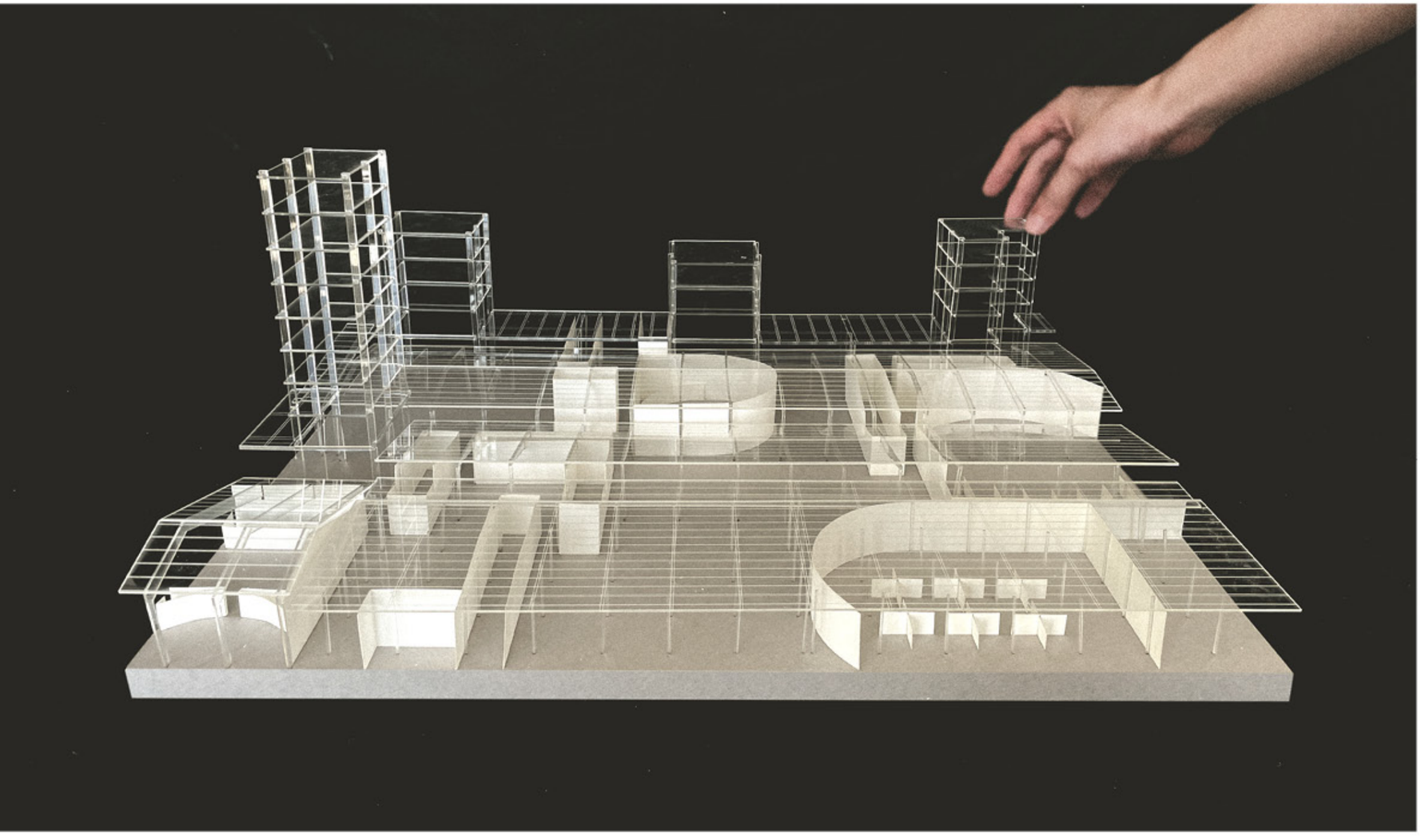
Sixuan Chen Architecture Portfolio

BUILD

PROSPER

Master of Architecture, Columbia University GSAPP

INDEX



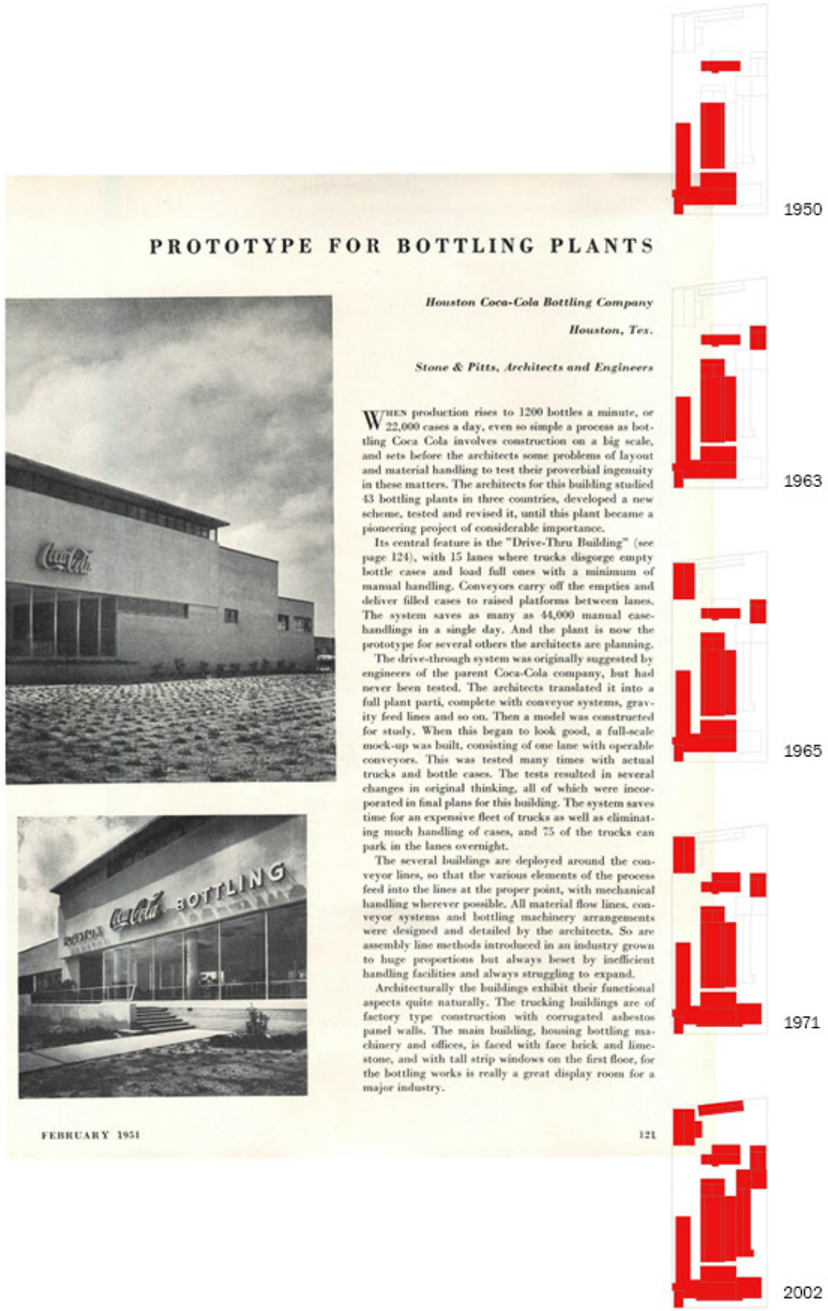
Adaptive Reuse of Industrial Buildings
Spring 2022
Teammate: Danielle Nir

ART INCUBATOR + HOUSING AT 2800 BISSONNET

The studio, "Buildings on Buildings," asks two main questions: 1) How can we repurpose a former Coca-Cola bottling plant in Houston, Texas for an art incubator program? 2) How do we negotiate the 13.6 acre site for a program brief that only requires 1/6th of the site's square footage?

Our project Art Incubator + Housing in Houston responds to these questions firstly, by breaking down the building into a field of columns where art incubator programs can be plugged into, and secondly, by utilizing the additional space on site for 280 housing units to address the rising housing demands in Houston.

Building on the site's history as a rapidly growing manufacturing plant, our adaptive reuse strategy is to preserve and expand on the existing field of columns and the existing roof system, to create a continous ground floor condition where programs can be inserted without limit. Having studied Archizoom's No-Stop City as a precedent, we adapt this non-heirarchal idealogy for an art incubator program, where artists can work among a field of disciplines that they can explore freely. Additional programs include theater, education, galleries, sports, and dining.



PROTOTYPE FOR BOTTLING PLANTS

Houston Coca-Cola Bottling Company

Houston, Tex.

Stone & Pitts, Architects and Engineers

WHEN production rises to 1200 bottles a minute, or 22,000 cases a day, even so simple a process as bottling Coca Cola involves construction on a big scale, and sets before the architects some problems of layout and material handling to test their proverbial ingenuity in these matters. The architects for this building studied 43 bottling plants in three countries, developed a new scheme, tested and revised it, until this plant became a pioneering project of considerable importance.

Its central feature is the "Drive-Thru Building" (see page 124), with 15 lanes where trucks disgorge empty bottle cases and load full ones with a minimum of manual handling. Conveyors carry off the empties and deliver filled cases to raised platforms between lanes. The system saves as many as 44,000 manual case-handlings in a single day. And the plant is now the prototype for several others the architects are planning.

The drive-through system was originally suggested by engineers of the parent Coca-Cola company, but had never been tested. The architects translated it into a full plant parti, complete with conveyor systems, gravity feed lines and so on. Then a model was constructed for study. When this began to look good, a full-scale mock-up was built, consisting of one lane with operable conveyors. This was tested many times with actual trucks and bottle cases. The tests resulted in several changes in original thinking, all of which were incorporated in final plans for this building. The system saves time for an expensive fleet of trucks as well as eliminating much handling of cases, and 75 of the trucks can park in the lanes overnight.

The several buildings are deployed around the conveyor lines, so that the various elements of the process feed into the lines at the proper point, with mechanical handling wherever possible. All material flow lines, conveyor systems and bottling machinery arrangements were designed and detailed by the architects. So are assembly line methods introduced in an industry grown to huge proportions but always beset by inefficient handling facilities and always struggling to expand.

Architecturally the buildings exhibit their functional aspects quite naturally. The trucking buildings are of factory type construction with corrugated asbestos panel walls. The main building, housing bottling machinery and offices, is faced with face brick and limestone, and with tall strip windows on the first floor, for the bottling works is really a great display room for a major industry.

FEBRUARY 1951 121

1950

1963

1965

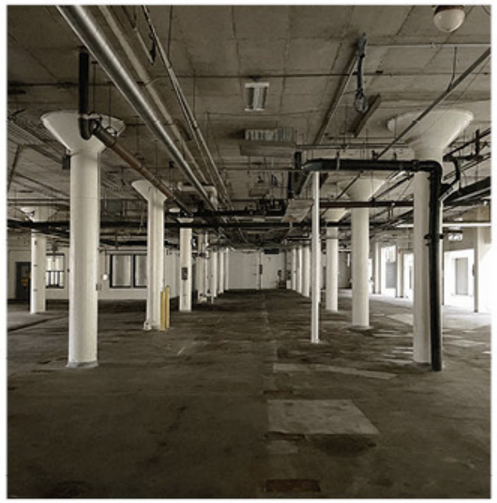
1971

2002

The Coca Cola bottling plant was originally built in 1950, when there were three buildings on the site, for bottling, drive through, and storage/advertising and repair. The prototype was designed by the architects Stone and Pitts, to provide maximum efficiency, which combined the skill of workers and the efficient of machines to bottle 1,280 bottles per minute.

Over the years as demand for Coca Cola bottling increased, more warehouses were added. At the beginning of 21st century, the site is almost maxed out as the bottling plants grew.

During the site visit, we were struck by two key features. First is the field condition of the ground floor that results from the extensive grid of columns of the original buildings. And second is the collage-like accumulation of roofs which resulted from the increase in buildings over the years.



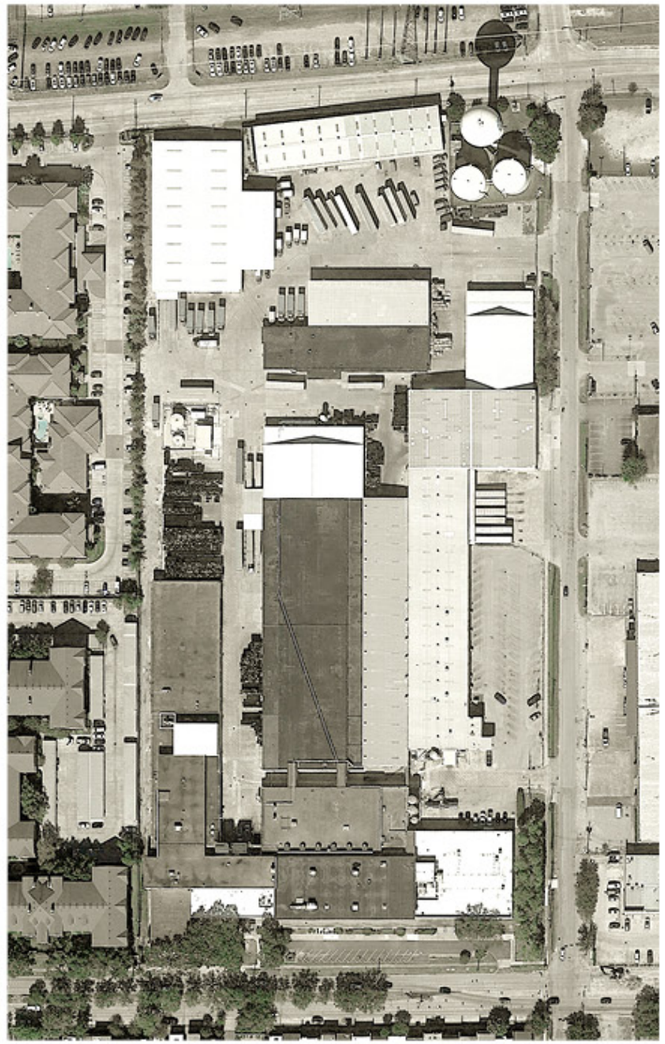
EXISTING CONCRETE COLUMN GRID

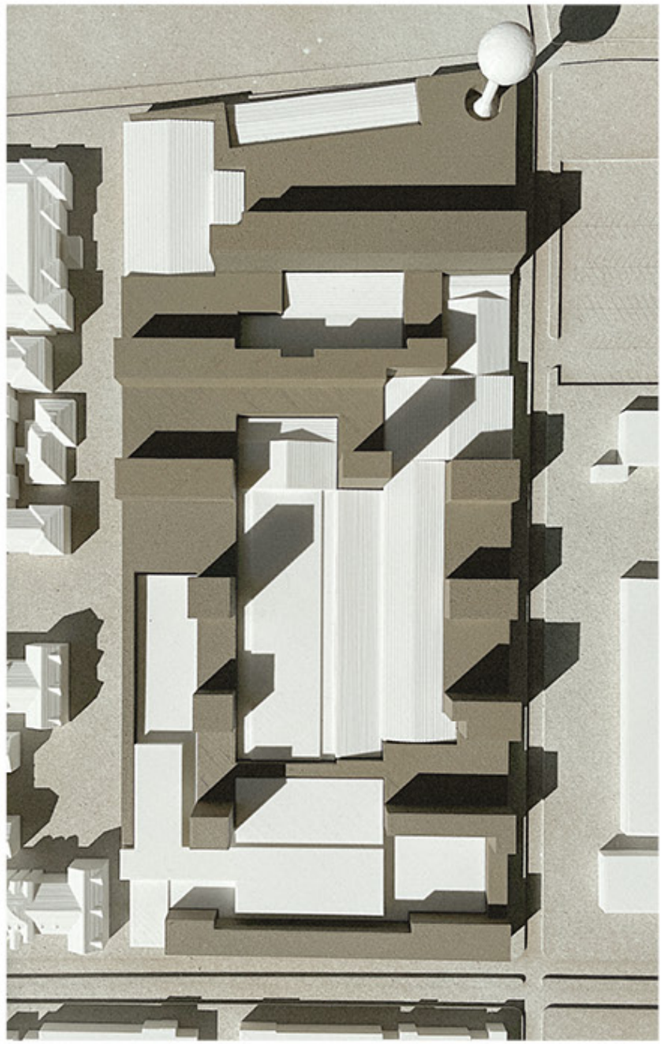
EXISTING STEEL COLUMN GRID

Our adaptive reuse strategy is to preserve and expand on these two existing conditions.

First, we expand the column grid throughout the whole site. And then we add a new roof to fill in the gaps so that the site is completely covered. Through these two gestures:

We open up the ground floor into a continuous field where programs can be introduced without limit, in the same way that manufacturing functions were plugged into the grid of columns in the past. With our continuous roof and extended column grid that open the site into an urban corridor that is covered to provide shaded space from the strong Houston sun.

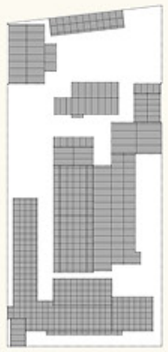




In addition to the given programs, we identified housing as an important need in Houston. We decided to add a housing component to our project to provide housing units for the rising population in Houston and also to add more value to the other programmatic spaces on the ground floor by bringing in users.

The massing model represents the existing footprint in white, and our addition in gray. The housing strips are each 50 feet wide with a 100ft interval space, spanning the site east to west. They are built on top of the new roof without adding loads to the existing structure. The geometry of the housing derive from the existing footprint.

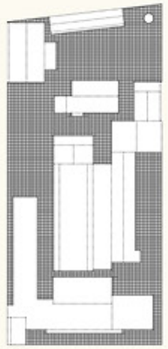
EXISTING COLUMN



EXISTING ROOF

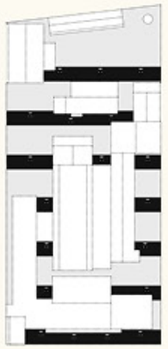
PROPOSED WORKSPACE

ADDED COLUMN

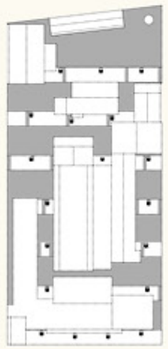


ADDED ROOF

PROPOSED AMENITIES

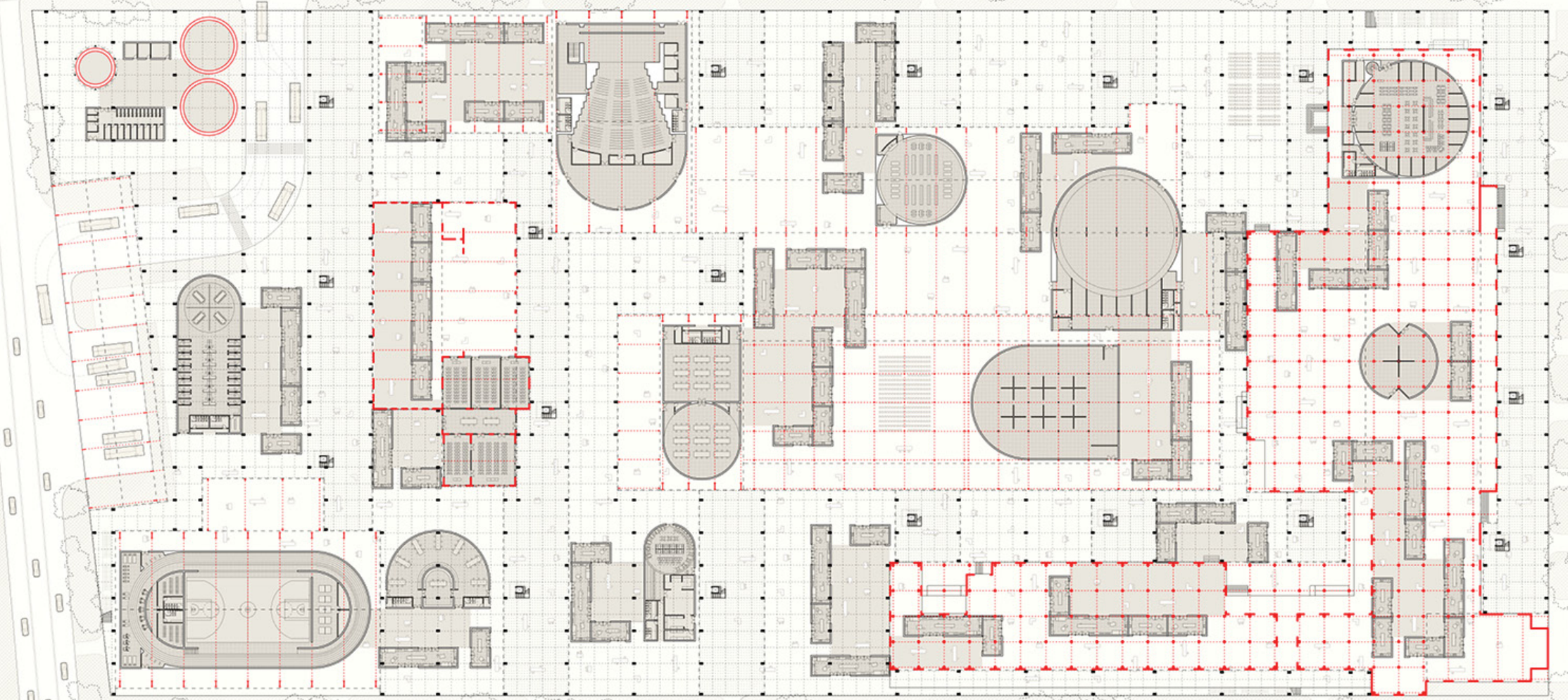


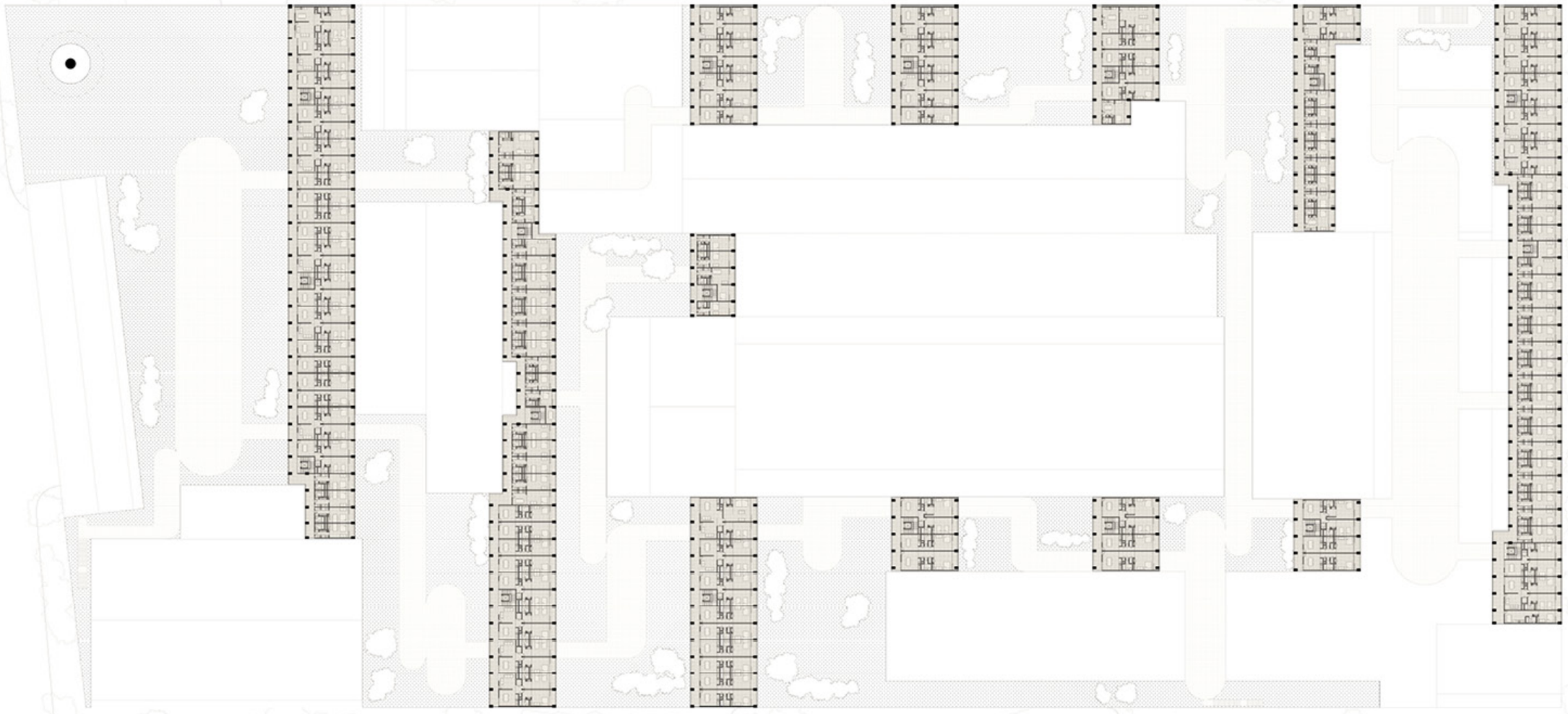
ADDED HOUSING



ACCESSIBLE ROOF DECK

SHARED BACKYARD





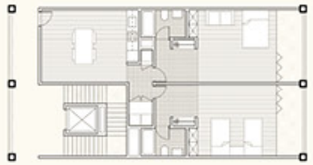
ART INCUBATOR + HOUSING AT 2800 BISSONNET

MICRO UNIT
280 sqf

STUDIO
410 sqf

1 BEDROOM UNIT
570 sqf

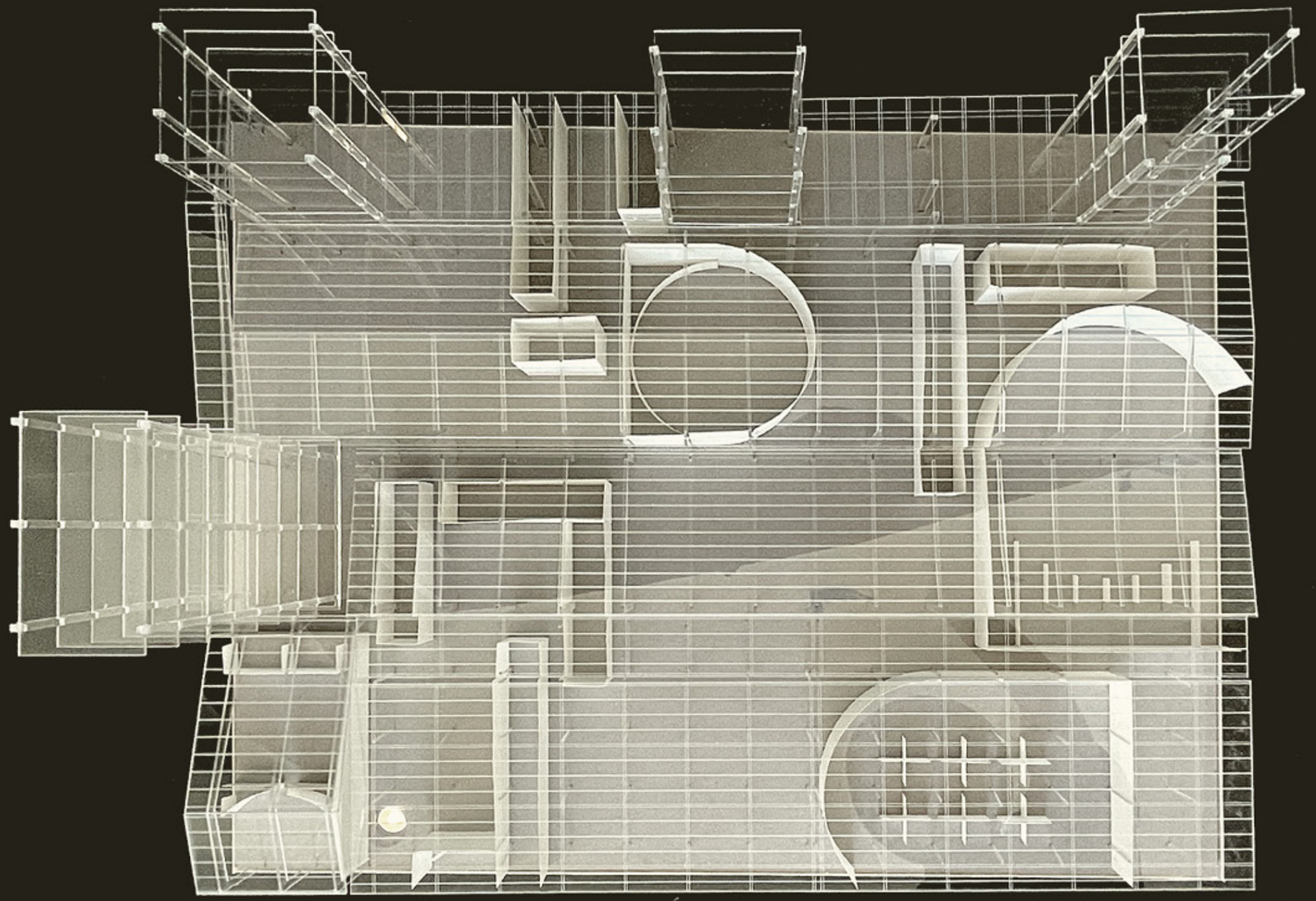
1 BEDROOM UNIT
615 sqf



2 BEDROOM UNIT
928 sqf

2 BEDROOM UNIT
1118 sqf

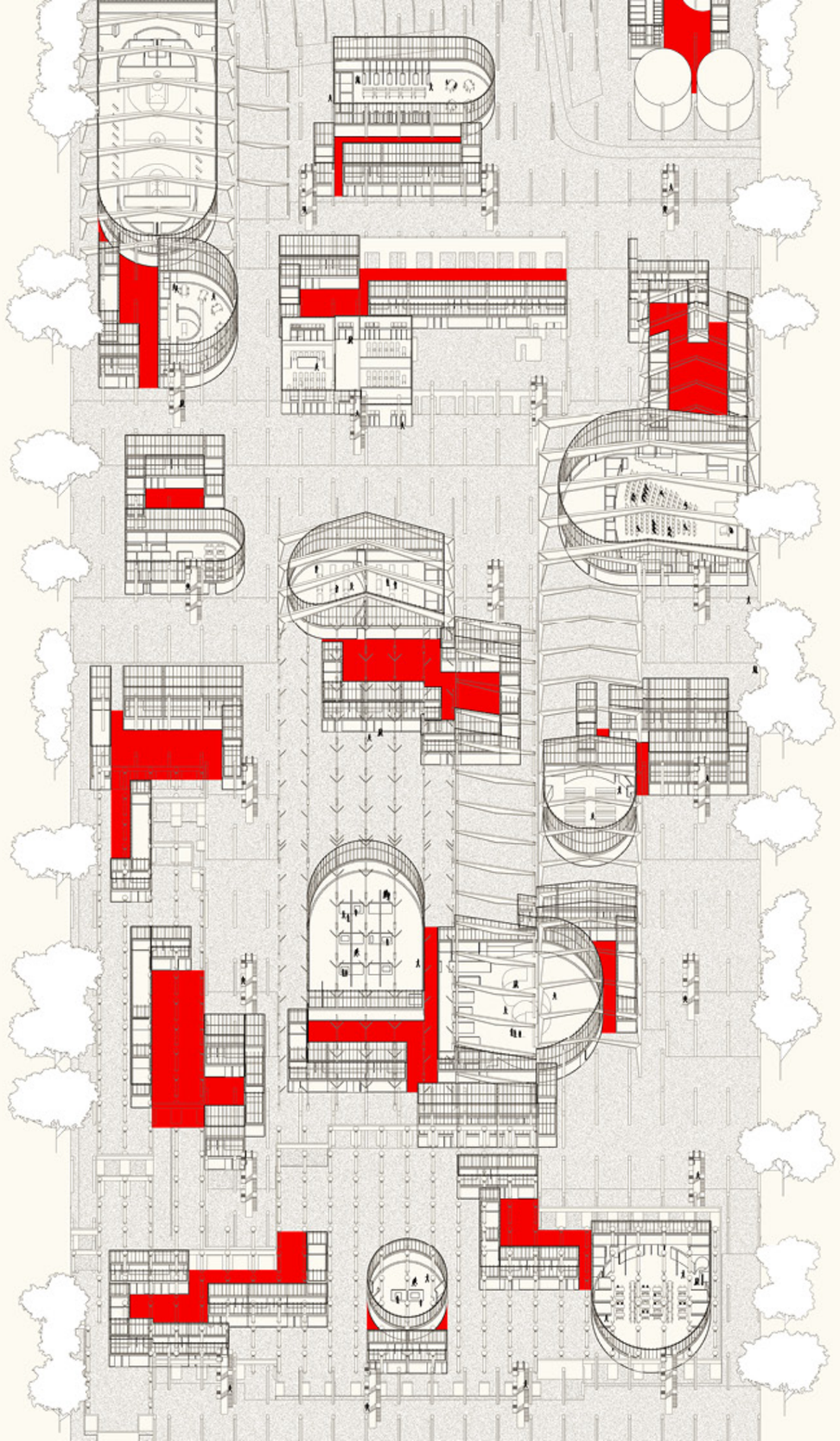
3 BEDROOM UNIT
1668 sqf



At the beginning of the studio, we were given detour cards to drift our thoughts away from the brief. We got an image of Ettore Sottsas Pattern Studies from the 1960s with a composition of abstracted geometric shapes. This made us think of No Stop City drawings where, as Andrea Branzi says:

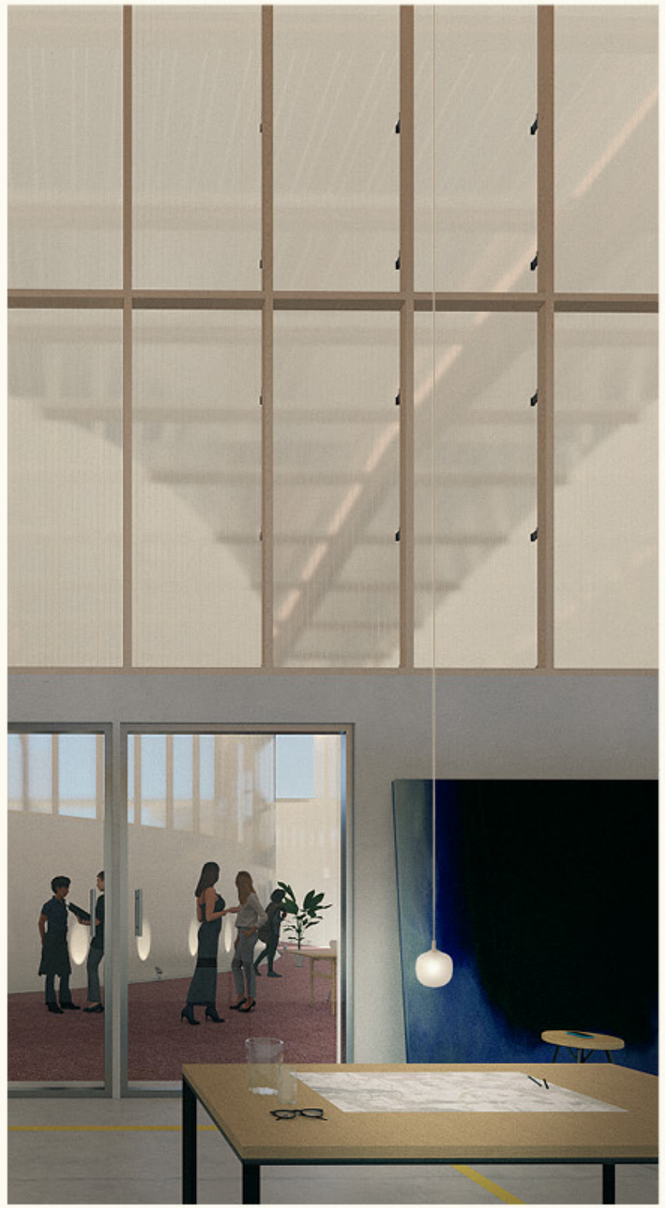
"Architecture becomes an open structure that seeks to guarantee the greatest possible degrees of freedom for the user, within a figuration that is as rigid as possible."

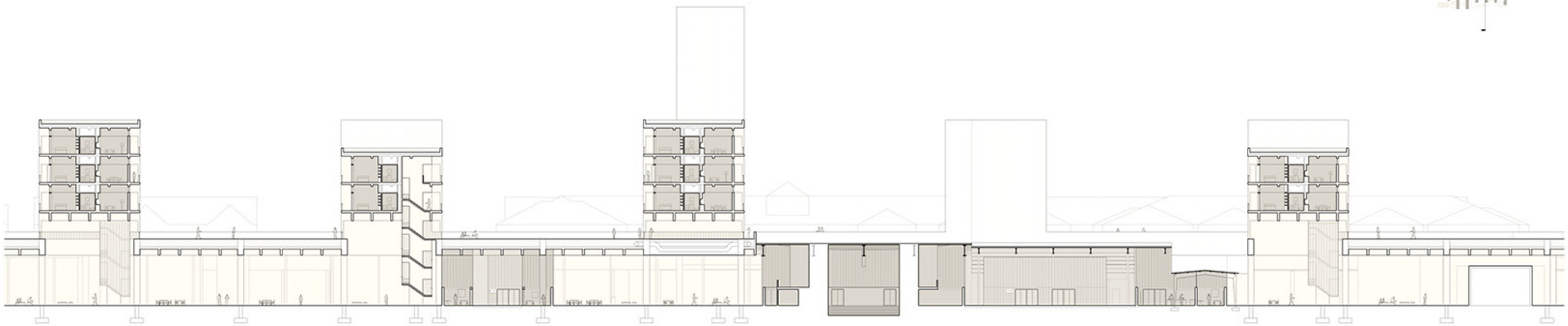
We believe that the design for an art incubator should embrace this type of ideology where the artists can work among a field of other disciplines that they can explore freely. Therefore, our master plan builds upon these precedents of non hierarchical compositions.



By breaking down the industrial scale into a field of smaller masses under the continuous roof, the open ground floor provide multiple routes for artists and residents to explore like in a city.

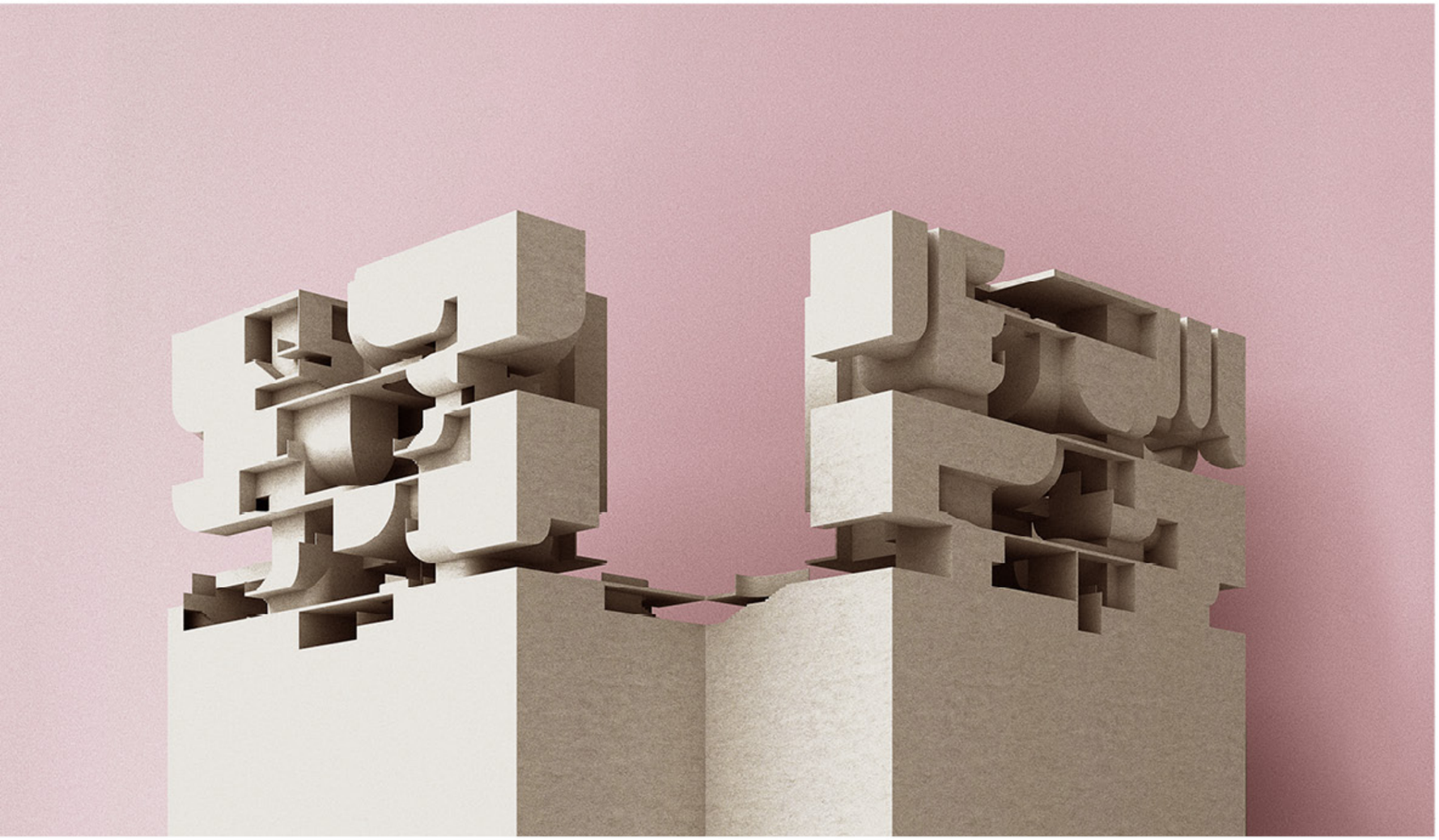
Large programs are arranged next to the workshops, bringing about a more intimate shared space we identified as backyard. The oblique drawing to the left highlights the shared backyards that can be used in different ways according to the programs on each perimeter. For example when there is a gallery next to workshops, the backyard can be used for an exhibition opening for artists and visitors. (Image to the right)





When covering the site with the new roof, we have to think of a way to bring in light. Inspired by the existing clerestory of the drive-thru building, we extend this way of getting light throughout the whole site.

We chose mass timber structure for the new to contrast the existing steel and to bring warmth to the experience. We cladd the housing stripes with corrugated metal that echos the existing condition. The floor underneath housing is paved with terrazzo to inform the housing entrance. The programs on the ground floor are enclosed by polycarb on wood frame, with 9ft tall opaque wall. The floor of the backyards are paved with gravel to give a sense of a covered outdoor space.

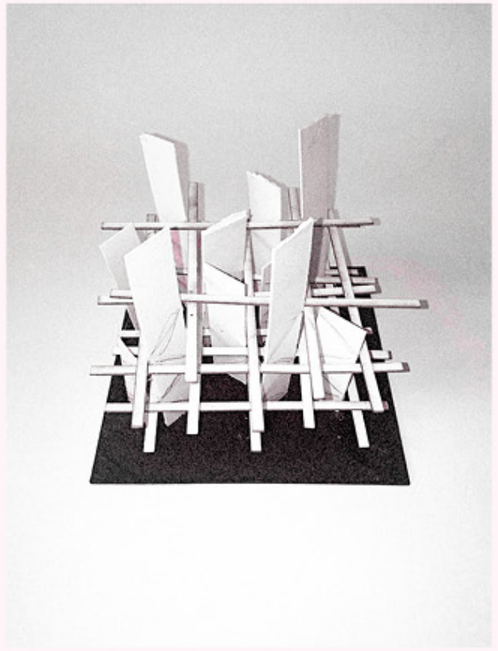


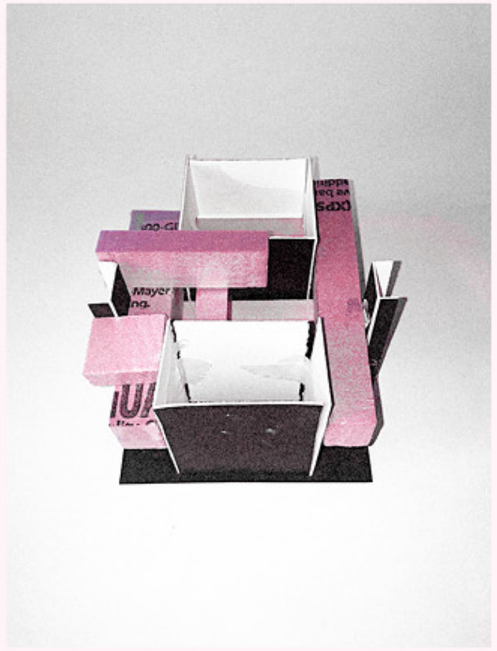
School Renovation
Spring 2020
Individual Work

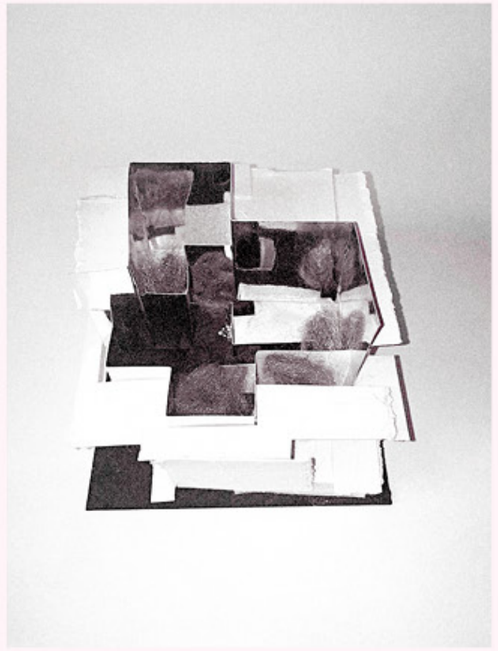
PUBLIC SCHOOL 64

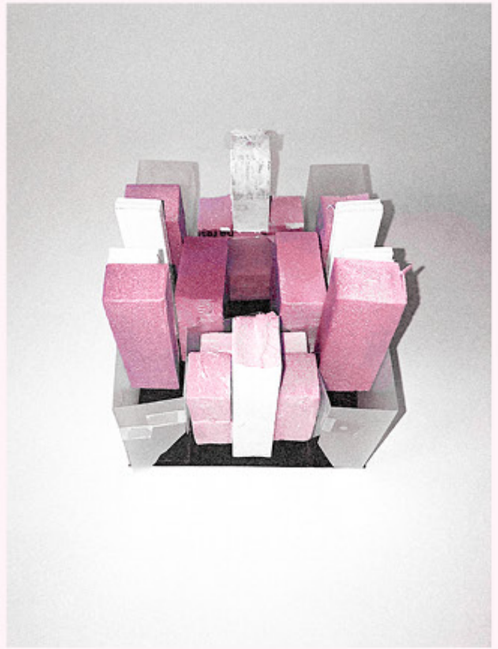
Rather than inhabiting the existing structure with solitary programs, the new PS 64 interprets the old as an envelope and intertwines a series of interconnected void spaces as a new learning structure. It provides a counterpart to the enclosed educational rooms in the form of 'weaving playscape'.

The intervention includes building scale thresholds as well as corridors conjoining the internal classrooms and urban scale thresholds facing the external open space. It connects 9th and 10th street with welcoming urban programs accessible to the community. While enclosed rooms are still characterized by the orthogonal shape and rough texture of the old masonry structure, the new play-sequence provides interactive interfaces with curve shape. The new structure connects communal programs and flexible play spaces with circulation in itself, thus offering a meandering experience of learning from surprise and uncertainty.

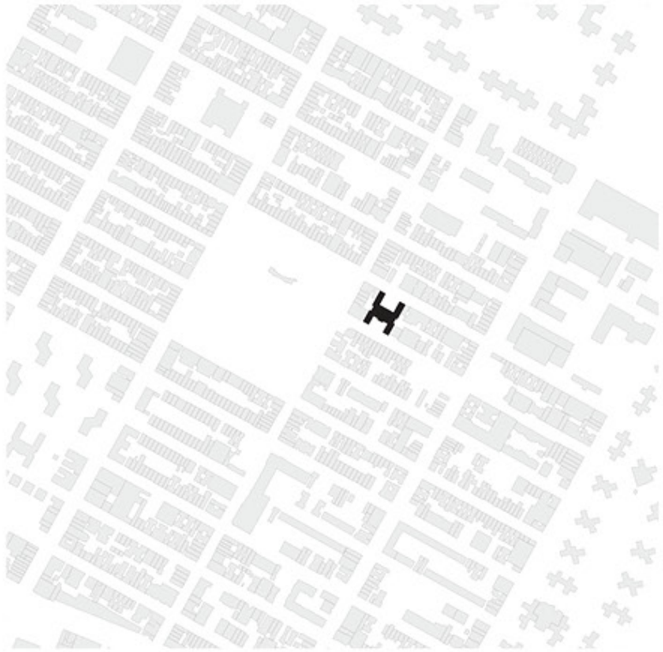




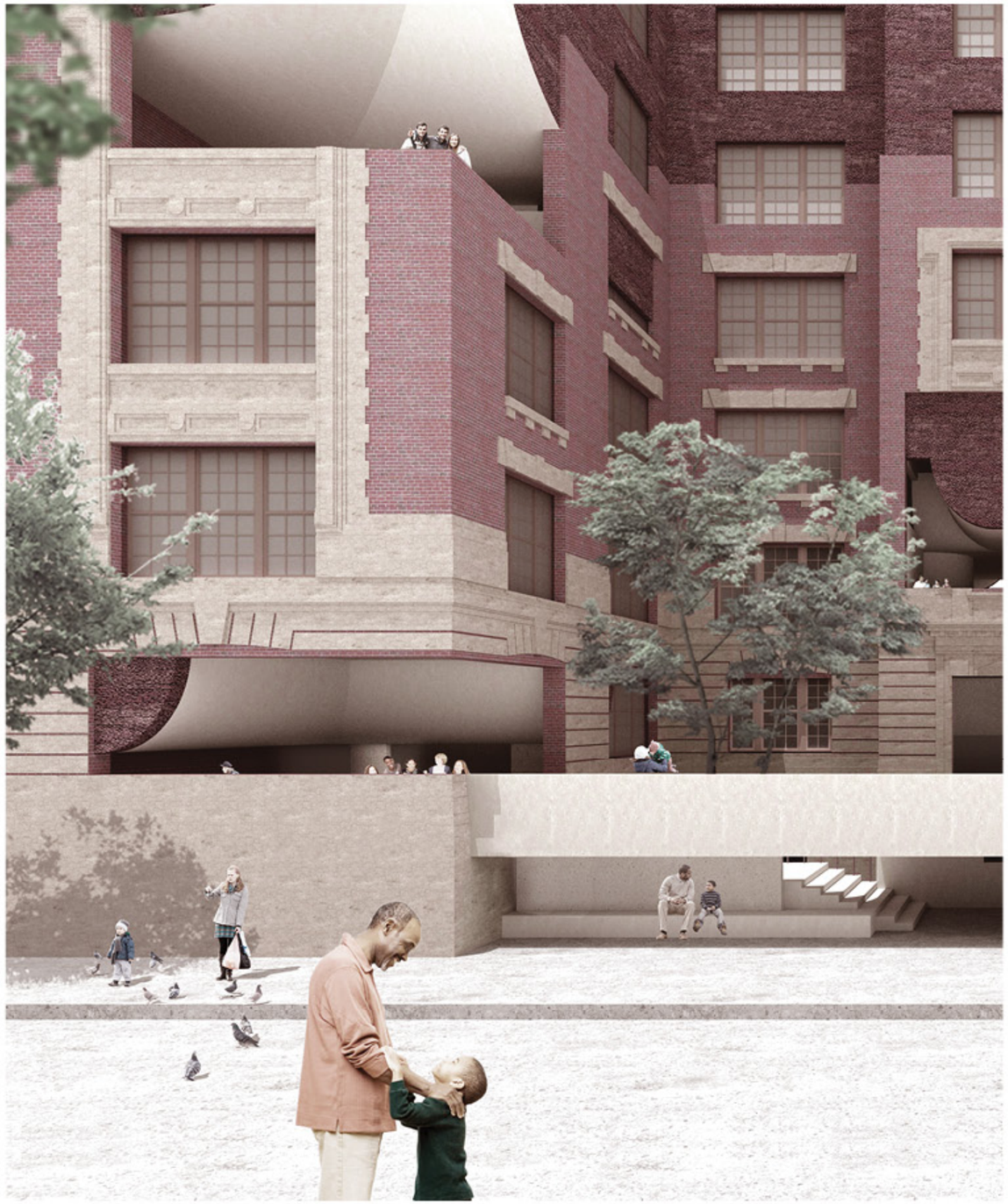




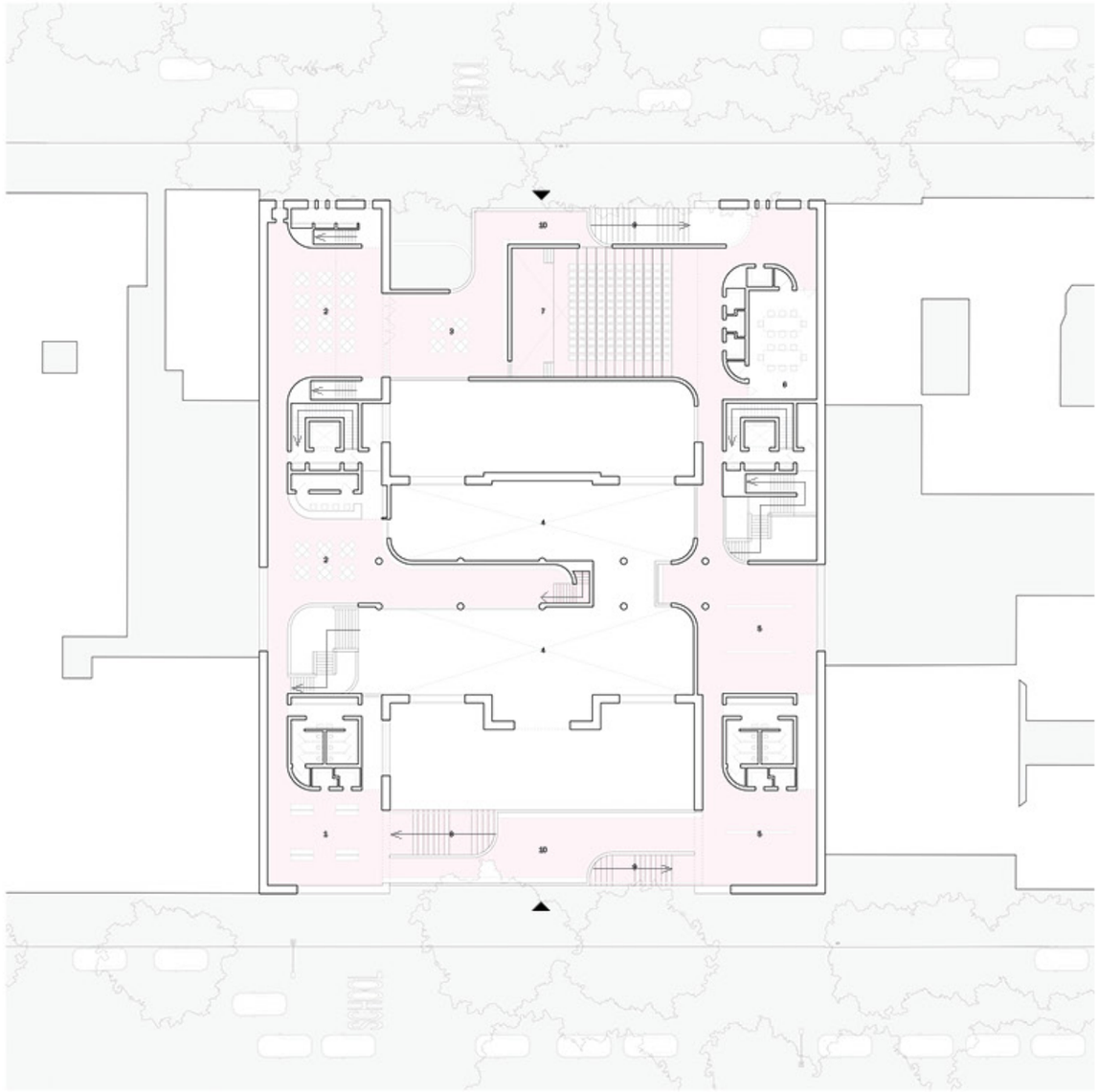
Inspired by Froebel's curriculum of using physical materials to explore three dimensional space. a series of abstract models are made to explore potential volumetric relationships: part-to-part, part-to-whole, part-to-outside, whole-to-outside.



The existing PS64 building has double height space with delicate cast iron columns. The proposal try to dance upon these elements and explore the potential of them. Started with prototypes that interweaves two sets of spatial systems, this project then futher differentiate the two weaving systems not only in spatial configuration but also in geometry that brings about contrasting spatial character.

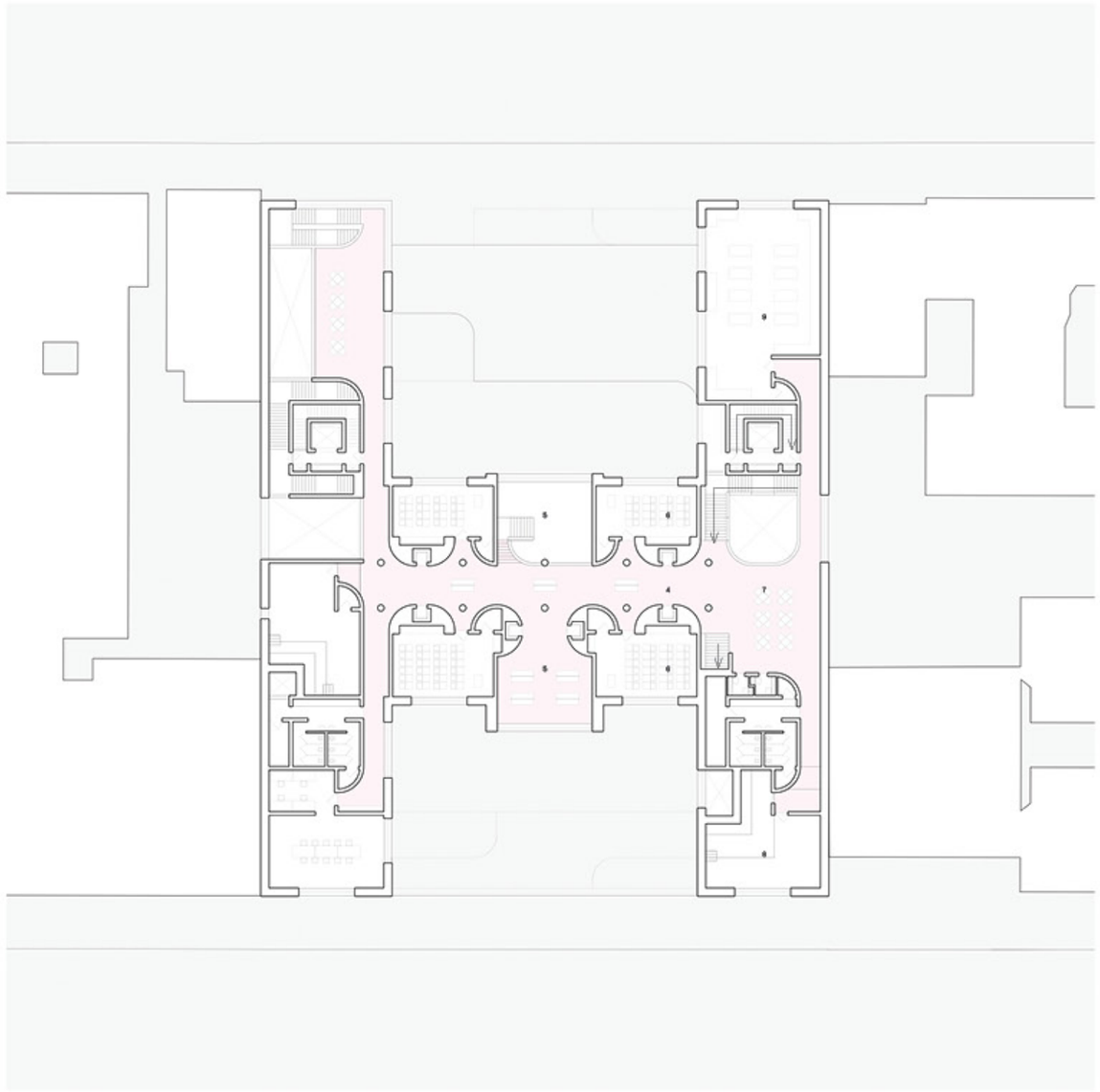


1 *entrance*
2 *atrium*
3 *dining hall*
4 *exit to playground*
5 *library*
6 *meeting room*
7 *semi-outdoor reading area*
8 *roof playground*
9 *flexible play space*



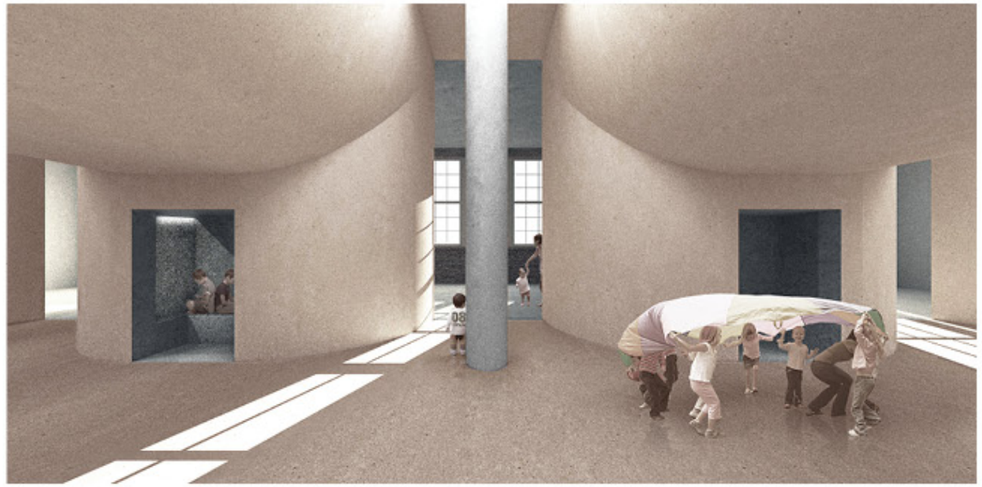
ENTRANCE LEVEL

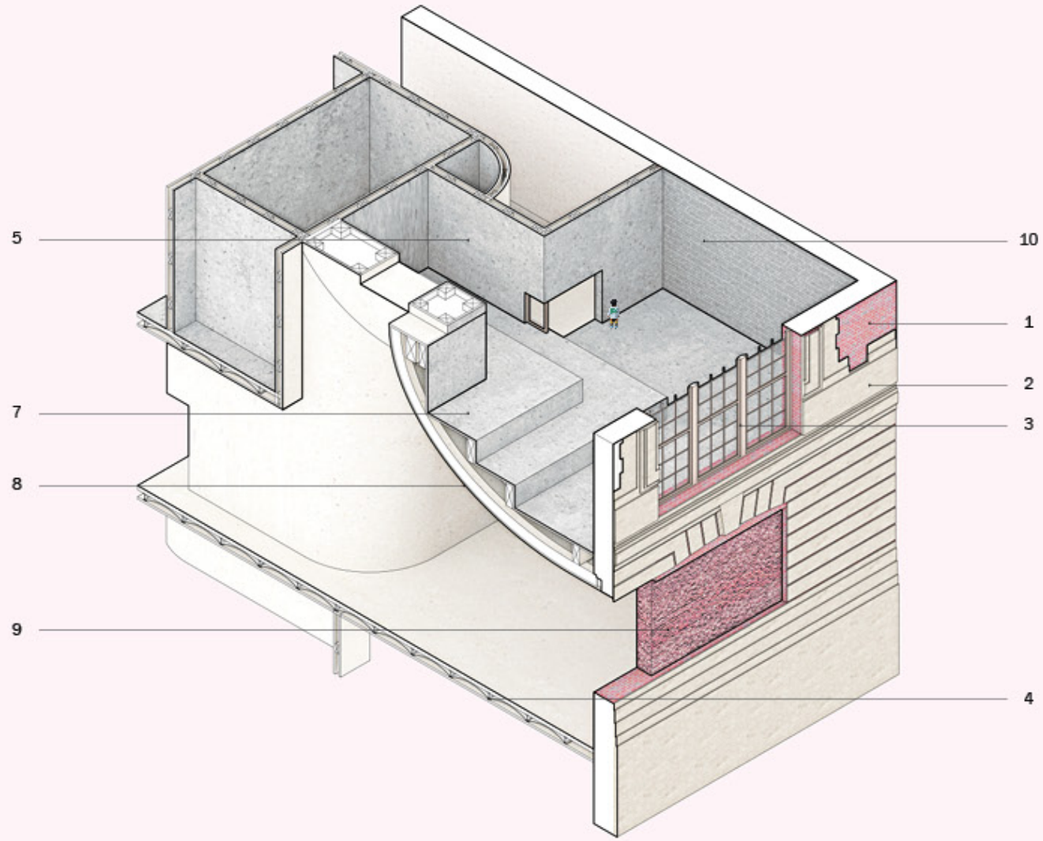
1 *reception*
2 *cafeteria*
3 *outdoor dining area*
4 *lower playground*
5 *gallery*
6 *community center*
7 *auditorium*
8 *school entry stairs*
9 *community entry stairs*
10 *outdoor terrace*



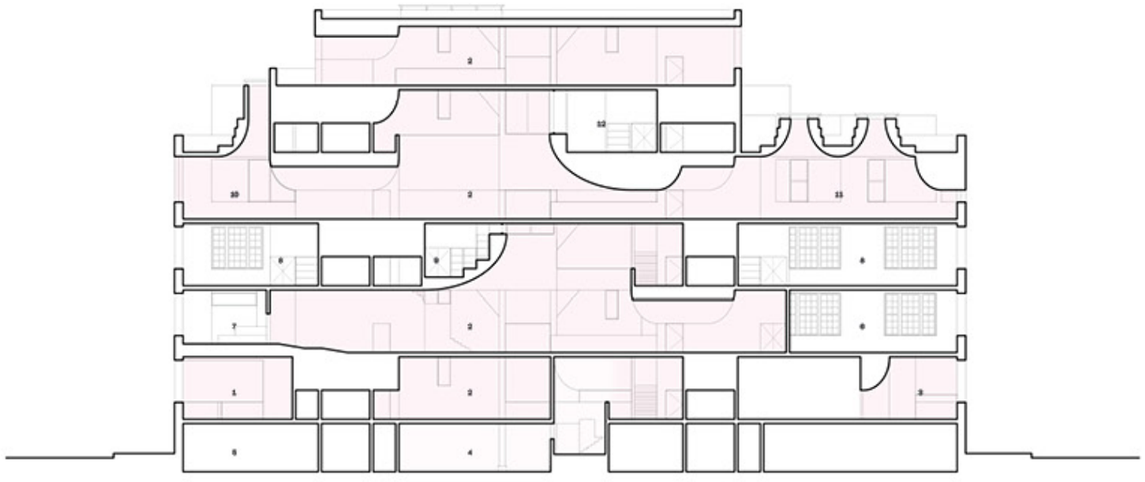
SECOND LEVEL

1 *dining area*
2 *medical station*
3 *office*
4 *learning street*
5 *flexible play space*
6 *classroom*
7 *atrium*
8 *meeting room*
9 *shop / maker space*

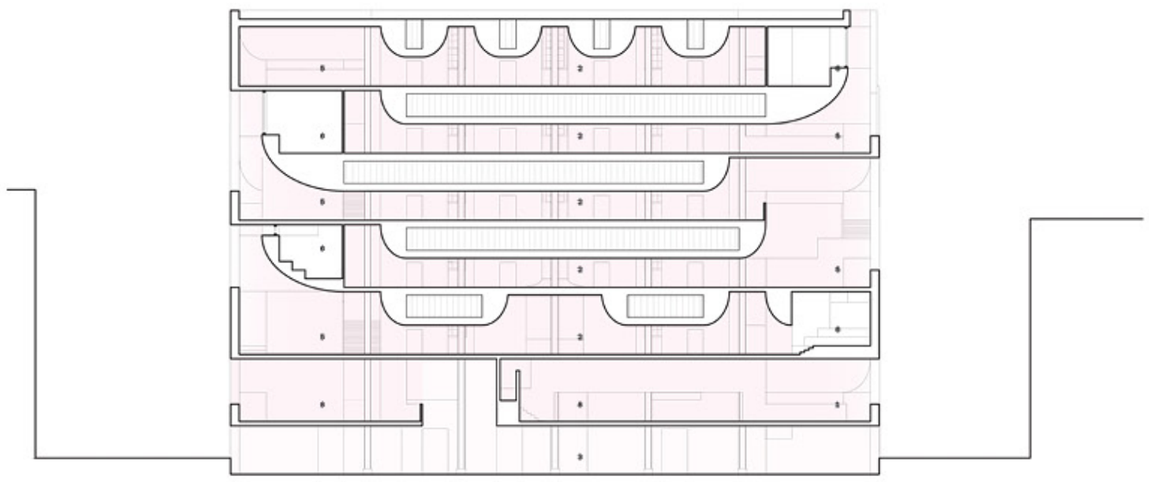




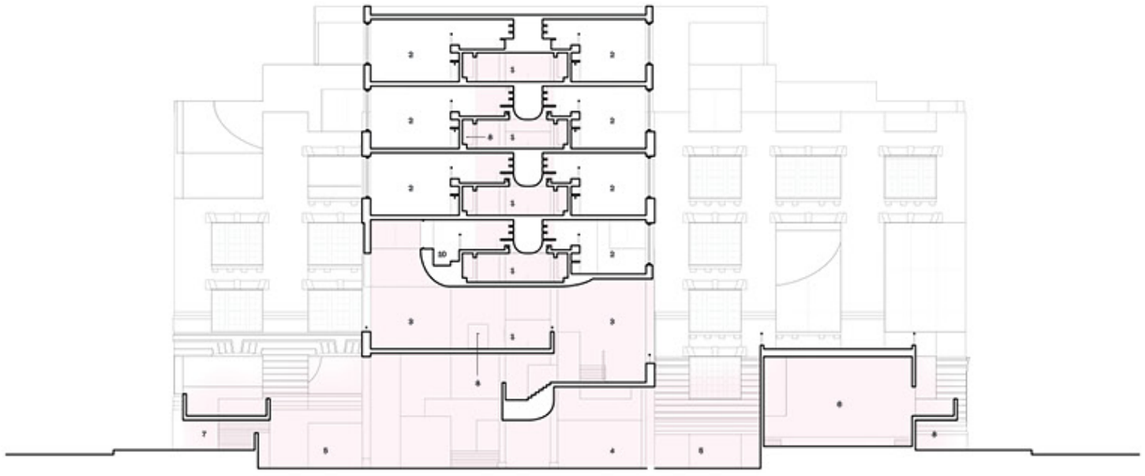
1 *existing masonry wall*
2 *stone ornamentation*
3 *existing window frame*
4 *existing floor plate*
5 *gypsum board*
6 *curved timber frame*
7 *concrete flooring tile*
8 *plaster finish*
9 *reused brick wall*
10 *painted brick wall*



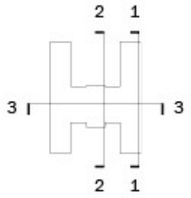
SECTION 1-1



SECTION 3-3



SECTION 2-2



SECTION 1-1

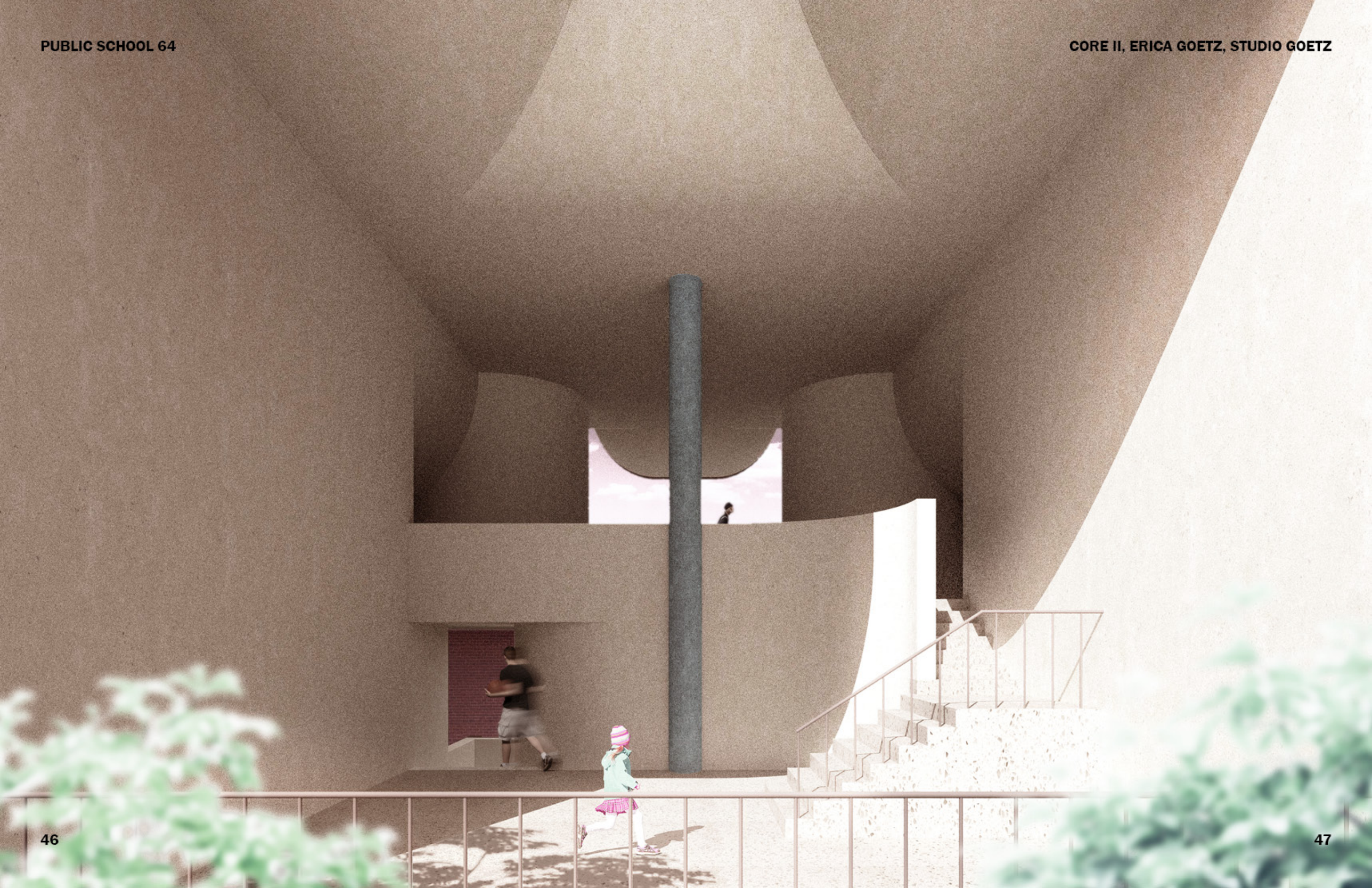
1 *gallery*
2 *atrium / corridor*
3 *auditorium entrance*
4 *playground*
5 *kitchen*
6 *shop / maker space*
7 *meeting room*
8 *laboratory*
9 *refuse recycle room*
10 *music studio*
11 *art studio*
12 *meditation room*

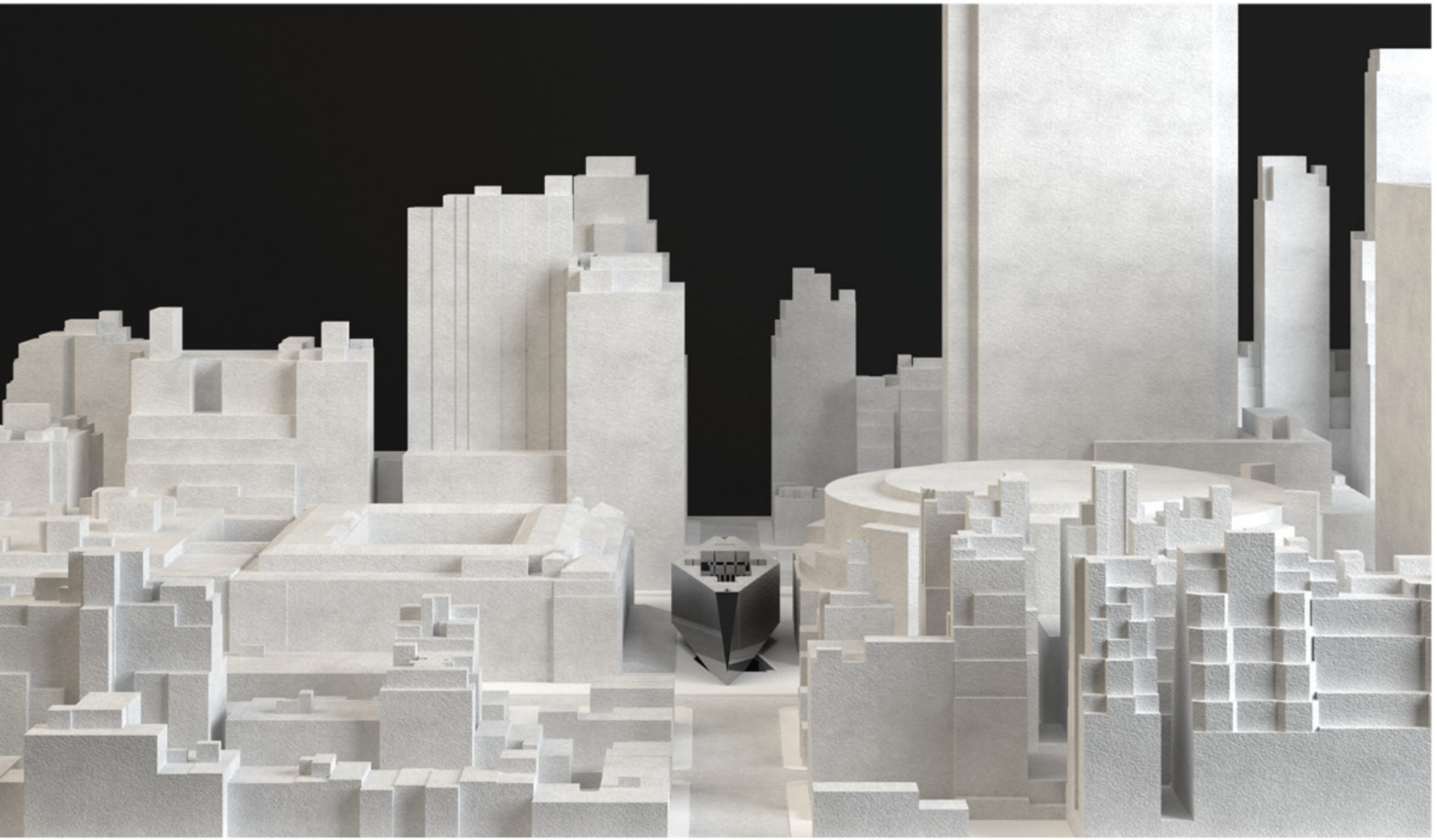
SECTION 2-2

1 *learning street*
2 *classroom*
3 *flexible play space*
4 *playground*
5 *courtyard*
6 *auditorium*
7 *entrance*
8 *breakout space*

SECTION 3-3

1 *cafeteria*
2 *learning street*
3 *playground*
4 *medical station*
5 *flexible play space*
6 *meeting room*
7 *flexible classroom*
8 *gallery*





Material Research + Civic Space Design
Fall 2021
Individual Work

PENN STATION EXTENSION

In order to establish new connections in the decentralized chaotic context, and to produce a new face of Penn station with which people can remember it, this project first utilizes the reflectivity of the polished black granite at an urban scale. The extension is a free standing, diamond looking object landed on the site. While maintaining the permeability of the site, it reflects and collects images from the surroundings and visually stitches the elements together, especially juxtaposing the Madison Square Garden and the Moynihan Hall, which respectively represent different eras and identities.

Inside the extension, this project tries to bring back the missing part of Penn Station after the demolition, in the form of an outdoor water garden. It acknowledges the part of Penn station as a machine of fast movement, and add back the part of Penn Station as civic space which is the opposite of efficiency. It created another reality, that allows a moment of repose, encounter or contemplation. It also contrast Madison Square Garden being not a garden.

In this studio I am given the task to choose and investigate one type of granite and bring it into the proposal for Penn Station extension.

This project is triggered by the investigation of the Miles Davis black granite tombstone in Woodlawn Cemetery in Bronx. It is fascinating to see the polished surface being so reflective that the etching on it can convey information without adding extra color. The contrast between rough and polished surface of the black granite is further explored and utilize in the Penn Station Extension.

Most of the black granite tombstone here in New York comes from quarries in Shanxi China. Black granite was drilled, splitted, cutted, moved to the factory, then polished, etched, packed, and then shipped to the US, which normally takes 35-40days. The most dense quality Chinese black granite is known as Shanxi Black. It is quarried at Datong with production of 10K cu.m. per year worked between February and October to avoid the severe climate at the 2000m elevation. It is then shipped to various destinations across the globe.

Although black granite is popular in the use of countertops and other building capacities, it has traditionally been used for tombstones and other monumental items. Due to its durability and striking natural beauty, nowadays this material has also been used in many monuments, including Vietnam Memorials in Washington, Astronaut Memorial at the Kennedy Space Centre in Florida and Atom Bomb Victims Memorial in Hiroshima. These monuments utilize either the reflection of the polished surface to merge themselves into the natural surroundings, or the rough surface as dark and durable floor for moments of repose.

01 DRILLING
1 GRANITE QUARRY CRAWLER DRILL MACHINE
1 WORKER

02 SPLITTING
1 EXCAVATOR
2-3 WORKERS

03 CUTTING
1 AUTOMATIC GRANITE QUARRY SAW MACHINE
2 WORKERS

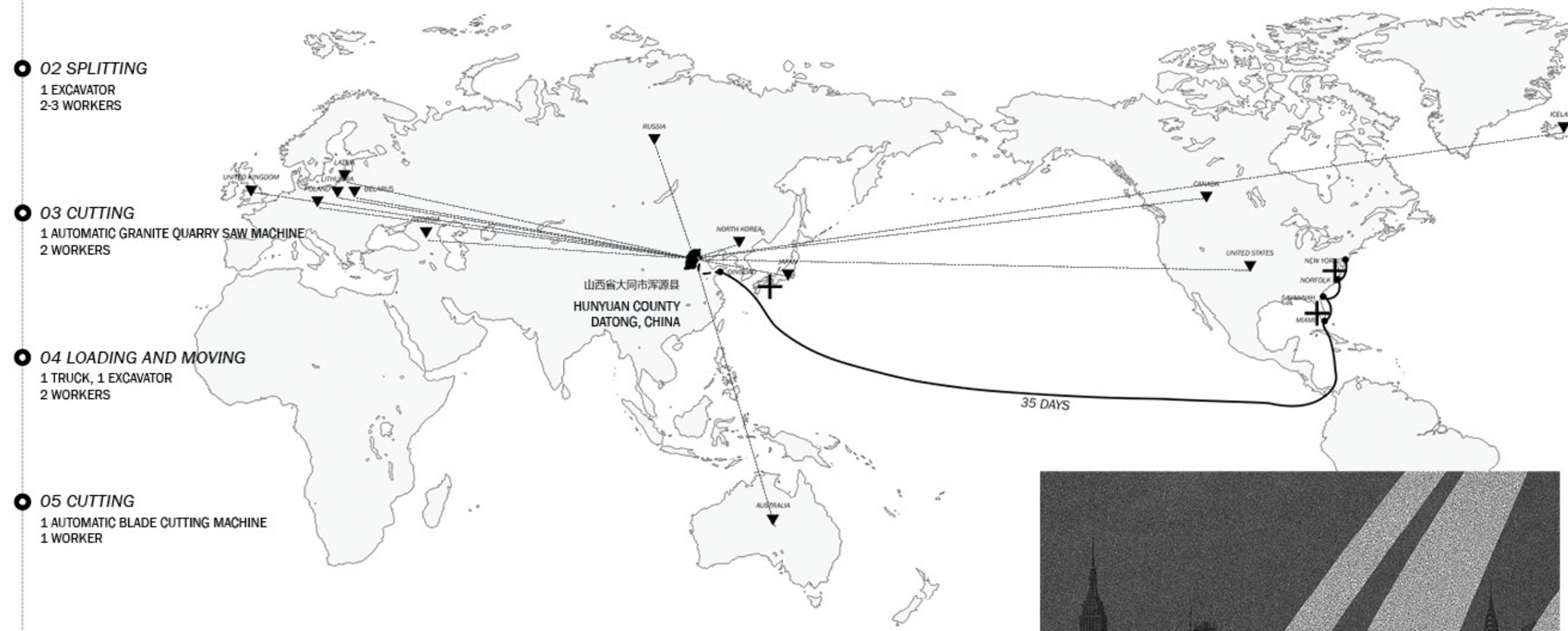
04 LOADING AND MOVING
1 TRUCK, 1 EXCAVATOR
2 WORKERS

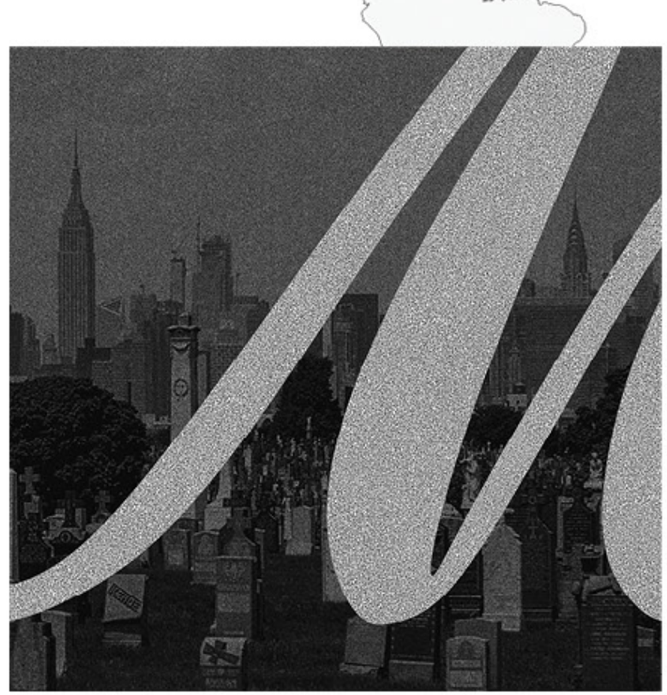
05 CUTTING
1 AUTOMATIC BLADE CUTTING MACHINE
1 WORKER

06 ETCHING AND POLISHING
1 POLISHING MACHINE
1 WORKER

07 PACKING
2 WORKERS

08 LOADING AND SHIPPING
1 TRUCK, 1 FRONTLOADER
2 WORKERS





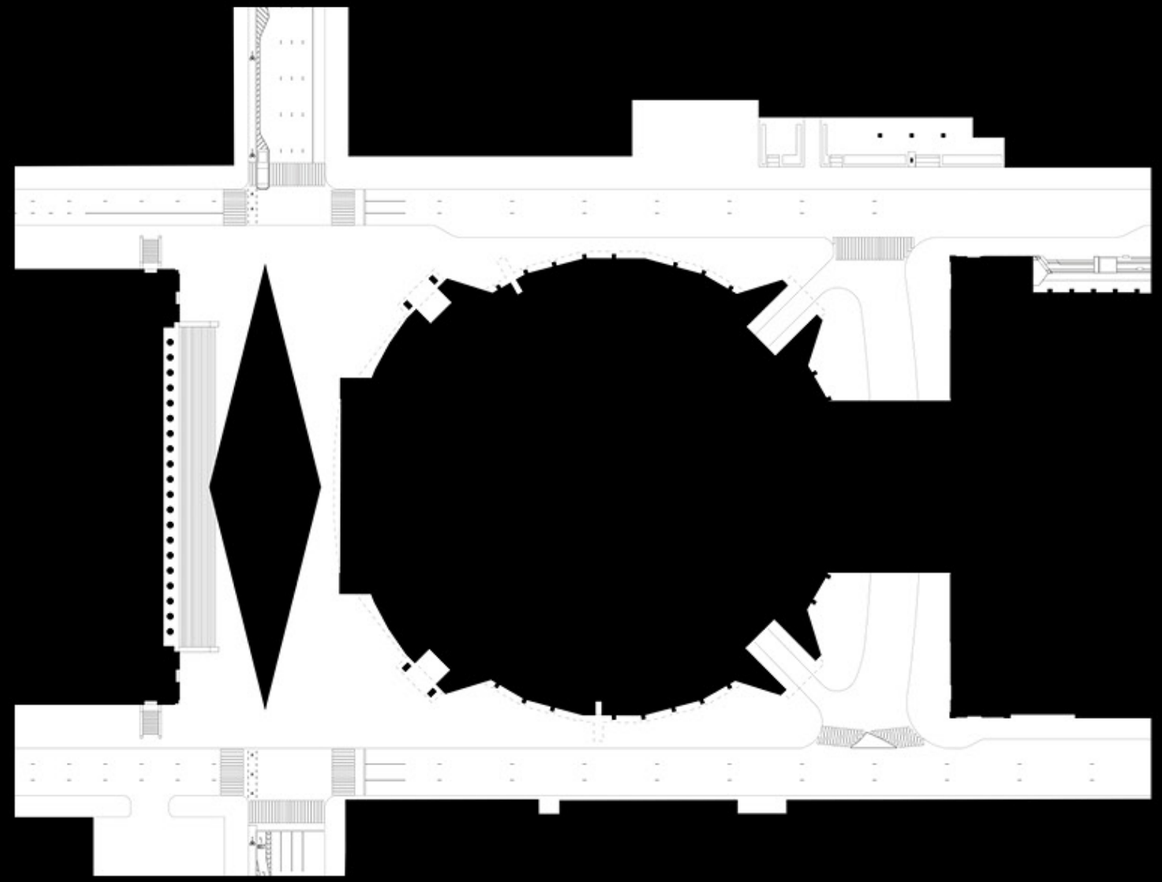
The main waiting room of old Penn Station., 1911

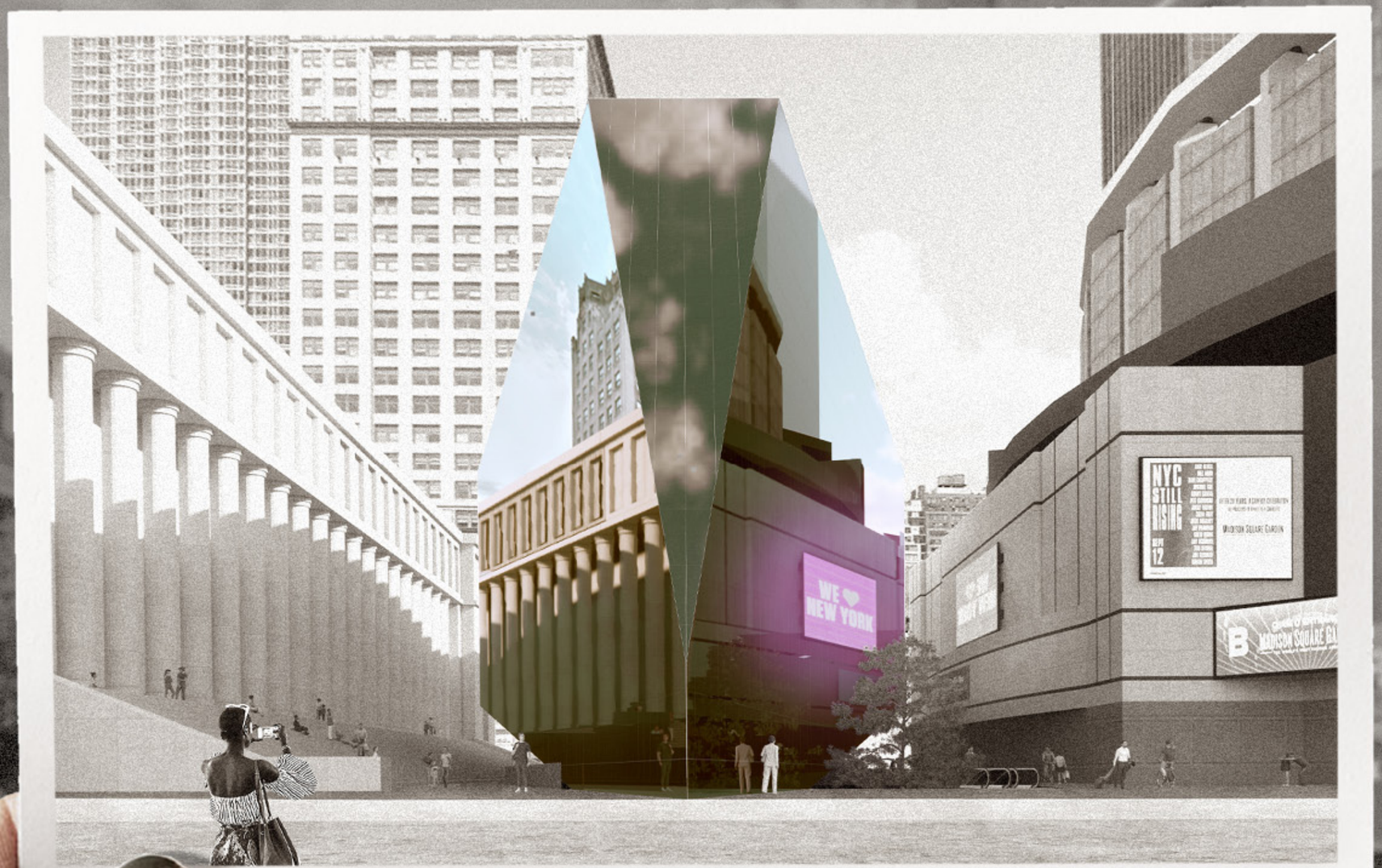
The demolition of Penn Station, 1964-1965

The old Penn station used to be an urban living room, where people gathers. Whereas, in 1964, Penn Station went through the demolition, with Madison Square Garden landing right on top of the train level. The main waiting room with which people remember Penn Station, then no longer exist. The current station is purely driven by efficiency of movement, without any extra place to stay.

I start to think about how black granite - a very monumental, memorial, everlasting material, would situate itself within the temporary, fast changing, chaotic context at the existing Penn Station.

In order to establish new connections in the decentralized chaotic context, and to produce a new face of Penn station with which people can remember it, this project first utilizes the reflectivity of the polished black granite at an urban scale. As shown in the figure ground drawing, the extension is a free standing, diamond looking object landed on the site. While maintaining the permeability of the site, it reflects and speaks to the context with its angled surfaces. It collects images from the surroundings and visually stitches the elements together, especially juxtaposing the MSG and the Moynihan Hall, which respectively represent different eras and identities.

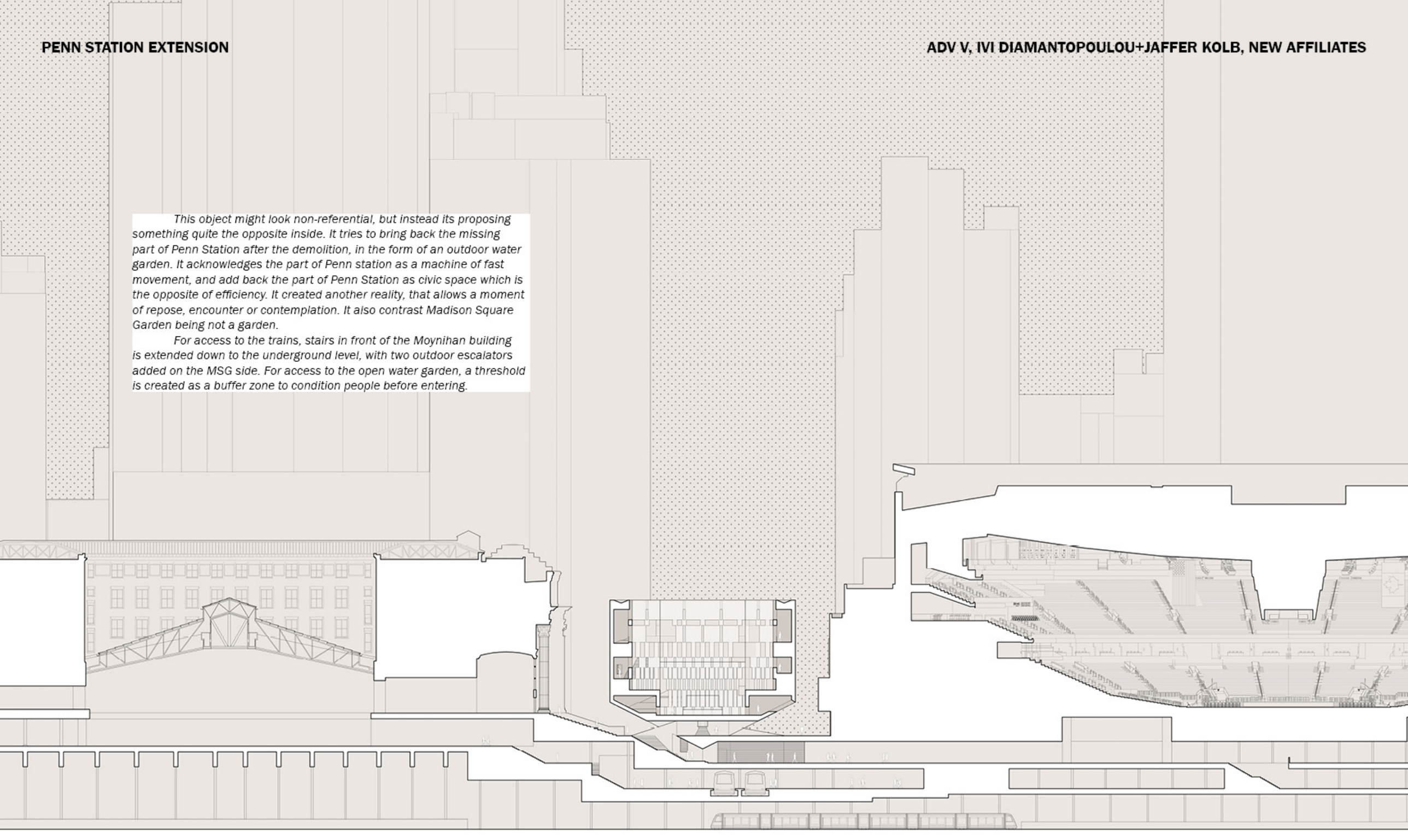


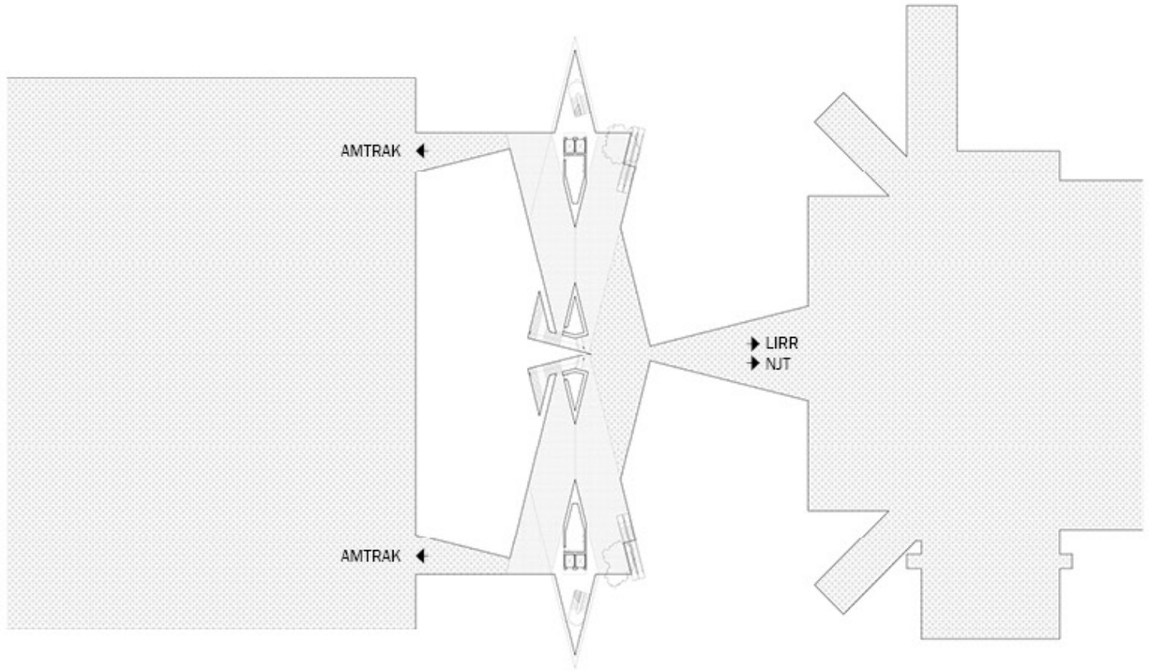


PENN STATION, NEW YORK, 2038

This object might look non-referential, but instead its proposing something quite the opposite inside. It tries to bring back the missing part of Penn Station after the demolition, in the form of an outdoor water garden. It acknowledges the part of Penn station as a machine of fast movement, and add back the part of Penn Station as civic space which is the opposite of efficiency. It created another reality, that allows a moment of repose, encounter or contemplation. It also contrast Madison Square Garden being not a garden.

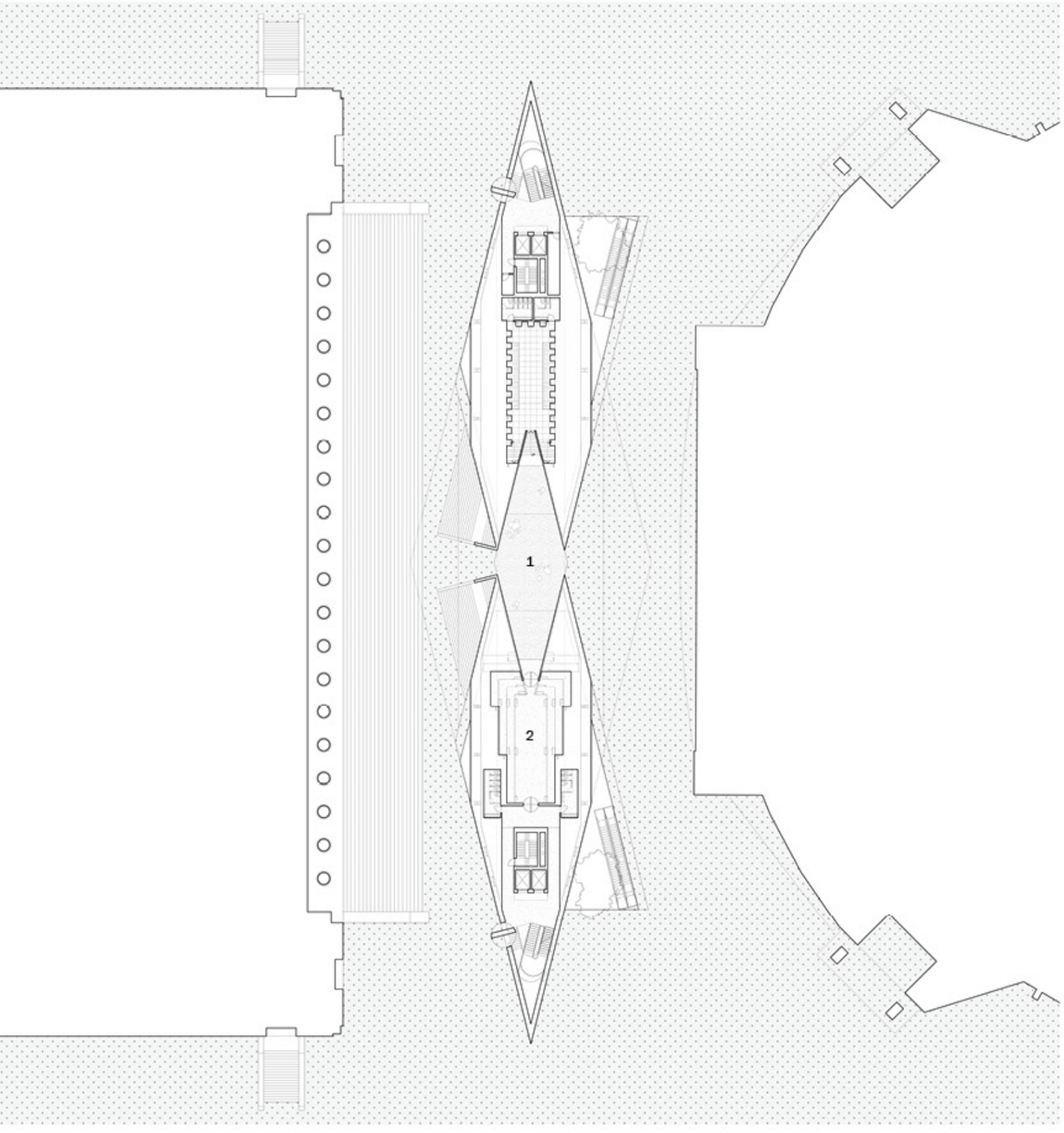
For access to the trains, stairs in front of the Moynihan building is extended down to the underground level, with two outdoor escalators added on the MSG side. For access to the open water garden, a threshold is created as a buffer zone to condition people before entering.





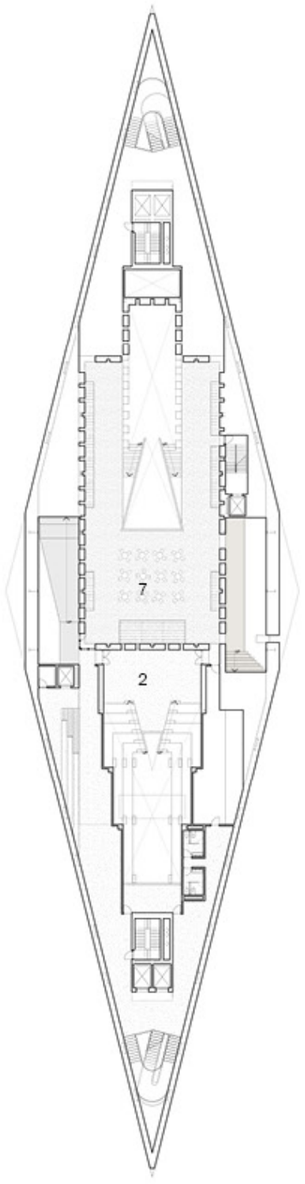
UNDERGROUND LEVEL

Apart from visually tying things together, the extension also shelters the new open shortcut to enter the station. With its angled reflective surfaces, it creates visual and circulational connections across levels, drawing people's attention to this new entry way.

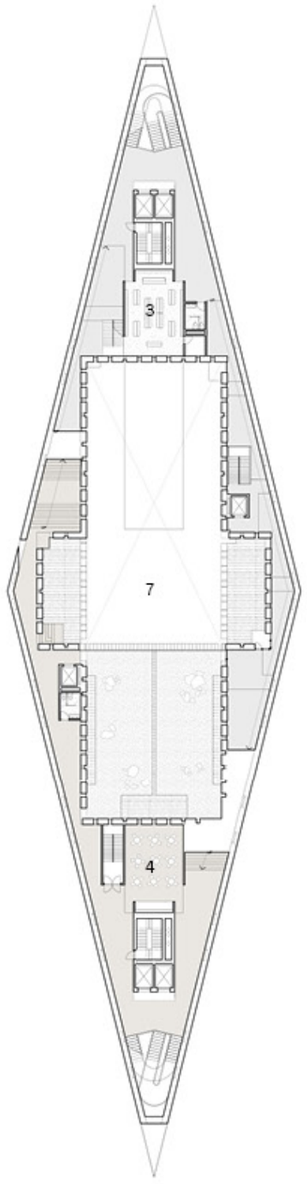


1. entry threshold
2. auditorium
3. gift shop
4. outdoor gathering
5. meditation space
6. tea room
7. water garden

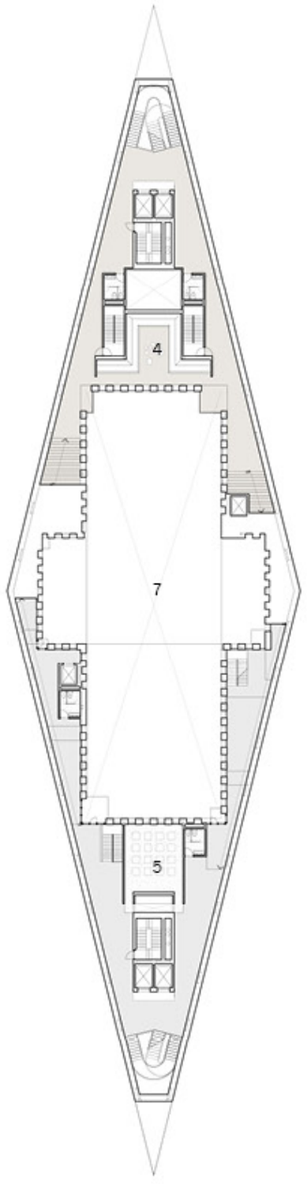
1. entry threshold
2. auditorium
3. gift shop
4. outdoor gathering
5. meditation space
6. tea room
7. water garden



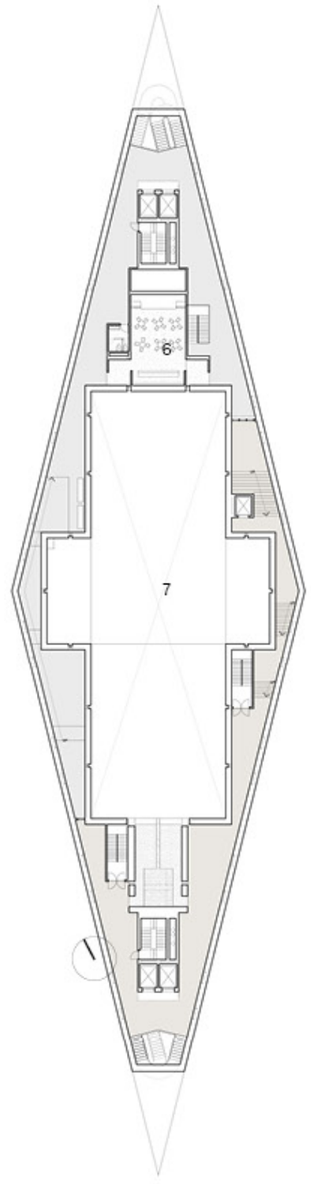
INTERIM LEVEL



3RD LEVEL

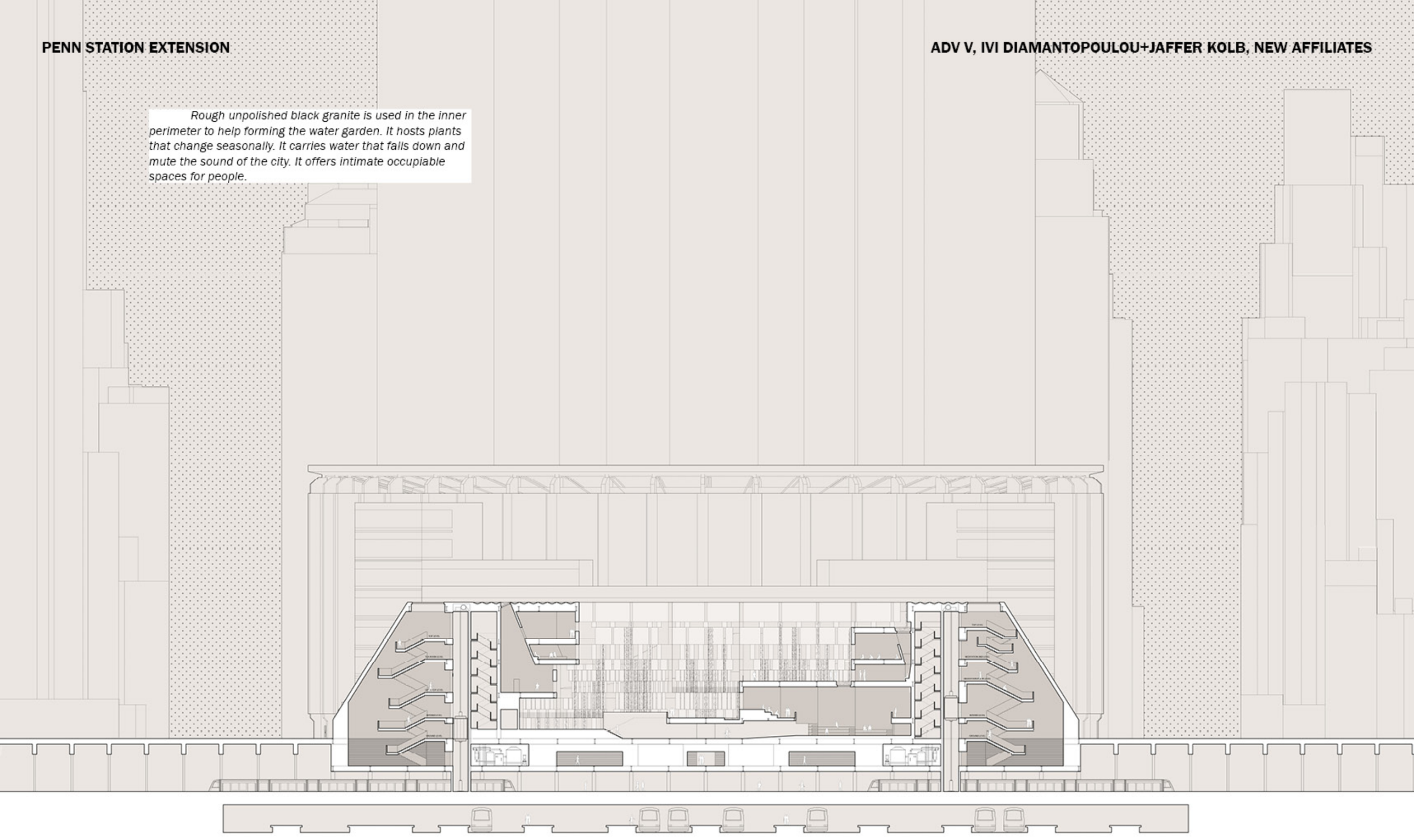


4TH LEVEL

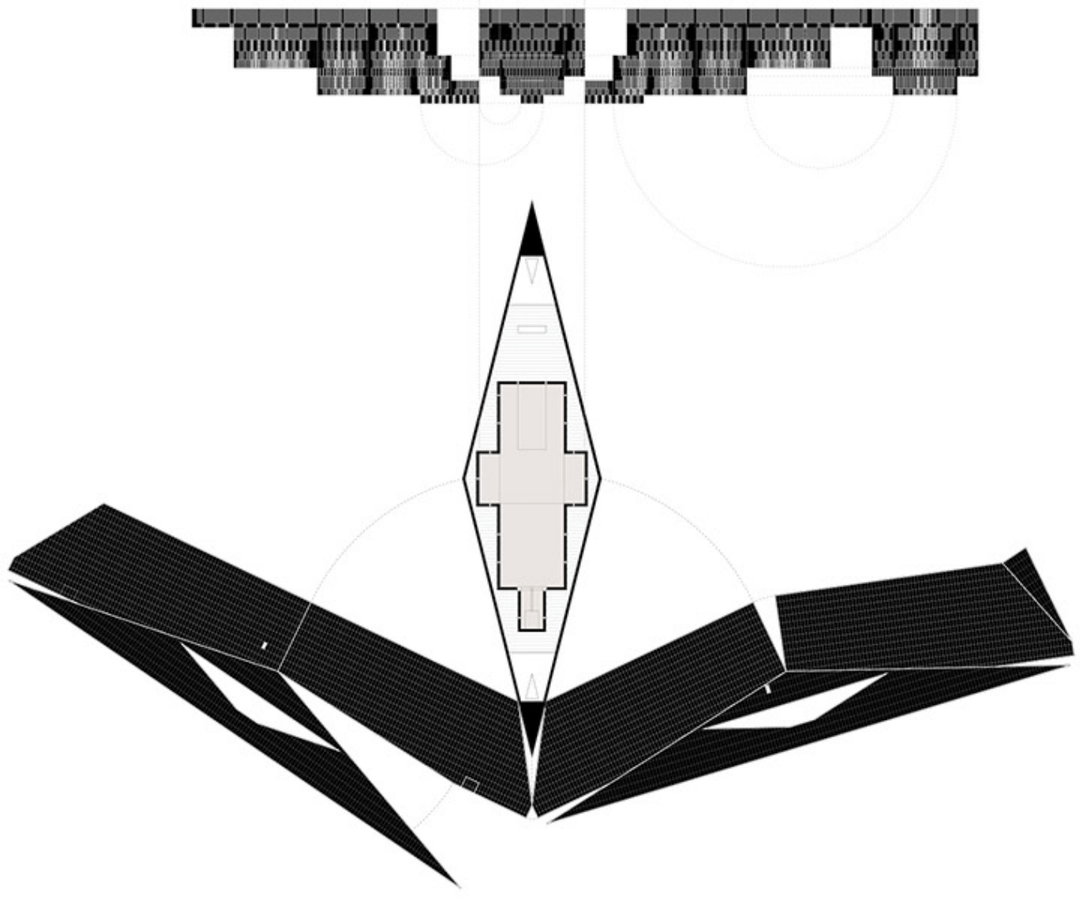


5TH LEVEL

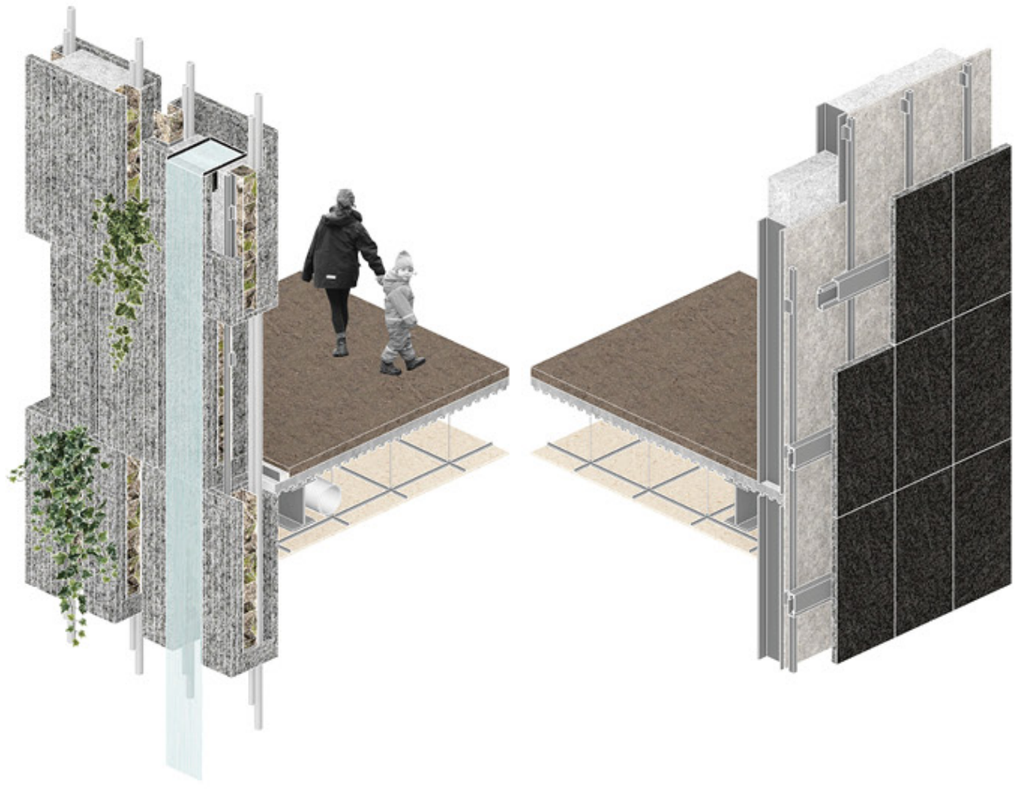
Rough unpolished black granite is used in the inner perimeter to help forming the water garden. It hosts plants that change seasonally. It carries water that falls down and mute the sound of the city. It offers intimate occupiable spaces for people.



UNROLL ELEVATION OF INNER PERIMETER WITH UNPOLISHED BLACK GRANITE

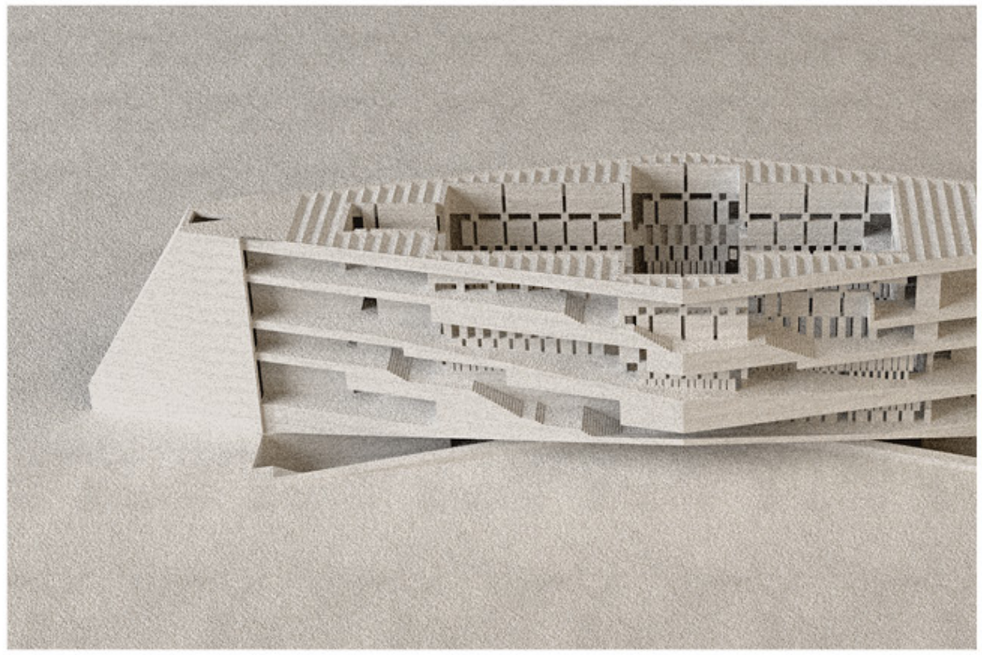


UNROLL ELEVATION OF OUTTER PERIMETER WITH POLISHED BLACK GRANITE

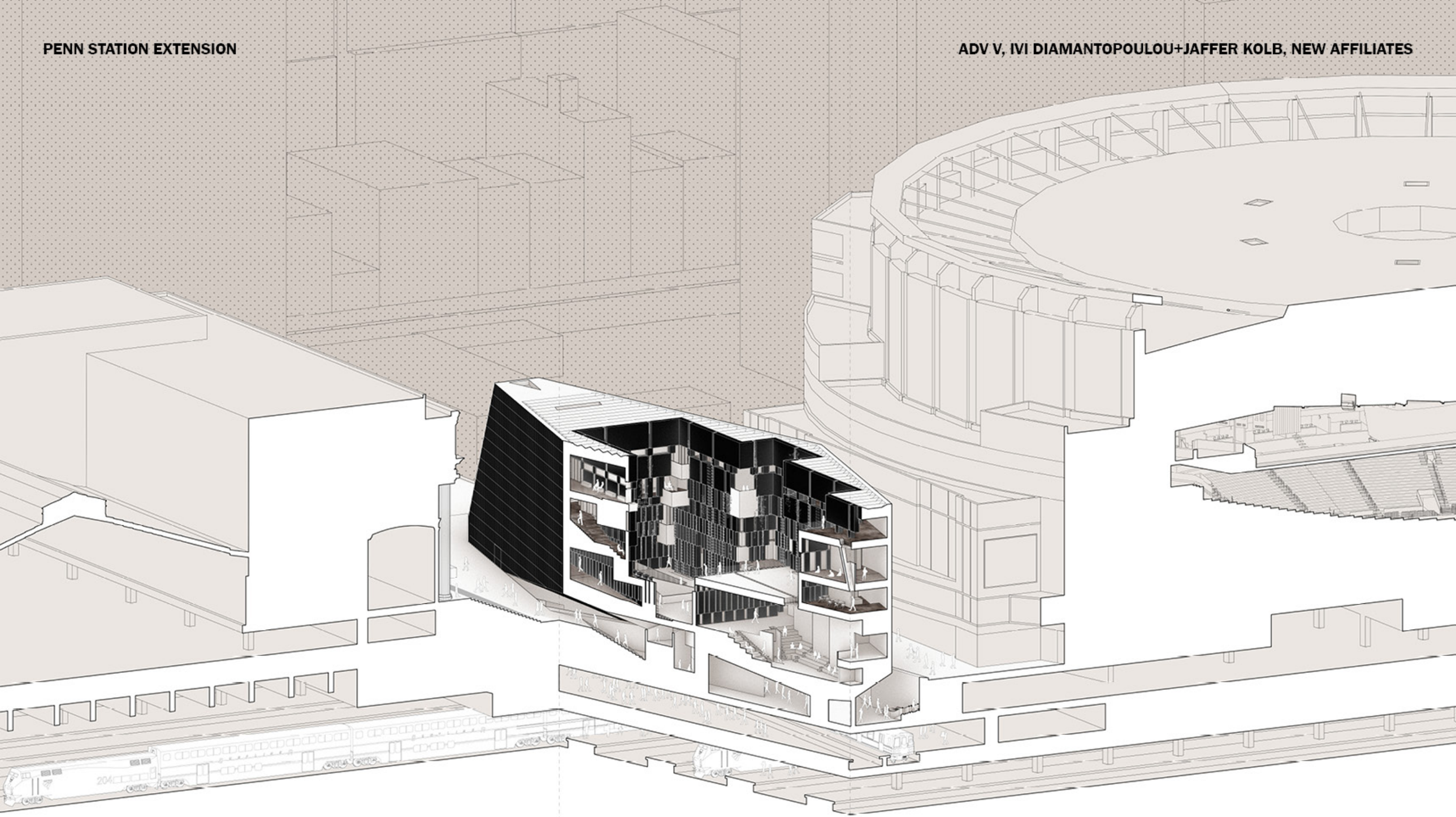


Two types of walls in the project uses black granite in two different way. One utilizes polished surface to speak to the surroundings. The other uses rough surface to construct a water garden.

In the specific context of Penn Station, black granite establish visual and circulational connections, and add back a civic space that has been missing after the demolition of the old Penn Station.



In between the inner perimeter and the outer perimeter, there are two intertwining circulations that connects all the indoor and outdoor programs including reading area, meditation hall, tea room and gift shop. The outdoor circulation is designed with stairs, while the indoor uses ADA accessible ramps, adaptable to be a gallery space.

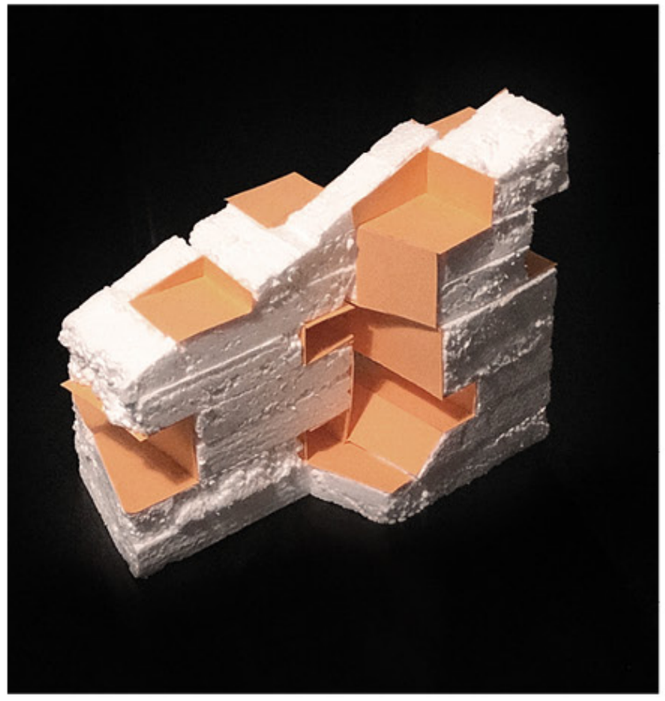


Fall 2020
Teammate: Jiafeng Li

HOUSING COMPLEX IN SOUTH BRONX

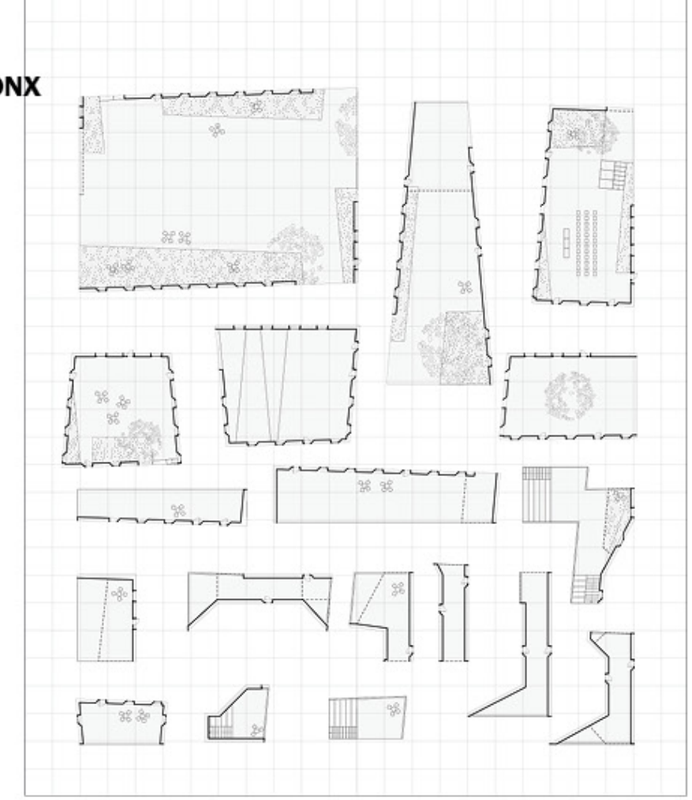
This project articulates 'room' across scale, from city to building, to unit, to architectural element, to furniture, to body.

Located in South Bronx, NY, with the need for internalized protected open space for child care in the neighborhood, this project unlocks the interstitial spaces on the site and give it back to the community. Through both carving in and aggregating out, the project seeks duality of difference versus consistence, diversity versus efficiency, variation versus repetition.



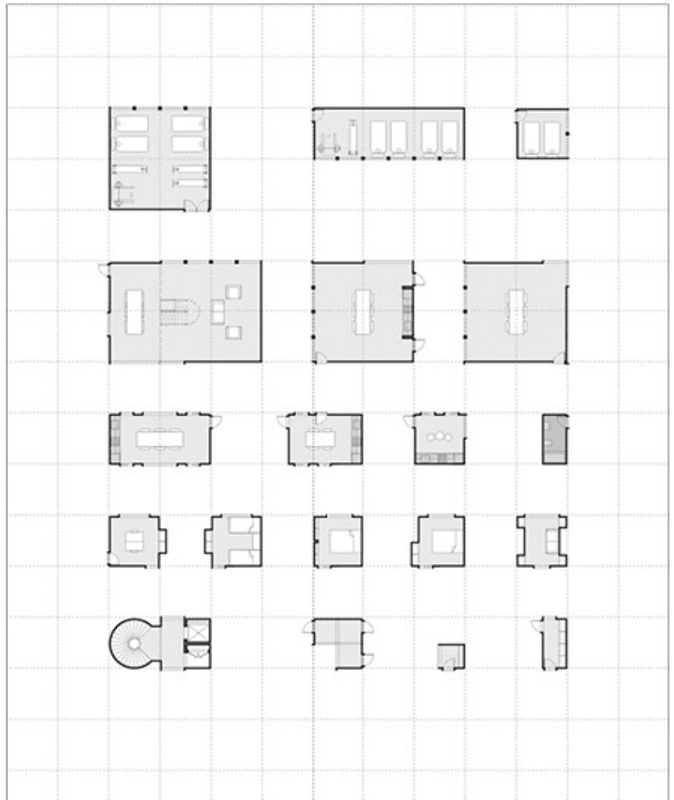
Located in South Bronx, this housing project is surrounded by P.S. 001 Courtlandt School, X381 Bronx Haven High School and other children daycare centers. From the site visit we learn that there is a urgent need for internalized open space for children's daycare and after school activities. We identify the void spaces inside the residential blocks as enclosed open space, which can potentially be transformed into spaces for children. Therefore, our first approach is to carve out interconnected urban rooms at different scales. In doing so, we unlock the interstitial space of our site and give it back to the community.

10ft

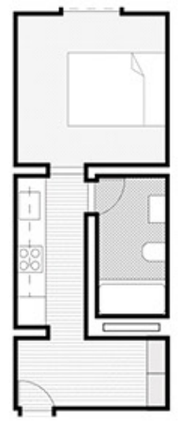


Through carving in, series of urban scale rooms are created to accommondate various need for outdoor space, from room for community event, to the middle scale courtyards for small gatherings , and to the small scale for intimate conversation.

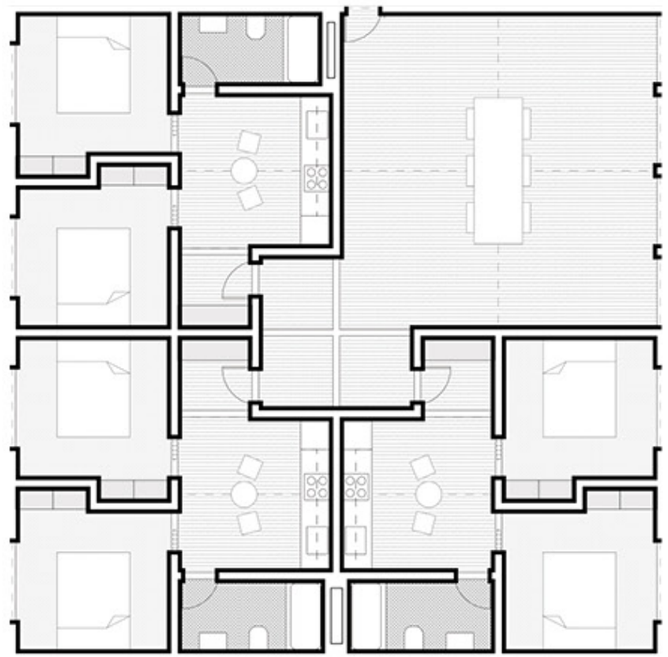
At a micro scale, rooms we occupy everyday are listed out as elements to be recomposed and rearranged, from a transistional room like a foyer or a stairs, to the room with a full size bed, room with plumbing fixtures and to the rooms that are shared with multiple users.



MICRO UNIT

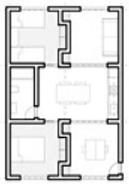


Through aggregating out, a variety of units are created, from micro to 2b 3b, and to various types of coliving units. With these essential rooms for daily living, this project explore not only the minimal living unit, but also the possiblity of living together.



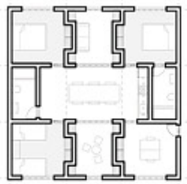
6 BEDROOM COLIVING UNIT

MICRO
UNIT



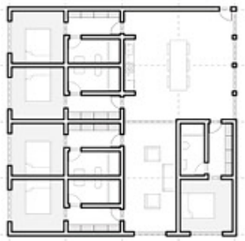
2 BEDROOM
UNIT

2 BEDROOM
UNIT

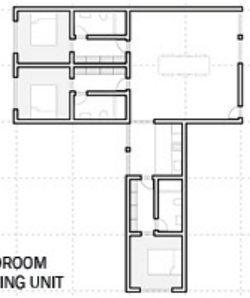


3 BEDROOM
UNIT

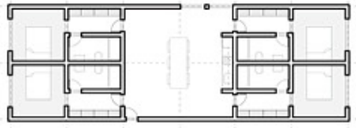
6 BEDROOM
COLIVING UNIT



5 BEDROOM
COLIVING UNIT

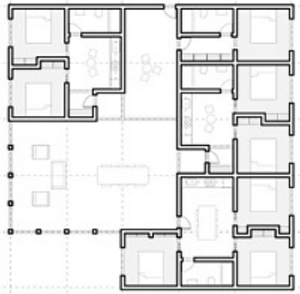


3 BEDROOM
COLIVING UNIT

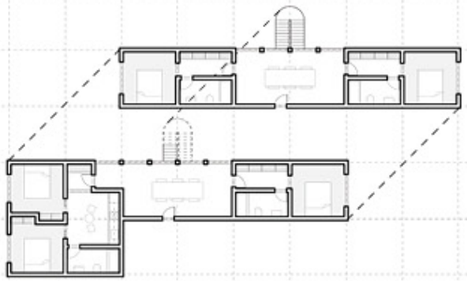


4 BEDROOM
COLIVING UNIT

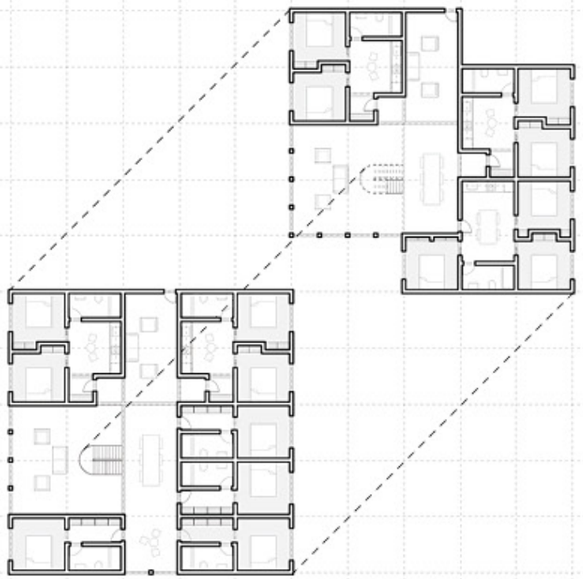
6 BEDROOM
COLIVING UNIT



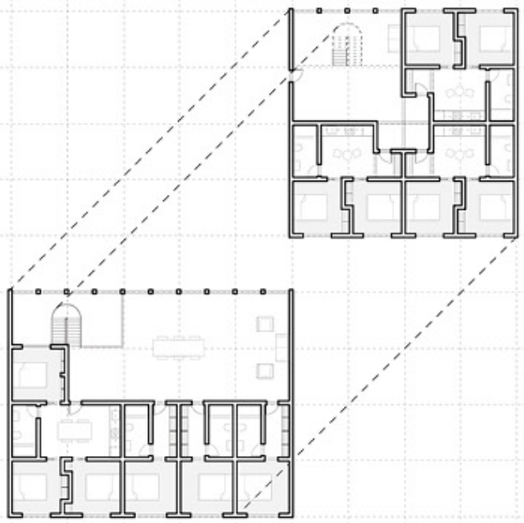
8 BEDROOM
COLIVING UNIT



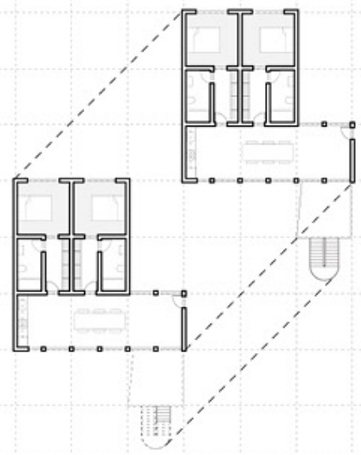
5 BEDROOM
DUPLEX COLIVING UNIT



12 BEDROOM
DUPLEX COLIVING UNIT

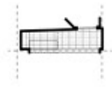


4 BEDROOM
DUPLEX COLIVING UNIT

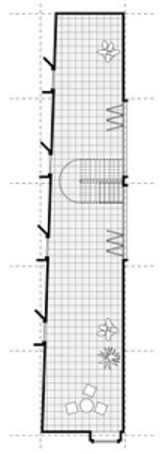


15 BEDROOM
DUPLEX COLIVING UNIT

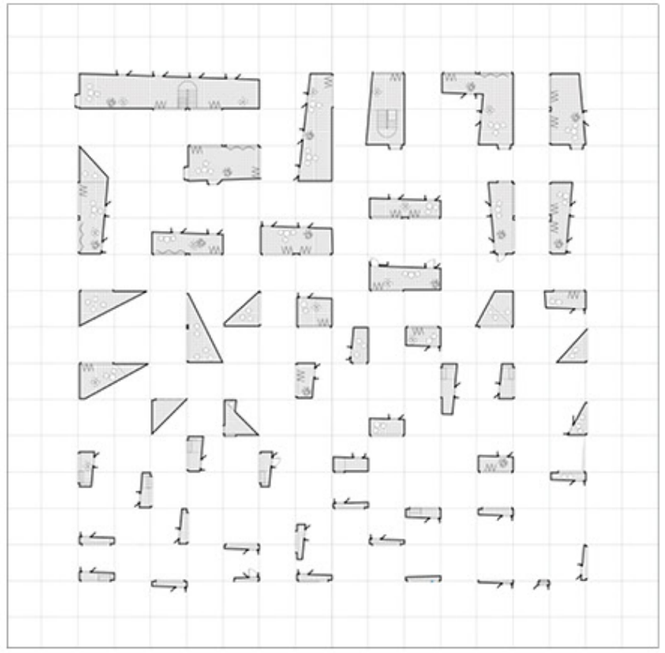
1-3ft: thick window



3-5ft: alcove window



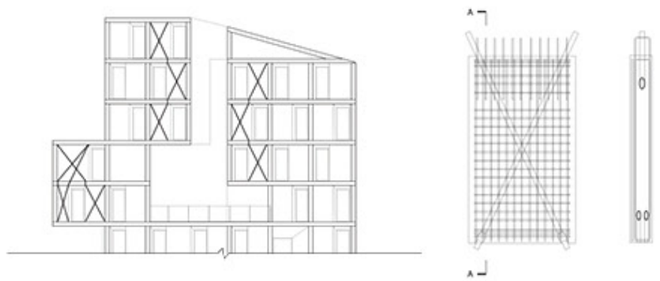
5-10ft: balcony



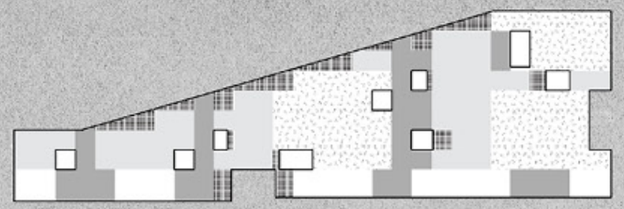
Through carving in and aggregating out, the two sets of geometry intersect and generated a third layer of space in between. This layer consists of intimate rooms between the inside and outside. We classify these intimate spaces based their depth, defining them as various types of occupiable poche. Materials are used to distinguish such space from the rectangular interior rooms.

The roof is carved with different angles to maximize sunlight both for the residential units and for the internalized outdoor space that is shared with the community outside this housing block.

Similar to the occupiable poche in plan, here the external cut intersects with the internal residential grid vertically. Together, they create another buffer layer between indoor and outdoor. This layer consists of skylights and intimate pocket balconies. Through the use of materials, these spaces are distinguished from the interior rooms.



Bracing is incoporated in the checker board facade pattern to support cantiliver corners.

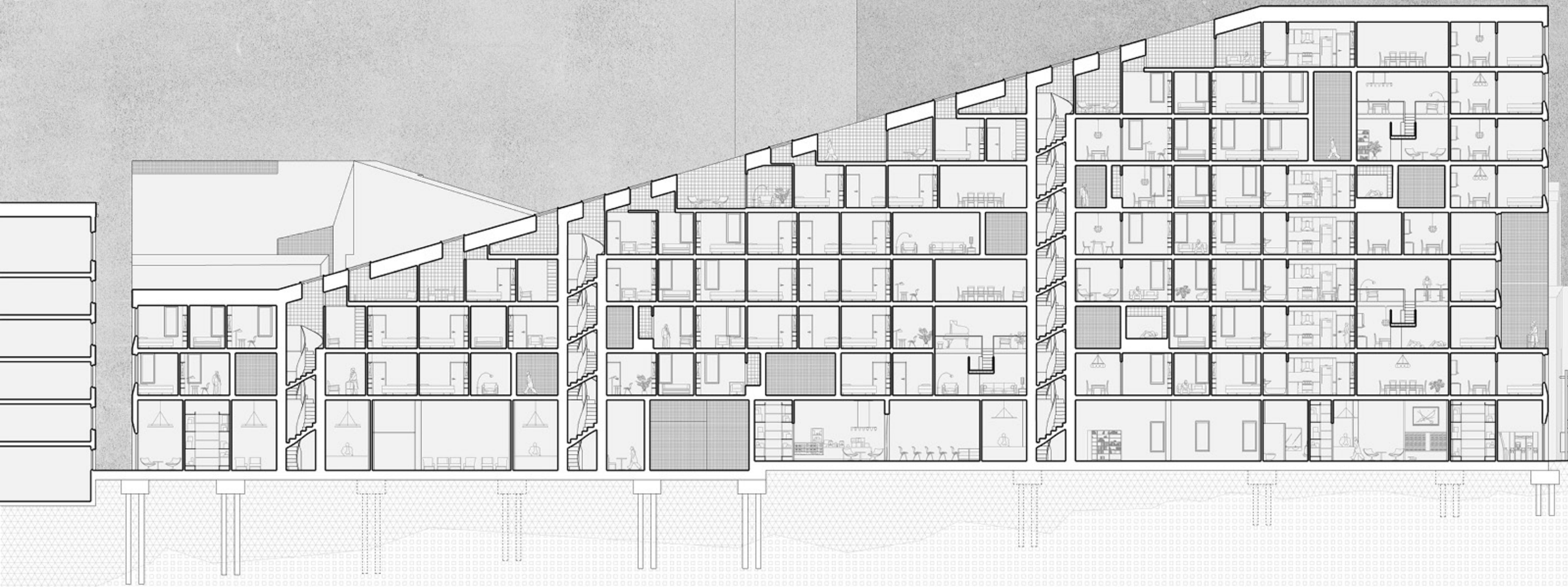


REGULAR UNITS
STUDIO/1B/2B/3B

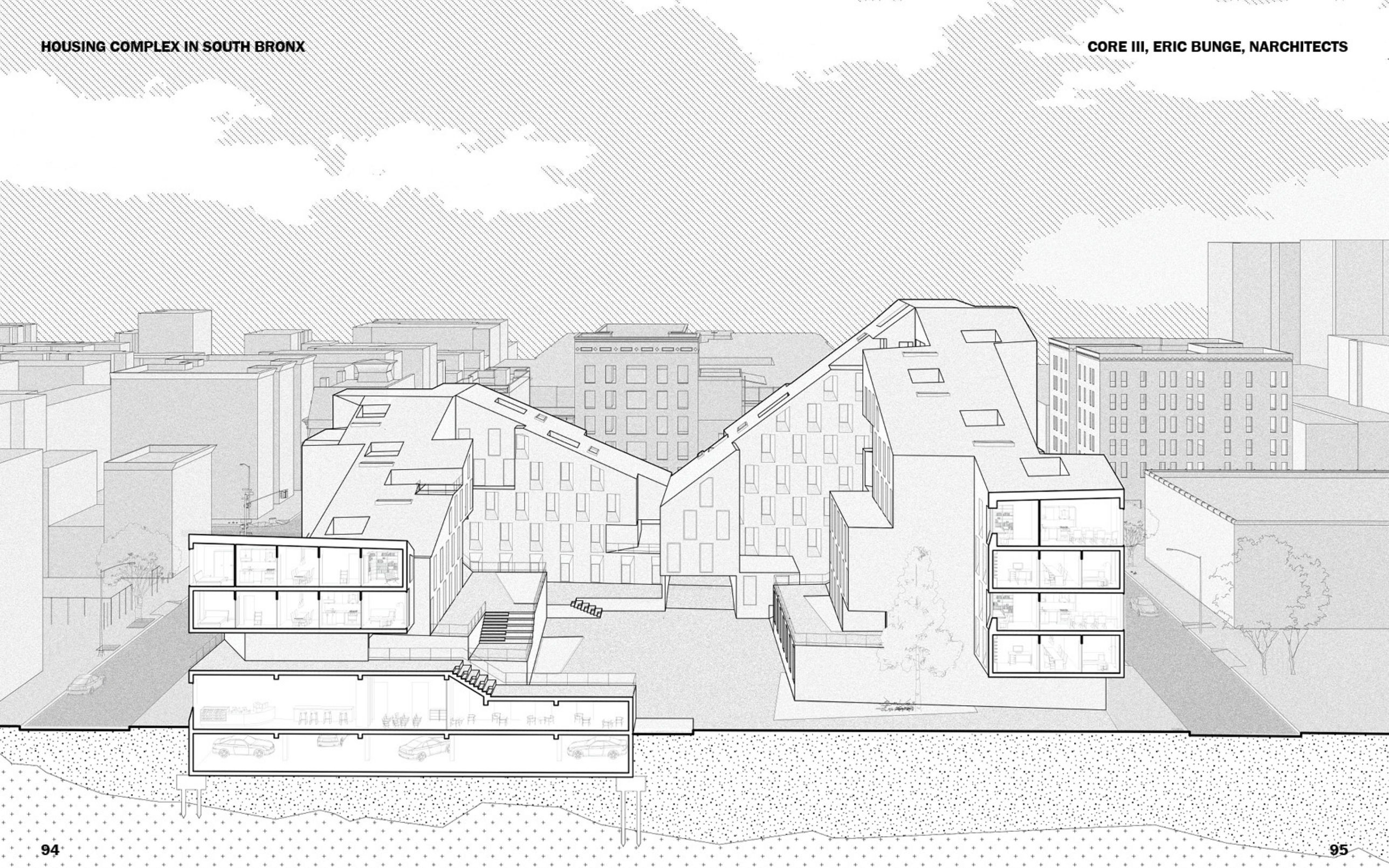
COLIVING UNITS
4B/5B/6B/7B

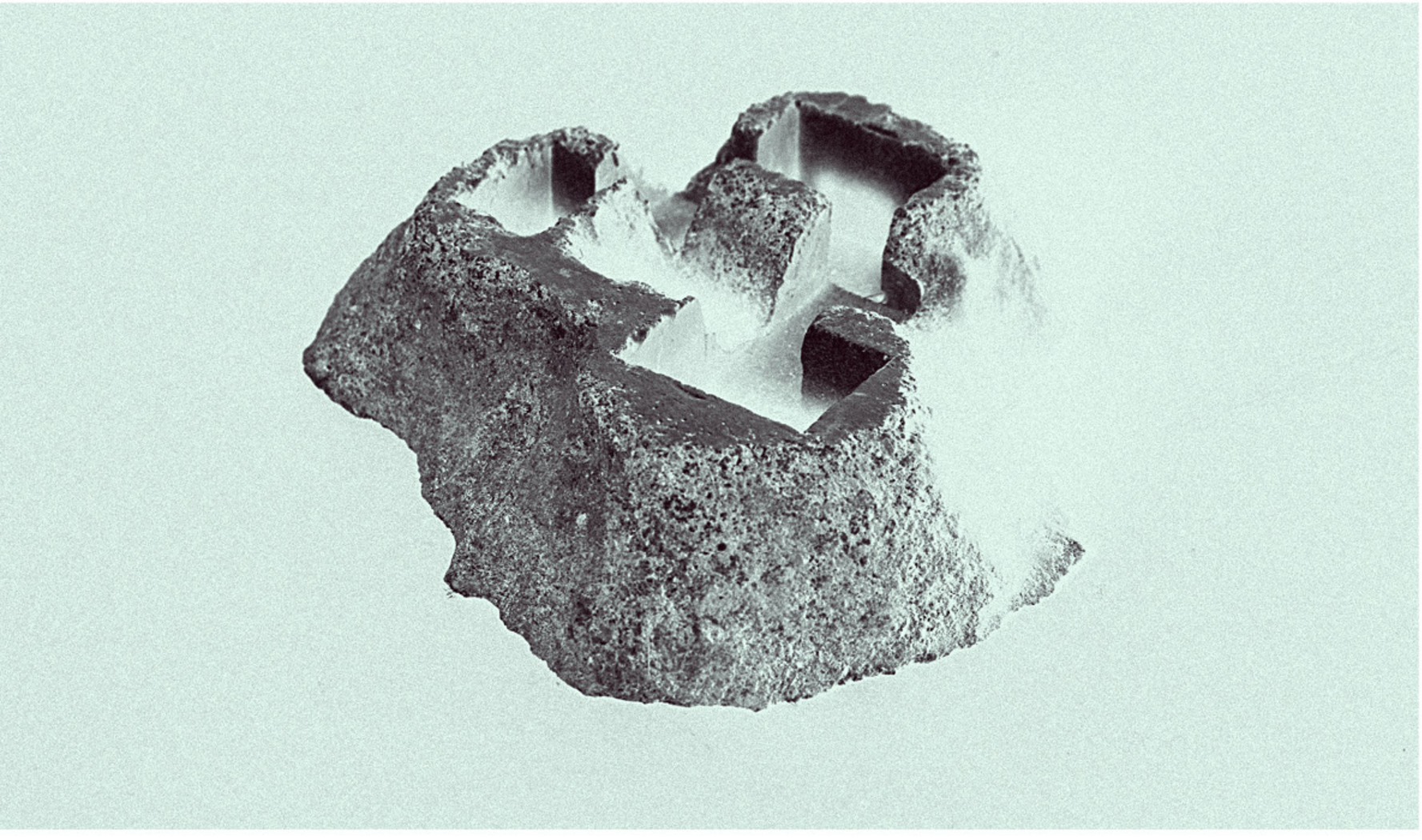
ALCOVE WINDOW / BALCONY

STAIRS + LOBBY + AMENITIES



Refletive material at the threshold brings the living image of the side walk inside the protected courtyards. Visual connections are established here to balance the enclosure for safety puropose. Through the approach of massing configuration, circulation design and material usage, the inner space of our proposed residential block is unlocked and given back to the children around.





Islamic Cemetery
Spring 2021
Teammate: Aya Abdallah, Nash Taylor

RECENTERING REMEMBERANCE

Through the addition of a new 'sacred' infrastructure, Islamberg is being 'recentered' within the regional muslim community. Starting as a peripheral small town, it becomes a place of sacred importance through time and burial.

Islamberg is a small hamlet in upstate New York, hosting a population who migrated from the big city several decades ago to practice Islam in peace. Through a system that uses contaminated soil from regional brownfield sites, a cemetery is built in a nearby quarry.

The soil is first remediated on site and then used for burial of muslims from the nearby towns. Through time and burials, other structures are needed to support the new sacred infrastructure; a place to wash and pray over the body as well as a place to meditate and mourn. These structures use the newly remediated soil as a means of architectural formwork.

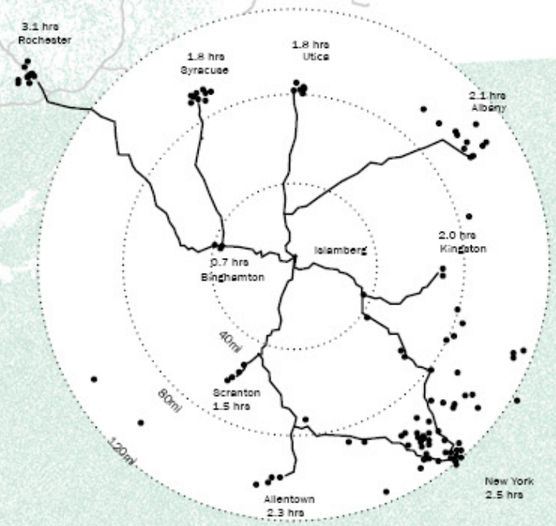
The project aims to re-center Islamberg among its larger Islamic urban context, re-center sacredness and heal the landscape.

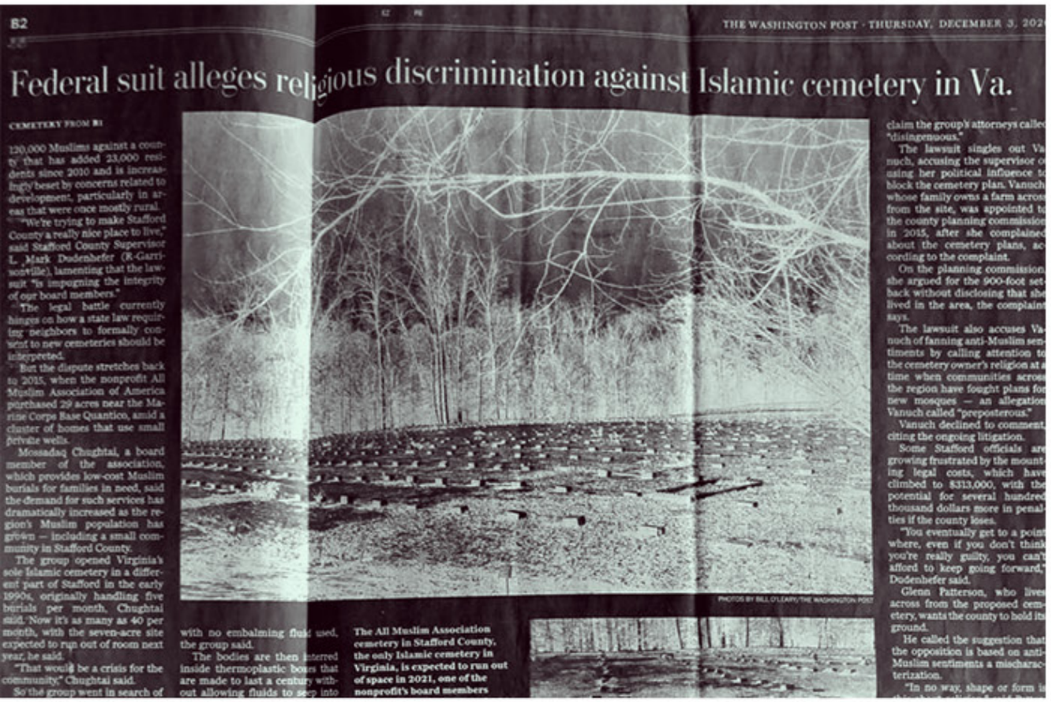
MOSQUE / ISLAMIC CENTER

CHURCH

Islamic communities are mostly concentrated in urban areas, (mosques are represented by a circle), unlike other religions, for example christianity.

Despite the unique rural context, Islamberg is both isolated while having a transcalar reach. It has a regional scale as It is easily accessible from other communities around New York State. The largest concentration of muslim communities is in NYC and that's only 2.5 hours drive away. Other major communities are all under 3 hours drive. It also has a national outreach. Islamberg is the headquarters of The muslims of America organization, a prominent group in the US.





B2 THE WASHINGTON POST · THURSDAY, DECEMBER 3, 202

Federal suit alleges religious discrimination against Islamic cemetery in Va.

CEMETERY FROM B1

120,000 Muslims against a county that has added 23,000 residents since 2010 and is increasingly beset by concerns related to development, particularly in areas that were once mostly rural.

"We're trying to make Stafford County a really nice place to live," said Stafford County Supervisor L. Mark Dudenhefer (R-Garrisonville), lamenting that the lawsuit "is impugning the integrity of our board members."

The legal battle currently hinges on how a state law requiring neighbors to formally consent to new cemeteries should be interpreted.

But the dispute stretches back to 2015, when the nonprofit All Muslim Association of America purchased 29 acres near the Marine Corps Base Quantico, amid a cluster of homes that use small private wells.

Mossadaq Chughtai, a board member of the association, which provides low-cost Muslim burials for families in need, said the demand for such services has dramatically increased as the region's Muslim population has grown — including a small community in Stafford County.

The group opened Virginia's sole Islamic cemetery in a different part of Stafford in the early 1990s, originally handling five burials per month, Chughtai said. Now it's as many as 40 per month, with the seven-acre site expected to run out of room next year, he said.

"That would be a crisis for the community," Chughtai said.

So the group went in search of

PHOTOS BY BILL O'LEARY/THE WASHINGTON POST

The All Muslim Association cemetery in Stafford County, the only Islamic cemetery in Virginia, is expected to run out of space in 2021, one of the nonprofit's board members

with no embalming fluid used, the group said.

The bodies are then interred inside thermoplastic boxes that are made to last a century without allowing fluids to seep into

claim the group's attorneys called "disingenuous."

The lawsuit singles out Vanuch, accusing the supervisor of using her political influence to block the cemetery plan. Vanuch, whose family owns a farm across from the site, was appointed to the county planning commission in 2015, after she complained about the cemetery plans, according to the complaint.

On the planning commission, she argued for the 900-foot setback without disclosing that she lived in the area, the complaint says.

The lawsuit also accuses Vanuch of fanning anti-Muslim sentiments by calling attention to the cemetery owner's religion at a time when communities across the region have fought plans for new mosques — an allegation Vanuch called "preposterous."

Vanuch declined to comment, citing the ongoing litigation.

Some Stafford officials are growing frustrated by the mounting legal costs, which have climbed to $313,000, with the potential for several hundred thousand dollars more in penalties if the county loses.

"You eventually get to a point where, even if you don't think you're really guilty, you can't afford to keep going forward," Dudenhefer said.

Glenn Patterson, who lives across from the proposed cemetery, wants the county to hold its ground.

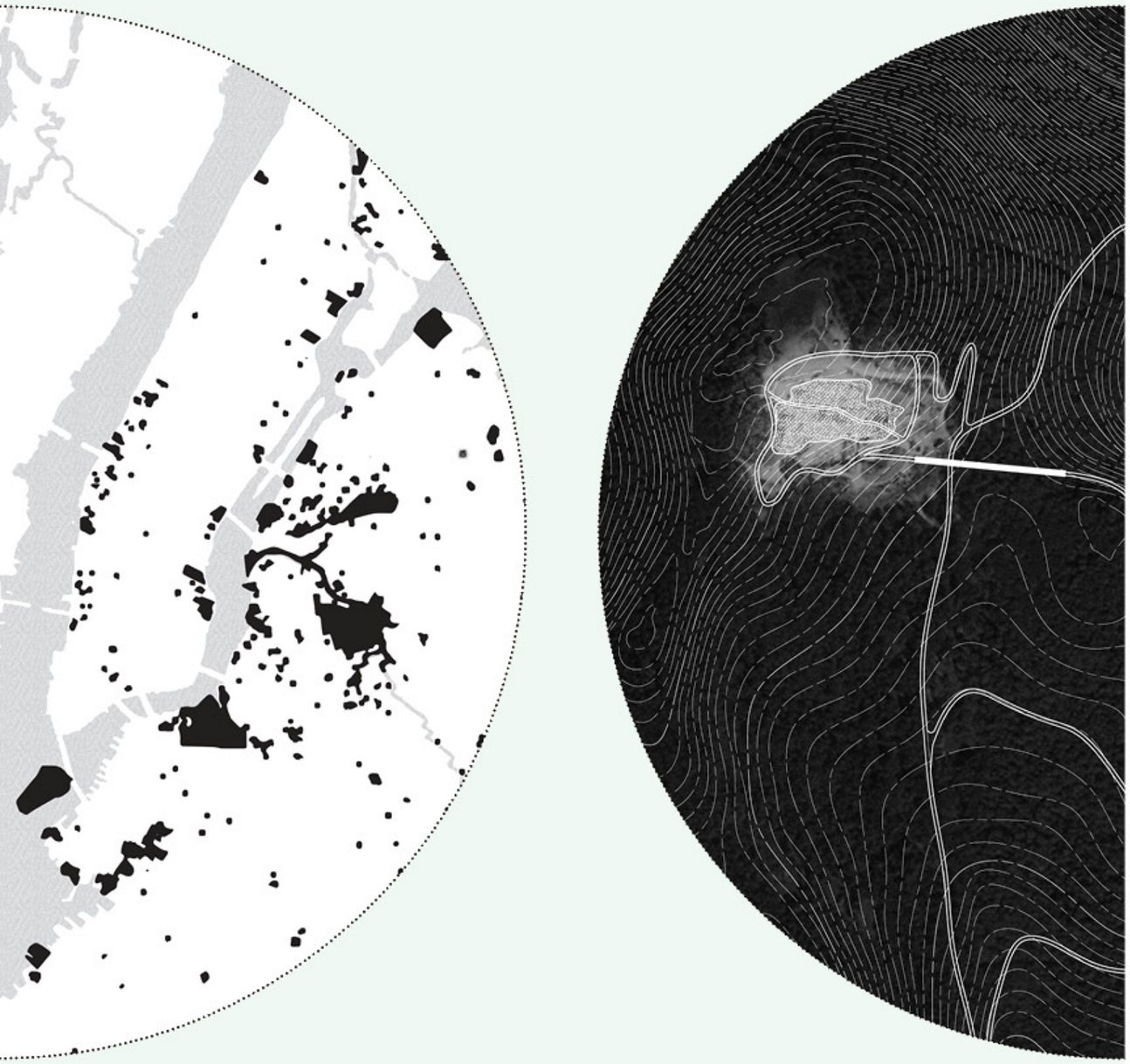
He called the suggestion that the opposition is based on anti-Muslim sentiments a mischaracterization.

"In no way, shape or form is

Federal suit alleges religious discrimination against Islamic cemetery in Va
December 3, 2020

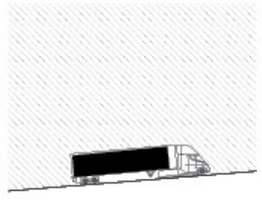
We chose the quarry as our site for the cemetery. It's about 1 mile away from Islamberg, which is a 2 min drive or 17 mins walk. Compared with other popular and recognizable cemeteries, the scale of our site fits into the scale of the project and the outreach that it is targeting.

The stark contrast between the soft rural landscape and the hard surface of the quarry brings us to a challenge - where do we bring the soil used for the quarry?



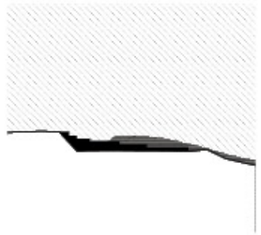
Excavate contaminated soil in New York City

2800 contaminated sites in New York City = 500 M cubic feet of soil



Transportation of soil from NYC to quarry location

Distance NYC to quarry = 156 miles



Building the burial grounds with the remediated soil
Healing of the landscape

5 acres of quarry needs 1.5 million cubic feet of soil = Total of 540 graves (3'x 9'x 6')

❶ Coarse Soils

Angle of Repose: 45 - 60

Used for:
-Interior Formwork
-Base of Grading
-Areas with water

❷ Semi Coarse Soils

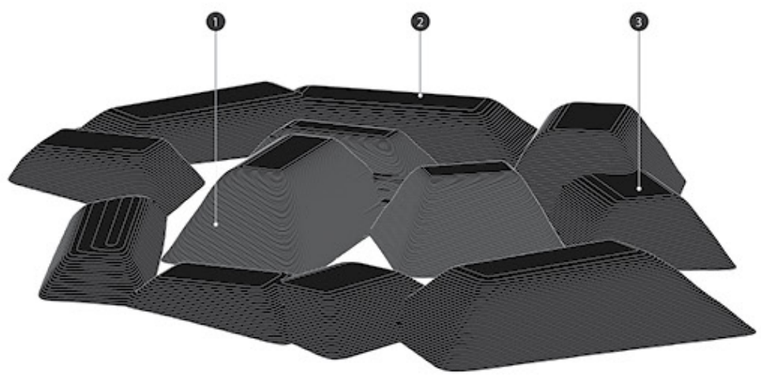
Angle of Repose: 30 - 45

Used for:
-Exterior Formwork
-Topsoil
-Grading in Flat Areas

❸ Fine Soils

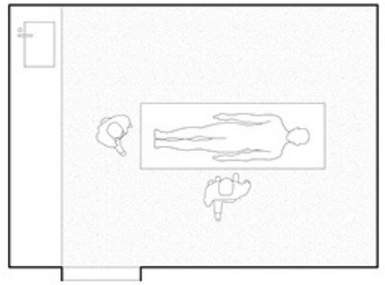
Angle of Repose: 20 - 30

Used for:
-Exterior Formwork
-Smooth layer of Formwork
-Topsoil if Fertile



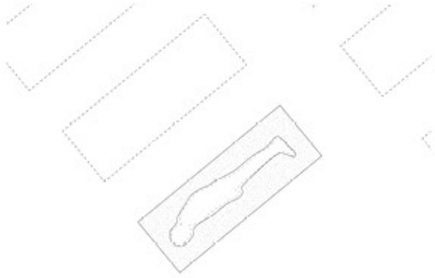
Soil is excavated from different parts of the region, and therefore there is a range of soil types brought to the site. The different types of soil lend themselves to different angles of repose and texture. This therefore determines the soil type as formwork, or fill, or both.

- *Death*
- *Bathing*
- *Shrouding*
- *Funeral Prayer*
- *Burial*
- 24 hours — *Janazah*
- 3 days
- 7 days — *Sbu'aah*
- 40 days — *Arby'in*
- 1 year — *Sanawiyyah*



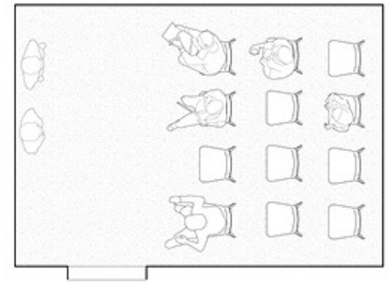
Bathing

First the body is cleansed by members of the same gender as the deceased. Using a cloth and warm water the body is washed. Ideally within Islamic tradition, the body is not embalmed but can be for logistical reasons.



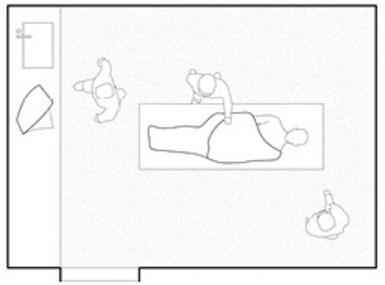
Burial

The burial of the body is necessary as cremation is prohibited. The body is ideally non embalmed and without a casket. The body is laid perpendicular to Mecca either on its right side or with the face turned towards Mecca.



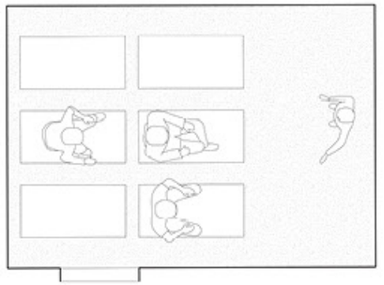
Mourning

This initial mourning period can extend to 7 days, where the family of the deceased continue to receive visitors in their home. They recite the Quran and do good deeds on behalf of the deseased.



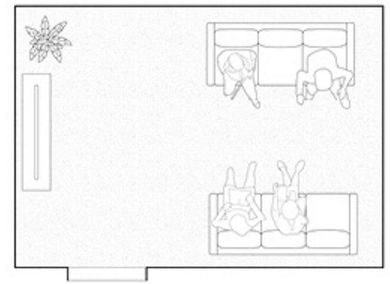
Shrouding

The body is usually covered in white cloth. Men are covered with three sheets while women are covered with five. The white sheets represent purity, honor, and humility for the deceased.



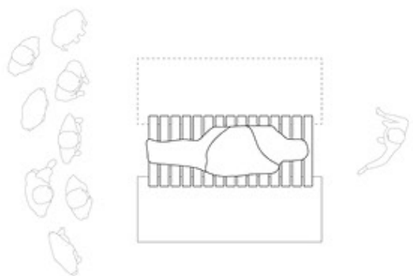
Mourning

After the dead has been buried, an Imam will generally lead the Janazah prayer. Al Janazah is not only for the recently deceased but for all Muslims who have passed on. The prayer is performed in a community gathering.



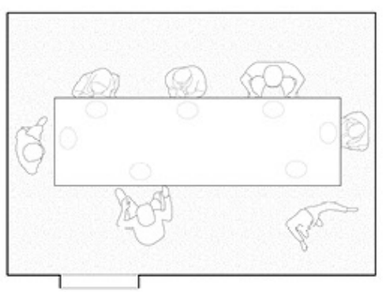
Mourning

It is told that the soul is separated from the body at death but that it may visit loved ones on the 40th day after the death as well as one year later.



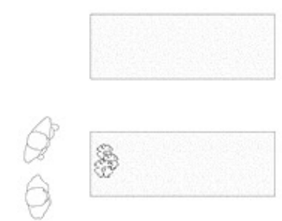
Funeral Prayer

The imam prays over the body. The body is oriented perpendicular to Mecca. The prayer can happen inside a mosque or at the burial site. There is a specific prayer said over the dead called the Salat al-Janazah.



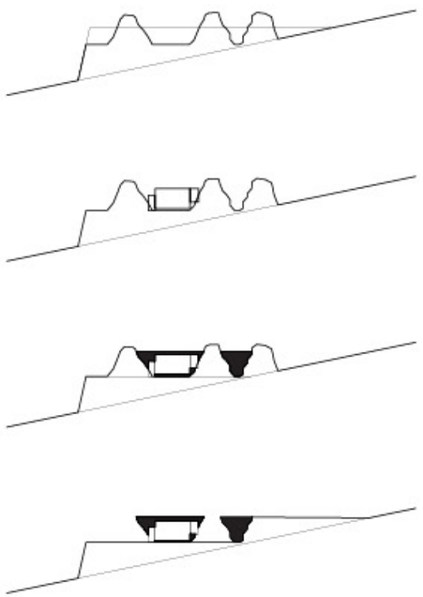
Mourning

Loved ones and relatives are to observe a 3-day mourning period. Islamic mourning is observed by increased devotion & receiving visitors and condolences. The community shows support by providing meals for the family.

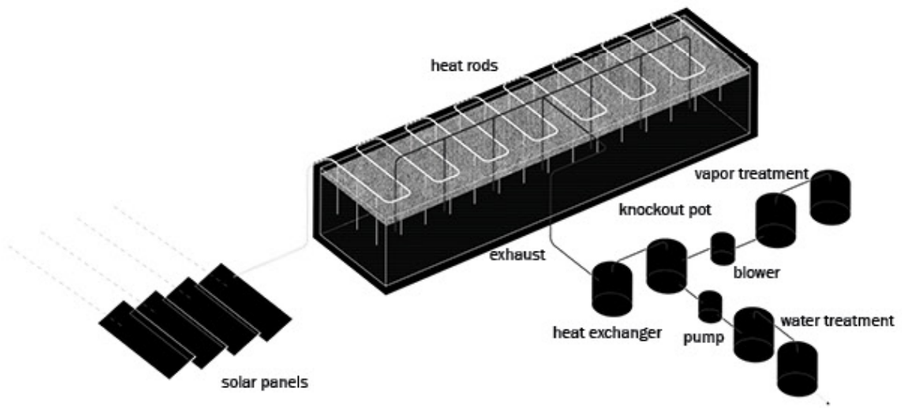


Mourning

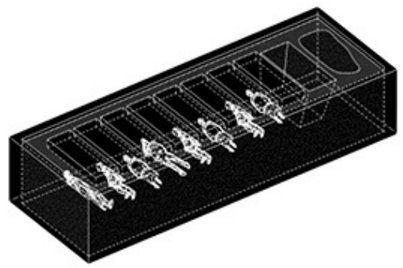
Visting the burial site is common after a year and usually occular during Eid



Once there is an excess of soil remediated at the quarry, some of it is used for a means of architectural production of new related programmatic spaces. It is used as formwork (negative) to cast the structures at first, then recycled as the fill for the landscape (positive).



1



2

vapor removal of hydrocarbons - stablization - burial

The first phase is the transportation of the soil from the different regional contaminated sites to the quarry. The soil is then remediated on site through a hydrocarbon focused remediation process that uses mostly heat and vaporization of toxins. Once the soil is remediated and stabilized, it can now safely be used for burial. Simultaneously, soil is continuously being brought on site and being remediated.

Once there is an excess of soil remediated at the quarry, some of it is used for a means of architectural production of new related programmatic spaces. It is used as formwork (negative) to cast the structures at first, then recycled as the fill for the landscape (positive).

Over the years, as more soil is being remediated, it can be used for the construction of adjacent housing to host visitors to the cemetery as well as provide new agricultural terraces for Islamberg to use. As Islamberg grows, they can start to take over these new structures.

soil remediation

architecture production

transportation and remediation of soil **1**

burial and continuous remediation **2**

3 *funeral ablution site*

4 *prayer and gathering site*

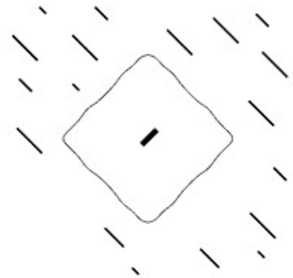
5 *cemetery pavillions*

6 *housing and agriculture*

end of soil remediation
continuous burial

used as sacred site

3



4

5

6

1 *transportation and remediation of soil*

2 *burial and continuous remediation*

CEMETERY

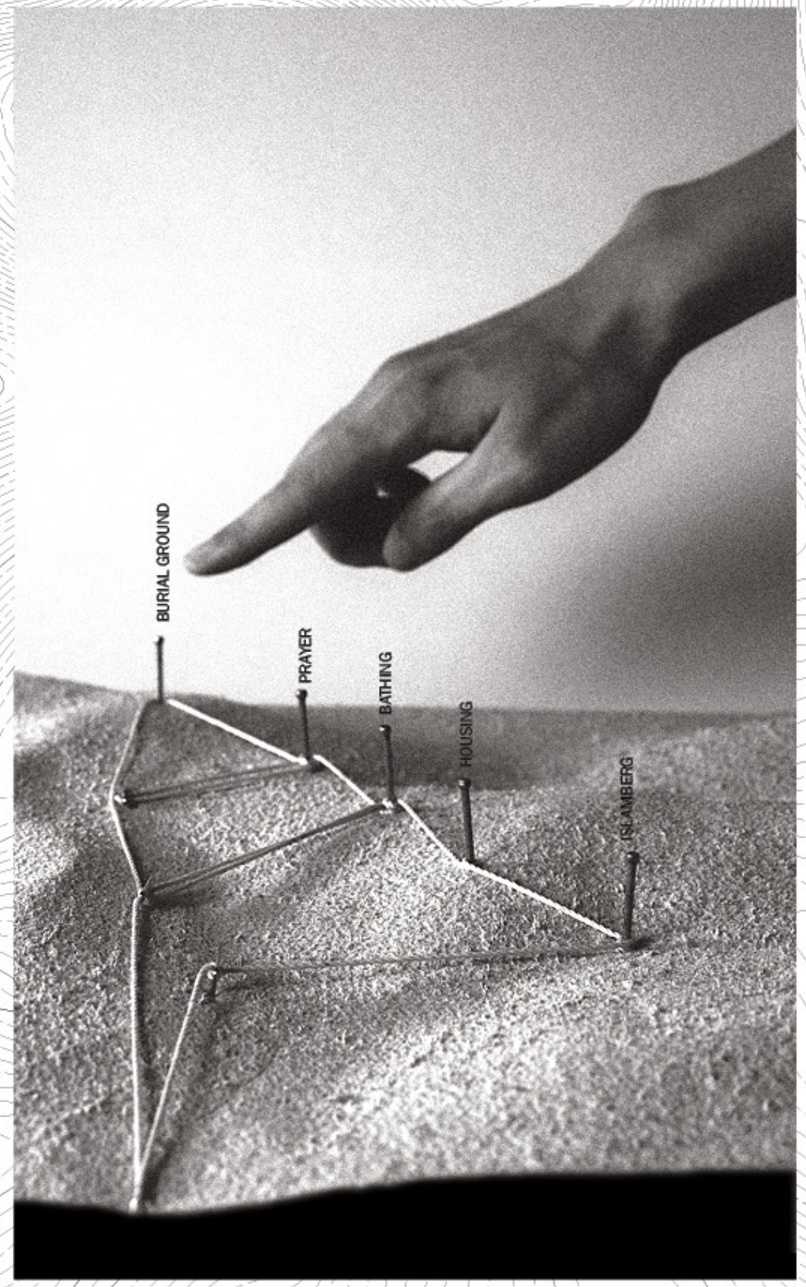
4 *prayer and gathering site*

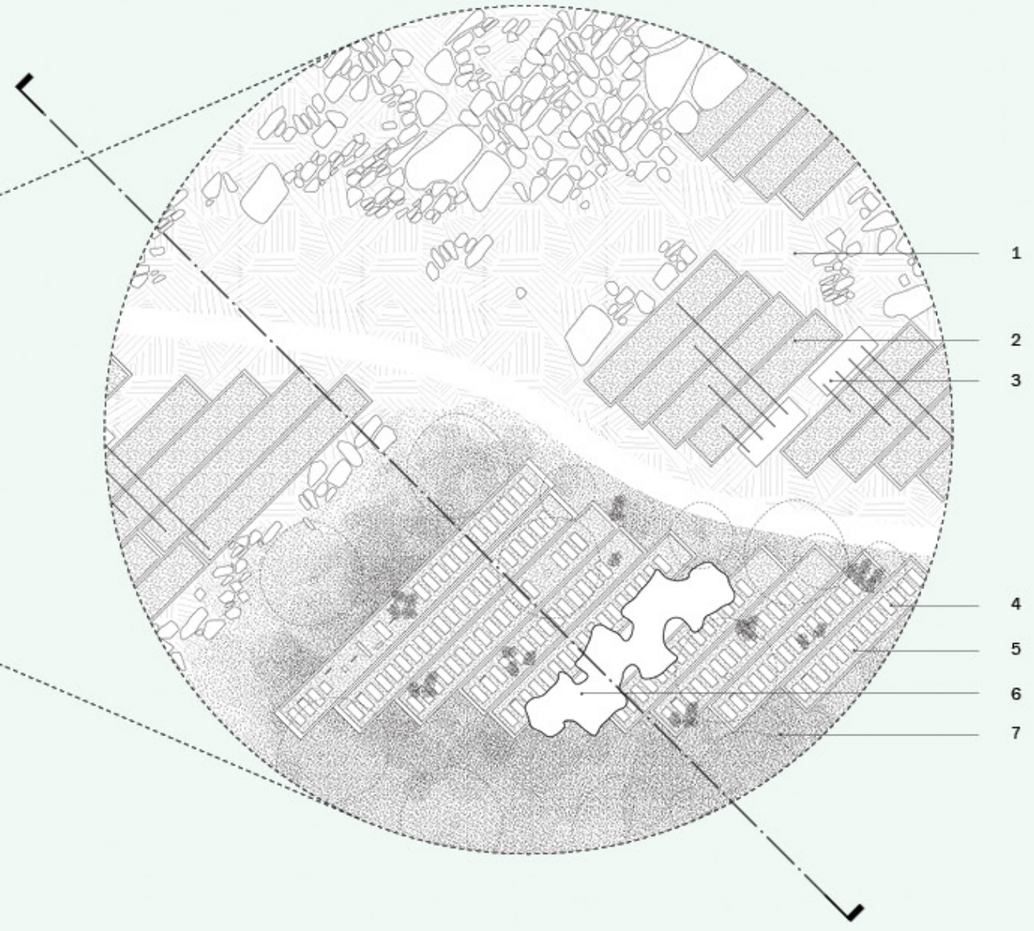
5 *cemetery pavillions*

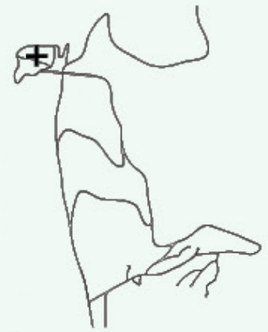
3 *funeral ablution site*

6 *housing and agriculture*

ISLAMBERG

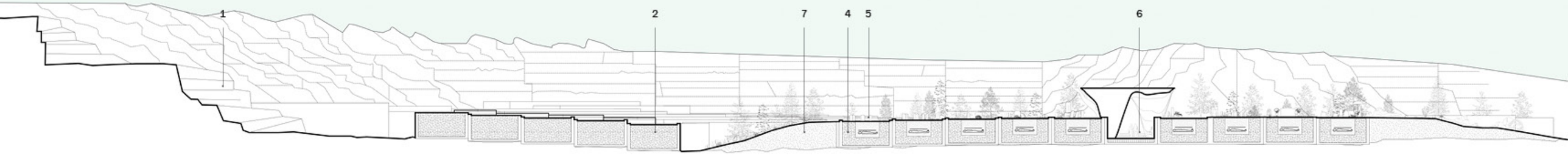


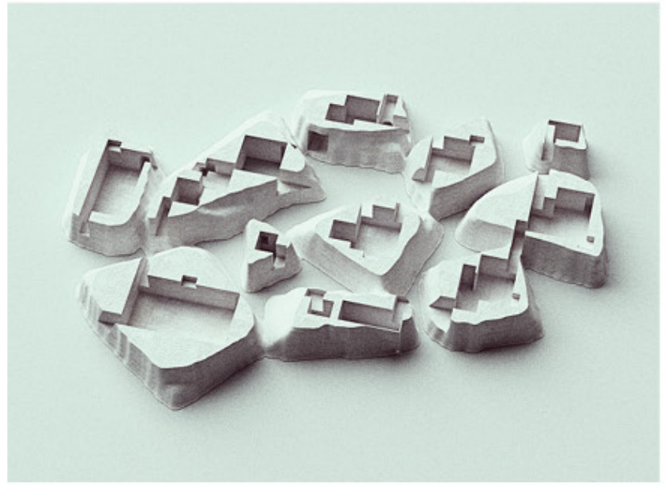


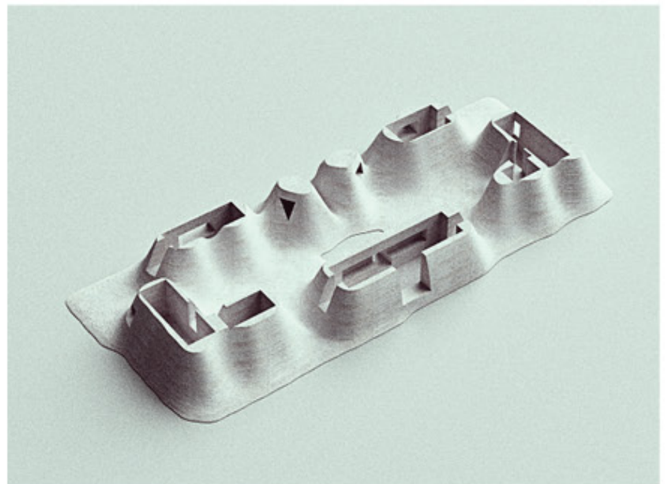


BURIAL GROUND

1. existing quarry surface
2. soil contained in concrete box
3. moving remediation machinary
4. remediated soil
5. tomb
6. buiral ground shelter
7. new soil layer for vegetation





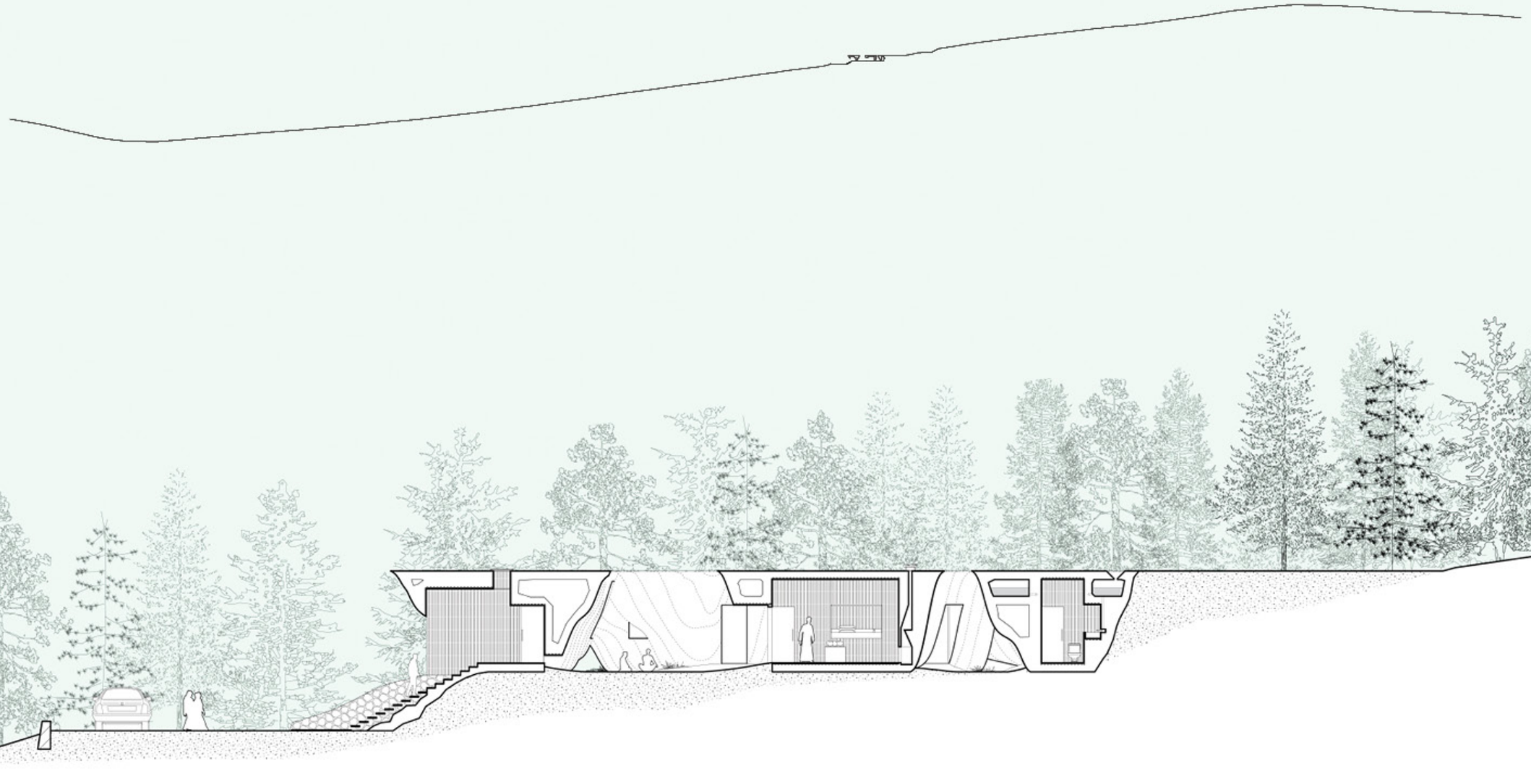


Structures are built in place of the remediation machinery to house gathering spaces, for both mourners and the inhabitants of islamberg. These structures break the burial grid, and allow for moments of respite, wayfinding and gathering. Islamberg can also use these spaces to host local religious classes, or even regional conferences that they previously could not accommodate for. Over the years, the cemetery is transformed into a lively park that is shared by both the visitors and the town.

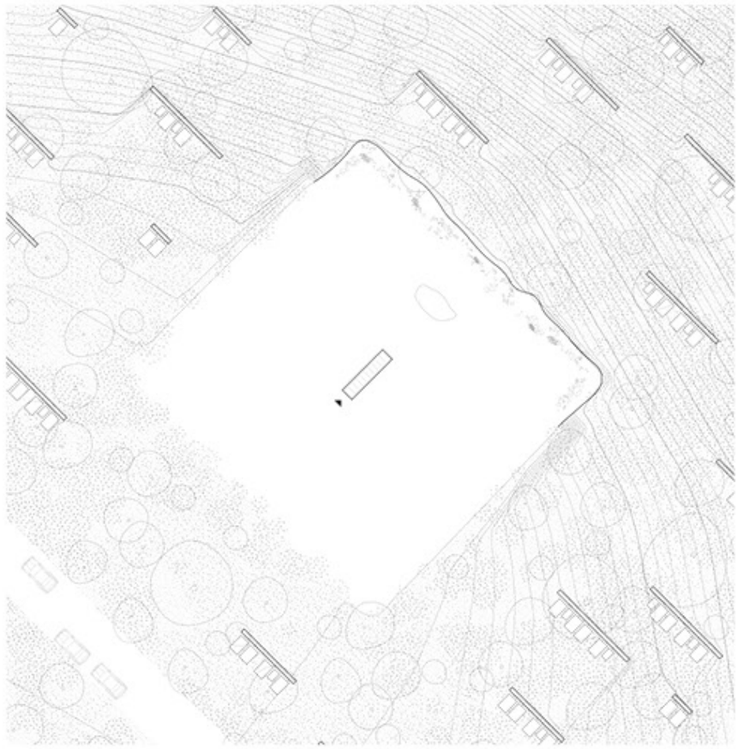
Other related programs are built in a similar way using soil remediated at the quarry, including a funeral ablution site and a prayer site for larger gatherings.

FUNERAL ABLUTION SITE

1. reception
2. laying out
3. bathing and shrouding
4. gathering
5. prayer room
6. utility room
7. restroom
8. imam's office
9. imam's living area

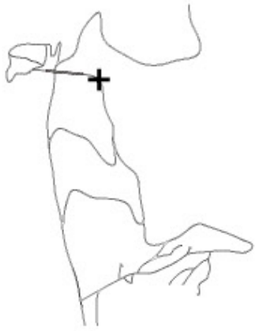


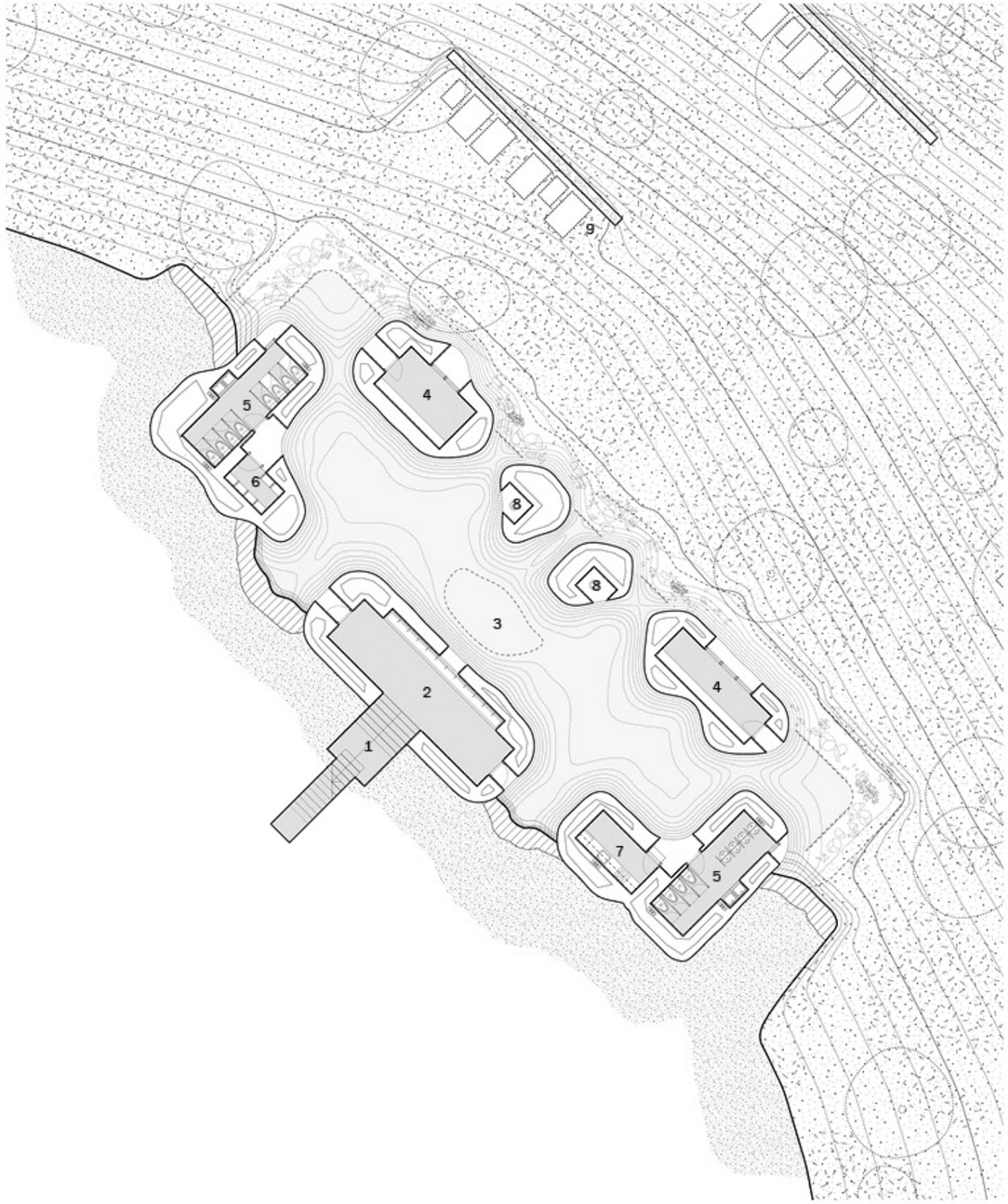
ADV IV, ZIAD JAMALEDDINE, L.E.FT ARCHITECTS

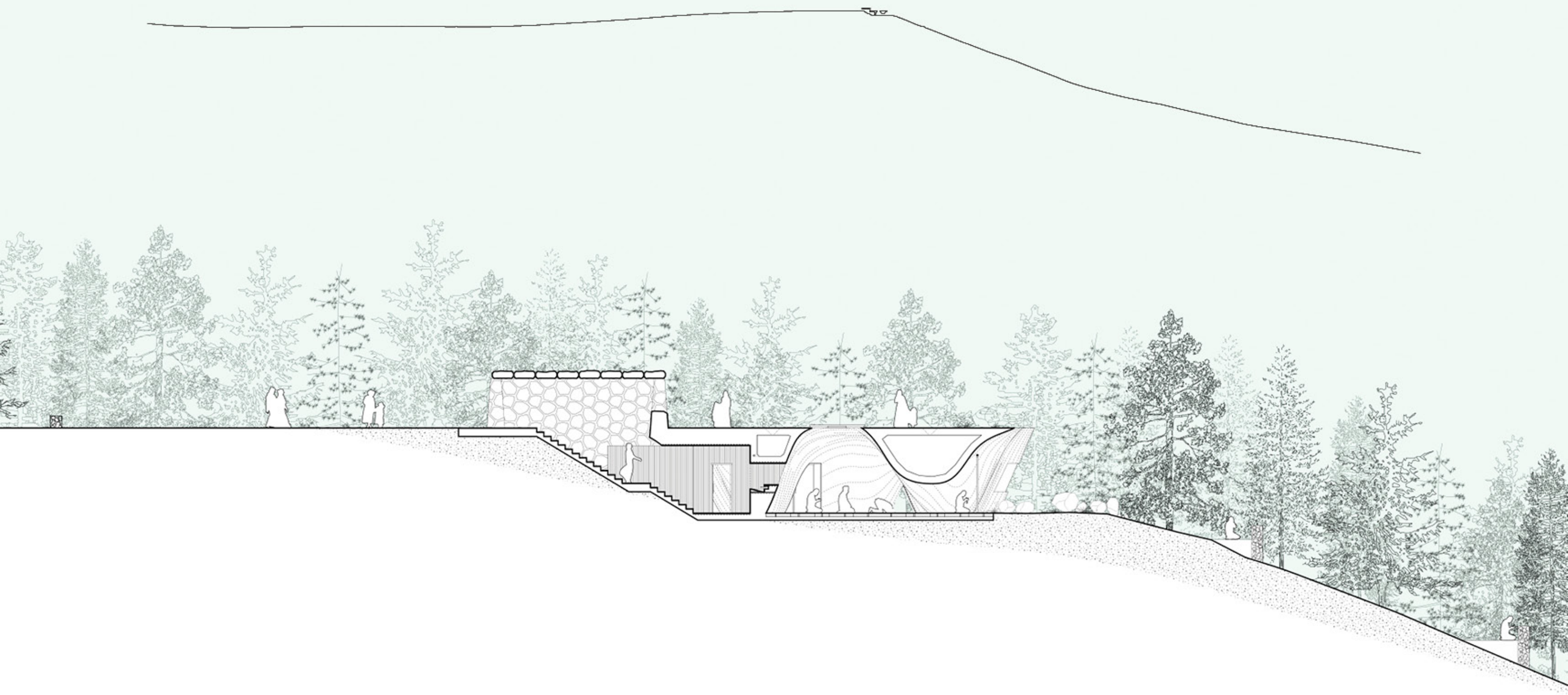


PRAYER SITE

1. entrance
2. ablution
3. main prayer area
4. small chamber
5. restroom
6. utility room
7. kitchen
8. fire place
9. outdoor prayer area





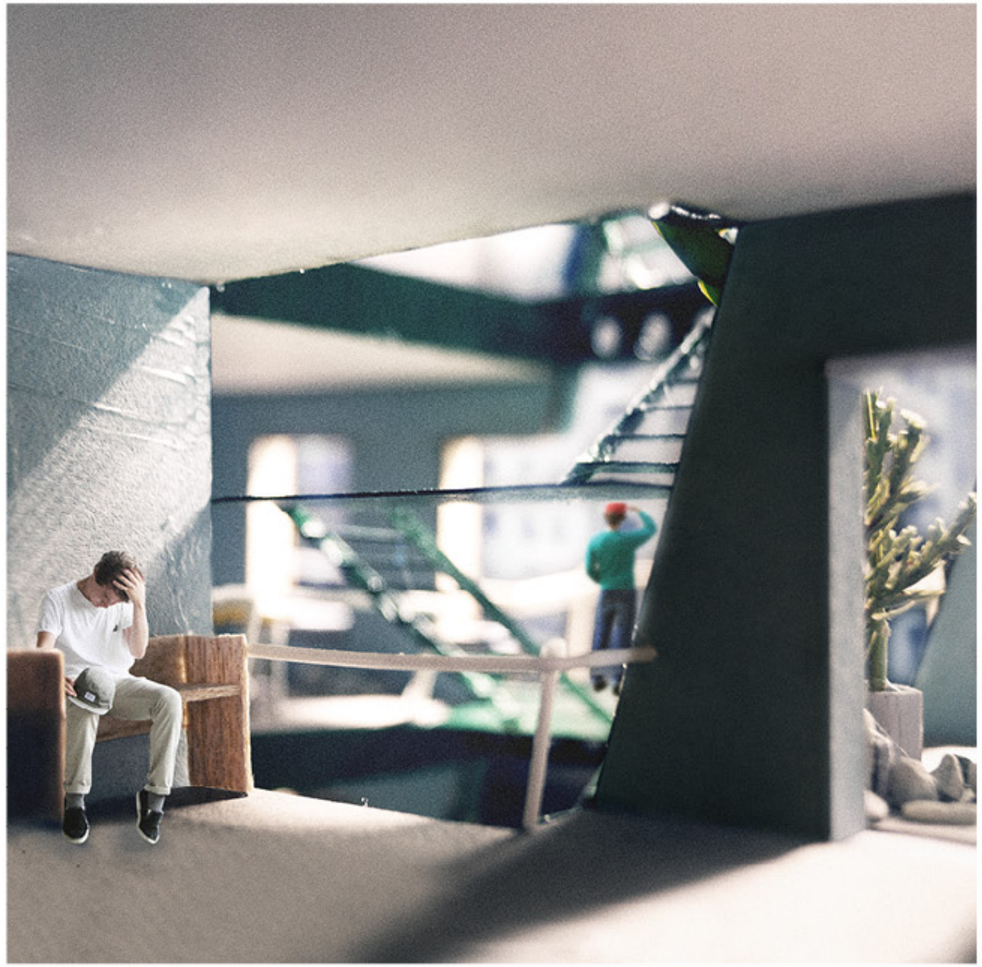


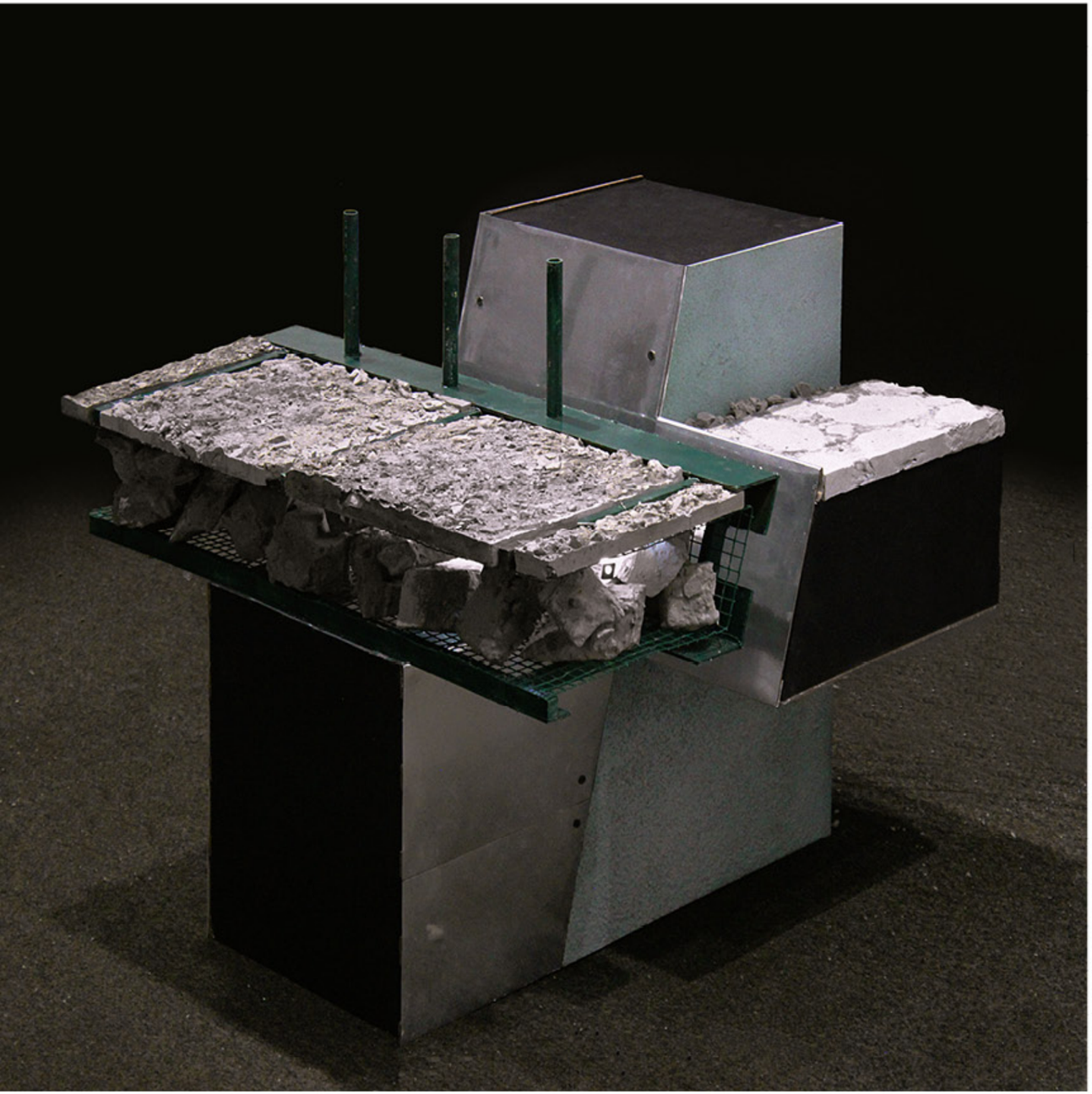
Public Space Design
Fall 2019
Individual Work

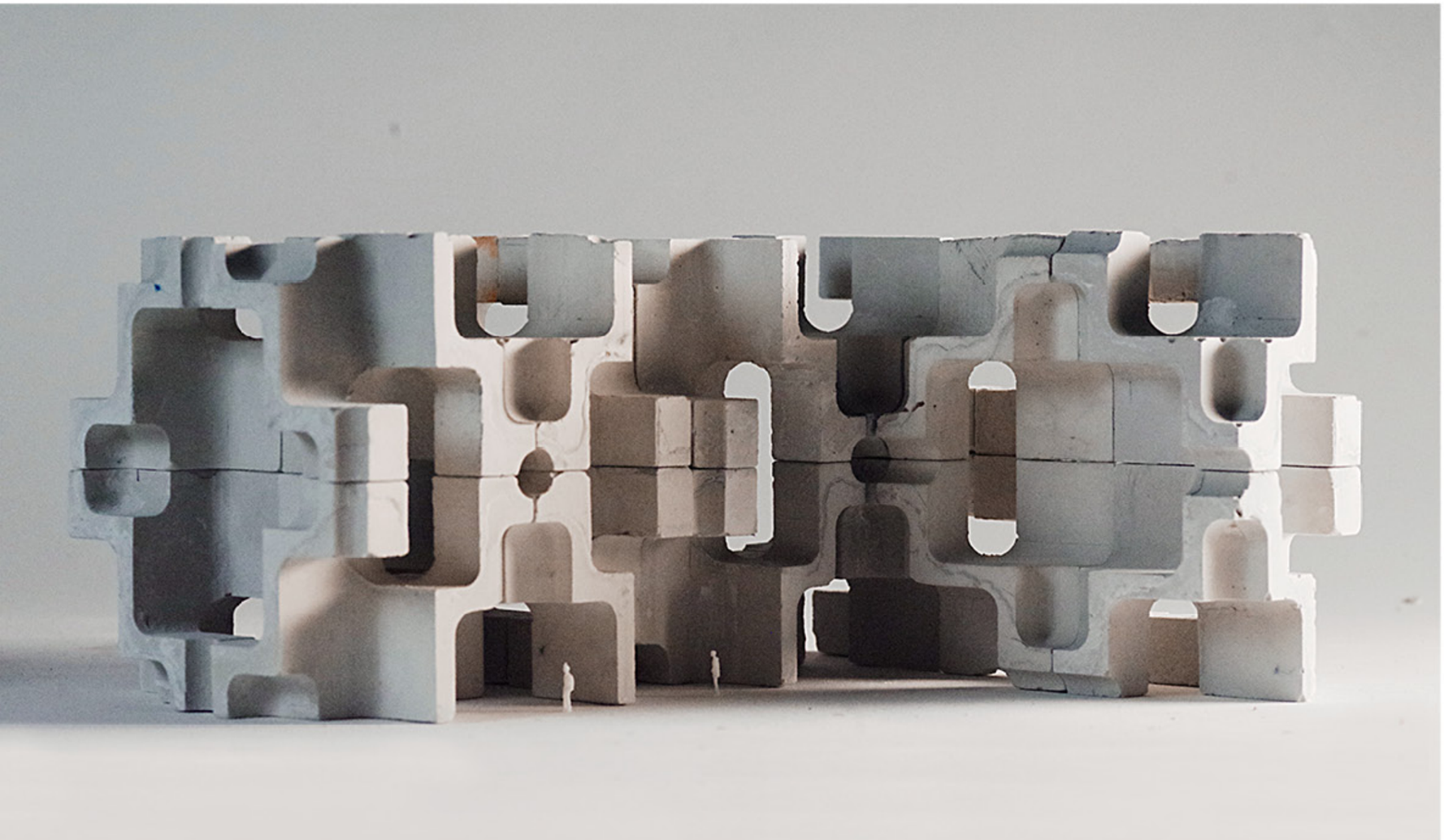
CUT THE GRID

Similar to how Broadway cut through public squares within the Manhattan grid, this project carves out secret public space within the existing 'grid' of residential units vertically. Located at Union Square West, the newly inverted open spaces serve as a mediator between public and private, intimacy and openness. Public stairs are built with materials reclaimed from the cut to ensure the assessiblity.

CORE I, AMINA BLACKSHER, ATELIER AMINA

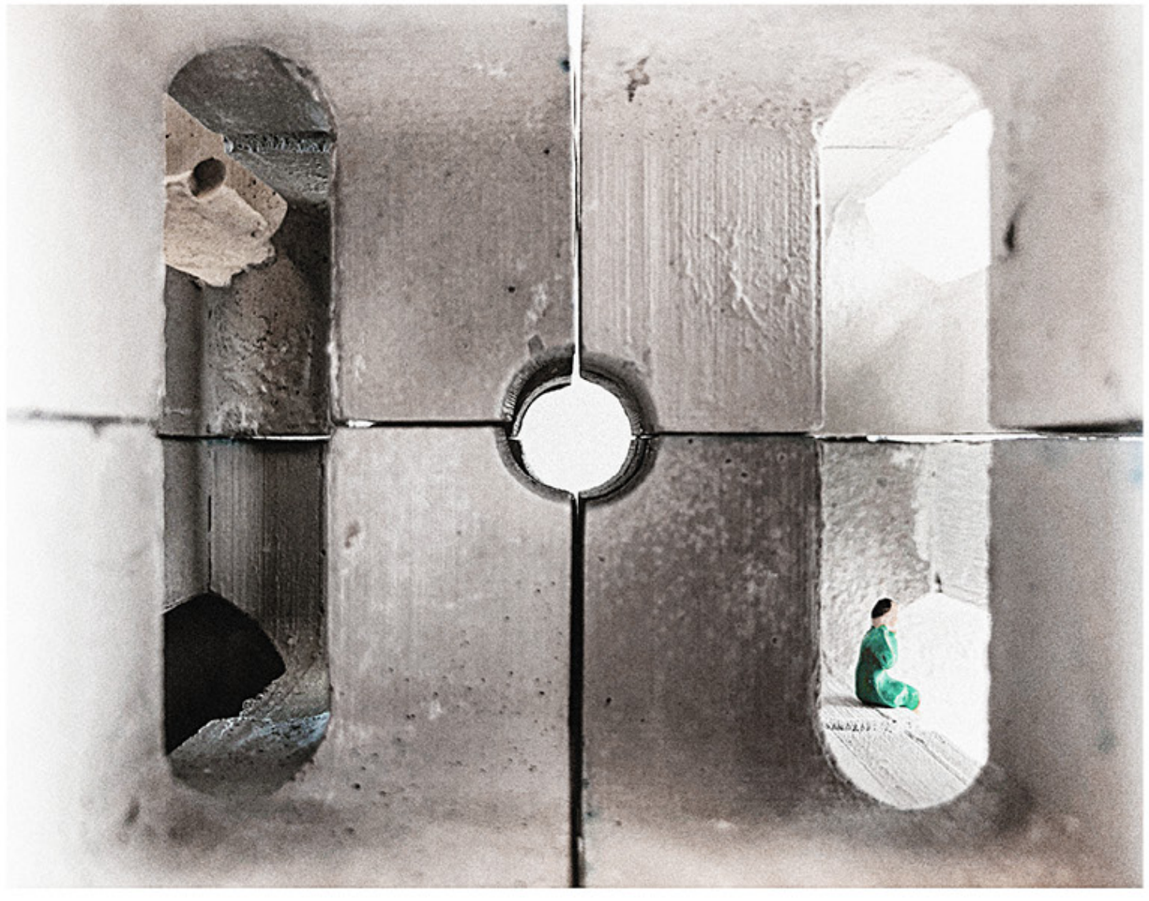


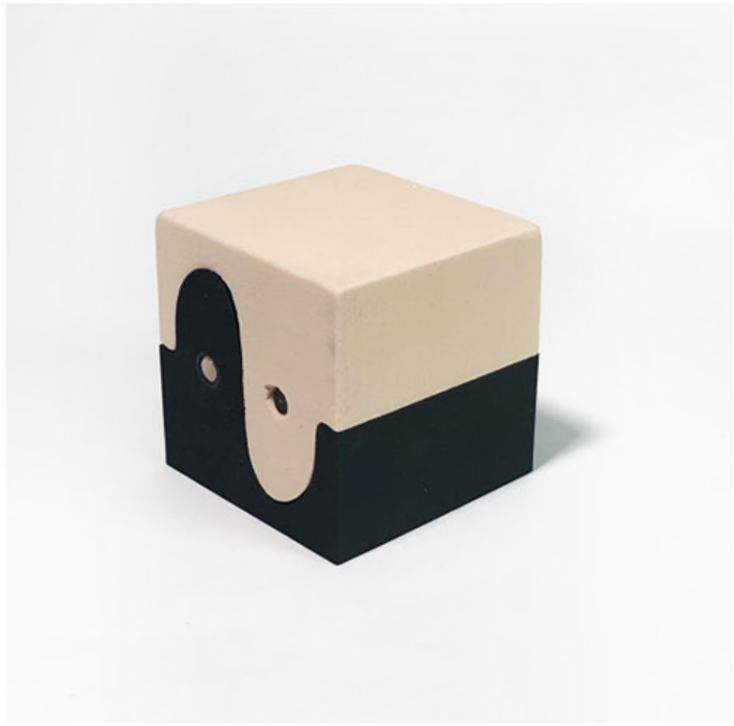




FOLDING WALL

Fall 2019
Individual Work





RECIPROCAL JOINERY

Spring2020
Individual Work

Spring 2022
Teammate: Osvaldo Delbrey, Yerin Won, Hao Zheng

DUCK BATH

This project plays with materiality in the design of a bath house. A journey towards the bath is thought through - from walking in the falling snow, to climbing down the ladders, to walking through a almost religious hallway, and to bathing in a silicone ball with skylight.