

John Trujillo

Portfolio for Graduation

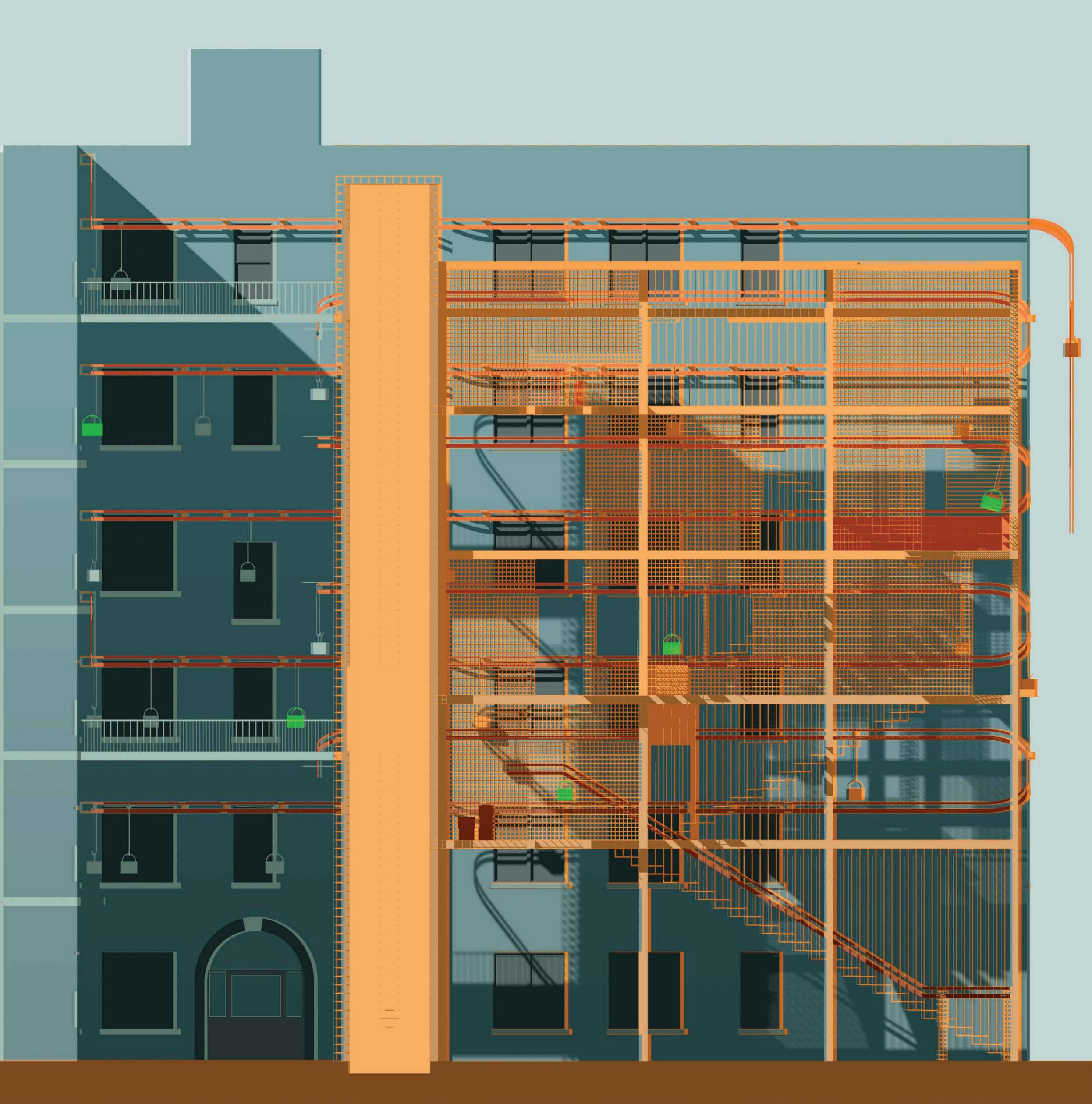
Fall 2019

Urban Fulfillment Center

Courtyards were introduced into New York residential housing as light wells and breezeways. With blinds drawn and windows shut: the modern pursuit of privacy has outmatched the need for sun and air. This project revives the courtyard as a vehicle for daylight, ventilation, and community by using it to address the congestion of delivery fulfillment. From the street and by each window facing the courtyard, a rail dog-steps up to deliver parcels from the street to each residence. The same avenue of package fulfillment can be appropriated by the residents to send objects to one another: notes of encouragement, fresh bread, a lamp no longer needed. Should a package not be accepted at the window sill, it will find its way to a central depository: a latticed scaffold that doubles as a screen for privacy, allowing residents to open their portals to air and light once more without the fear of voyeurs.



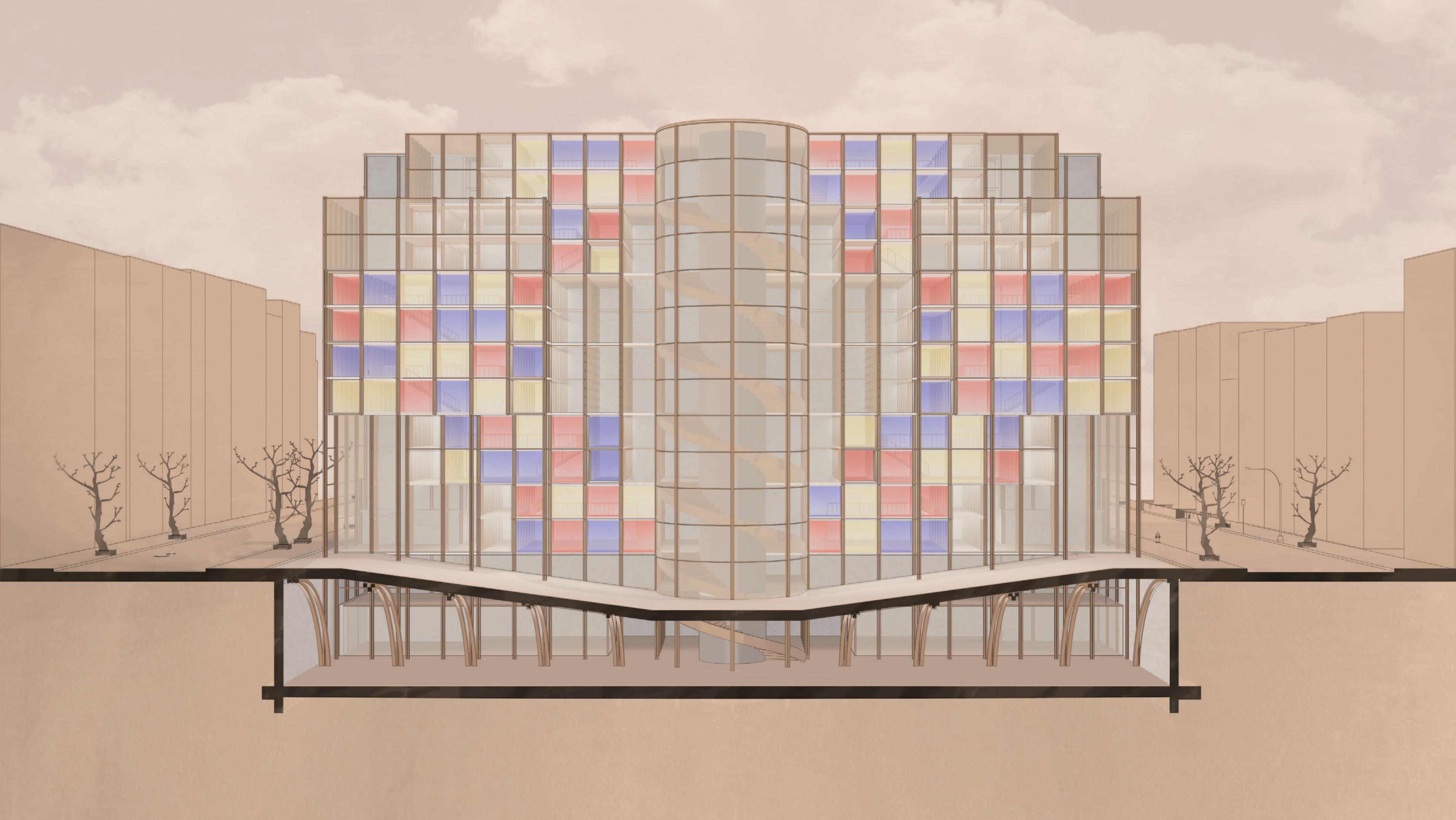


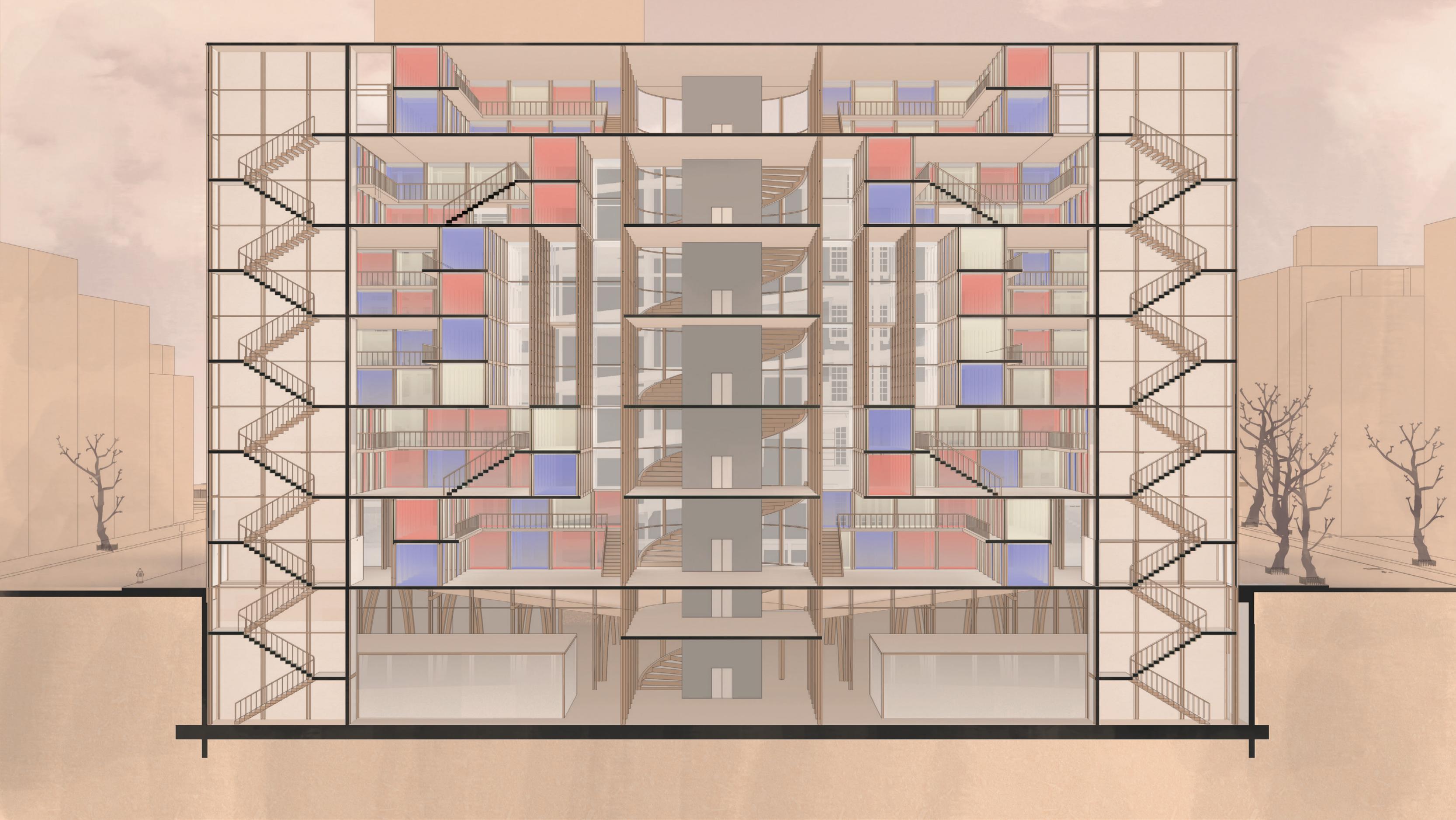


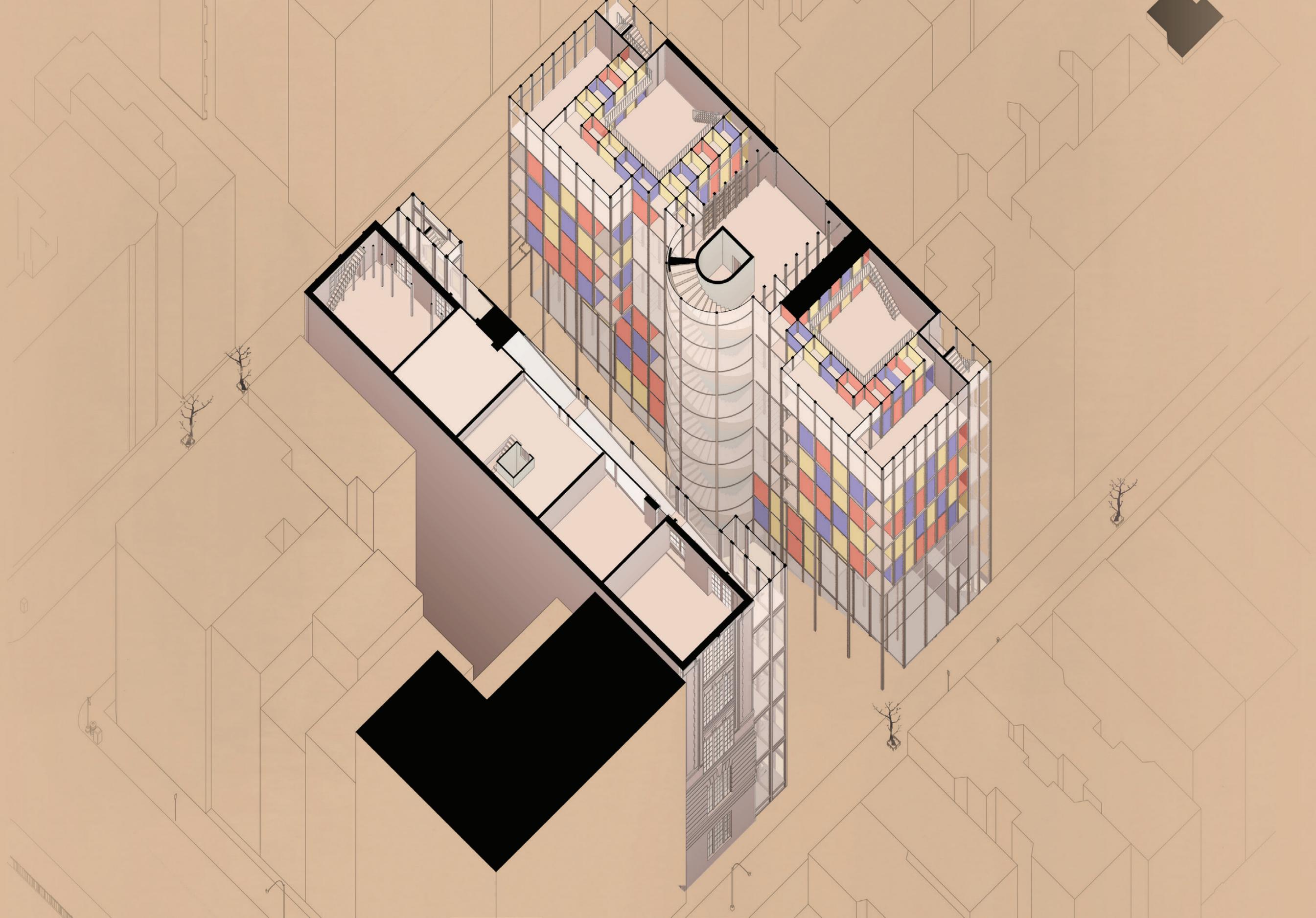
Spring 2020

School of Focus

As we grow, we change. Childhood dreams of becoming a super-fast racecar driver give way to pursuits in activism, healthcare, design: avenues for bettering our worlds. While these aspirations might require different sets of knowledge and experiences, they all require fundamental skills. The School of Focus proposes to teach one of the most essential. It provides spaces for cognitive training bolstered by visual cues to empower students to meet targeted, ever rising thresholds of concentration. Individual-learning units encircle communal areas, allowing the students to alternate between group and independent study. The back-and-forth between the two types of units mimics a way of operating in the real-world, where a bedrock of knowledge is cultivated independently before being shared with others; and refined while doing so. The individual learning units are paired with neuro-feedback devices to be worn by the students. The interior environments of the unit can thus change to ease focus: light, sound, temperature are each modulated to suit the needs of the student.







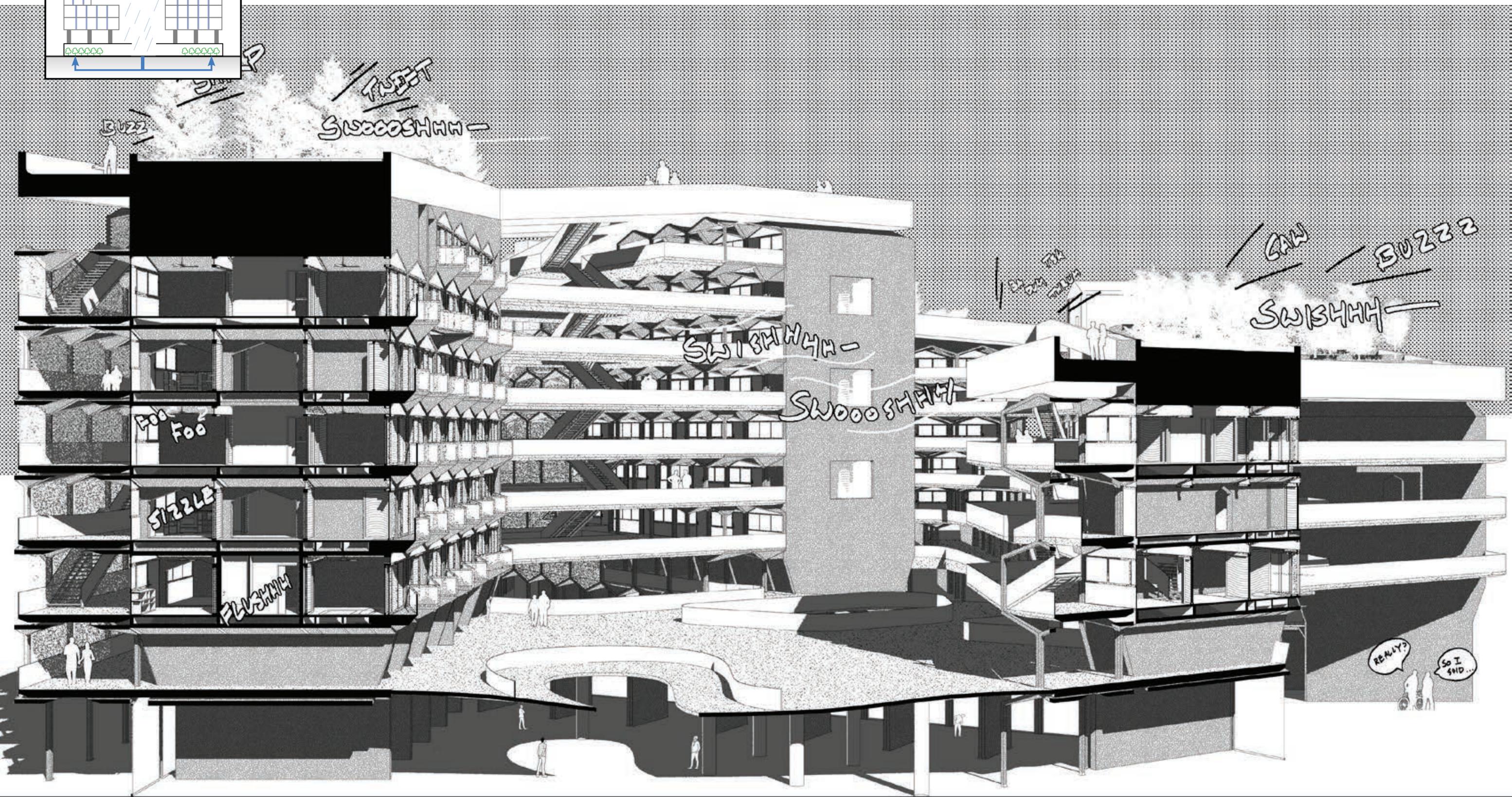
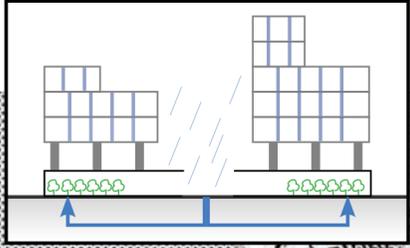
Fall 2020

Quiet <> Un-quiet

Perception depends heavily on emotional associations. Light from the street outside can foil heroic efforts to fall asleep, but the soft glow of your loved one's lamp as he/she/it burns the midnight oil can become a comforting lullaby that coos you to sleep. Sound is the same. This project layers noise across an array of units and provides residents control over the degree to which they engage with it. Noise thus loses its anonymity. By pulling it in to the project, putting a face, name, memory, and emotion to the otherness of noise, our project contextualizes it and transforms it into sound. The unit layout and materiality, the honeycomb structure, and the communal courtyards and roof all match the spectrum of quiet and unquiet to reenforce the gradient of sound and its relativity across the block.

In collaboration with Jinseon Noh





BUZZ

TWEET
SWOOOSHHH—

FOO
FOO

SIZZLE

SWISHHHH

SWISHHHH—

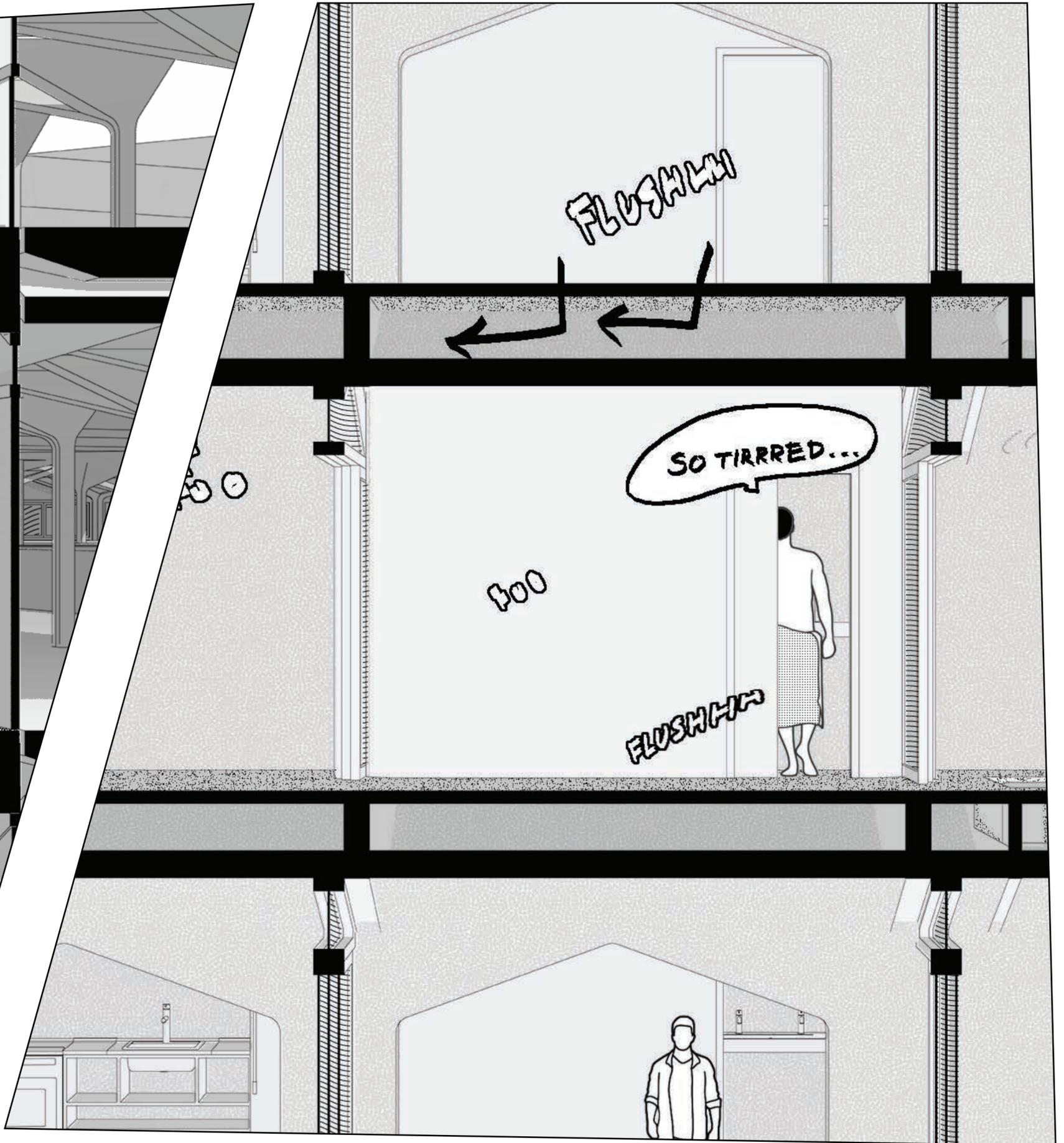
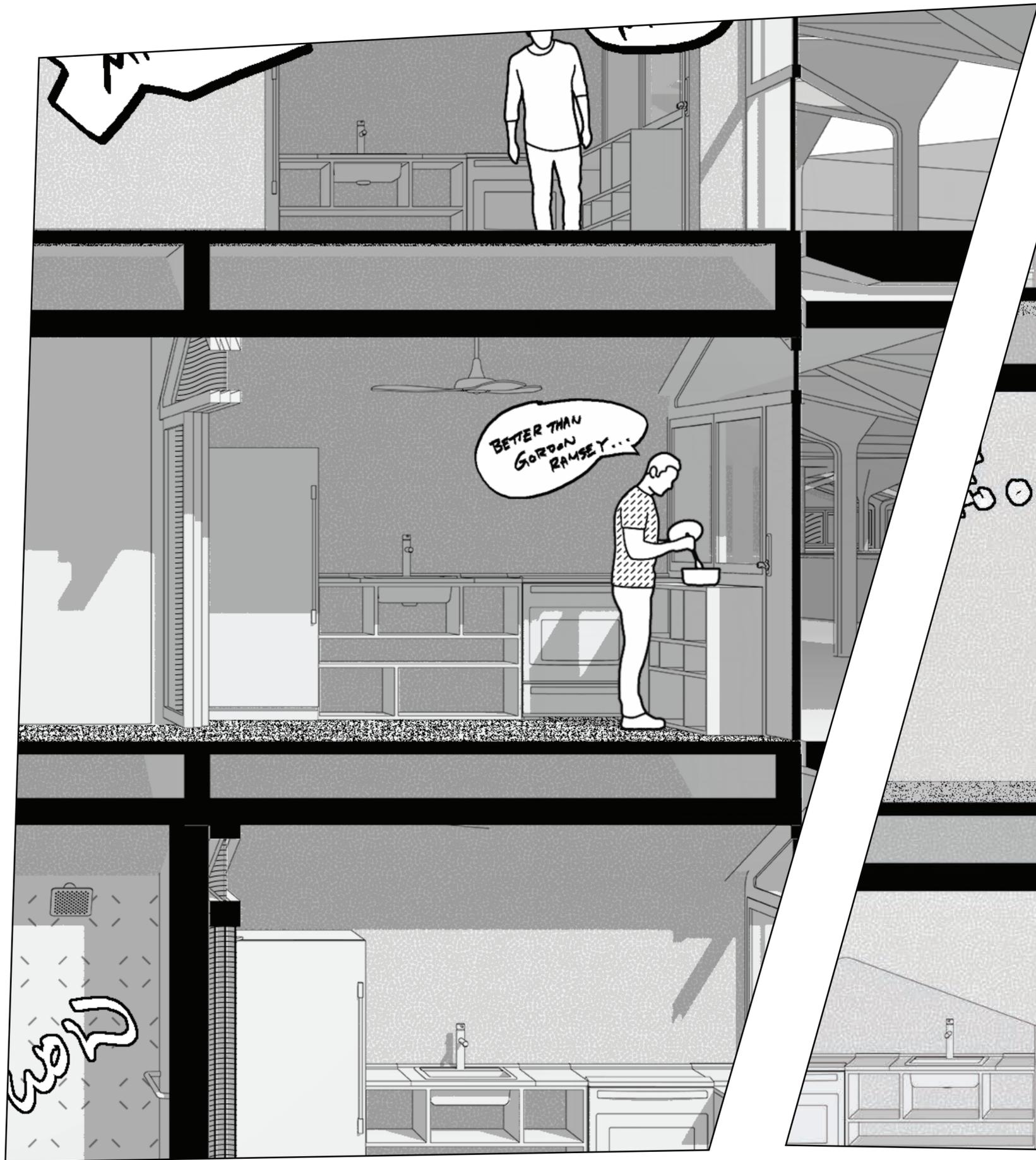
SWOOOSHHH

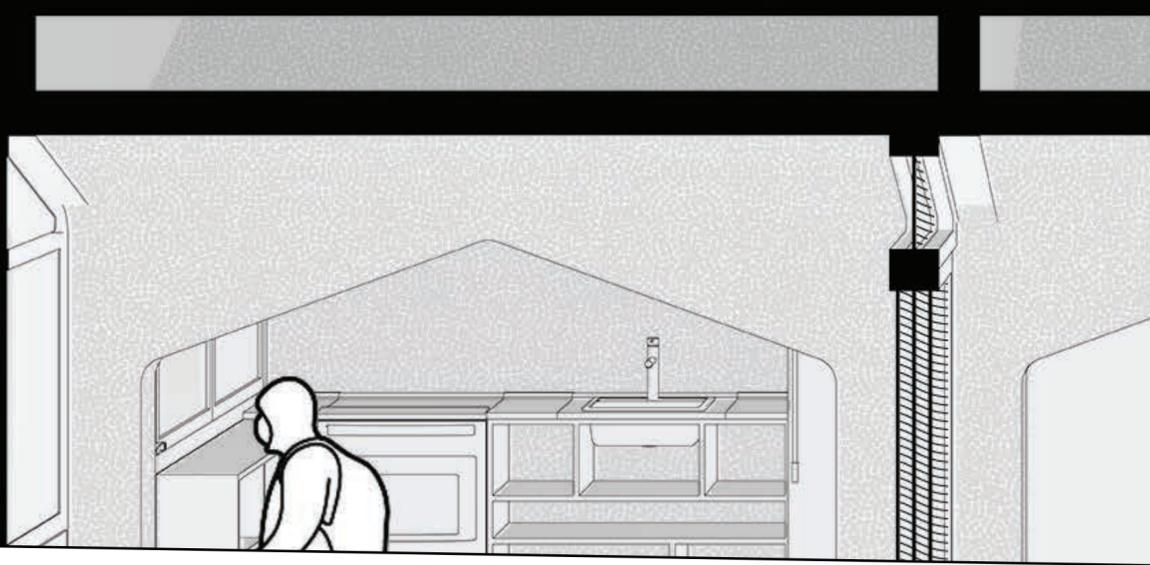
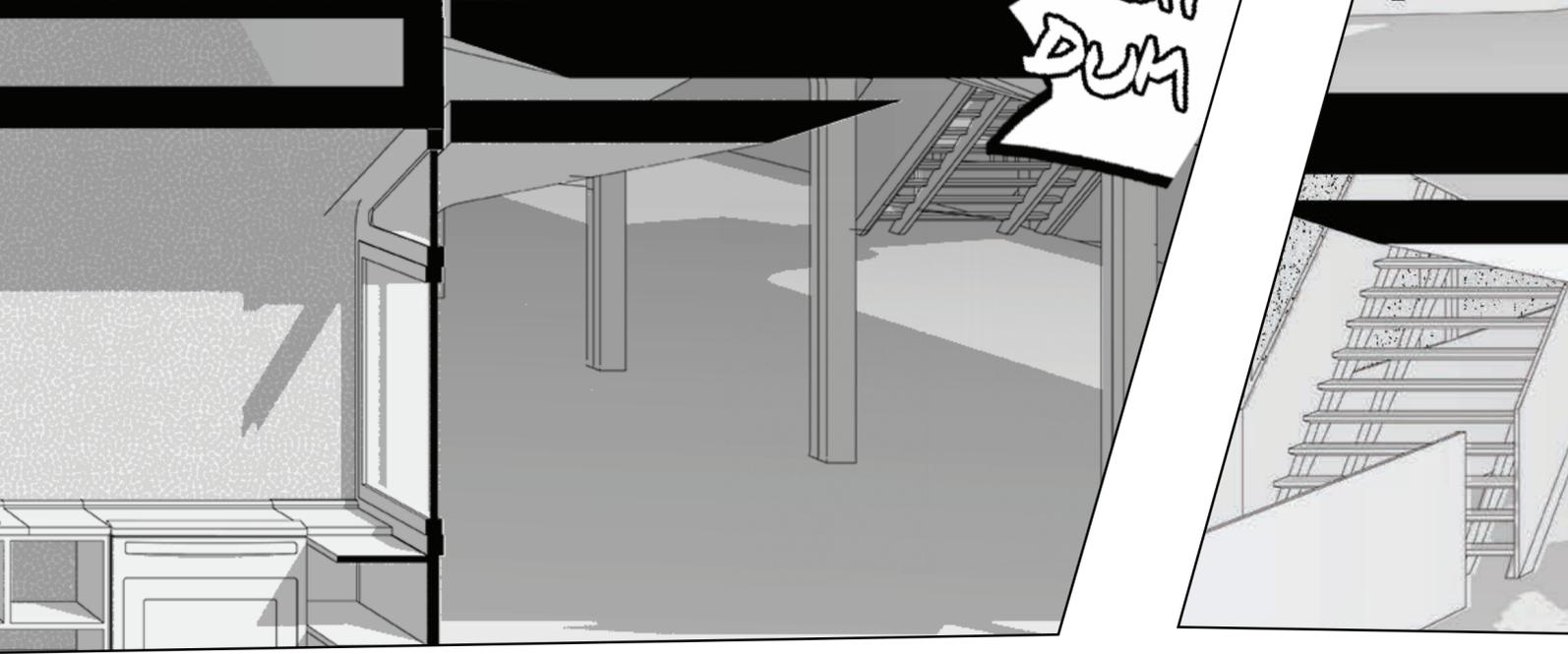
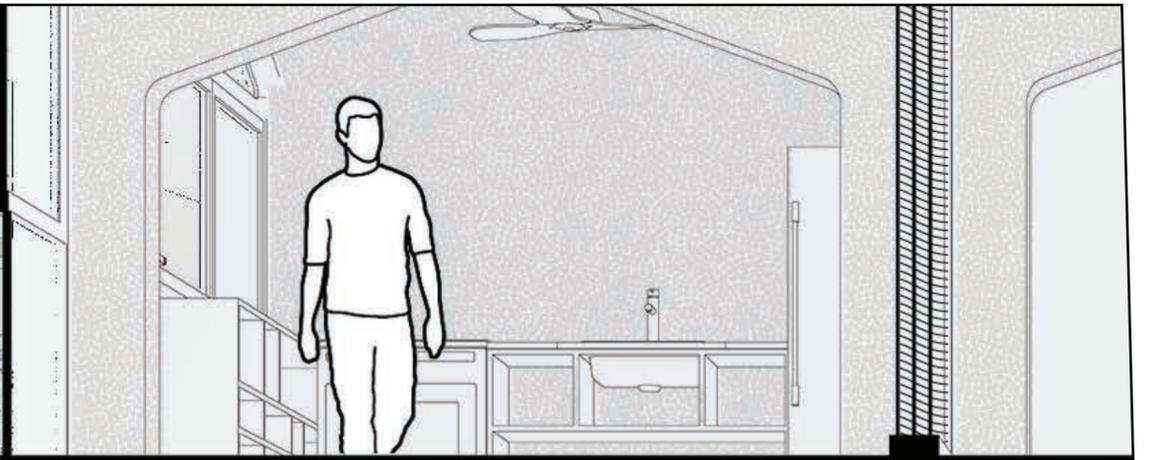
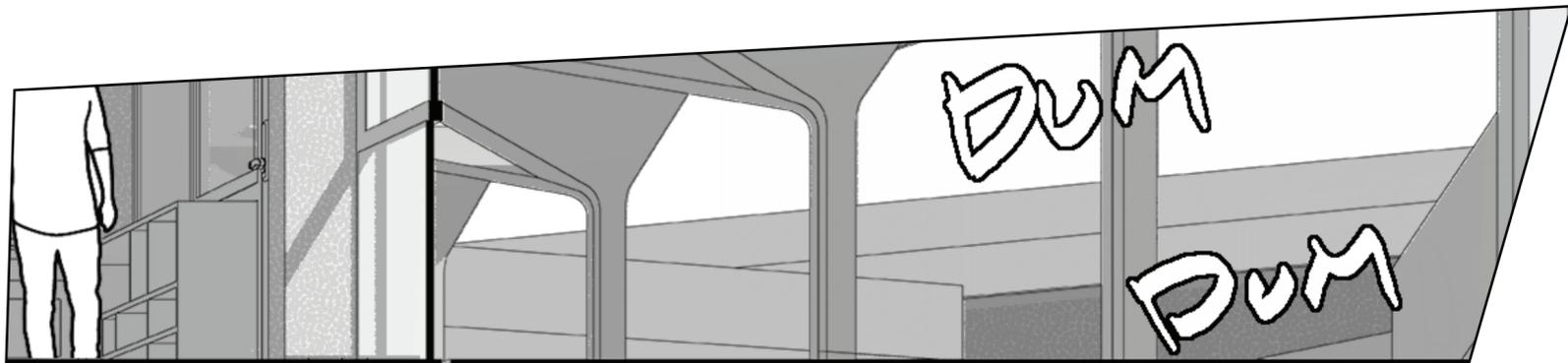
GAW
BUZZZ
SWISHHH—

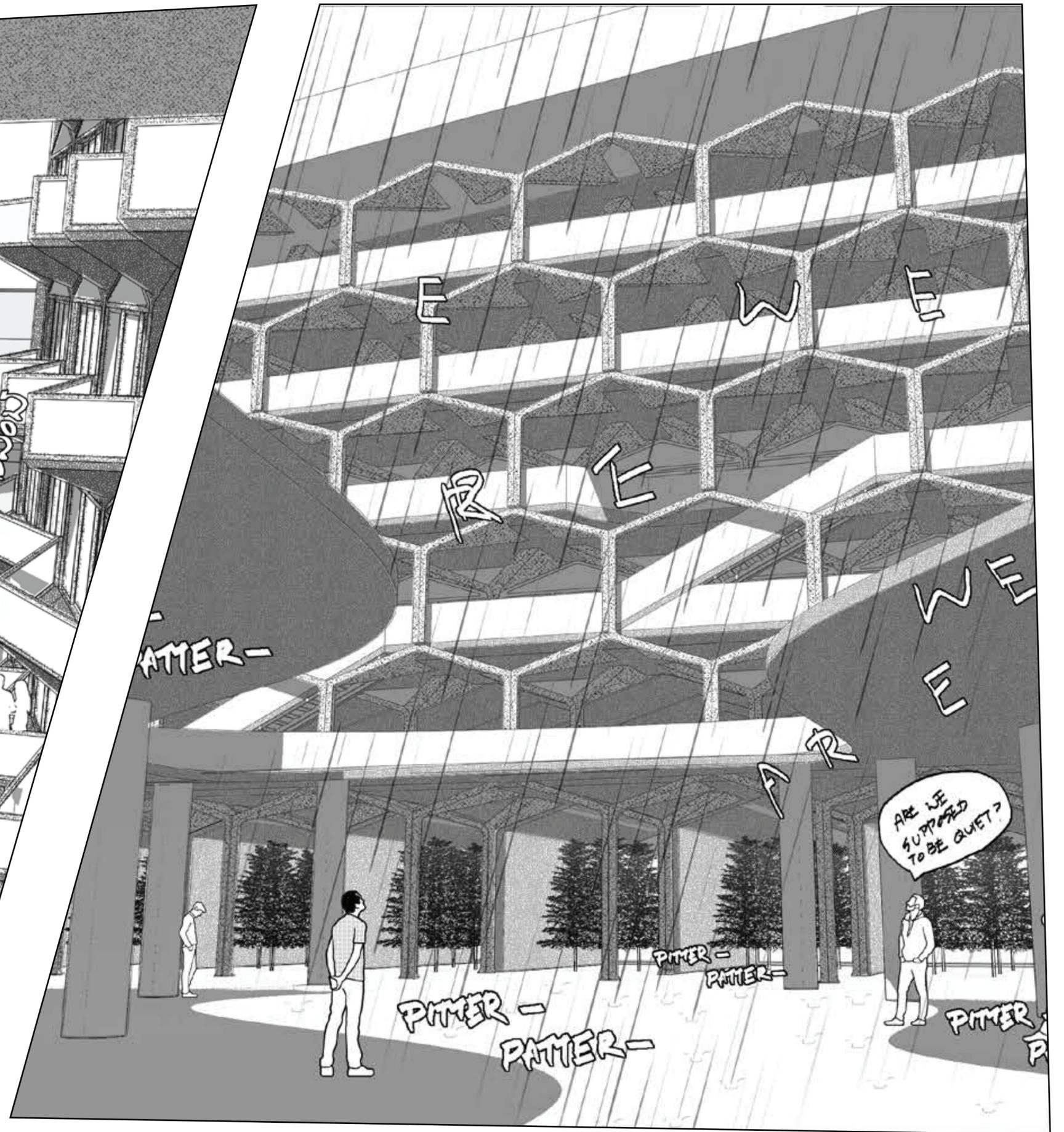
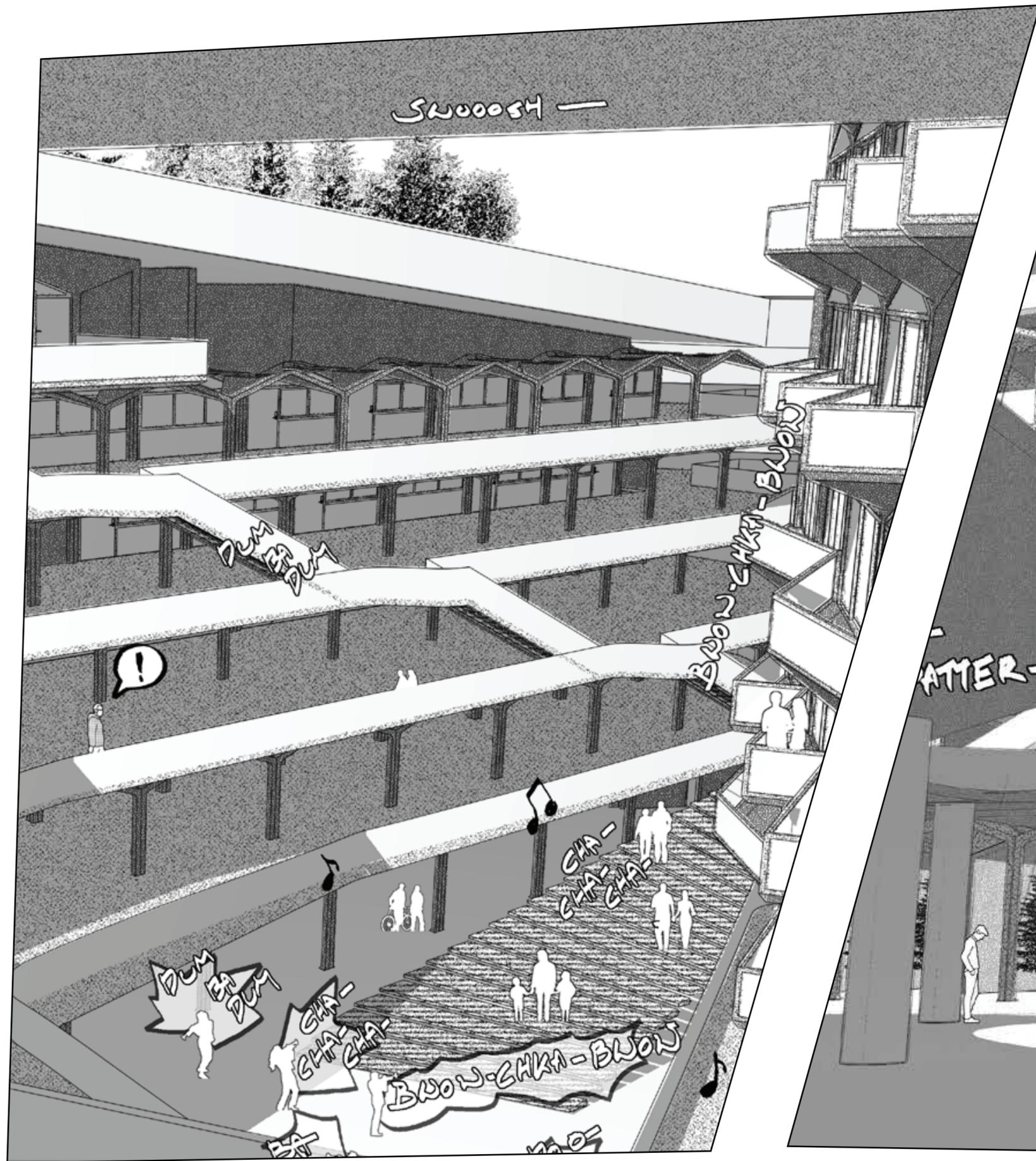
REALLY?

SO I SHD...









Spring 2021

Heliolandia

Situated between the towns of Athens and Coxsackie in Greene County, the Flint Mine Solar Power Plant will be the largest solar power plant in the eastern U.S. Like many infrastructure projects of that scale, its construction comes into friction with the interests of rural communities. Positioned at the intersection of intentional communities with infrastructural systems, this project explores how large-scale infrastructural projects can be re-appropriated by intentional communities, host public programs, and accommodate spontaneous usage. Informed by a validated agrivoltaic system, the photovoltaic arrays are raised by 20 feet to allow for the co-development of the ground plane according to the quality of its soil. Three lots purchased by Flint Mine Solar are chosen to investigate how the space beneath the photovoltaic arrays and manipulations of its grid can host contemporary versions of intentional-community typologies.

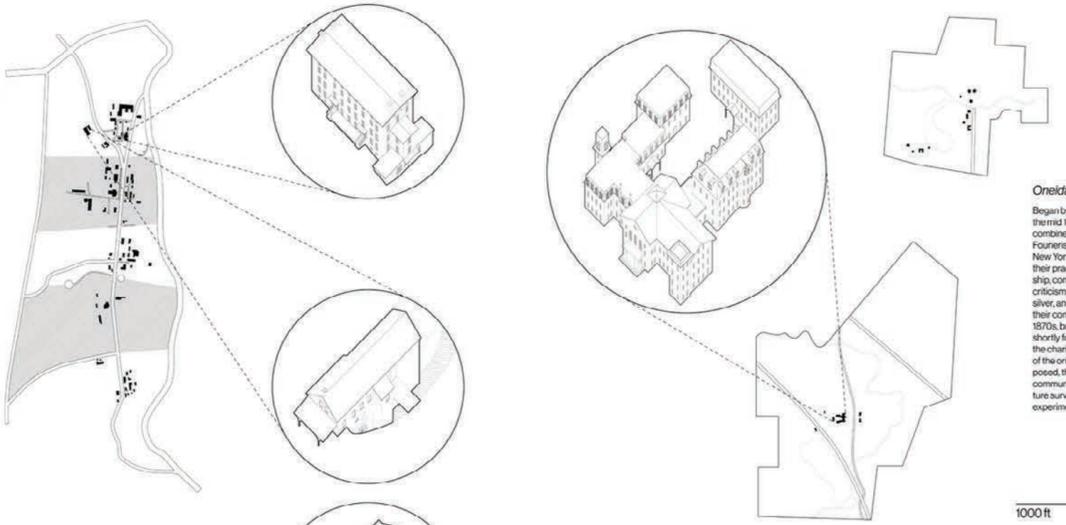
In collaboration with Nayef AlSabhan

Shaker Settlement

The Millennial Church - adherents to which are referred to as Shakers - established their first community in 18th-century Massachusetts and expanded across the United States. The community at Mount Lebanon, New York, was established in 1790 and was among the first outside of Massachusetts. The community lasted until the mid-20th century.

The community organized itself into residential and economic units referred to as "families"; industry, worship, and infrastructure was organized around the focus of the residence house (top). The Shakers preached withdrawal from society and the commitment of resources to communal and individual improvement societies of the millennial church became known for their craft work and unique development of infrastructural technology (e.g., aqueducts services a mill bottom).

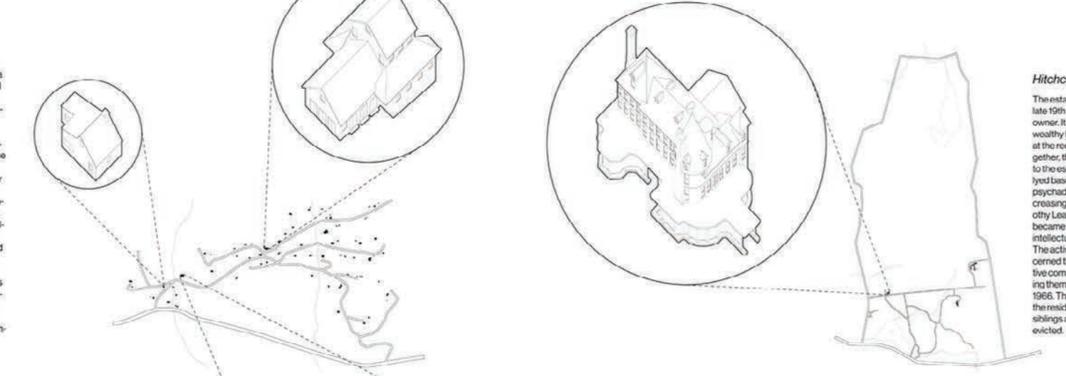
1000 ft



Byrdcliffe

Ralph Radcliffe Whitehead dreamt of a community that serviced and fostered all branches of art. After several false starts across the United States, Whitehead committed his last attempt in Woodstock, New York, in 1912. The community was a mixed success. It attracted artists and craftsmen of diverse disciplines, but none stayed for long enough to secure the financial stability of the community. After Whitehead's death, his family sold much of the property to settle the losses of the venture. The community was comprised of multiple dwellings that ranged in size (top left, bottom right) and were distributed among communal buildings, either those housing social gatherings (like the playhouse, top right) or workshops that eased the work of the resident artists. All buildings were designed and constructed in the style of the American Arts and Crafts movement in a conscious appeal to the myth of the simplicity of abiding in the wilderness.

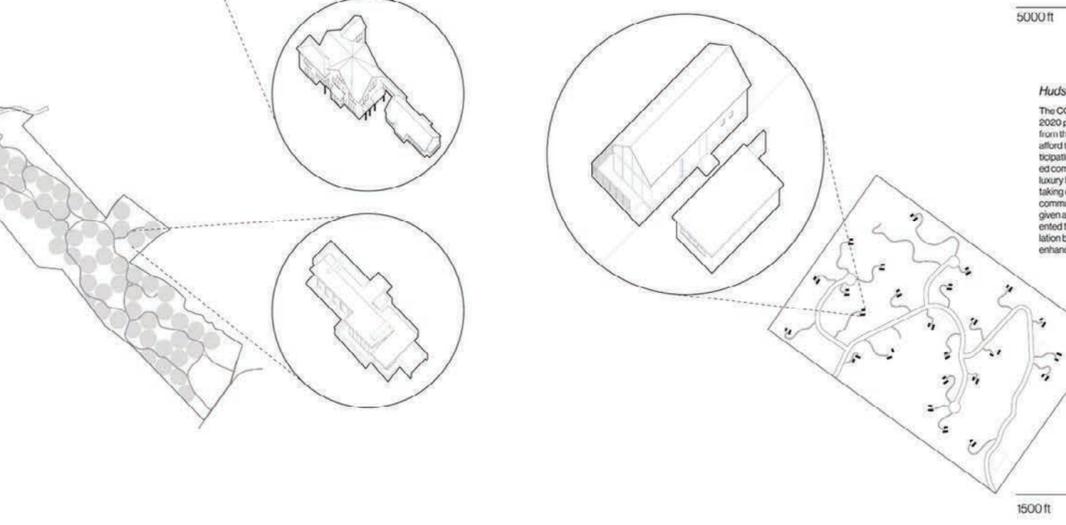
2000 ft



Usonia II

A young couple in post-WW2 attended a Wright exhibition at the Guggenheim Museum in New York. Fascinated by Wright's conception of the Broad City and its elaboration in Wisconsin, the couple decided to apprentice under Wright. Over the course of the following years, the couple recruited a group of like-minded individuals who together saved enough money to attempt a second version of Wright's 20th-century utopia in 1946, though property was held communally, each member would have a prescribed plot of land upon which to erect a bespoke home. While the model persisted in its original form for the first 40 years after the community was built, home-ownership is no longer communal.

1500 ft



Oneida Community

Began by John Humphrey Noyes in the mid 19th century, Perfectionism combined Shaker millennialism and Fourierism their property in Oneida, New York provided sanctuary for their practice of communal ownership, complex marriage, and mutual criticism. The manufacture of silk, silver, and printing equipment helped their community to flourish until the 1870s, but the community disbanded shortly following the resignation of the charismatic founder. While most of the original site has been repossessed, the mansion housing the community and the silver manufactory survive as monuments to their experiment.

1000 ft

Hitchcock Estate

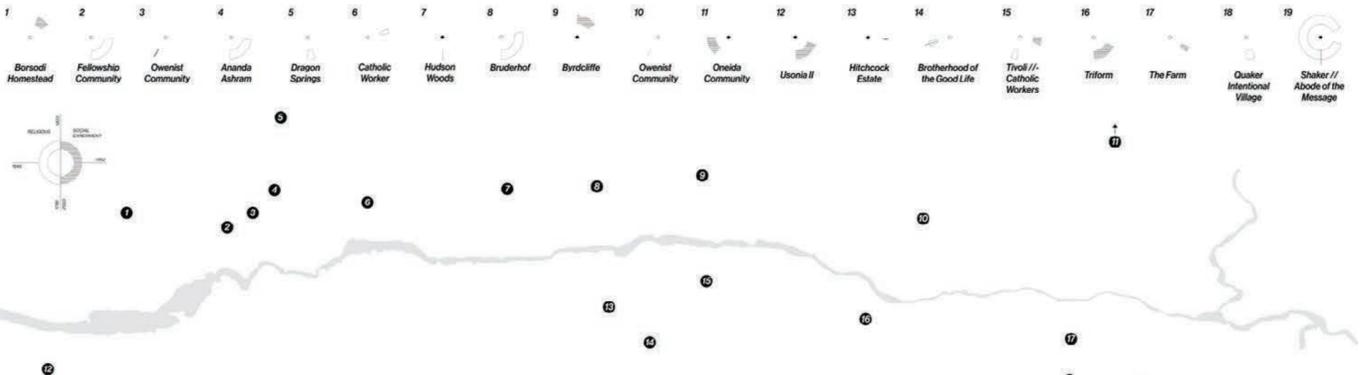
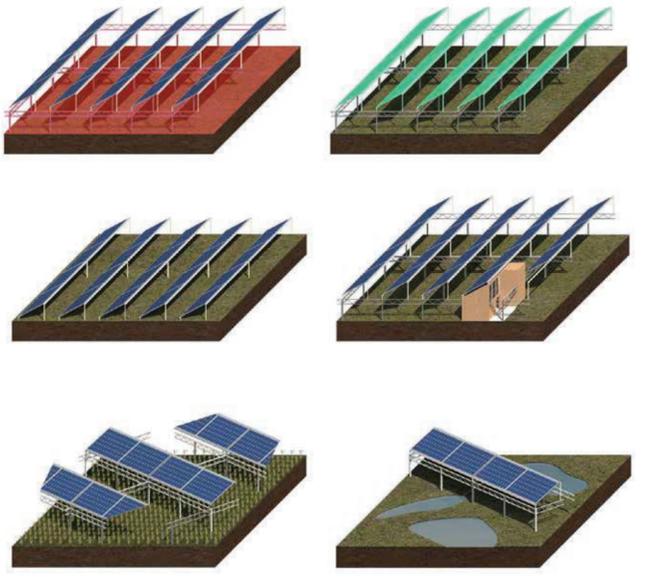
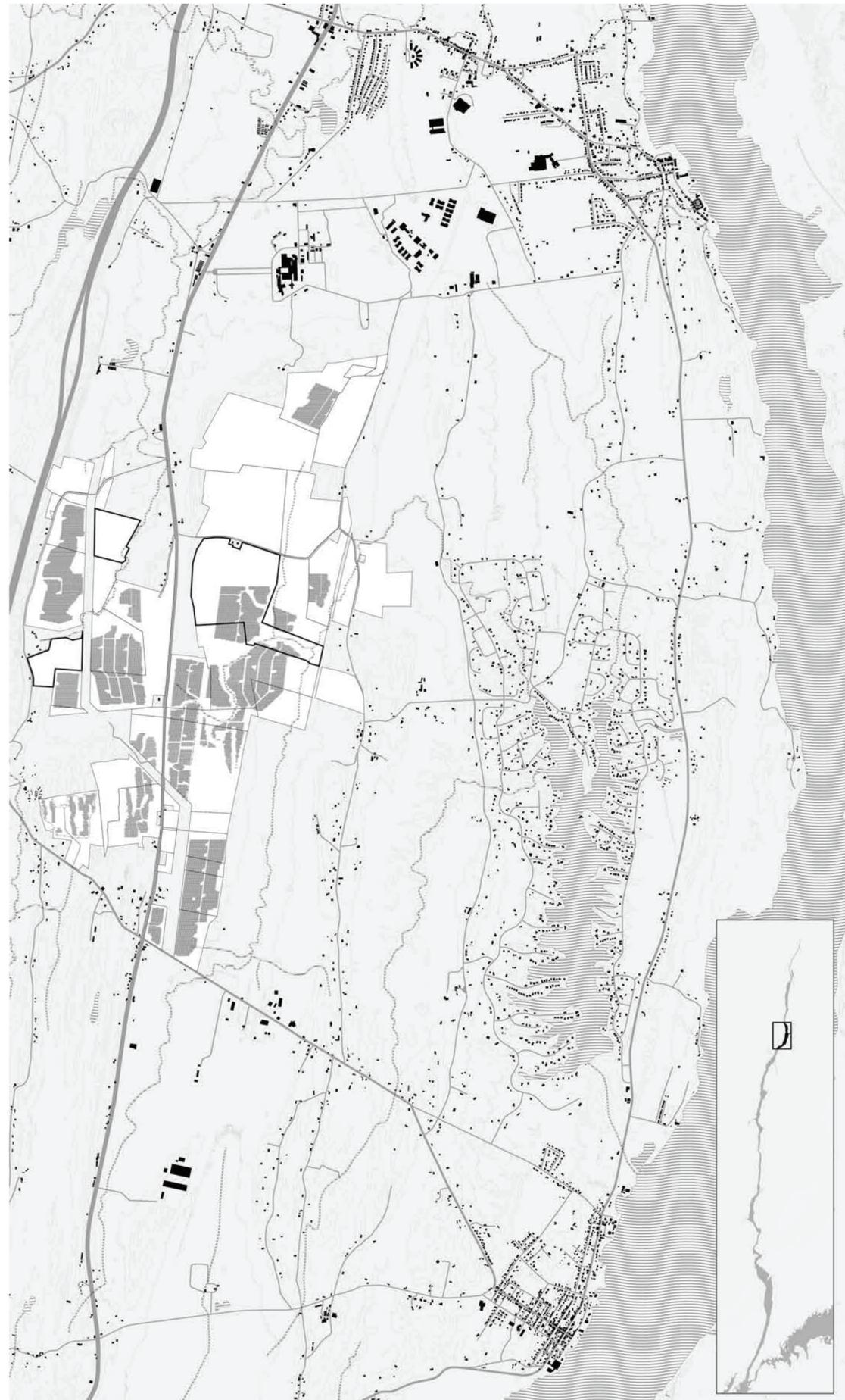
The estate on the left was built in the late 19th century by a successful farm owner. It was later bought by a young, wealthy hedge-fund manager in 1962, at the request of his little sister. Together, the Hitchcock sibling moved to the estate and indulged in a lifestyle based on the consumption of psychedelics as advocated by the increasingly famous psychologist, Timothy Leary. Within a year, the estate became a destination for the artists, intellectuals, and celebrities. The activity at the manor house concerned the predominantly conservative community of Milbrook, prompting them to appeal to authorities in 1966. The compound was raided, and the residents, including the Hitchcock siblings and Leary himself, were evicted.

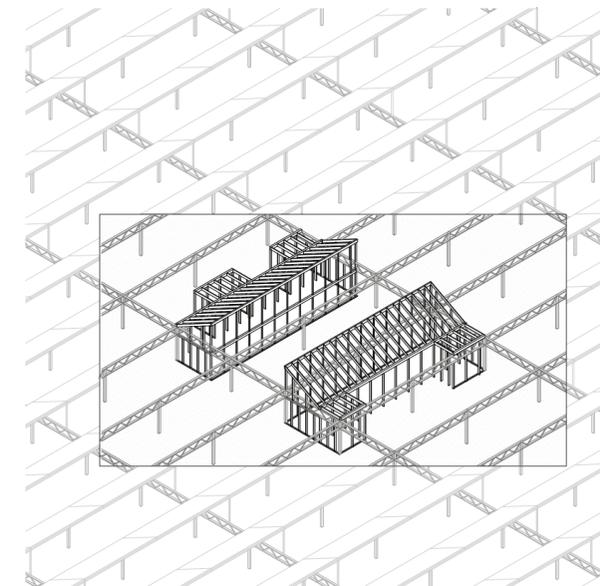
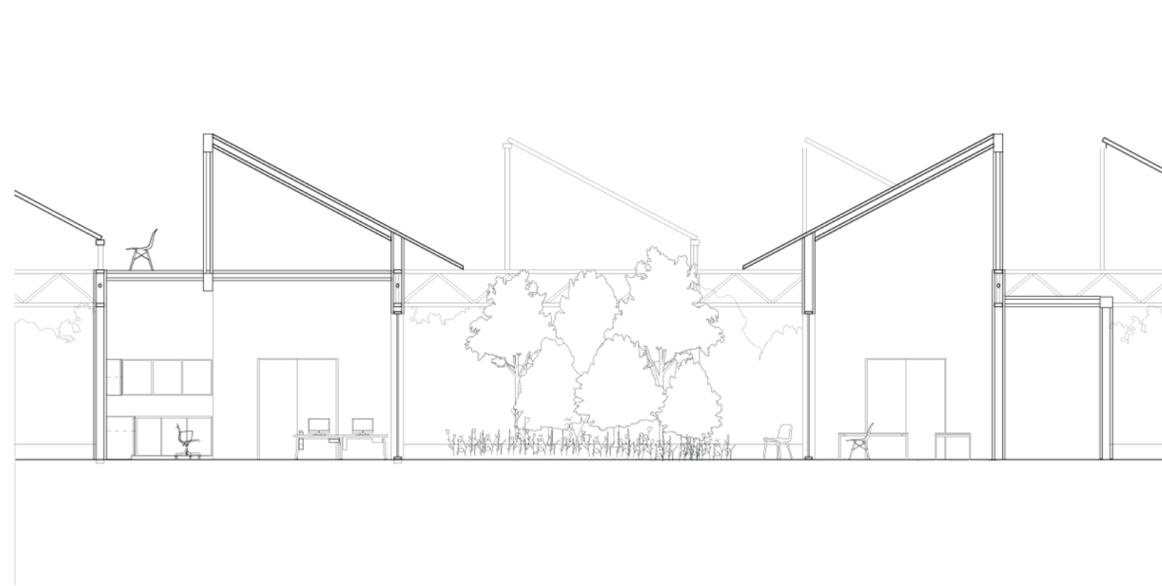
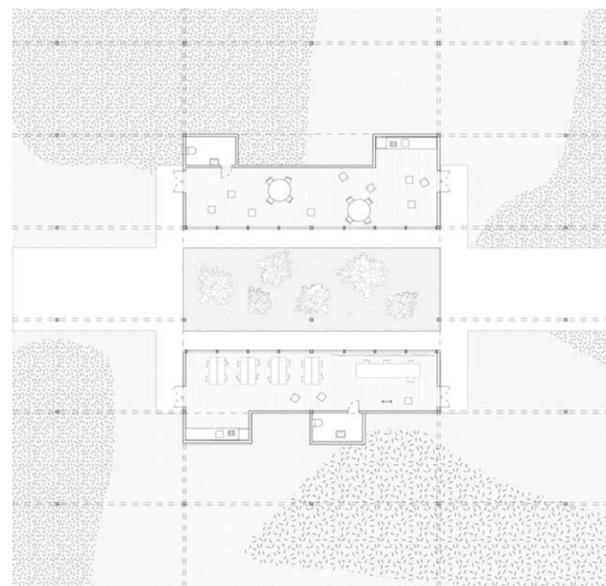
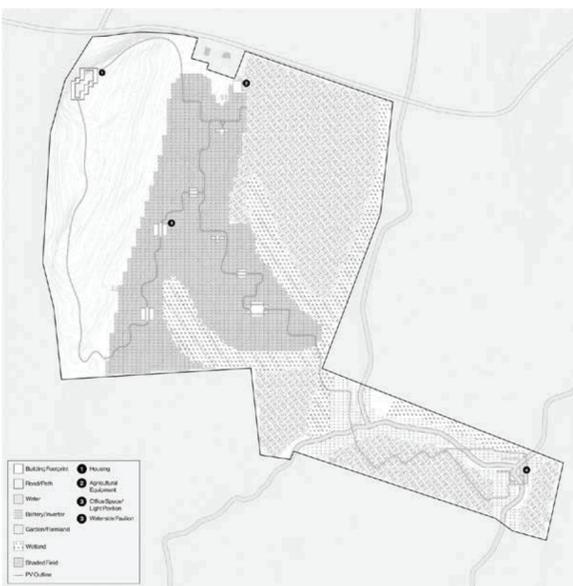
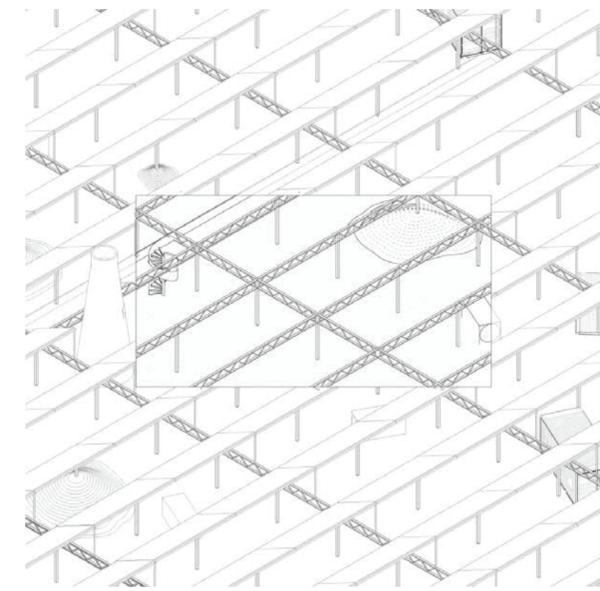
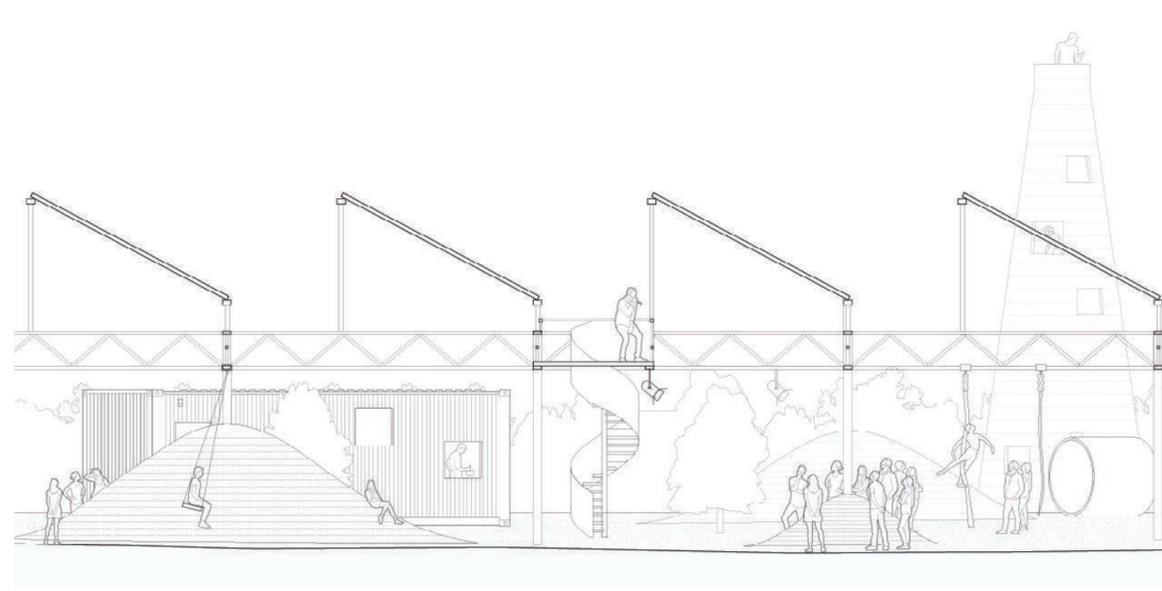
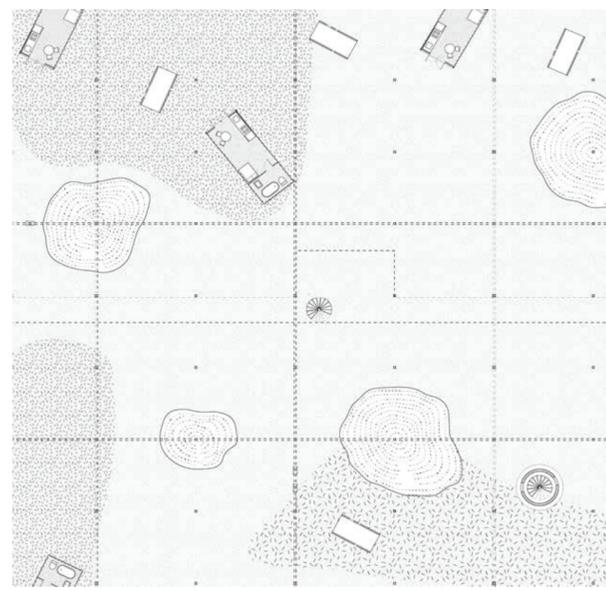
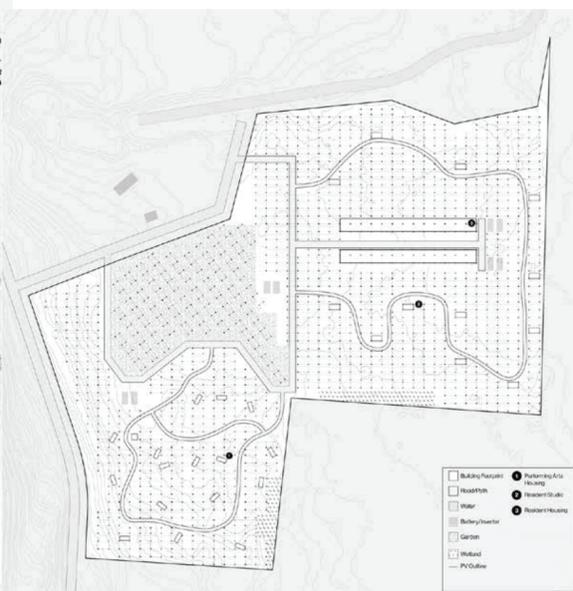
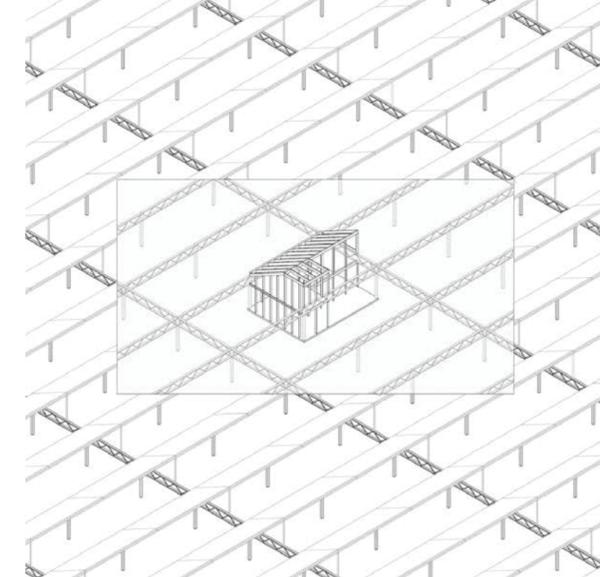
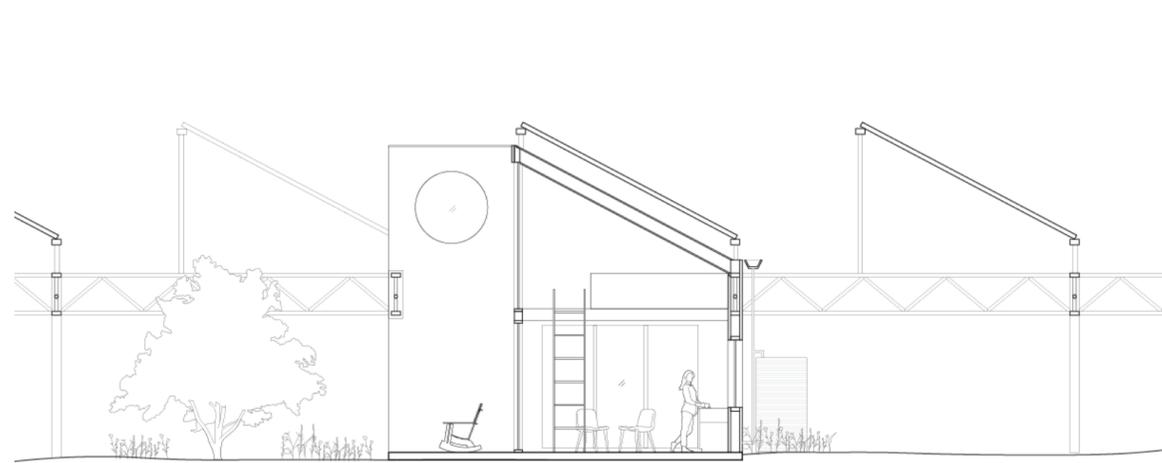
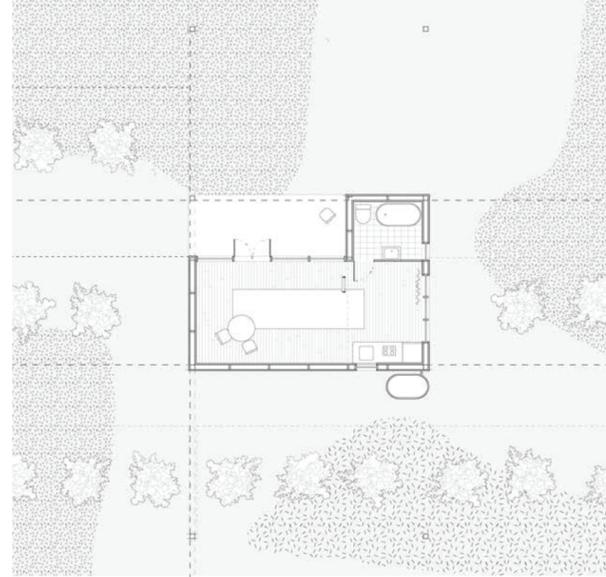
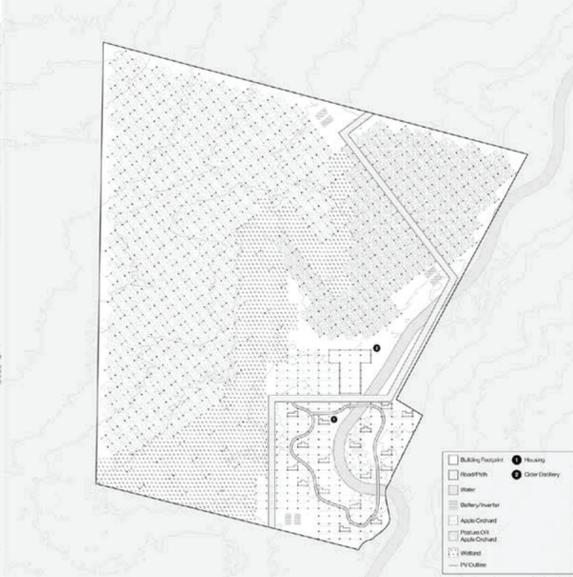
5000 ft

Hudson Woods

The COVID-19 Pandemic of 2020 prompted an exodus away from the city for those who could afford to do so. Developers anticipating the change constructed communities of low-density luxury housing. Apparently taking cues from Usonia-like communities, each resident is given a plot of land, which are oriented to increase the visual isolation between the buildings and enhance the sense of rural living.

1500 ft



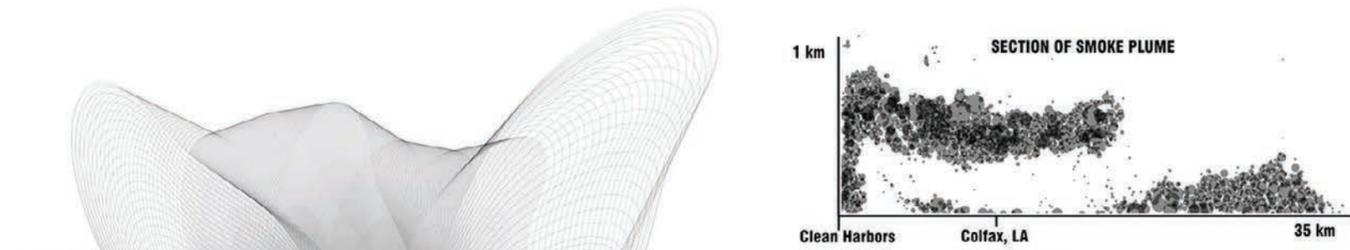


Fall 2021

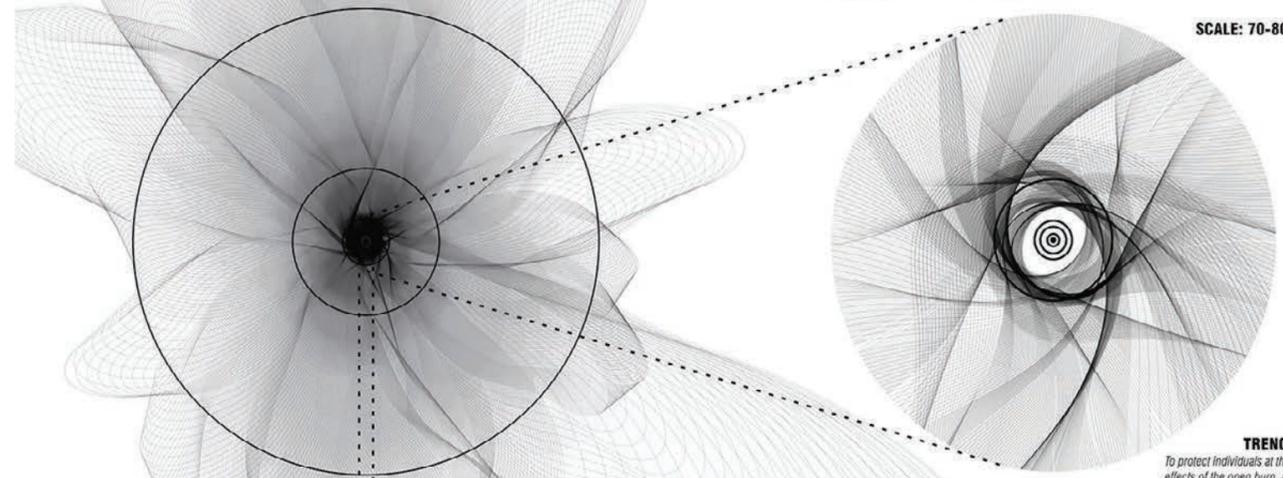
School of Toxic Air

The US industrial military behemoth generates a constant surplus of military supply waste: everything from clothing to explosives. Much of this equipment is burned in the open due to the lack of infrastructure to responsibly dispose of it. These open burns are – as a rule – conducted by the military. The exception is Clean Harbors. In Colfax, Louisiana – a rural, predominantly black community – they receive and openly burn more than a million tons of toxic waste each year. This project propose a military school around the existing burn site at Clean Harbors Colfax to gather concrete and necessary data to link the burn with health consequences.

In collaboration with Daniel Kim



SCALE: 70-80 db

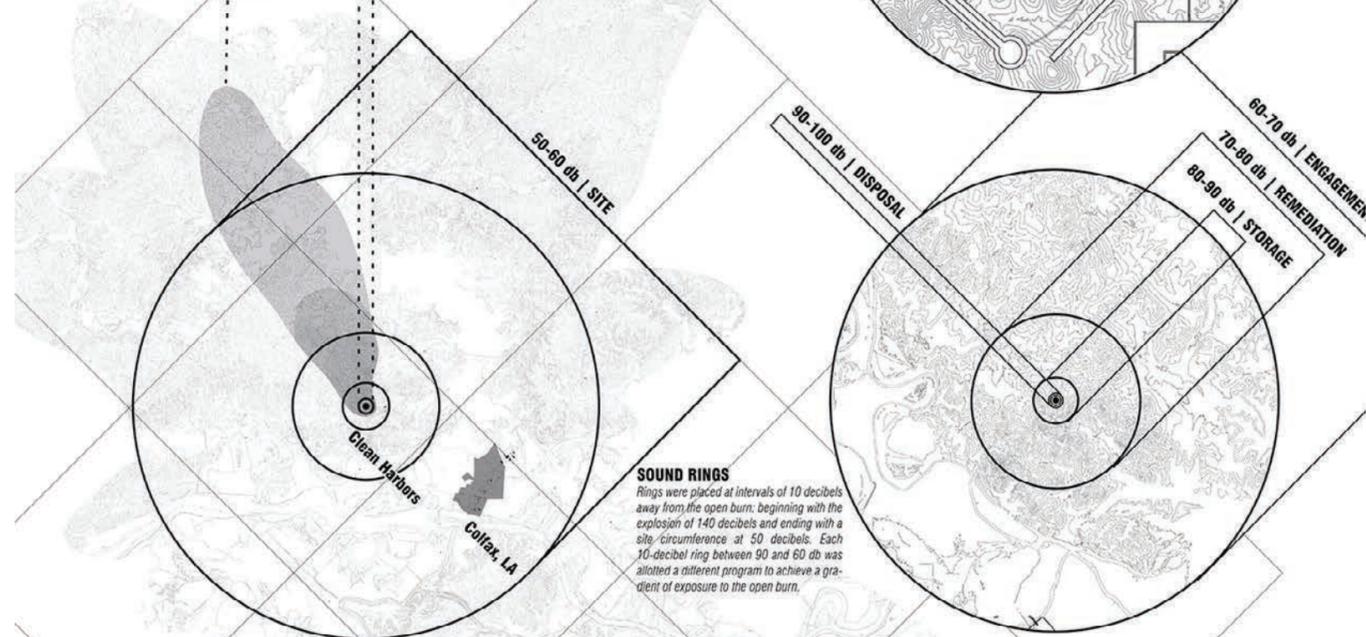


SMOKE ROSE
 A NASA satellite image captured the path of smoke from the Clean Harbors disposal facility in Colfax, LA. Using historical weather data from that day, the smoke path was extrapolated across the year and local weather conditions. The opacity indicates the annual accumulation of smoke across the site. The density of lines indicates the probability of the path of smoke: the greater the density at any point, the more probable that the smoke will cross it.

MILITARY GRID REFERENCE SYSTEM (MGRS)
 The MGRS, an international cartographic grid, was plotted across our site and used to inform the location of buildings and the span of their structural members.

TRENCH / BERM
 To protect individuals at the site from the effects of the open burn, a trench is dug to a depth of six meters below the elevation of the open burn. The path is informed by the most probable path of smoke and kept level across the undulating site. Where it rises above the original elevation, it becomes flanked by berms to offer similar protection.

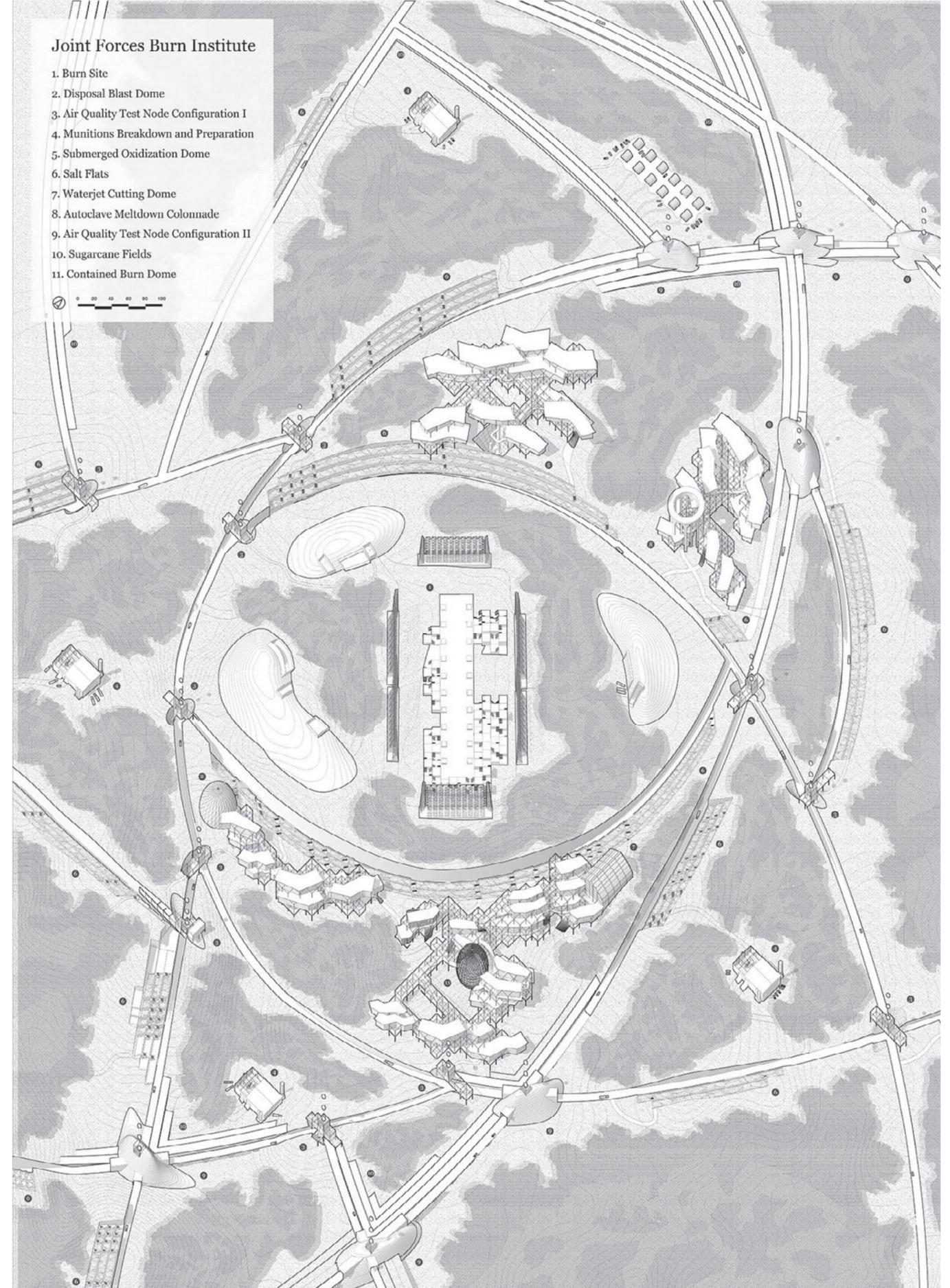
SMOKE PLUME OUTLINE
 DATE: DEC/12/2012

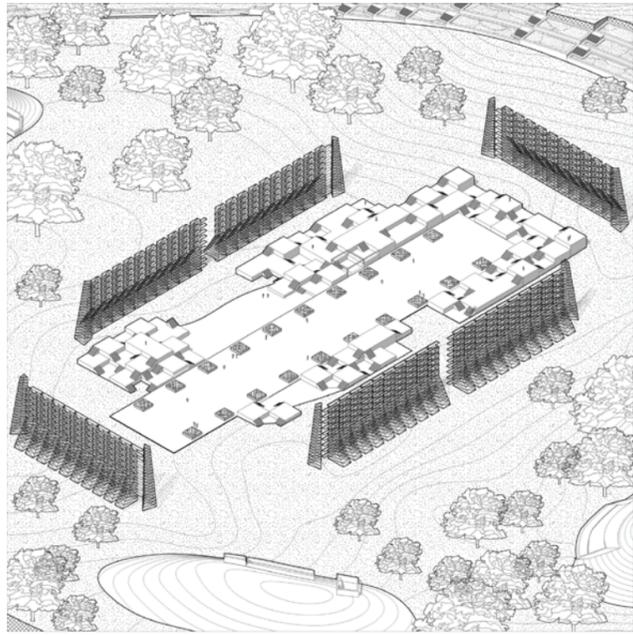


SOUND RINGS
 Rings were placed at intervals of 10 decibels away from the open burn, beginning with the explosion of 140 decibels and ending with a site circumference at 50 decibels. Each 10 decibel ring between 90 and 60 db was allotted a different program to achieve a gradient of exposure to the open burn.

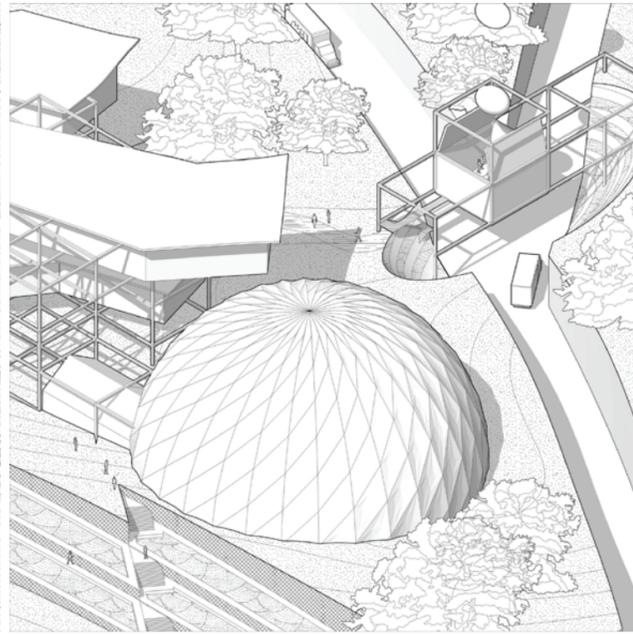
Joint Forces Burn Institute

1. Burn Site
2. Disposal Blast Dome
3. Air Quality Test Node Configuration I
4. Munitions Breakdown and Preparation
5. Submerged Oxidization Dome
6. Salt Flats
7. Waterjet Cutting Dome
8. Autoclave Meltdown Colonnade
9. Air Quality Test Node Configuration II
10. Sugarcane Fields
11. Contained Burn Dome

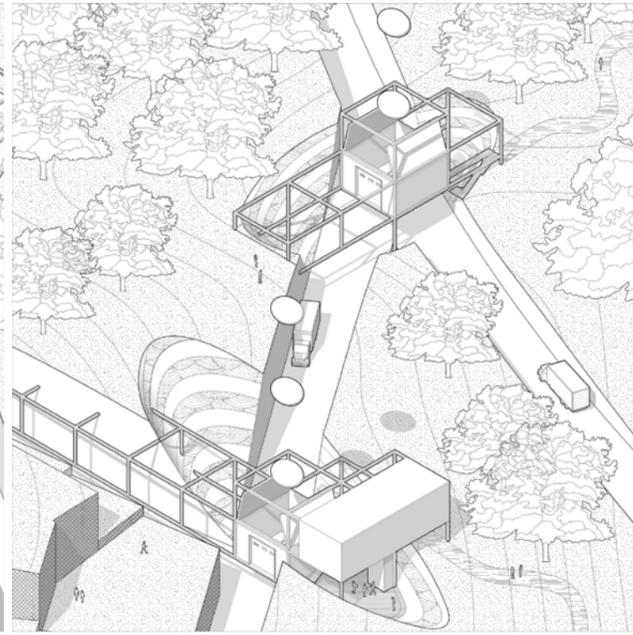




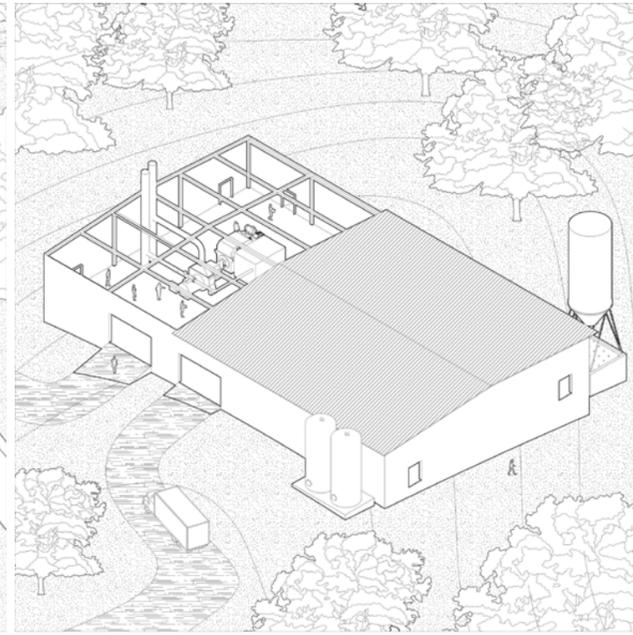
1. Burn Site



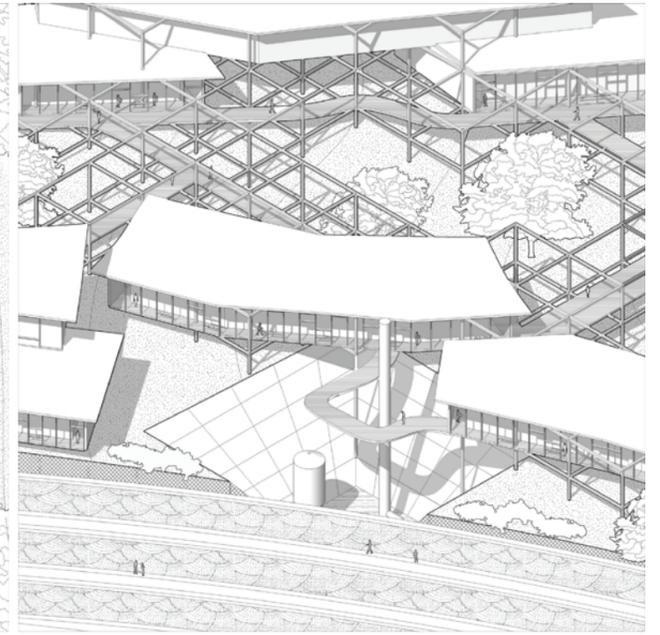
2. Blast Dome



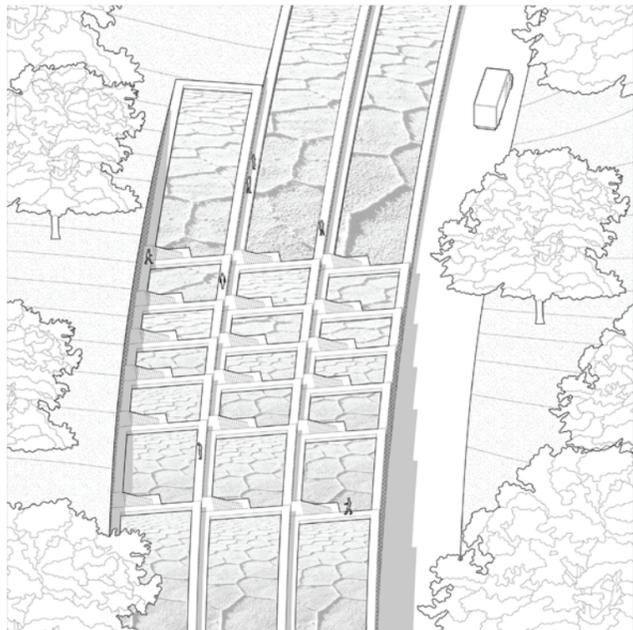
3. Air Quality Test Node: I



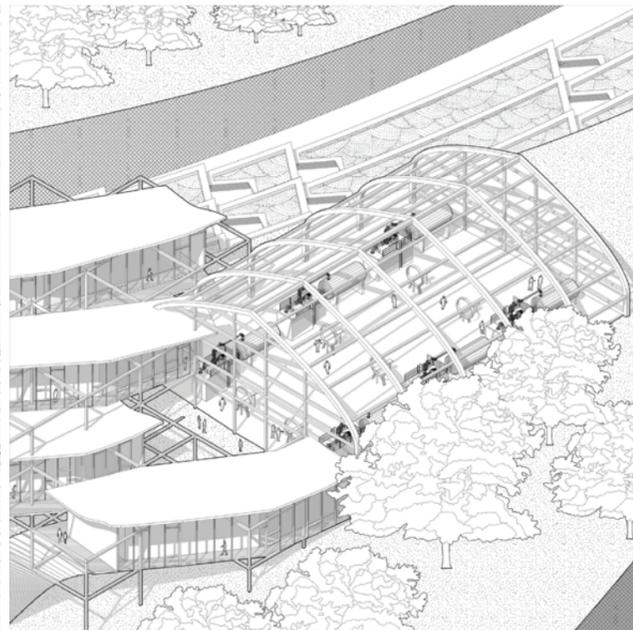
4. Munitions Breakdown and Preparation



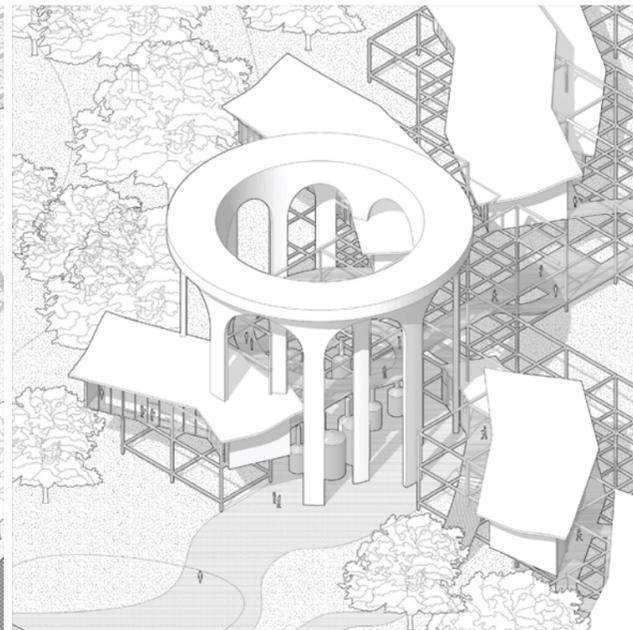
5. Submerged Oxidation Dome



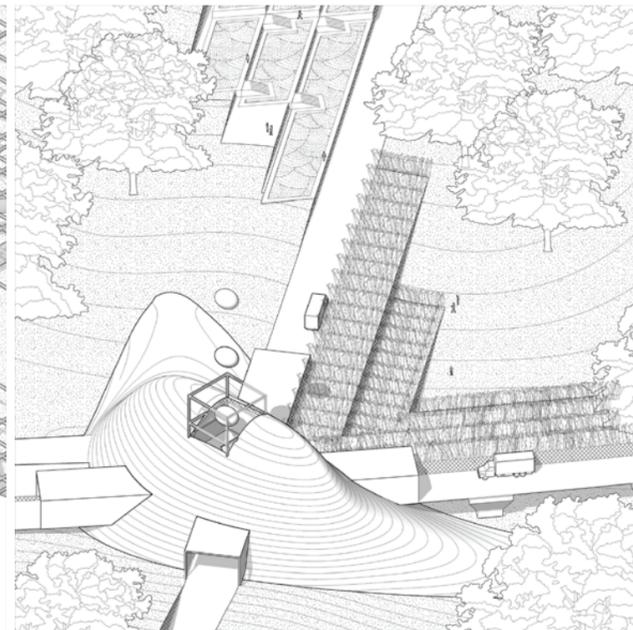
6. Evaporative Pool Flats



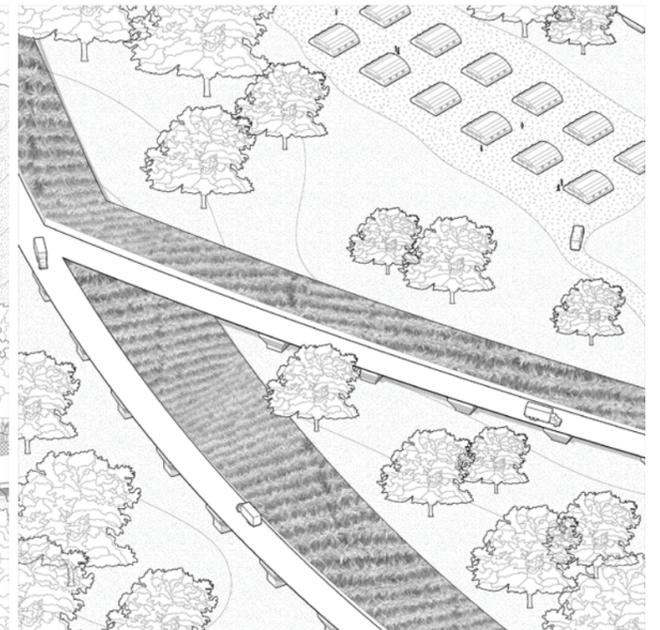
7. Waterjet Cutting Dome



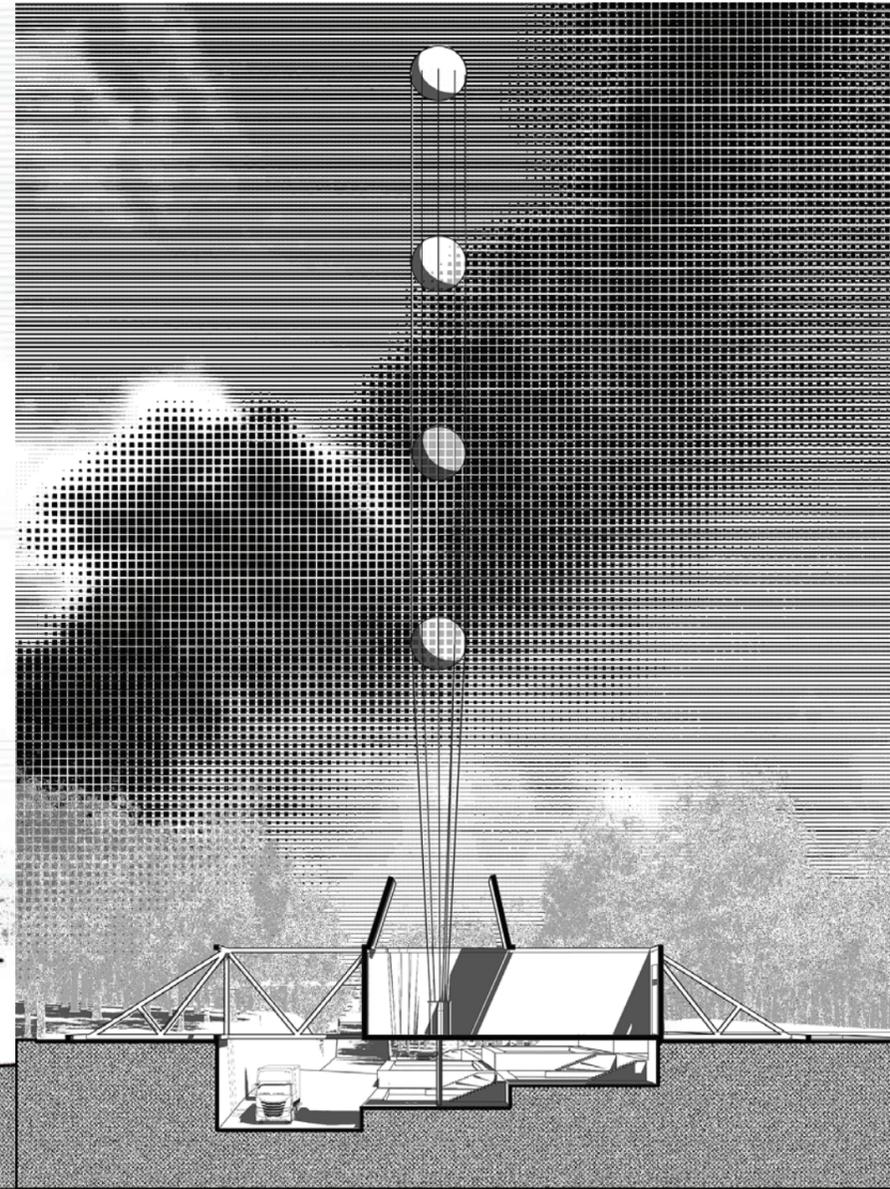
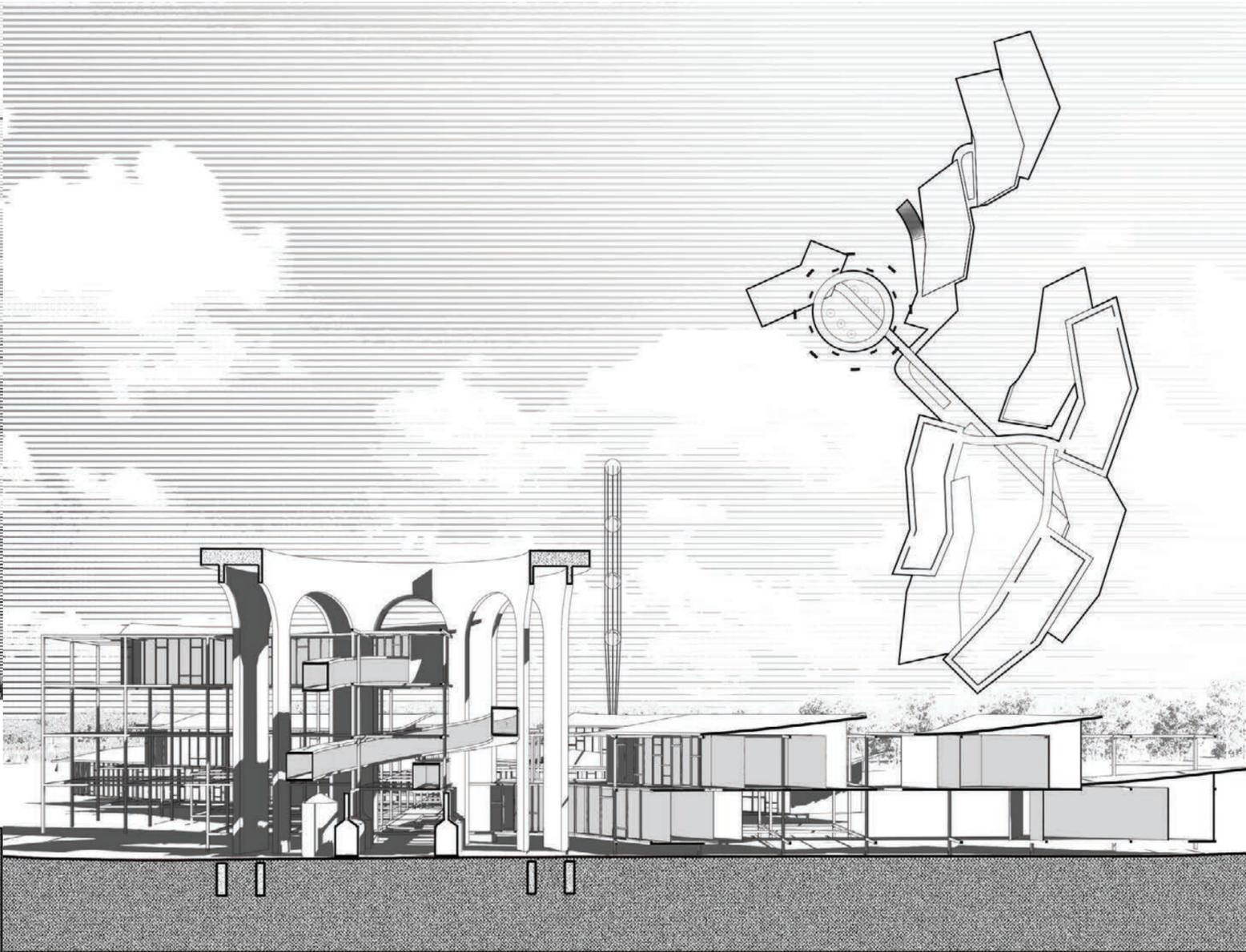
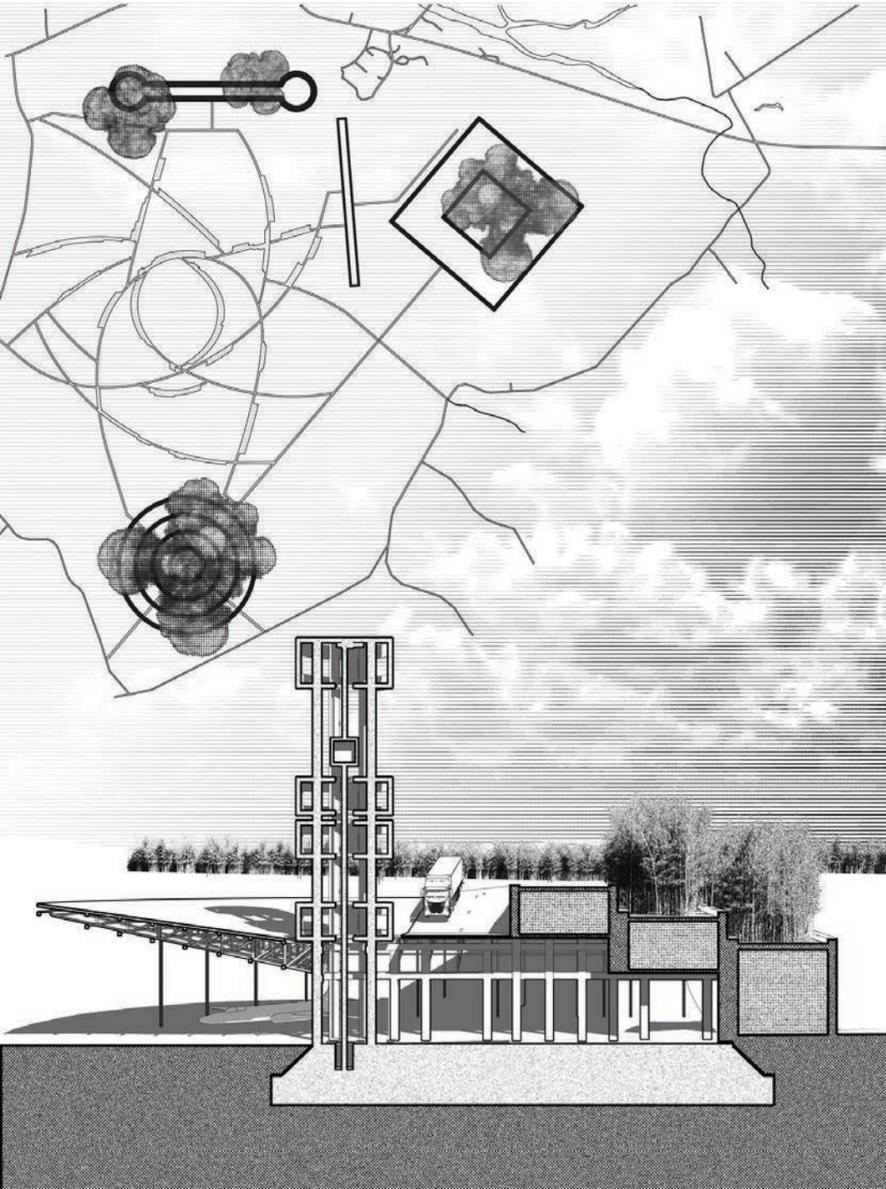
8. Autoclave Meltdown Dome



9. Air Quality Test Node: II



10. Sugarcane Fields and Quonset Huts

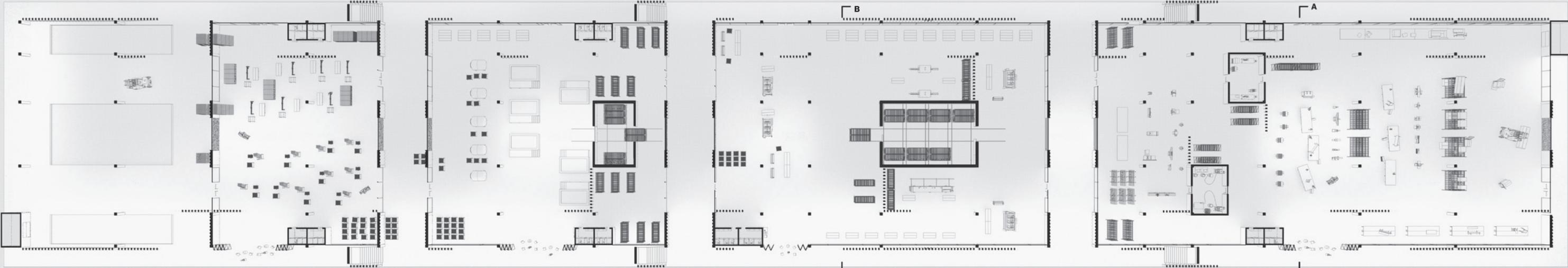


Spring 2022

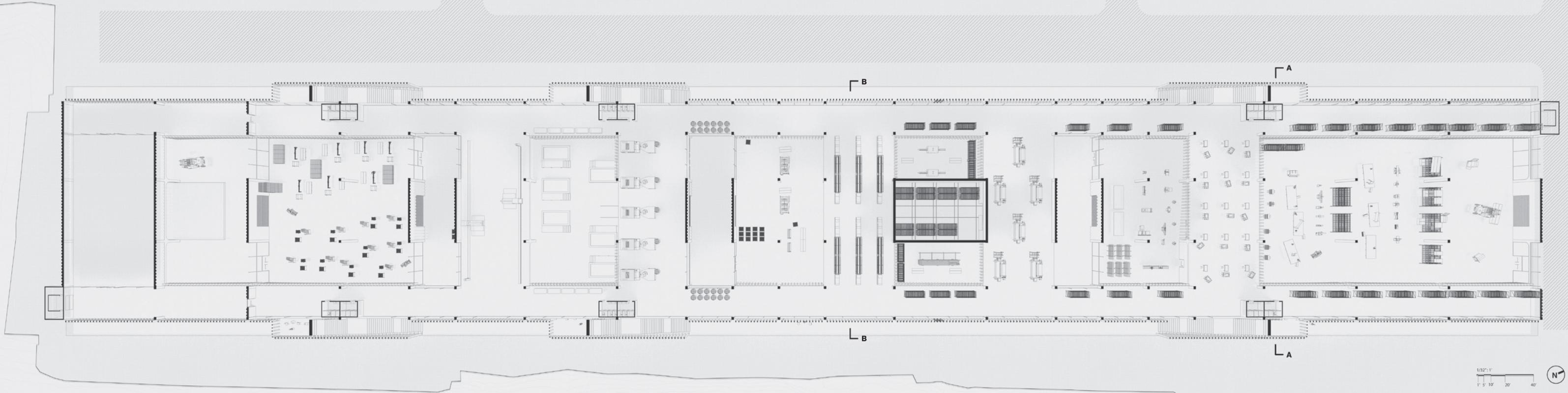
Fabric + Furniture Factory

The factory processes bamboo into laminated veneer furniture (first floor) and bast-fiber fabric (second floor). The plan is divided into structural spans of 60, 45, and 30 feet that correspond to material processing in triple-, double-, and single-height spaces on the first, second, and third floors, respectively. A reference to the woven nature of textile, the previously porous urban fabric of Red Hook, the winding pattern of circulation on the ground floor, and the intersection between the two products in furniture upholstery, the roof is separated into strips that undulate in counterpoint. The differences between the crest and trough of adjacent strips create gaps that draw indirect light into the factory: a variation of the saw-tooth typology common among factories. The same gaps also enclose the publically accessible third-floor programs, including a canteen, offices, break rooms, and workshops. The alternation among the different spans generates a light-accentuated spatial metaphor for the pace of work.

1ST FLOOR PLAN



2ND FLOOR PLAN

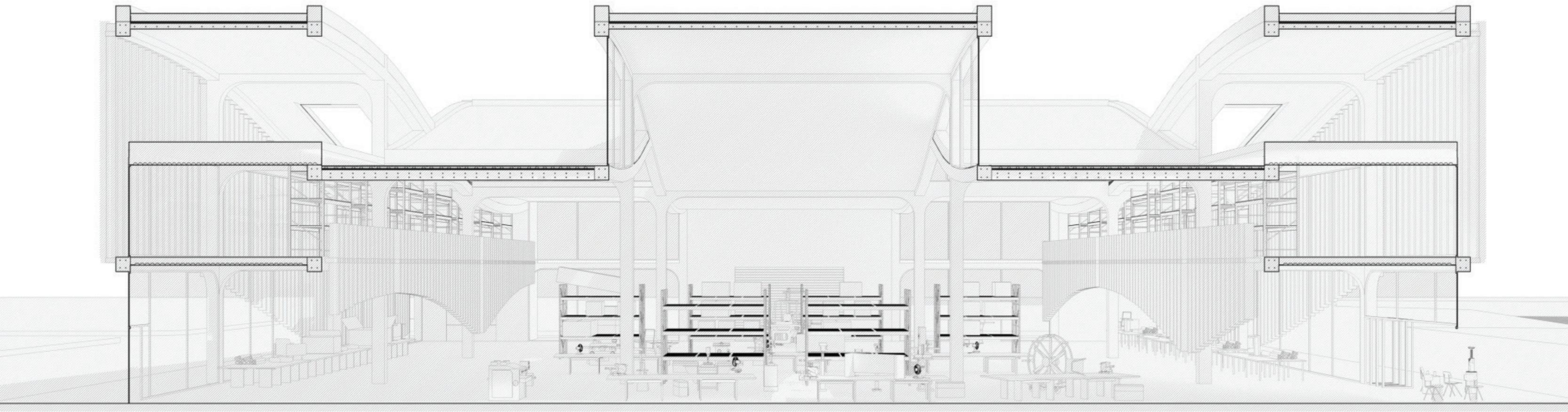


3RD FLOOR PLAN

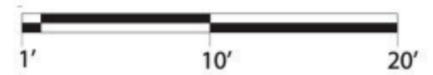


1/32"=1'
0' 2' 4' 6' 8' 10'
N

SECTION A|A



1/8" : 1'



SECTION B/B

