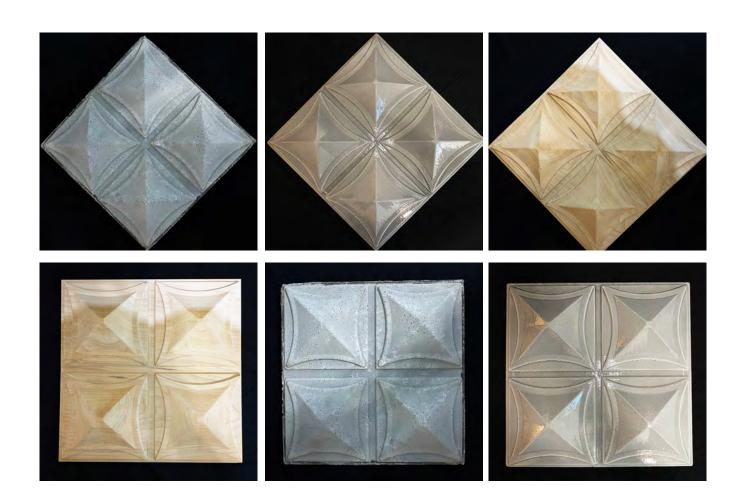




FOUR PEAKS

TILE, MATERIAL INVESTIGATION

KENNESAW STATE UNIVERSITY, MARIETTA



In Environmental Technology I, we were instructed to get into groups to render and manipulate a 3D design that we can use to fabricate tiles made out of three different materials - PETG Plastic, Wood, and Concrete.

We began the process with sketching and modeling a design. My group and I took inspiration from a repeated motif of a sharpness of the pyramids. rhombus on an intricate street paving pattern, and domed cathedral ceilings. From these two precedents, we concluded that we would like to incorporate repetition, undulation, and hierarchy into our star shaped motif pattern.

In our design process, we combined our findings from our precedents and came up with our first proposal for a design and repeated the chosen tile, as a call back to our precedent, and we

then created hierarchy in the design by creating levels within the motif.

After the first design, we came across complications with pieces being too thin and fragile for the CNC mill. In the end, we reduced the amount of repetition in our design and the

Once our tile design was approved, we commenced with the fabrication process. For our wood tile, we submitted our 3D design to the woodshop for CNC milling on our wood piece, and our foam pieces. For our plastic tile, we used the positive foam mold for vacuforming, and for our concrete tile, we used the negative foam mold to pour concrete into it. On the right are progress and process images of the creation of our tiles.

Facing Page:

Concrete Tile, Plastic Tile, Wooden Tile

This Page, Right:

Concrete Tile Plastic Tile Axon Drawing of Design Elecation Drawing of Design Wooden Tile

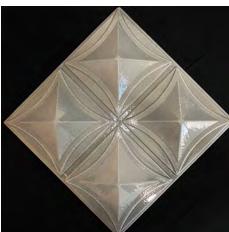
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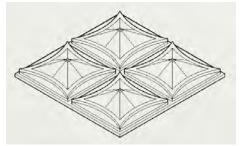
Photos of the Tile Curation Process with Group

Software:

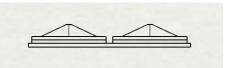






























STUDIO III | POLLONAIS YEAR 02 | FALL 2022

2 WILLOW ROAD

PRECEDENT STUDY

HAMPSTEAD, LONDON, UNITED KINGDOM



2 Willow Road is one of three units on a terraced structure built around a concrete cylinder, that extends the roof. located in Hampstead, London, England. Ernö Goldfinger designed this home for him and his family. The structure is built Goldfinger and his wife and children lived in the home until out of concrete and faced with red brick. As the structure is 1987. In 1994, 2 Willow Road was given to the National Trust, built out of concrete, load-bearing walls were not a problem which takes care of the building to this day. 2 Willow Road is in creating an open floor plan or creating spaces that are now a museum. adaptable. Each of the three units features a spiral staircase,

Facing Page: Final Model; Hand Cut

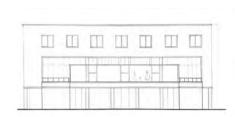
This Page, Right:

Roof Plan Ground Floor Plan First Floor Plan Second Floor Plan Third Floor Plan

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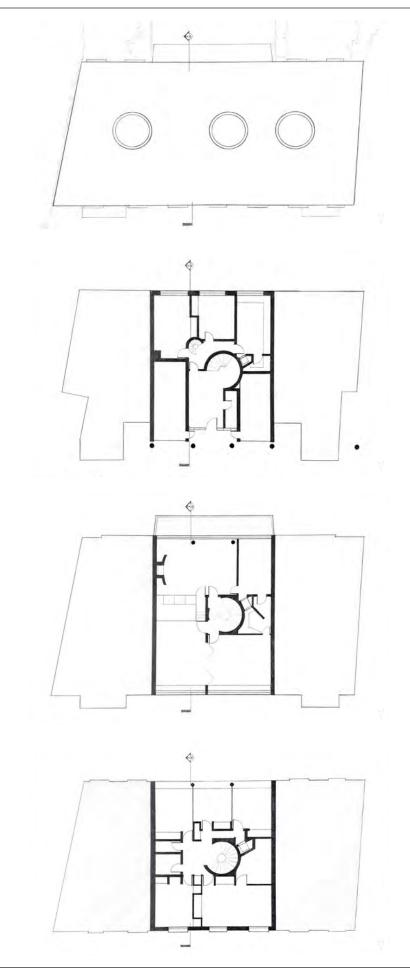
Front Elevation Back Elevation

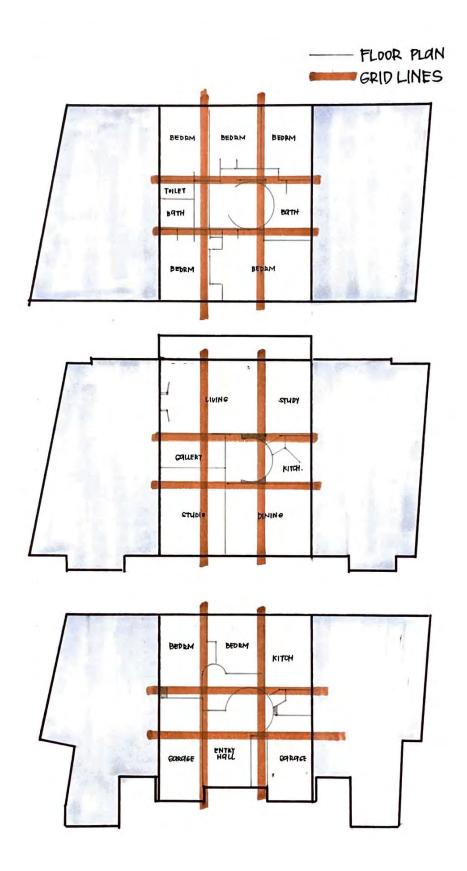
Interior Render; Hand-Drawn with Microns & Alcohol Markers



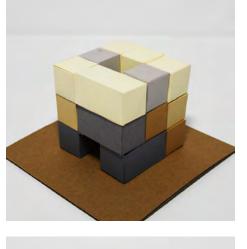


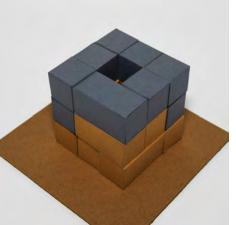


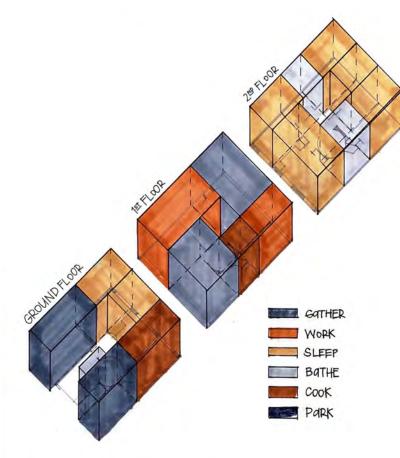


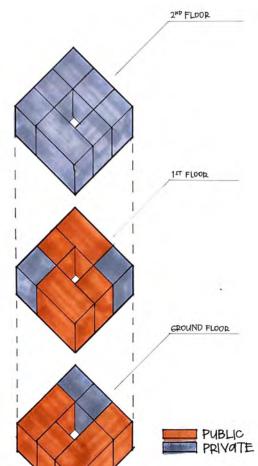


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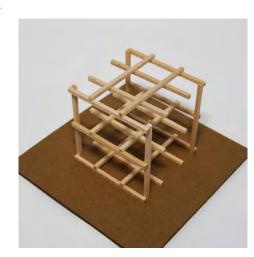




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This Page, Left:
9 Grid Diagram; Hand-Drawn with Microns & Alcohol Markers

This Page, Below: 9 Grid Model; Hand Cut



This Page, Above: Program Model; Hand Cut Public vs Private Model; Hand Cut

This Page, Right:
Program Diagram; Hand-Drawn with Microns &
Alcohol Markers
Public vs Private Model; Hand-Drawn with Microns & Alcohol Markers

STUDIO III | POLLONAIS YEAR 02 | FALL 2022

THE MONOCLE

ARTIST RETREAT

KENNESAW STATE UNIVERSITY, MARIETTA







Slimesunday, also known as Mike Parisella.

structure made of concrete with large glass windows on three out of the four sides. The large windows allow natural light to enter the structure, with a focus on positioning them on the

The Monocle is an artist retreat for the digital collage artist north and east sides of the building. A large spiral staircase is located near the center, creating central circulation.

Inspired by the shape of an 8x10 camera, the Monocle is a The Monocle features an open floor layout to allow the artist to adapt the space as desired, whether for digital or physical editing, research, or photoshoots.

Facing Page: Final Model; Laser Cutting, 3D Printing

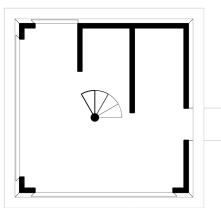
This Page, Right: Ground Floor Plan Loft Floor Plan

Interior Render; Hand-Drawn with Microns

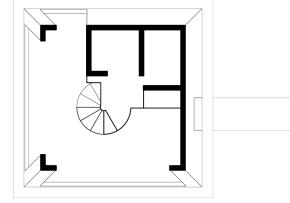
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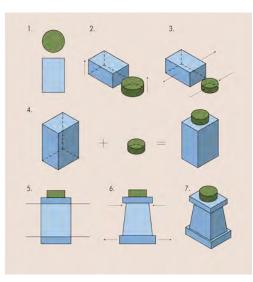
Concept Diagram Program Diagram West Elevation North Elevation East Elevation South Elevation

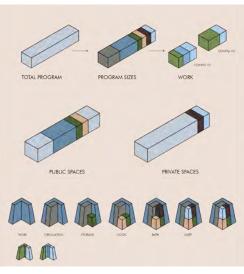
Software:

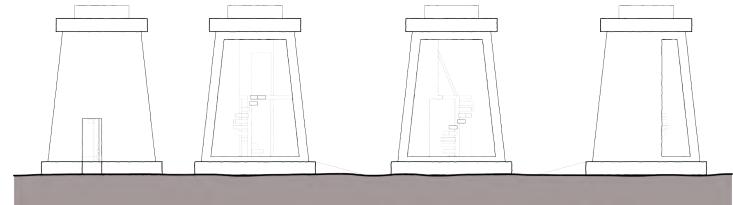












STUDIO III | POLLONAIS YEAR 02 | FALL 2022

THE PILL HOUSE

DUPLEX

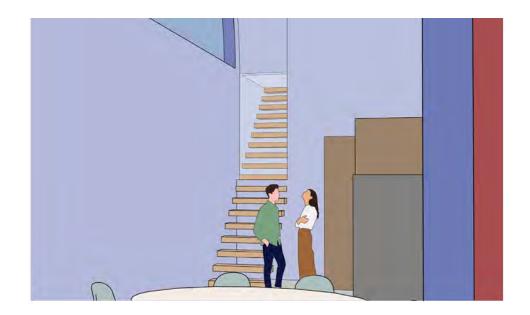
HAYWARD, CALIFORNIA



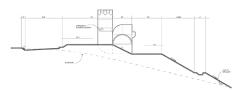
32

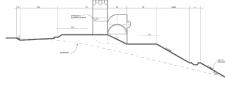
The Pill House is a contemporary, concrete duplex built for the designer-programmer couple, Jade & Priank, and awardwinning TV show writer, Ava. Located on a narrow site in the Bay Area of California, the homes' designs focus on the opposing aesthetics of each client - futuristic minimalist and vintage maximalist. To meet the opposing needs, the pill shape of a time capsule was used to develop the massing of the homes. Adapting to the steep-sloped terrain, pieces of the home are staggered downward to maximize the plot and square footage of the homes. The interior of the homes creates an inhaleexhale feel as you move through them imitating the feeling of being embraced as you come home and then released of the worries of the day. This is done by creating narrow paths for

circulation and high ceilings for each room. The apertures used on the facades reflect the shapes of the homes, matching the heights of the ceilings, blurring the lines between the inside and the outside world. Once entering each unit, you are greeted by a living room with double-height ceilings and a view of a lofted workspace that can be converted into a guest room. On this floor, each unit has a staircase that tapers down to a ground floor where the second gathering areas sit. On the ground floor, each unit has a kitchen and dining room that opens into the backyard to extend the gathering spaces, facilitating cherished memories with loved ones. Though each structure has similar programming, the organization responds to the shape of each unit and the needs of each client.









Facing Page: Exterior Render

This Page, Above: Site Plan

Site Analysis, Topography

This Page, Right:

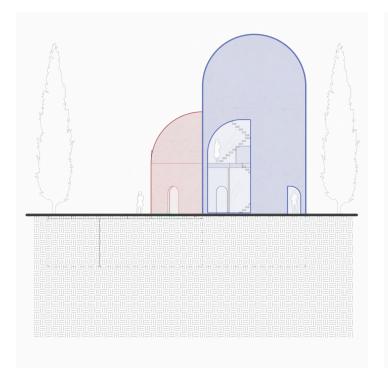
Interior Render, Kitchen, Blue House Interior Render, Loft, Red House Interior Render, Bedroom, Blue House Interior Render, Hallway, Red House

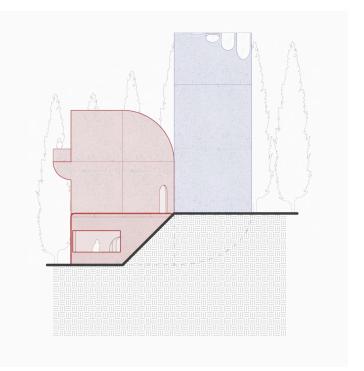
Software:

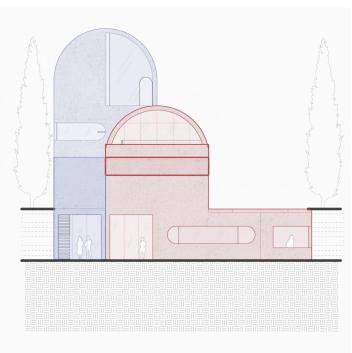


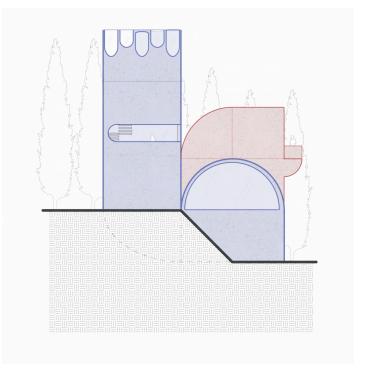


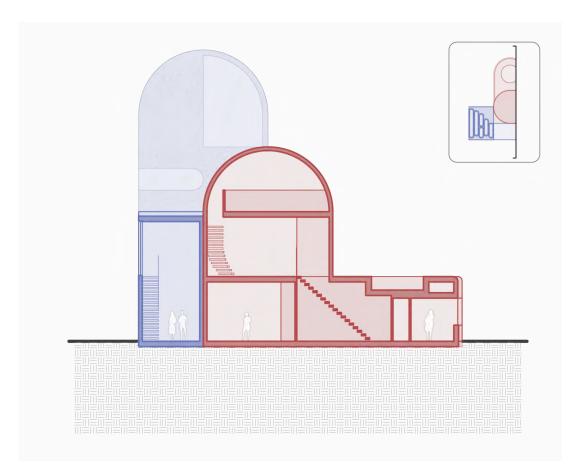


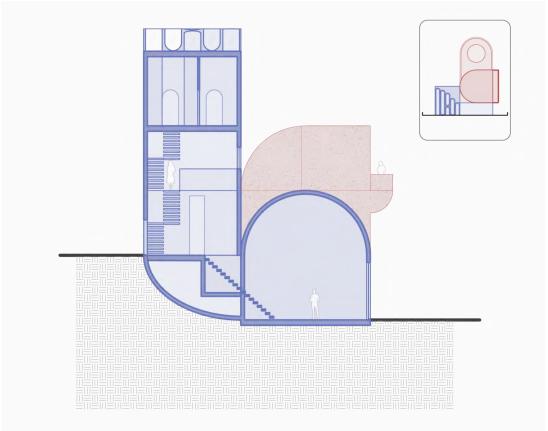












Facing Page, Top Row: West Elevation North Elevation

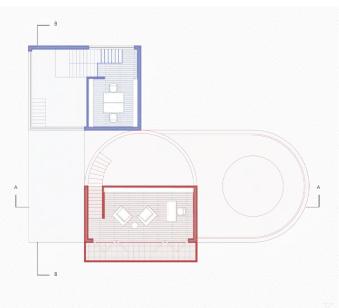
Facing Page, Bottom Row: East Elevation South Elevation

This Page: Longitudinal Section (AA) Transverse Section (BB)

Software:

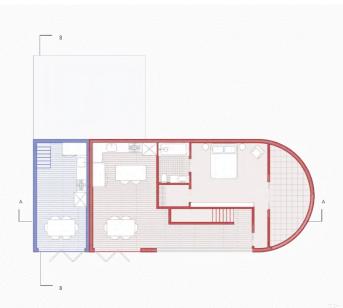
Ai Ps







36

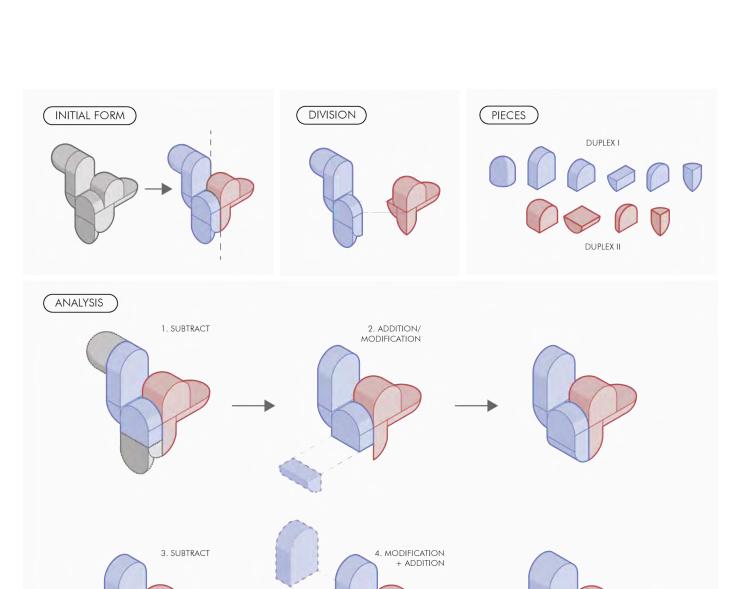


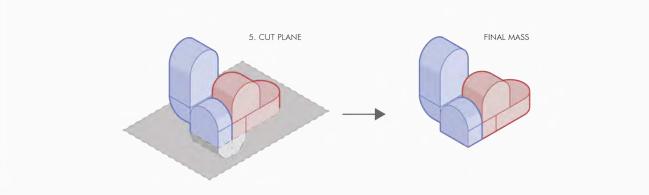
This Page, Top Row: Third Floor Plan Second Floor Plan

This Page, Bottom Row: First Floor Plan Ground Floor Plan

Facing Page: Concept Diagram

Software:





STUDIO IV | POLLONAIS YEAR 02 | SPRING 2023

SPRINKLES

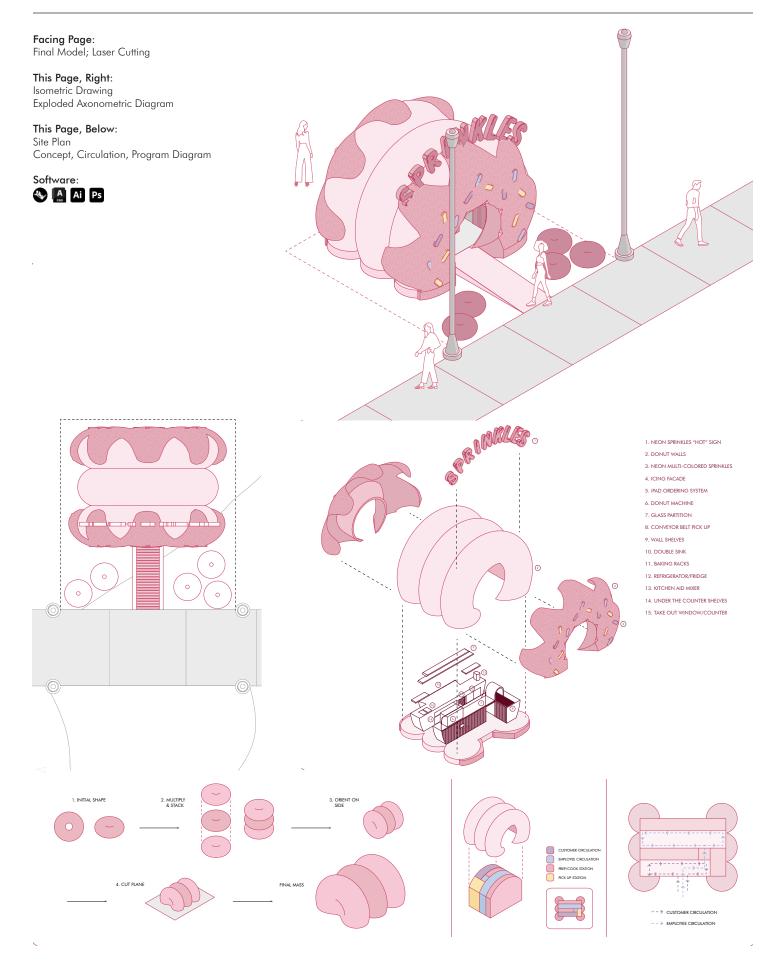
MOBILE FOOD KIOSK

THE GREEN ON KENNESAW STATE UNIVERSITY'S MARIETTA CAMPUS



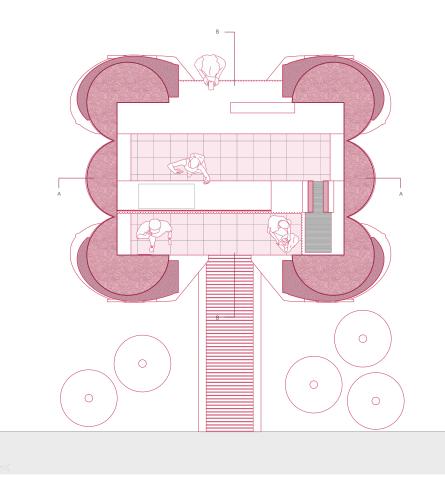
Sprinkles' donut tunnel is a 120 sqft donut-shaped food kiosk on the Green of Kennesaw State university's Marietta Campus. The installation is placed on the Off the Grid Strip Food Festival, hosted to offer "additional interaction and meeting places." It includes a three-donut tunnel and donut-shaped ottomans around the tunnel for additional seating. The shape of the kiosk is a play on scale, as humans enter through the hole of a large donut, where inside, patrons can order an array of mini donuts. The large size of the donuts also contributes to the wow factor - the facades are met with a pink, neon-sprinkled donut, and a large "Sprinkles" hot-sign that retracts into the kiosk itself. The dynamic entrance openings transform the aesthetic, as the

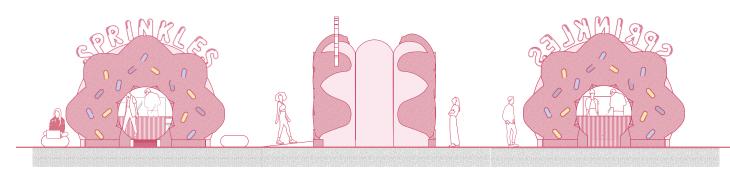
accordion-fan door pushes out the 'Sprinkles' sign when open, and pulls the sign in when closed. In the back, take out the window, the window fans open, with the same accordion-fan mechanism as in the front, and closes into the counters. You are guided into the tunnel by a conveyor belt-patterned ramp into a pink interior - reminiscent of a jelly donut. Inside the tunnel, there are iPads on the walls for contactless ordering and paying, and a conveyor belt pickup station. The installation is complete with a takeout window in the back to allow for mobile ordering and pickup, and donut ottomans in the front to encourage interaction between passersby.

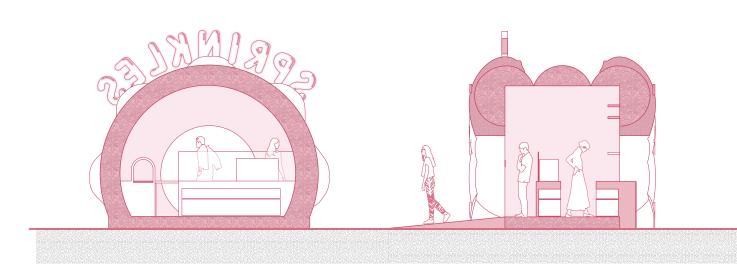












Facing Page, Top: Interior Renders Floor Plan

Facing Page, Middle: West Elevation

North/South Elevation East Elevation

Facing Page, Bottom: Longitudinal Section (AA) Transverse Section (BB)

This Page, Right: Final Model - Back of Kiosk; Laser Cutting Final Model - Interior; Laser Cutting

Facing Page, Below: Sprinkles Menu - Branding Sprinkles Grand Opening Poster, Exterior Render









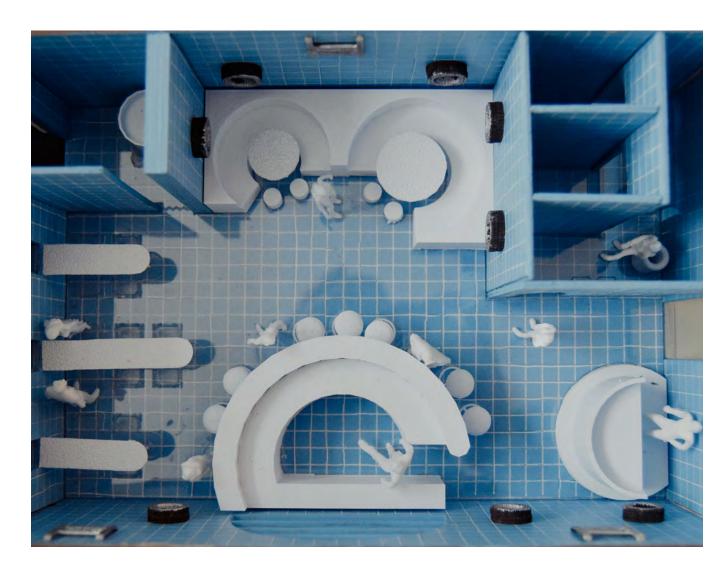


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THE POOL CLUB

RESTAURANT, COCKTAIL BAR

BROOKLYN, NEW YORK



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The Pool club opened its doors in March 2023 and has fast become the top new Brooklyn cocktail bar thanks to our innovative cocktails, seafood tapas, immersive atmosphere and our commitment to the highest level of service for our guests. Our Brooklyn bar draws inspiration from the sophistication of seafood and craft cocktails, and the energy of summer by the pool.

Our cocktail bar is designed around the experience of lounging

by or in the pool. Moving through the venue, you are surrounded by blue pool tiles, jacuzzi booths, diving bar high tops, and a swim up bar. The atmosphere of the bar changes as the night goes on, from an airy pool blue day, to a purple moody pool party at night. From the minute you step foot in our pool club, you will never want your "summer" to end. The electric mix of resident DJ, Horse Meat Disco, will leave you feeling like you're on summer vacation year round.





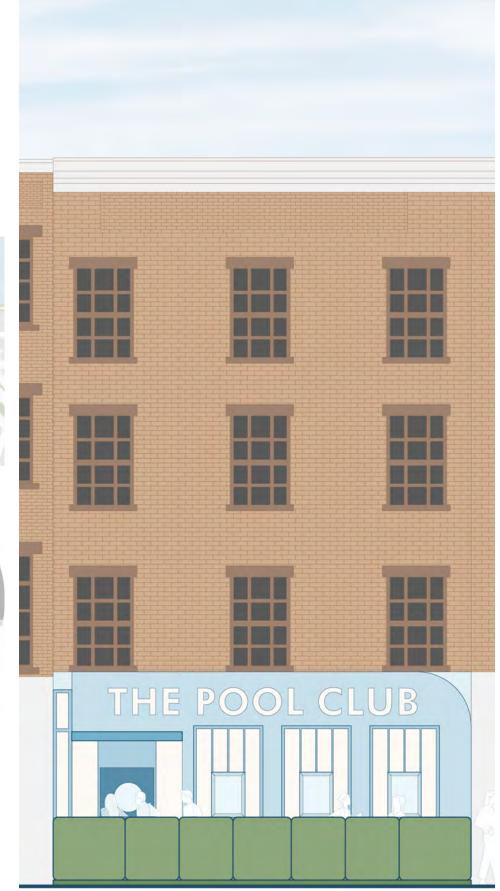
Facing Page: Final Model; Laser Cutting, 3D Printing

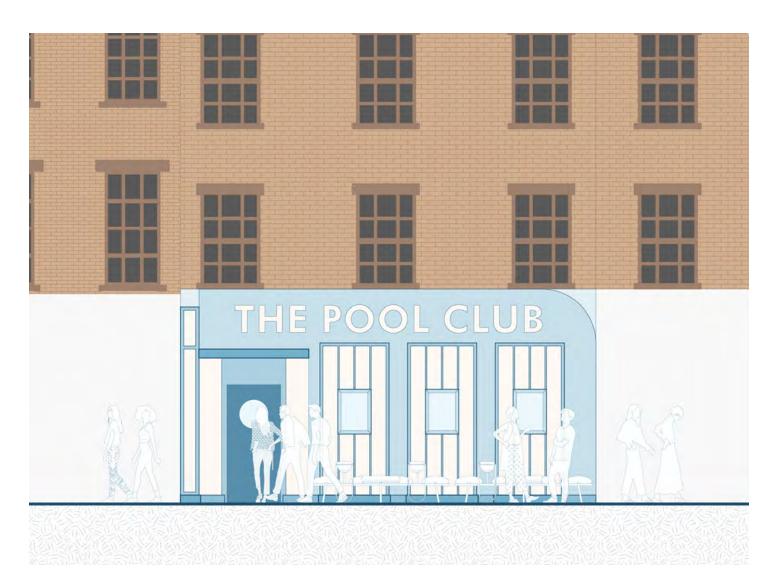
This Page, Above: Zoomed Out Figure Ground Zoomed In Figure Ground

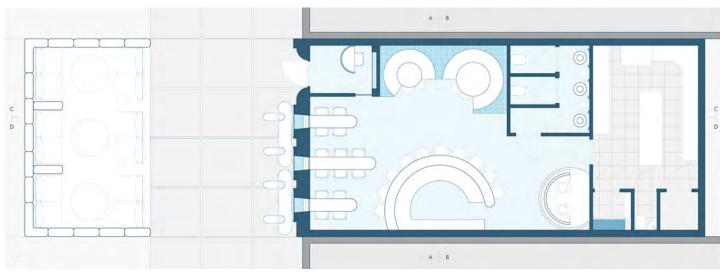
This Page, Right: Facade on Brooklyn Block

Software:









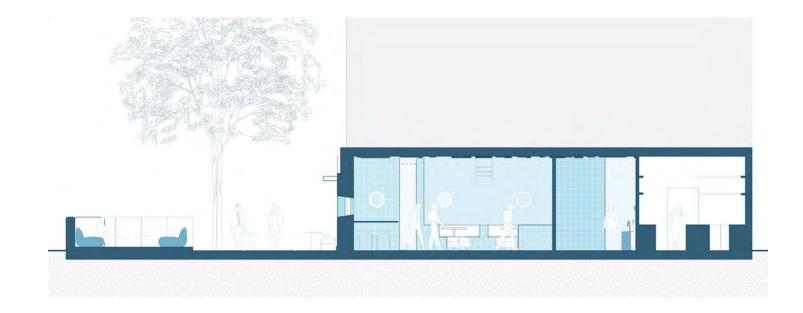
44

This Page, Above: Front Elevation Floor Plan

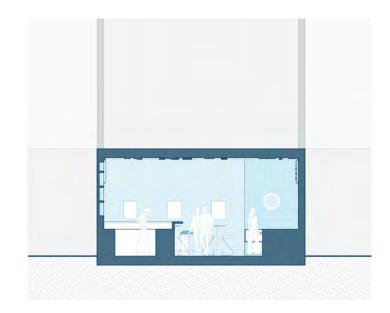
Facing Page, Top Row: Section C-C Facing Page, Middle Row: Section D-D

Facing Page, Bottom Row: Section A-A Section B-B



















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This Page, Above: Interior Render Interior Render

This Page, Left: Postcard Branding for Bar

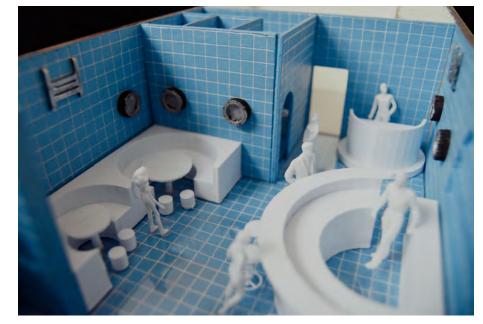
Software:

Ai Ps

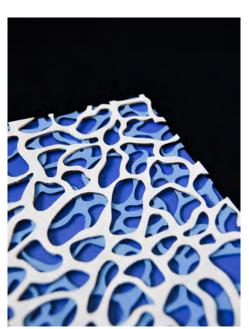
This Page, Right: Final Model; Laser Cutting, 3D Printing Final Model; Laser Cutting, 3D Printing

This Page, Below: Roof Detail Mock-Up Model; Laser Cutting, 3D Printing
Final Model; Laser Cutting, 3D Printing

Software:









A03



HKD 150 / SGD 25 / AUD 25 / NZD 25 / USD 15.50 SPRING 2023