manifesto for

C

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1

by sierra heckman

# 1. Let animals inhabit walls.

adv. iv | fringe timber studio professor | lindsey wikstrom partner | yumeng liu



Mice do it, raccoons do it... and yes, bats. As much as we fight it, animals have inhabited architecture for as long as its existence. Where we

inhabit rooms, animals
inhabit walls. Much like animal infestation is inevitable, so is the nature of people building.

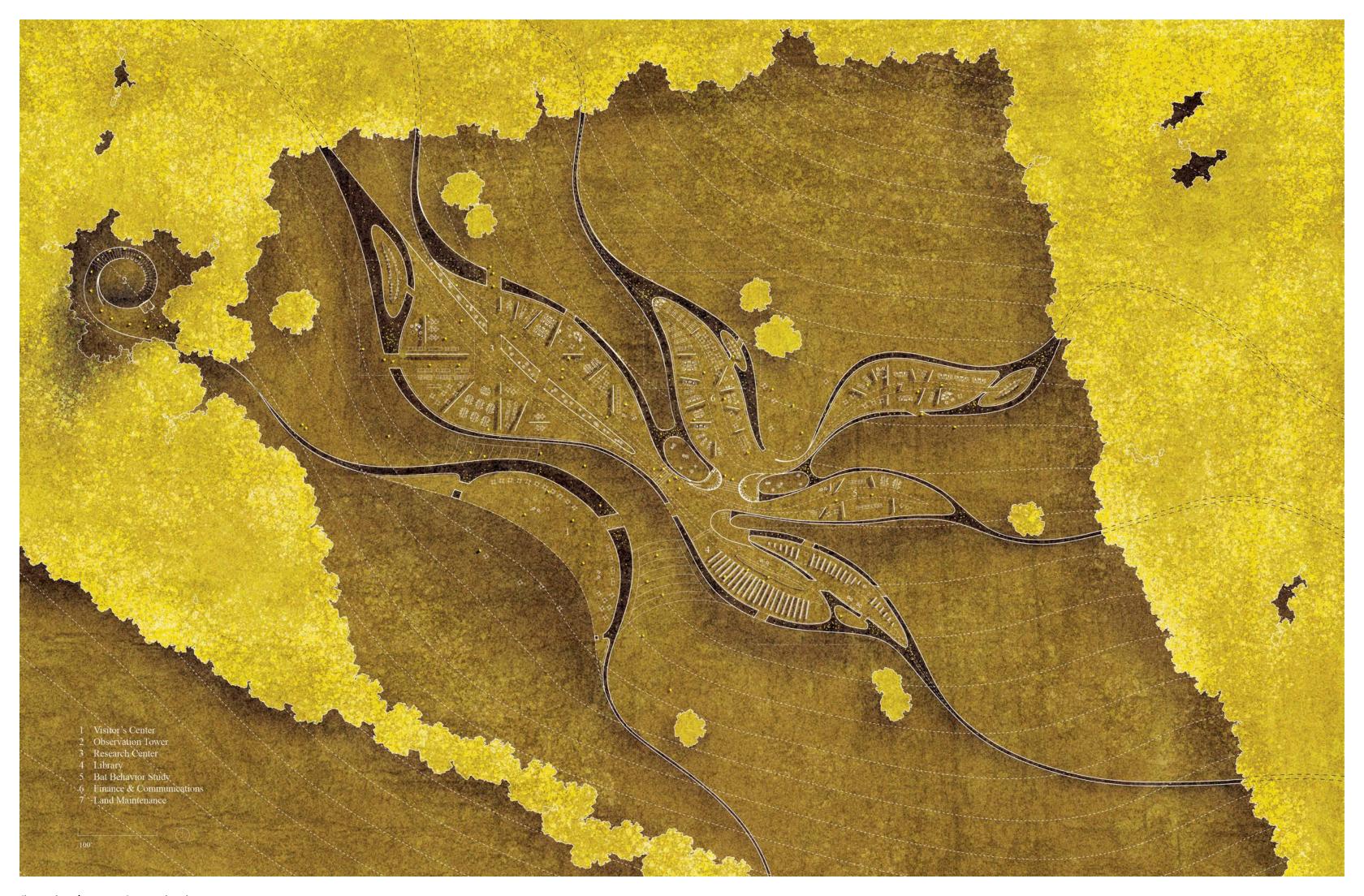
Animal Walls is a new

# and education

typology of architecture

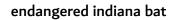
where care for endangered wildlife is at the utmost central importance. Indiana bats, native to the New York, Albany area where this project is located, are federally endangered due to habitat loss from deforestation and human occupancy in their caves. While there are of course logical reasons to avoid, say, touching a wild animal, almost all species perceived in a negative light, especially bats, are grossly misunderstood. Bats are imperative to our ecosystem - notably, they eat pesky insects such as mosquitos, and also work as natural pesticides for farmers. In recent studies, bats have been proven to provide \$3.7 billion to agriculture in North America per year. We are, at the core of it, animals seeking a dry and warm place - no different than the bat in your attic - and we are good at providing it. Using CLT as the primary building material, Animal Walls

designs for a future
where humans and
animals coexist
harmoniously.

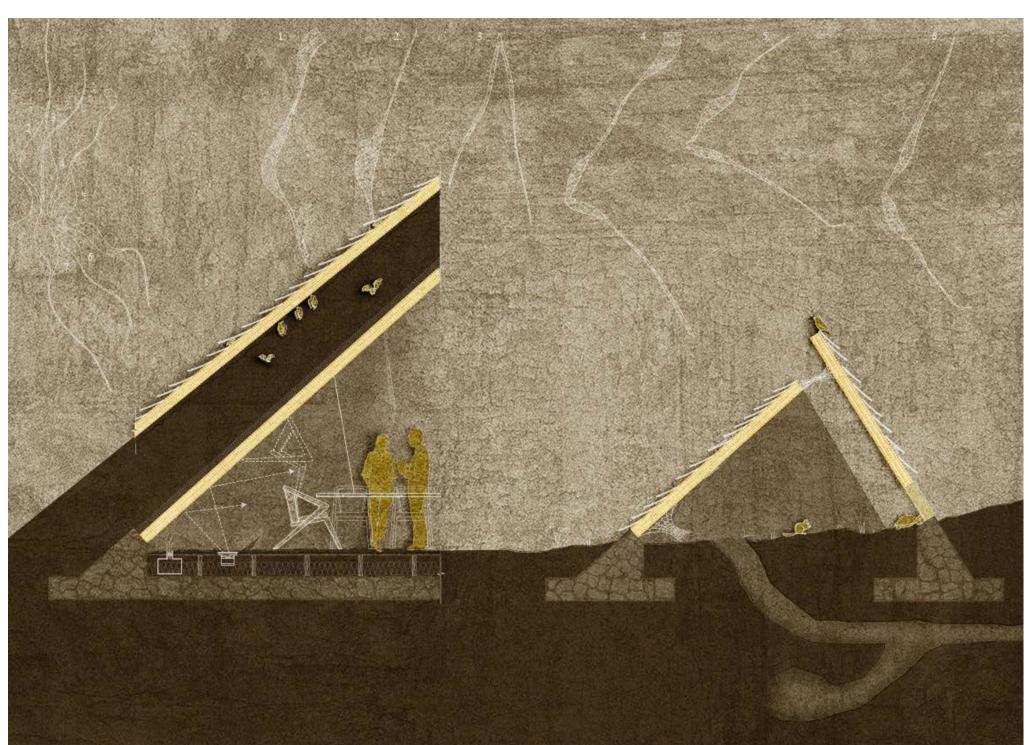


floor plan | center for earth ethics housing a bat research center for the occupation of both humans and animals, the building reaches into the forest to invite wildlife into its sheltering, self-standing conical walls.





in summertime these bats roost under loose bark, and in wintertime seek caverns for hibernation - however this has been threatened by human tourism and deforestation.



### walls for humans, walls for bats

where human program exists, large clt wall cavities provide dark, sheltered space for bats to hibernate, and taper in scale to form single-layered enclosure for wildlife of all kinds to occupy.

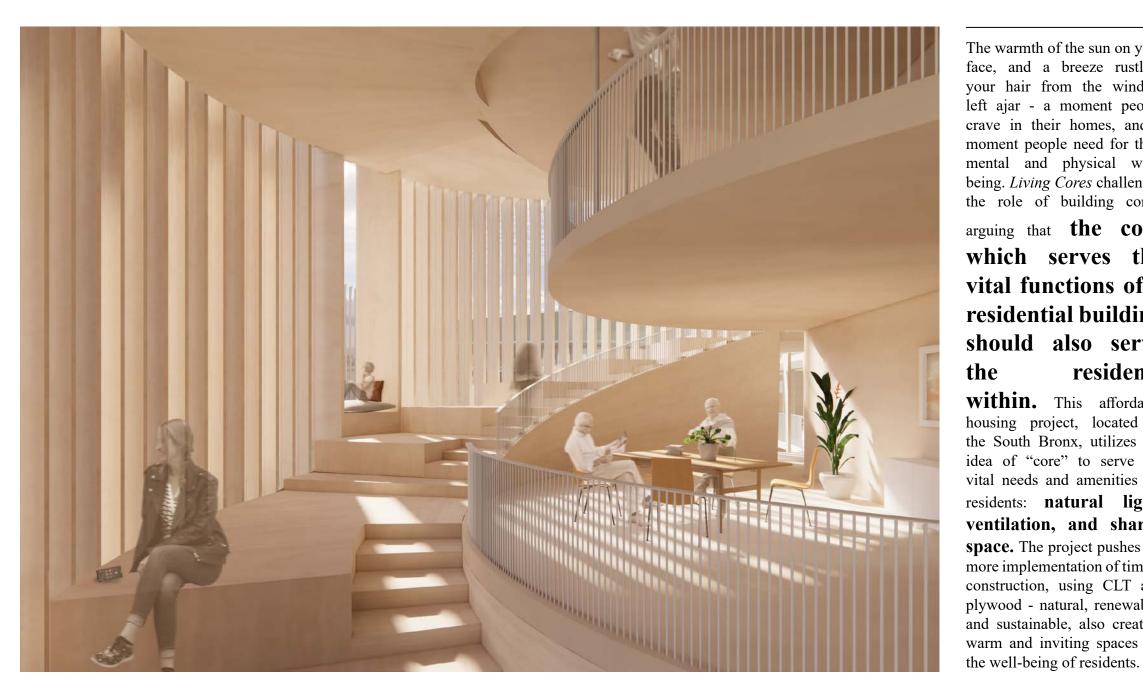


section oblique | nature vs. rationality
the conical, slanted clt walls provide stable enclosure while allowing for bats to enter into the cavities from the top opening above the human-occupied program.

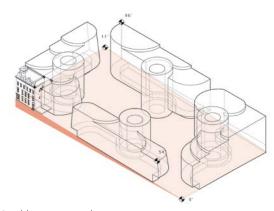


2. Make building cores part of our well-being.

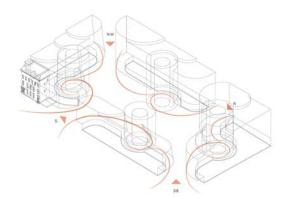
core iii | housing sharing again professor | galia solomonoff partner | agnes anggada



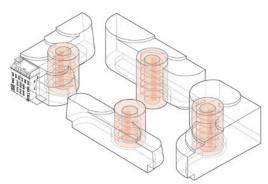
The warmth of the sun on your face, and a breeze rustling your hair from the window left ajar - a moment people crave in their homes, and a moment people need for their mental and physical wellbeing. Living Cores challenges the role of building cores, arguing that the core which serves the vital functions of a residential building should also serve residents the within. This affordable housing project, located in the South Bronx, utilizes the idea of "core" to serve the vital needs and amenities for residents: natural light, ventilation, and shared **space.** The project pushes for more implementation of timber construction, using CLT and plywood - natural, renewable, and sustainable, also creating warm and inviting spaces for



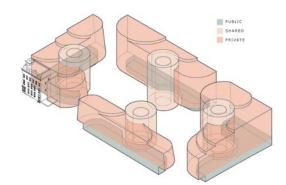
1. addressing site slope



2. entries for site porosity and human flow



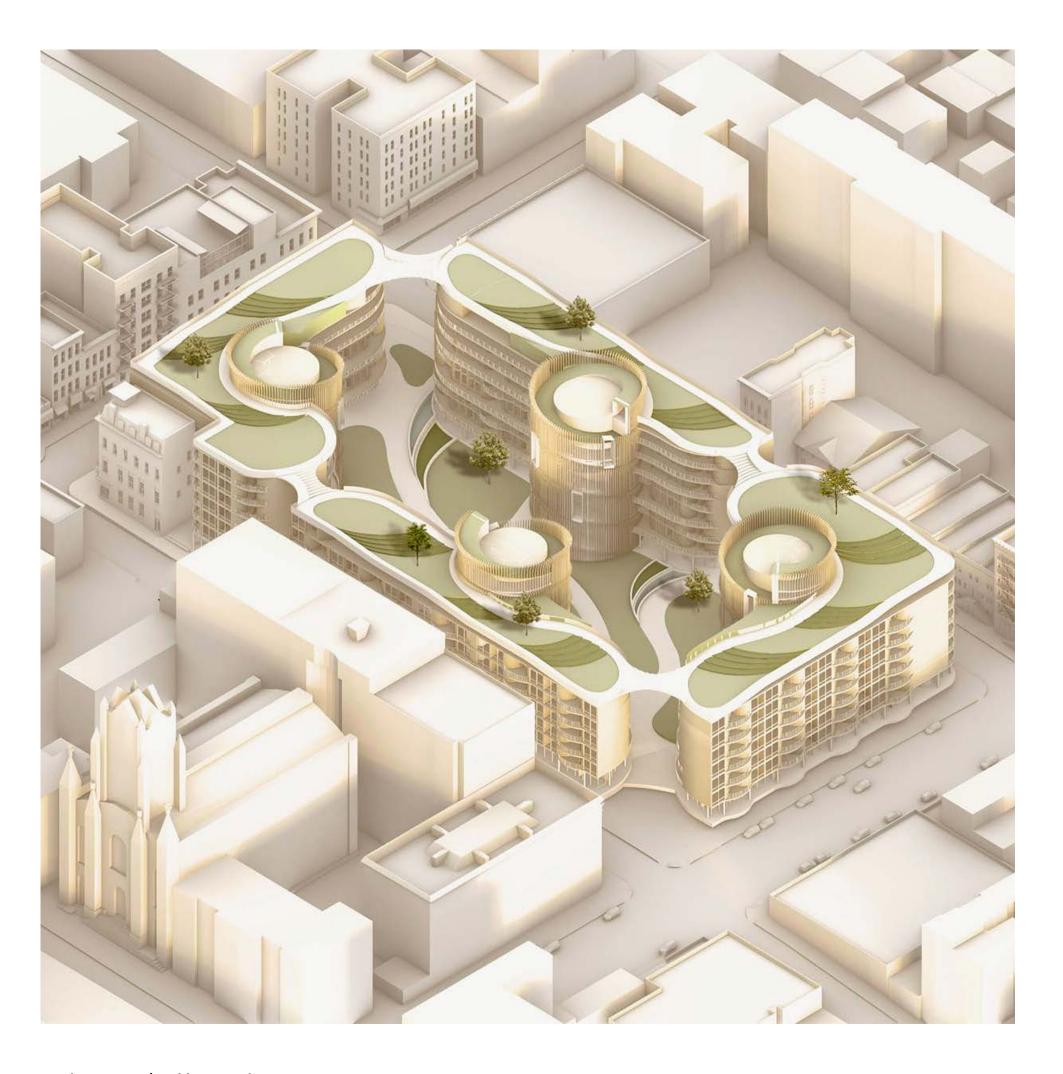
3. human flow defines shared building cores



4. creating a public ground with units above

### formal breakdown

the block's volume is broken down into four separate buildings to address the site's slope.



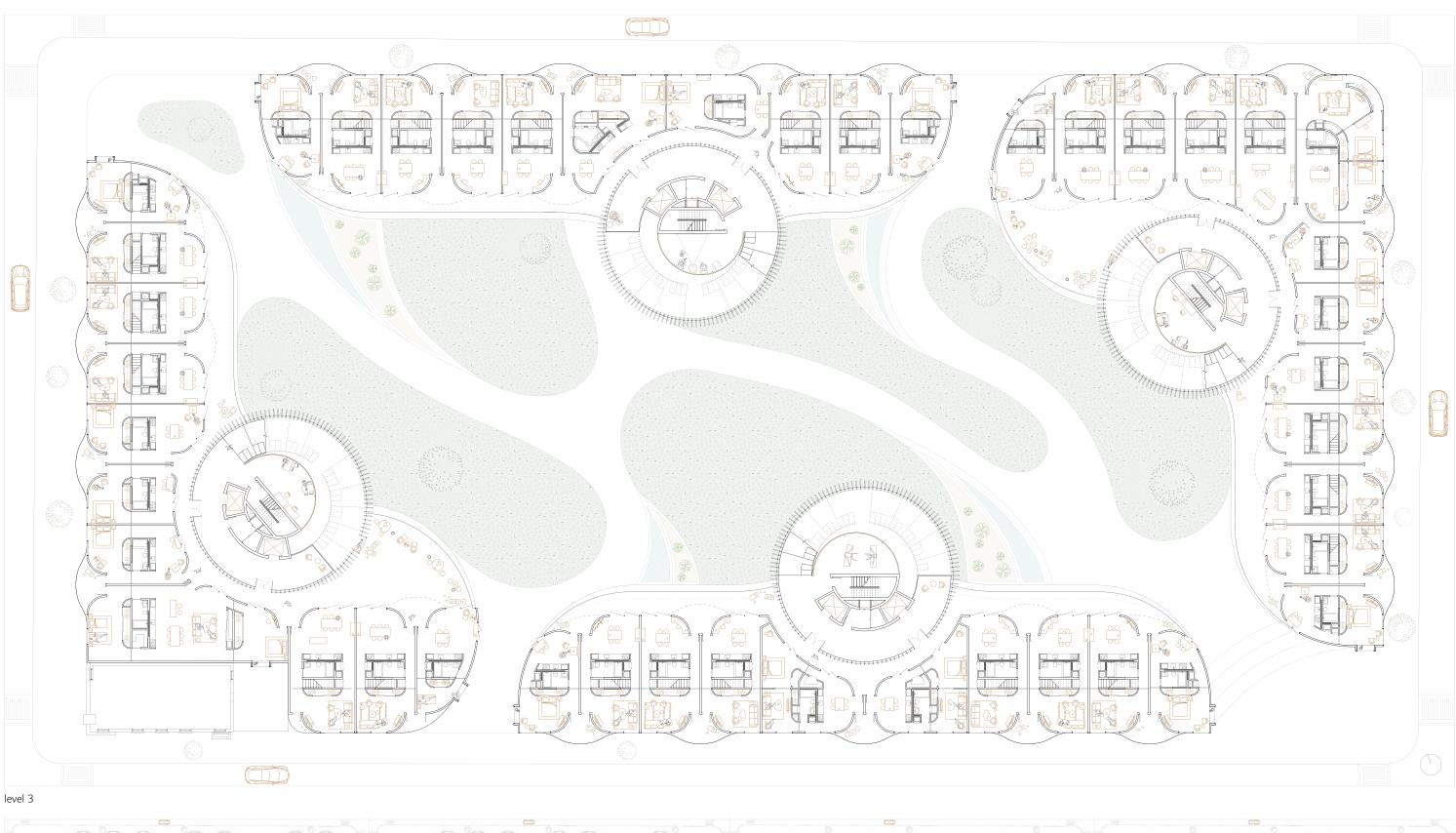
### southeast axon | public ground

the building cores are pushed toward the public central courtyard to gain access to light and air, and shared balconies line the public courtyard.



### north-south section | cores for building and residents

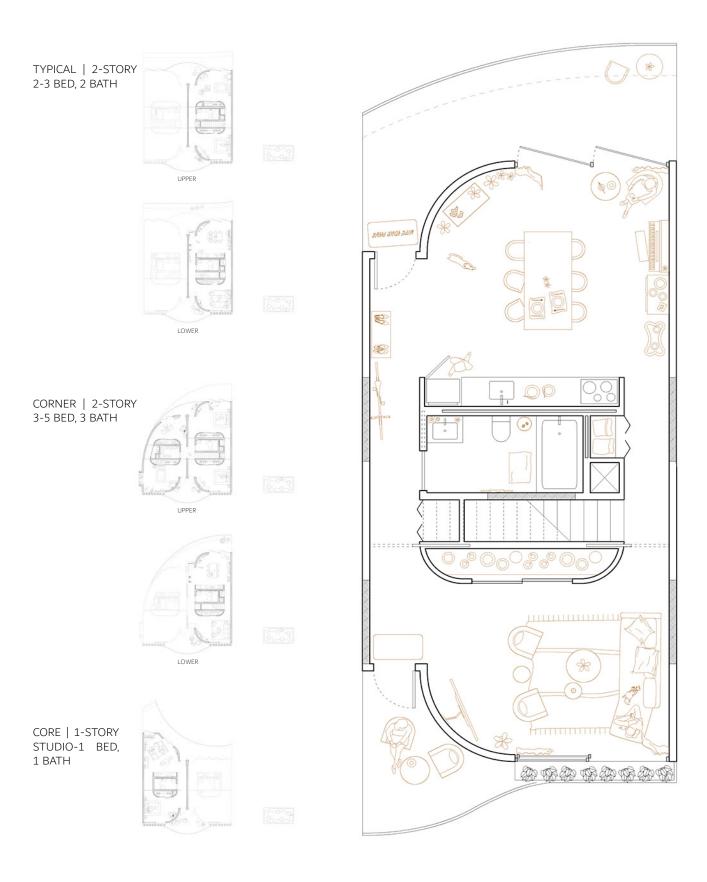
as seen to the left, the cores, wrapped in fins to control sunlight, work both functionally as a building core and also as a central location for shared space at all levels.

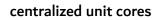




### floor plans | stepped rooftop, open-air unit access

residents access their units by entering the courtyard, then the residential core where they may take the spiral staircase or lift up to their unit floor; residents access their units via an open-air corridor/shared balcony at each level.



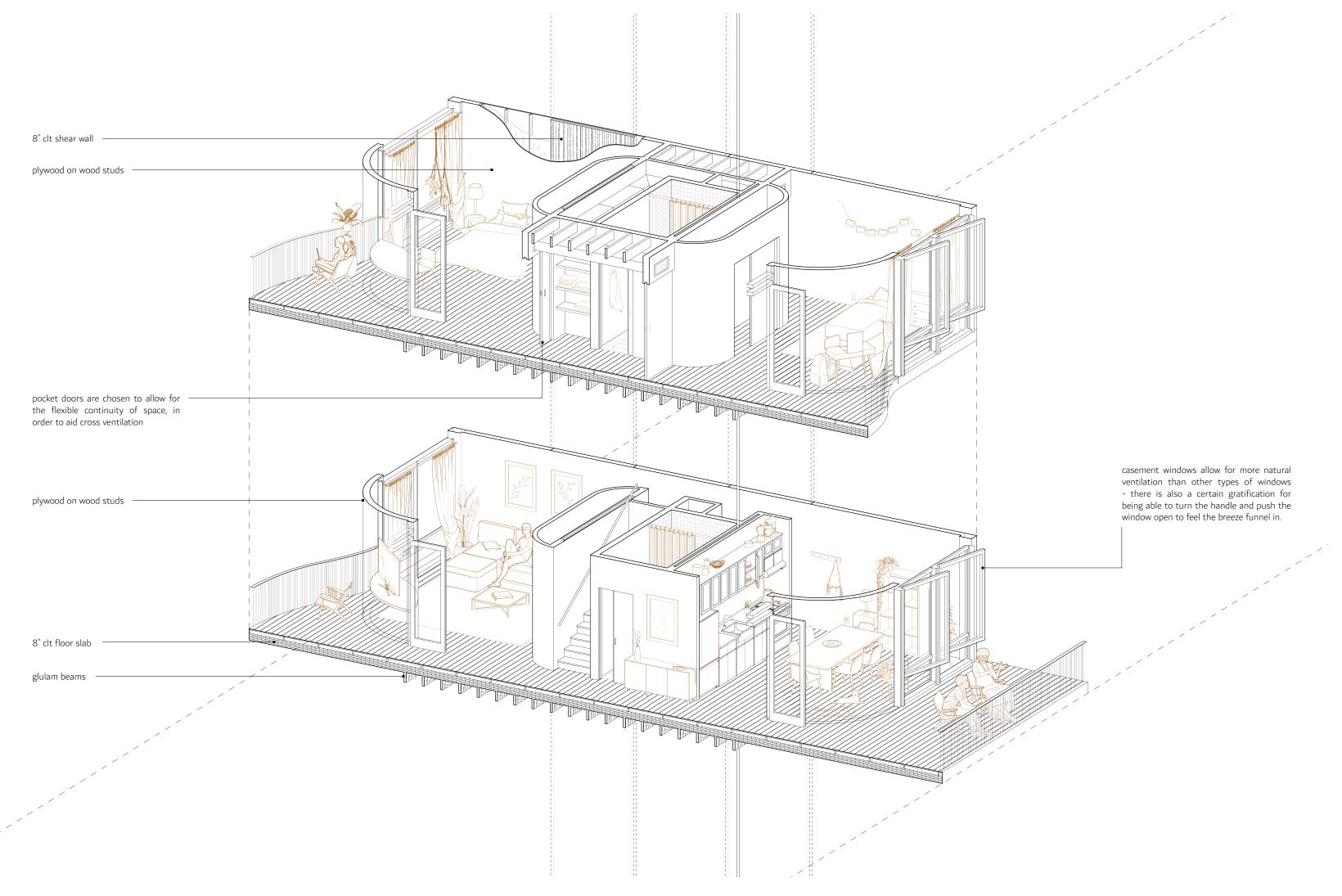


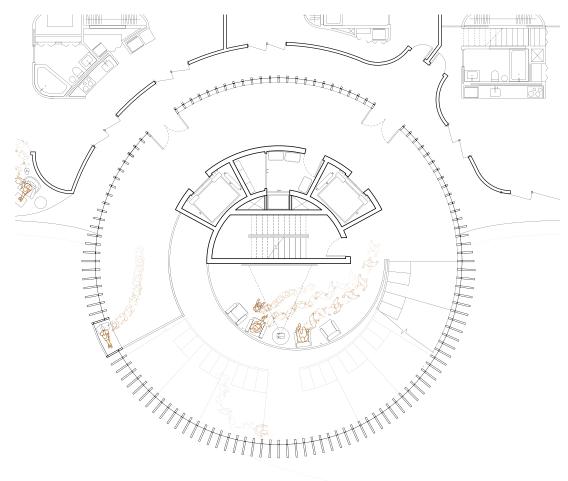
by centralizing all of the fixed funcitons, rooms are pushed to the exteriors, ideal for direct access to light and air as well as privacy separation between bedrooms (upper level).



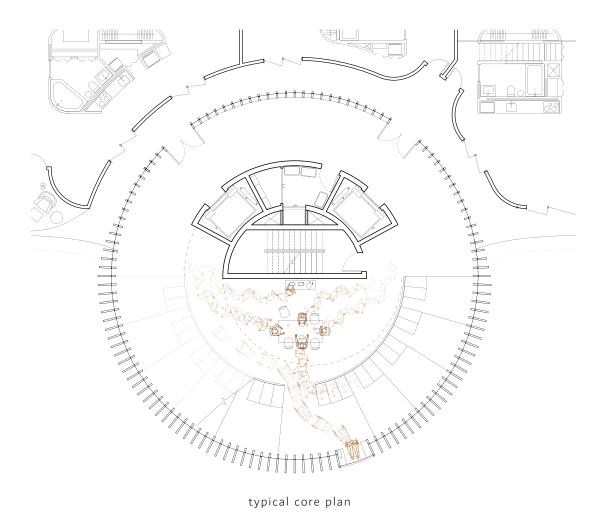
### cross ventilation

the centralization of fixed functions is ideal for natural ventilation throughout all apartments.





typical core plan (mezz.)



## core plans | encouraging engagement

by activating the circulation route for residents with shared spaces and light, the cores encourage residents to engage with one another and their surroundings.







# 3. Allow materials to teach.

core ii | environment as the third teacher professor | daisy ames

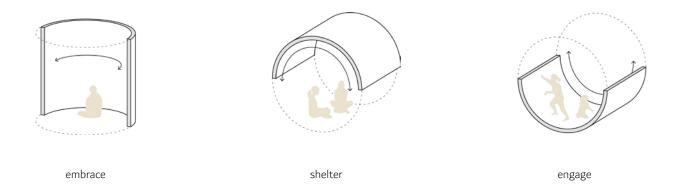


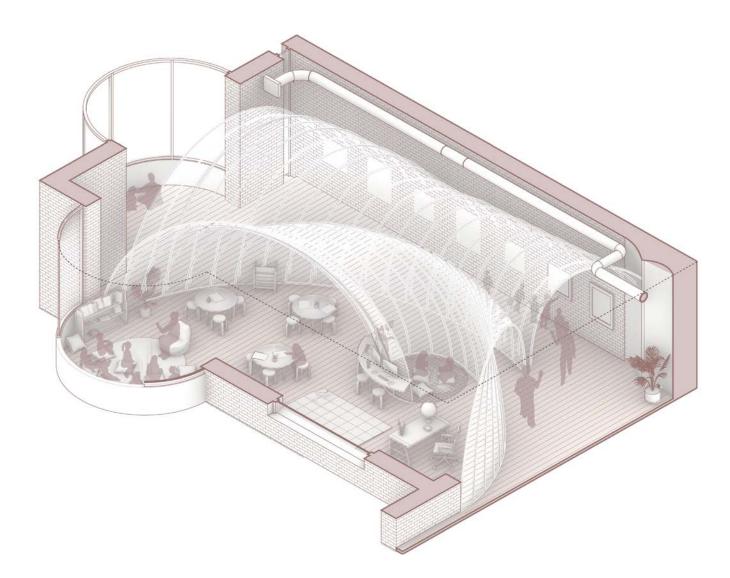
It's that musty perfume scent that brings you back to your childhood - it's also your fingers running across quilt

stitching. Associative

learning is when two unrelated elements (sights, sounds, ideas, and/ or behaviours) become connected in our brains through passive conditioning. Mind, Body, Classroom reinforces the importance of associative learning for students, where the structural form of arches becomes a catalyst of shelter, play, and embrace. These formal principles, along with the fabric tissue which saturates the levels of the existing H-shaped masonry building,

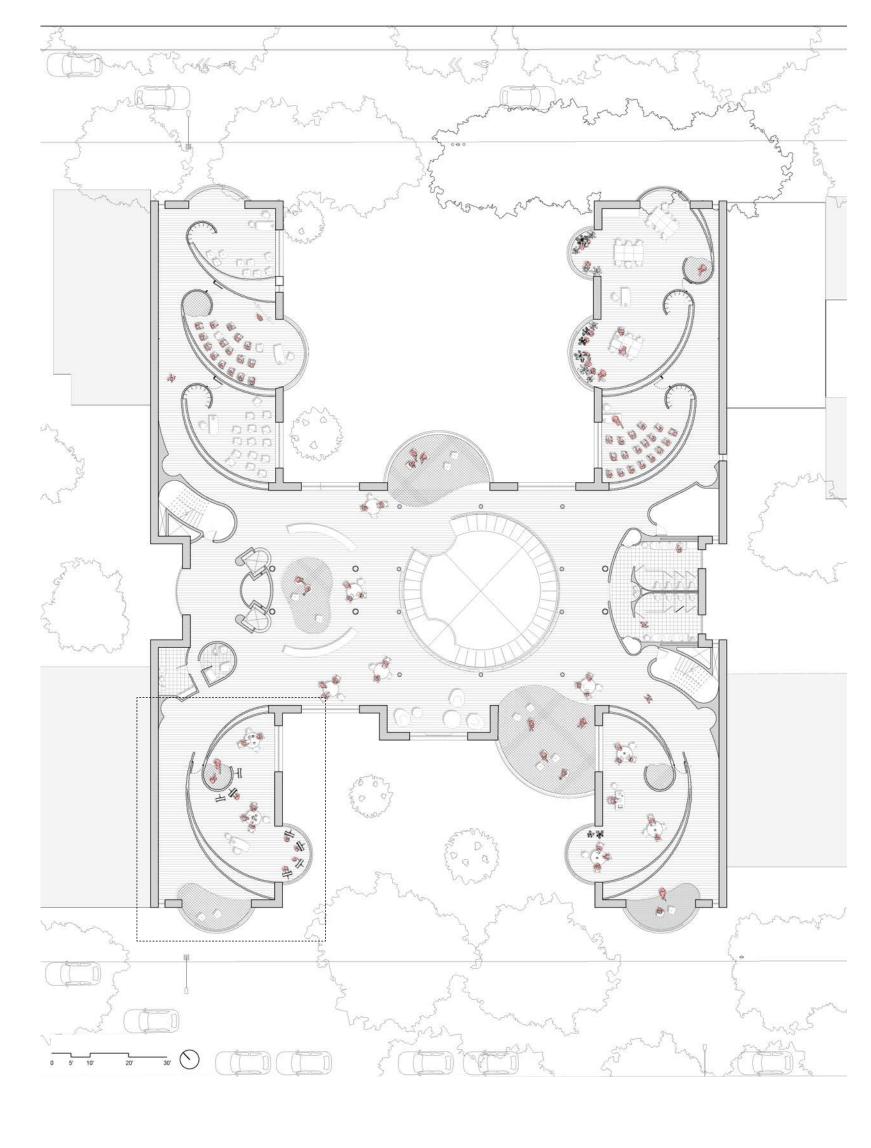
experiences
of movement,
texture, light,
transparency, and
permeation to foster
unique connectivity between
each student and classroom.

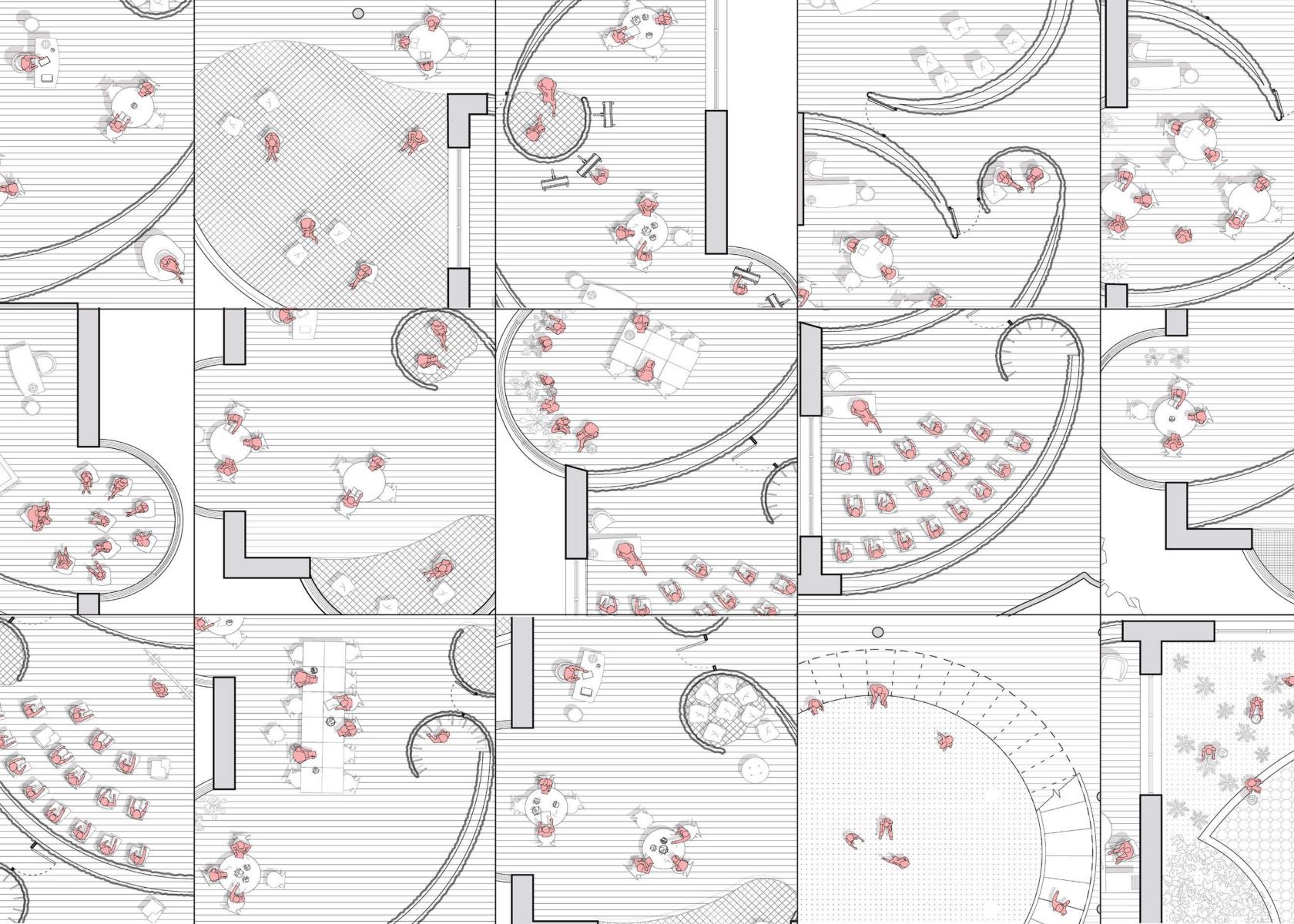


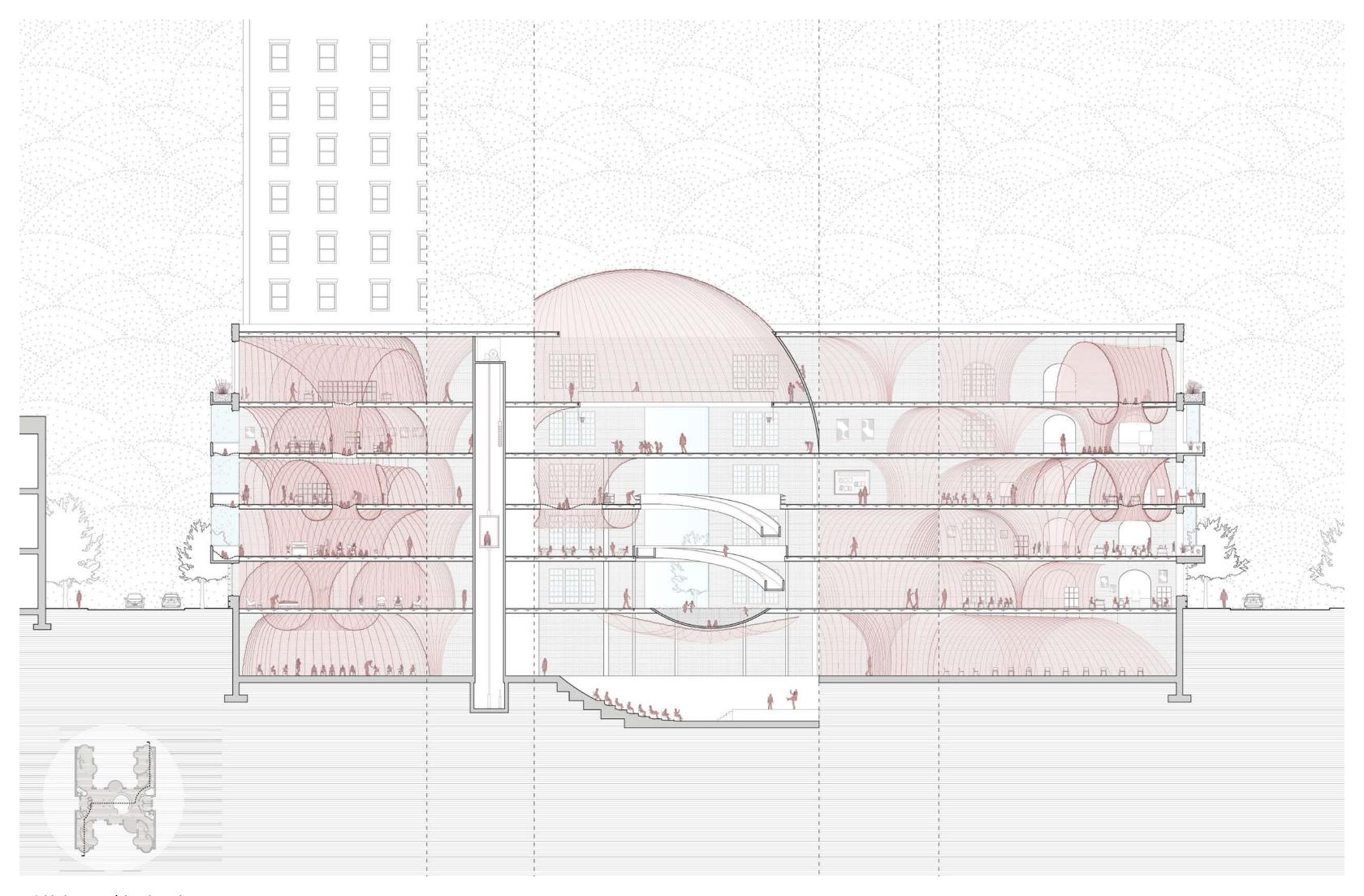


### sectional axon and 3rd floor plan | arch form

the gestures of arches nurture and encourage cognitive and physical flows; the paisley geometry of the classrooms allows for the rooms to fold into one another in both plan and section, creating permeability of the physical forms and allowing for the transfer of sensorial experiences such as sound and light between classrooms.

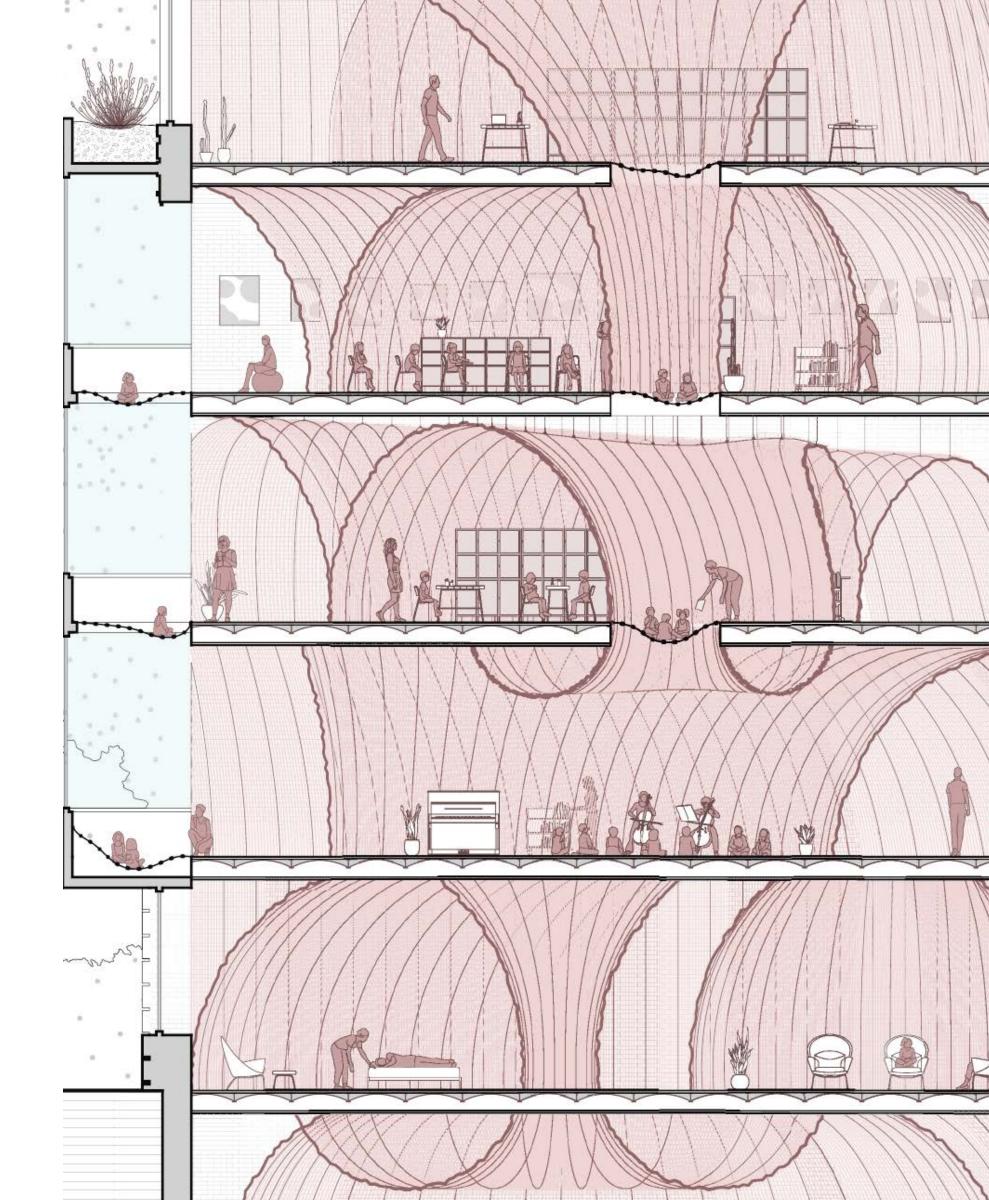






unfolded section | breaking the existing

# section zoom-in | layers in learning care in education comes with the understanding that no individual learns the same by implementing a method of layering light, sound, material, collective and personal spaces, each classroom holds different sensorial experiences that become the catalysts for associative learning.



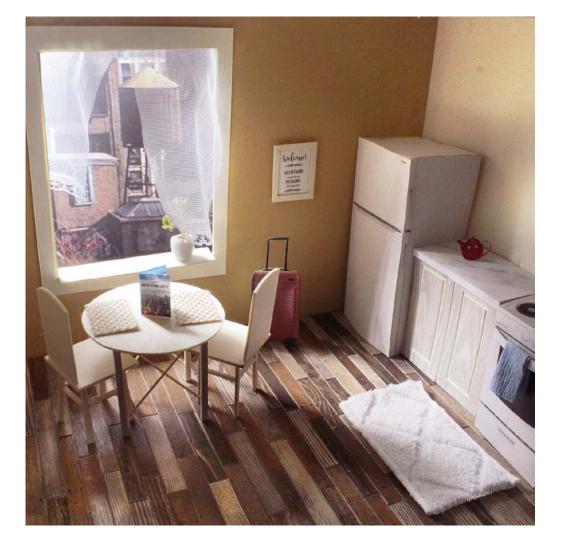
4. Exaggerate the home. Temporalize hotels.

core i | broadway stories professor | anna puigjaner

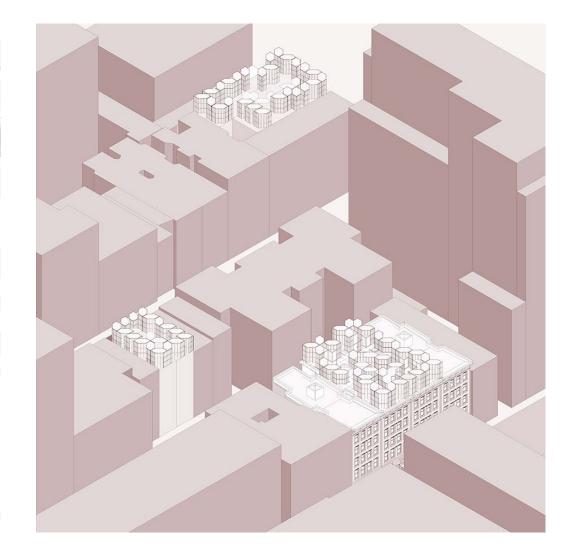


What's happening to hotels? What is the urban impact of the rising popularity of Airbnb? By 2017, 49% of Airbnb users had completely replaced hotel stays for Airbnb due to Airbnb's cost efficiency, domestic appeal, and diversity of location. However, many are not even truly lived in by anyone. *Phantom Hotels* proposes a temporal architectural

system on **Brownstone** rooftops that could help bridge the gap Airbnb between hotels and implementing more flexibility to hotels while achieving the desired domestic qualities of Airbnb. Due to Airbnb's surge, over 13,000 units have been lost from longterm rental market in New York City. This hotel-owned intervention seeks to help stabilize the housing market by bringing revenue back to hotels, while still providing money to the landlord and residents. Layers of textile materials create a soft, comfortingenvironment, exaggerating domestic qualities inside of a home. Ultimately, this project views a future where domesticity and public space are merged.



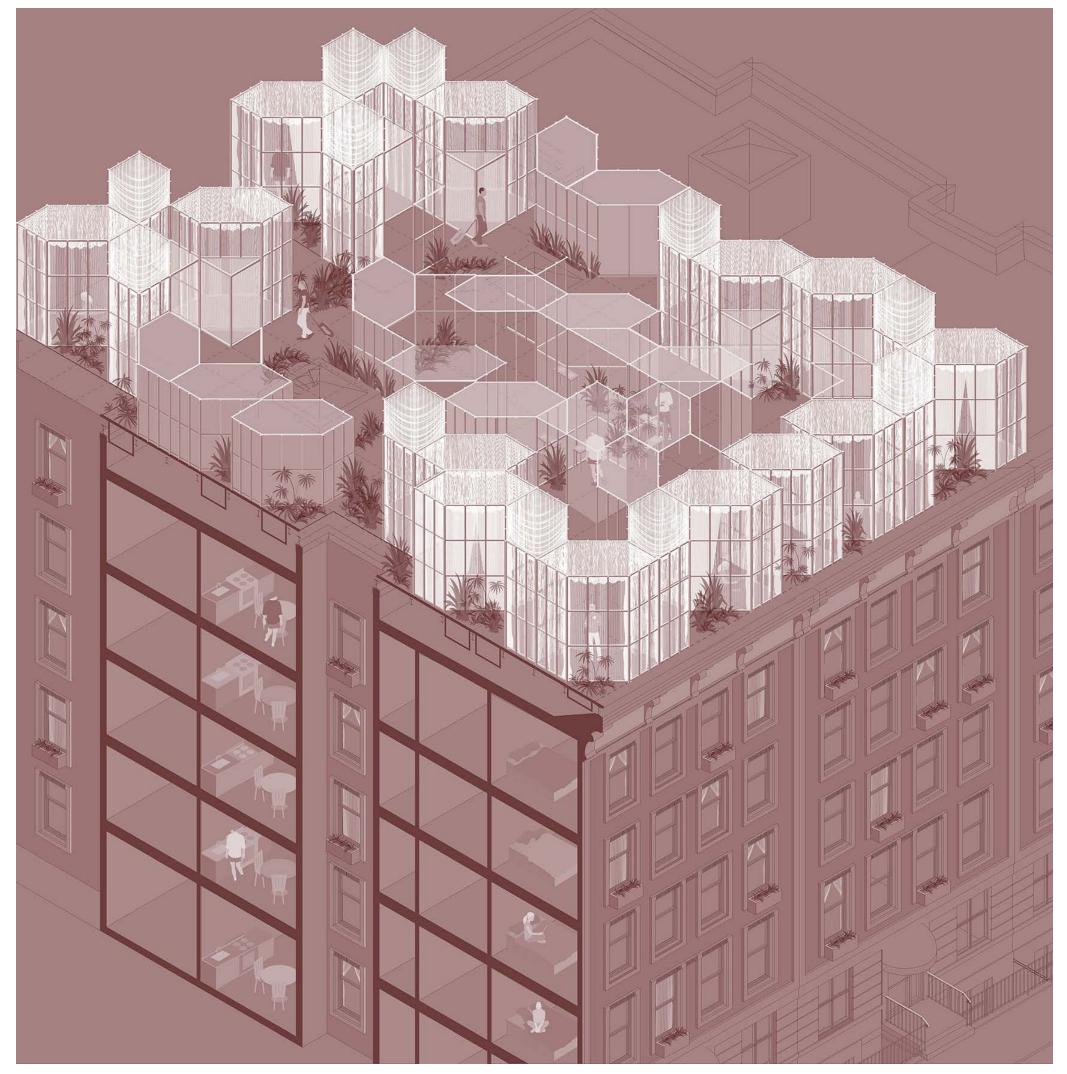


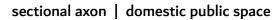


model | airbnb interior

analysis | airbnb vs. hotel cost and district location

proposal | temporal systems of lodging on brownstone rooftops





textile-lined pods occupy the rooftops of brownstones, creating a new level of public space, and exaggerating the domestic attribute of curtains in a window, as well as potted plants in a home.



### floor plan | communal kitchen

not every airbnb has a living room or even bedroom, but every airbnb has a kitchen - and this is what specifically separates it from hotels. communal kitchens lie at the heart of the proposal where travelers may share space and engage with one another.



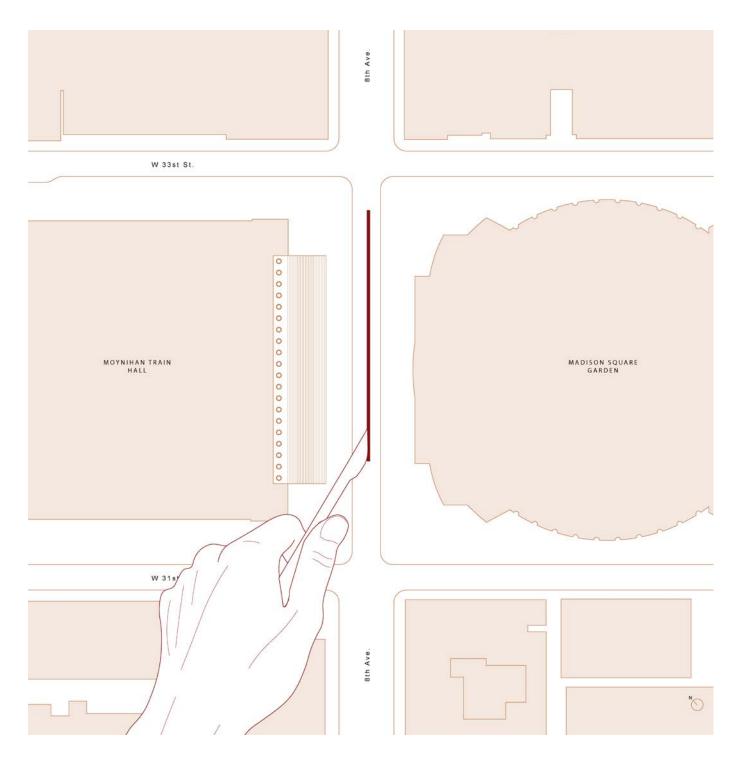
### pod plan and section | bedroom as bed

the space formed by the layers of textiles asserts that the bedroom is not just a room, but rather the bed itself; to exaggerate the characteristics of the domestic into a system of public lodging gives care to the familiarity of home without disguise and helps us further recognize what we desire from domestic spaces.

# 5. Give commuters light and air.

adv. v | one rock studio

professor | ivi diamantopoulou, jaffer kolb



Brushing shoulders with strangers in every direction, ceilings a foot above your head, and fluorescent lighting in dark, hot, winding tunnels - New York City's Penn Station is incredibly suffocating and confusing. This

proposal seeks to introduce light and air into the underground levels of Penn Station to provide a level of mental and physical comfort currently

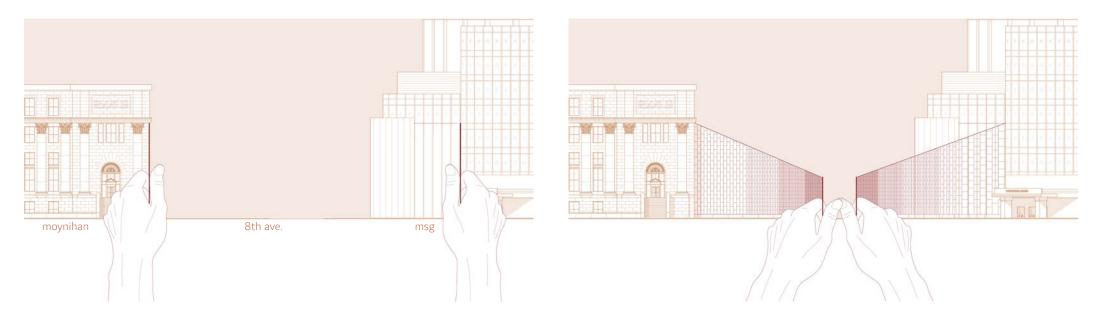
lacking in the station, as well as providing a sense of guidance toward a central civic space.

I have begun to think about the train station as a body - a body without mouth or lungs. My method of approach is to begin to operate on this

body of existing buildings, making

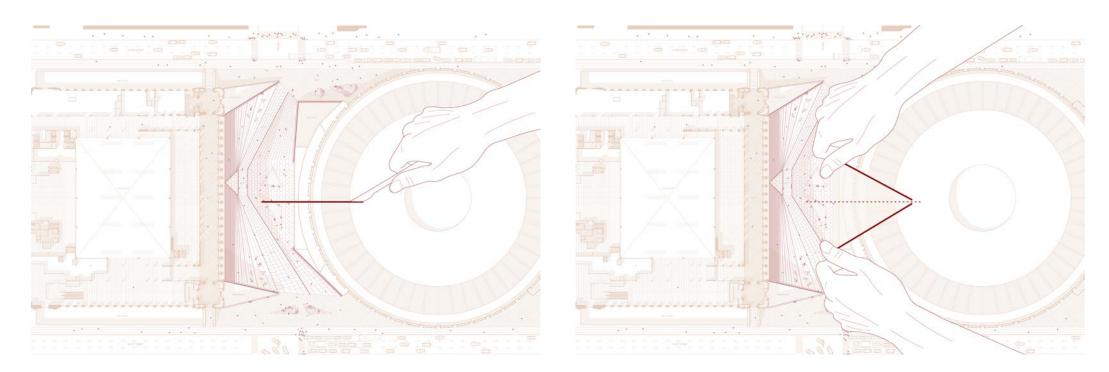
incisions where light and air may enter. Each incision uses

black **granite** as a material, due to its relation to the site context and its ability to act as a retainer for other materials.



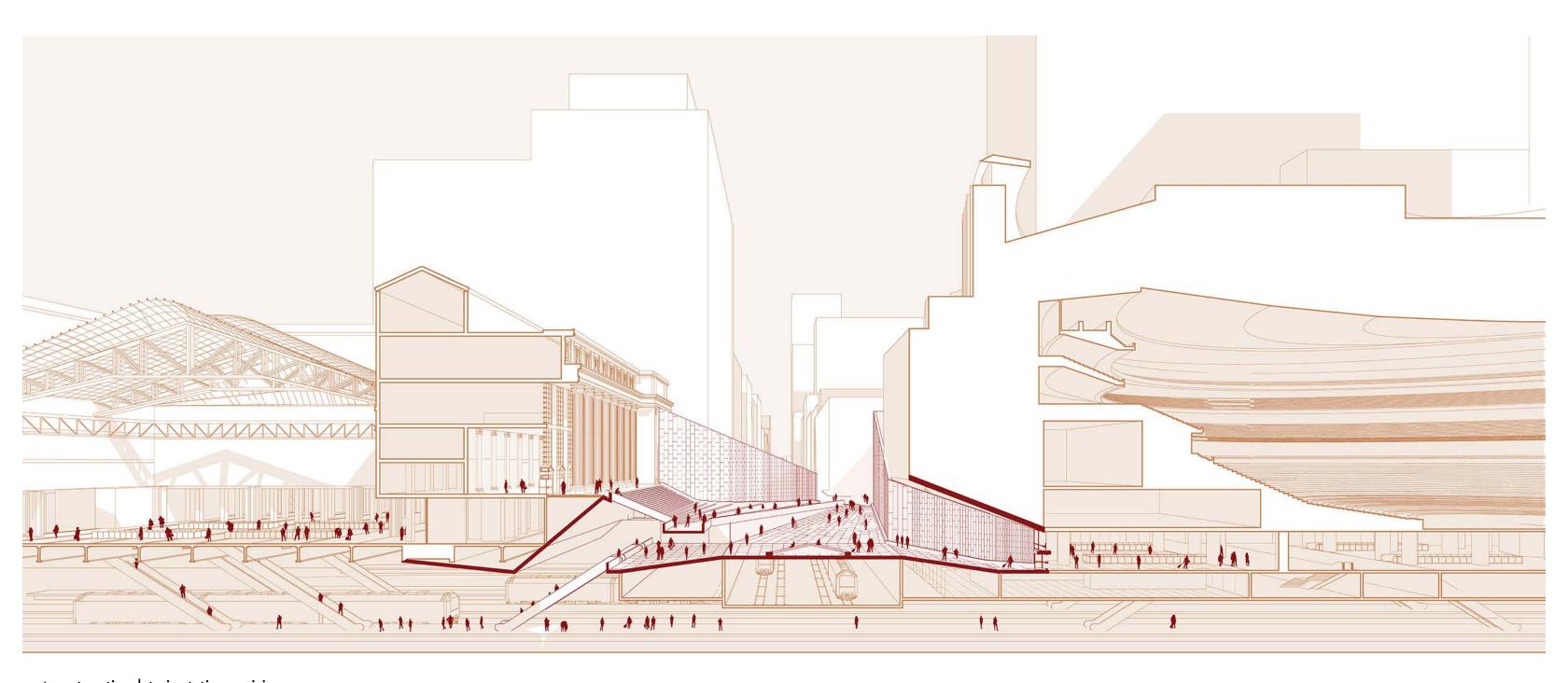
### stitching facades

penn station lacks any entry signifier; by averaging the facade modules of moynihan train hall (left) and madison square garden (right), we unify the facades into a singular prominant entryway.



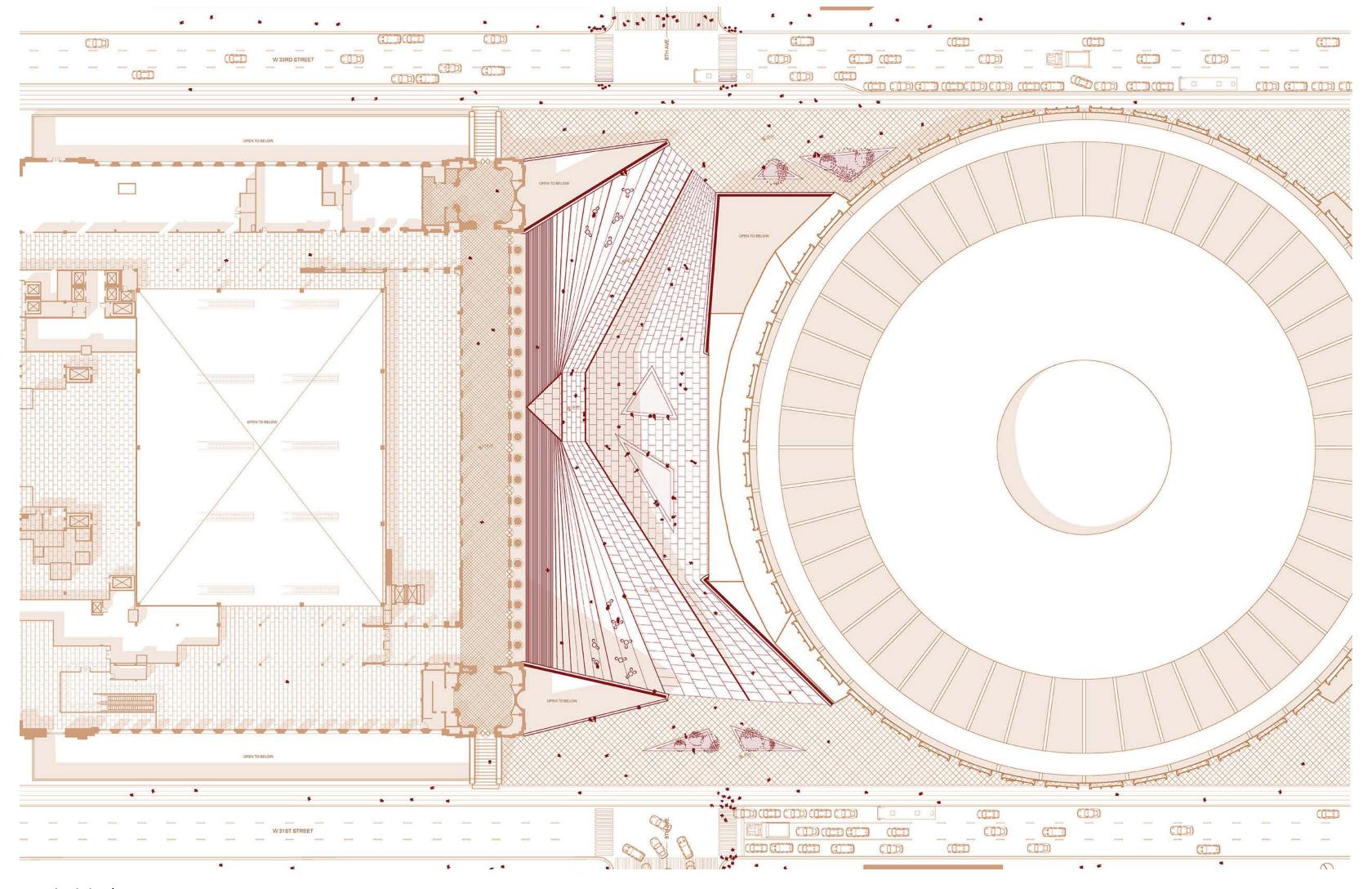
### incising street levels

blocking off 8th ave and cutting open the street multiple times allows the underground levels of penn station to gain access to air and natural light.



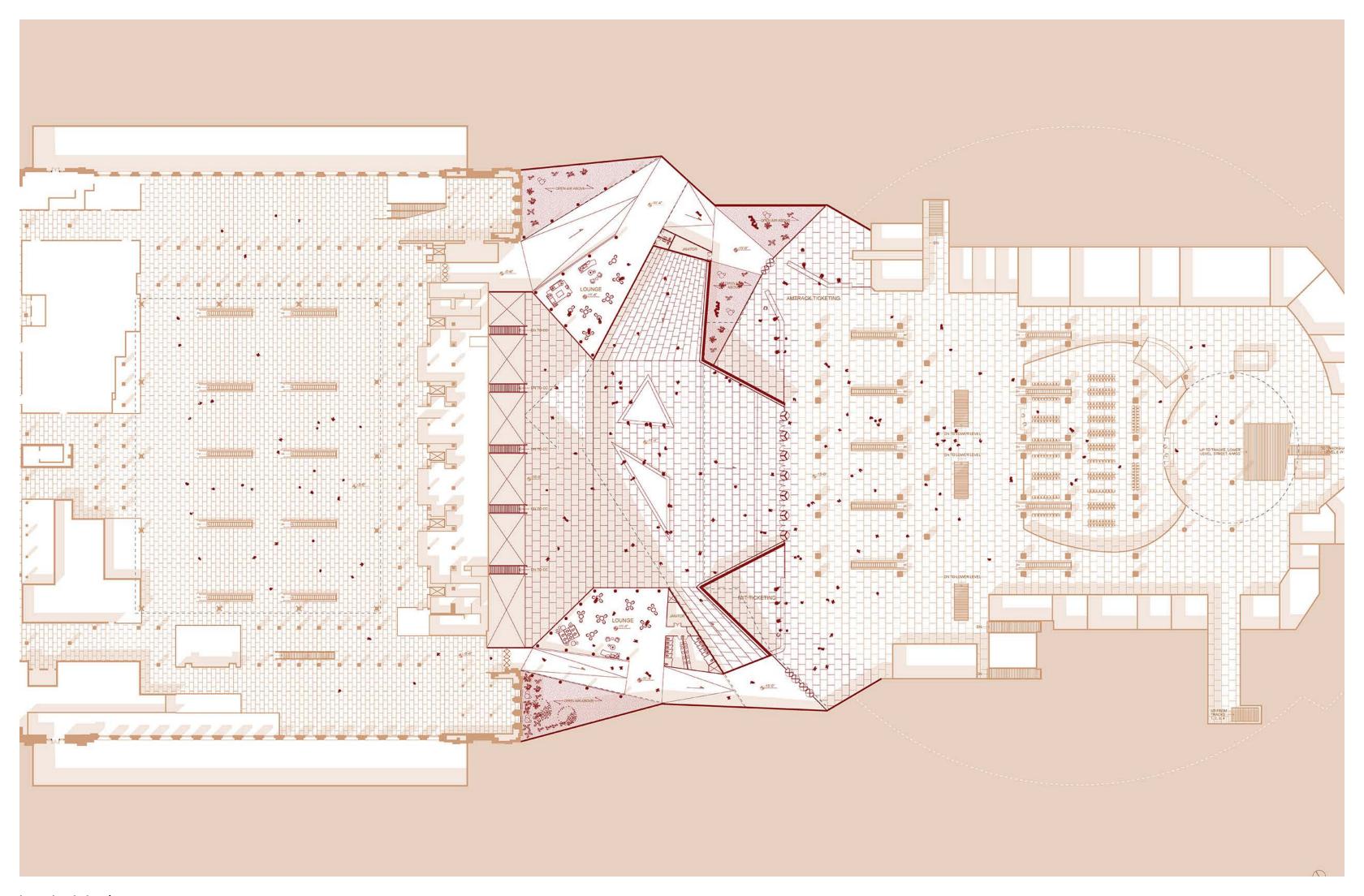
### east-west section | train station as civic space

the series of incisions not only brings fresh air into otherwise musty areas, but the flow of air and peaking of light serve as guiding elements toward a central, open air civic space for the train station.

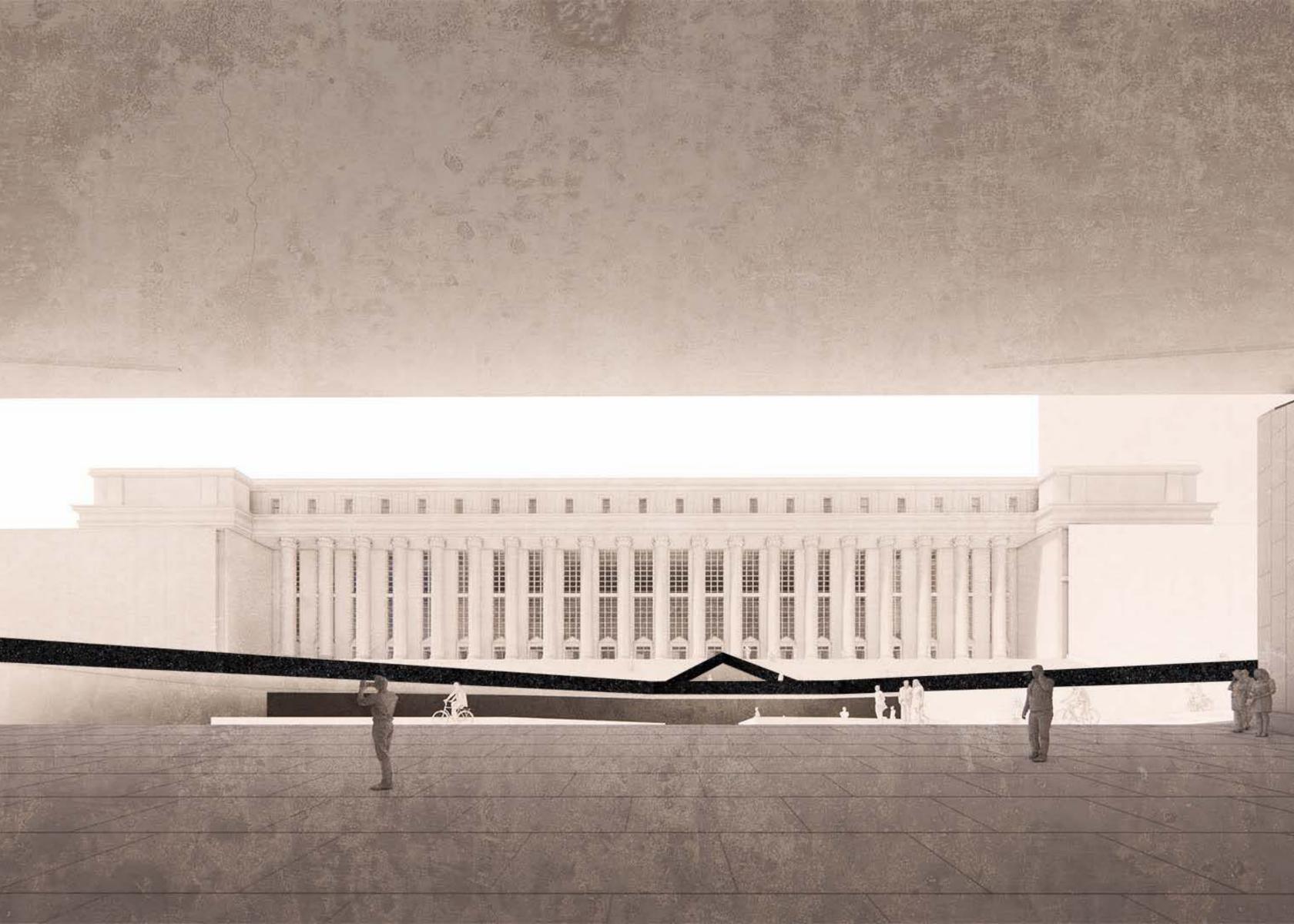


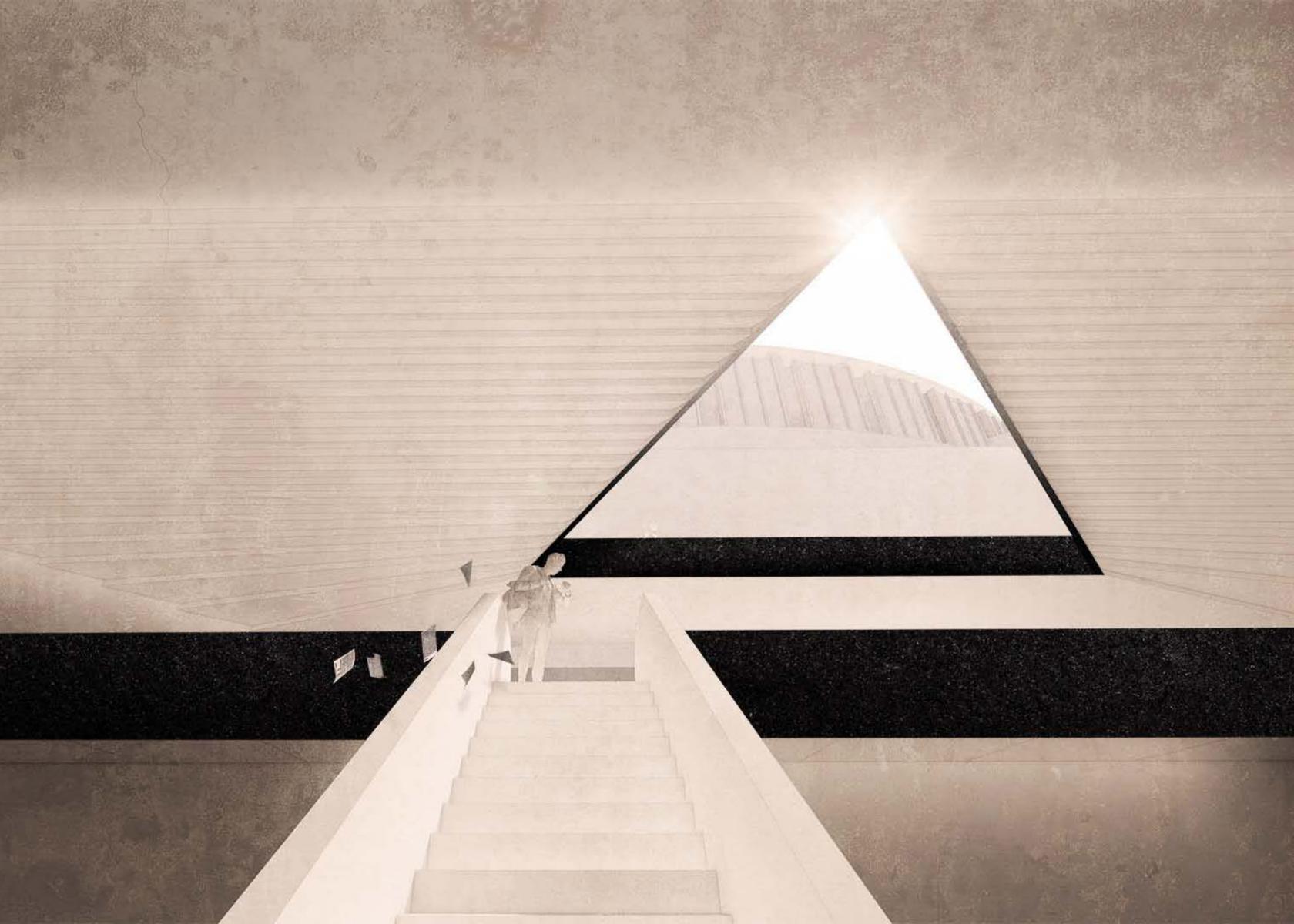
### street level plan | entering civic space

having incised moynihan train hall and its grand steps, a triangular light well resulted, bringing light to the lower level; in addition, granite - a material of weight and stability - has become an element of visual tension and elasticity between moynihan train hall and madison square garden.



**lower level plan | entering train station** ramped downward from street level, the civic plaza is separated from the bustling street and gives commuters their own area to lounge and wait - or rush to their trains - with the needed relief of direct sunlight and fresh air.





6. Let cities breathe again.

adv. vi | king kong manhattan professor | anna puigjaner



Donna Haraway in her lecture Staying with the Trouble: Making Kin in the Chthulucene mentions that "we require each other in unexpected collaborations and combinations, in hot compost

## piles. We becomewith each other, or

**not at all.**" This project focuses on envisioning what the future of Chinatown Manhattan would be like - by

year 2100 when it has become inevitably flooded - if we grew with one another, across different species, and

how these **kinships** may build in accordance with our inevitably changing climate. Chinatown is host to unique conditions of care and kinship that find their expression through the built environment. We investigated a series of systems to aid us in our rearranging of the block.

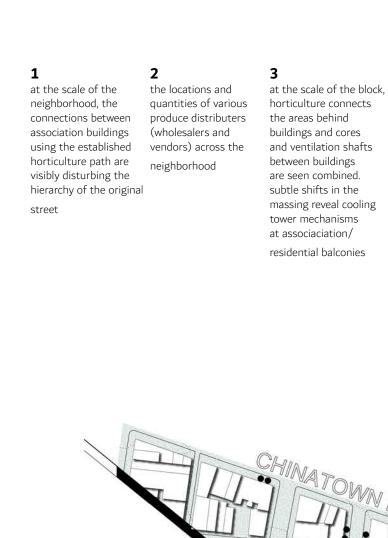
The first is the collective

ownership represented in association buildings, the second is

# the Selling of produce told through relationships between farmers, wholesalers and vendors. The final system

adapts the cooling tower model

to aid ventilation in a warming climate.

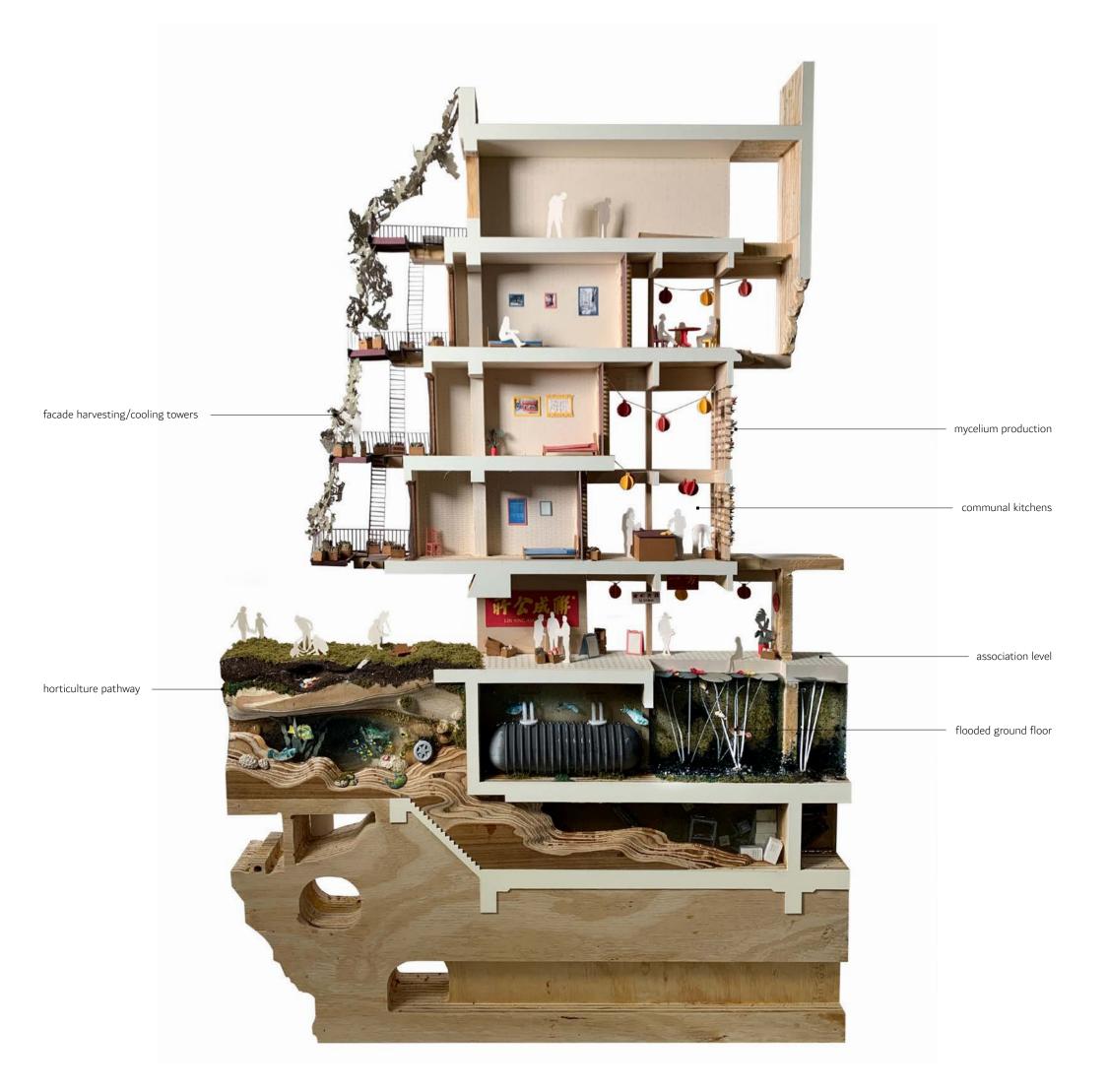






#### hybrid floor plans | year 2025 and 2100

by 2100 the once temperate buildings have been opened in the center with shafts of community space which air may travel upward through; facades have been occupied by growth of plants and now act as cooling towers for the building.



section model through lin sing association building, year 2100



horticulture pathway | food cultivation the pathway is an infrastructure built upon collectively, over time; the mycelium grown by the association helps to foster the growth of produce plants cultivated on the pathway.



#### $horticulture\ pathway\ |\ care\ as\ assemblages$

the oceanic creatures which occupy the flooded streets not only benefit from the organic matter of the pathway, but they help to fertilize it; similarly, rats naturally distribute seeds and food matter, all beneficial to the chinatown community in the pursuit of food cultivation.



#### facade harvesting

where potted plants once sat out of place on fire escapes in year 2025, now has been expanded to become a site of food production outside residents' rooms, also acting as shading and cooling devices.





with a collective focus on the production of food and a fundamental need for open air space inside the previously temperate building, communal kitchens emerged as a central program for the chinatown residents.



#### association level | ventilation shaft

the shaft where the original core once existed is now celebrated by an open connection to the association level and lined with the walls of mycelium production.



#### association level | intergenerational care

chinatown's unique success in holding their own against the policies of new york city is largely due to the community they've formed over generations of kinships; it is a precedent for other neighborhoods, and in this project we expand this to more-than-human kinships - kinships with other species, and with our ever-changing planet. it all begins with care.

### 7. Understand truth of domesticity.

radical domesticities

professor | mary mcleod, victoria rosner



Philip Johnson's Glass House is successful in articulating space of light, air, and continuity to nature, and is certainly an architectural expression of its modernist time, yet it fails to serve its very core function of a home. Using the Glass House as an anchoring example of unlivability throughout this pictorial essay, I will argue what elements are crucial in order for a house to be considered a true domestic space, and, by the end, envision what the Glass House might look like if it were domesticated. The truth of domesticity involves a balance between the truth of living and the truth of space, with radicality as a lens of its observation.



image unchanged; radical dishonesty of living

#### THE NATURE OF GLASS

When observing the *Glass House*, the glass plays the primary role in **continuity** of landscape into the home, as well as transparency of inside to outside. While this gesture of transparency is considered aesthetically beautiful to many, it is burdened with design flaws – one being the issue of privacy. One of the very first truths of domesticity is a person's desire for a certain degree of privacy where they may feel most comfortable being their least professional, or their most honest, self. Humans hold relationships with materials. Glass in homes typically occupy less than 50% of the overall exterior, often accompanied by curtains or blinds for privacy when desired. To have a home completely made of glass as seen in the *Glass House* was indeed extremely heavily criticized for its exposure and subsequent unlivability. Using large plates of glass is a positive move to provide a resident access to light and air, but **compromises privacy** and, thus, compromises its role as a domestic space.



textiles added; step toward domestic truth

#### **TEXTILE HERITAGE**

The design of the *Glass House* essentially strips away the interiority of a home, secluding it into a separate building enclosed in opaque brick walls, which Philip Johnson calls the guest house; this is a dishonesty of living. Textiles have been used for hundreds of thousands of years, where geography even played a crucial role in what kinds of fabrics were created. For example, water of rivers filtered by "grit beneath the peat" made printing fabric ideal and improved their ability to be dyed and washed (Freedgood, 56). When we fast forward to industrialized production of cotton – most fabrics are now made by machines instead of by hand, yet there is still a resemblance to the idea of its own heritage through its function of providing warmth. On the contrary, glass originated for the use of decoration and ornament rather than to provide enclosure. In addition, **handmade** textiles, especially blankets, are often passed down from **generation to generation**, and thus many homes still possess fabric created by an individual's sewing or weaving. This tendency of textile heritage, in addition to its consistent function of physical and aesthetic warmth, **plays** 

an imperative role in the formation of a domestic space.



furniture neutralized; step toward domestic truth

#### **FURNITURE IDENTITIES**

Throughout history and still today, furniture has been categorized into

**masculine and feminine.** If you were to look up "masculine chair" in any search engine right now, you would see an overwhelming amount of leather, brown and black tones, and broad widths. Contrarily, if you were to look up "feminine chair", you would have a screen full of upholstery, soft velvets, pink and white tones, and narrow widths. In furniture, the separation between genders remained especially true inside the home. The function of the furniture we see inside the living room is, unsurprisingly,

for lounging. However, the fact that the furniture reeks masculinity with its

**leather and steel**, urges the assumption that lounging was a male-oriented activity. I would go so far as to infer this reinforced the roles of women as caretakers and housewives. Notice also how pillows are even built into the leather furniture so that pillows are not needed – this eliminates yet another textile, and thus more

feminine, item from the room's atmosphere. In the *Glass House*, giving fabric upholstery to the leather furniture would help to **neutralize** the predominantly masculine space, thus creating a more realistic sense of domesticity where men and women may both equally occupy.



mess on white carpet; step toward domestic truth

#### THE ART OF MAINTENANCE

A cosmetic and habitual difference between leather and fabric upholstery is their cleanliness and need for maintenance. Leather is considered to be a "clean" material due to its resistance to harboring germs, dust, dander, and even odor. It is also a tougher material in general than fabric; it can withstand significantly more years of everyday use so long as it is properly maintained. If we think back to furniture identities, conventionally masculine furniture (leather) is typically tougher, more expensive, and "cleaner" than more conventionally feminine (upholstered fabric) furniture, even down to the strength and sheen of the steel legs.

Two other materials that should be noted in terms of maintenance are the white carpet seen in the living room, as well as the glass windows. Unlike leather, carpet is a material similar to fabric in that it harbors germs, dust, dander, and odor. However, in the *Glass House*, Philip Johnson chooses a white carpet with no pattern – this is a strategic gesture to add material warmth to the space without compromising cleanliness, since every little stain and piece of dirt will show on a white carpet if not properly maintained. Moreover, the large glass windows beg for admiration of cleanliness and require hefty maintenance as dirt, water stains, dust, and even cleaning product leave

marks that interrupt the seamlessness between inside and outside. A material's tendency toward cleanliness and maintenance affects behavior around the material, and the livability of the space.



objects added; domestic truth

#### **OBJECTS AND INTERIORITY**

Objects, things, or "clutter" of a typical home are noticeably absent in Philip Johnson's Glass House. In fact, all of the "stuff" he needs for everyday living is located in the opaque brick guest house. This is yet another falsity of living. By adding clutter of objects to the scene, we can understand not only that a person lives there, but what they like and what they do. The design of the Glass House functions to avoid "things"; its lack of interior walls mitigates penetrable surfaces, preventing the hanging of pictures or décor on the walls, one of the most common expressions of self in any room. Even the one painting that does exist inside the Glass House is custom built to stand on the floor and is unexchangeable with another painting. Rather than the interior hosting an accumulation of objects over time, the Glass House was designed and carefully curated to house only select items that were not to be moved, and not to be built upon or covered (e.g. the furniture, painting, hidden bookshelves, etc.). Kevin Melchionne talks about the Glass House and people's typical habits, saying "...most people never decorate their homes - or even a single room - in one fell swoop. Rather, over time, the scheme of a room is adumbrated in fits and starts, until it arrives at a state of completion" (195). Objects hold an important expression of human nature within a space, and especially inside the home, the absence of objects is merely a façade and dishonesty of habit.



objects in excess; radical dishonesty of space

#### RADICAL DOMESTICITY

Philip Johnson's *Glass House* does not fit into the category of domestic truth. However, maybe it was never meant to. Creating radical domesticity is, ironically, rarely done so with the intent of creating a comfortable living experience. In fact, I would argue

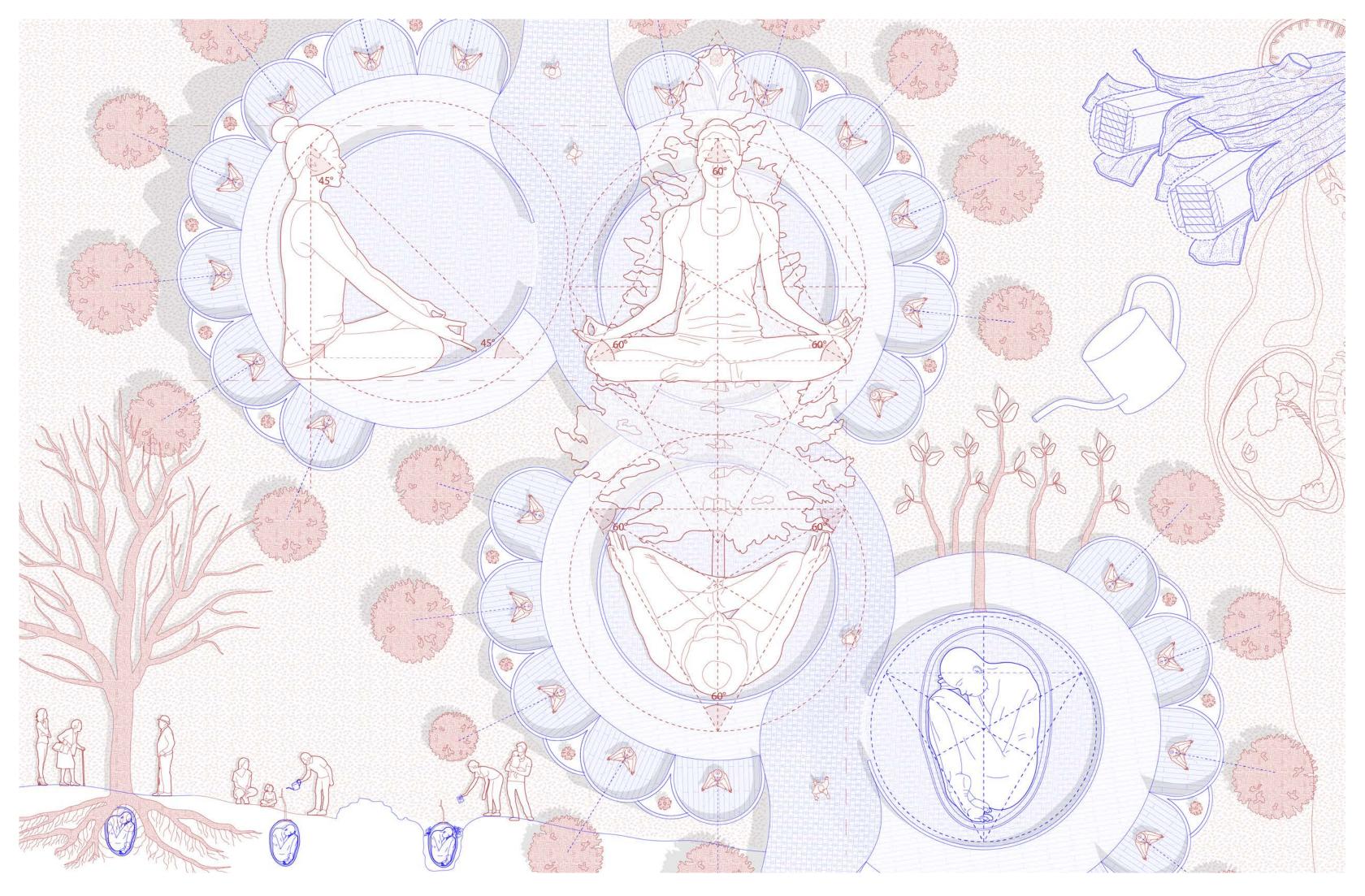
#### that "radical domesticity" is synonymous with "false

**domesticity.**" It is meant to serve as a piece of reflection on our way of life, rather than as a home for casual living; through criticism and speculation, we begin to understand what frustrates us, what we need, and thus the meaning of our own domestic truth.

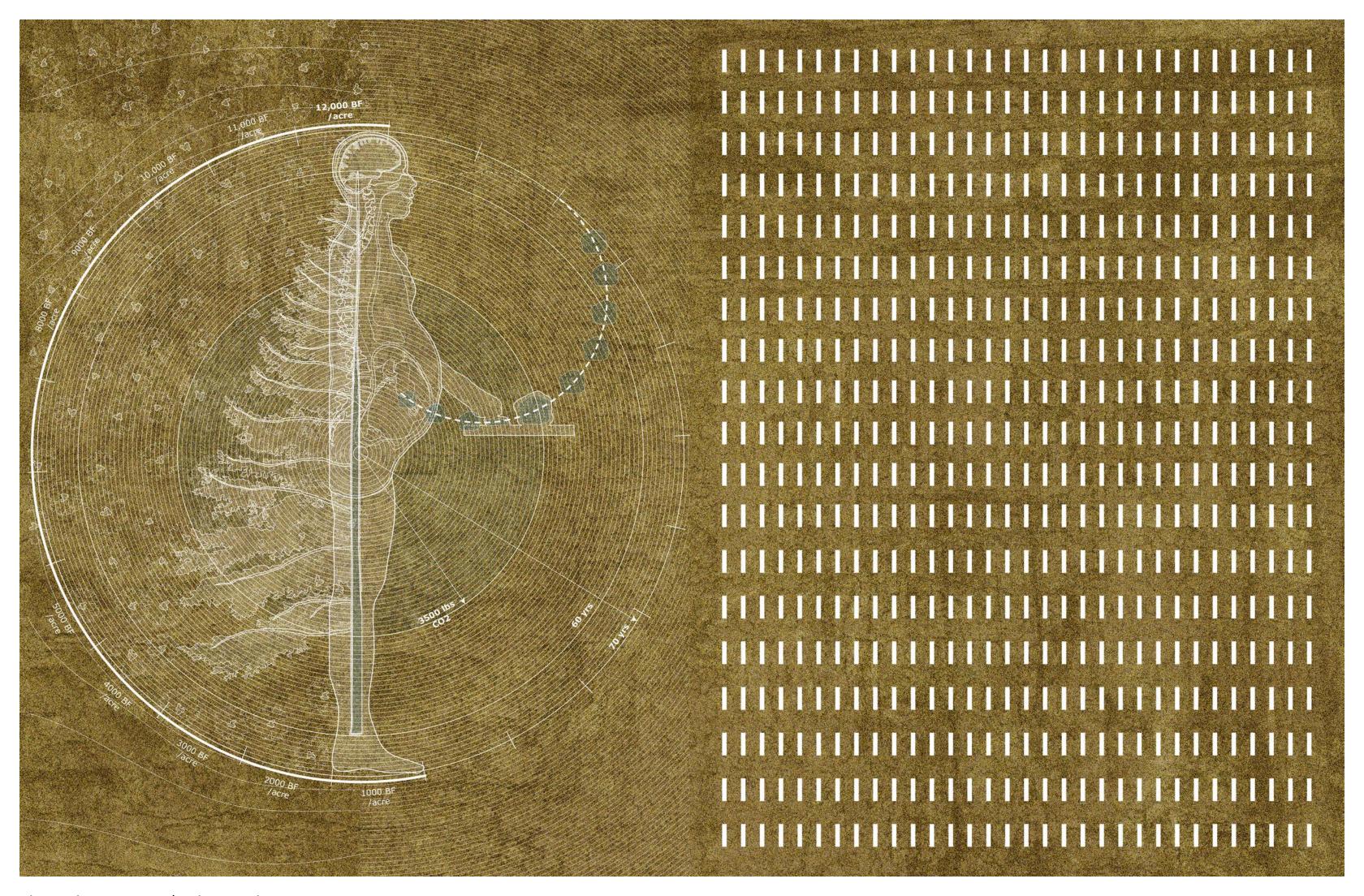
A quote that comes to mind from the book The Picture of Dorian Gray, is when Basil is speaking to Lord Henry about concealing Dorian's name: "I have grown to love secrecy. It seems to be the one thing that can make modern life mysterious or marvelous to us. The commonest thing is delightful if one only hides it" (Wilde, 4). In the context of this essay, I find this incredibly relevant to the *Glass House*'s juxtaposition of physical transparency with the suppression and disclosure of true habit, and how it led to an ongoing obsession around its critique of perceived livability. To create a radical domestic space inherently and paradoxically means to twist domesticity out of the realm of comfort, a characteristic of its own definition. Perhaps we cannot change how we live so drastically, but the failure of the *Glass House* as a domestic home is successful in its galvanization to the query and understanding of domestic truth.

# The following pages showcase exercises that worked alongside and inspired my understanding of care

through concept development, representational techniques, and technological innovation

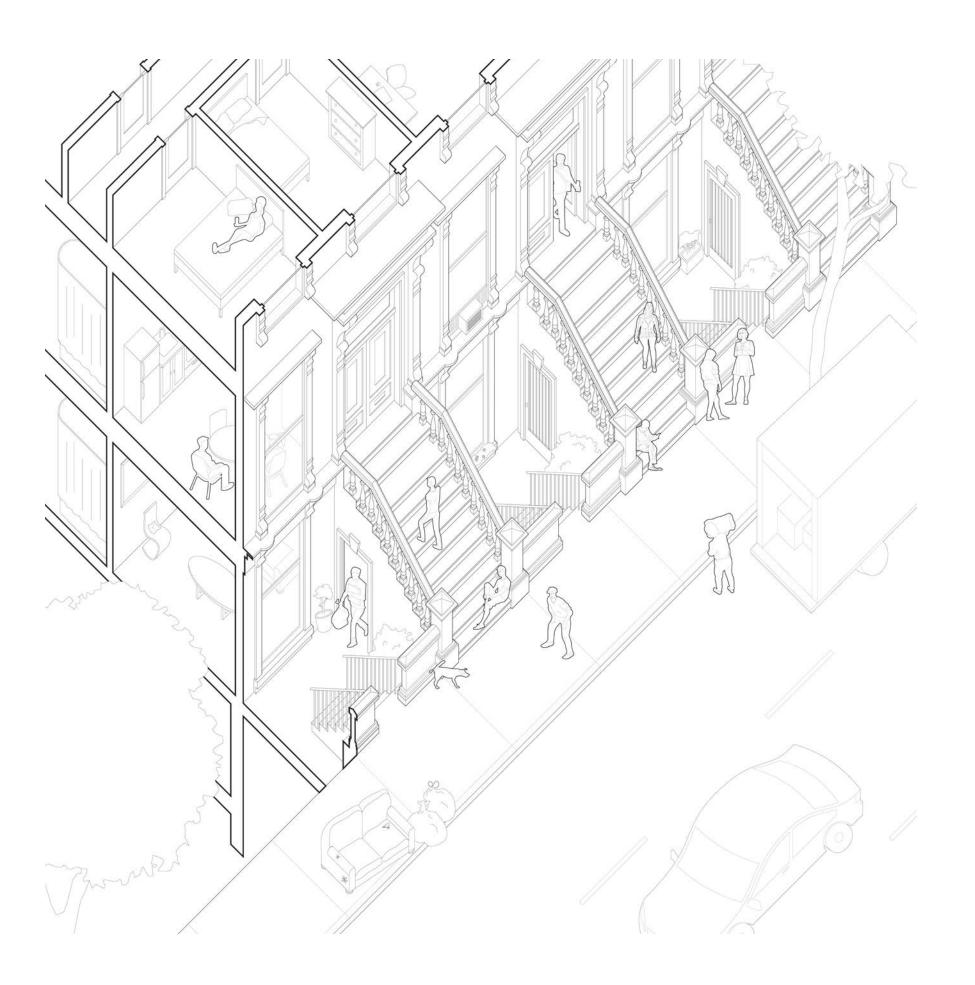


adv. iv preliminary exercise | care in the birth of death sensitizing religion as a medium of commonality of humanity that connects us all together - if we are able to tap into what we naturally care about, perhaps we can instill a new ritual of care for our earth, beginning with a relationship between our bodies and trees through means of architecture that we can pass down to our ancestors in the form of burial forests.

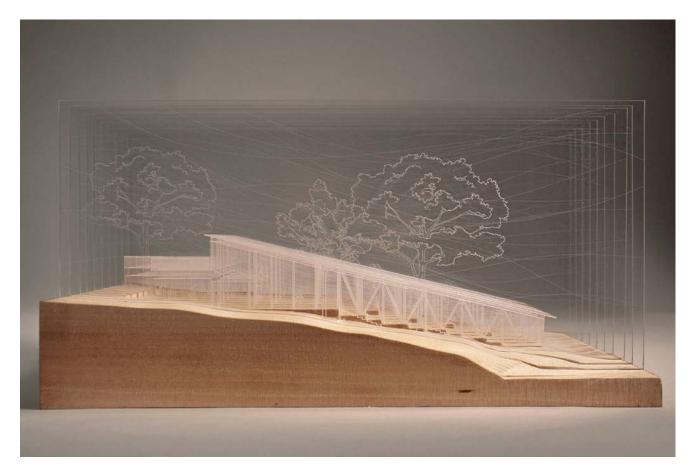


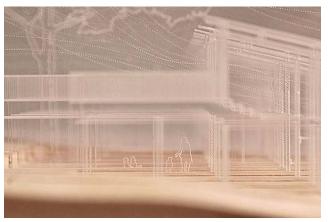
adv. iv preliminary exercise | carbon equivalents

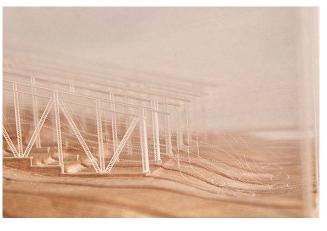
overlapping scales of human and tree to relate carbon footprint to an everyday ritual, finding that 1 acre of white spruce sequesters the same amount of co2 as feeding a single family household for 70 years.



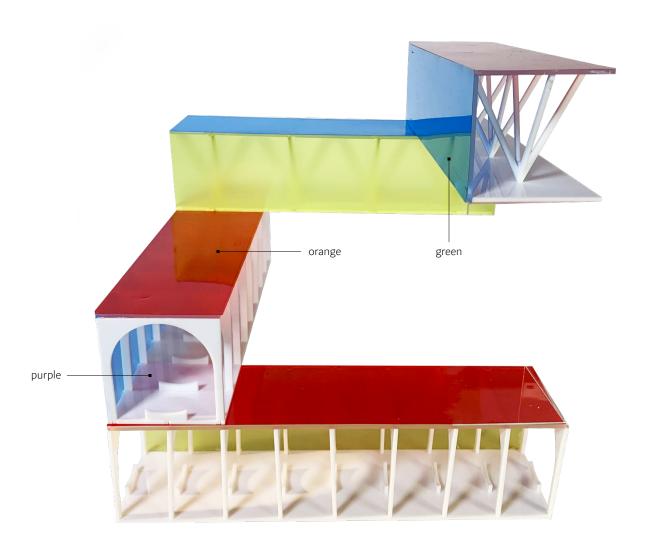
core i preliminary exercise | stairs of broadway
in new york city, it's commonplace to see people resting, reading, smoking, or talking on the phone while sitting on the steps
of someone else's home; these steps blur the line between public and private, questioning "what's mine is yours".







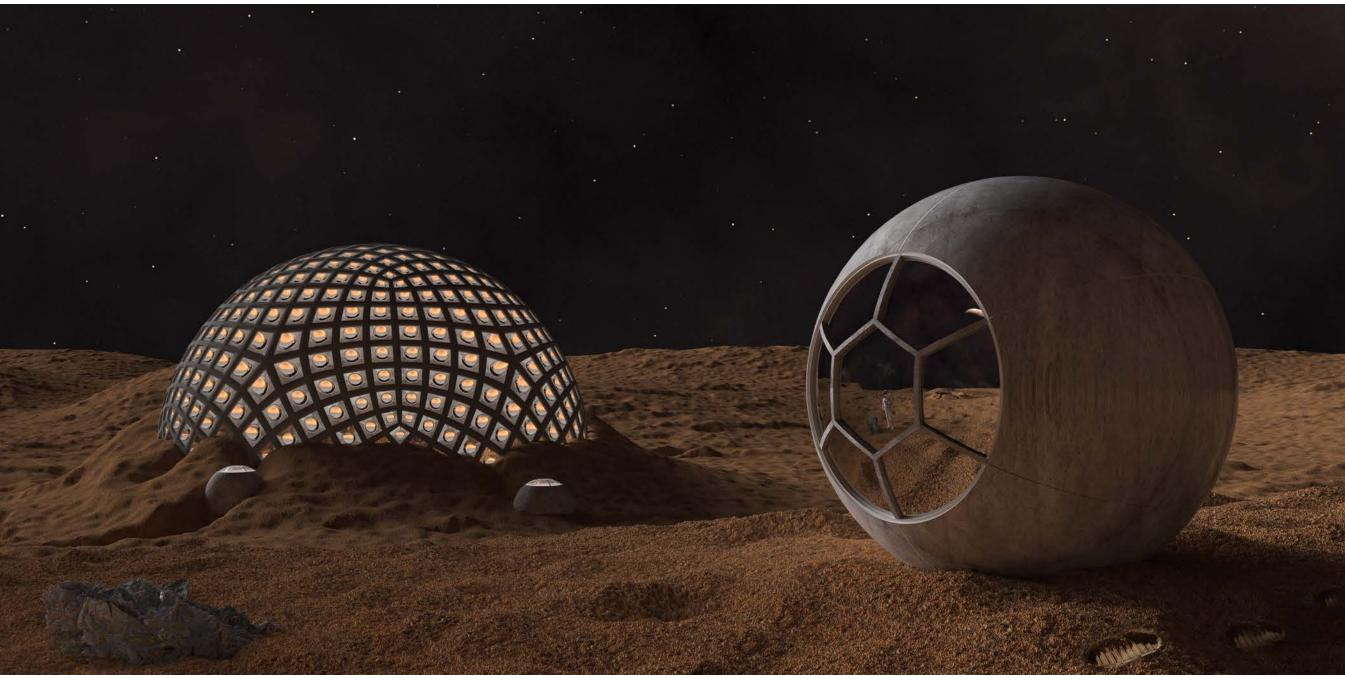
## core ii precedent analysis | hakusui elementary school using layers of etched acrylic as a way to explore 3-dimensional air flow and water evaporation



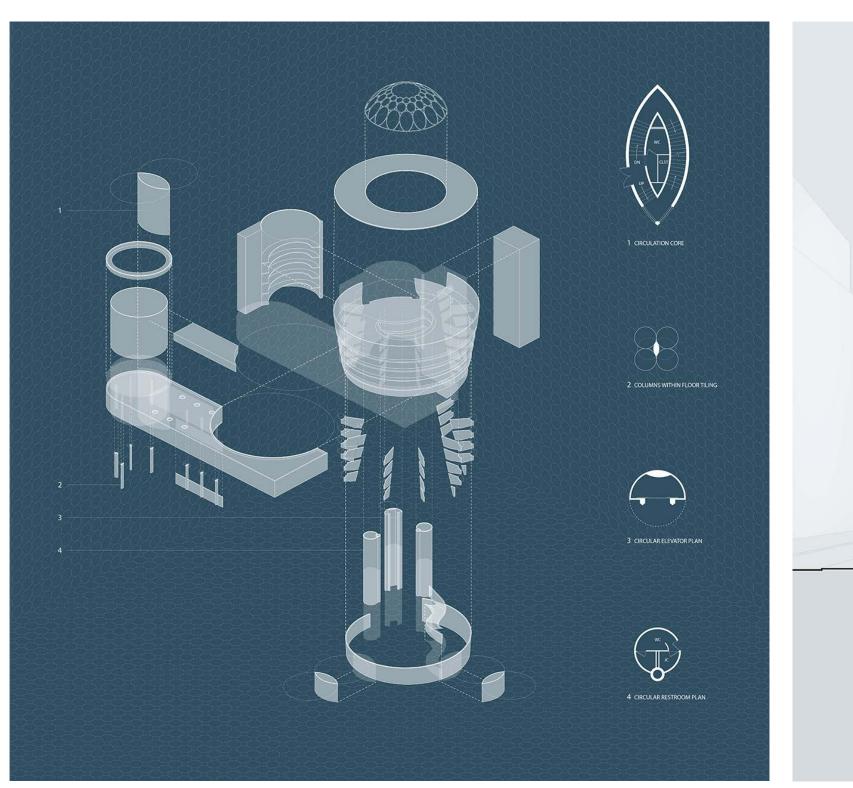
core ii preliminary exercise | material color mixing allowing material properties of color, transparency, and reflectivity to create new areas of color and light

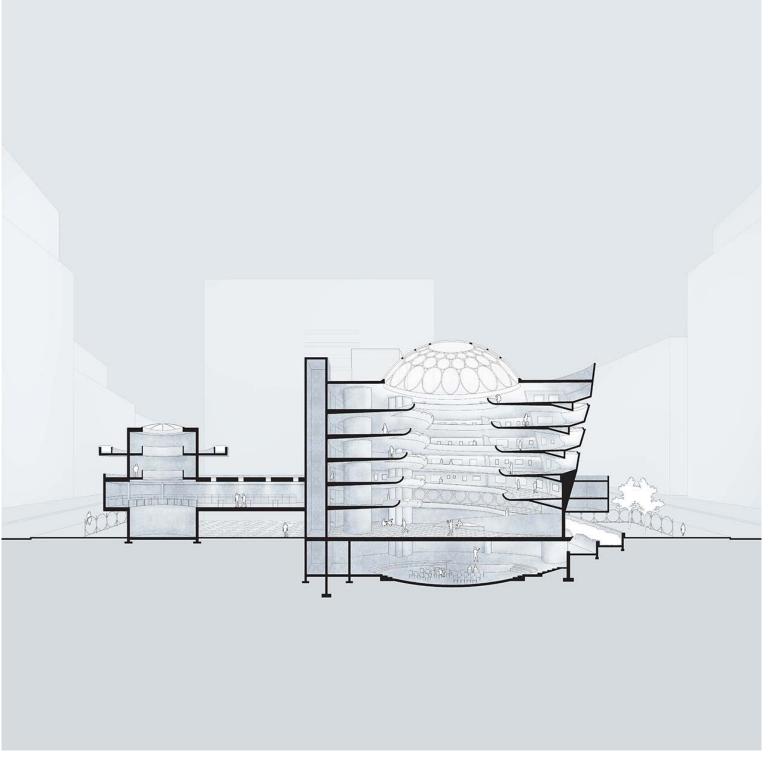






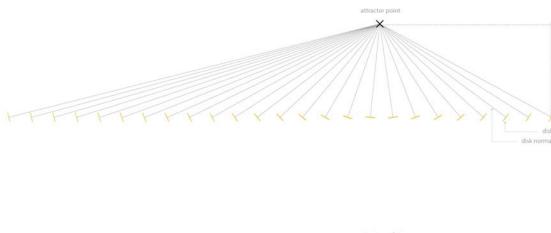
techniques of the ultrareal | mobile mars using custom modeling and material mapping to render the idea of what it might be like to live in a martian civilation



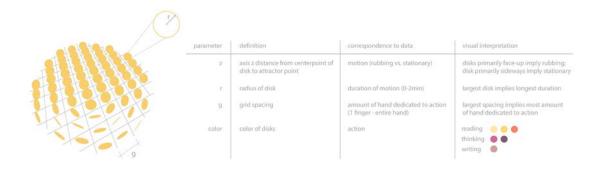


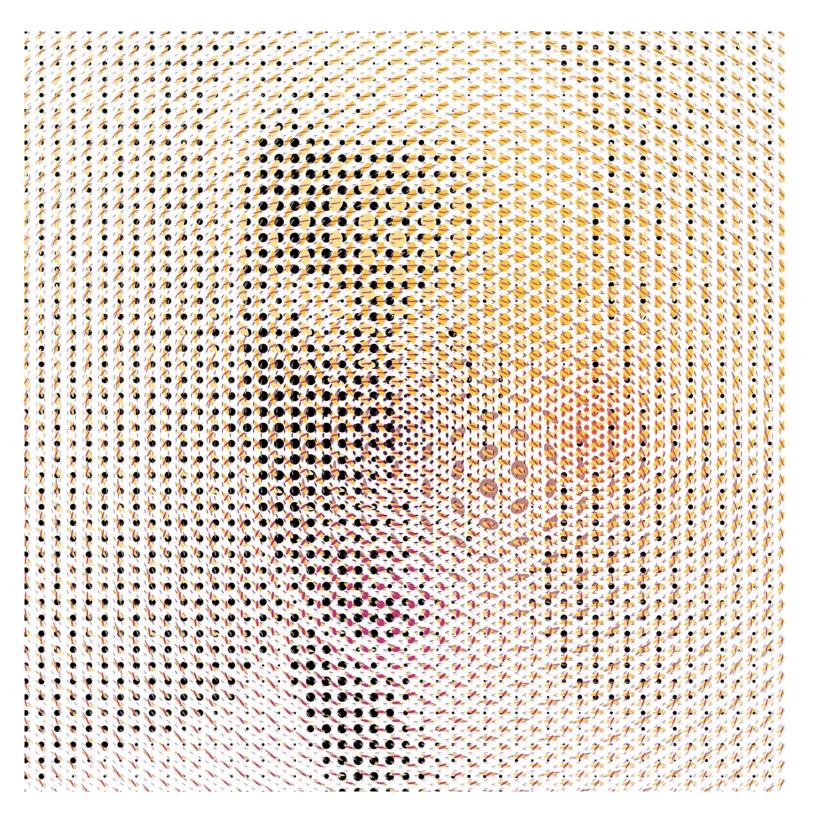
adr i | guggenheim, circles and light

learning to represent the language of a building, in this case the language of circles carried throughout all scales of the guggenheim museum in new york city, as well as how to articulate light in a section drawing



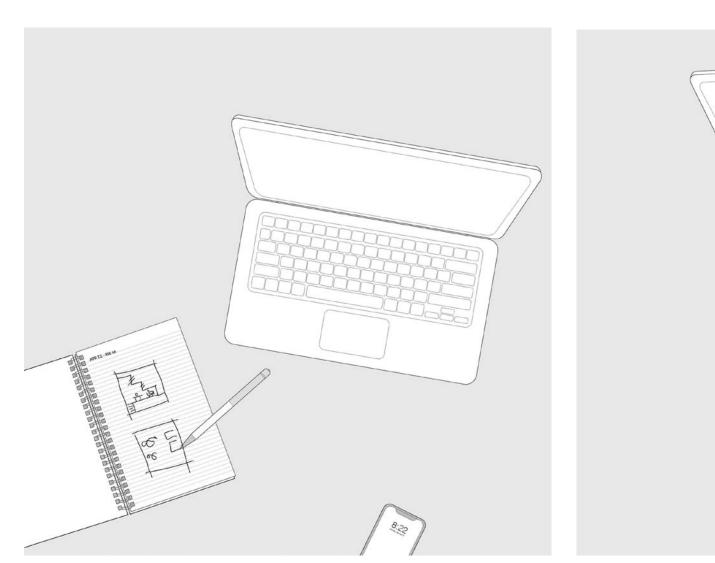


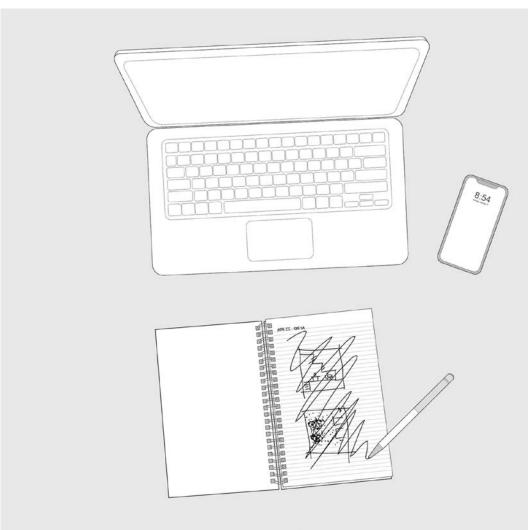


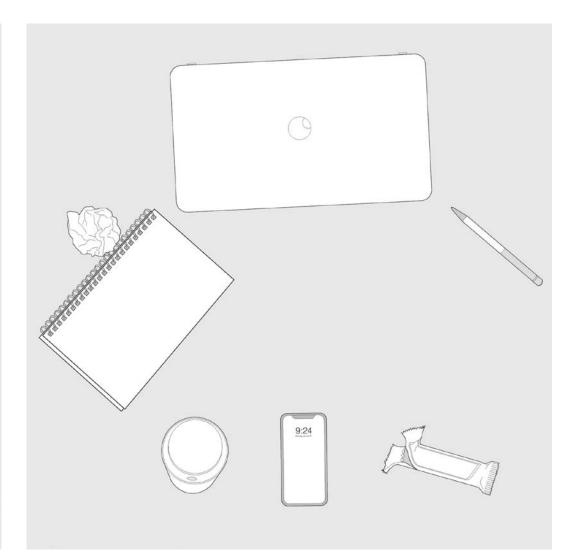


#### adr ii | coding stress

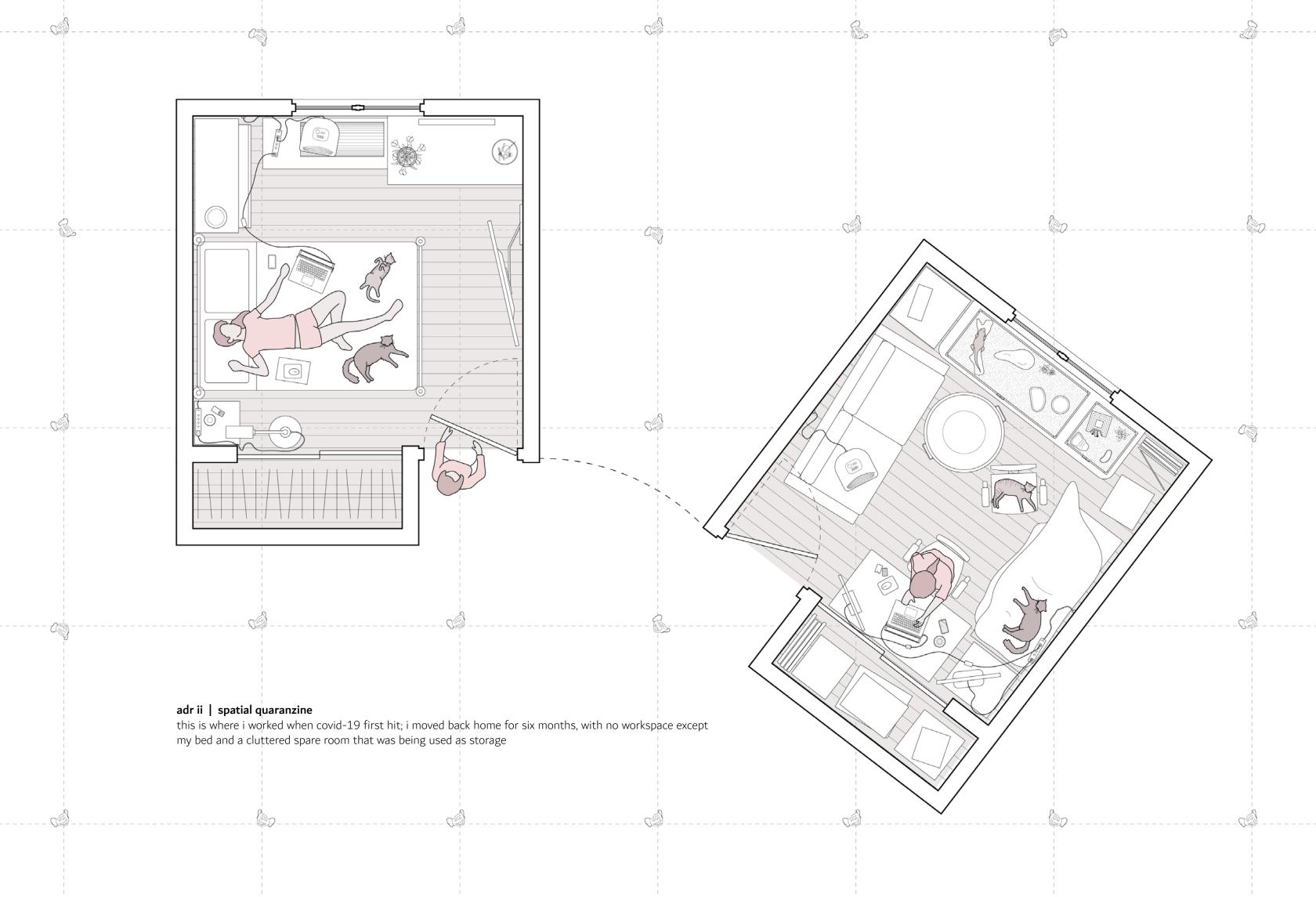
using grasshopper for rhino as a tool for translating a set of parameters, in this case how a person touches their face while under stress, into an illustration







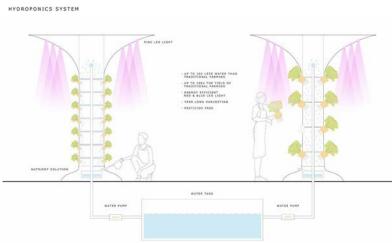
adr ii | take a break learning how to document mood and behavior through objects alone

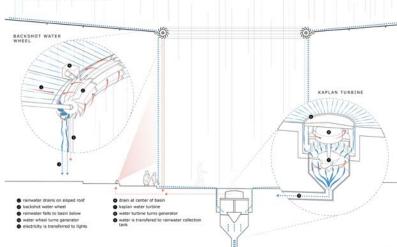




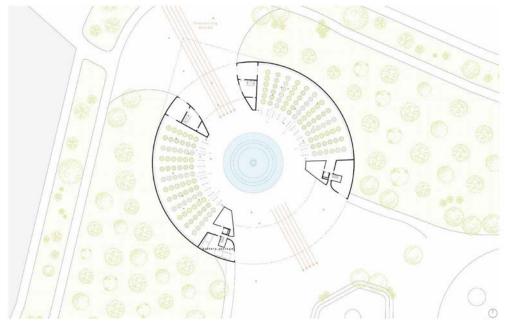


WATER TURBINE SYSTEM DETAIL

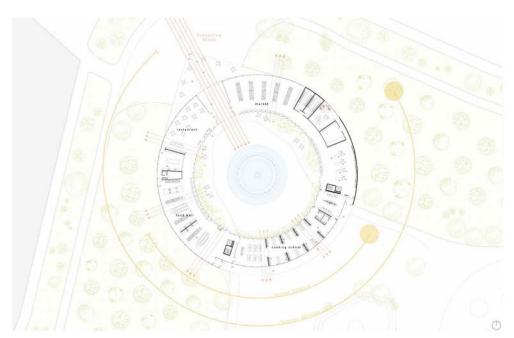




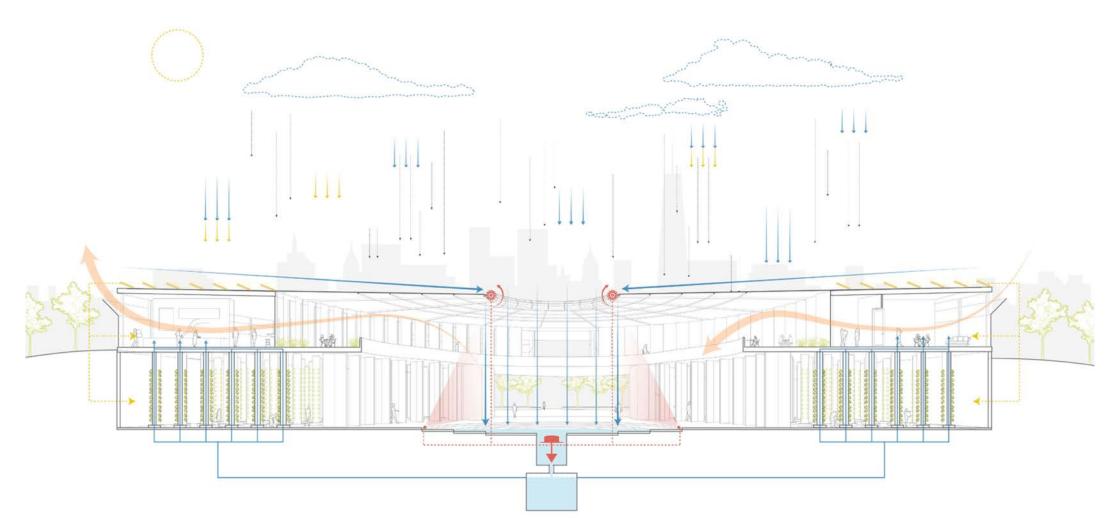
urban farming modules are powered by solar harvesting and operated with collected and stored rainwater. rainwater harvesting/kinetic operation; as rainwater falls toward the center, it pushes the wheels that then produce enough kinetic energy to power the lights that shine on the waterfall.



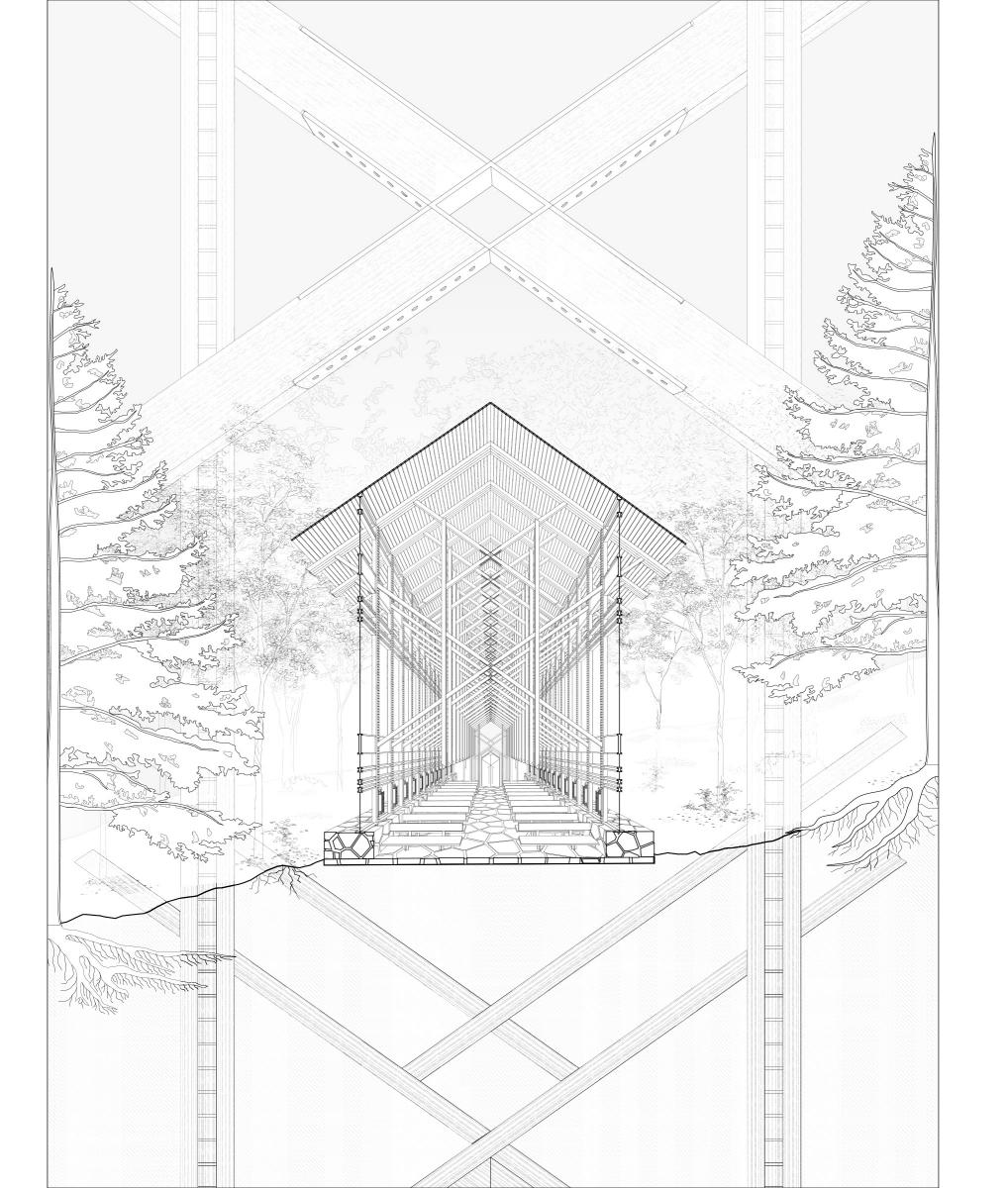
lower floor plan | urban farming & kinetic paths



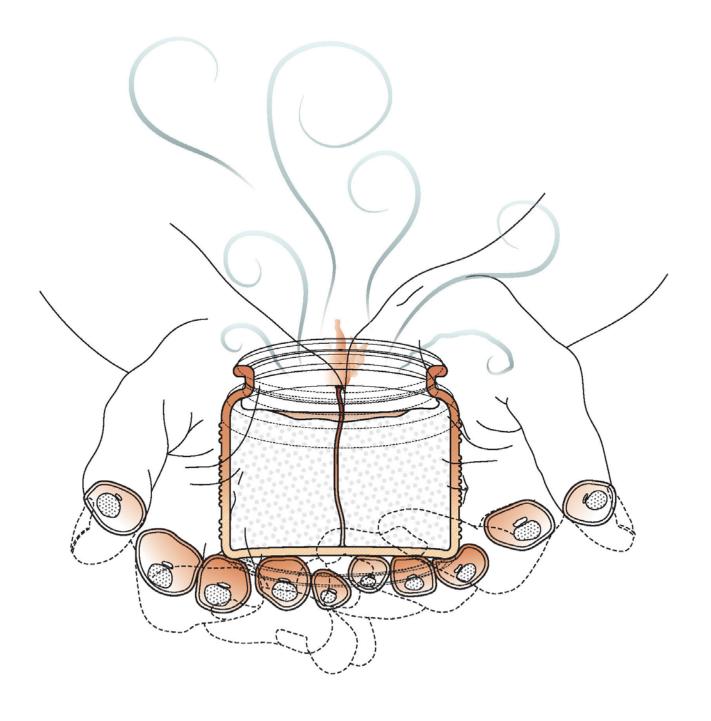
upper floor plan | commercial kitchens, library, and lounge



section through urban farm | kinetic, rainwater, and solar systems integrated to perform a net zero building



seminar of section | thorncrown chapel
juxtaposing scales of the forest, building, and building
details to understand their intimate physical and linguistic
relationship to one another



#### core iii preliminary exercise | ritual

this is my candle. it is eucalyptus scented, and i burn it every day mainly because my north-facing bedroom receives no sunlight, no warmth - and that flickering flame, warmth of the glass jar, and fresh botanical scent provide me at least a miniscule piece of the natural light and fresh air my apartment fails to give me. our environment will always affect our moods and behaviors, and thus our routines and rituals. this small exercise is a large part of what led me to creating the manifesto of care.