



**Farah
Ahmed.**

VOL-01.

Architecture + Design
Body of Work.

2021-2024

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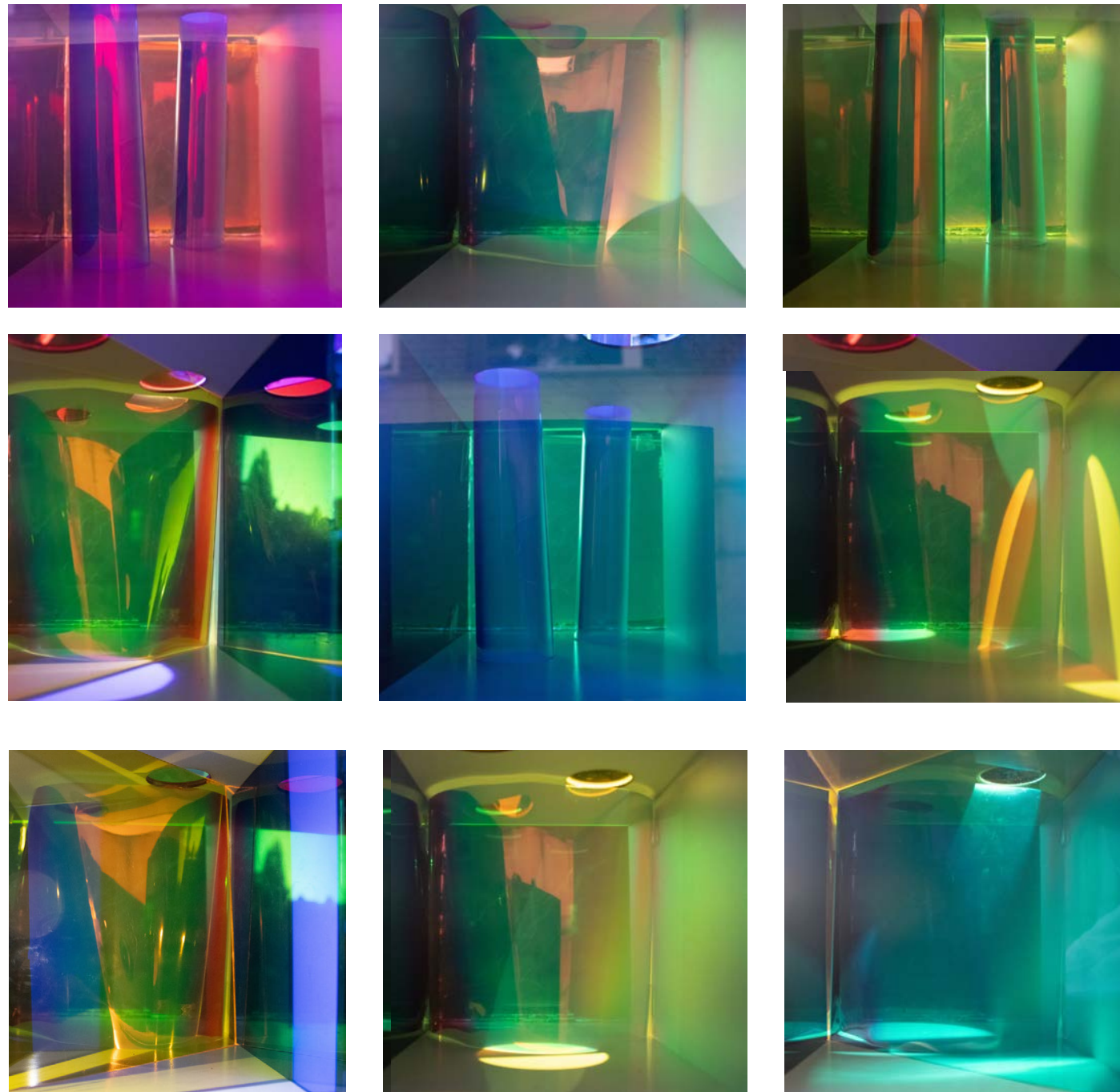
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Sensory Transience

ADV V: Reclaiming Inuit Youth: an intervention on Naujaat

Instructor: Leslie Gill & Khoi Nguyen

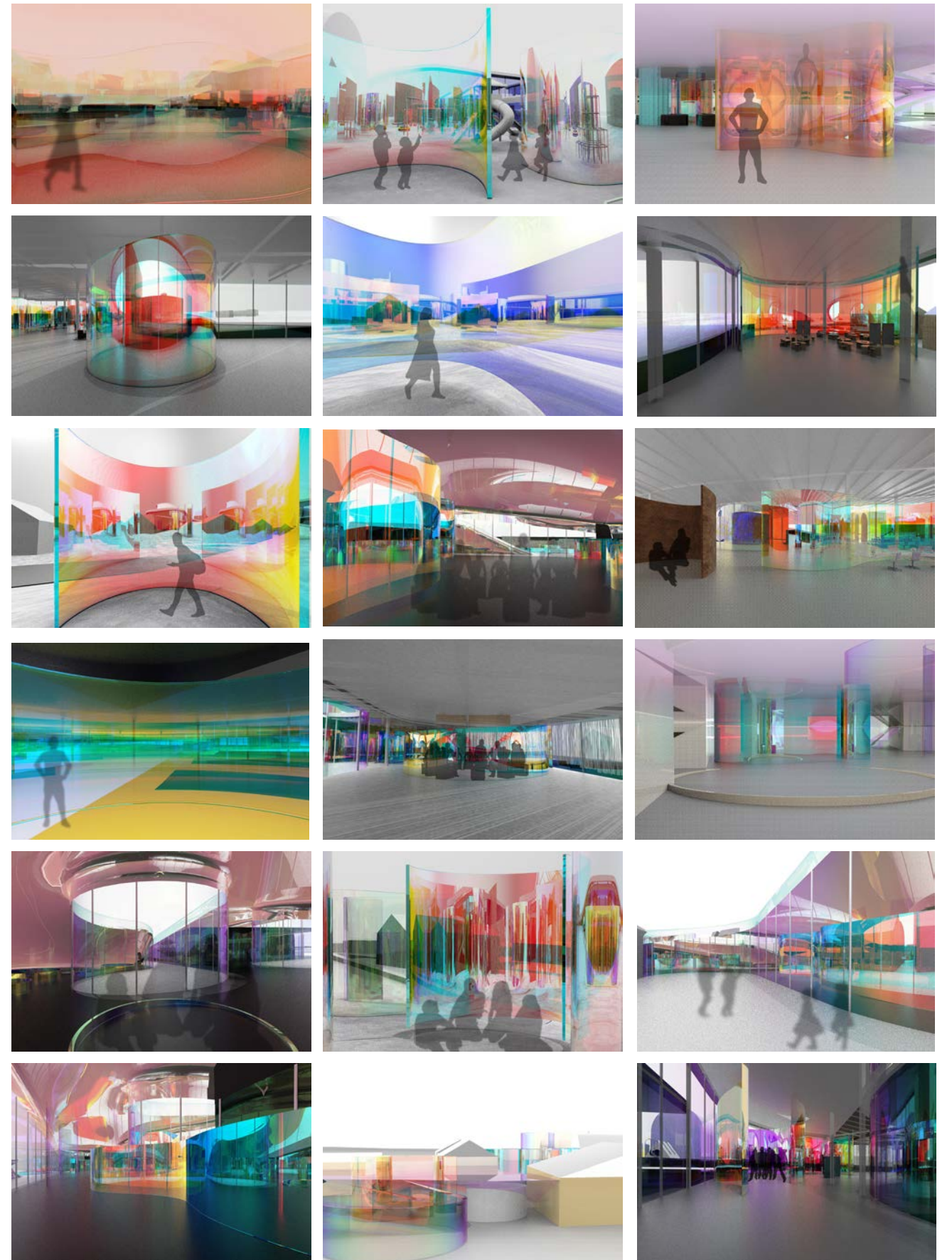
Exploring the Naujaat site in the Canadian Arctic, with a population of approximately 1500, the project focuses on the Naujaat Elementary and Middle School near the Arctic College, fostering intergenerational connections. Through the use of physical prototypes employing dichroic media, layered filters create a captivating play of reflection and refraction. Materials like Dichroic Glass, Animal Fur, and Locally found Driftwood symbolize the intricate layers of Inuit youth lifestyle. Seamlessly integrating with the Naujaat school and community college, the intervention responds to the site's topography, encouraging diverse social interactions while challenging societal norms through perspectival mirroring and deformity. The design advocates for communal spaces blending anti-colonial narratives with contemporary local initiatives, offering shared experiences such as a digital resource center, a creative maker space, a communal dining area, and a hub for emotional and mental support.

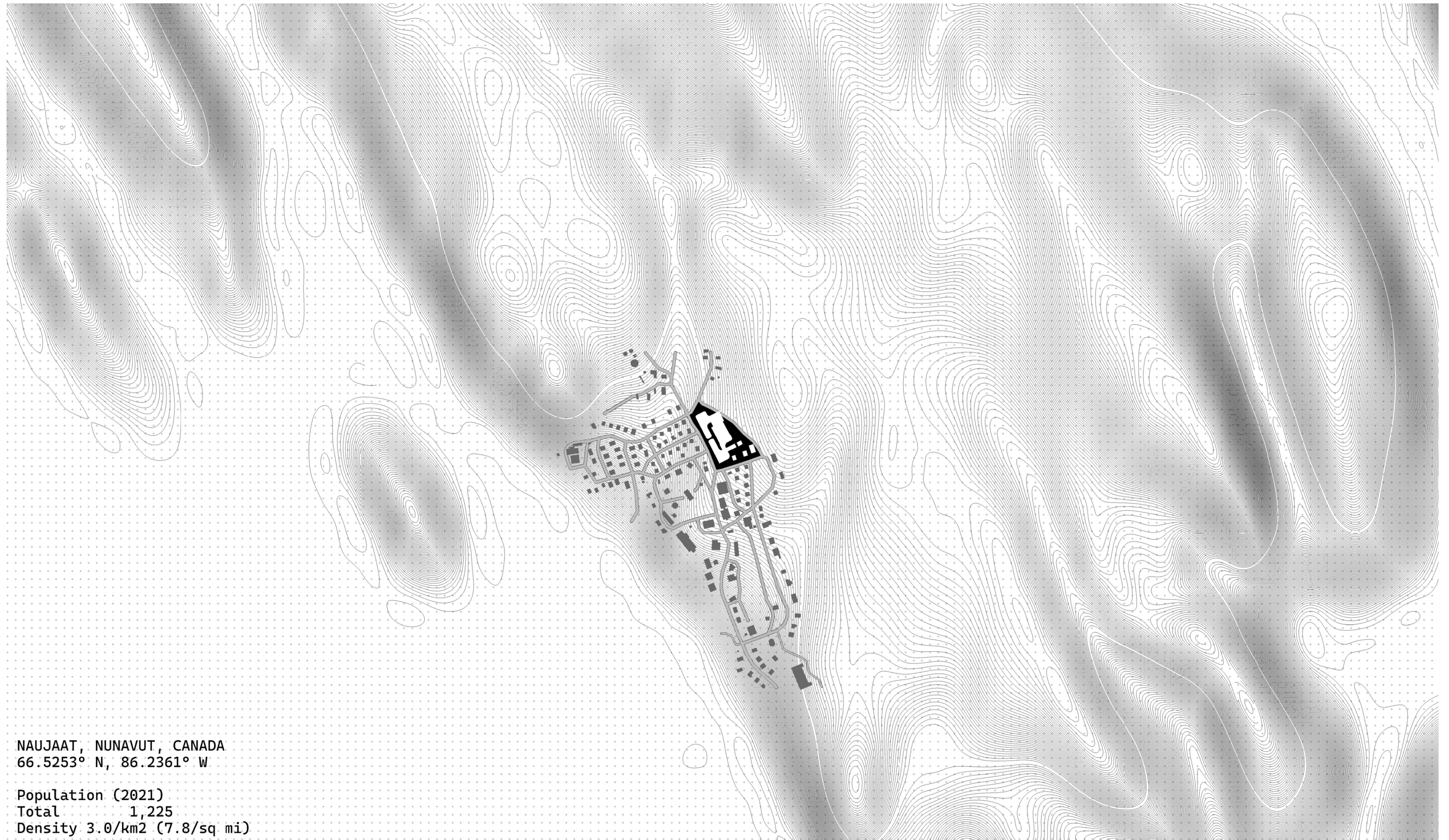




Experiential Studies

Using a physical prototype of dichroic media, a series of layered filters were created to converge the view and orchestrate a play of reflection and refraction. This project proposes a multitude of intervening lenses and frames that warp and distort the horizon. Materials such as Dichroic Glass, Animal Fur, and Locally found Driftwood are used to create sensory seeking and sensory avoidant experiences.



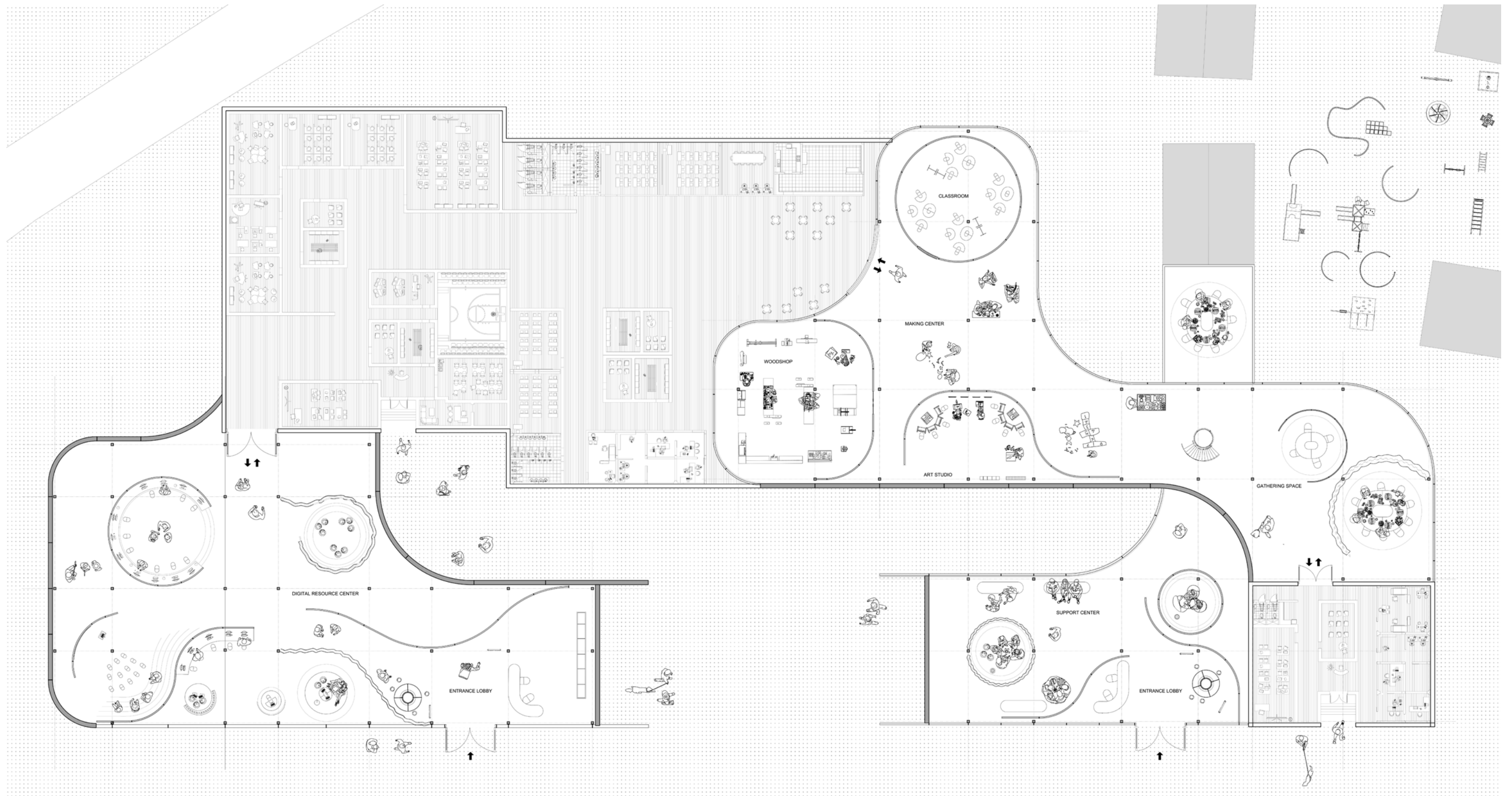


NAUYASAT, NUNAVUT, CANADA
66.5253° N, 86.2361° W

Population (2021)
Total 1,225
Density 3.0/km² (7.8/sq mi)



Aerial View of the Project and the Existing Educational Facilities in Naujaat



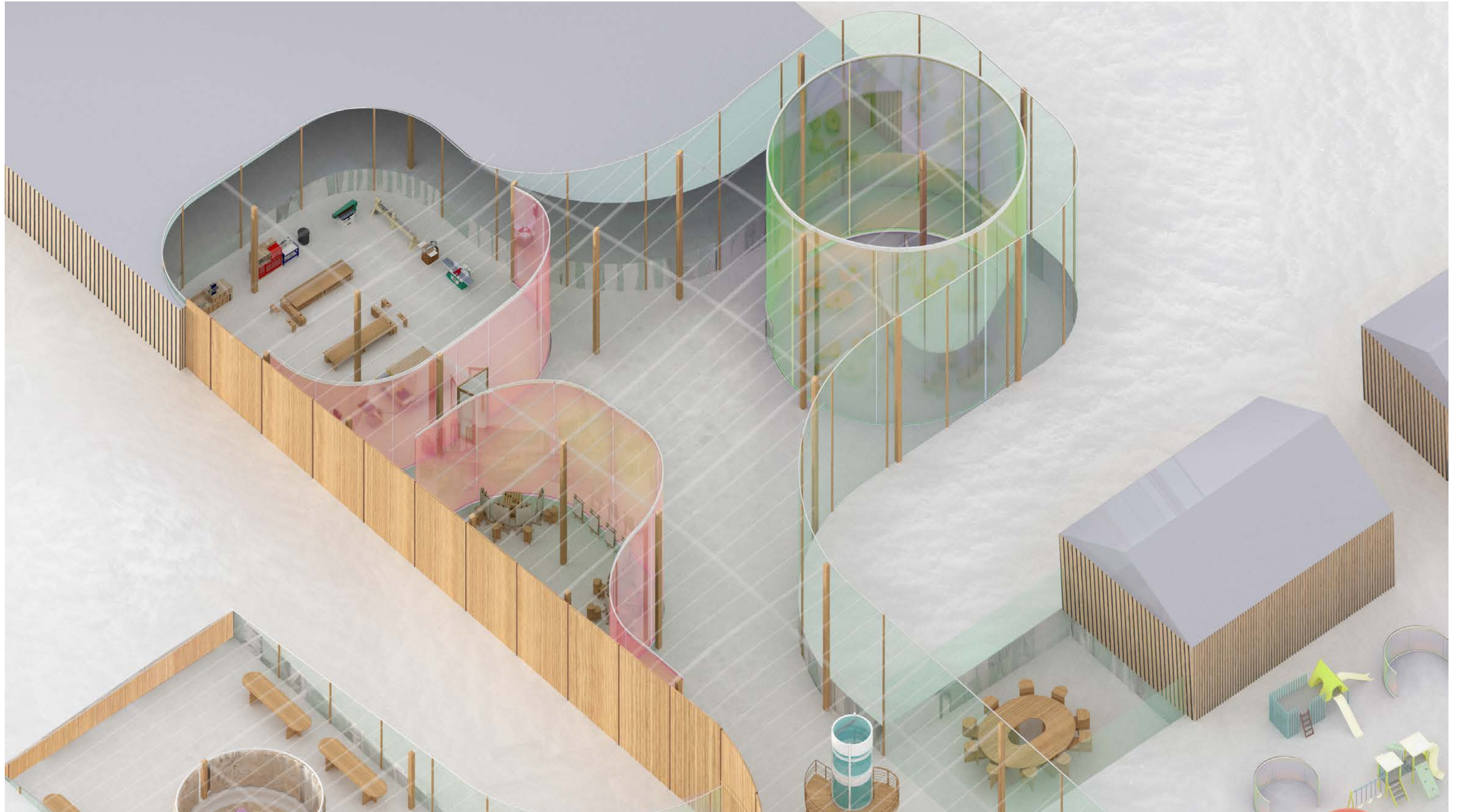
Ground Floor Plan showing the three major spaces: a Digital Resource Center, a Community Support Center, and a Makerspace.



Isometric of the community support center



Isometric of the digital resource center



Isometric of the makerspace



Interior view of the community support center (Lobby)



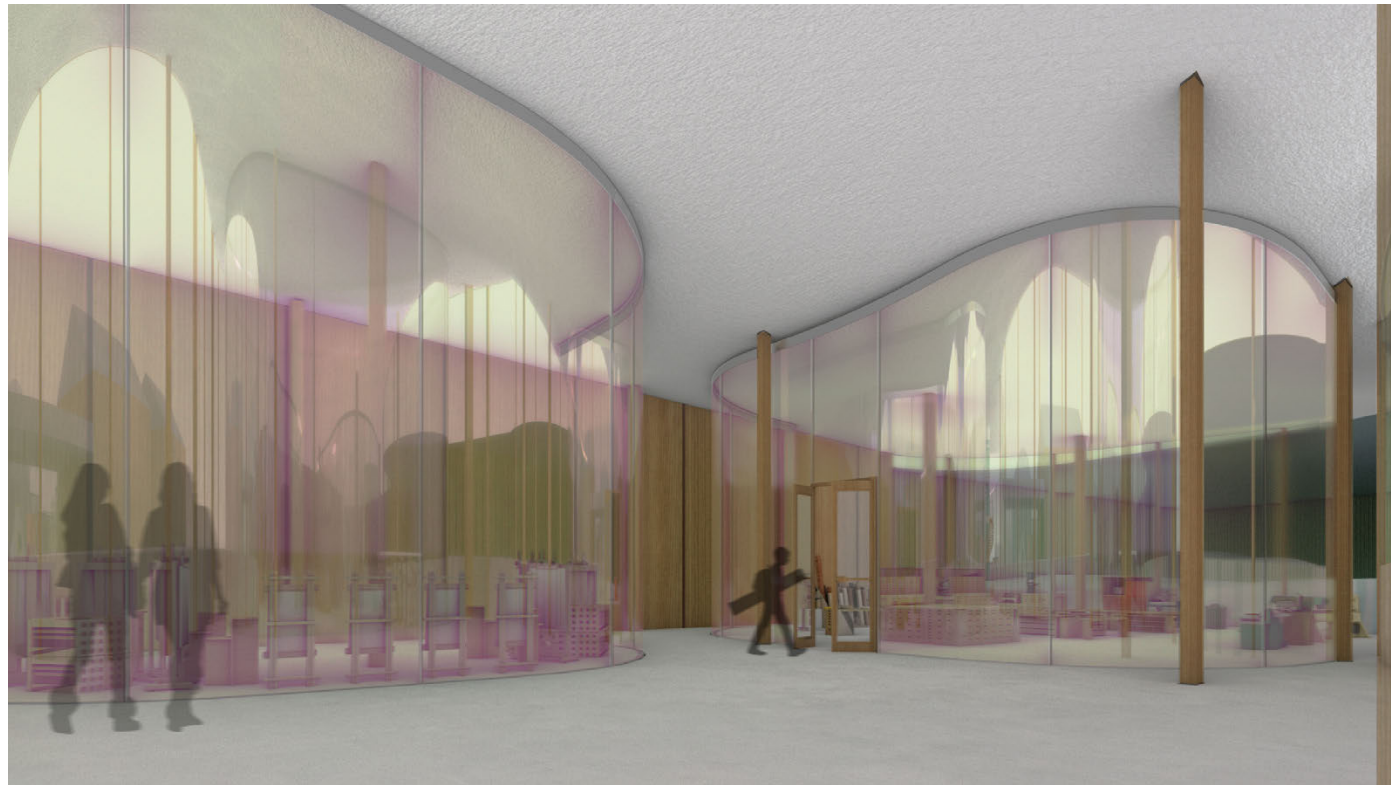
Interior view of the digital resource center



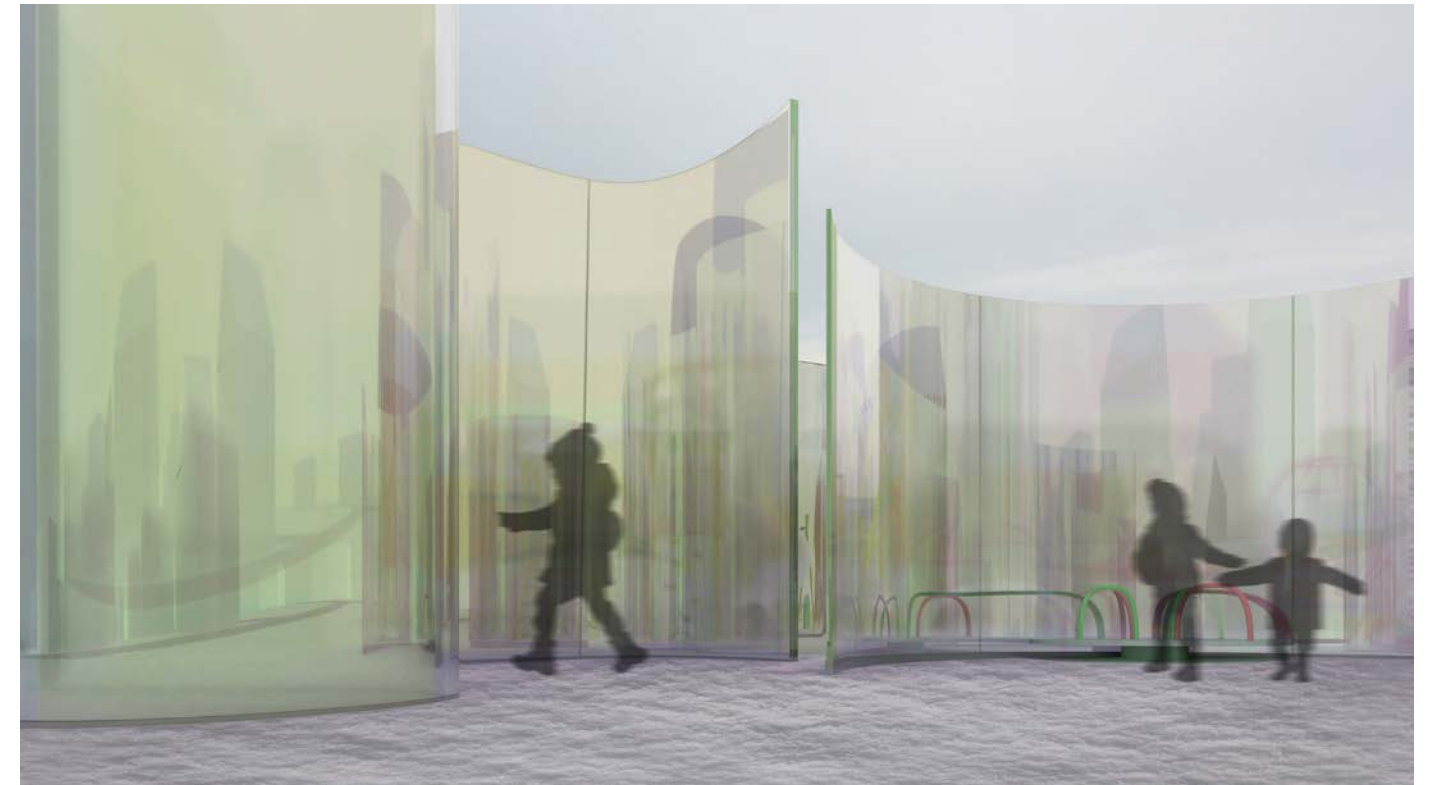
Interior view of the community support center



Interior view of the digital resource center



Interior view of the Makerspace

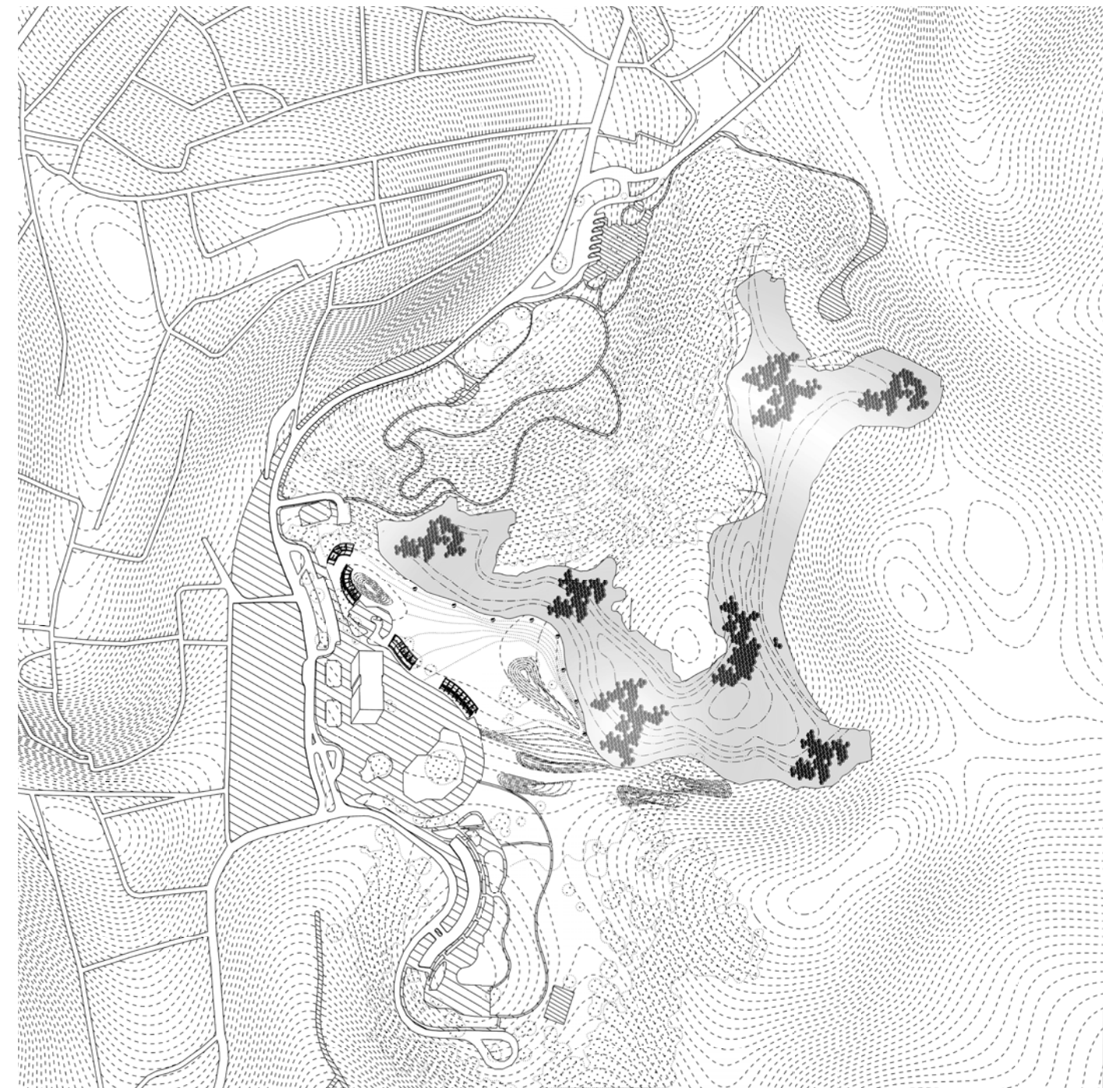


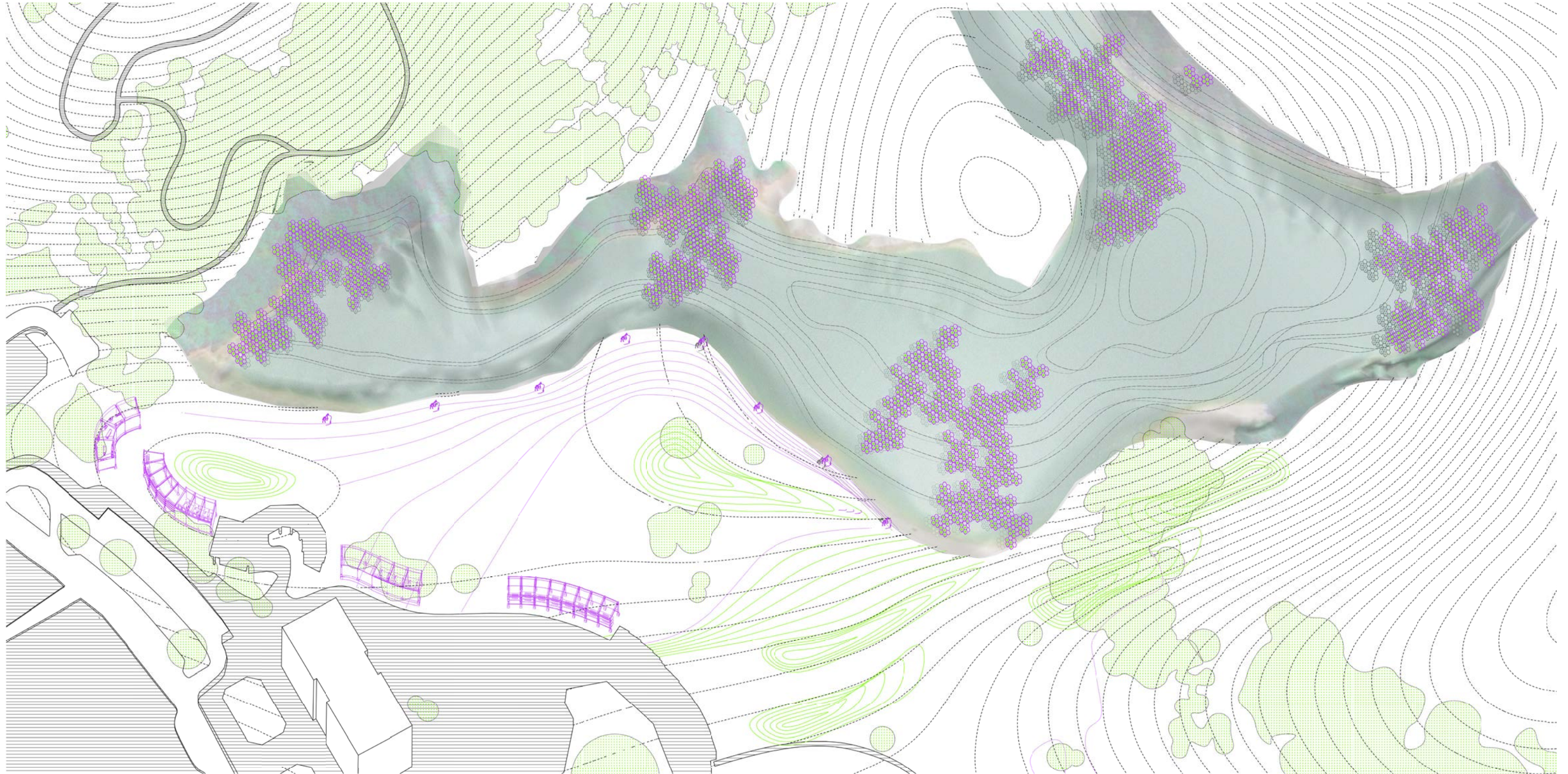
Exterior view of the Children Playground

ADV VI: Unveiling Toxic Ecologies: *Colonial Legacies, Environmental Racism, and Community Resilience at Lagoa do Abaeté*

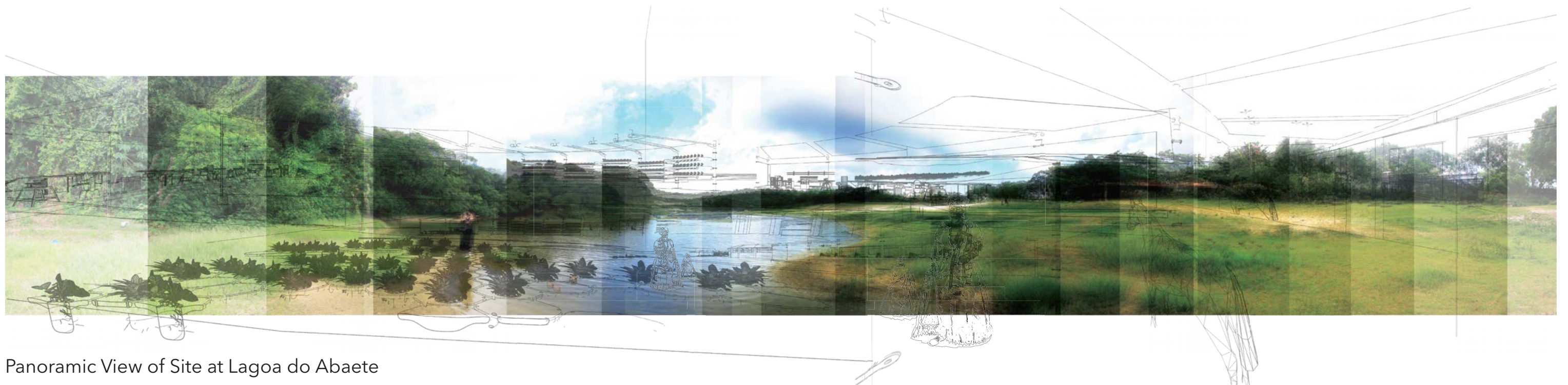
Instructor: Mario Gooden

This research aims to remediate environmental damage through a comprehensive study of indigenous and contemporary soil management and horticultural practices. The project's holistic approach involves creating toolkits and designated areas for restoration, striving to reverse ecological degradation and address the inequalities driven by ecological racism. Celebrating both remediation and regeneration, the initiative introduces floating modules on a lake. These modules are outfitted with planters for water remediation and nutrient provision to aquatic and terrestrial ecosystems. Timber-framed constructions align with the natural topography, supporting various functions including a nursery, a horse stable, a makerspace, and storage. The nursery nurtures diverse plant species vital for the lagoon's health, while the adjacent makerspace crafts the planters.

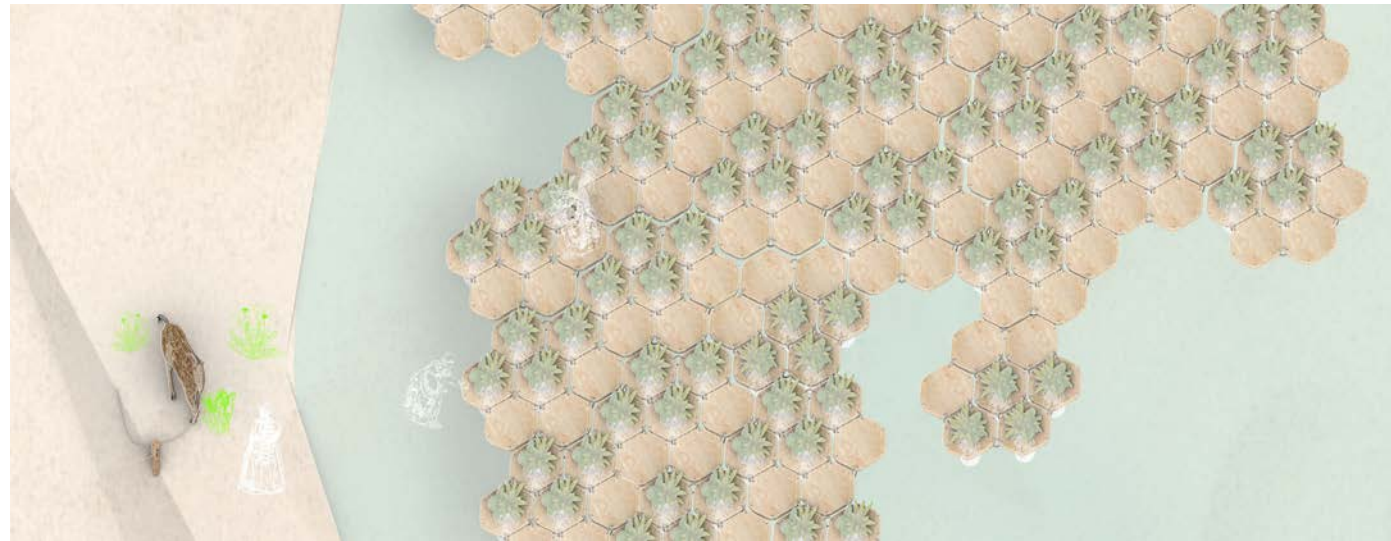




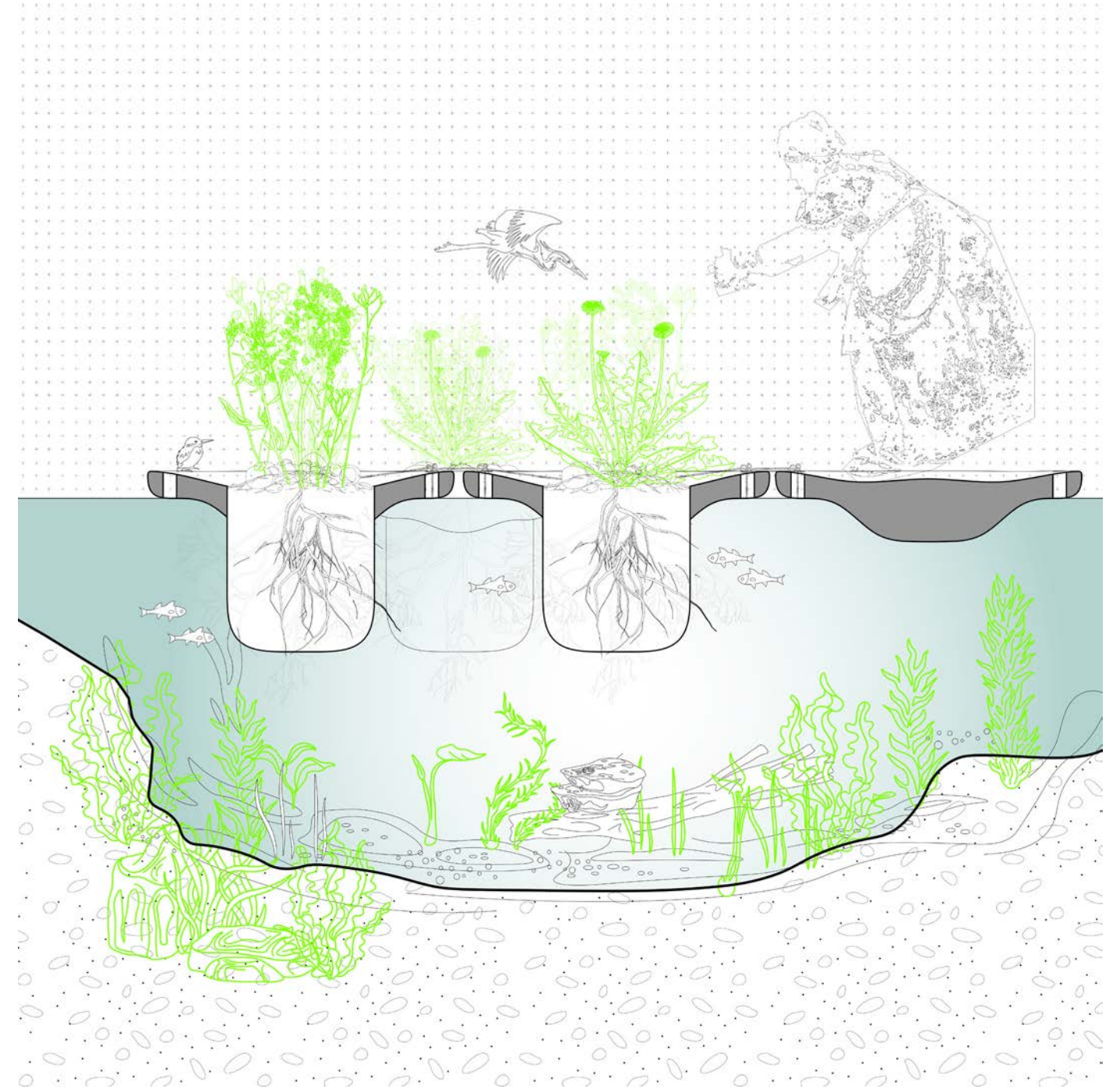
Masterplan of Lagoa do Abaete with Intervention



Panoramic View of Site at Lagoa do Abaete



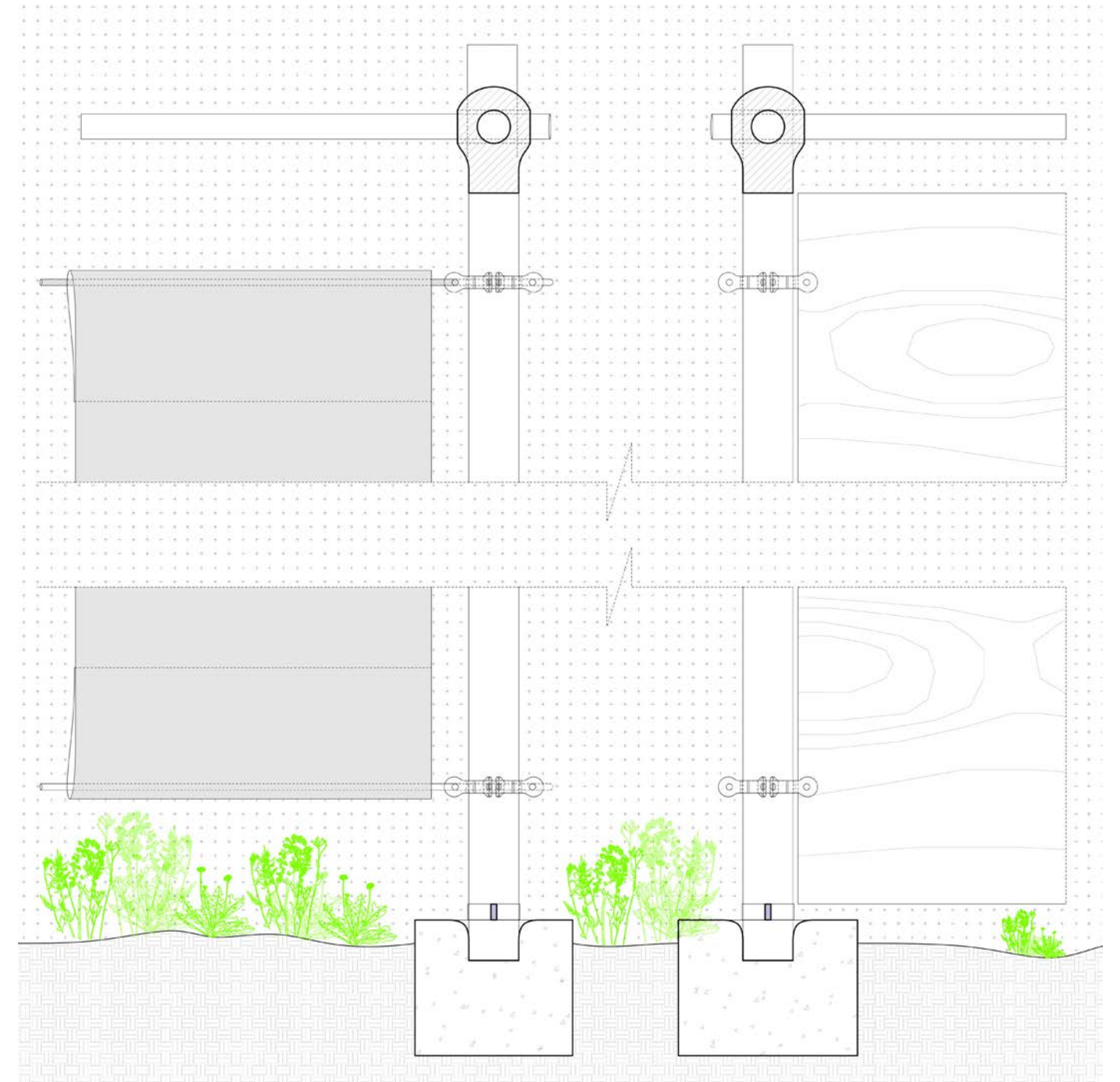
Axonometric of Floating Treatment Planter Offerings



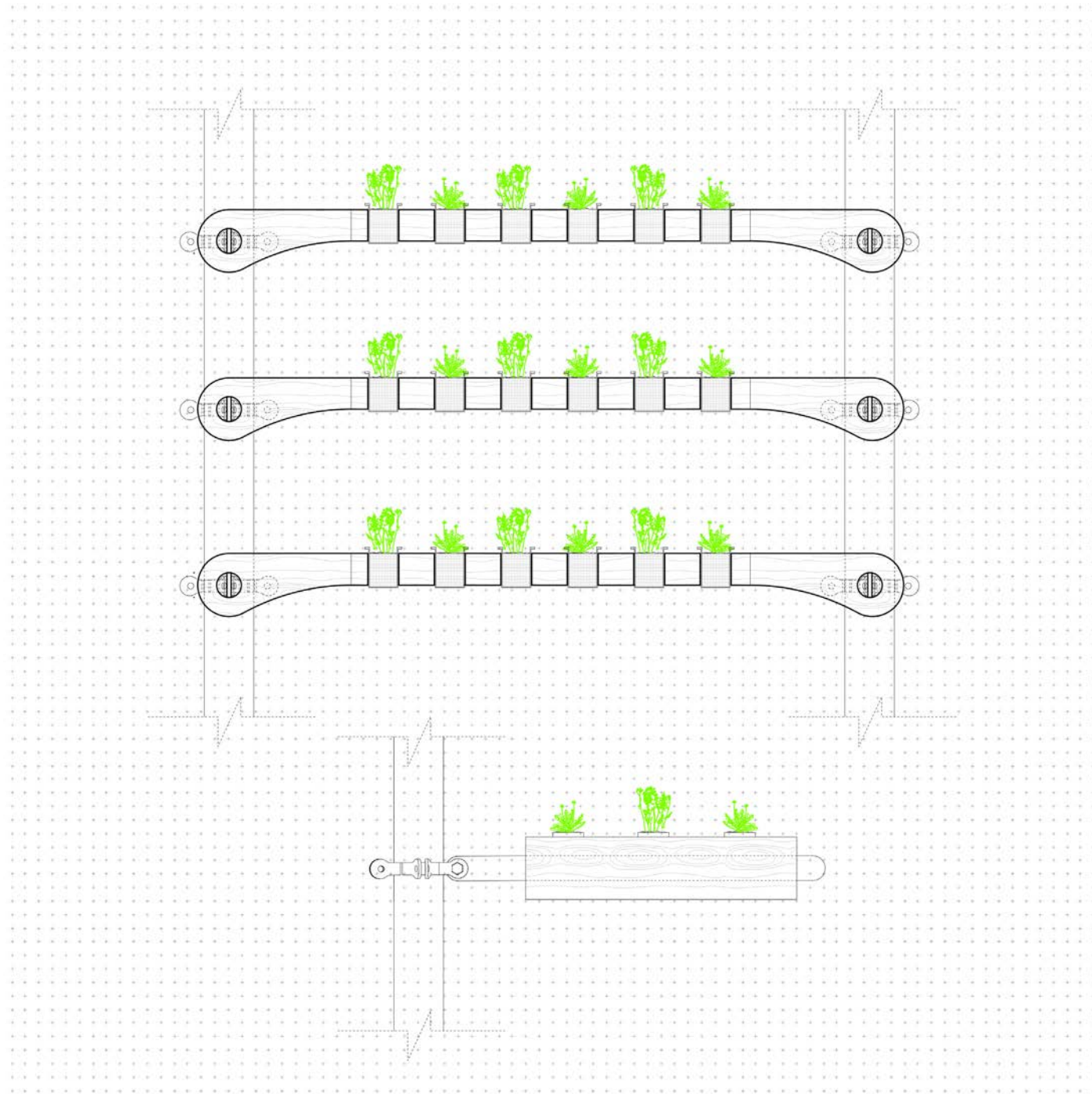
Detail Section of Floating Treatment Planter Offerings



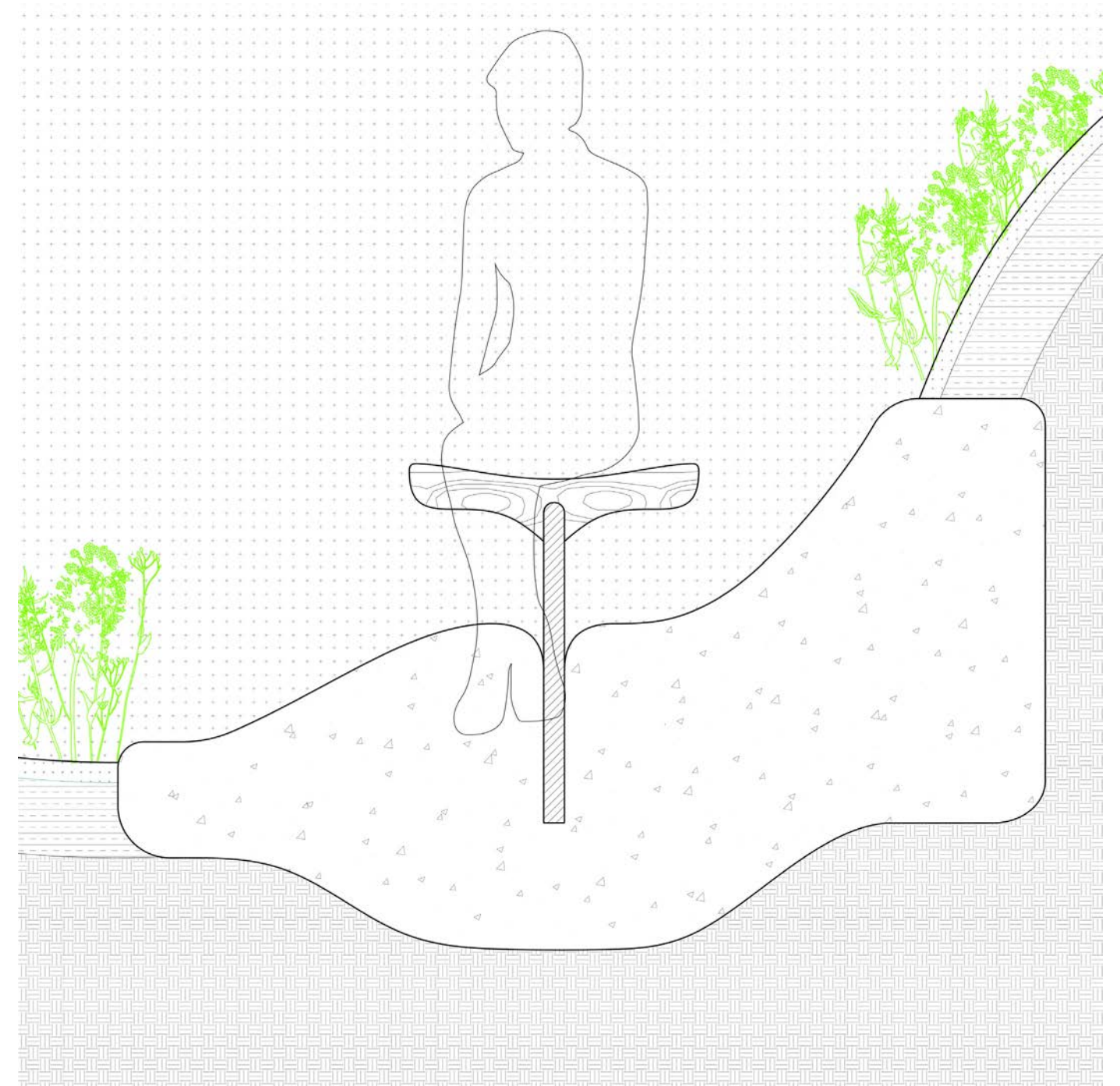
Program at site: Nursery, Horse Stable and Makerspace



Detail Section of Structural Elements in the Built Complex



Detail Section of Nursery Planters

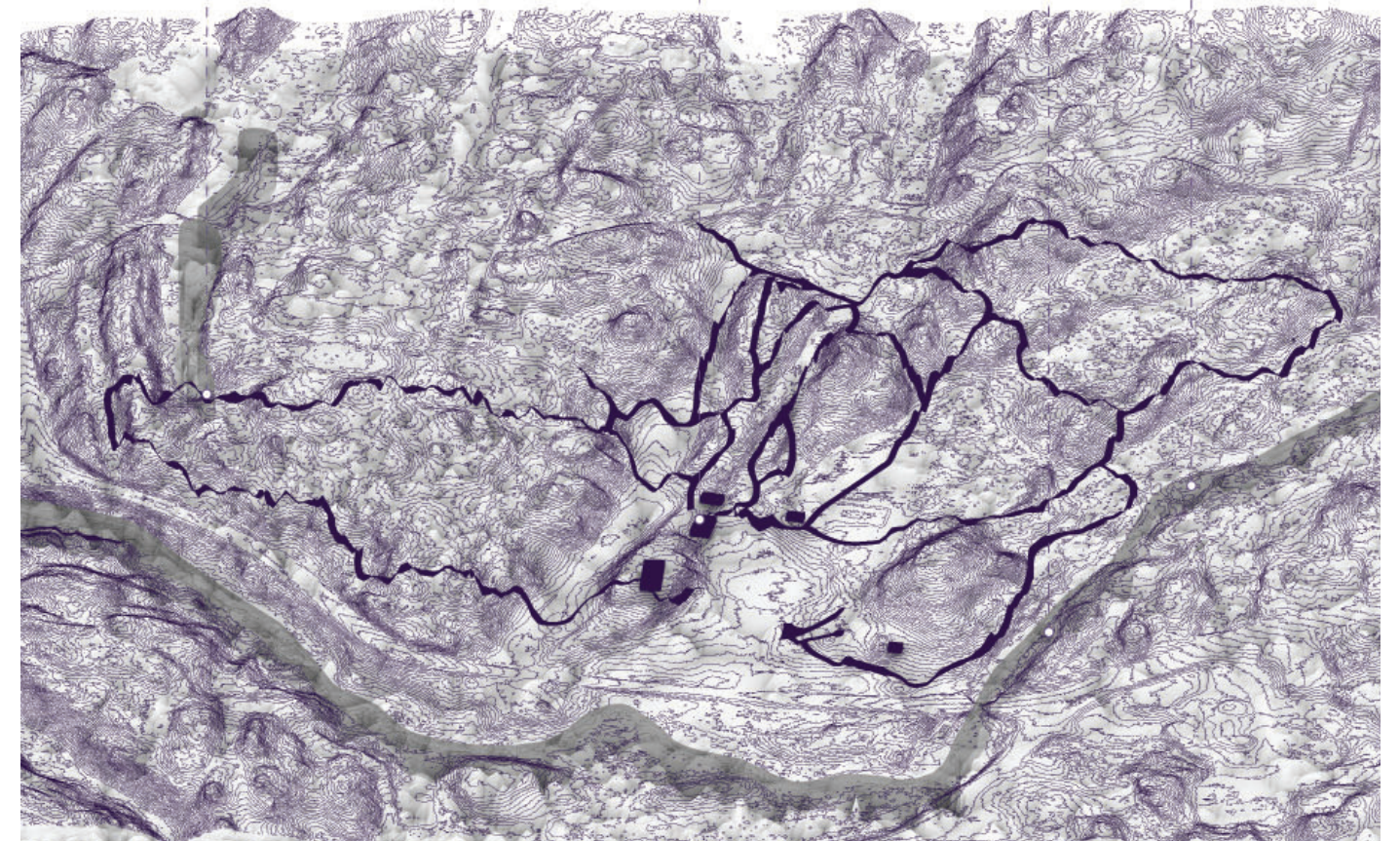
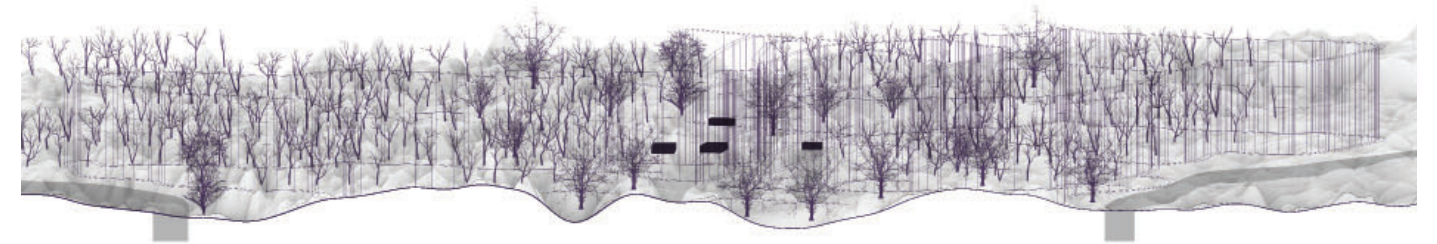


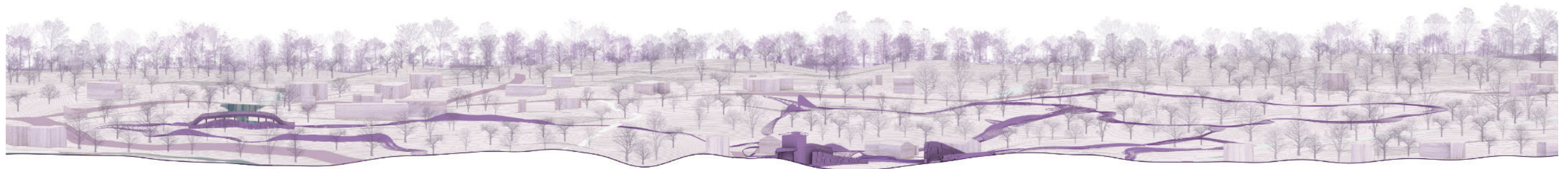
Detail Section of Seating-Incorporated Mound

ADV IV: Walkscapes of Sanctuary

Instructor: Nina Cooke John

This project immerses itself as a sanctuary through Walking for healing. Situated in the historical trails of Hyde Park, this project offers a connection between existing landscape and the memory of the site through engaging in a continuous activity that pays homage and tribute to the site's history in an all year long practice and representation. The project offers a series of constrictions and expansions that emerge from the existing trails—using the physicalities of the site, natural elements, and textures of the meandering paths, such as mixtures of dried leaves, mulch, and stone. The project has features reflected in built structures through feel and form.

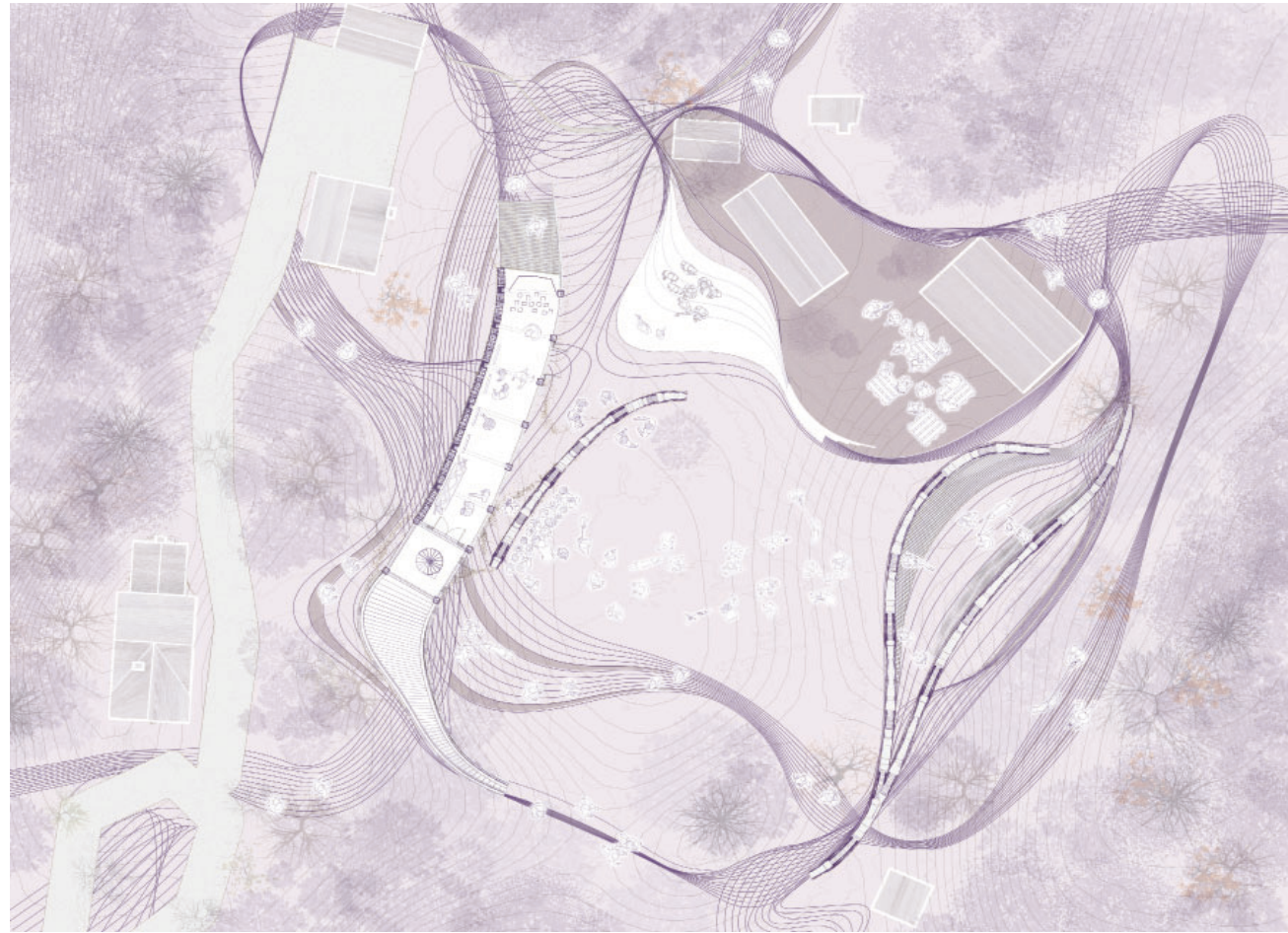




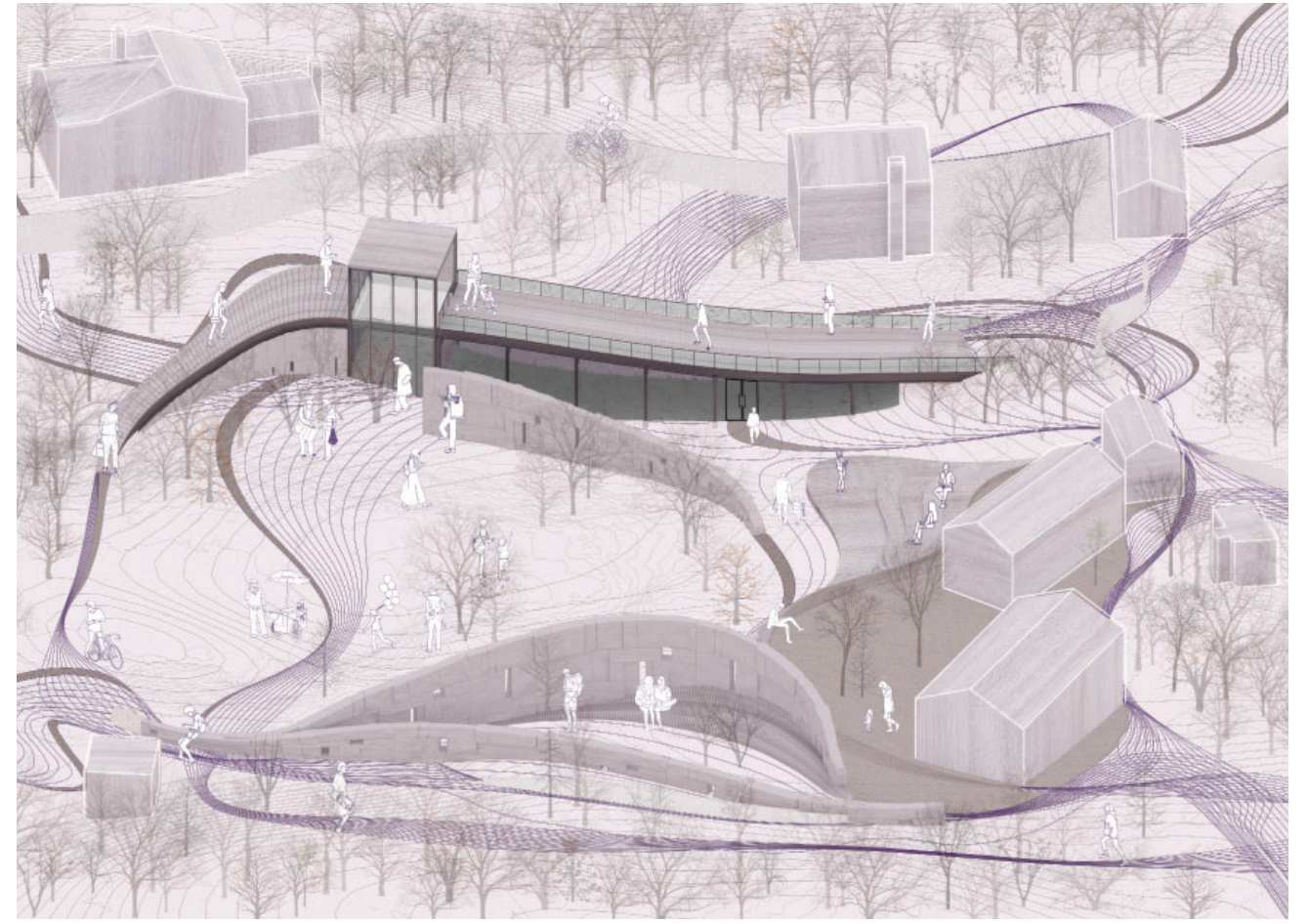
Site section highlighting walkways and interventions



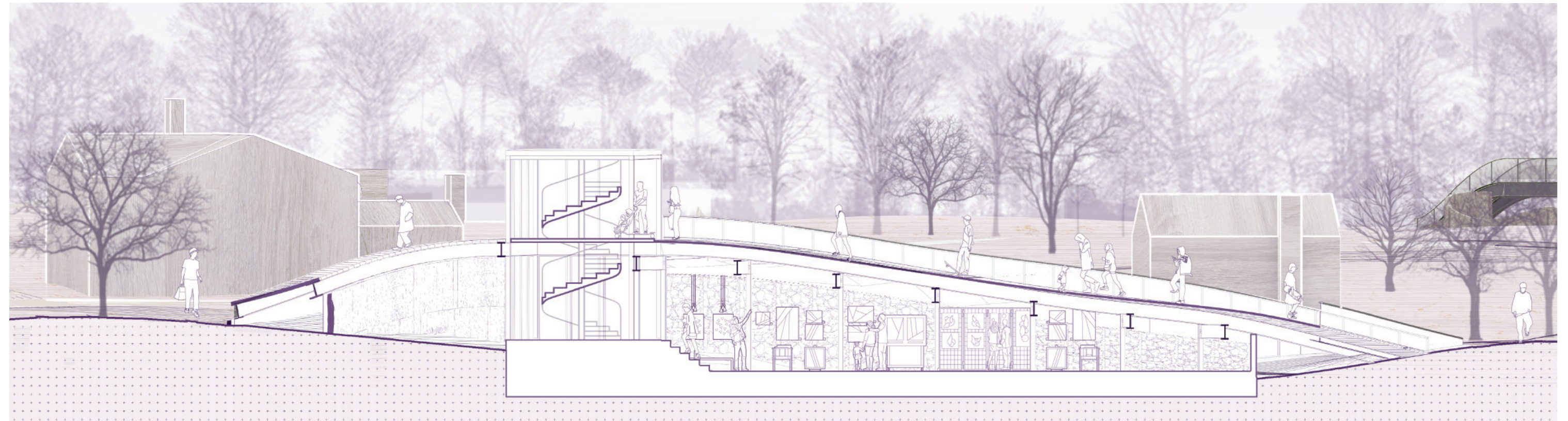
Site Axonometric



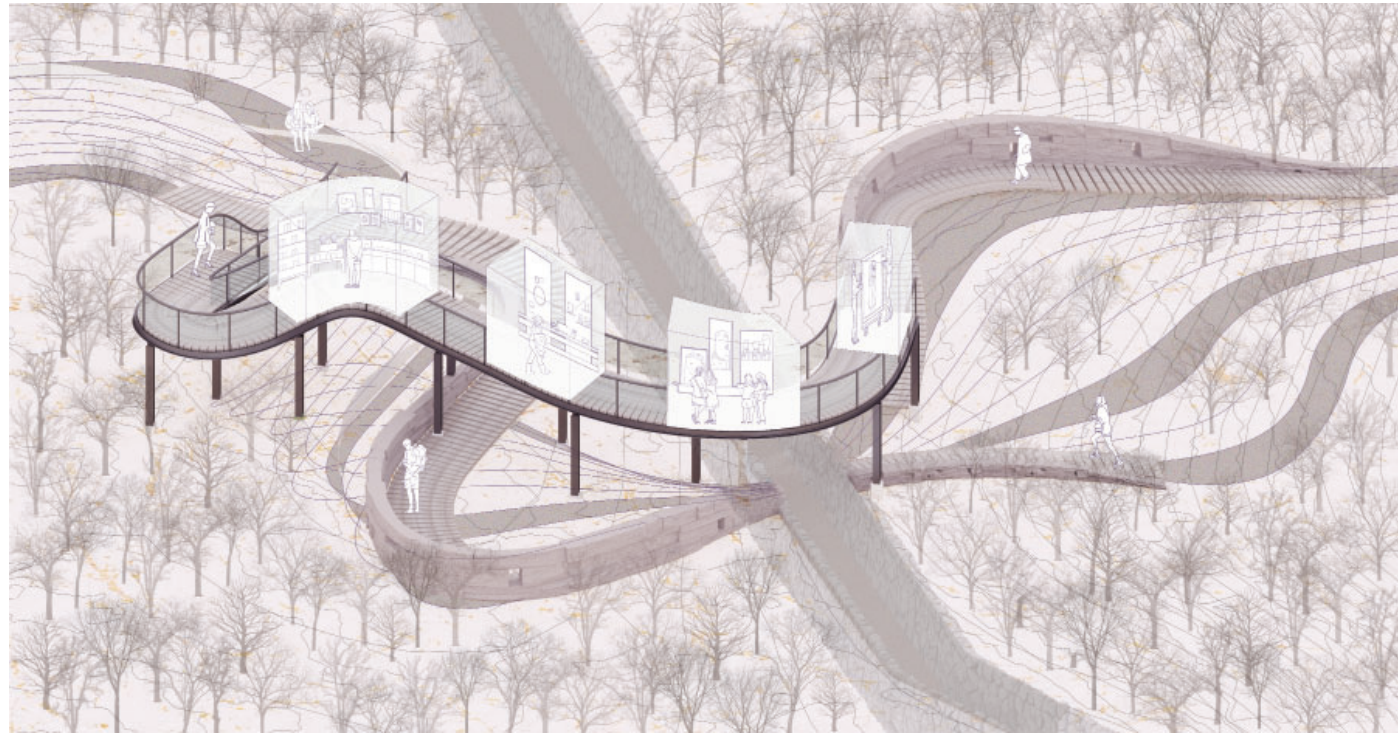
Site plan highlighting exhibition space and outdoor auditorium



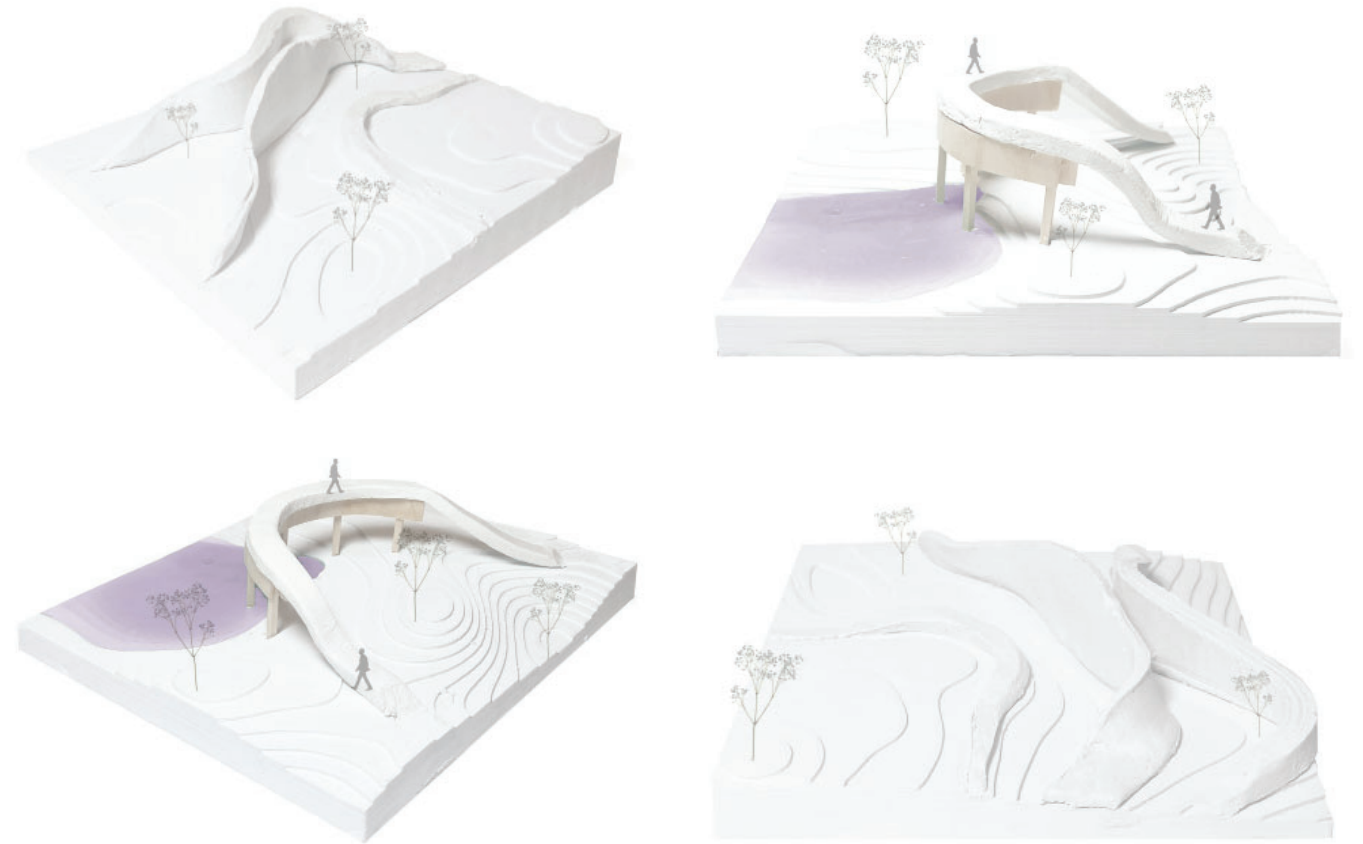
Isometric highlighting key gathering spaces



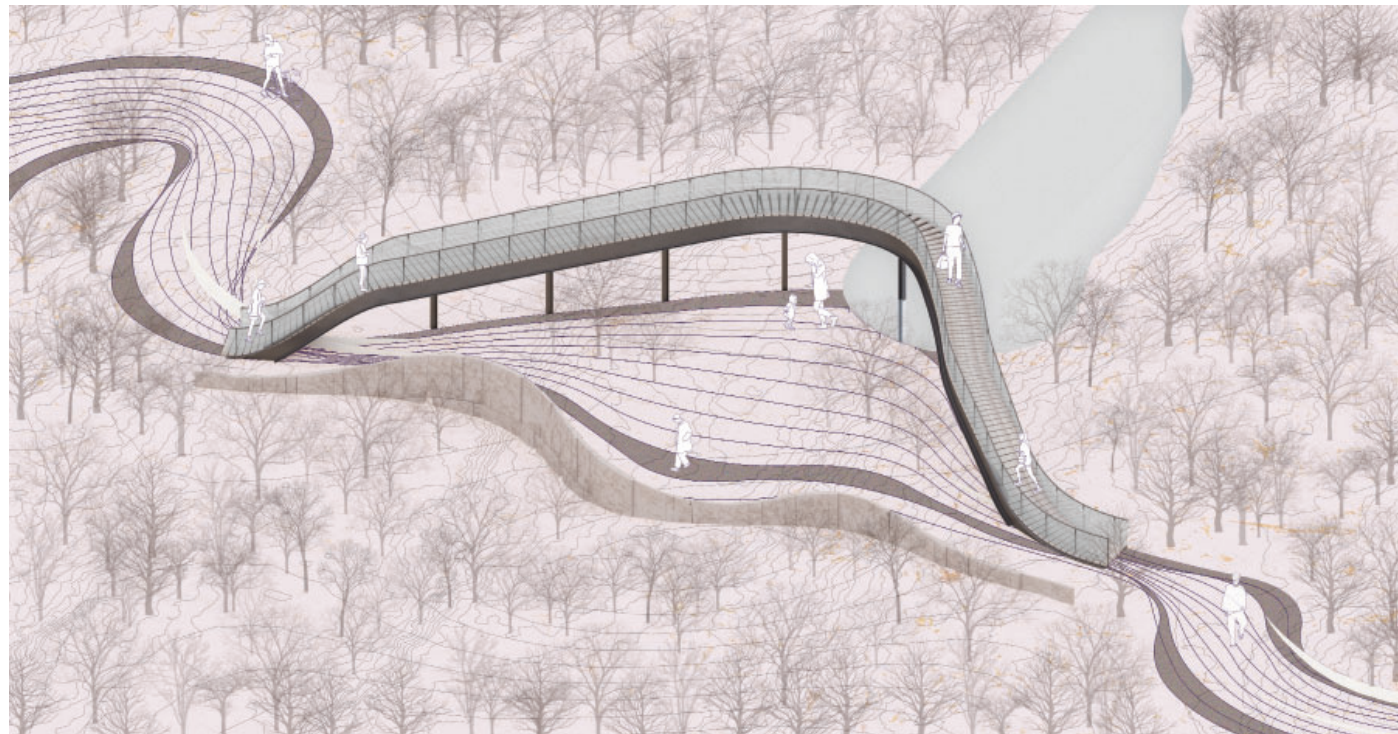
Section of Exhibition space



Isometric of the intervention on Fredonia Lane



Physical models of the interventions



Isometric of the Creek intervention



Render of Exhibition Space

Housing: Memory of Water

In collaboration with Eric hagerman

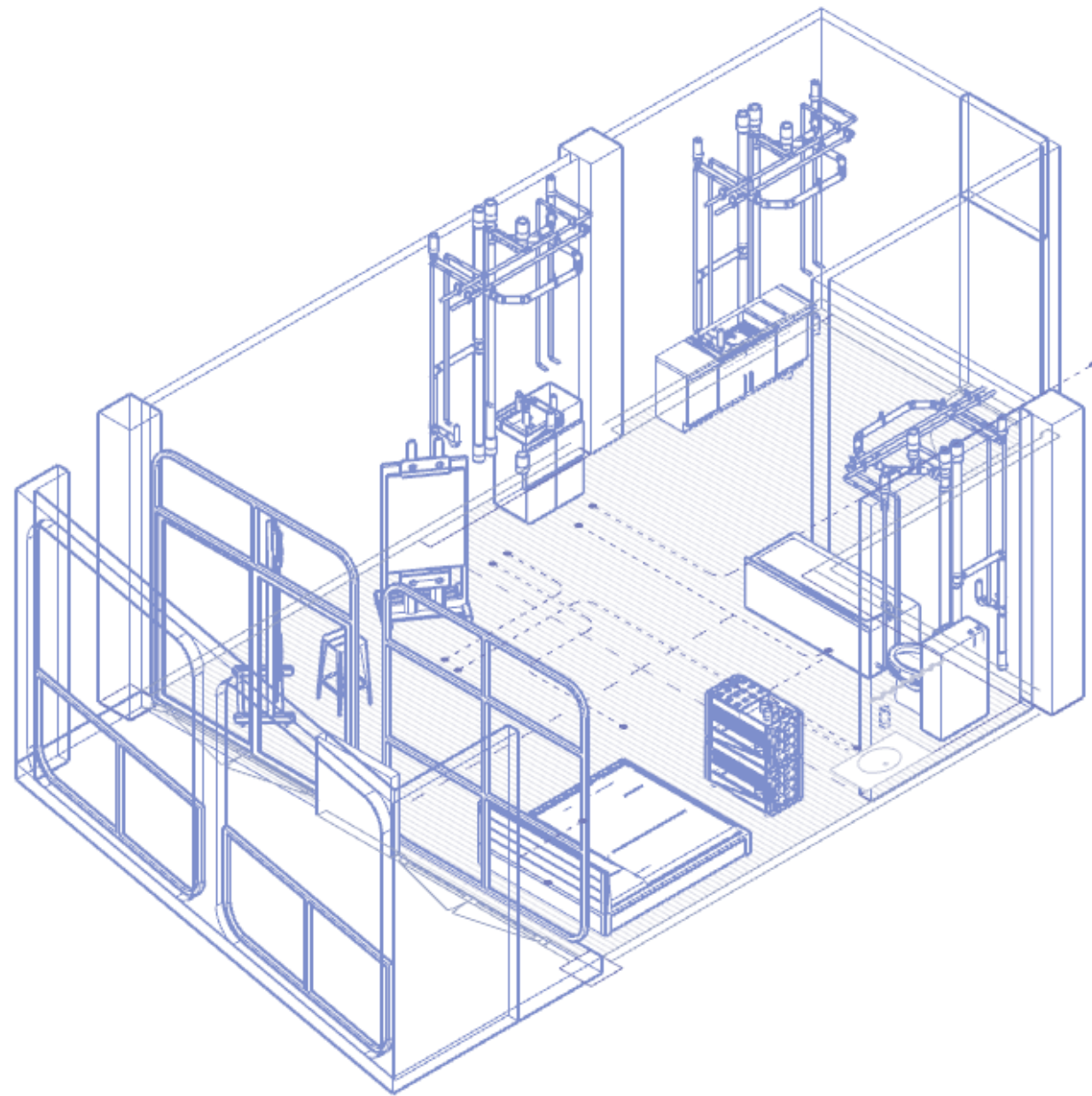
Instructor: Galia Solomonoff

"You know, they straightened out the Mississippi River in places, to make room for house and livable acreage. Occasionally the river floods these places. "Floods" is the word they use, but in fact it is not flooding; it is remembering. Remembering where it used to be. All water has a perfect memory and is forever trying to get back to where it was. Writers are like that: remembering where we were, that valley we ran through, what the banks were like, the light that was there and the route back to our original place. It is emotional memory-what the nerves and the skin remember as well as how it appeared. And a rush of imagination is our "flooding." -Toni Morrison, The Site of Memory

/Mass in site

Sitting in the Bronx, at the current threshold of the Harlem River. Within 100 years, water's perfect memory threatens to push the river back into the site - in some places, up to 10 feet during storm events. Using memory as a lens for this project has allowed us to uncover key relationships at the site and unit scale. This project is molded through responding to site adjcancies and the issue of flooding. Accommodating over 200 housing units, the building complex offers a spectrum of private and public experiences, in consideration of the body of the human and the body of water. The program consists of residence, leisure and retail.

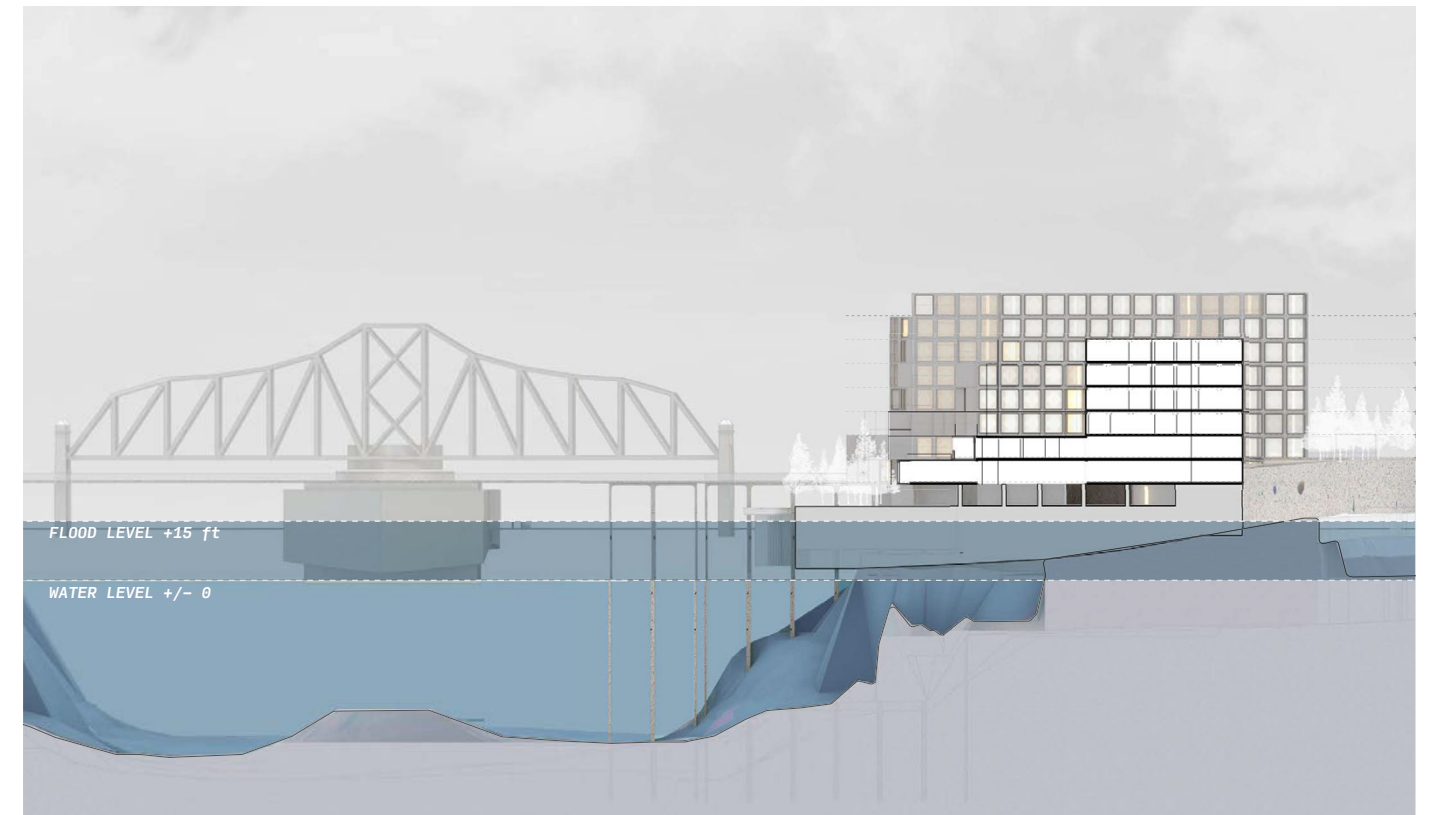


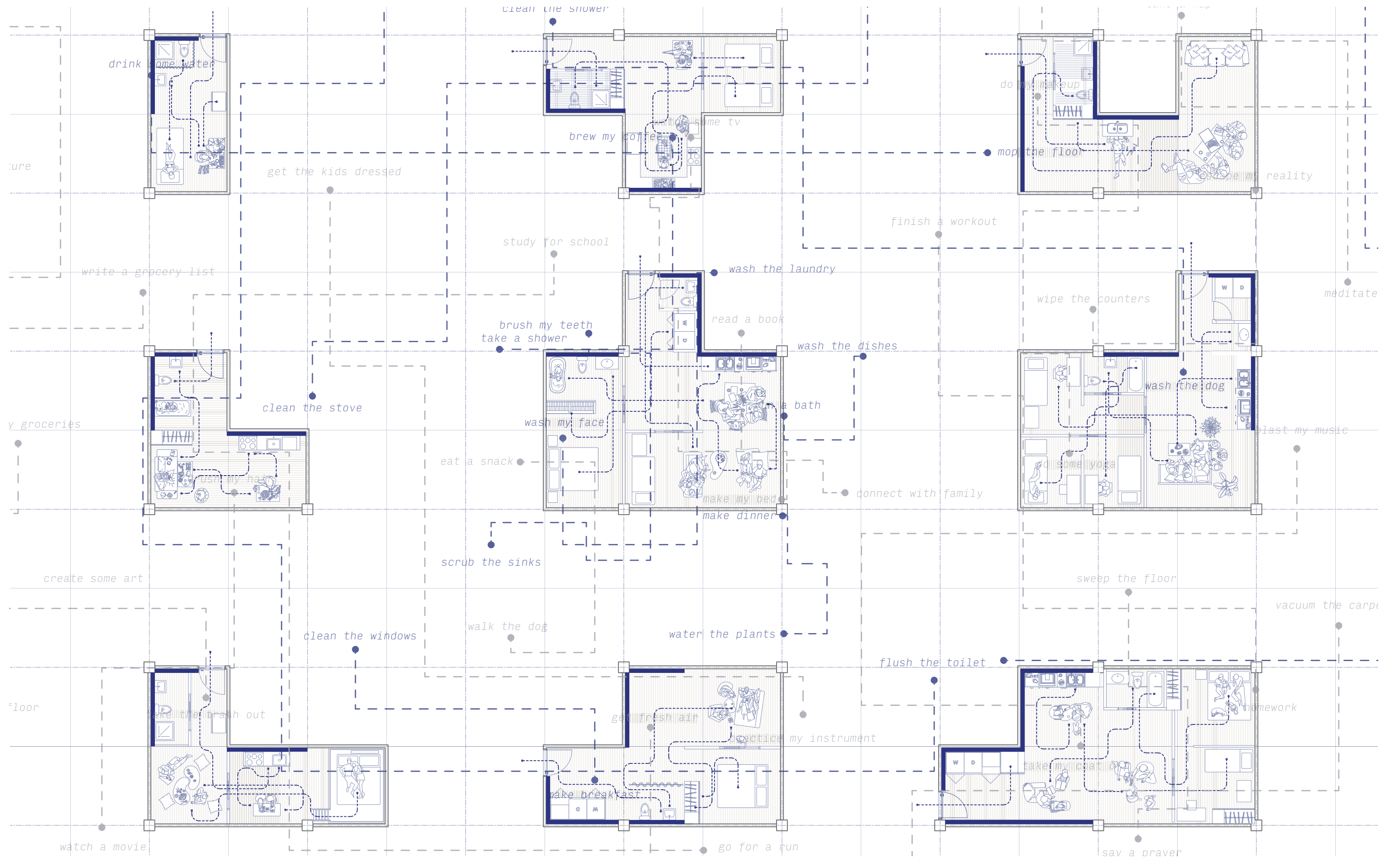


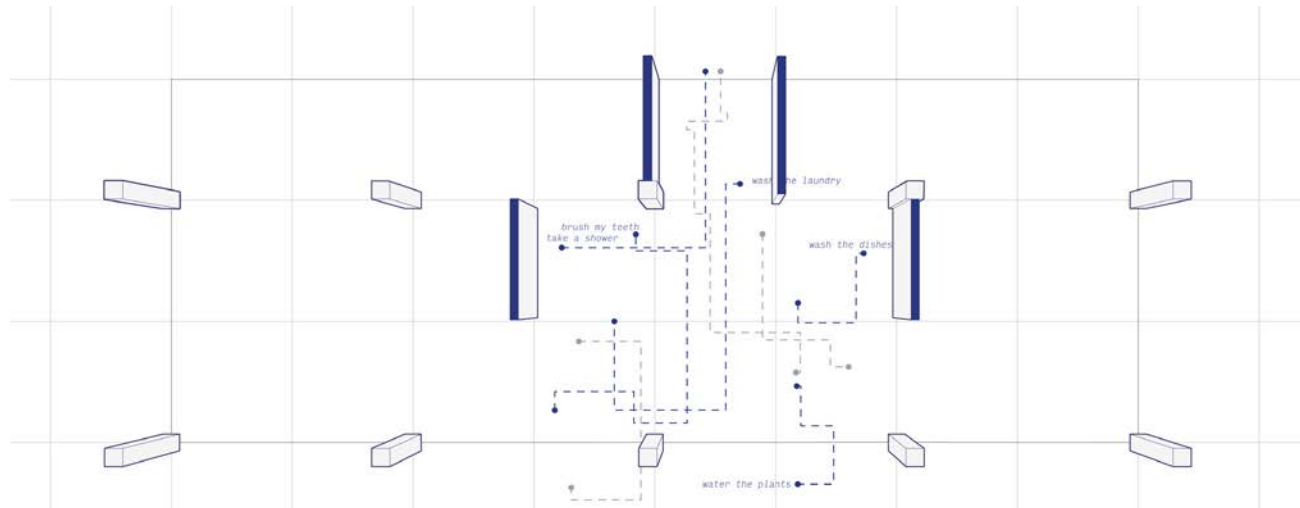
Water in Ritual and Routine

When thinking about the unit scale, we decided to again view the home through the lens of memory. This studio has challenged us to think about what connects each of us, what makes a house a true home, and how housing projects can better consider both of these items.

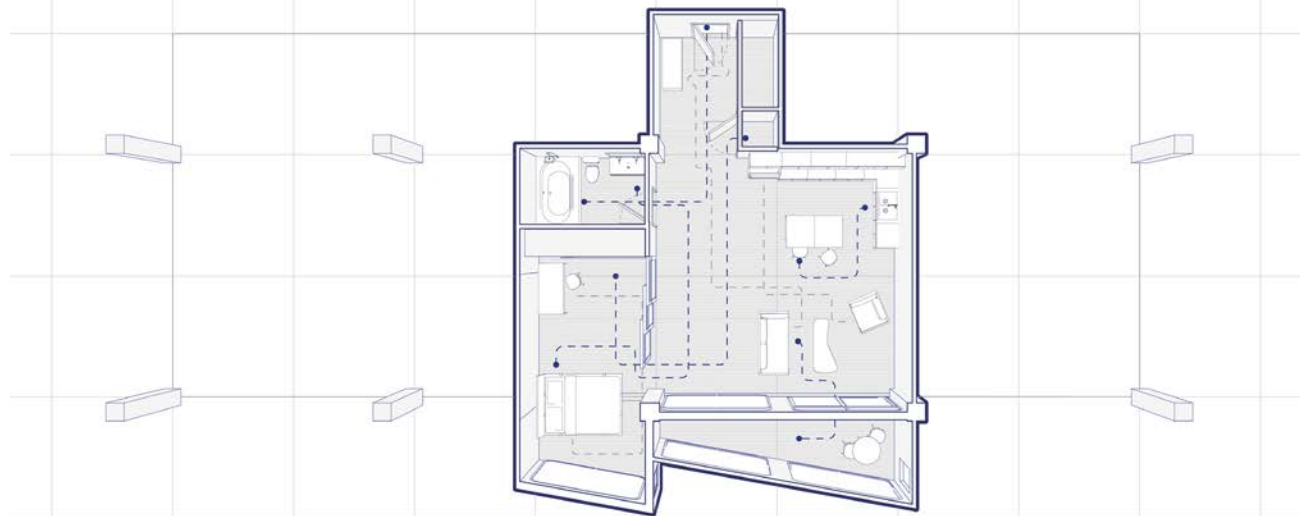
As we consider the unit, we decided to think about spaces not in terms of the objects found in them, but the routine actions that happen there. Of course, this routine is different from household to household. We want the unit to conform to this routine, not the other way around.



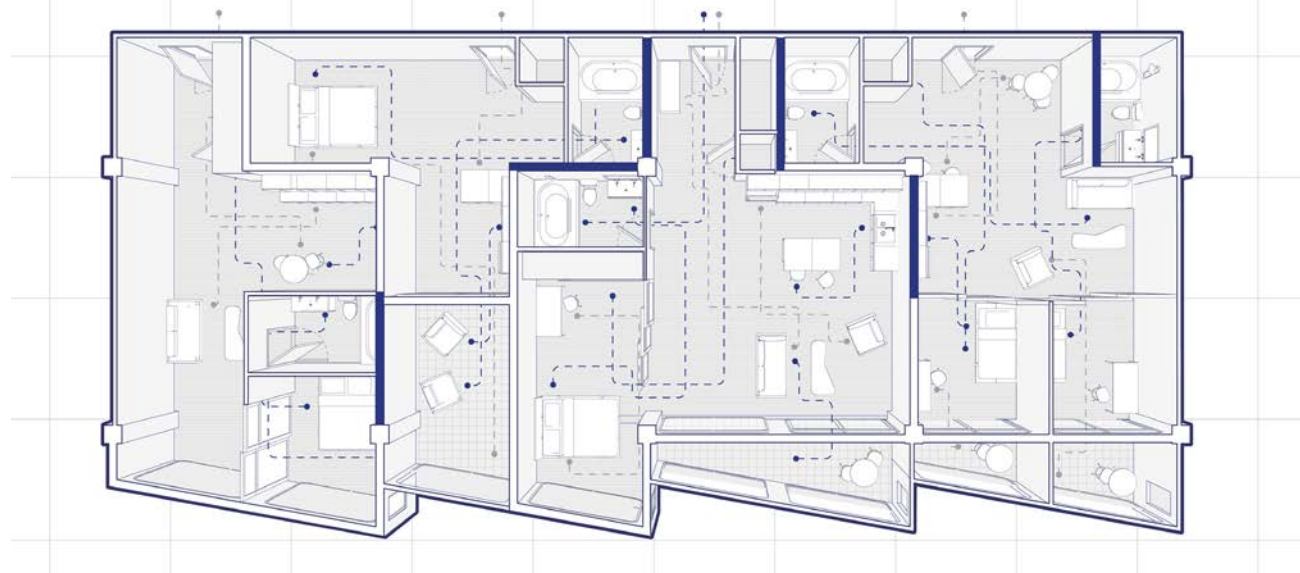




Chase walls supply water for daily routines.



The unit is outfitted with fixtures and furnishings unique to the household's ritual.



The units aggregate across the site, each interconnected by shared chase walls and an urban routine.



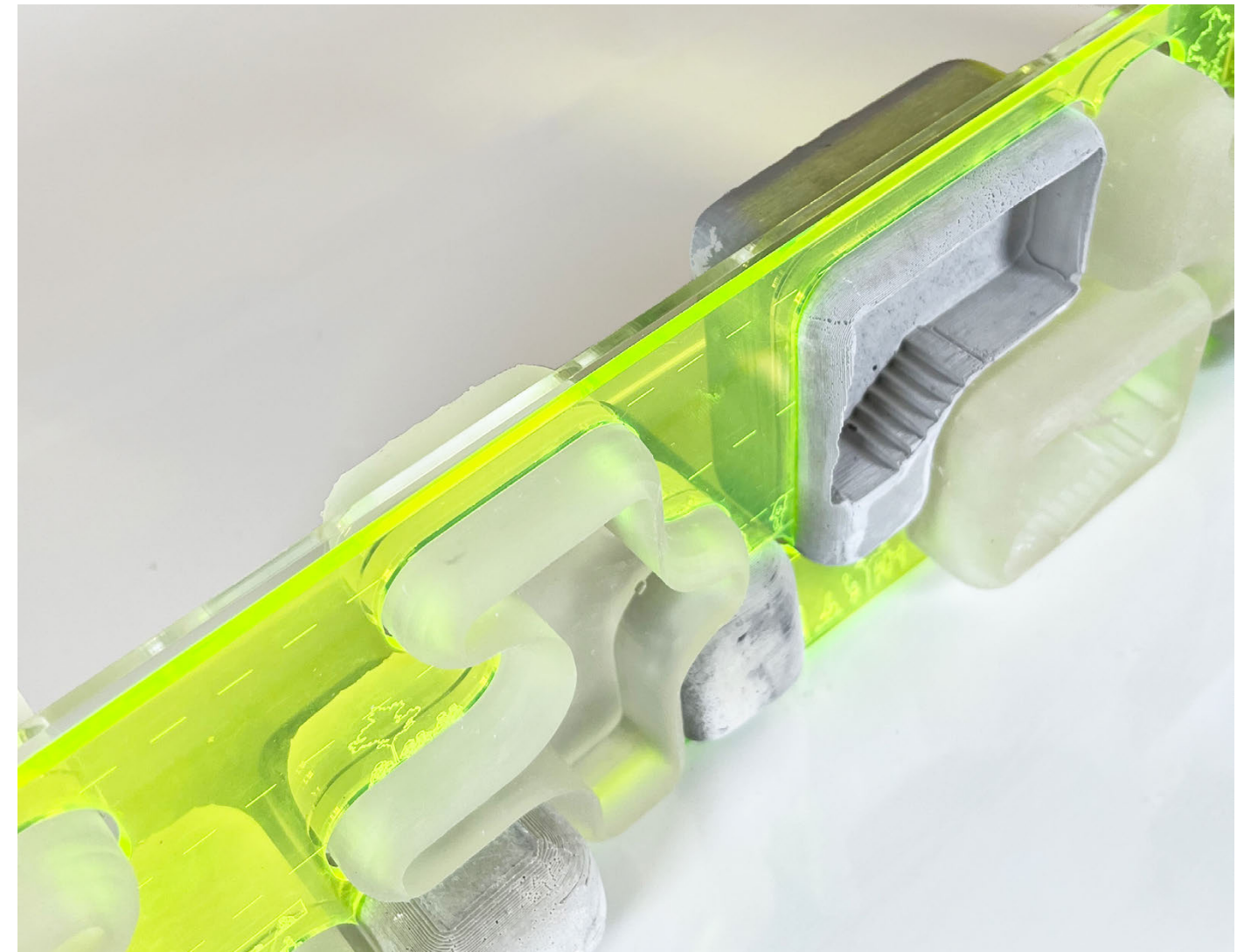
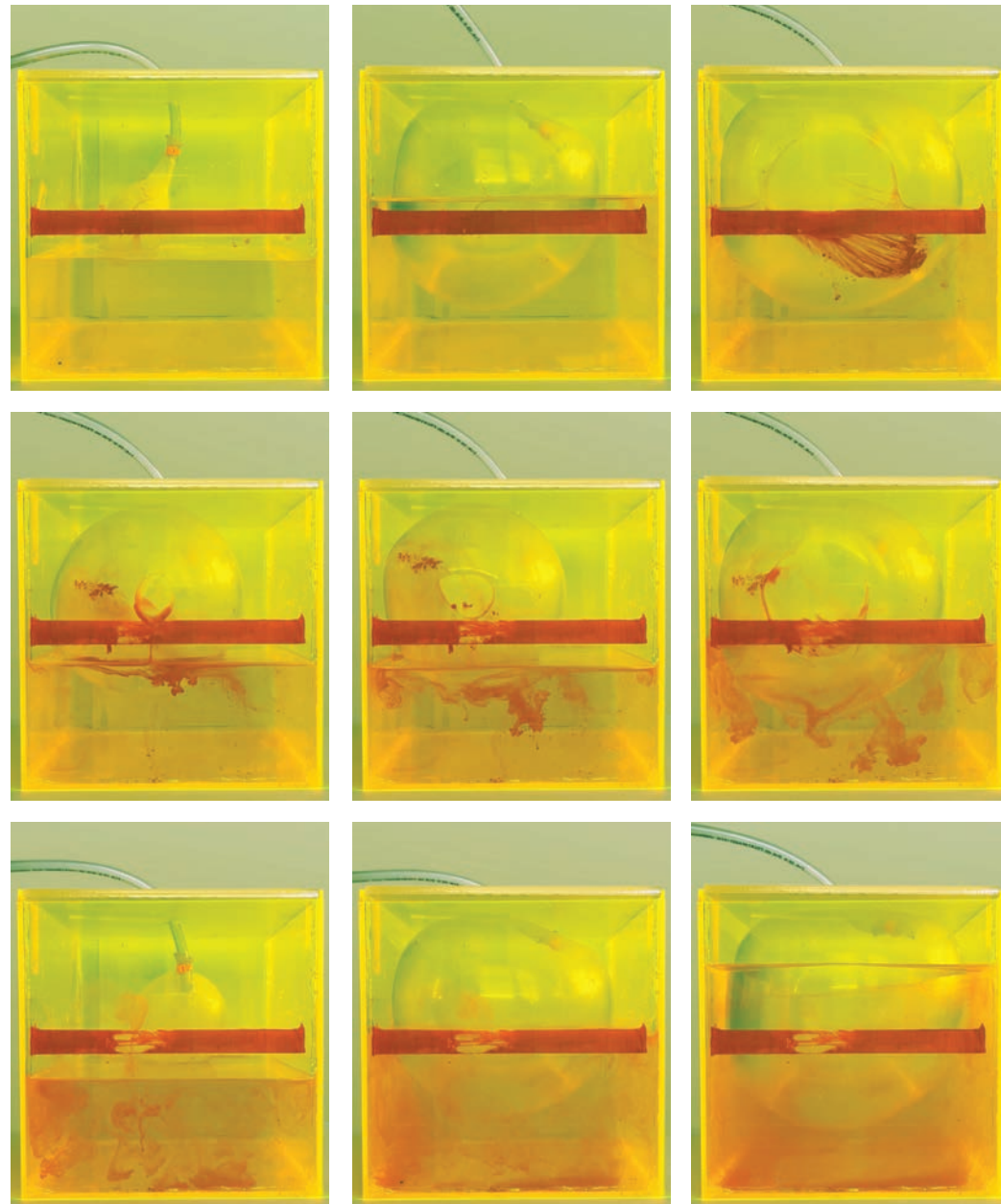
Isometric Section

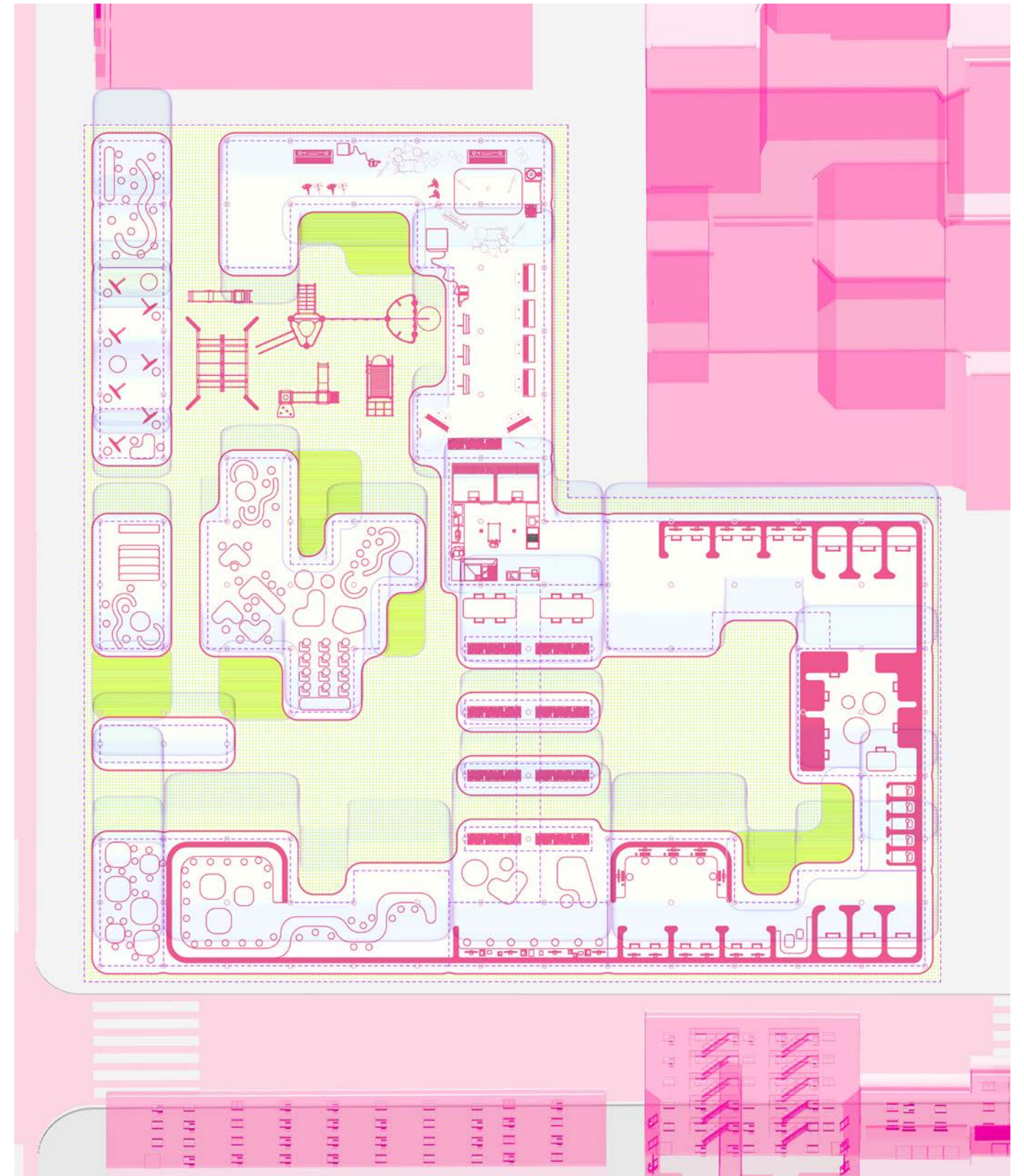
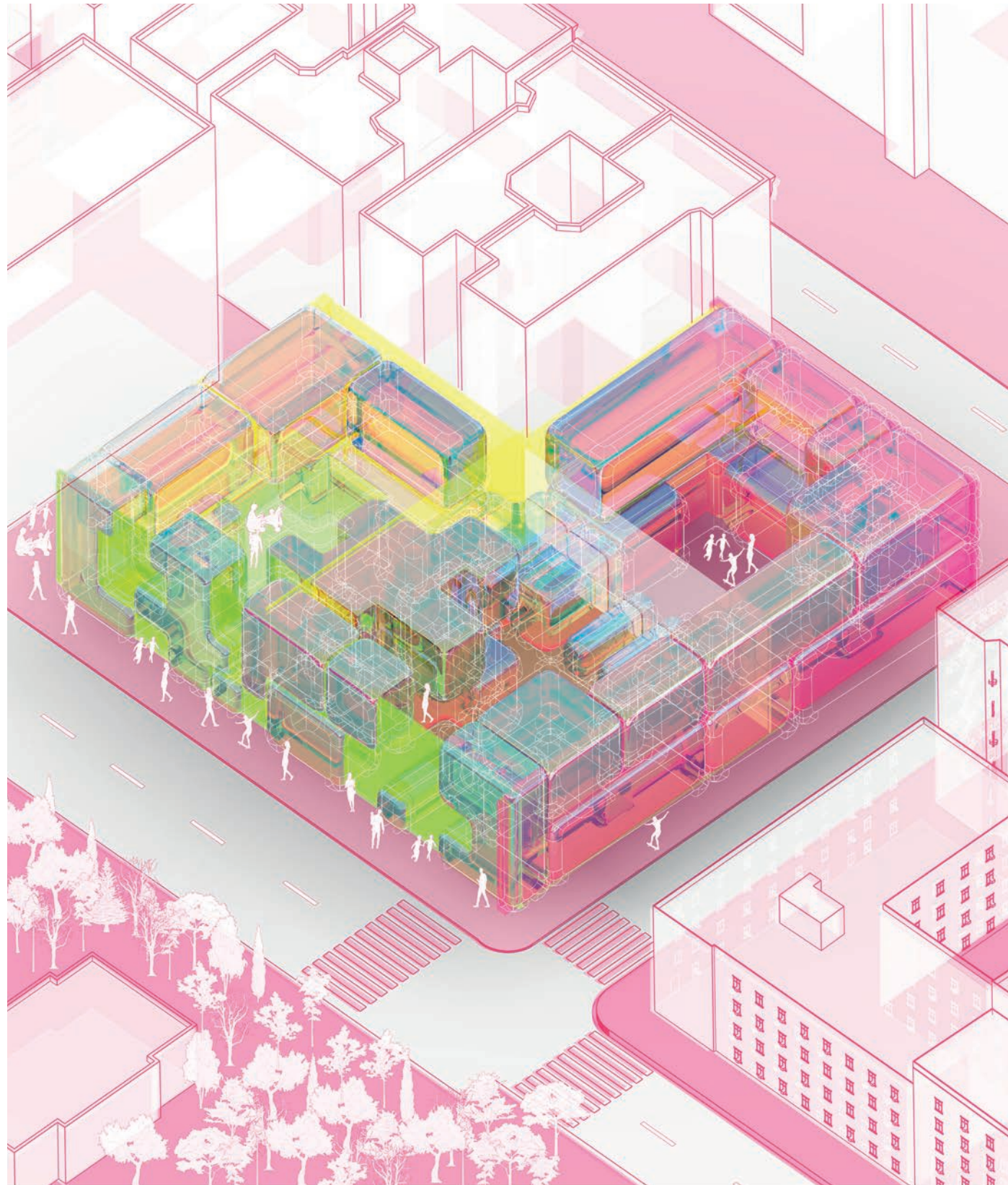
The section shows how units have exposed plumbing that allows the inhabitants to form their rituals and routines as they please, allowing flexibility and interchangeability of spaces and program.

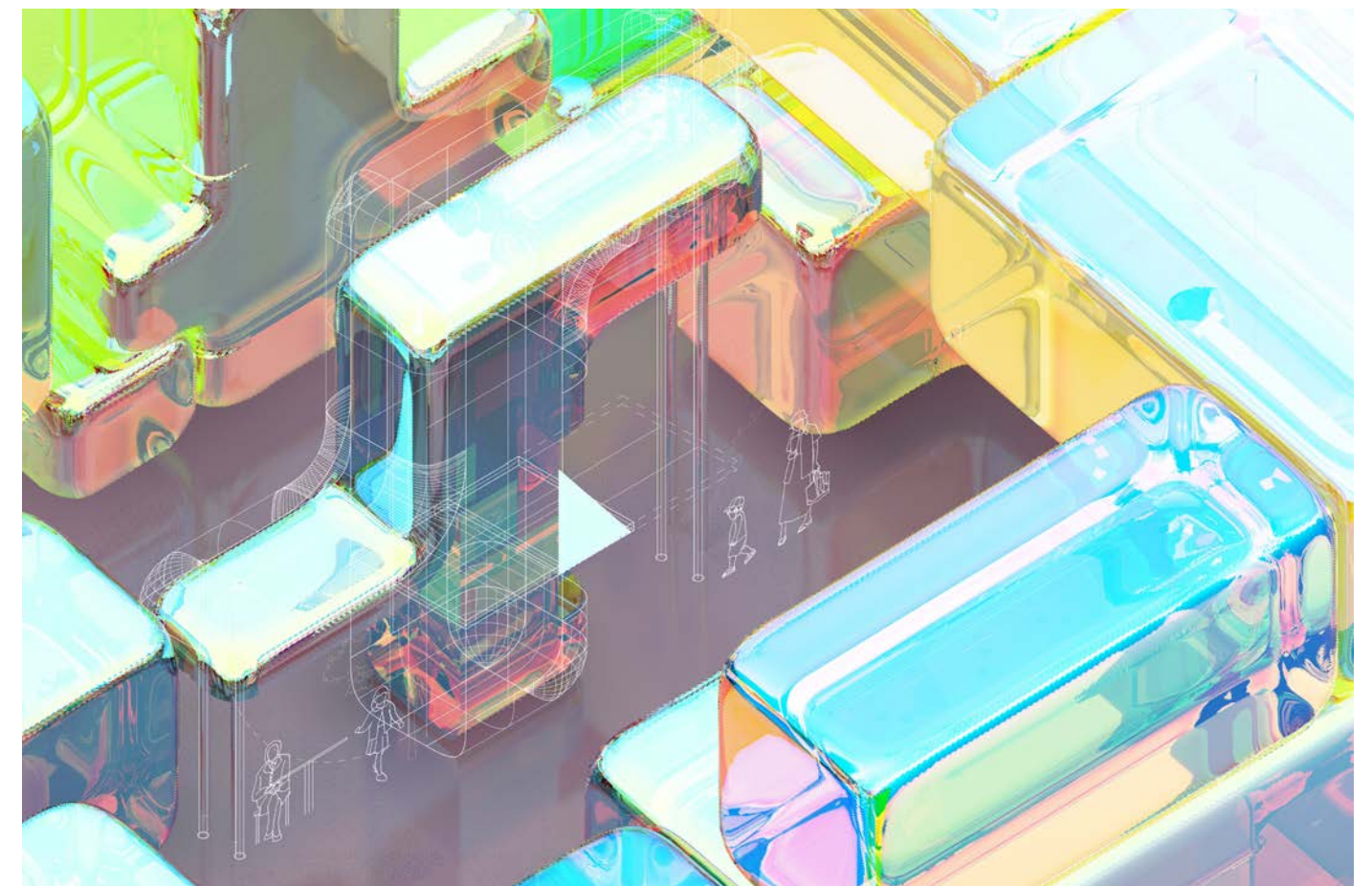
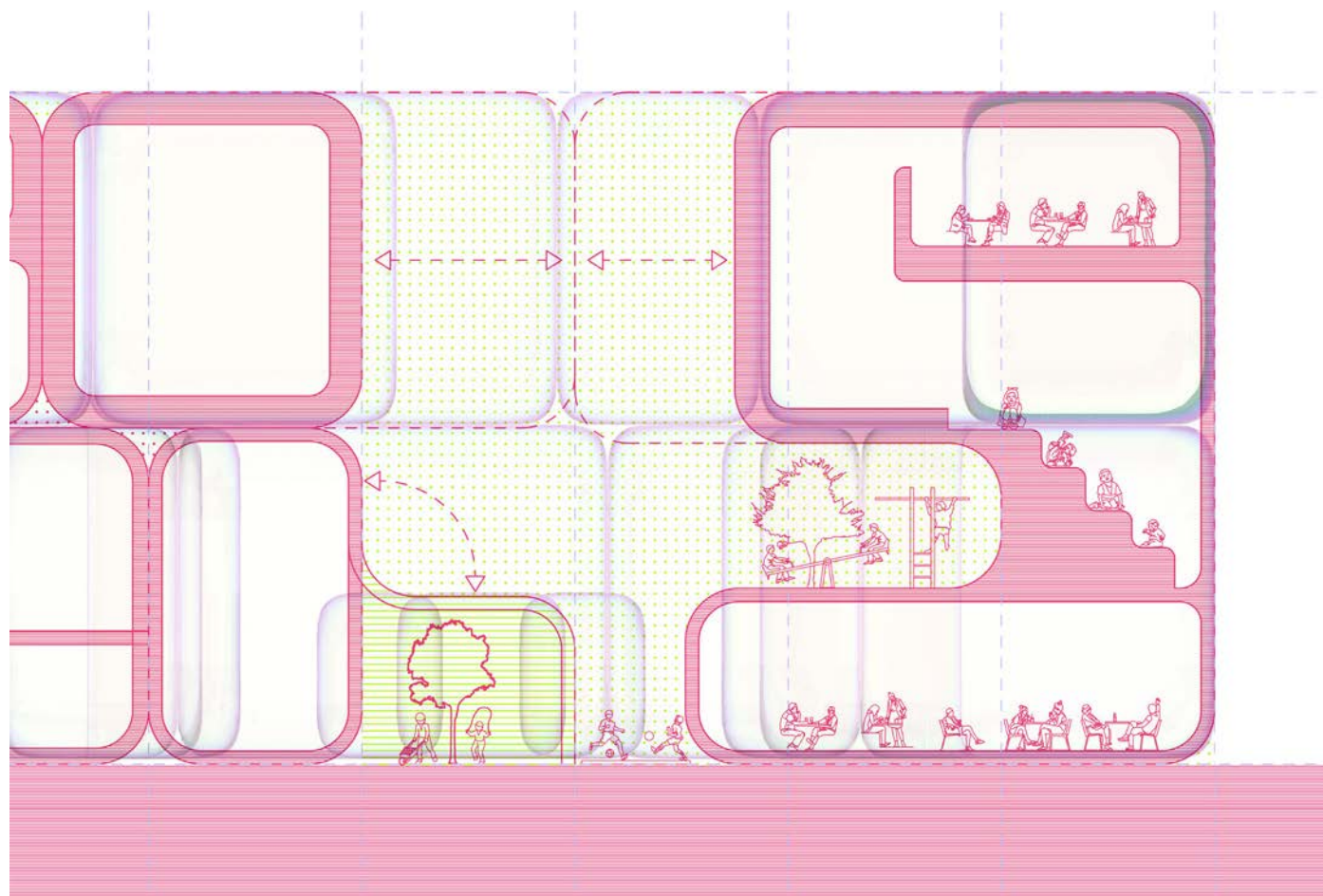
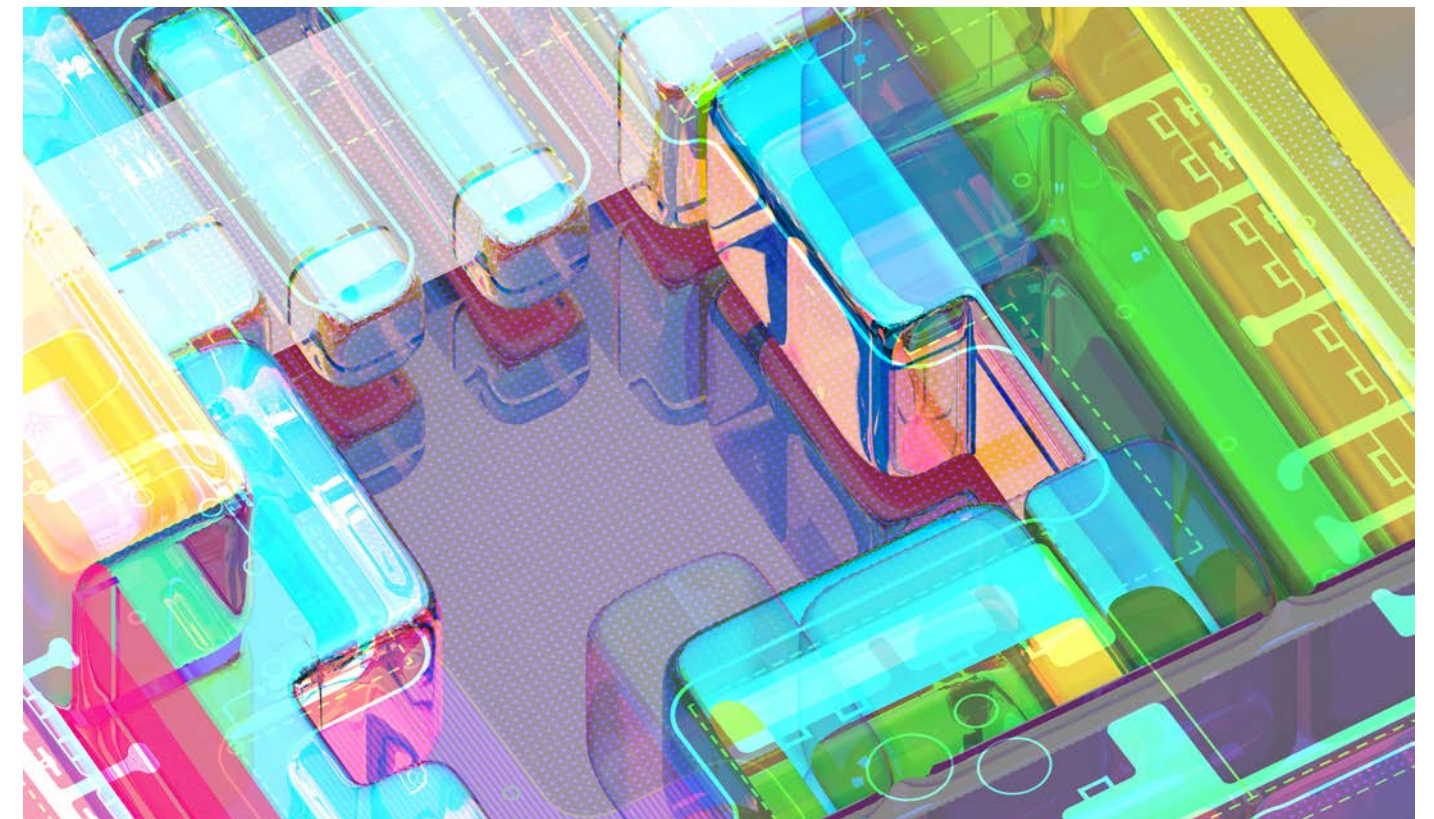
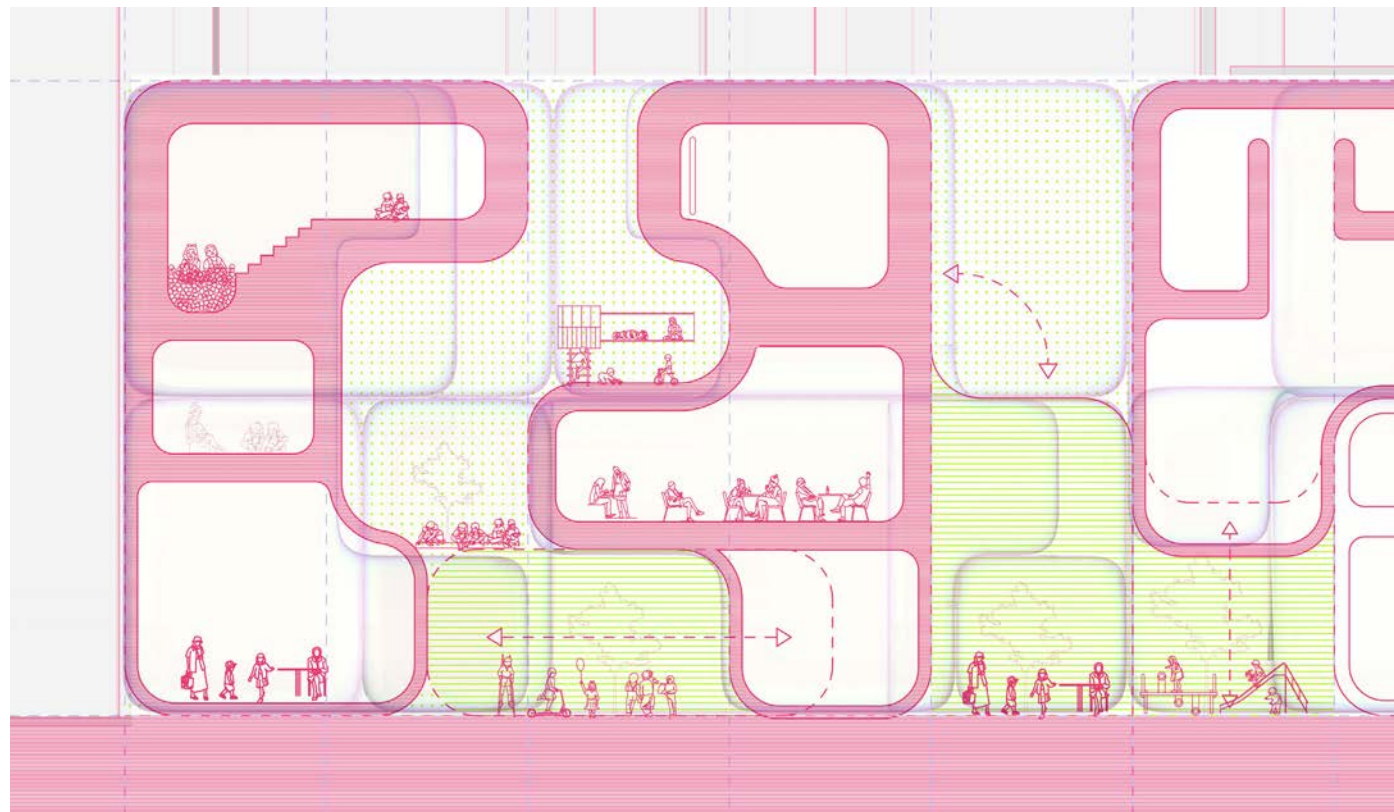
Core II: The Learning Environment

Instructor: Lindy Roy

Through an exploration of cellular membranes and action potentials. The idea of permeability, control and translocated becomes further translated in the project. In this project, thresholds, or the begin to shape-shift, blurring edges, proportions and creating interchangeable spaces.



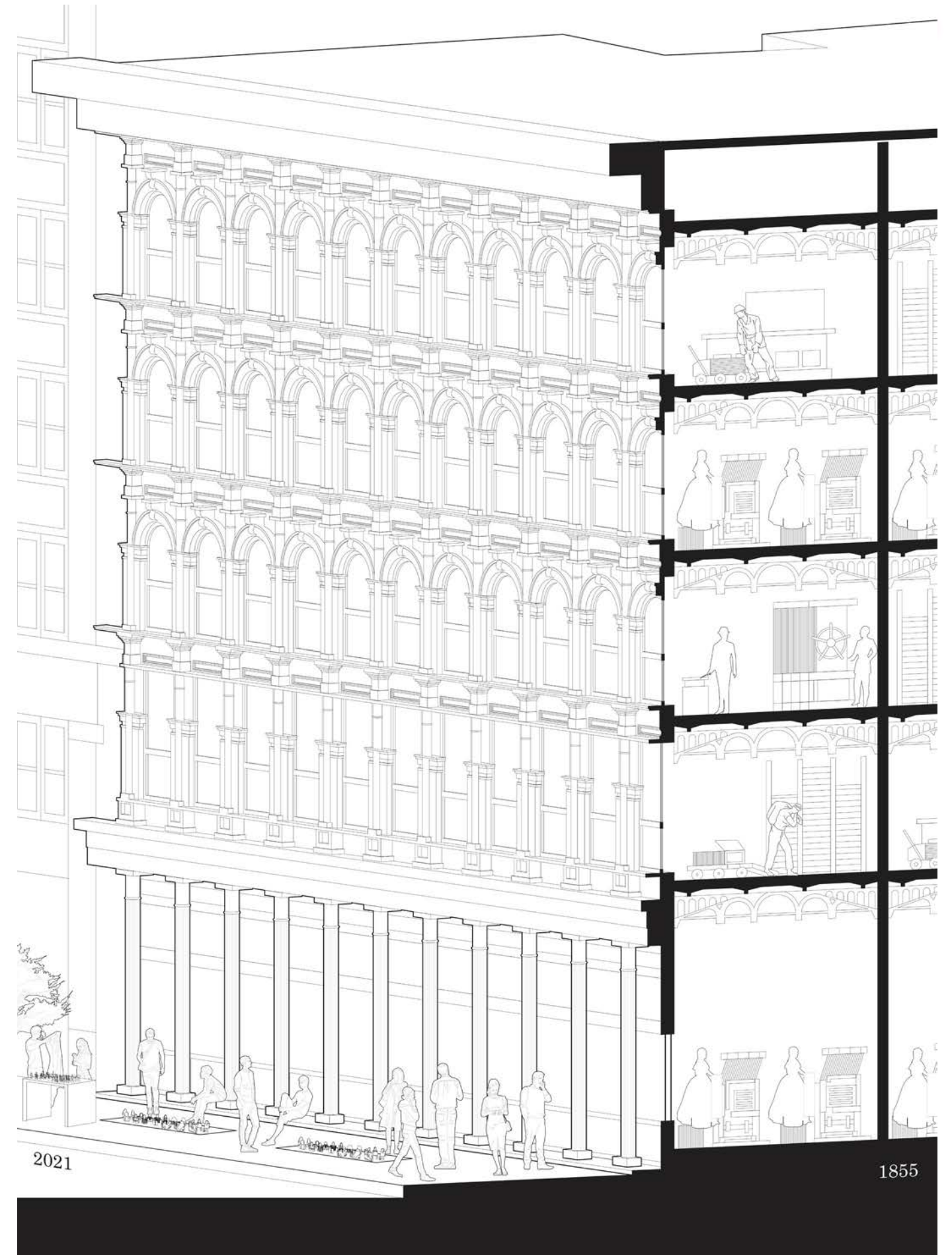
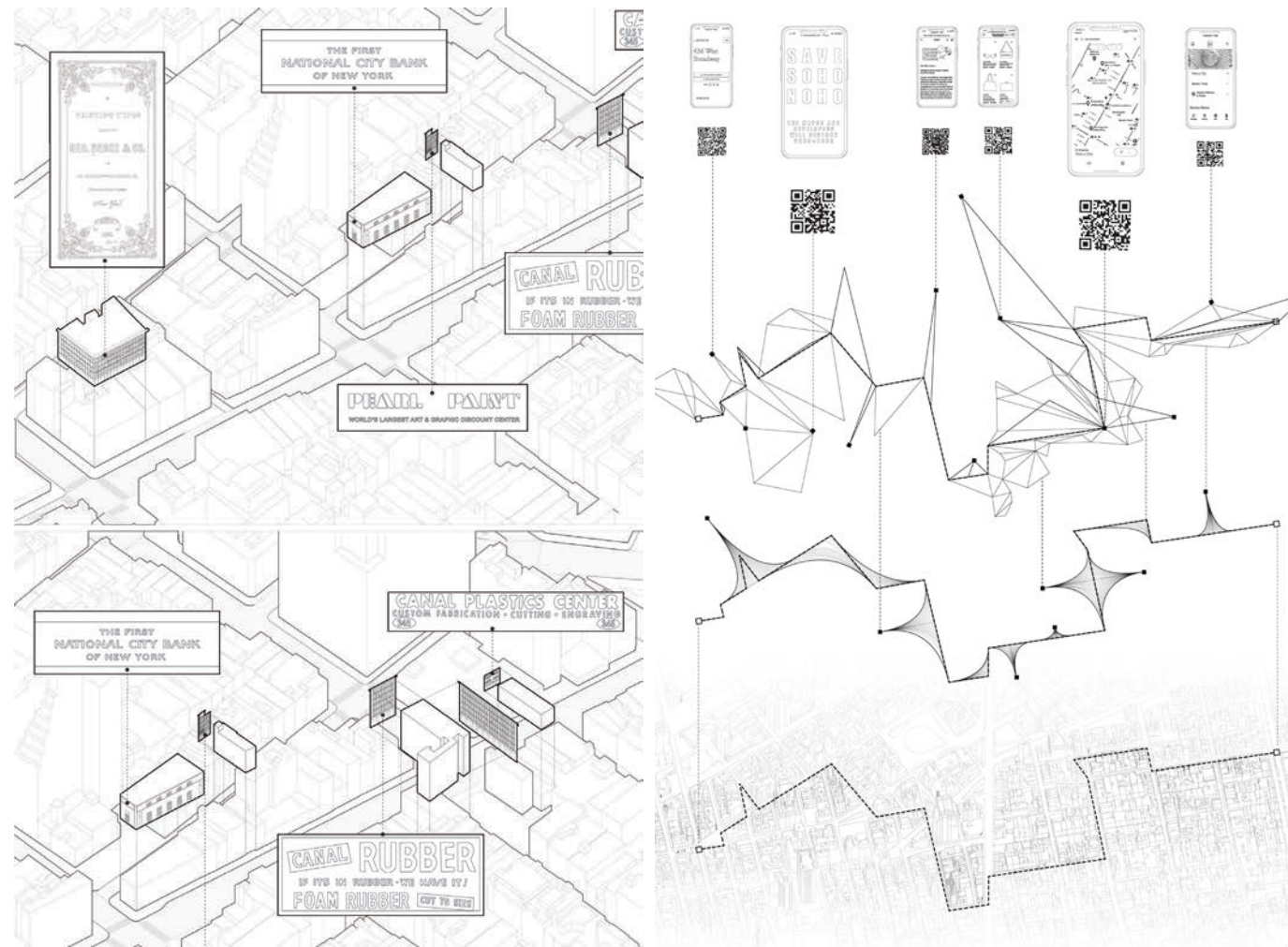


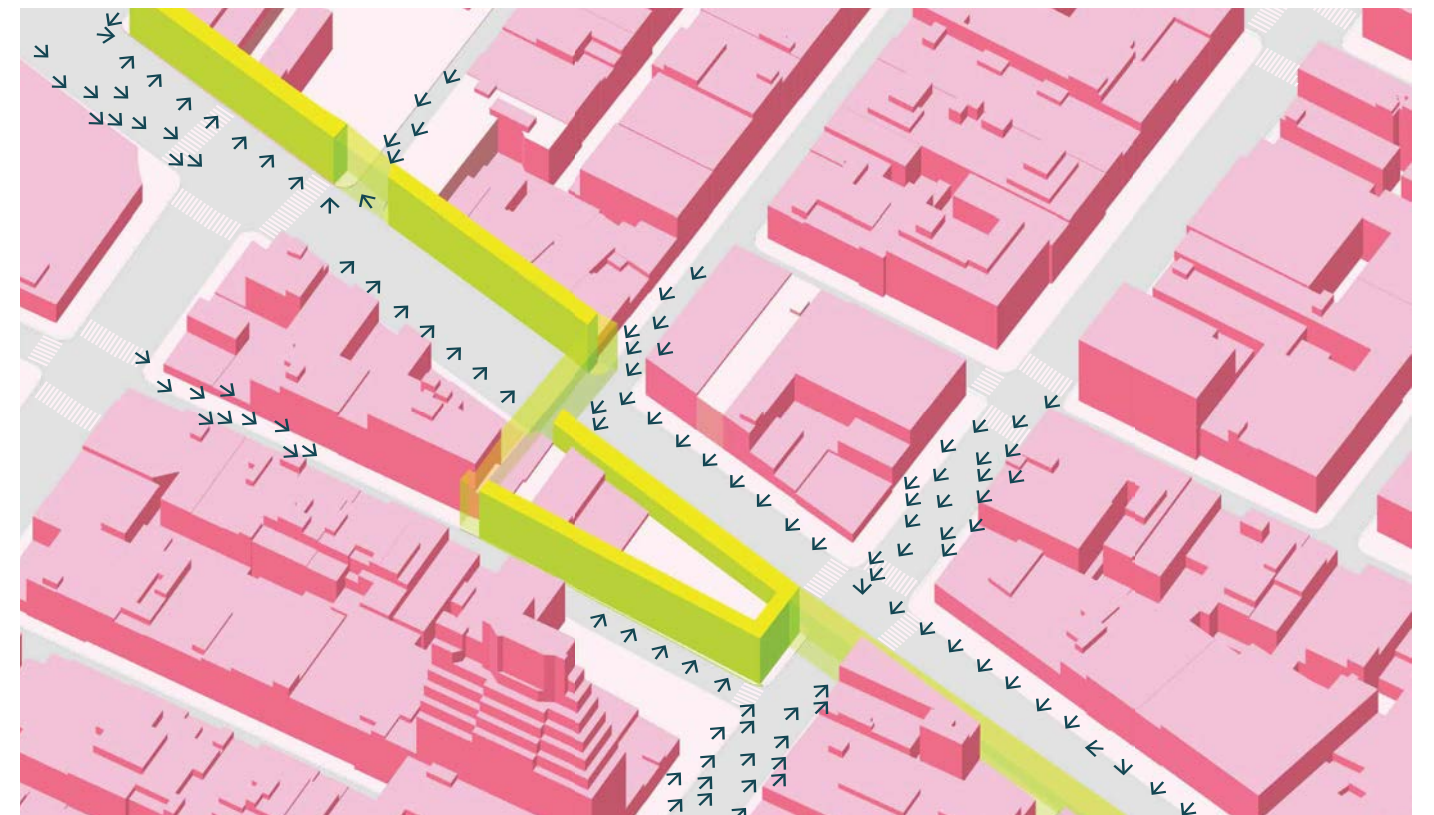
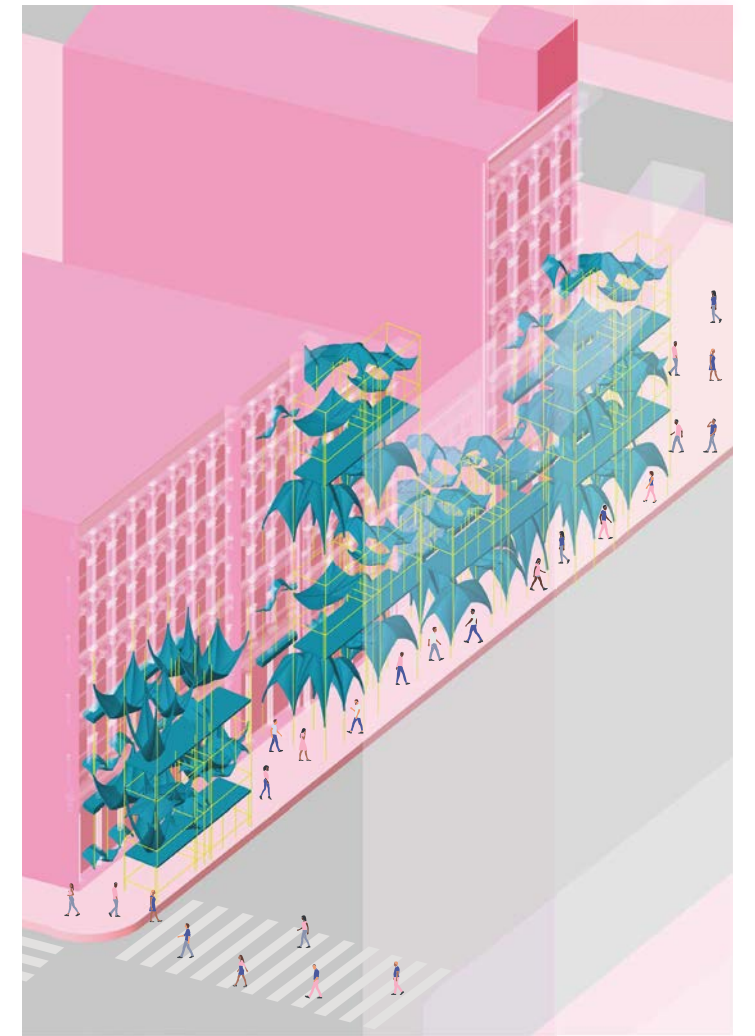
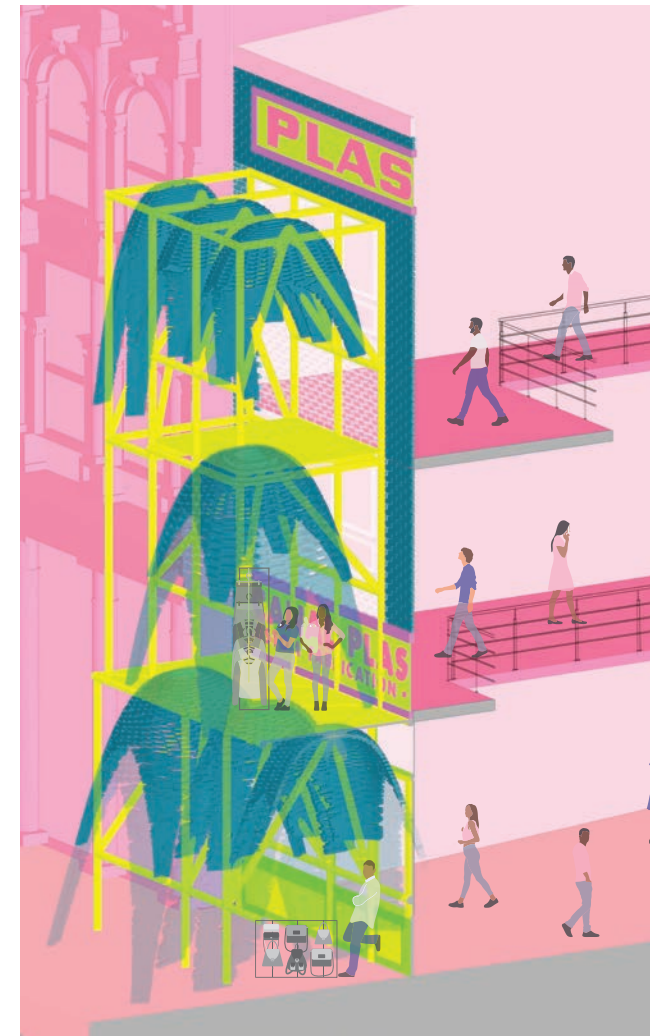


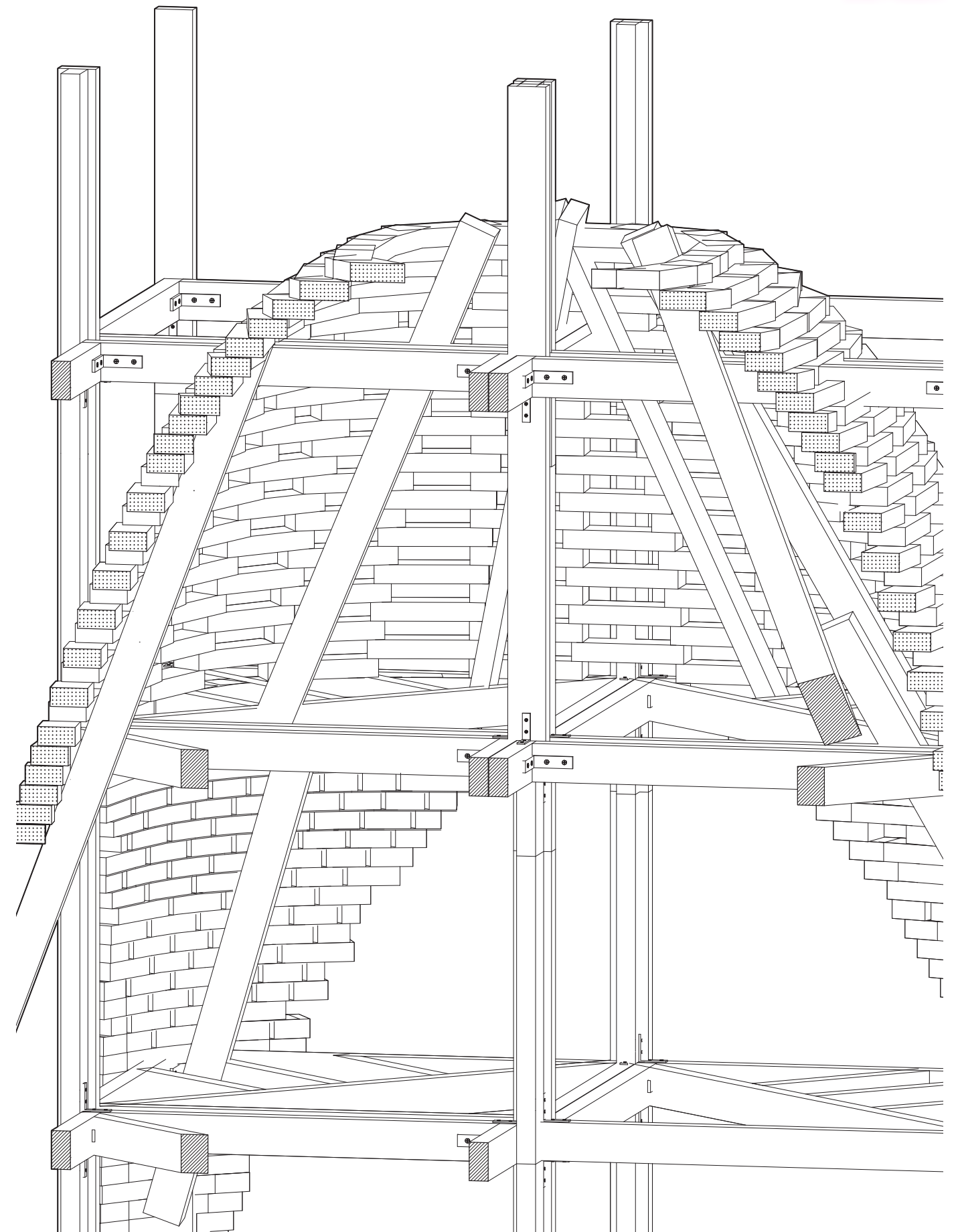
Core I: Intervention on Canal

Instructor: Lindsey Wikstrom

As the idea of shopping and trade shifts from a physical to a more digital online realm, stores are beginning to shut down and starting to turn into warehouses, leaving empty unused buildings behind. This project shows how these Buildings can be partially recycled to create a semi-permanent enclosure.



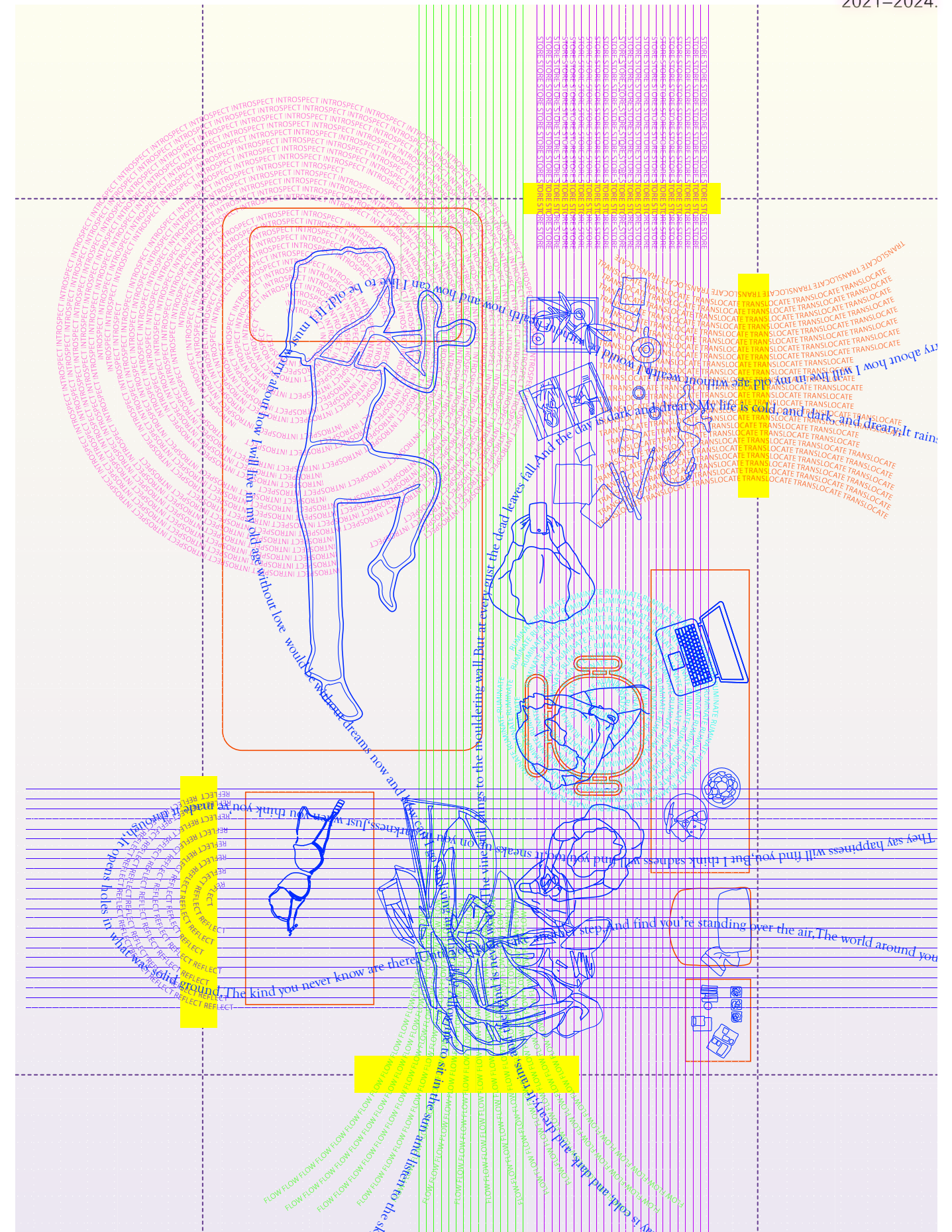
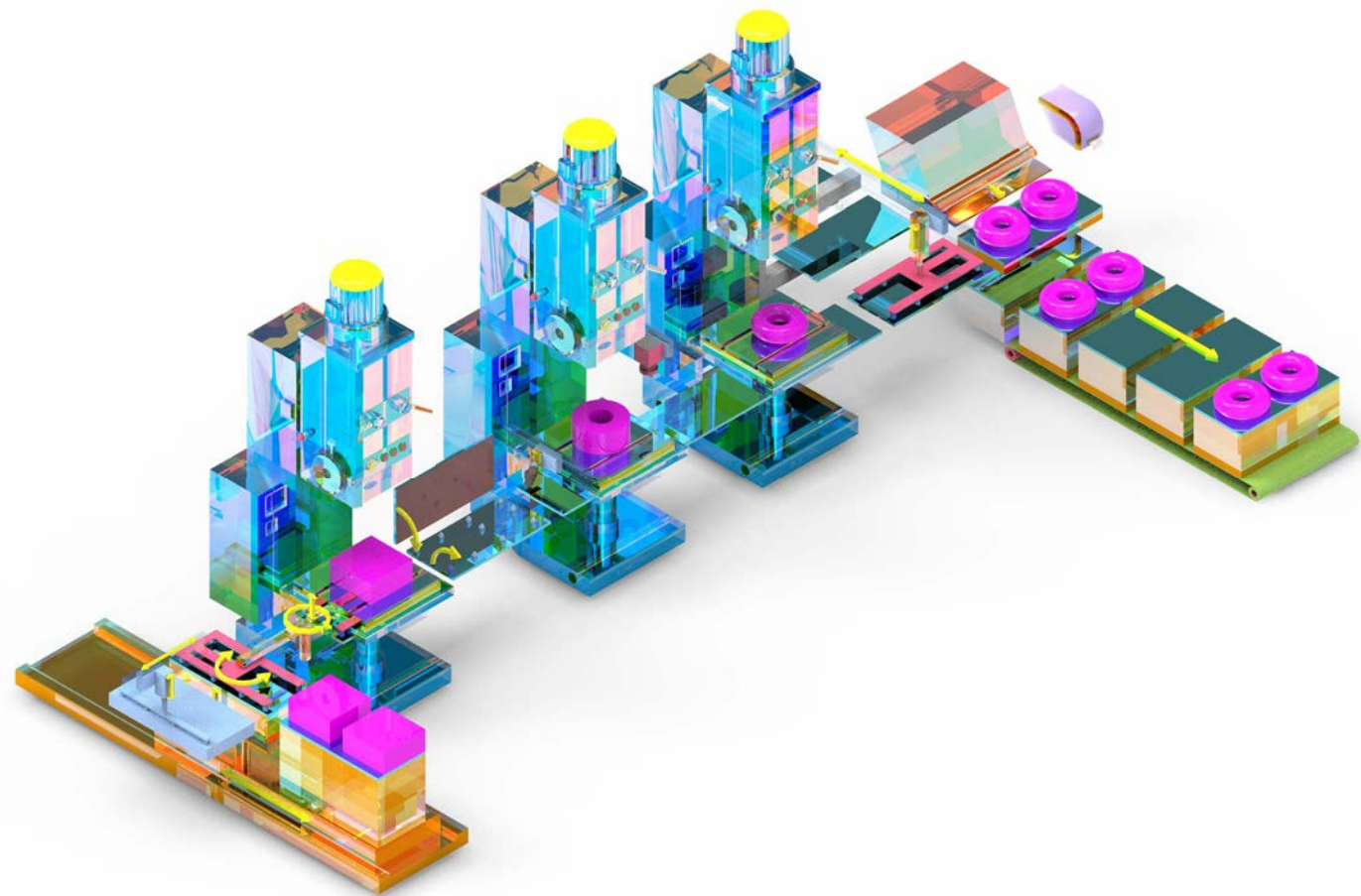


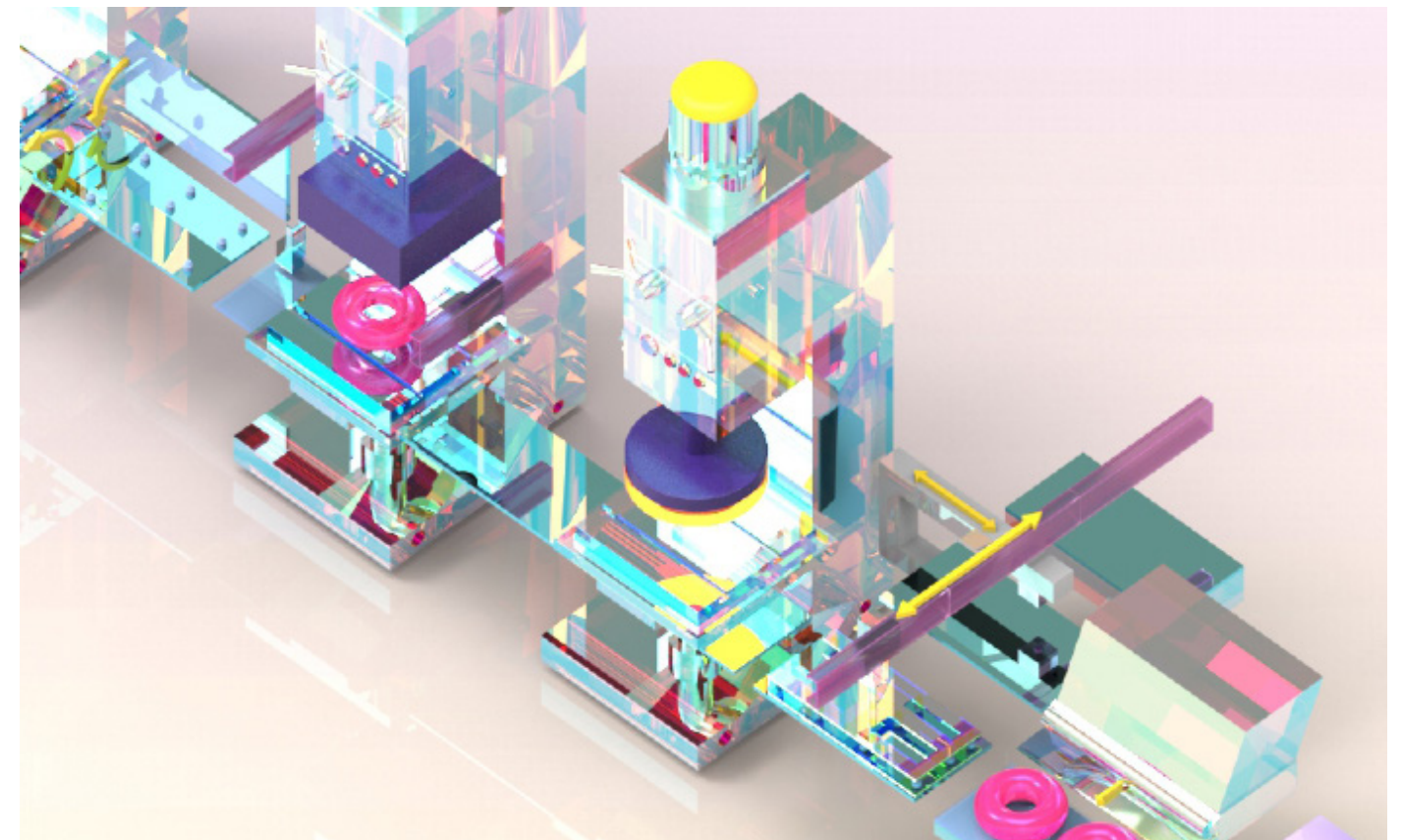
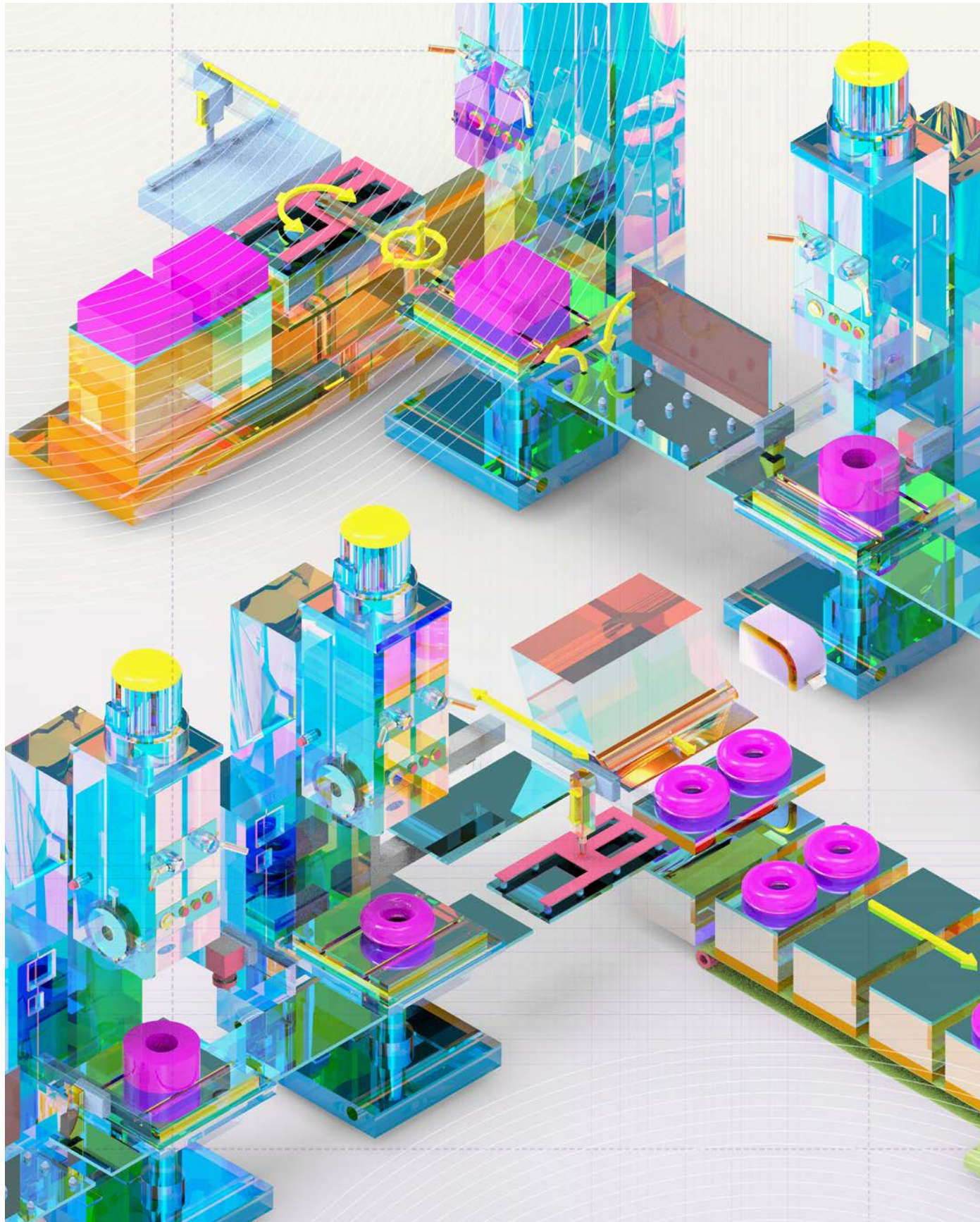


ADR II: Experiments in Embodied Systems

Instructor: Violet Whitney

We perceive the space with energy, our actions and thoughts are reverberations of momentum within our core. Space is not tangible anymore, it is discerned through vibrating shifting. We introspect, we ruminate, we self-reflect, we flow, we translocate. We occupy our bounded realms with movements of our thoughts and we circulate with our behavior. A room is no longer a bed, a desk, and a closet, it becomes an amalgamation of energies, a non-linear series of cognitive activities. Doors and windows become portals of transformation. Furniture no longer carries physical significance, it rather becomes a magnet for rhythmic sensations.interchangeable spaces.

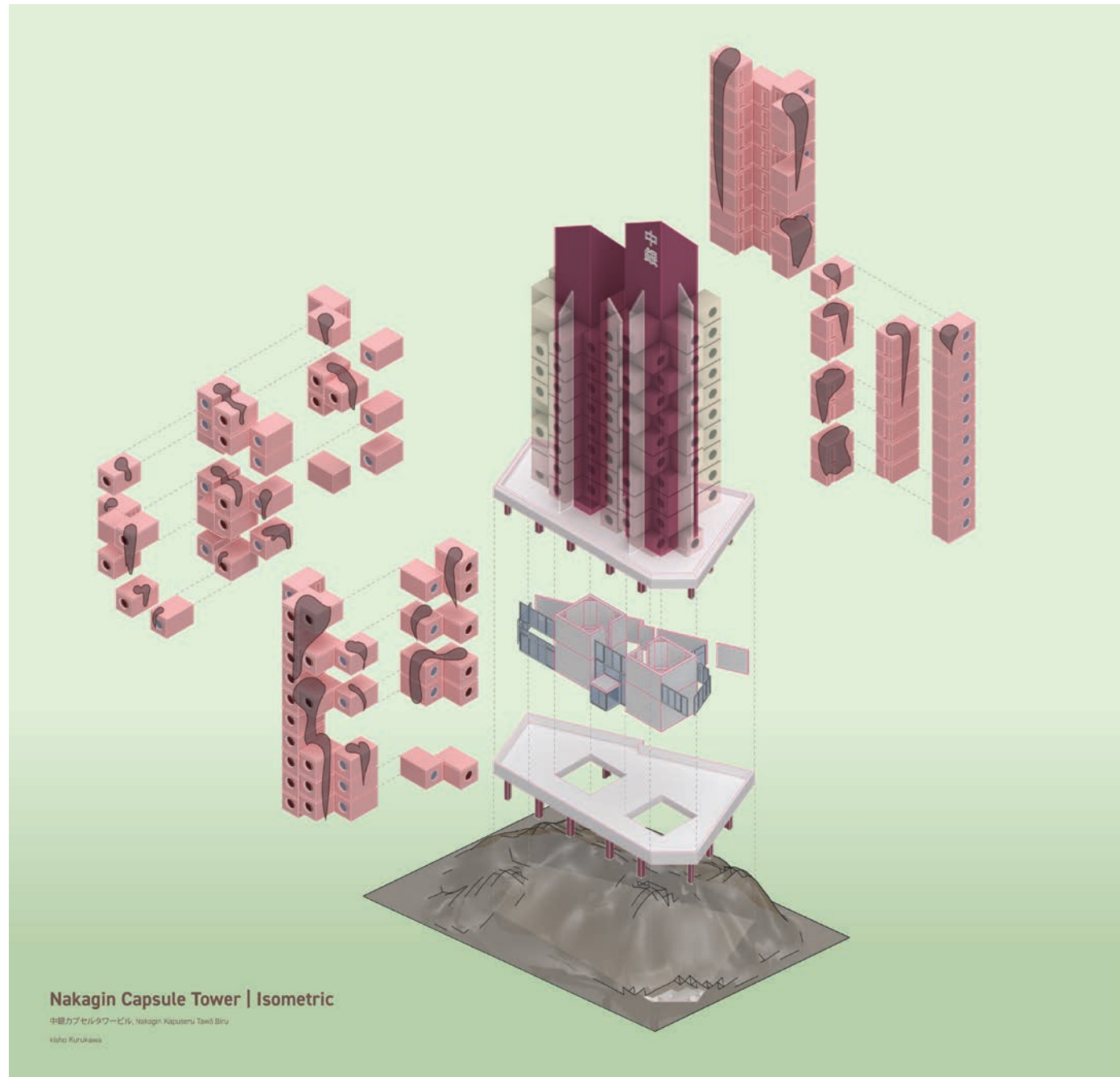




ADR I: Nakagin Case Study

Instructor: Zachary White

Analysis of the nakagin capsule tower in a dual condition of destruction and habitation. The physical model is constructed using CNC plywood, cast Rockite and 3D printed resin.

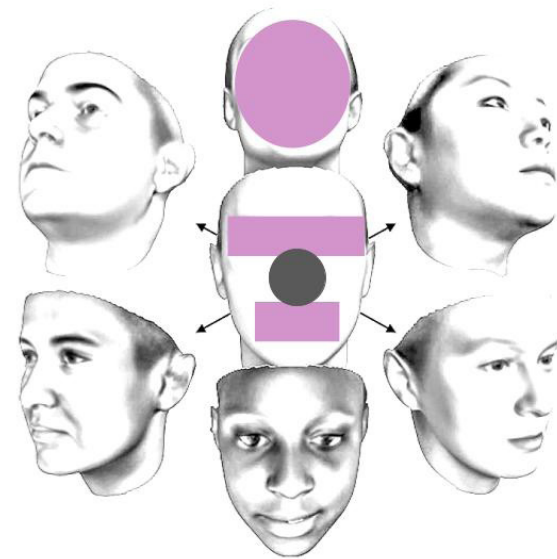


Measuring the Great Indoors: SynthFace

In collaboration with Hanyu Liu and Caning Gu

Instructor: Violet Whitney

This project employs coding and IFTTT (If This Then That) software to manipulate and distort facial features through media projections onto the face, activated by sensory triggers such as opening a door or entering a room. The primary aim of this technology is to obscure facial identity, offering protection against invasive facial recognition systems that expose individuals' identities publicly. By using real-time projection mapping, the system alters appearances dynamically, ensuring privacy and anonymity for users. This protective mechanism is designed to be a robust safeguard in environments where unauthorized surveillance and data harvesting are concerns, enabling individuals to maintain control over their personal visual identity.



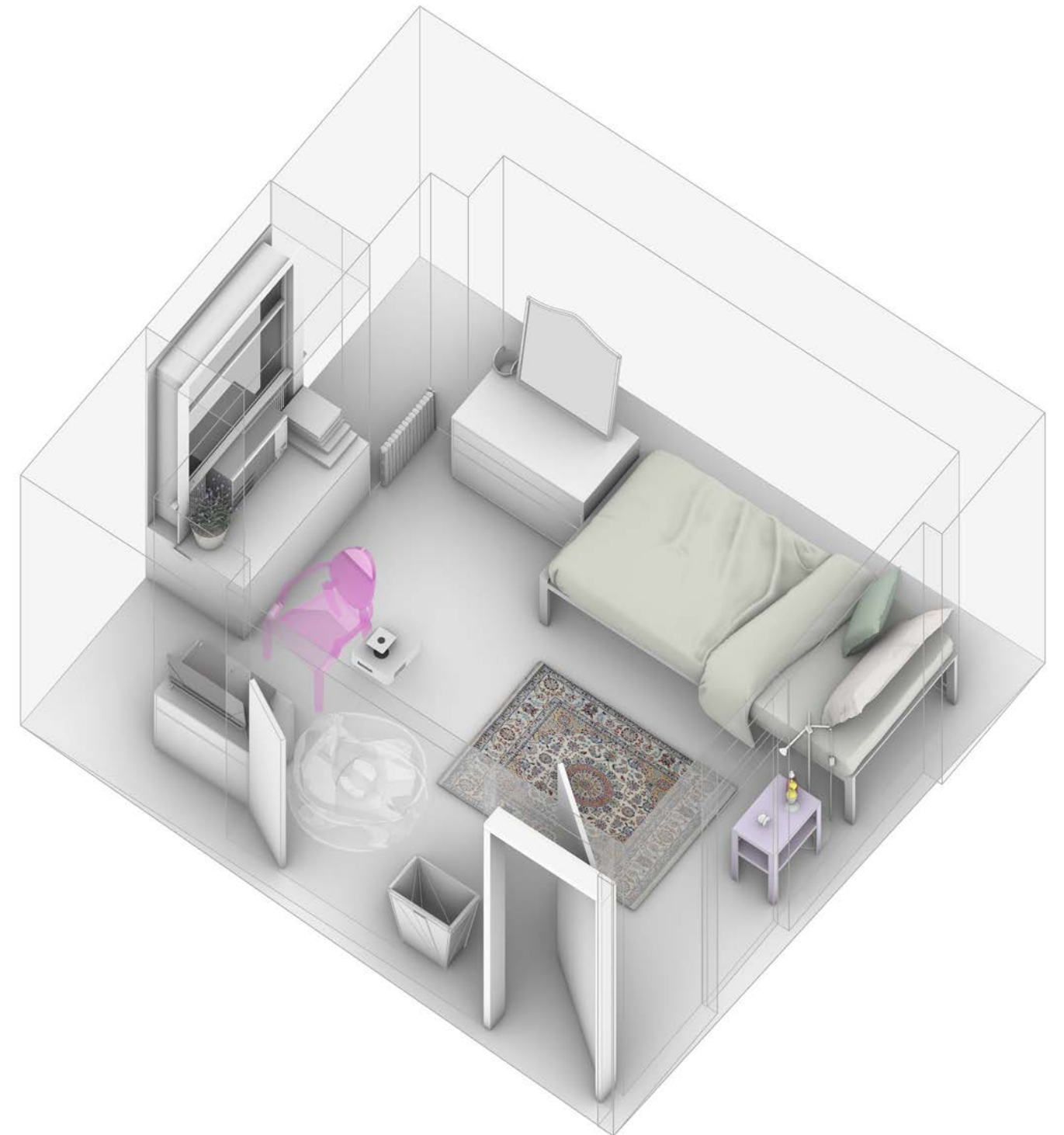
```
Detect facial features
    Define the facial landmarks:
    a landmark refers to a specific point on a face that is used to identify and describe its structure, shape, or features.
```

```
Define a function (encryption) to change the facial features
def adjust_features(image, landmarks):
    # Make eyes bigger
    scale = 1.5
    image = cv2.resize(image, None, fx=scale, fy=scale, interpolation=cv2.INTER_LINEAR)
    landmarks = [(int(x * scale), int(y * scale)) for x, y in landmarks]

    # Adjust nose shape
    # Add your custom nose adjustment code here

    # Change mouth to a smiling expression
    # Add your custom mouth adjustment code here

    return image
```

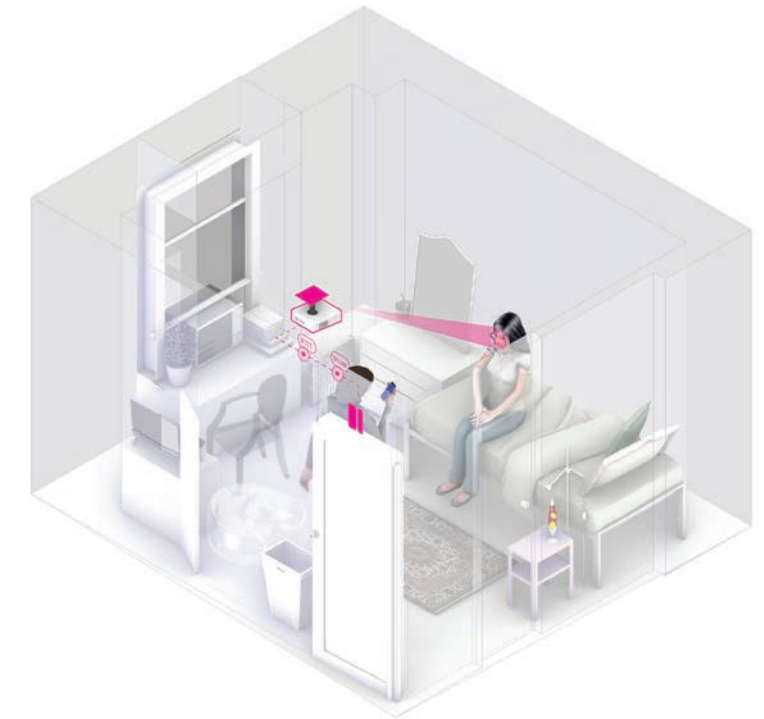




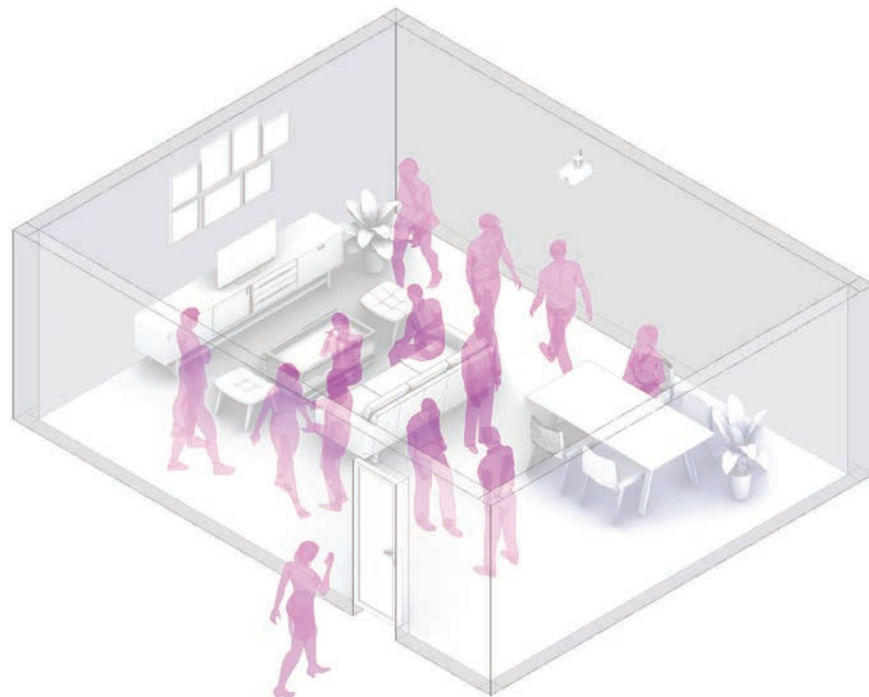
Person enters a room



Sensory alarm gets activated



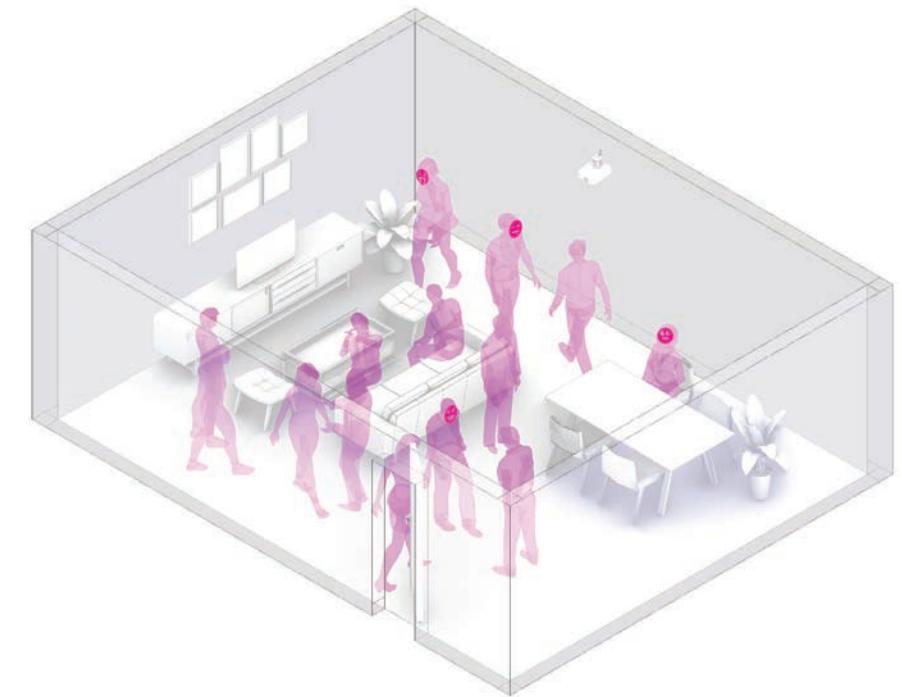
Media gets projected



Person enters a party



Media gets projected



Users are able to customize Media

Designing Spaces for Children: *Sensory Transience*

In collaboration with Steven Widyatmadja

Instructor: Anna Knoell

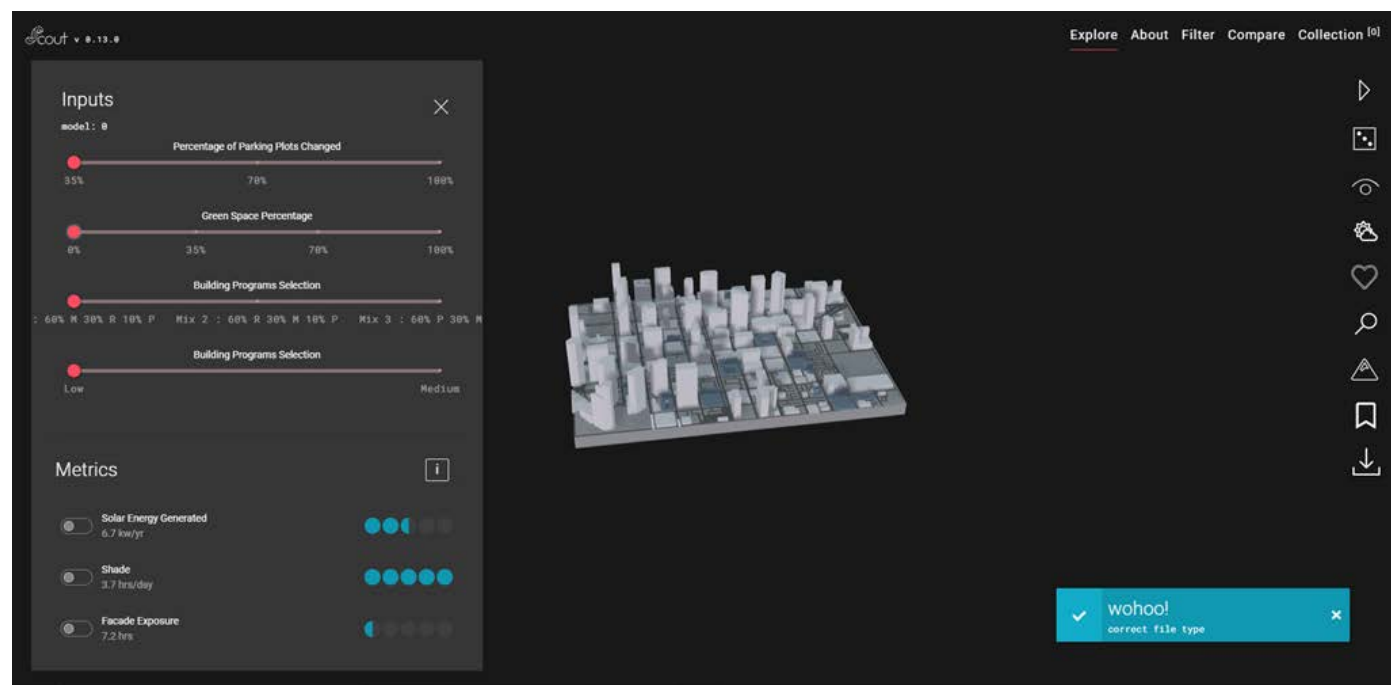
This project showcases a section of a children's school in a Chinese village, emphasizing the use of natural materials like bamboo and stone. The design features distinct spaces that cater to different sensory needs: one end of the section presents a sensory avoidant space, characterized by a quiet, dark atmosphere suitable for children who prefer solitude and minimal stimulation. At the other end, a sensory seeking space buzzes with activity, offering an open, dynamic area where children can configure their own classroom settings. Bridging these two extremes is a semi-outdoor space that serves as a transitional zone, subtly balancing the sensory spectrum and fostering an inclusive environment for all children.



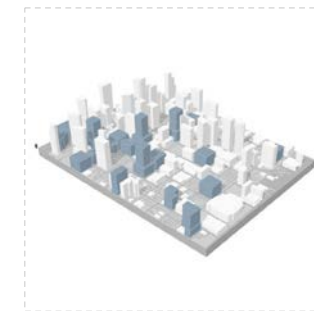
X-Information Modeling: Houston’s Problem

Instructor: Snoweria Zhang

A computer generated urban planning model for Downtown Houston that studies the options and alternatives for rejuvenating the area by reducing the number of parking lots. As the options are generated using Grasshopper, the outcomes are studied, calculated and presented using the SCOUT website that showcases an interactive information model.

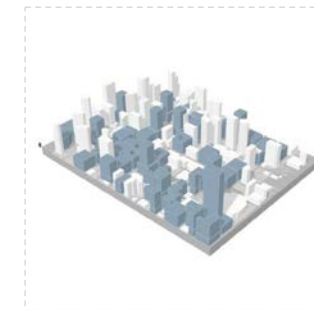


Snapshot of SCOUT website containing the computer generated model of information



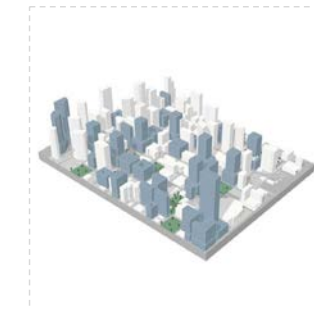
Percentage of Parking Lots

35% 70% 100%



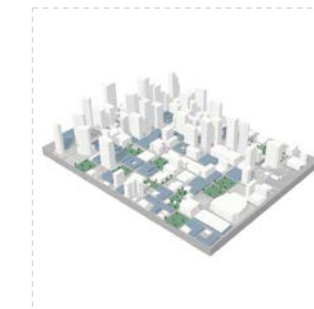
Green Space Percentage

0% 35% 70% 100%



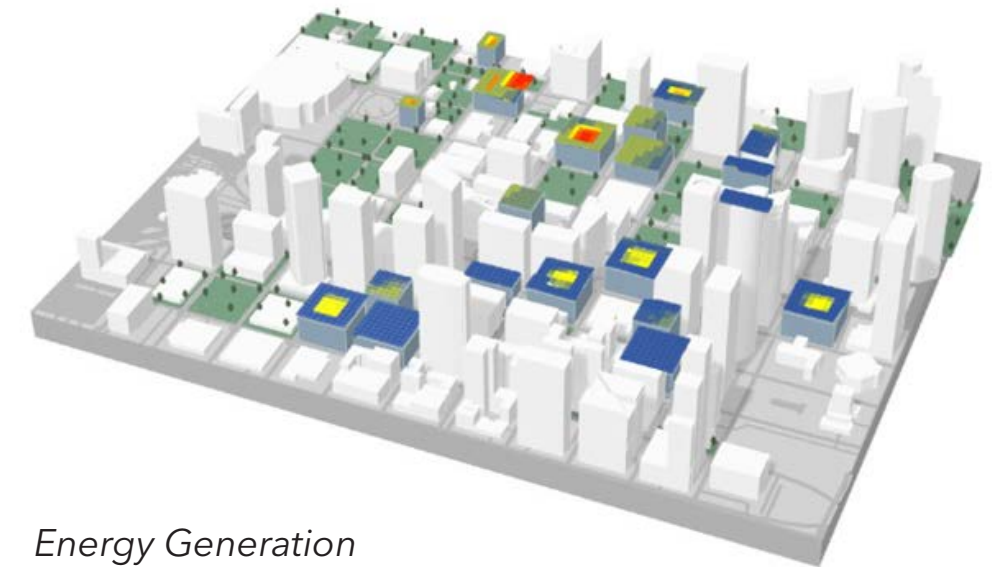
Building Program

Mix 1 Mix 2 Mix 3

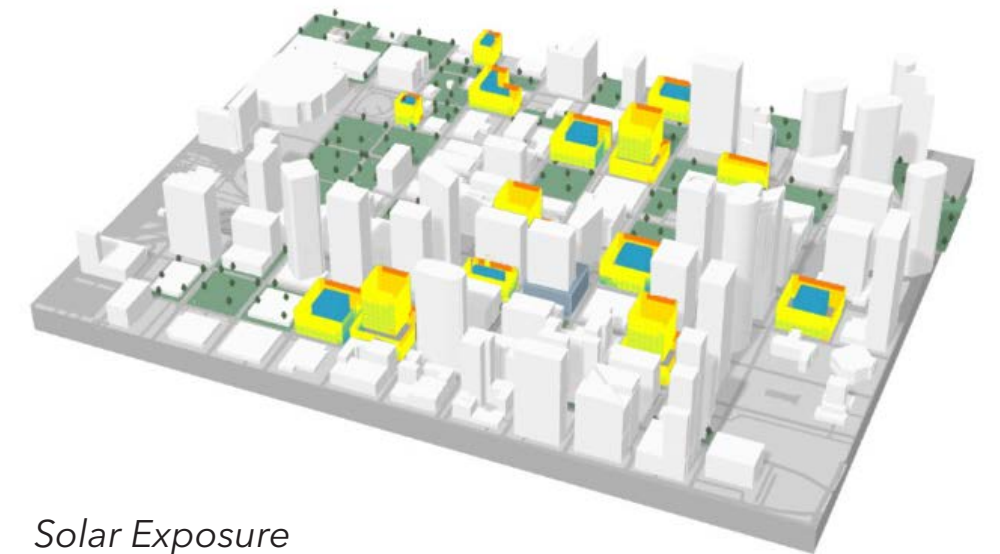


Density Distribution

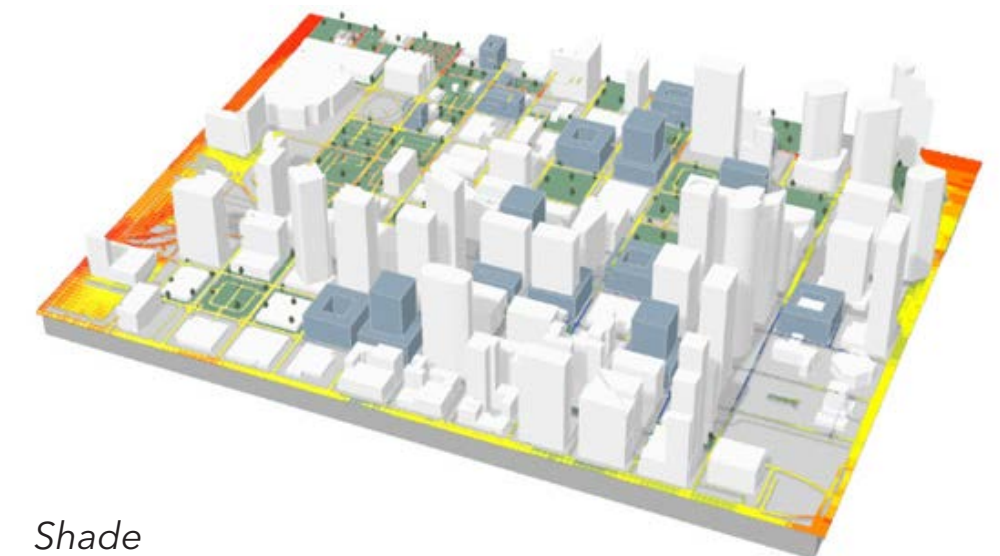
1 3.8 4.5 6.0 7.5 10



Energy Generation



Solar Exposure



Shade

VOL-01.

2021-2024

