



PORTFOLIO

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As an undergraduate in my fourth year at the University of Massachusetts Amherst. I have been exposed to lecturers from around the country, even the world. Broadening my insight not only in the architectural design process, but also in regards to thinking about the world that such a structure will be inserted within. There has to be a practicality to it, as well as solving modern day problems. The Umass Design Program has created an environment where we are constantly enriching ourselves and striving to expand our perspectives.

Table of Contents

1
Hampden
Reimagined

2
The Farnsworth
House

3
New2U Rainscape
Pavillion

4
Winthrop Public
Library

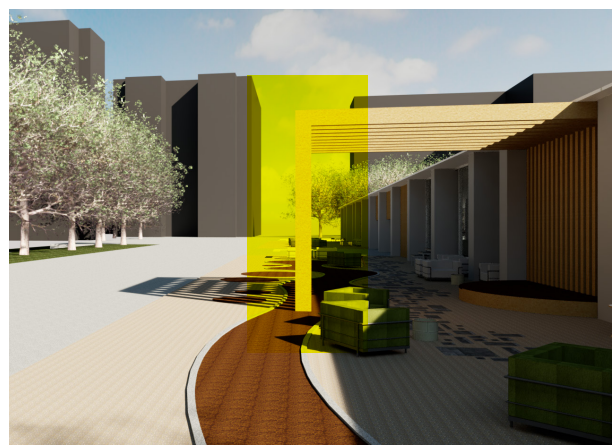
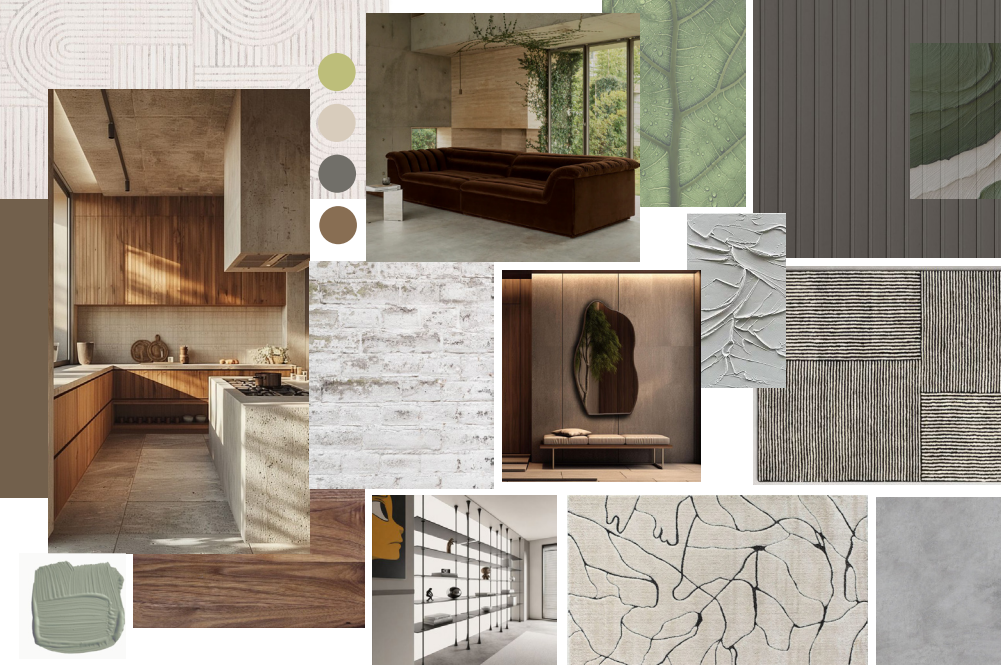
5
Lighthouse

6
The Giving
Box

7
Obstructed View
Mask

8
Bodily Ornamentation
Sketches

9
Sunken Ship &
Humanity



PROJECT 1

Fall 2024 // Studio

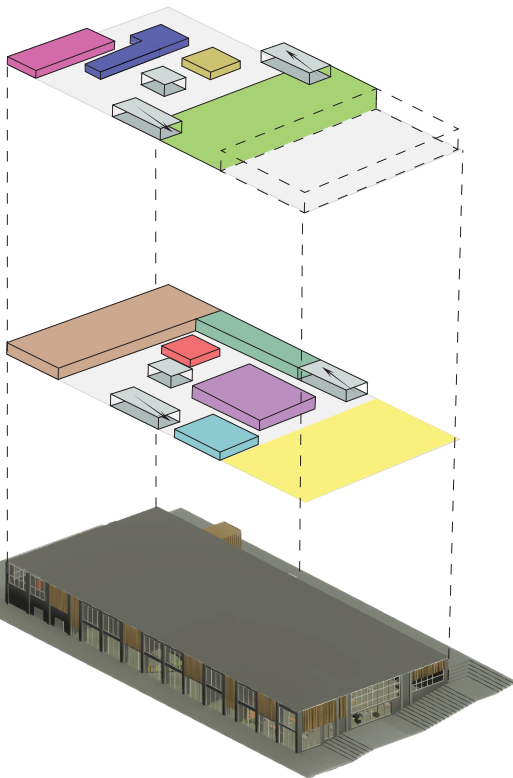
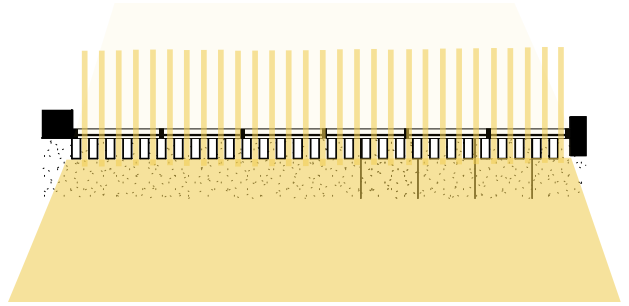
Granted with such an amazing opportunity, the Umass Amherst New2U organization, came to my 2025 class asking for a new direction for a local building. It was at the heart of Southwest Dorms, an underused and underutilized space which could instead help promote sustainability. New2U takes donations from students during move out periods at the end of the semester, and then with care, restores them, and sells them back to students at a discounted price. This building had very specific needs, including ample work and storage space, but also catering to the bustling life that occurs in the Southwest district. There will be more initiative to recycle and reuse as students can view their materials be revamped and given to a new home. The entire process occurs within the building, all while still offering a large study area, even private study spaces, cafe, and outdoor lounging area.



SUN DIAGRAM ANALYSIS

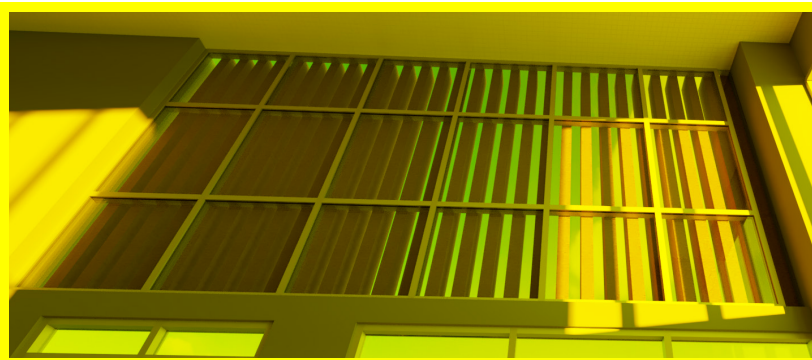
Throughout this entire project, there was an ongoing discussion about light and how to incorporate features within our structure to enhance efficiency. The concept of creating a successful structure that learns how to utilize the organic elements around it. Taking sustainability to another level, not just superficially within it, but even in the design process.

With the sun analysis, acknowledging that it is mostly going to hit the West elevation. Incorporated within the facade design, there are slots closely knit together. Allowing natural light to penetrate through the windows to an extent for the summer days. However, still leaving enough sun rays to warm up the study area in the winter season.

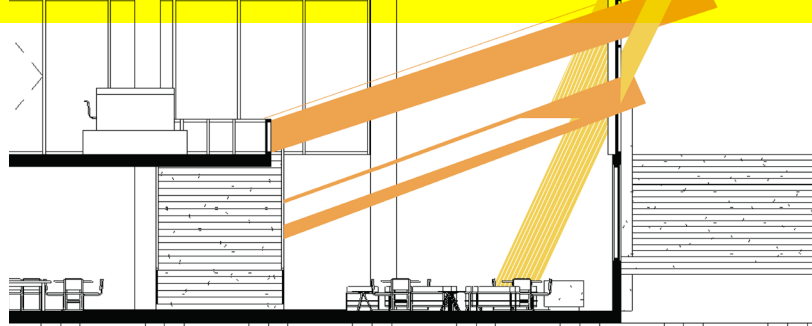


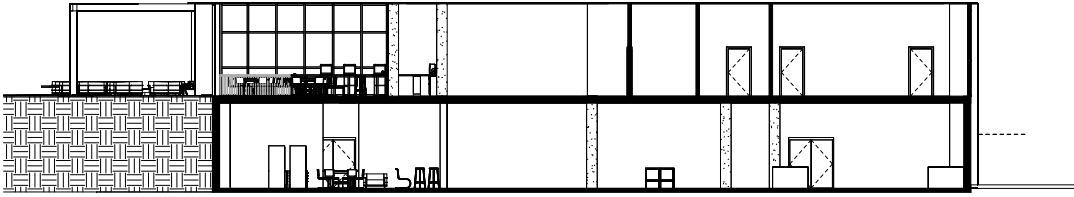
Program Diagram

- Storage Space
- Cafe & Bathrooms
- Front Desk
- Study Area
- New2U
- Offices & Bathrooms
- Study Rooms
- Workshops
- Student Textile Room
- Lounge Area
- Vertical Transportation
- Removal of Space

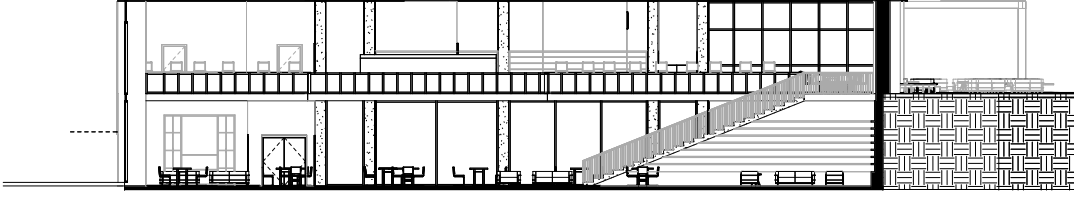


With having such a versatile building, there still had to be logical placement and arrangement of the program. The New2U loading dock, processing center, and storage space is kept on the bottom floor. Any workshops, such as the wood shop, metal shop, as well as the study areas. The bottom floor is meant to be an innovation starting place, a place to get things done. While the top floor has more of a social aspect. A cafe with a large bar seating space, tables, and display spaces for New2U but also for on campus students looking to sell their products.

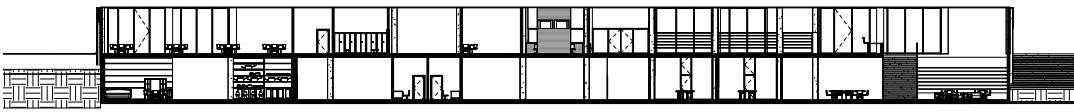




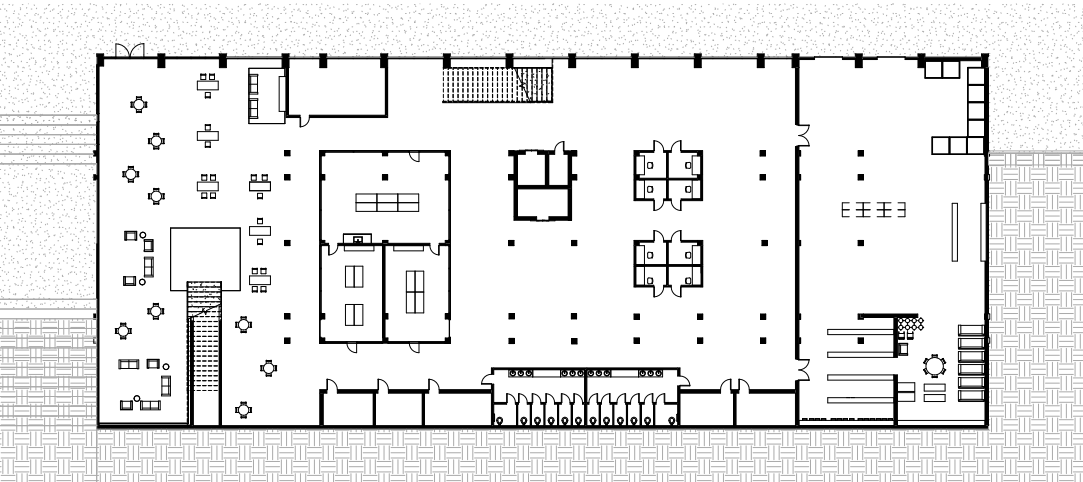
1 SECTION 1



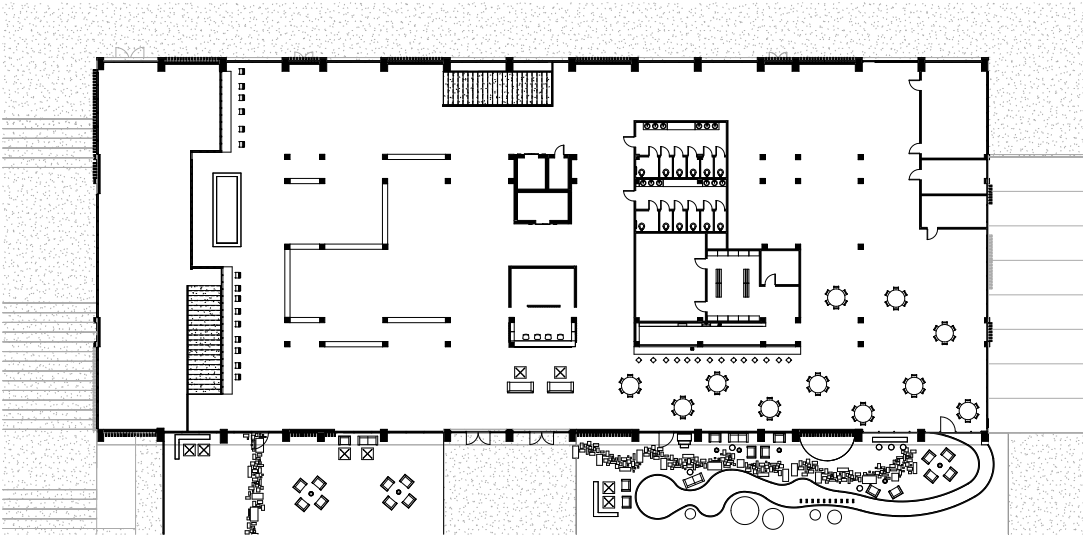
3 SECTION 3



4 SECTION 4



1 FIRST FLOOR PLAN



2 SECOND FLOOR PLAN

TECHNICAL DRAWINGS

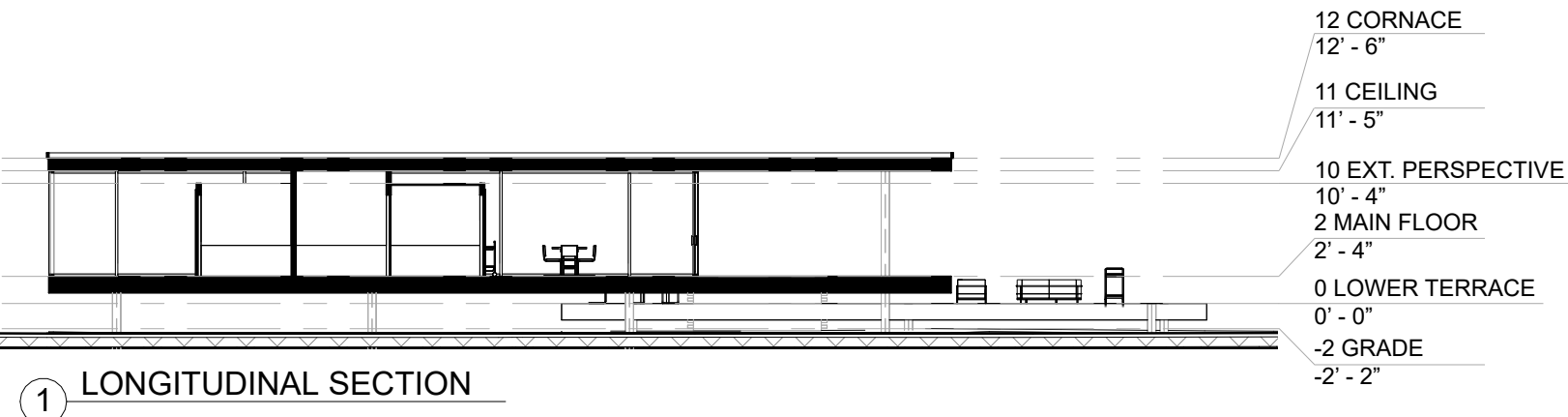


PROJECT 2

Fall 2024 // Studio



The Farnsworth House by Ludwig Mies van der Rohe, was a wonderful opportunity to create and establish an understanding of the Revit program. Tasked by our teacher, the intent was to work backwards in the architectural process. The building had already been designed and built, but now as learning students we took these known dimensions and created our own digital copy. This instead allowed a heavy focus on learning the features of the program, while not entirely being consumed by the design process. Once, the house was modeled, then we were given creative liberties to explore different floor plans, different aesthetics, and so on.



PROJECT 3

Fall 2024 // Studio

The pavilion is an innovative and sustainable structure designed to support the UMass New2U initiative. This structure would be located within the Central Residential Area in between Greenough, Chadbourne, and Baker. This makes it a gathering space for students, whether it is to enjoy a meal from the Greeno SubShop or utilizing a sheltered outdoor area for socializing and relaxation.

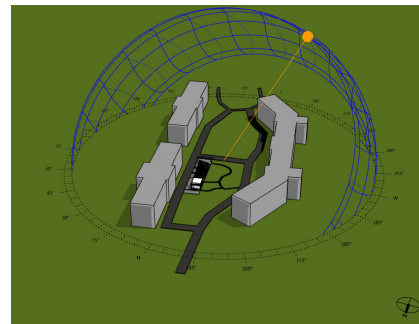
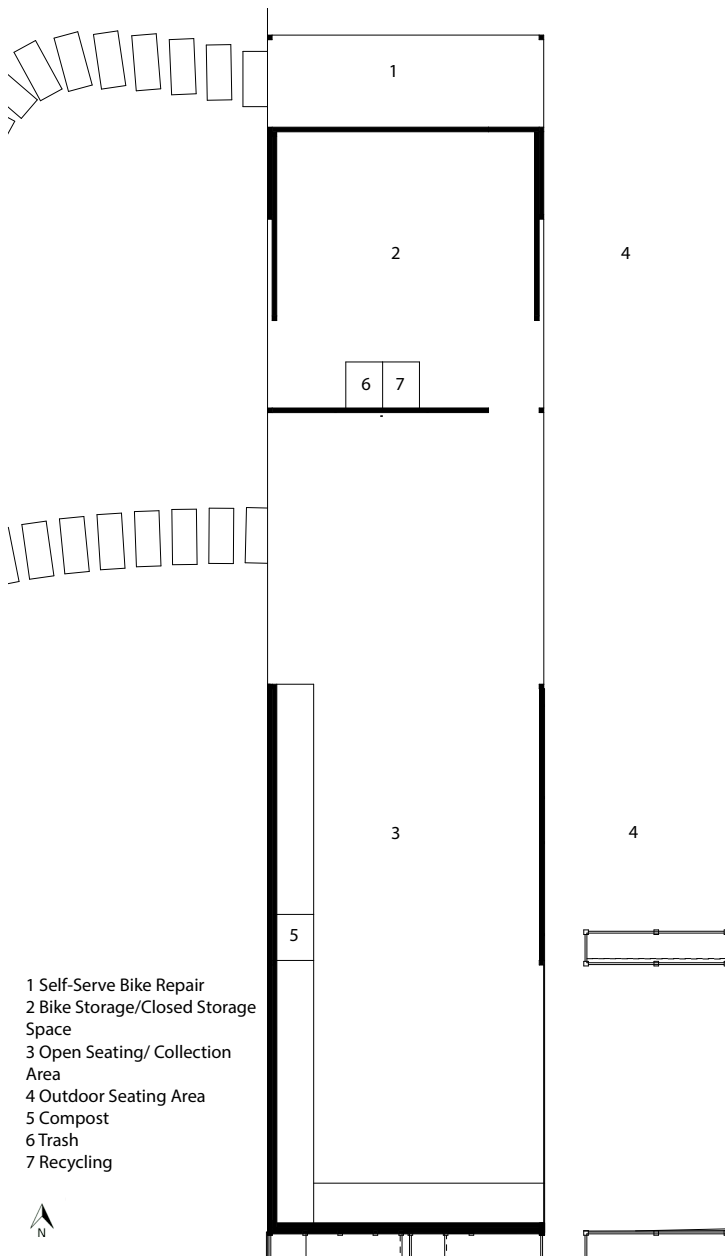
The pavilion's roof design consists of angled geometric forms to maximize rainwater collection, allowing that water to be used for the adjacent green wall. The green wall, positioned to face the south-side of the pavilion, blocks out the summer sun while improving comfort for those utilizing the space.

On the north side of the pavilion lies a retractable roof mechanism, sheltering a bike self-repair area and houses compost bins, encouraging sustainable practices across the Central Residential Area. When the retractable roof is opened, it pulls two walls with slitted panels along the east and west side, transforming the area to an enclosed shaded space to prepare it for the New2U process at the end of the year. Furthermore, the structure blocks winter winds but allows for summer wind to pass through. This Pavilion blends in green design, practical functionality and student socialization adding onto UMass' efforts to reduce waste and promote its commitment to sustainability.

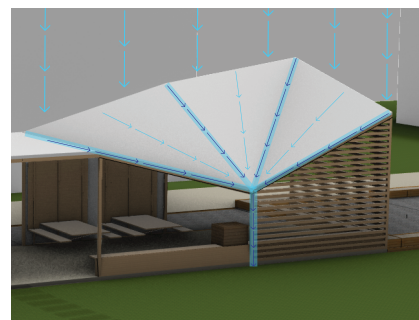
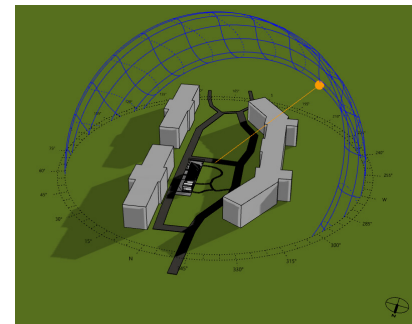


SITE PLAN

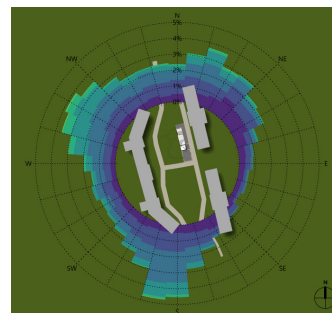
FLOOR PLAN



SUN DIAGRAMS

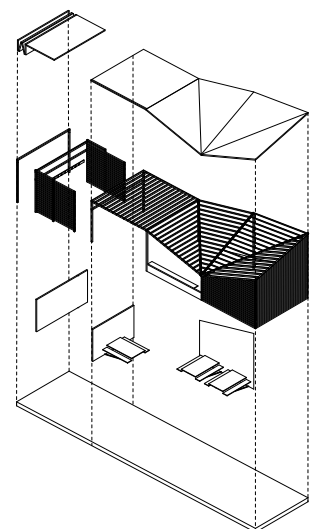


RAINWATER COLLECTION DIAGRAM



WIND DIAGRAM

DESIGN CONSIDERATIONS :
 Aligned with the site analysis that was collected throughout the beginning of the design process. The sun, rainwater, and wind diagrams were used with complete utilization



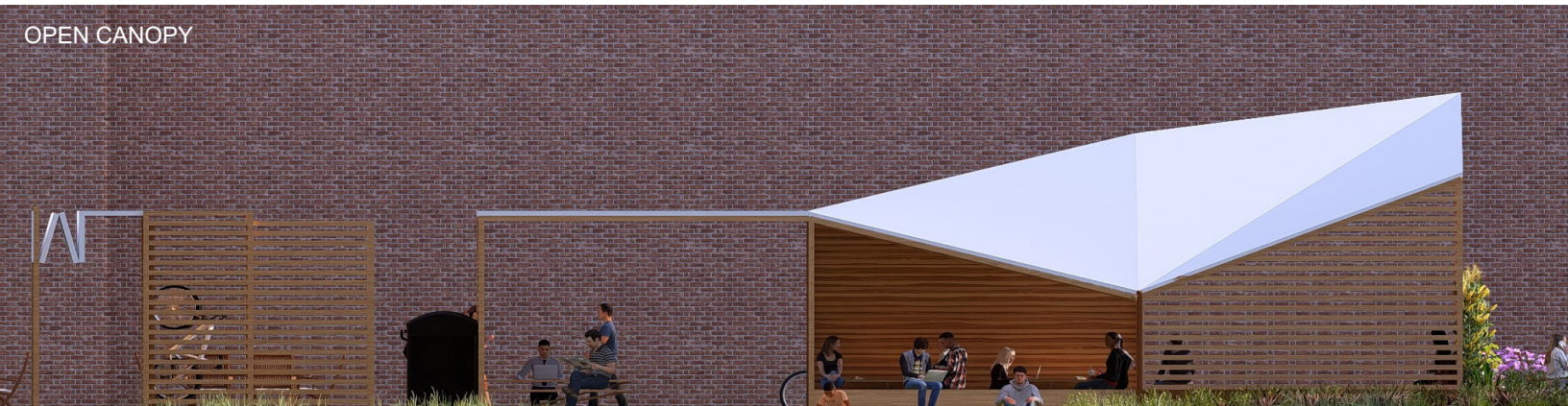
MODEL &
RENDERS



CLOSED CANOPY



OPEN CANOPY

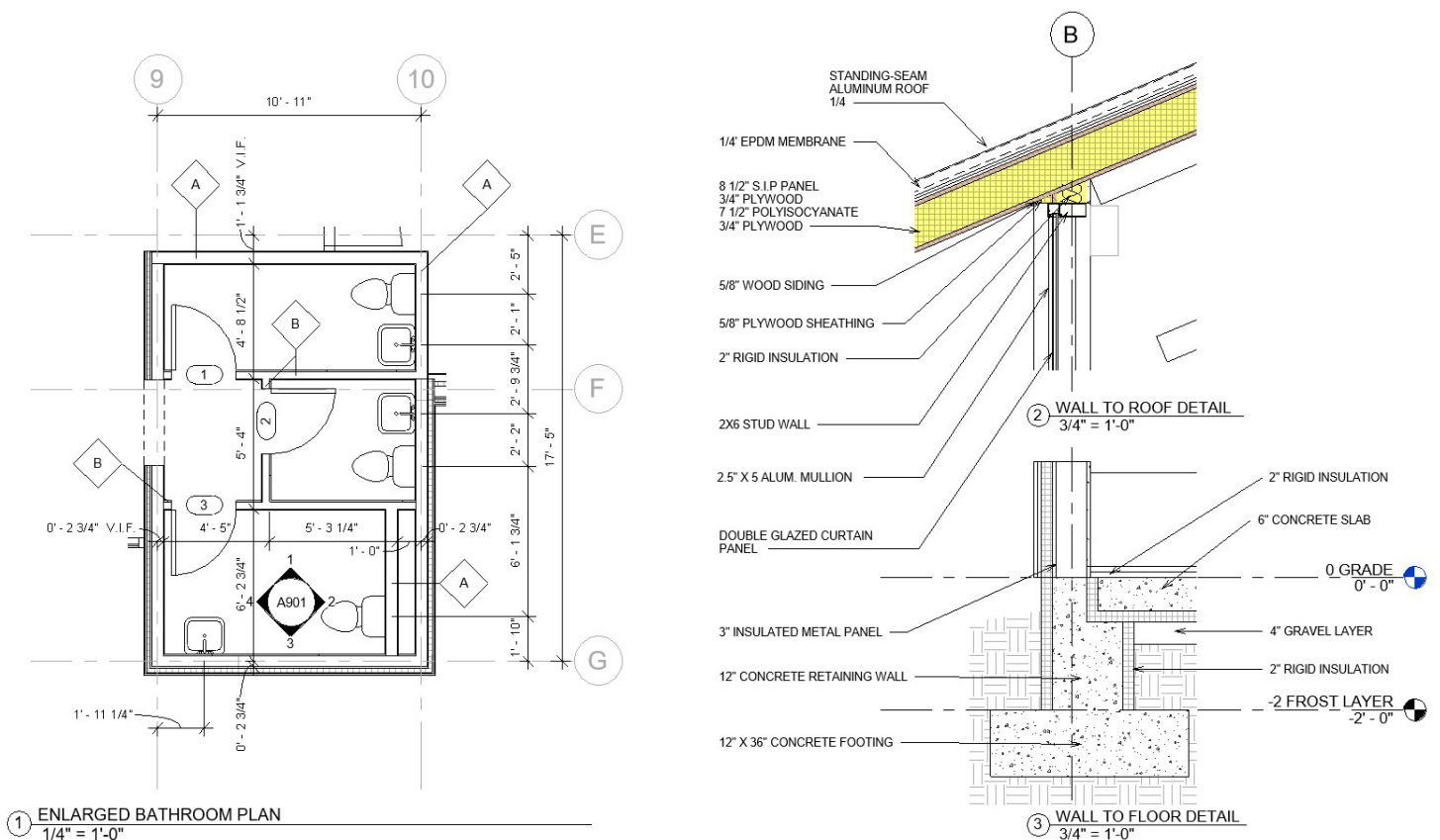


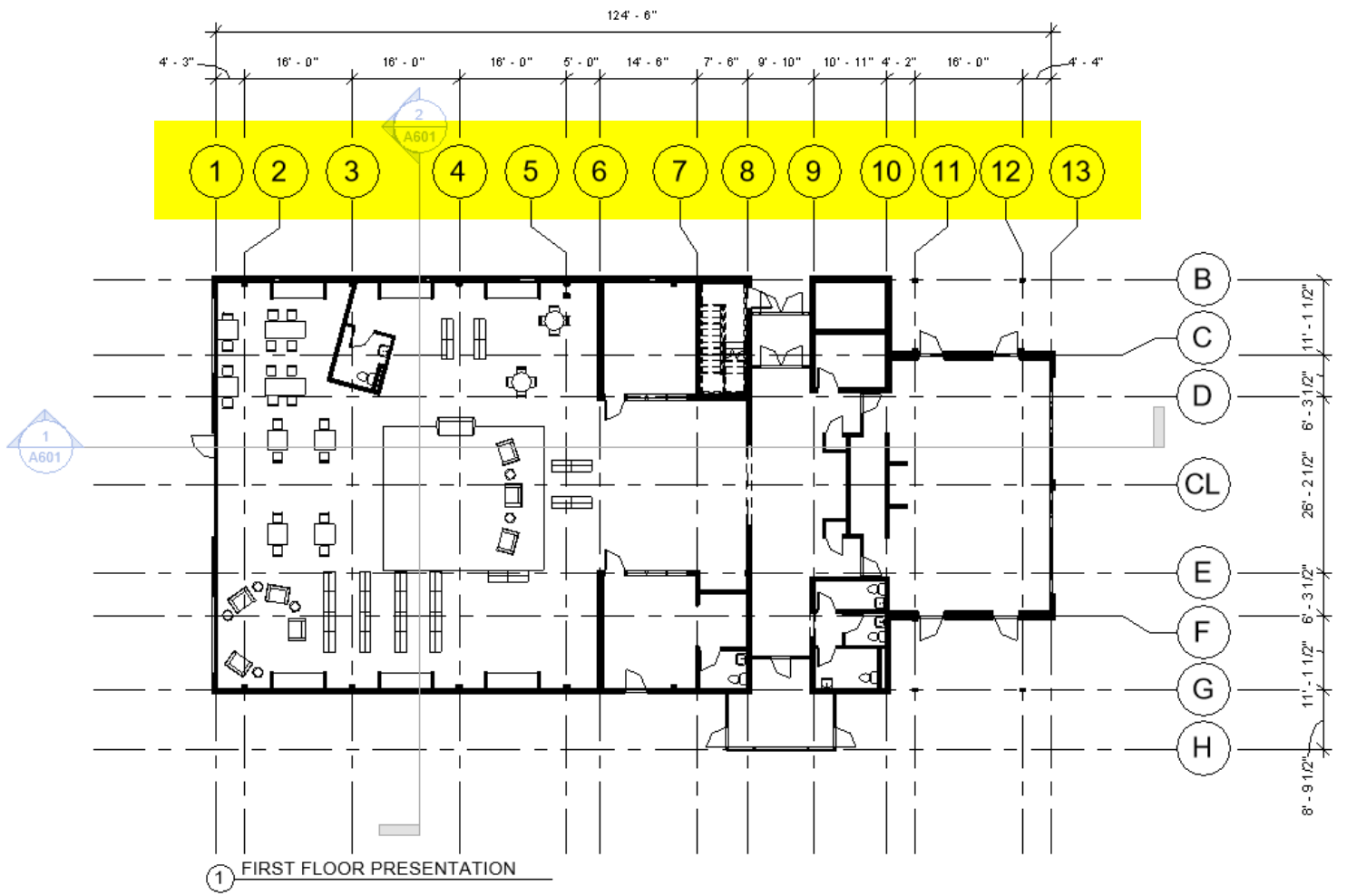


PROJECT 4

Fall 2024 // Revit Course

Similarly to the Farnsworth House, this project, the Winthrop Public Library in Washington has already been designed and constructed by Johnston Architects. Allowing again the opportunity to refine and enhance revit skills, but taking it a further step. This time looking at construction documents, learning what they should pertain, and being able to create ones that were relevant to my project. It forged an elevated understanding of the relationship between the design process and the actual construction phase. A comprehensive interpretation that was not fully developed beforehand, but now truly grasping the attentiveness to detail, the delicateness, and precession for a productive building site.

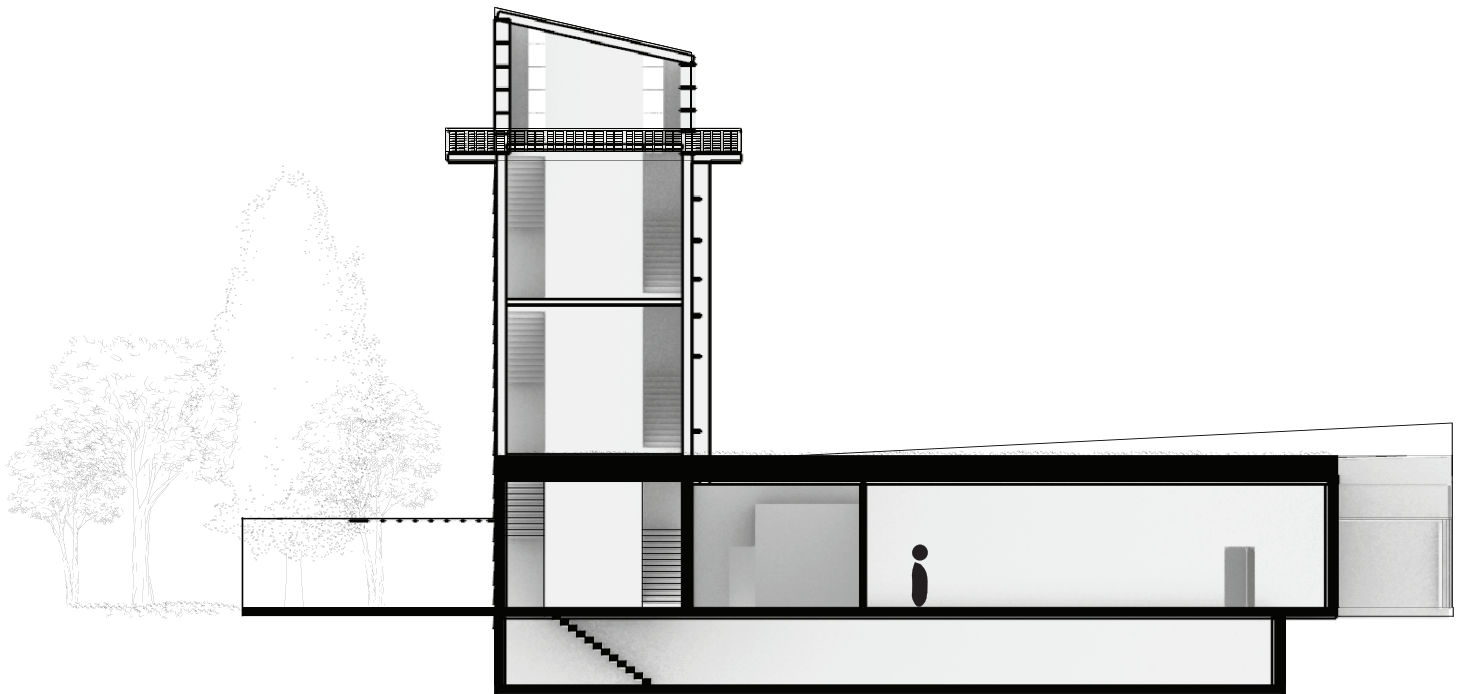




PROJECT 5

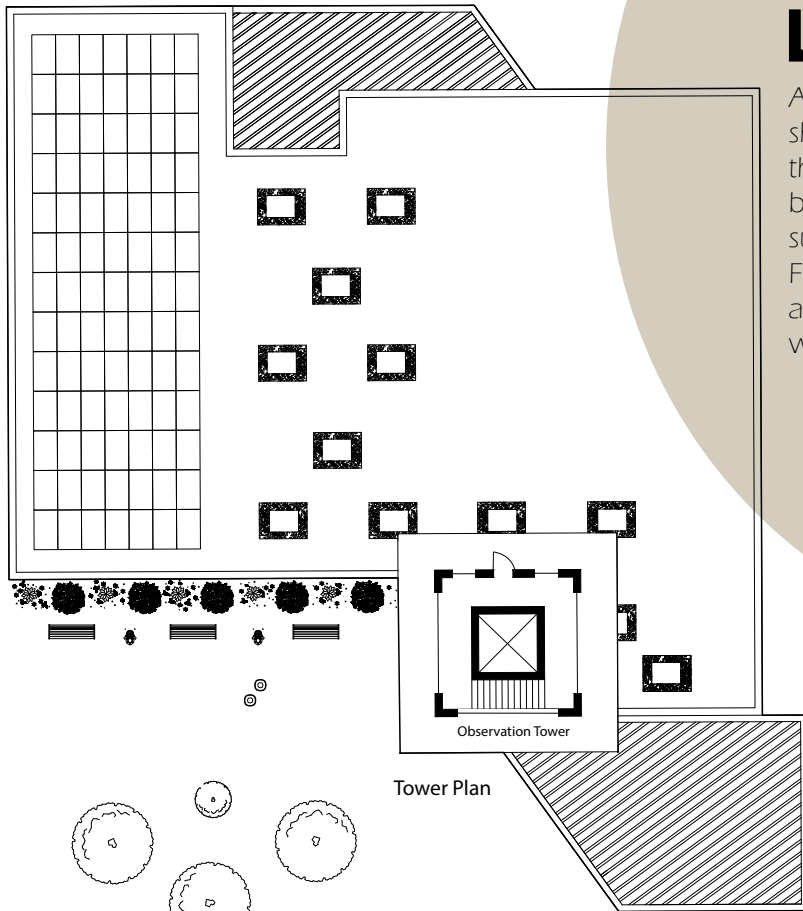
Fall 2023 // Studio

In an efforts to expand our sustainability insight, we were tasked in creating an environmental friendly bird sanctuary. Located right on the waterfront, in Halibut Point State Park, Massachusetts. We would be reaplcing the old bird sanctuary with something more relevant, and enticing to the public.



LIGHTHOUSE

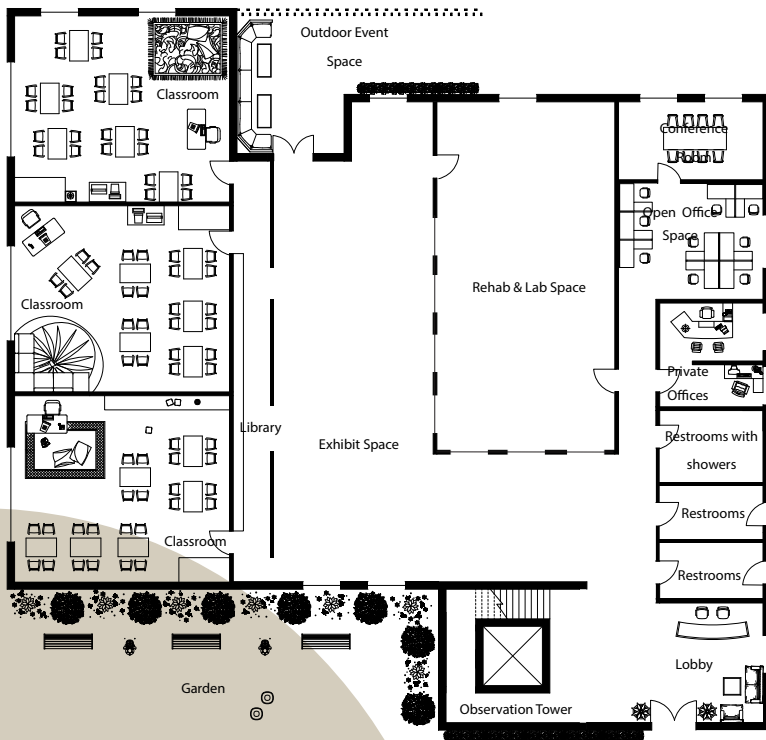
A lighthouse in **historical term**, warns any off shore vessels of the approaching **dangerous** of the coastline. Yet within this context, it means a brighter, more ecofriendly future by using sustainable approaches and initiatives. Furthermore, the integration of the tower allows a 360 degree perspective view of the treetops as well as the waterfront.



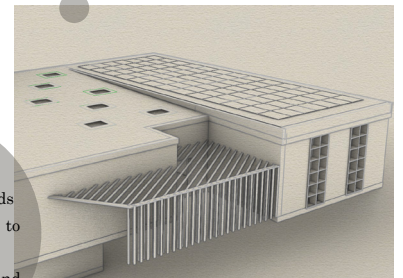
Skect Diagram

Tower Plan

North

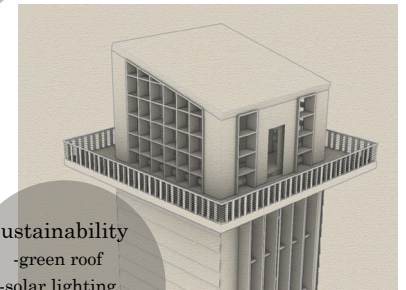


Ground Plan



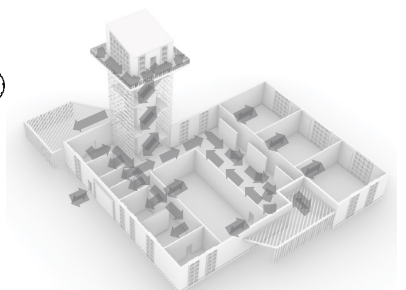
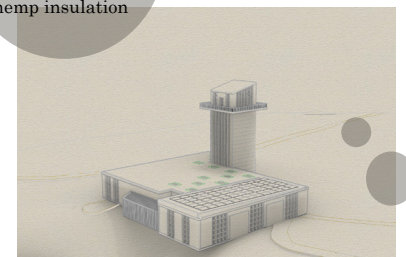
Features

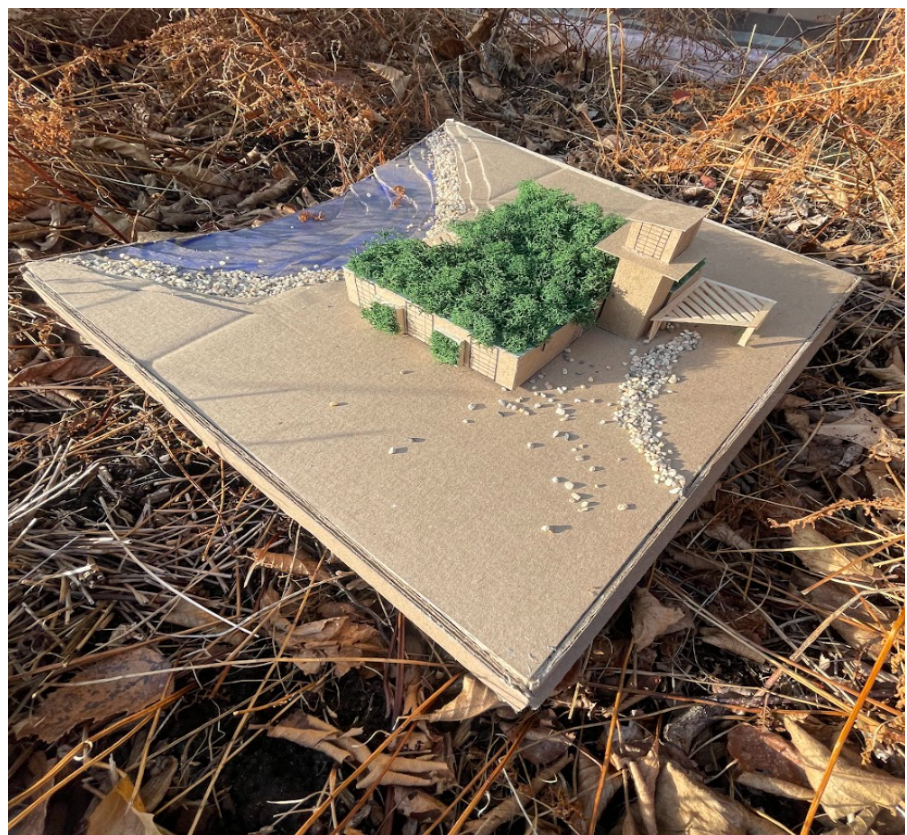
- facade pattern
- nesting area for birds
- skylights to view up to nesting area
- 360 perspective around the tower



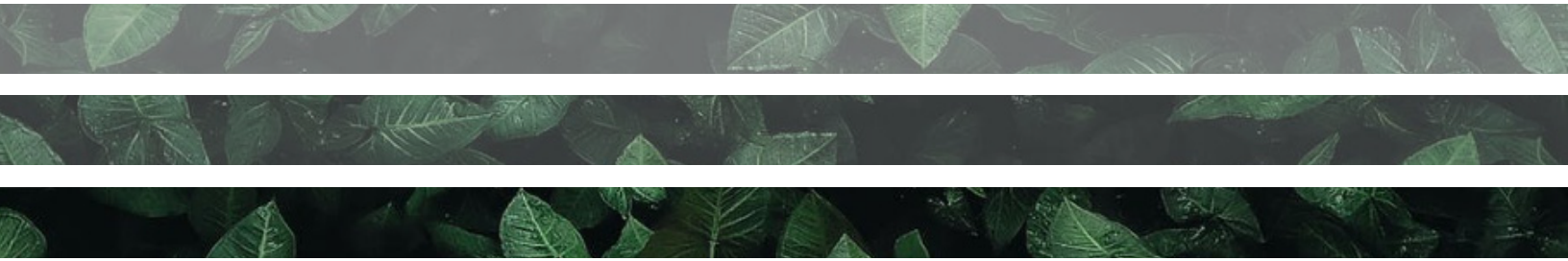
Sustainability

- green roof
- solar lighting
- solar panels
- hemp insulation





L I G H T H O U S E



PROJECT 6

Spring 2022 // Studio

In creating a sustainable environment, I upcycled a discarded scientific scale from the UMass Science Department. Filling it with soil, rocks, as well as cacti, I was able to repurpose it while addressing the concept of being contained while also interacting with the container; the differences that this entails and how they work with one another.

Sitting on top, is one of the plant holders housing blooming flowers curated from fragments and pieces from the technical pieces from the scale.



PROJECT 7



California Forest Fires

Spring 2022 // Studio

The main objective of this interactive “mask”, was to create a somewhat enclosed space inside for the person experiencing it. Manipulating their line of vision, creating a very restricted outside reality as everything around them is casted in a dark shadow and the two cutouts are their one light source. The audience on the other hand are flashed with vividly strong images of current day problems, that everyone around the world are enduring. Ranging from forest fires, polar ice caps melting (using glass for a reflective element conceptually and visually), a smog filled city, and oil spills (next slide).



Ice Caps Melting



Smog in China

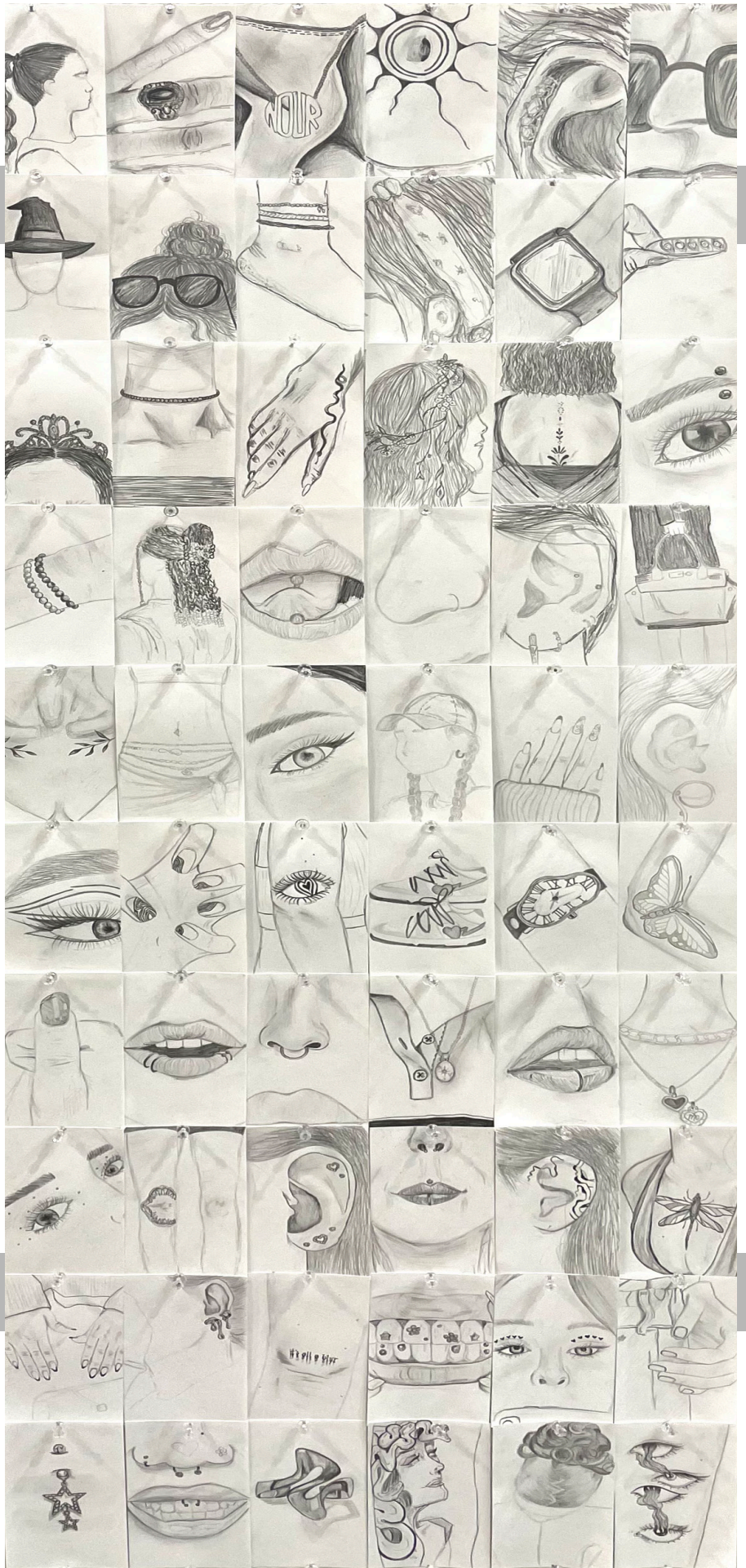
Deep Horizon Oil Spill

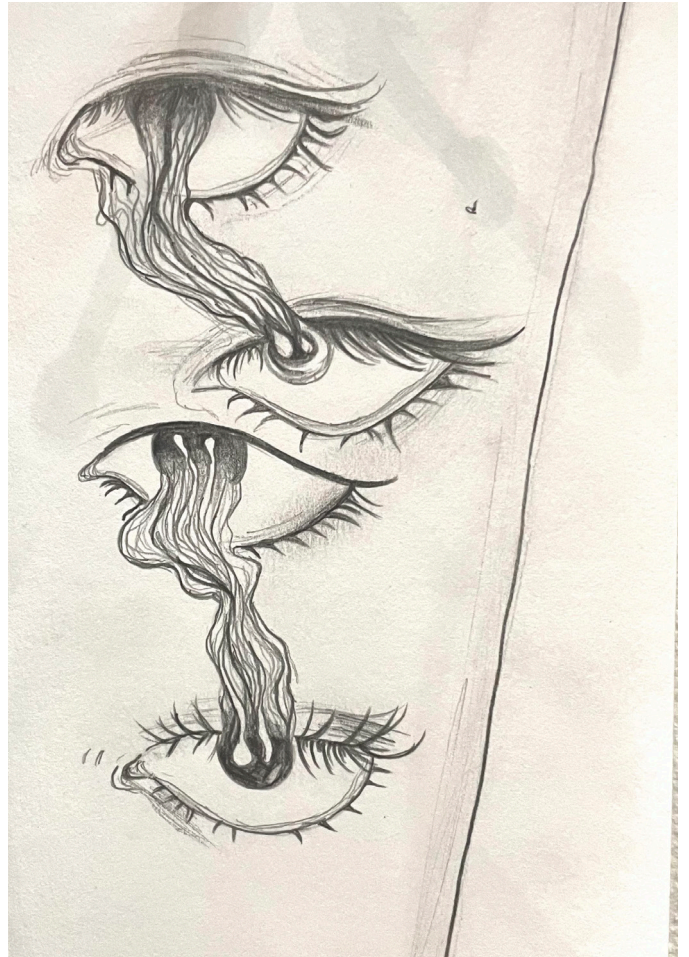
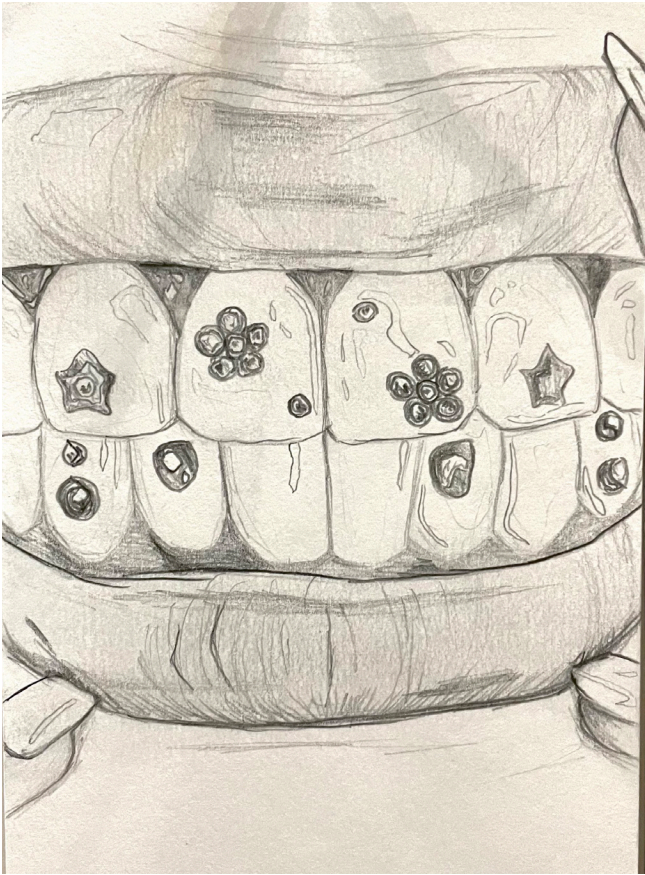


Fall 2022 // Studio

For exactly 60 days, I spent 10-15 minutes sketching any bodily ornamentation. Being such a tedious project, it created an opportunity to refine my attention to detail. Allowing a new skill to be developed, I was forced to look at the prominent elements rather than entangling myself within so many specific details. The ability to encapsulate the main essence of an object.

PROJECT 8





PROJECT 9

2018 (Revised again in 2021) // Digital Design

While this may be a High School project, it was a labor of love. Growing up around the South Shore, it was filled with a love for the ocean and wildlife around me. This project reflects that, a concept of man intertwined with nature, beautiful yet damaging simultaneously. Emphasizing the notion that remnants of our actions, figuratively as well as physically, will always immediately impact our environment. How nature, although forgiving, may adapt this pollution and transform it into an aquatic sanctuary for its organisms. But it should not have to. The coral reef growing on the haul of the boat is slowly losing the tinge of healthiness as it is being poisoned. Coral bleaching, something that is impacting our oceans, is endangering entire ecosystems underwater. Parts of the coral have slowly lost their vibrant color turning into frail, white, decaying organisms. Grappling with the idea that while nature is forgiving, there is no absolution to our actions against this Earth if maintained or escalated.

This piece has been . . .

**Recognized at UMass
Dartmouth's
Emerging Youth Artists
Exhibition (2021).**

**Showcased at South Shore
Natural Science Center (2017).**

