

ARCHITECTURE

PORTFOLIO

FOLIO

ACADEMIC AND PROFESSIONAL WORK

JOYCE

2016 - 2021

E ZHOU

VERSION III

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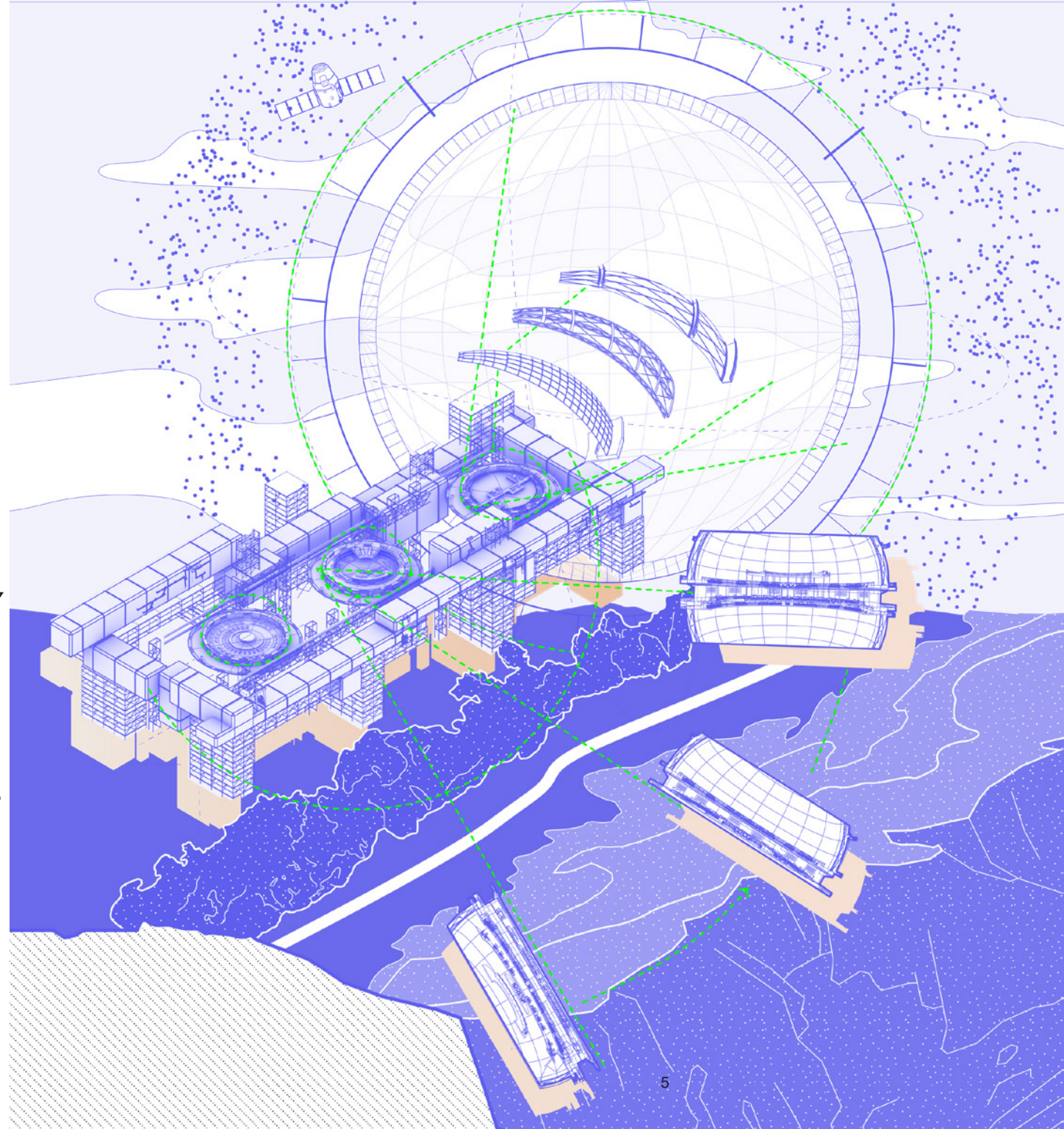
# INTERNATIONAL SPACE JUNK CENTER

Advanced IV Studio | Winter 2022  
Mark Wasiuta  
Launch Pad 39b, Cape Canaveral

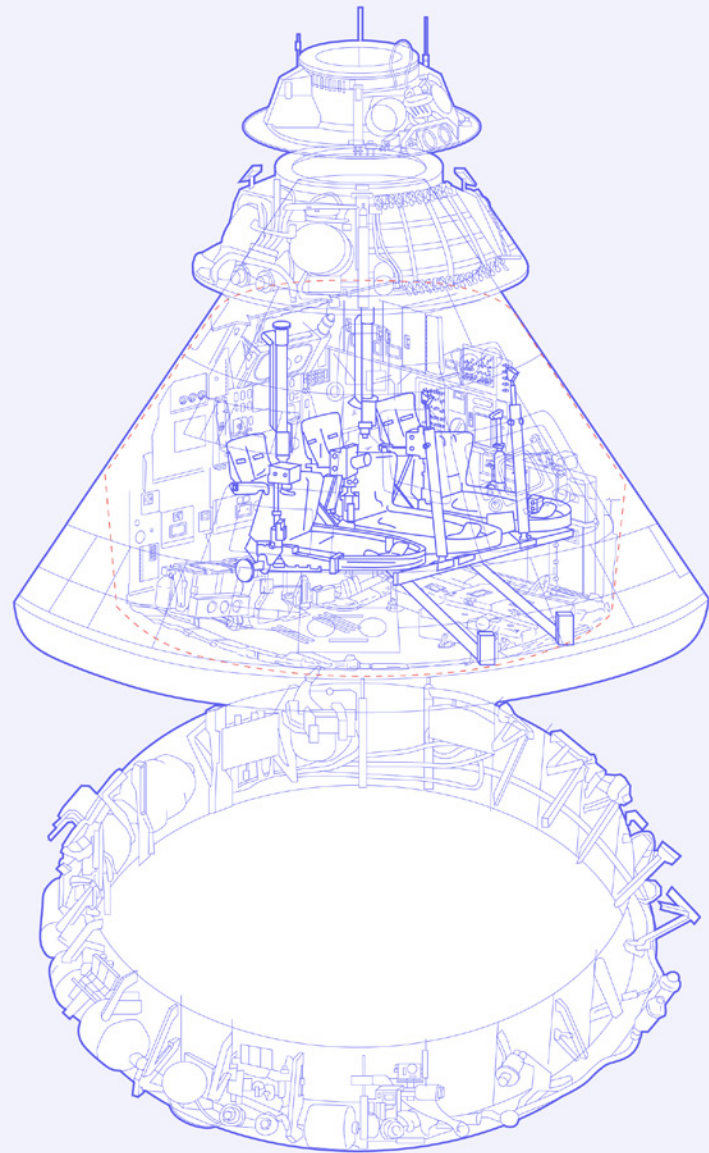
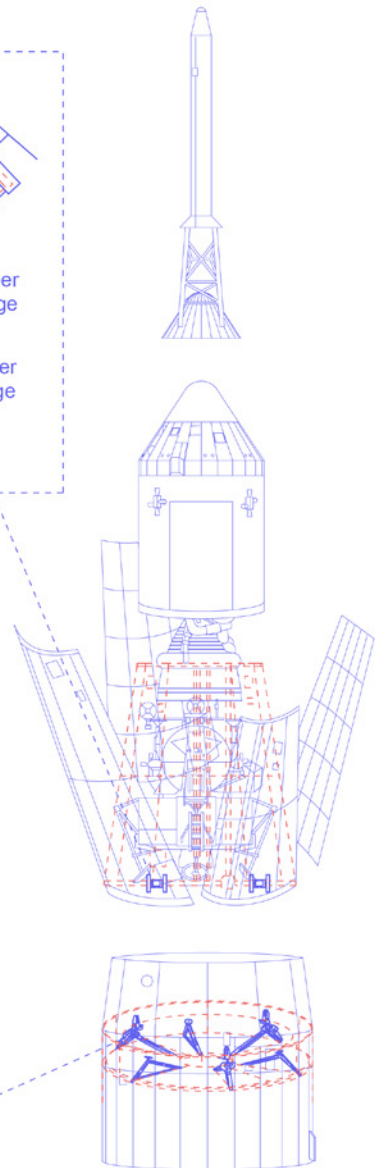
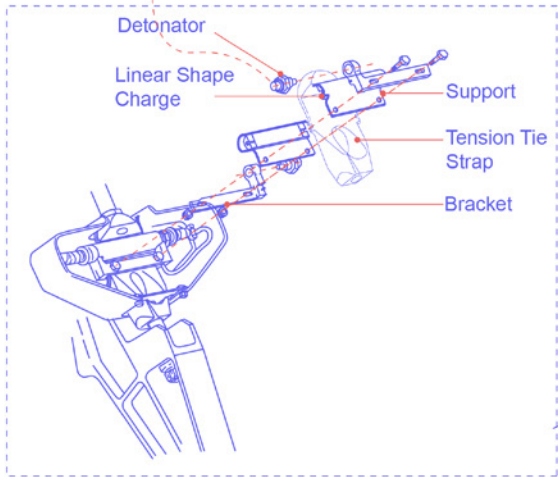
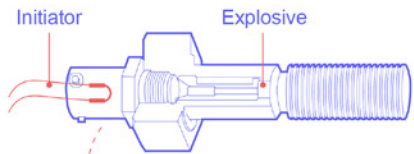
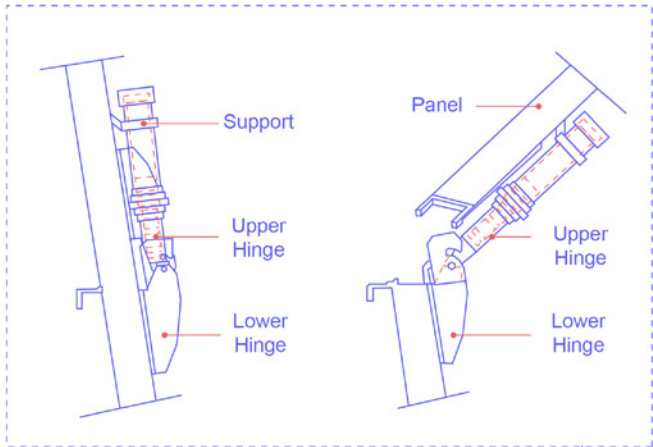
**THIS PROJECT CENTERS AROUND THE MAN-MADE SPACE DEBRIS THAT IS CREATED FROM INCREDIBLY COMPLEX PIECES OF TECHNOLOGY DOWN TO WHERE EVEN THE NUTS AND BOLTS OF A DEVICE ARE HIGHLY ENGINEERED. ONCE THESE HIGHLY TECHNICAL PIECES SERVE THEIR PURPOSE THEY TURN INTO JUNK, FORGOTTEN AND LEFT TO ORBIT EARTH WITH NO PLAN TO CLEAN IT UP.**

**THE PROPOSAL COMPETES WITH THE SPECTACLE OF THE ROCKET LAUNCHES THAT NEIGHBOURS THE SITE, THROUGH ITS SIZE AND HORIZONTALITY.**

**THINKING BEYOND THE PHYSICAL DEBRIS, THE ISJC ALLOWS FOR THE NEGOTIATION OF THE OWNERSHIP AND SHARING OF THE MASSIVE AMOUNT OF INFORMATION AND DATA COLLECTED IN ORDER TO TRACK SPACE DEBRIS. MODELLED AFTER THE UNITED NATIONS, THE INTERNATIONAL SPACE JUNK CENTRE WILL BE AN OPEN SOURCE DATA CENTRE THAT COLLECTS INFORMATION ON ARTIFICIAL SPACE DEBRIS WHILE OPERATING AS AN INTERNATIONAL ORGANISATION WHERE ALL NATIONS CAN GATHER TOGETHER AND DISCUSS AND MAKE LEGISLATIVE DECISIONS WHILE BEING OPEN TO THE PUBLIC.**







**FORWARD COMPARTMENT**

**EARTH LANDING SYSTEM EQUIP.**

Two drogue parachutes, three main parachutes, radio and strobe light beacons, a dye marker, and three uprighting bags

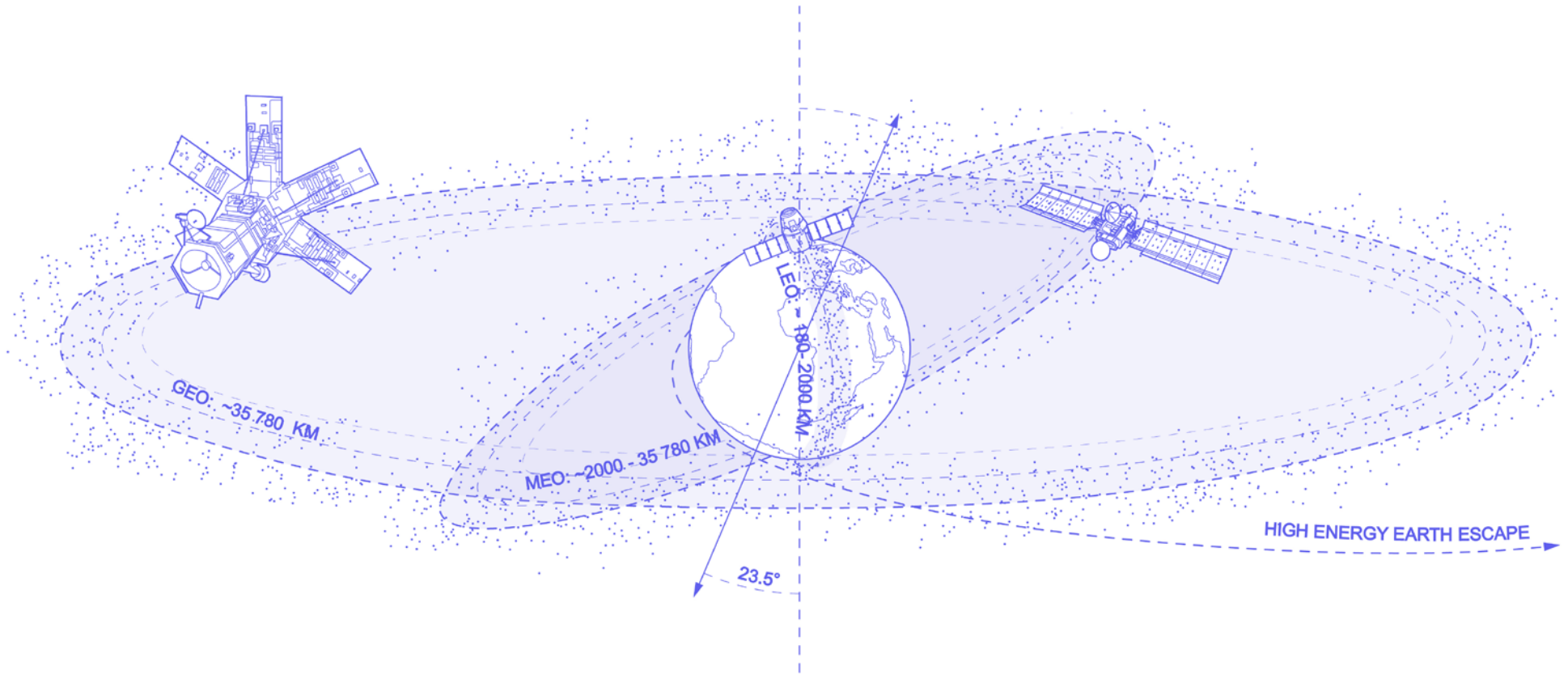
**INTERNAL CONFIGURATION**

Apollo Foldable Crew Couch Structure

Equipment Bays

**INSTRUMENT UNIT**





**GEOSYNCHRONOUS ORBIT**  
 EARTH CENTERED ORBIT THAT  
 MATCH EARTH'S ROTATION ON ITS  
 AXIS , WEATHER SATELLITES

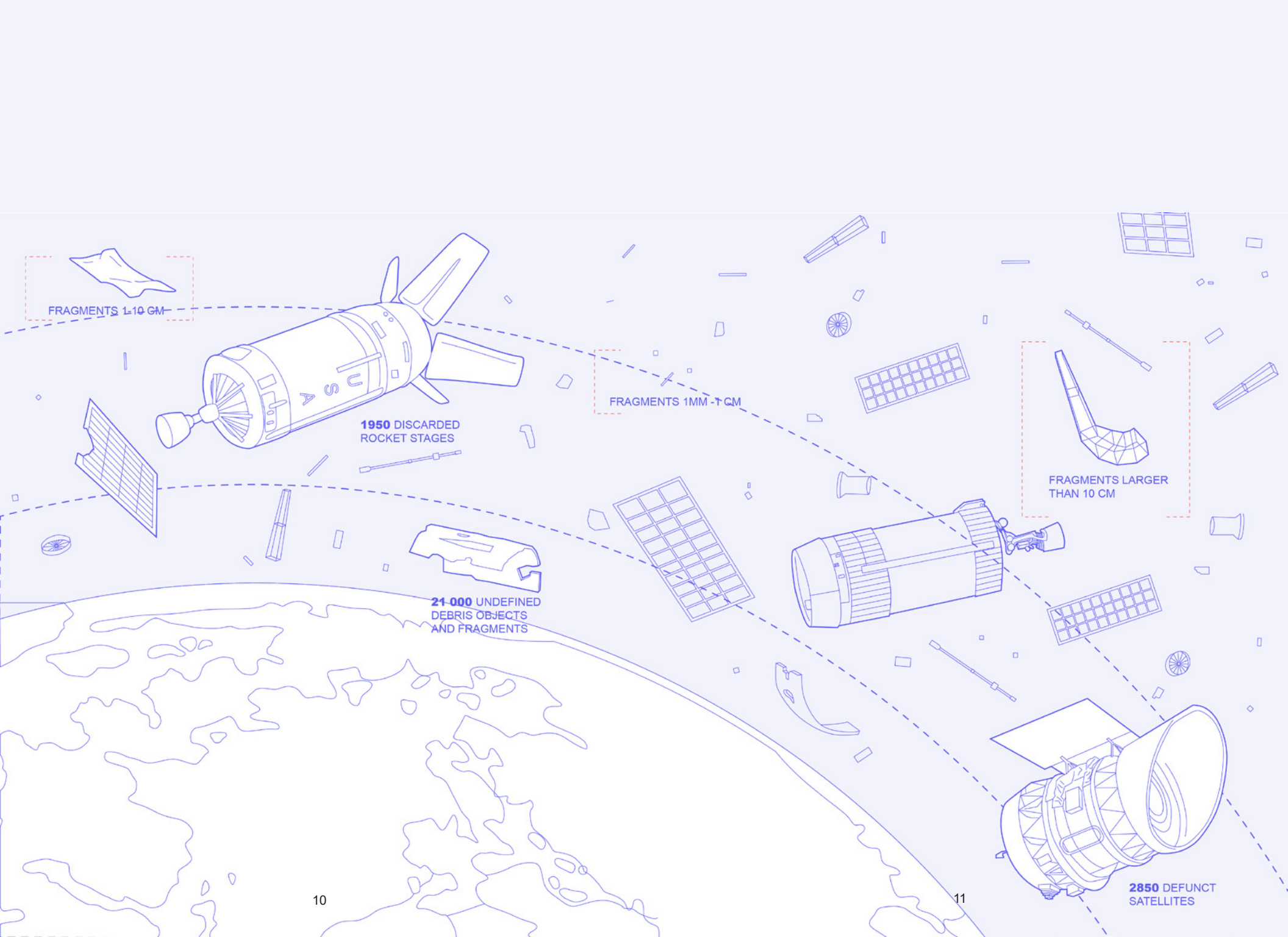
**MEDIUM EARTH ORBIT**  
 SEMI-SYNCHRONOUS ORBIT AND  
 MOLNIYA ORBIT, GPS SATELLITES

12 HOURS

**LOW EARTH ORBIT**  
 REMOTE SENSING AND COMMUNI-  
 CATION NETWORKS

99 MINUTES

**HIGH ENERGY EARTH ESCAPE**  
 HYPERBOLIC TRAJECTORY FOR  
 INTERPLANETARY MISSIONS



FRAGMENTS 1-10 GM

1950 DISCARDED  
ROCKET STAGES

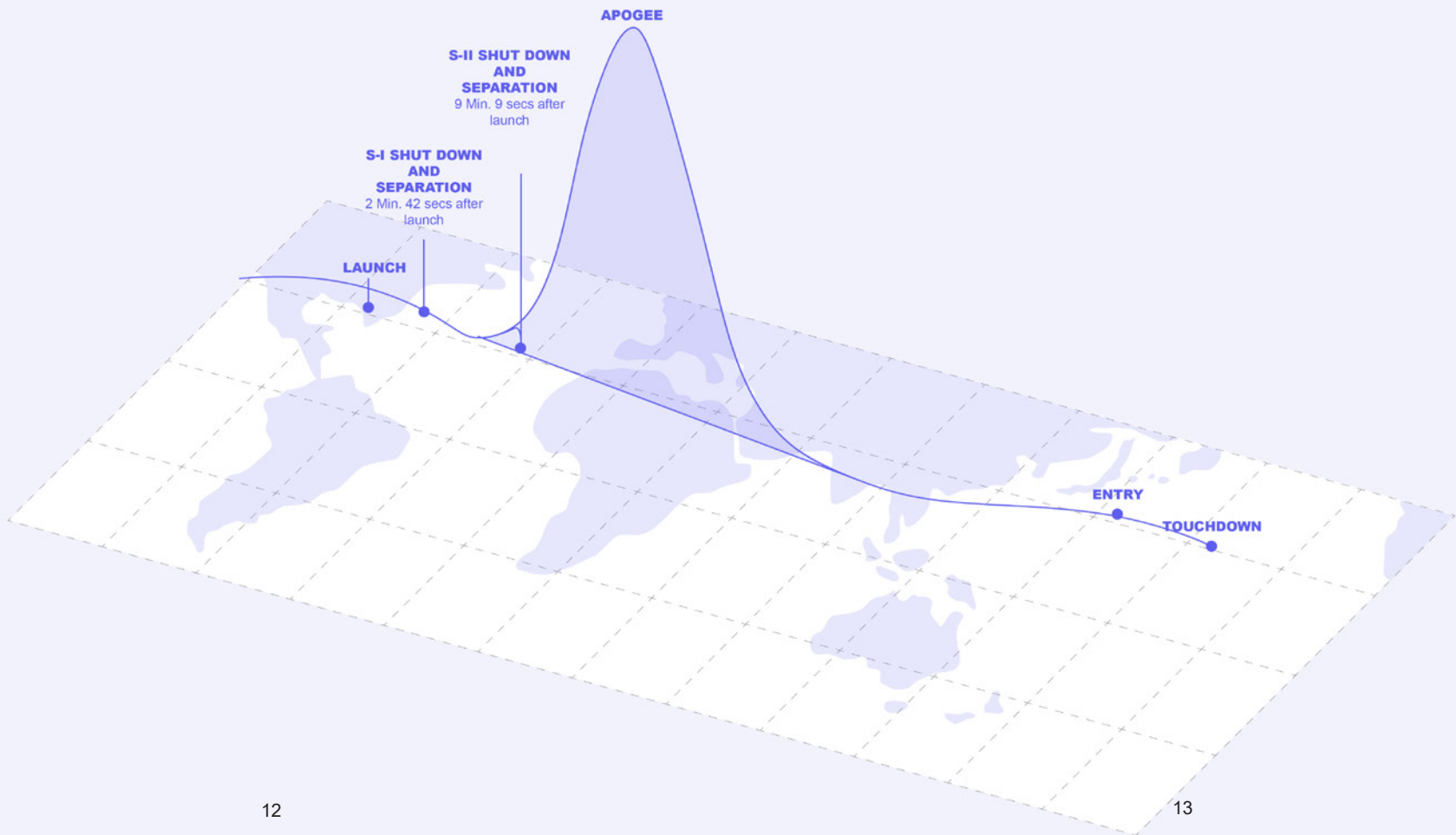
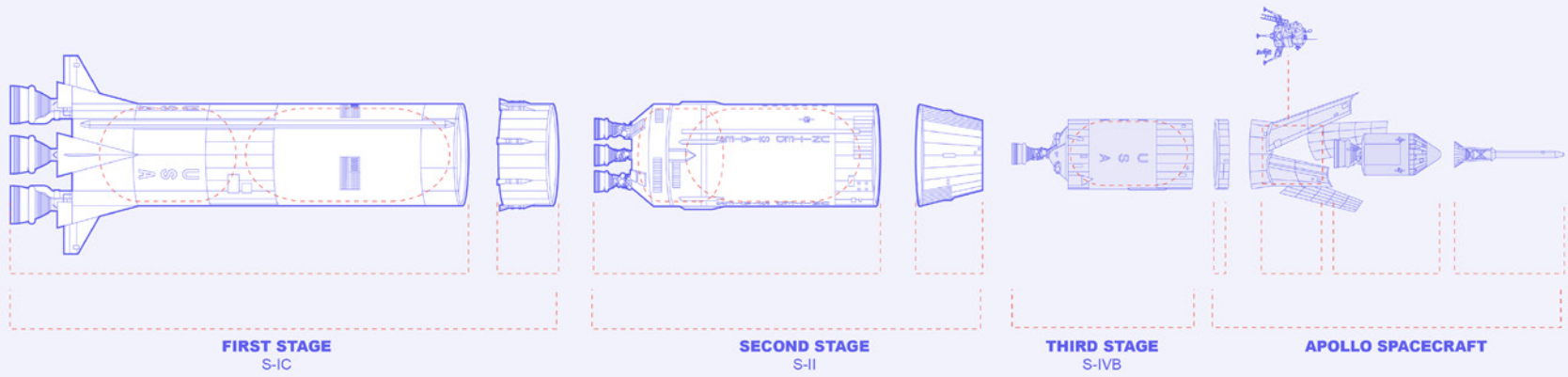
FRAGMENTS 1MM-1GM

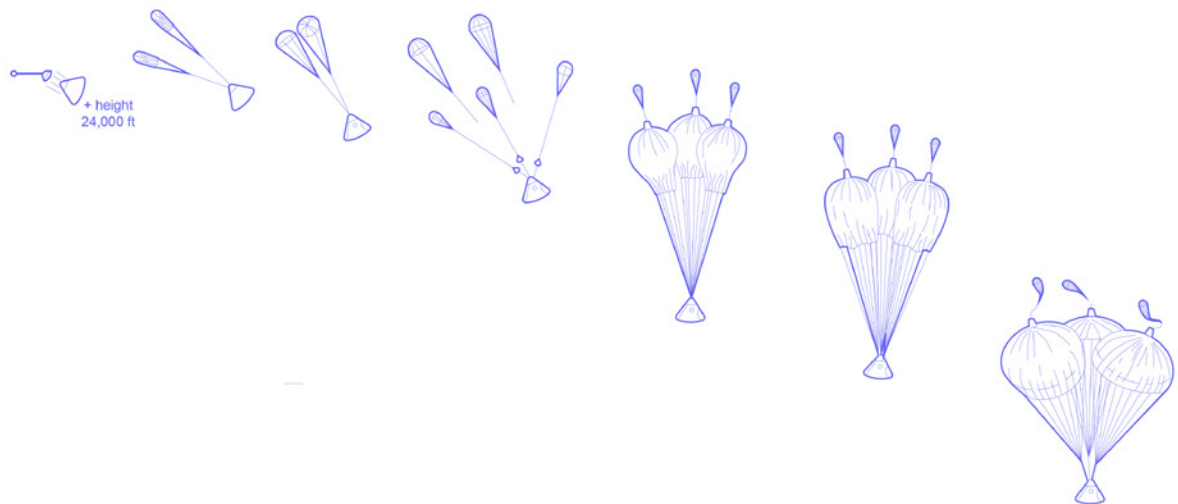
FRAGMENTS LARGER THAN  
10 CM

21-000 UNDEFINED  
DEBRIS OBJECTS  
AND FRAGMENTS

2850 DEFUNCT  
SATELLITES







ASTRONAUTS REPORT THEY ARE OKAY

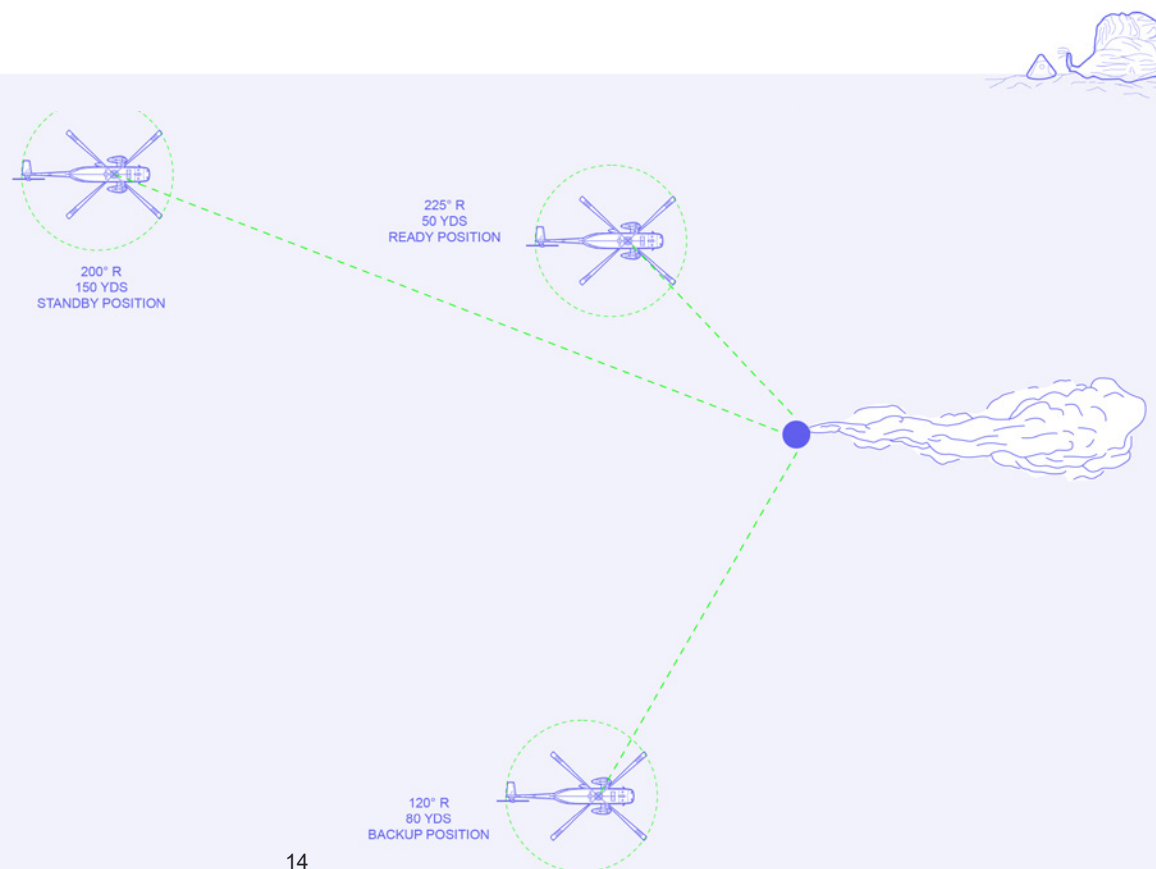


DROP ANOTHER COLLAR

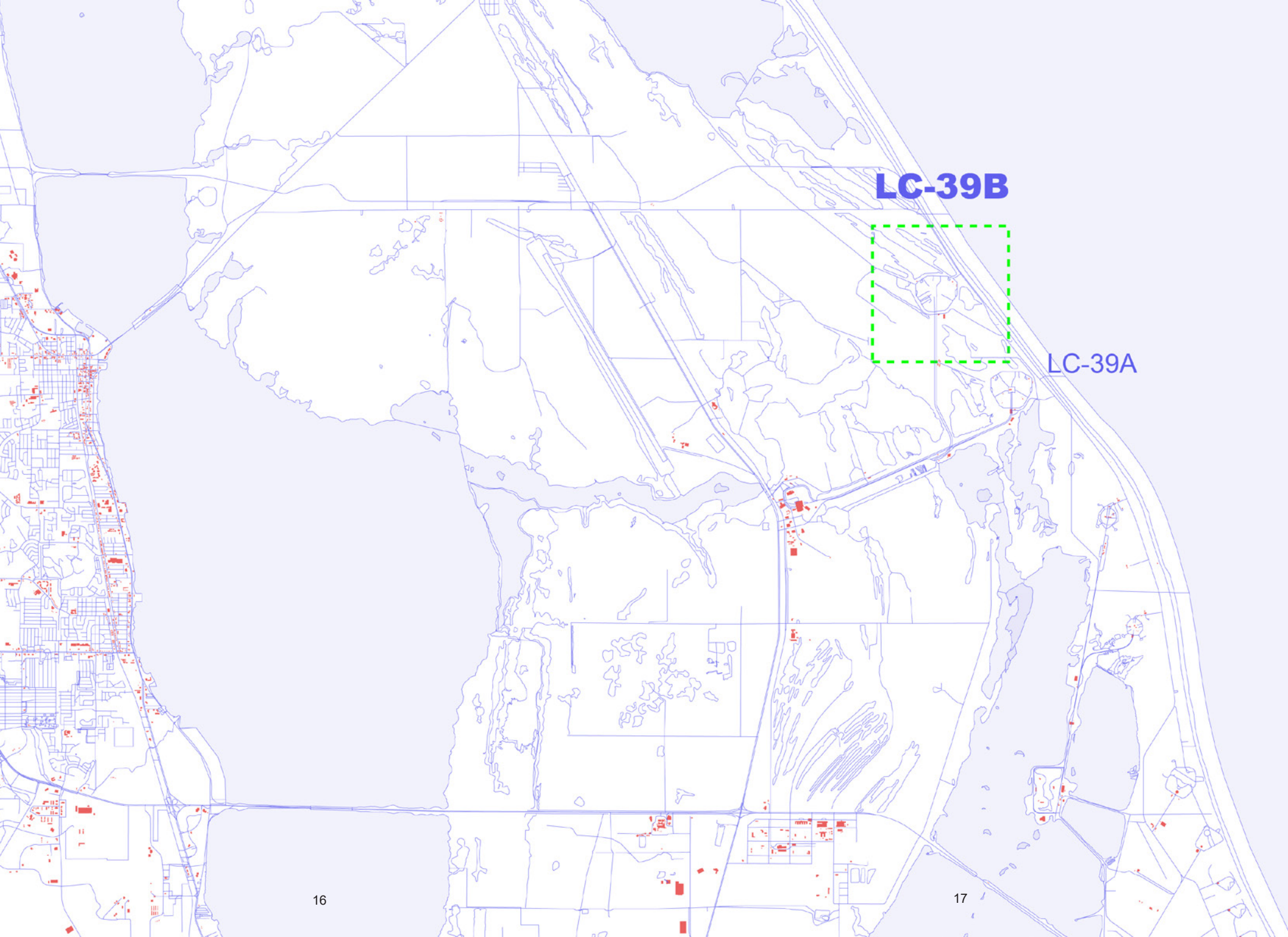


LOWER BASKET CRADLE FOR PICK-UP (CRADLING MOTION)

FIGURE 1-1 SWIMMER HAND SIGNALS



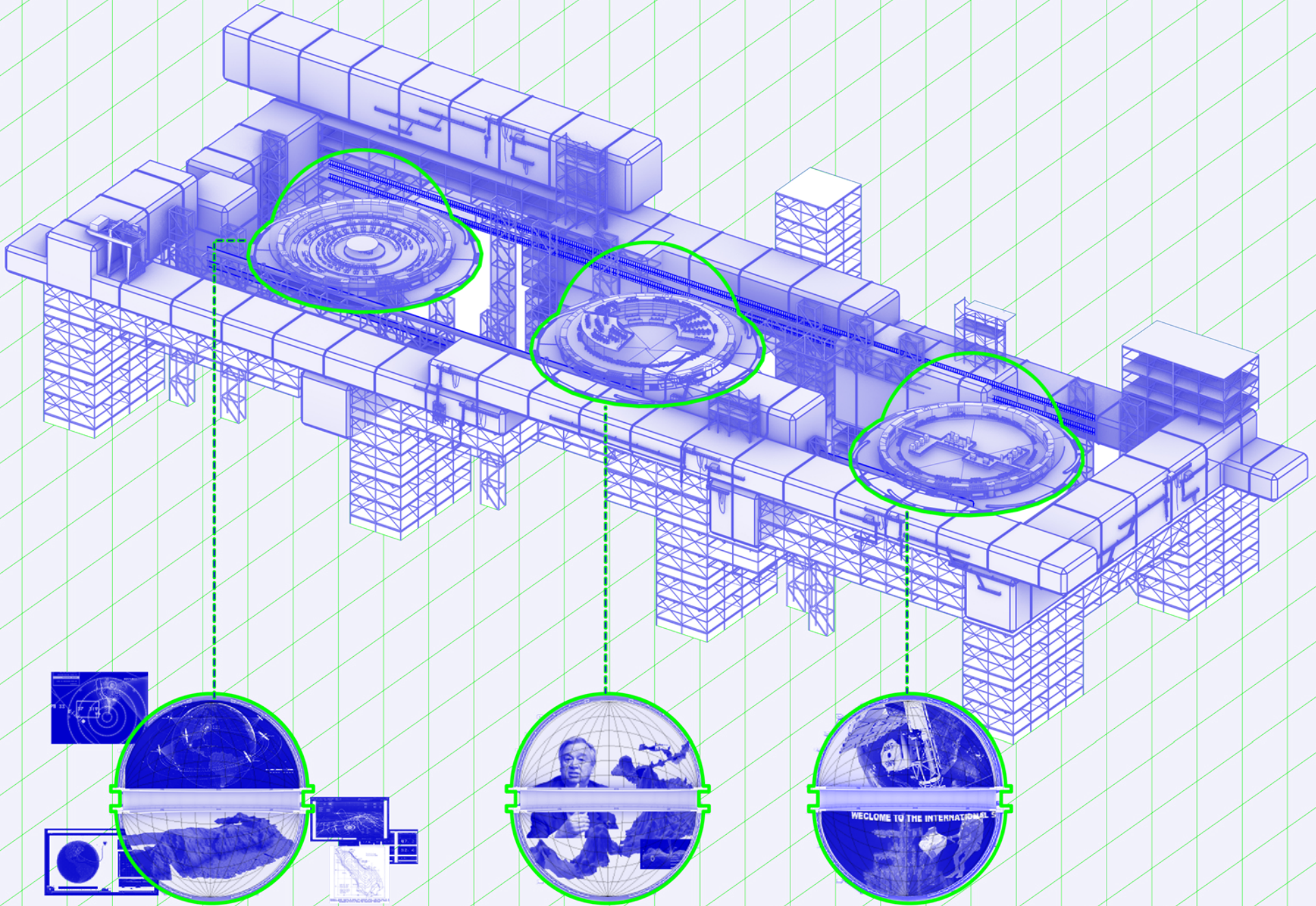




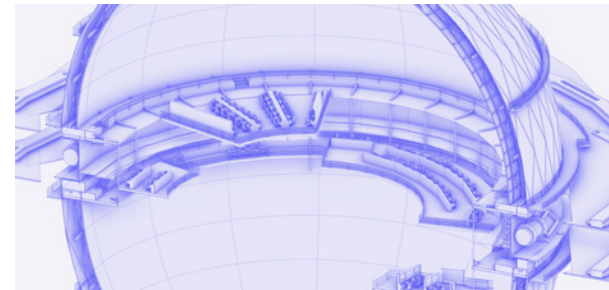
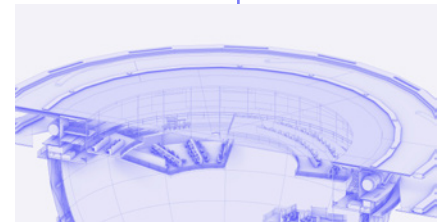
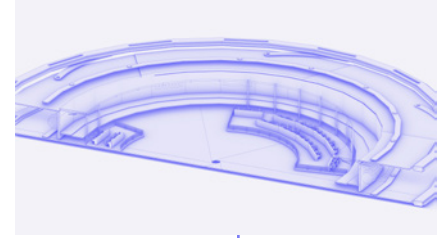
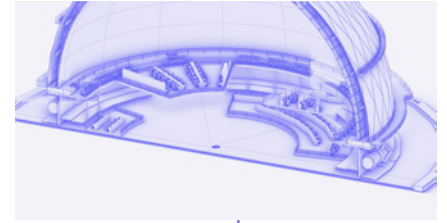
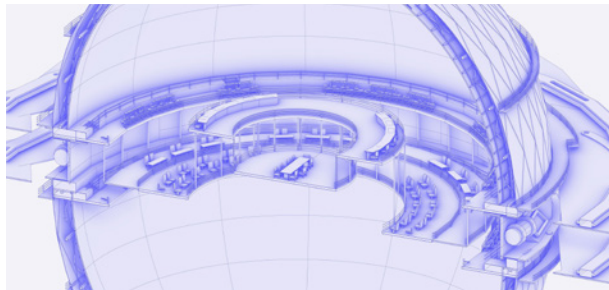
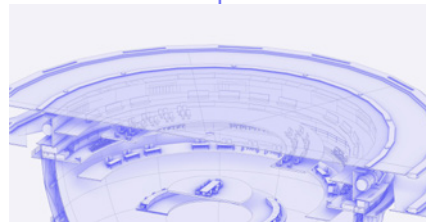
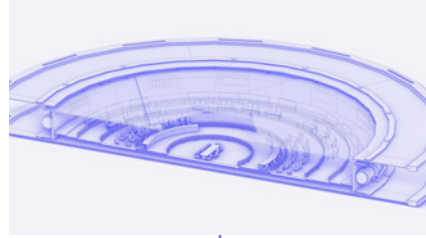
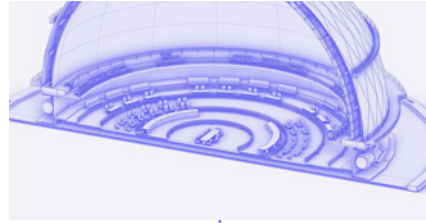
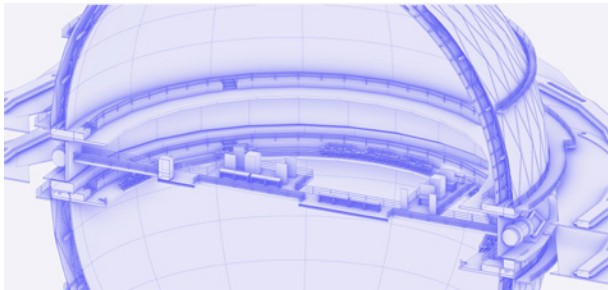
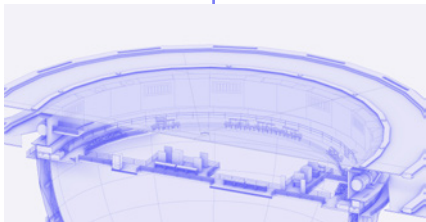
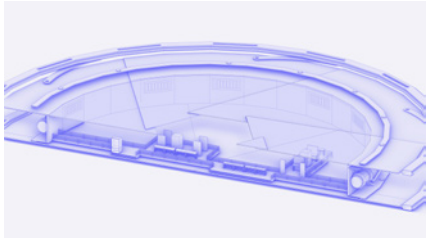
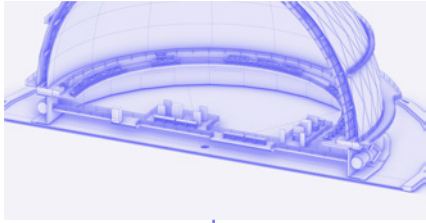
**LC-39B**

**LC-39A**

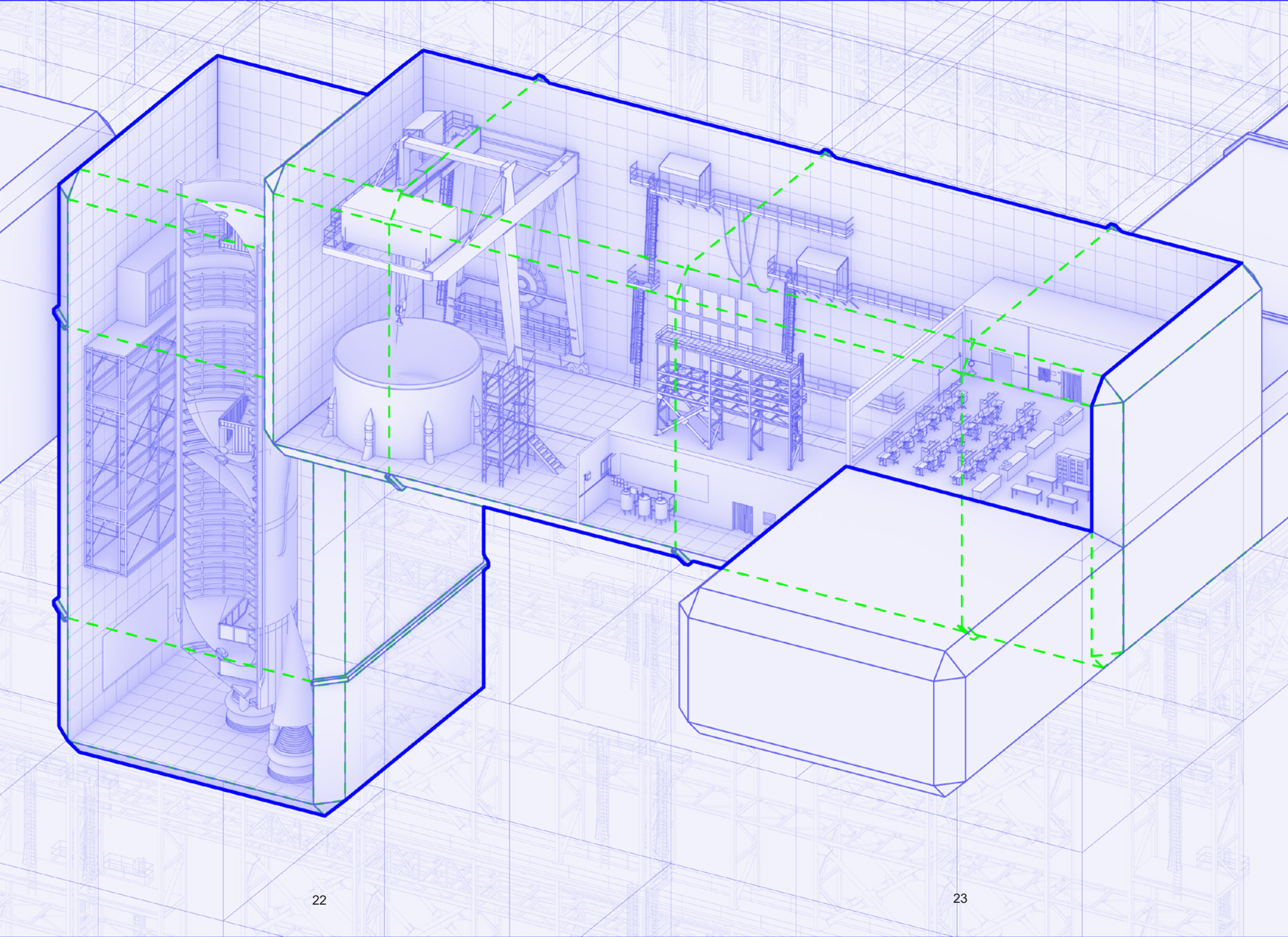




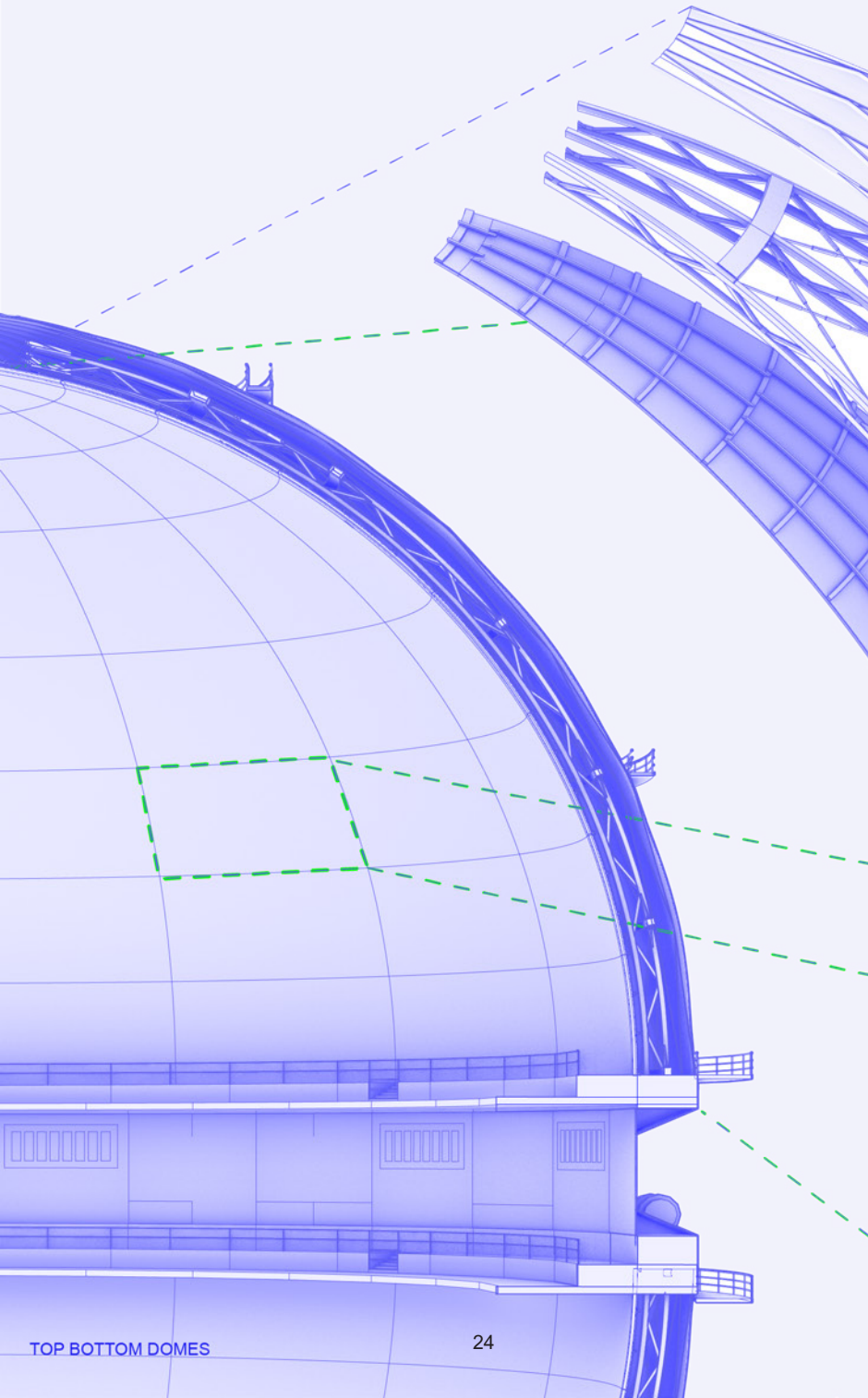






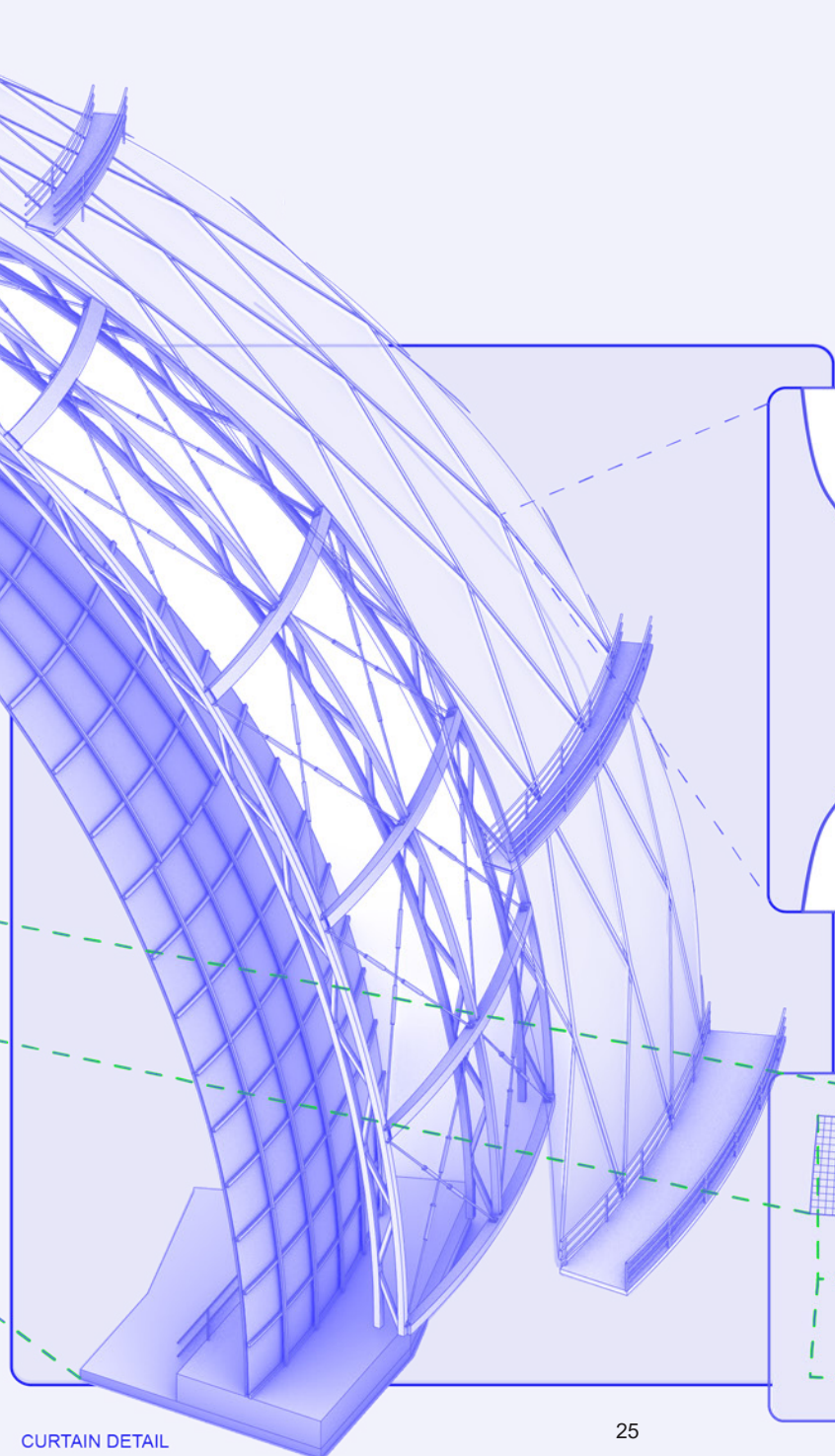






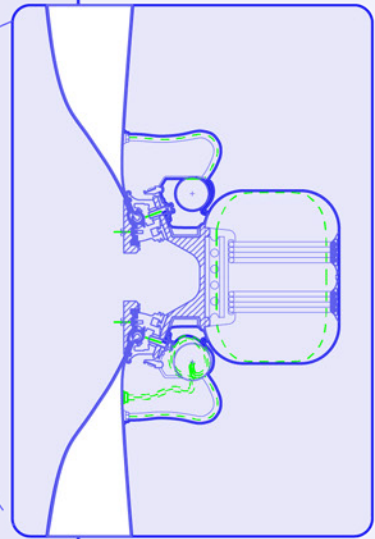
TOP BOTTOM DOMES

24

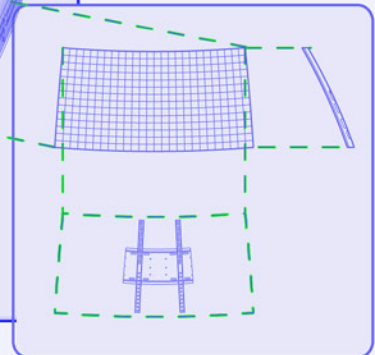


CURTAIN DETAIL

25

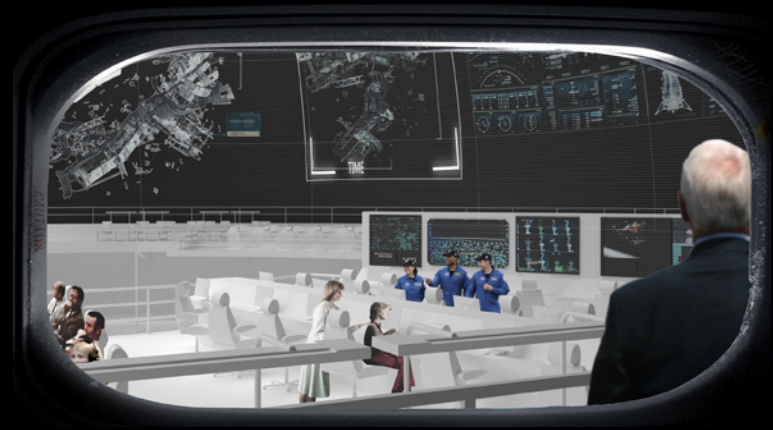


ETFE CUSHION DETAIL



SCREEN TO STRUCTURE CONNECTION







# URBAN CHICKS

ADV STUDIO IV | Spring 2021

Ziad Jamaledine

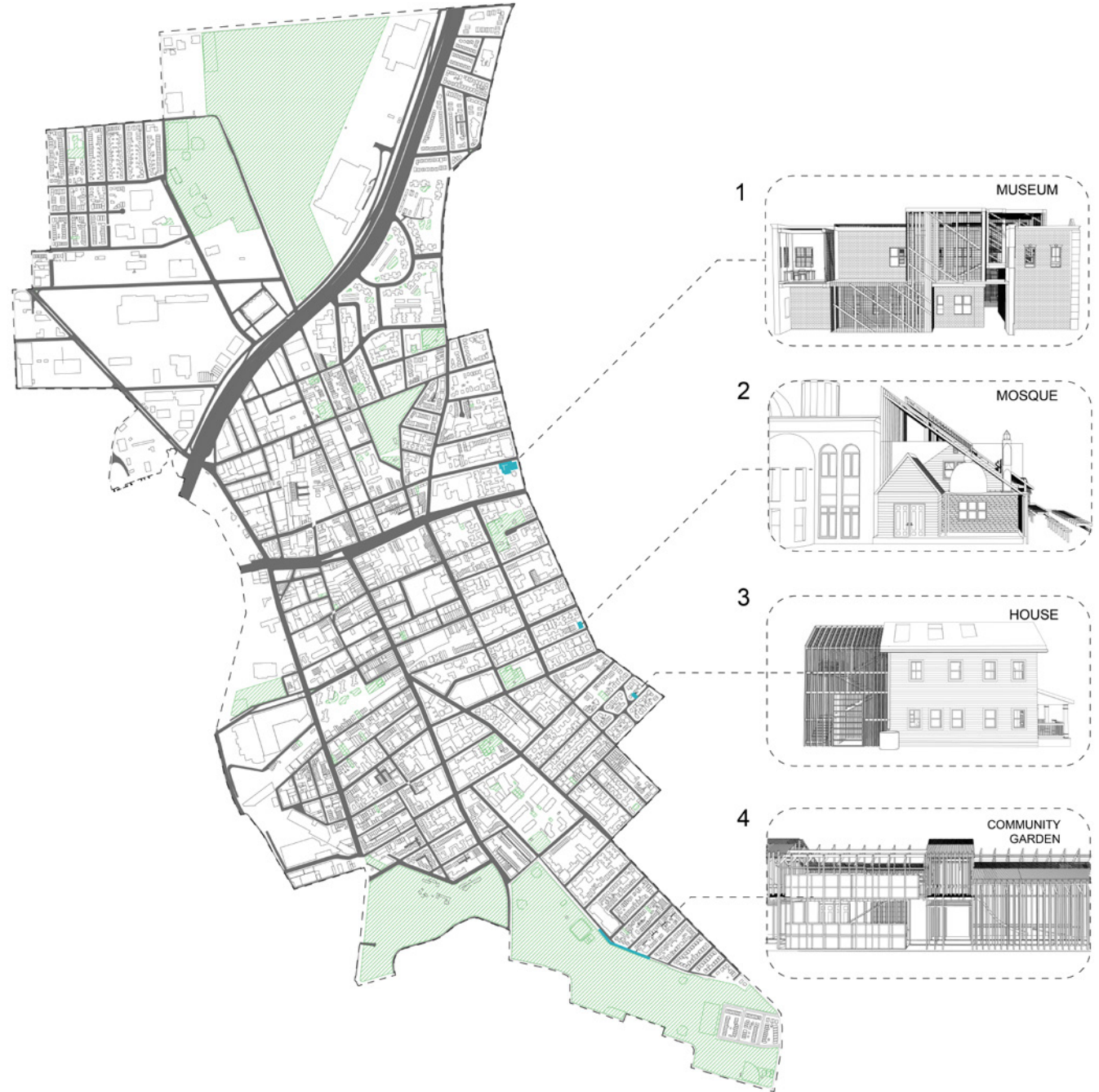
Islamberg, New York

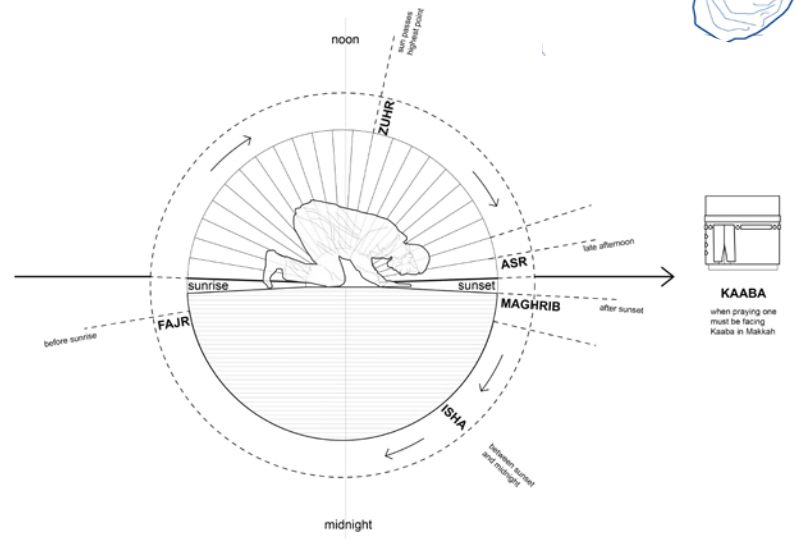
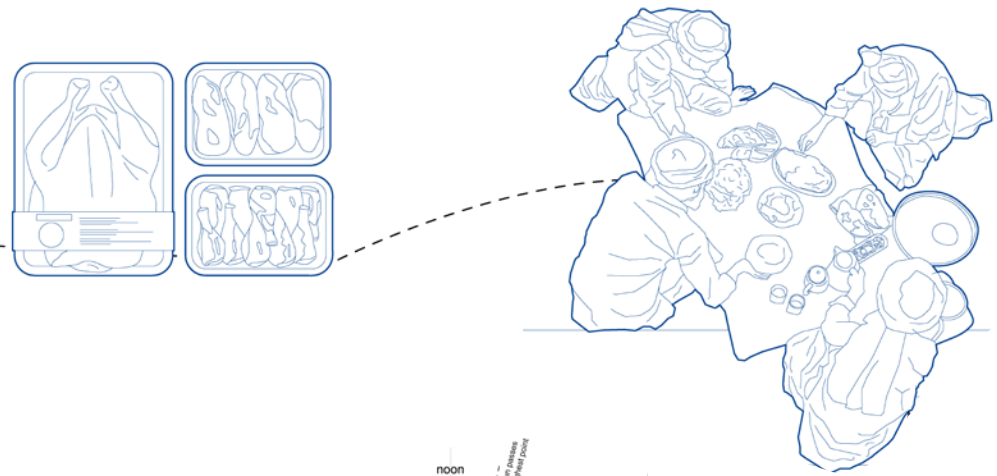
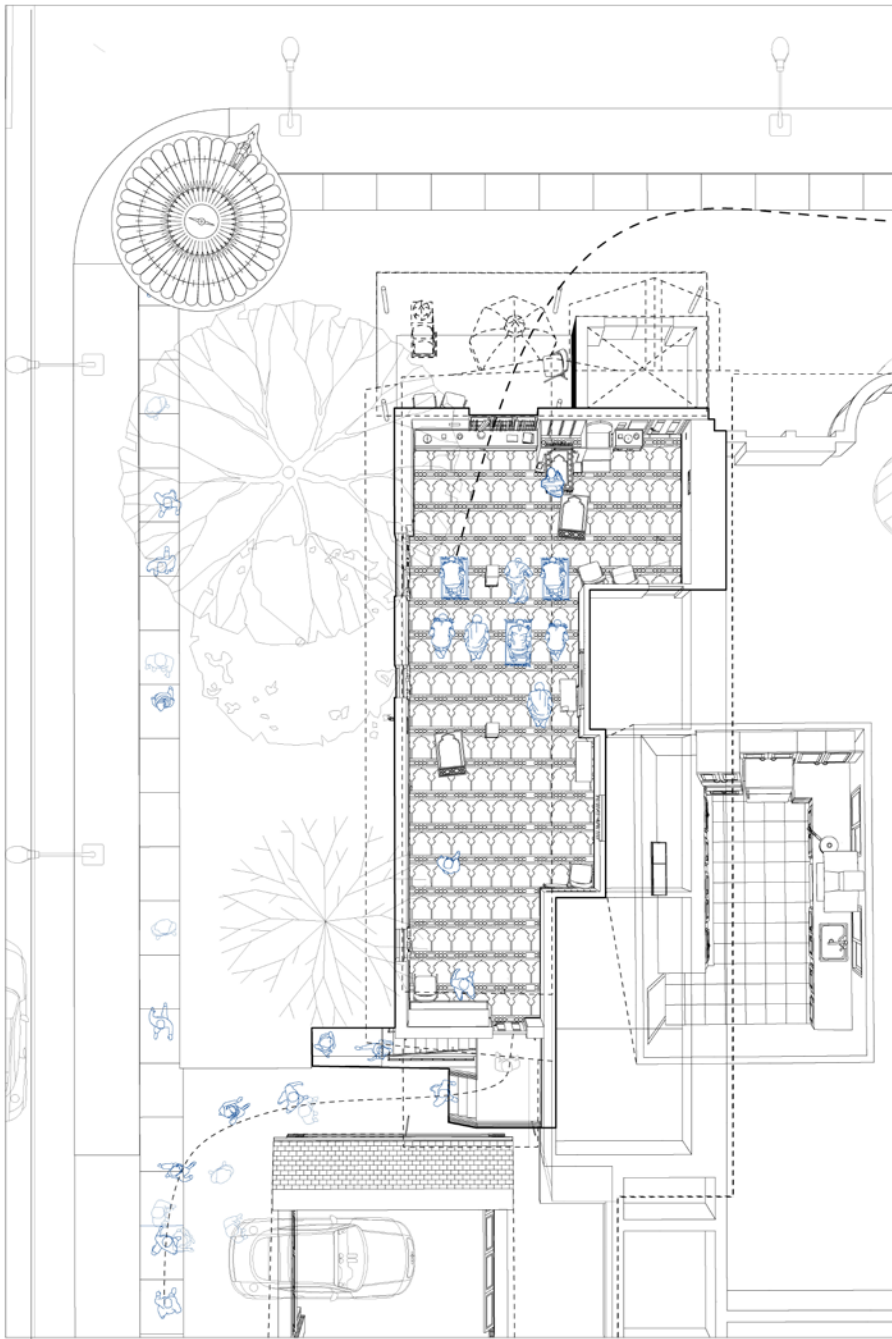
Academic Partnered Project: Jean Kim

**OUR PROPOSAL EXAMINES OPPORTUNITIES FOR RE-INTRODUCING FARMS TO AN URBAN SETTING BY PRODUCING A LOCALIZED AND SUSTAINABLE FARMING SOLUTION.**

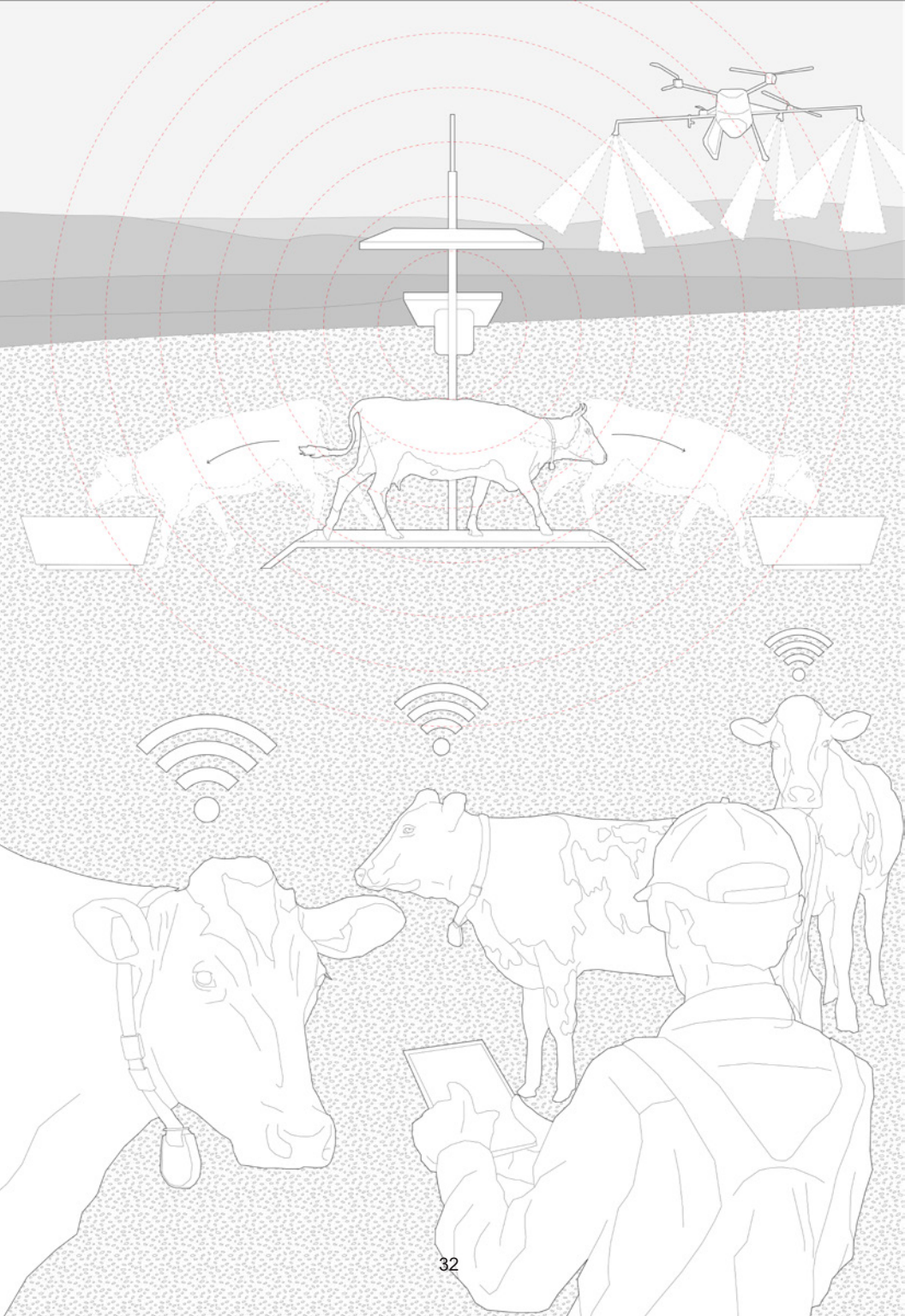
**FIRST, AN EARLY ANALYSIS OF IMMIGRANT COMMUNITIES SUCH AS AFGHAN MUSLIMS AND ASIAN COMMUNITIES EXAMINES THE RELATIONSHIP BETWEEN NON-WESTERN FOOD CONSUMPTION AND ENVIRONMENTAL IMPLICATIONS. WE THEN IDENTIFY TYPOLOGIES UNIQUE TO FLUSHING QUEENS, FINDING SPATIAL OPPORTUNITIES TO MEDIATE COEXISTENCE BETWEEN HUMANS AND CHICKENS. THESE TYPOLOGIES CONSIDER PRIVATE AND PUBLIC REALMS OF SINGLE-FAMILY HOMES, HOUSES OF WORSHIP, ABANDONED BUILDINGS, AND COMMUNITY GARDENS.**

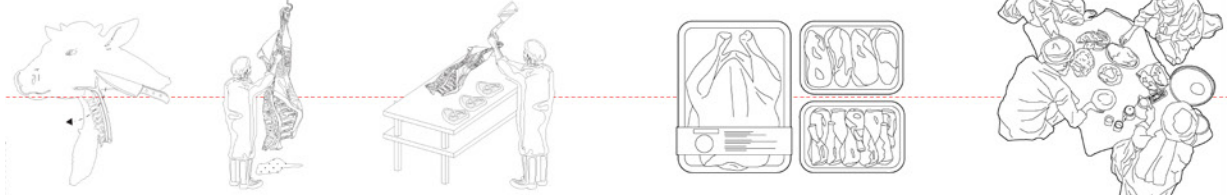
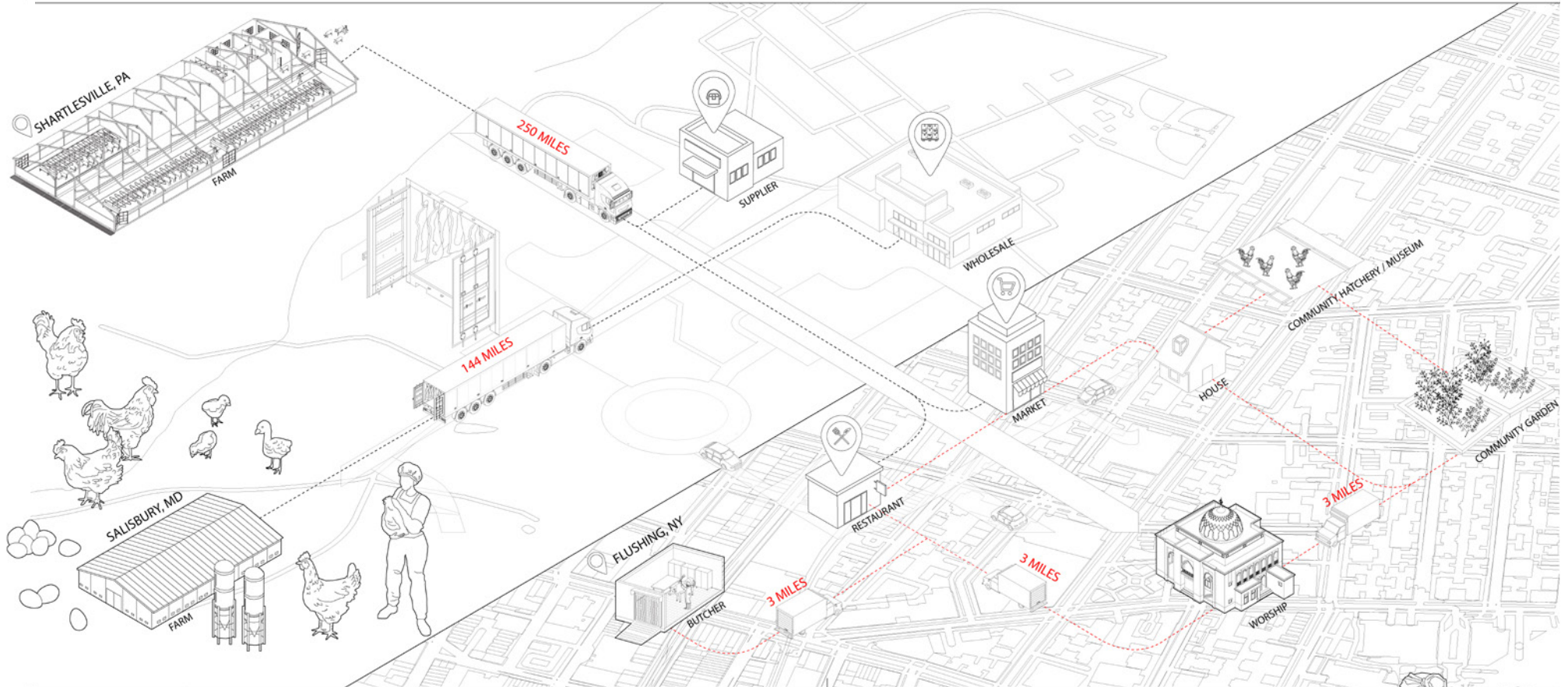
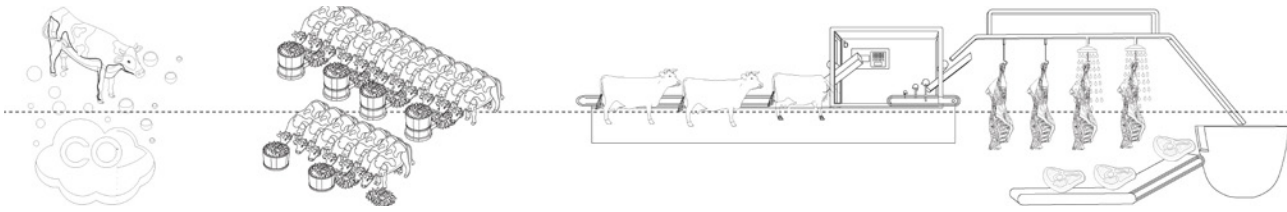
**“NON-BUILDING” ARCHITECTURE IS EXPLORED THROUGH MESH AND TIMBER CONSTRUCTION, EMPHASIZING THE EASE AND FLEXIBILITY OF CO-EXISTENCE. A TYPICAL HOUSE EXPLORES COHABITATION BETWEEN HUMANS AND CHICKEN. IN CONTRAST, A COMMUNITY GARDEN INTERWEAVES PUBLIC HUMAN ACTIVITIES WITH CHICKEN COOPS. THE ABANDONED BUILDING THEN INCLUDES EXHIBITIONS AND A BUTCHER ADHERING TO NON-WESTERN POULTRY PRACTICES CATERING TO HALAL, KOSHER, AND NON-FAITH-BASED MEAT PROCESSING. FINALLY, THE HOUSE-MOSQUE SERVES AS THE TABLE END RESTAURANT AND HERB GARDEN ENGAGING VISITORS AND CHICKENS.**















+32  
ABANDONED  
BUILDINGS

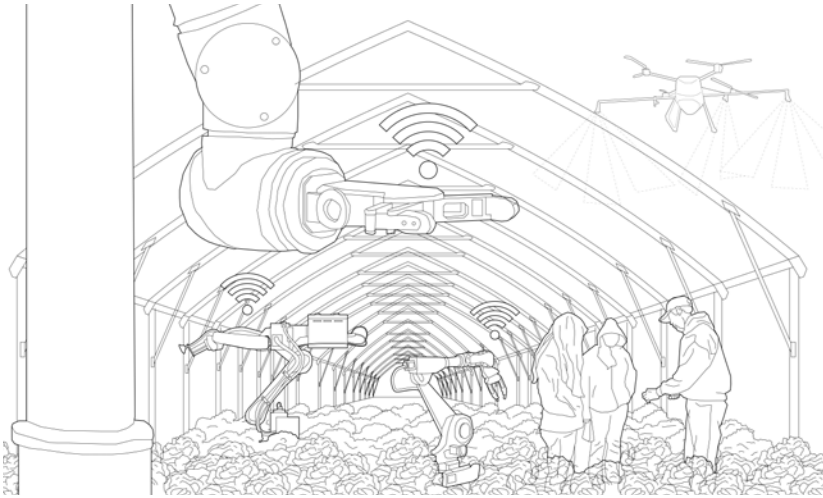
+1,200  
SINGLE FAMILY  
HOMES

+2  
COMMUNITY  
GARDENS

+100  
HOUSES OF  
WORSHIP



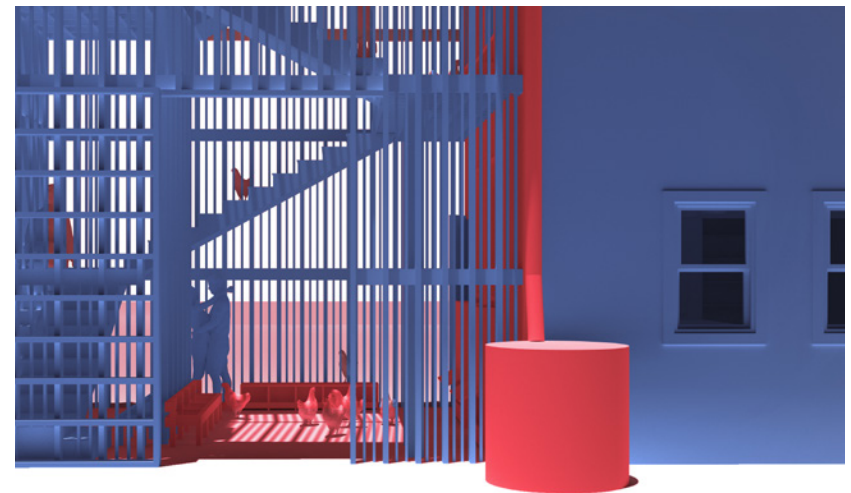




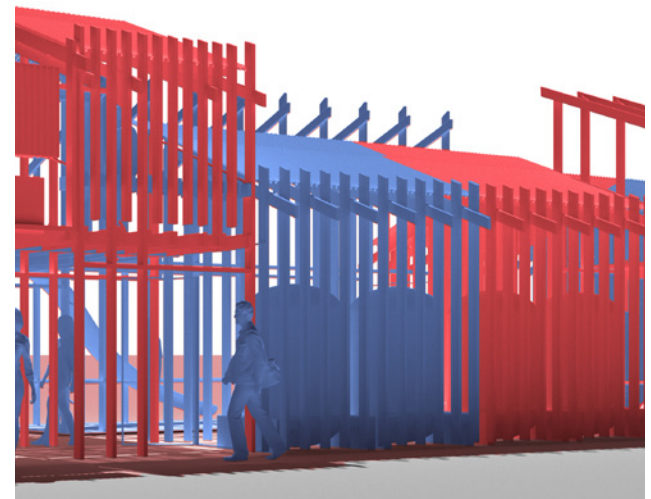
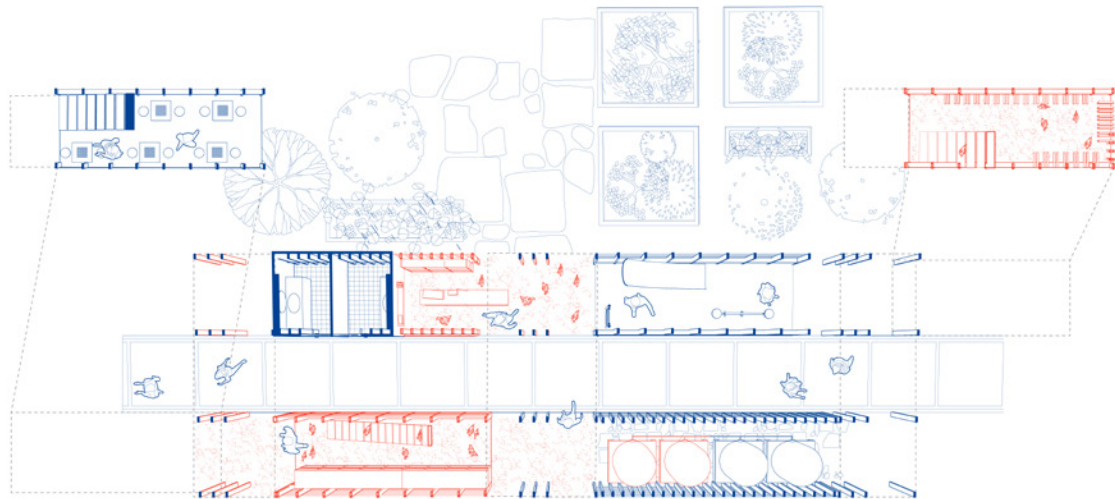
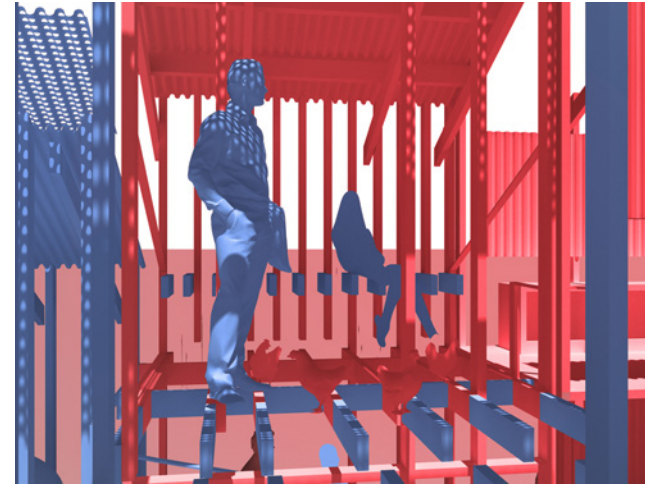
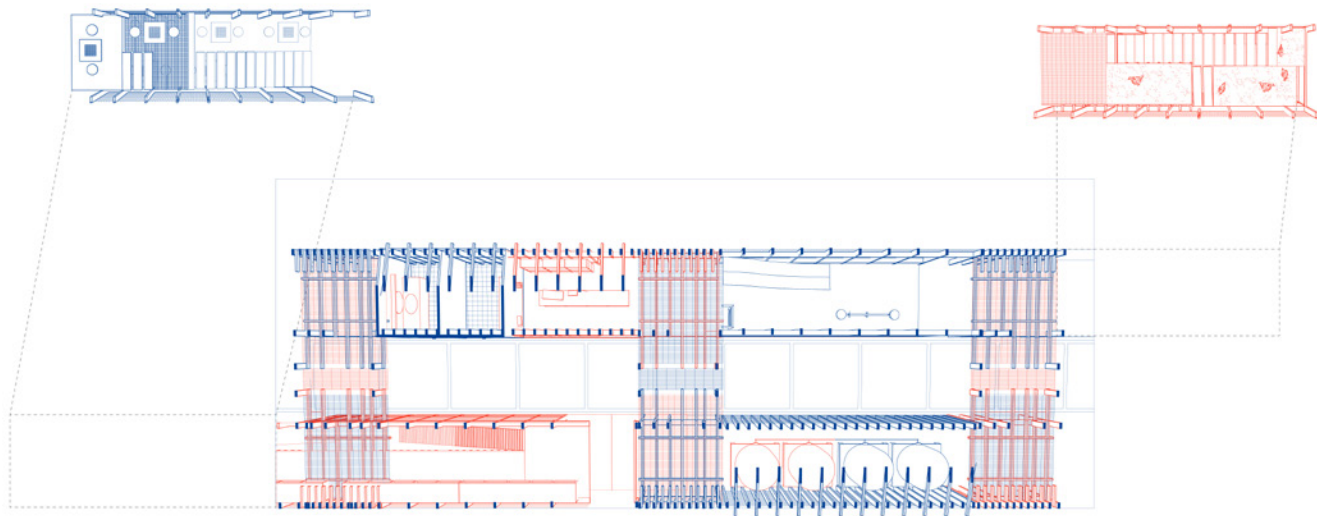


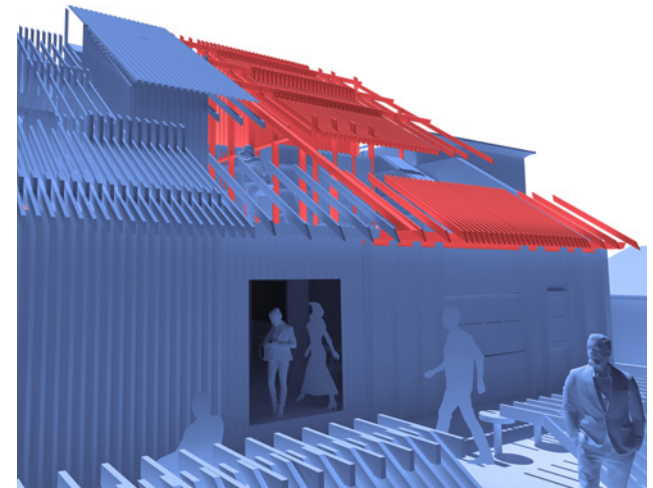
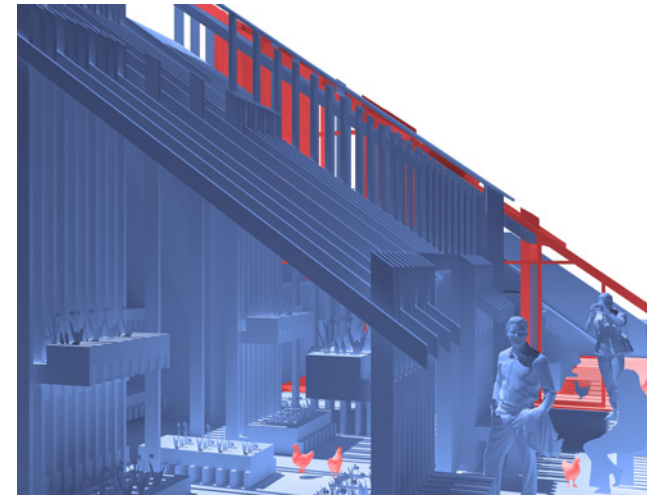
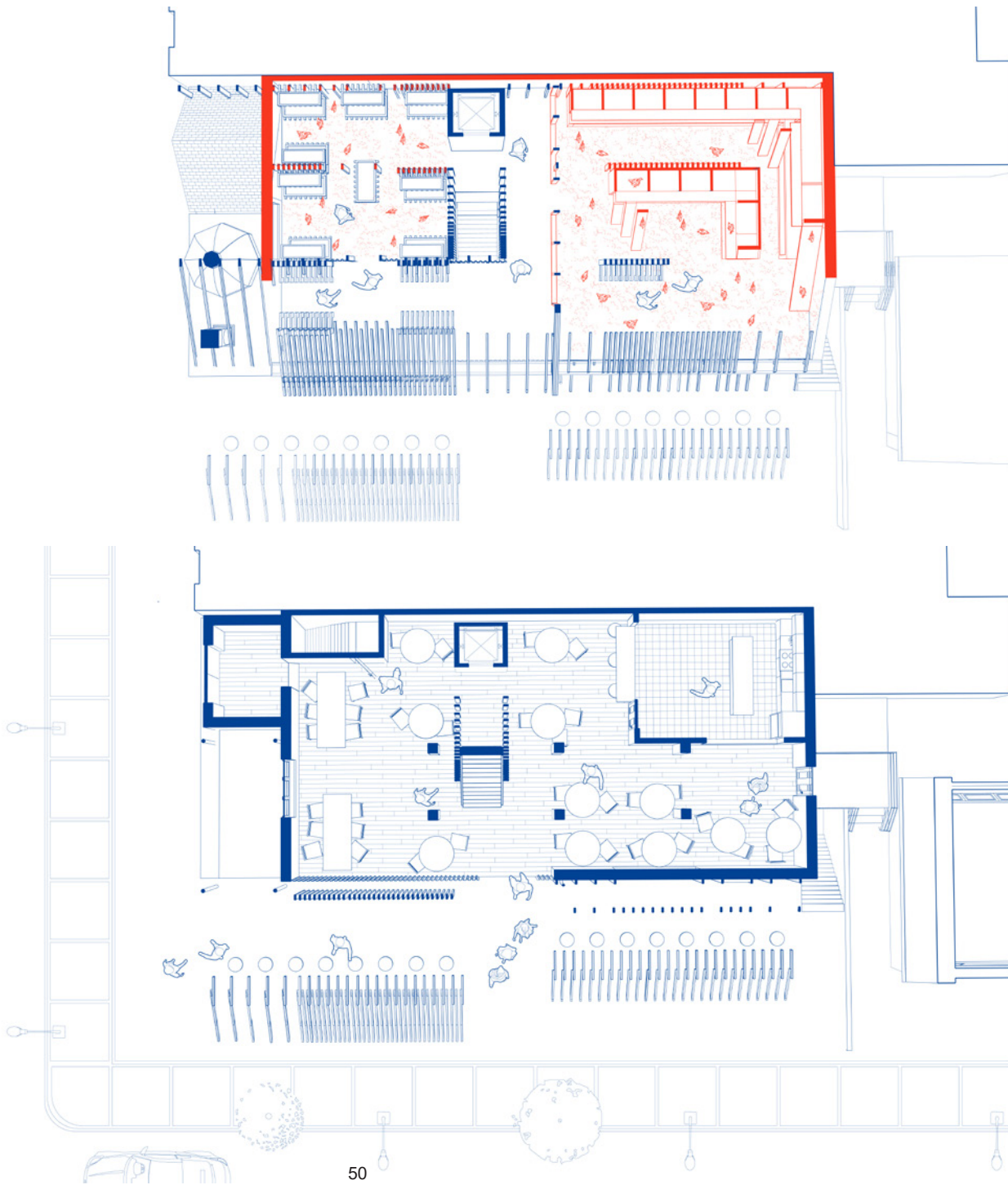














# RURAL - URBAN LANDSCAPE

ADV STUDIO IV | Spring 2021

Ziad Jamaledine

Islamberg, New York

Academic Partnered Project: Jean Kim

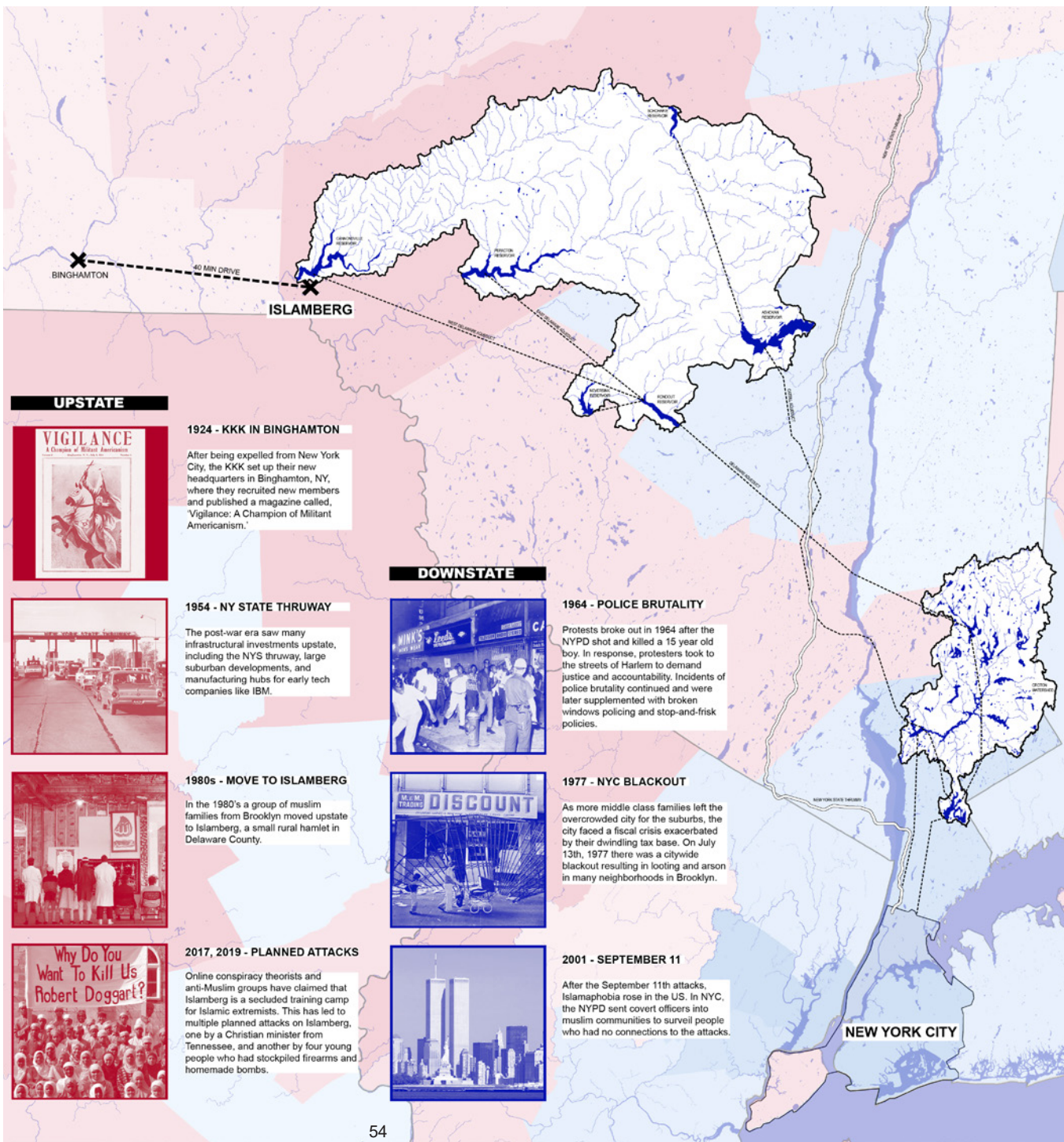


**THROUGH CAREFUL MANIPULATION OF THIS SHARED LAND WITH NYC, A SERIES OF INDENTATIONS WITHIN THE LANDSCAPE OF THE CATSKILLS MOUNTAIN FORM SMALL POOLS TO CATCH AND SLOWLY RE-RELEASE WATER INTO THE. THE EXISTING WATER TABLE**

**OVER MULTIPLE GENERATIONS THE HOPE IS THAT AS THE POPULATION WITHIN ISLAMBERG GROWS, AND THAT THE PEOPLE IN THE TOWN CREATE ADDITIONAL SETTLEMENTS ALONG THE POOLS.**

**BY CREATING SPACES THAT PROVIDES THE TOOLS AND KNOWLEDGE TO BUILD OUT THEIR COMMUNITY, WE HOPE TO PROVIDE THE PEOPLE OF ISLAMBERG WITH TOOLS THAT HELP THEM BECOME A SELF-RELIANT COMMUNITY BUILT FROM MATERIALS FOUND IN NATURE CLOSE TO THEIR HOMES.**





**UPSTATE**



**1924 - KKK IN BINGHAMTON**

After being expelled from New York City, the KKK set up their new headquarters in Binghamton, NY, where they recruited new members and published a magazine called, 'Vigilance: A Champion of Militant Americanism.'



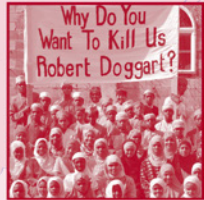
**1954 - NY STATE THRUWAY**

The post-war era saw many infrastructural investments upstate, including the NYS thruway, large suburban developments, and manufacturing hubs for early tech companies like IBM.



**1980s - MOVE TO ISLAMBERG**

In the 1980's a group of muslim families from Brooklyn moved upstate to Islamberg, a small rural hamlet in Delaware County.



**2017, 2019 - PLANNED ATTACKS**

Online conspiracy theorists and anti-Muslim groups have claimed that Islamberg is a secluded training camp for Islamic extremists. This has led to multiple planned attacks on Islamberg, one by a Christian minister from Tennessee, and another by four young people who had stockpiled firearms and homemade bombs.

**DOWNSTATE**



**1964 - POLICE BRUTALITY**

Protests broke out in 1964 after the NYPD shot and killed a 15 year old boy. In response, protesters took to the streets of Harlem to demand justice and accountability. Incidents of police brutality continued and were later supplemented with broken windows policing and stop-and-frisk policies.



**1977 - NYC BLACKOUT**

As more middle class families left the overcrowded city for the suburbs, the city faced a fiscal crisis exacerbated by their dwindling tax base. On July 13th, 1977 there was a citywide blackout resulting in looting and arson in many neighborhoods in Brooklyn.

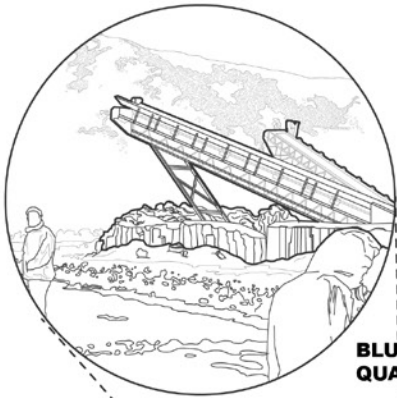


**2001 - SEPTEMBER 11**

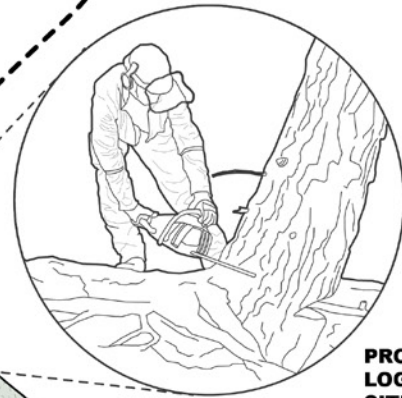
After the September 11th attacks, Islamophobia rose in the US. In NYC, the NYPD sent covert officers into muslim communities to surveil people who had no connections to the attacks.

**NEW YORK CITY**

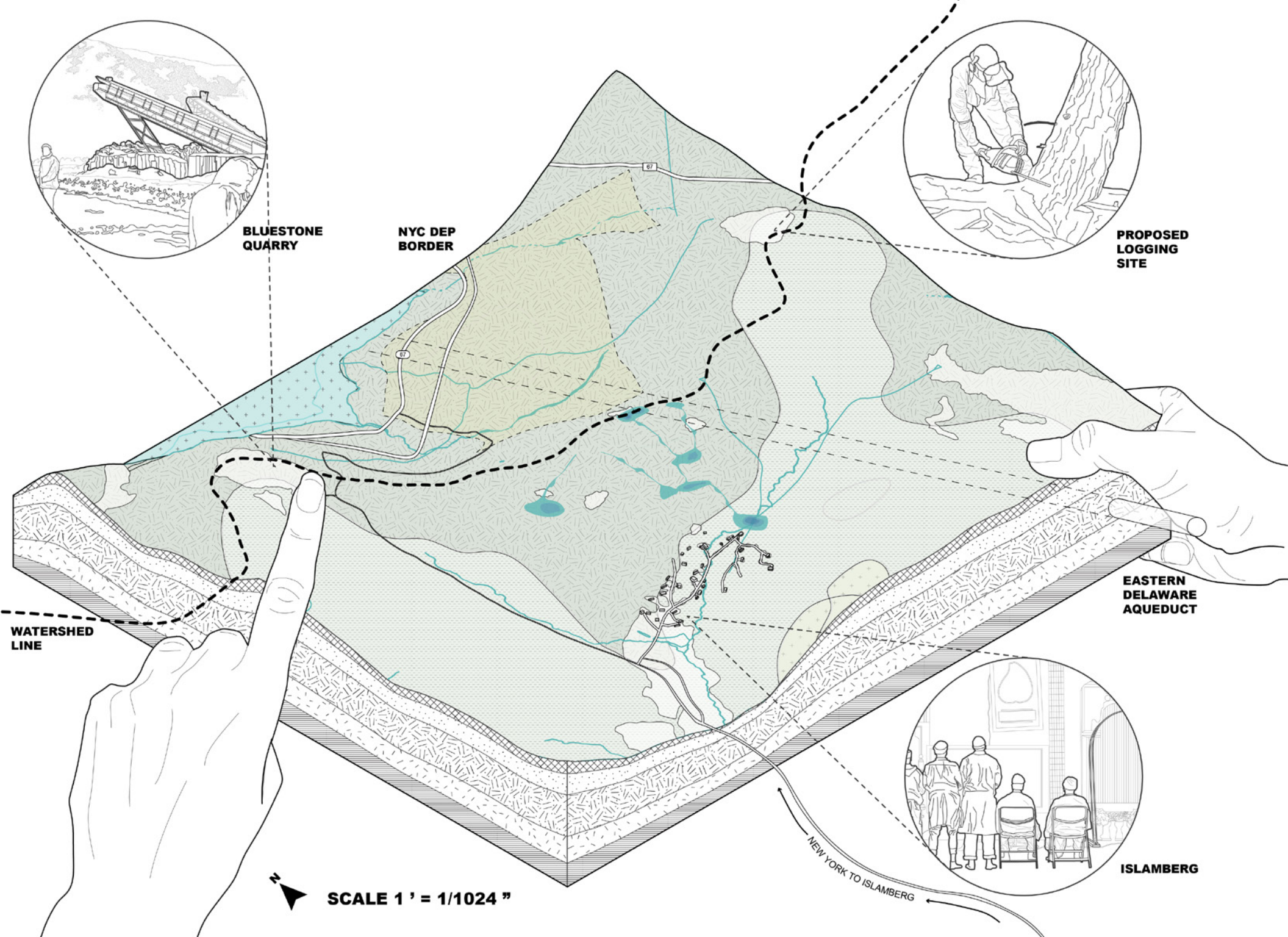




**BLUESTONE QUARRY**

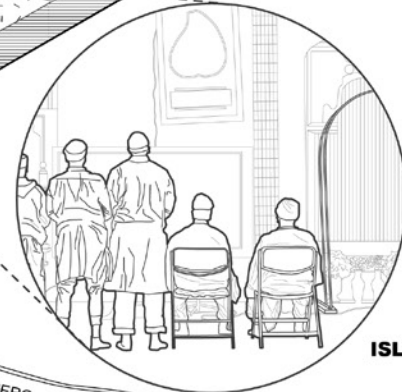


**PROPOSED LOGGING SITE**



**WATERSHED LINE**

**EASTERN DELAWARE AQUEDUCT**



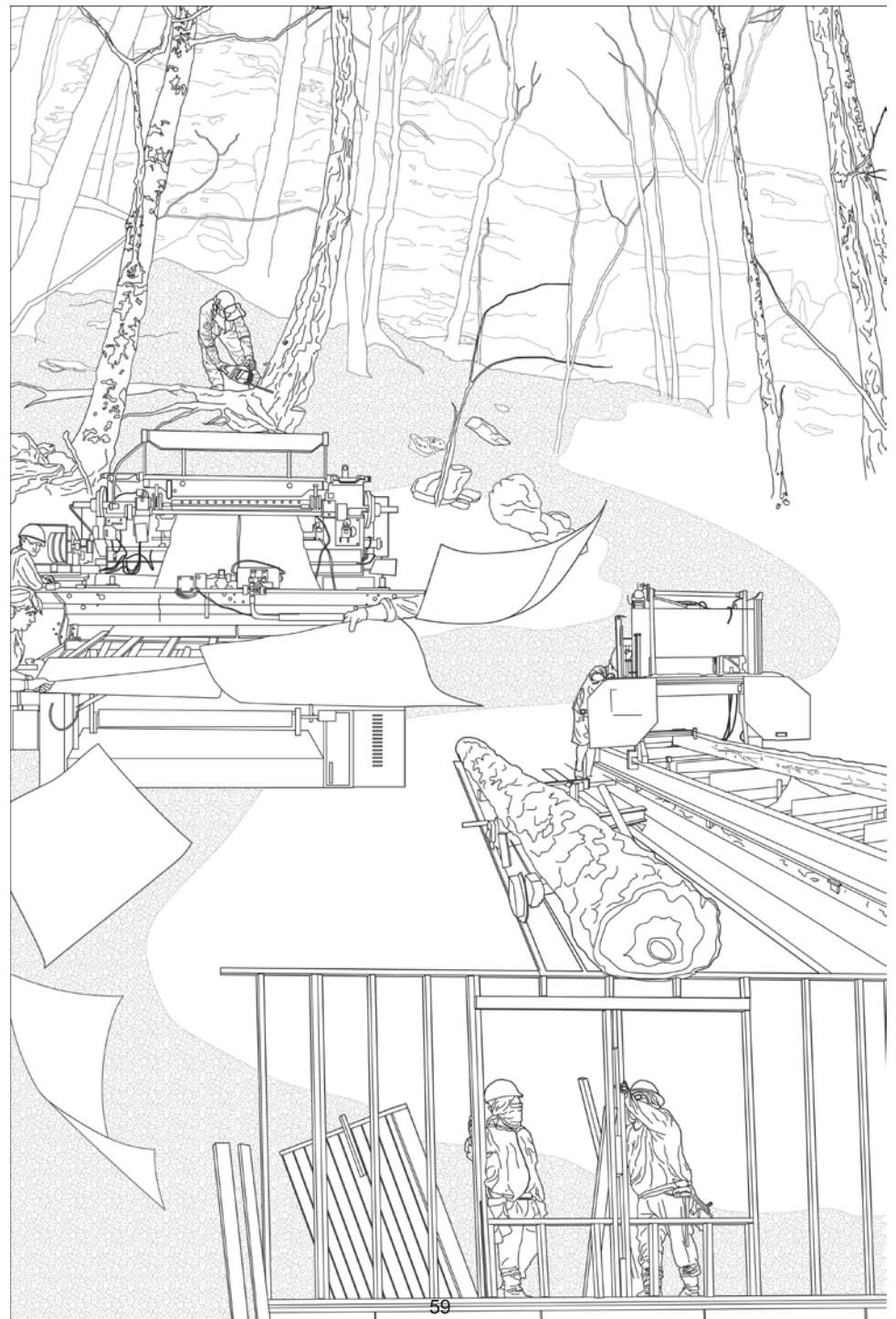
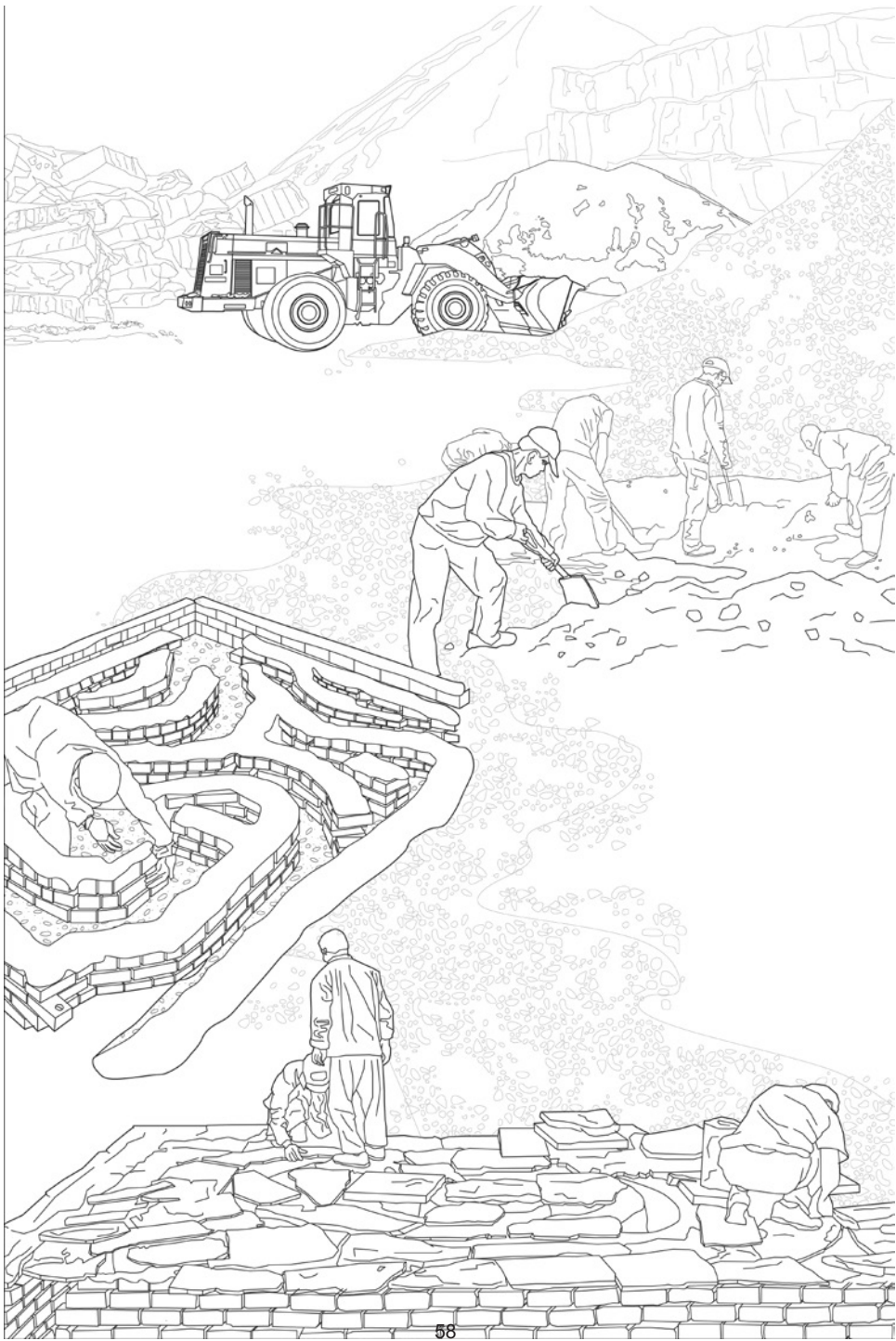
**ISLAMBERG**

NEW YORK TO ISLAMBERG

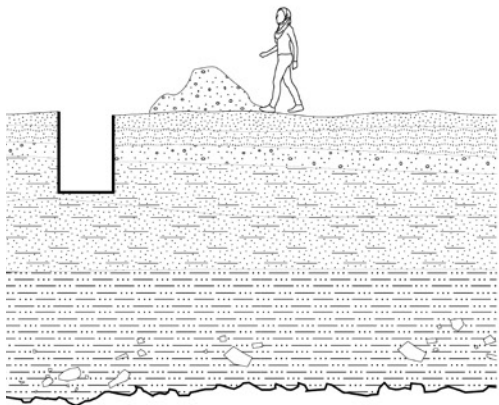
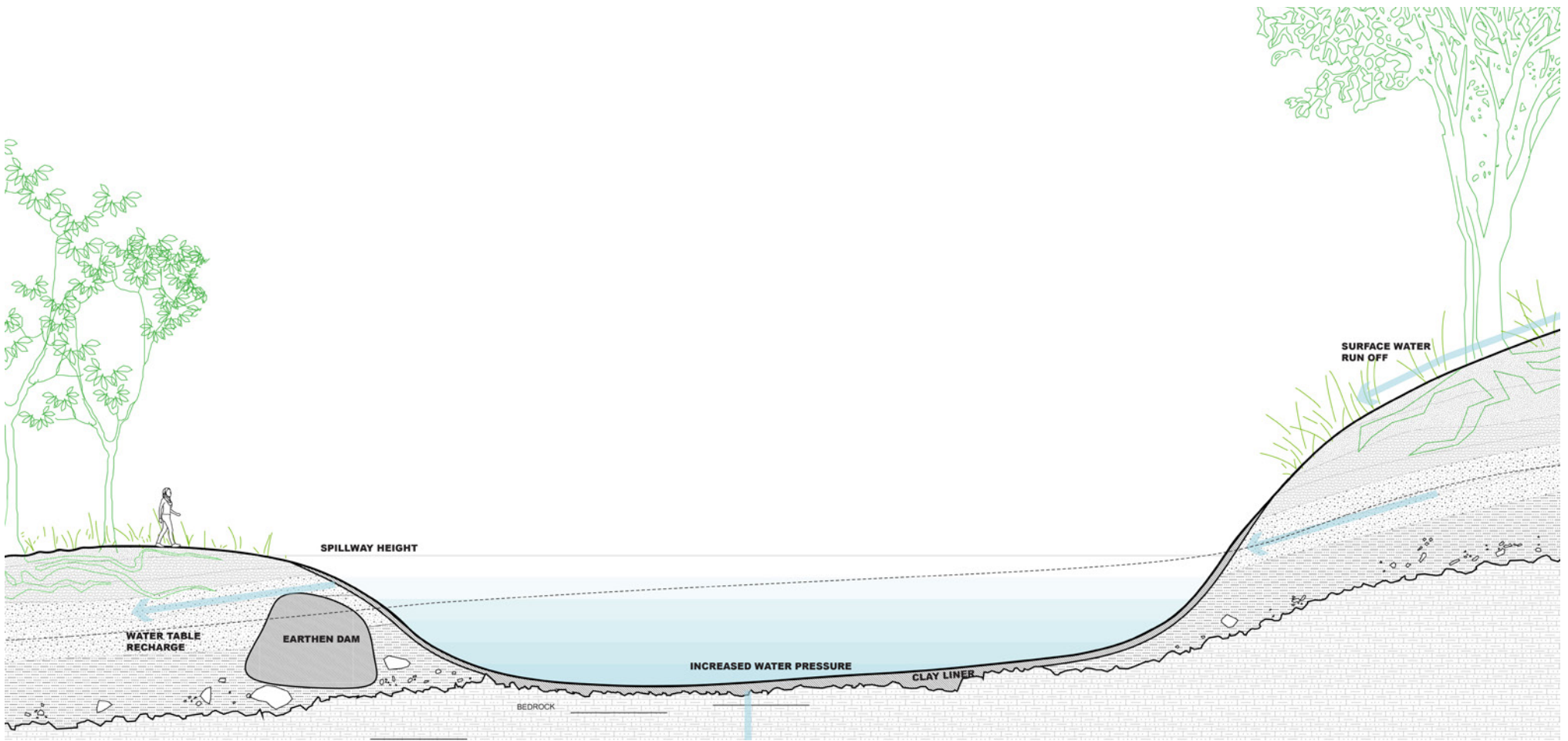


**SCALE 1' = 1/1024"**

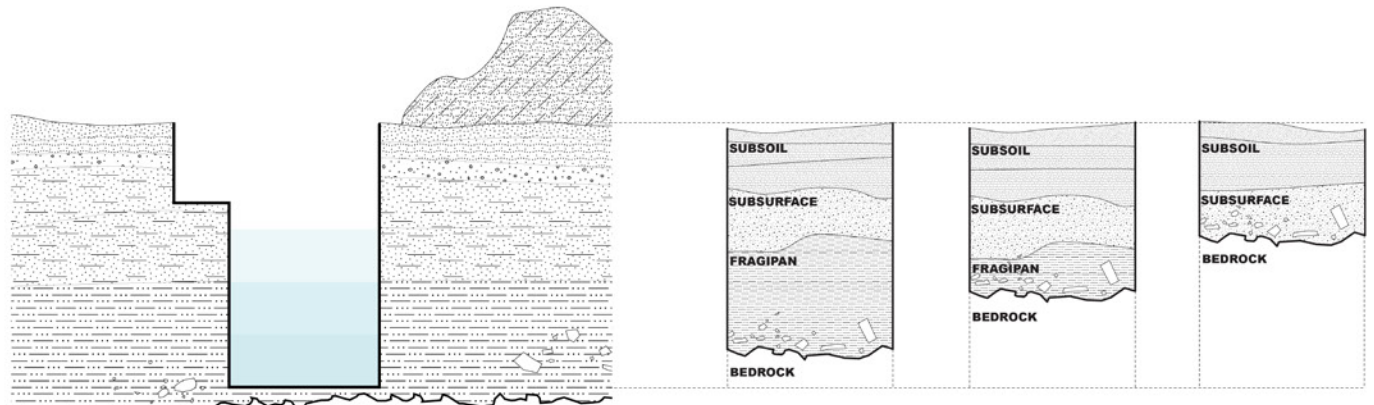






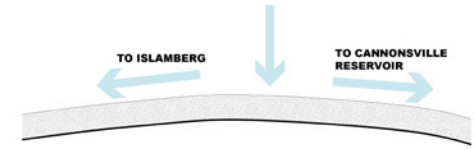
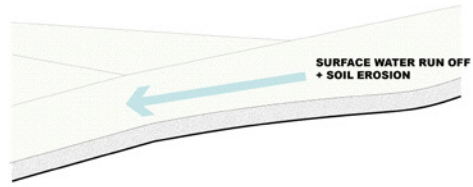


60

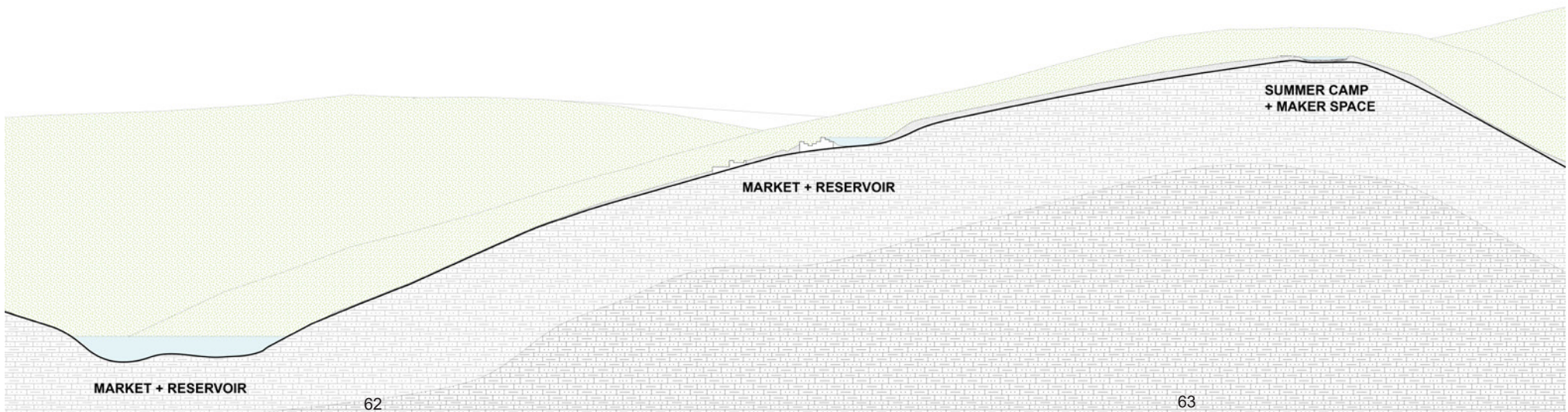
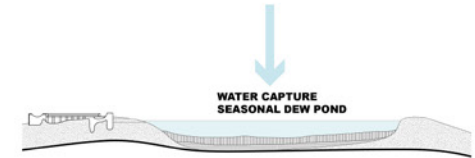
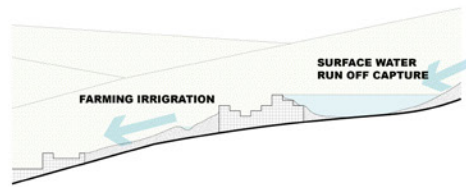
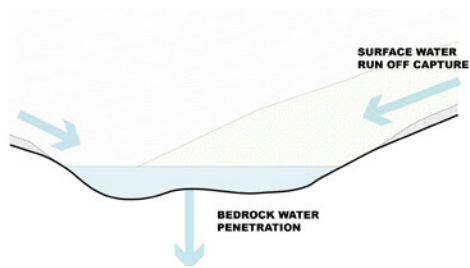


61

**EXISTING CONDITION**



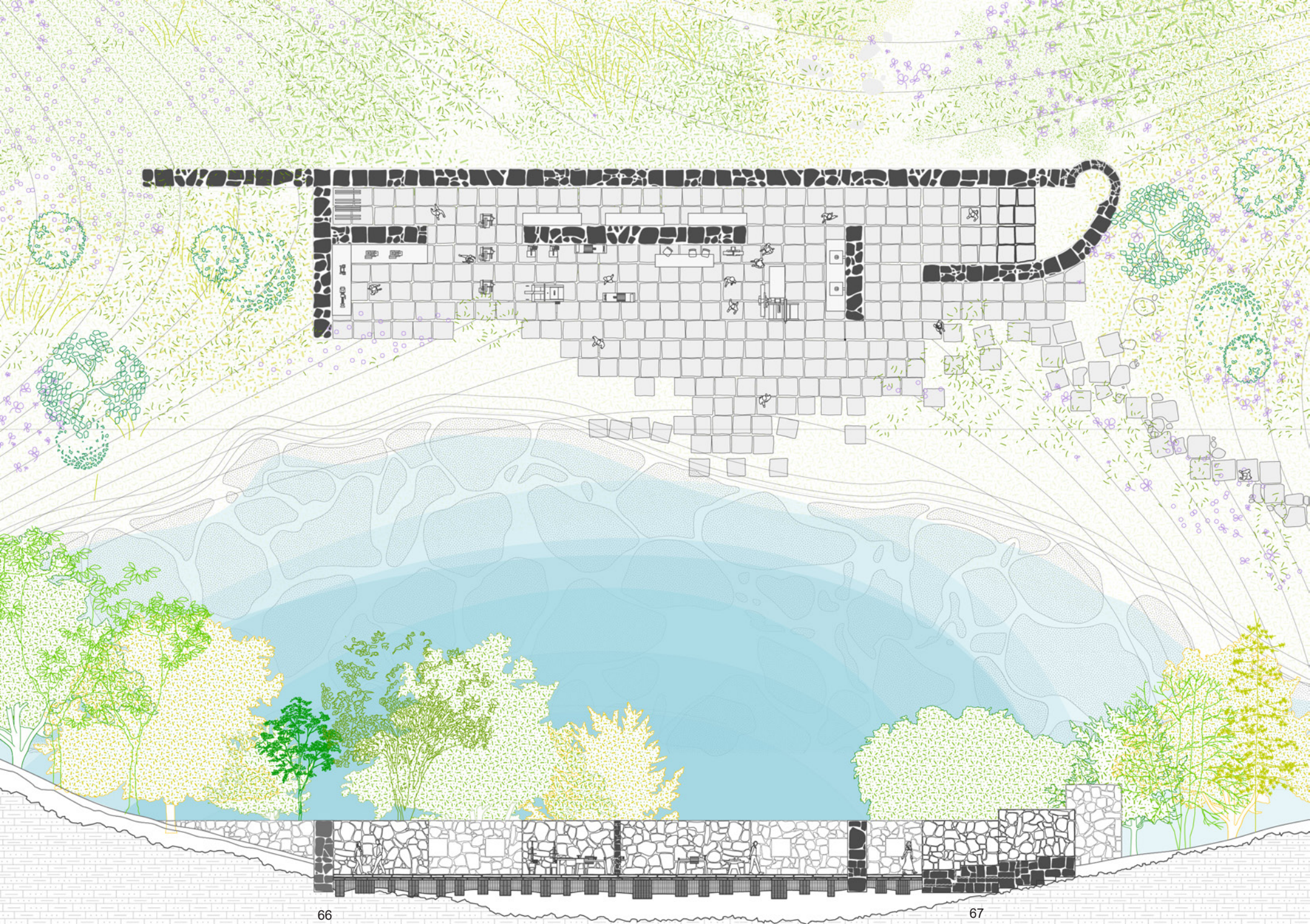
**PROPOSED INTERVENTION**



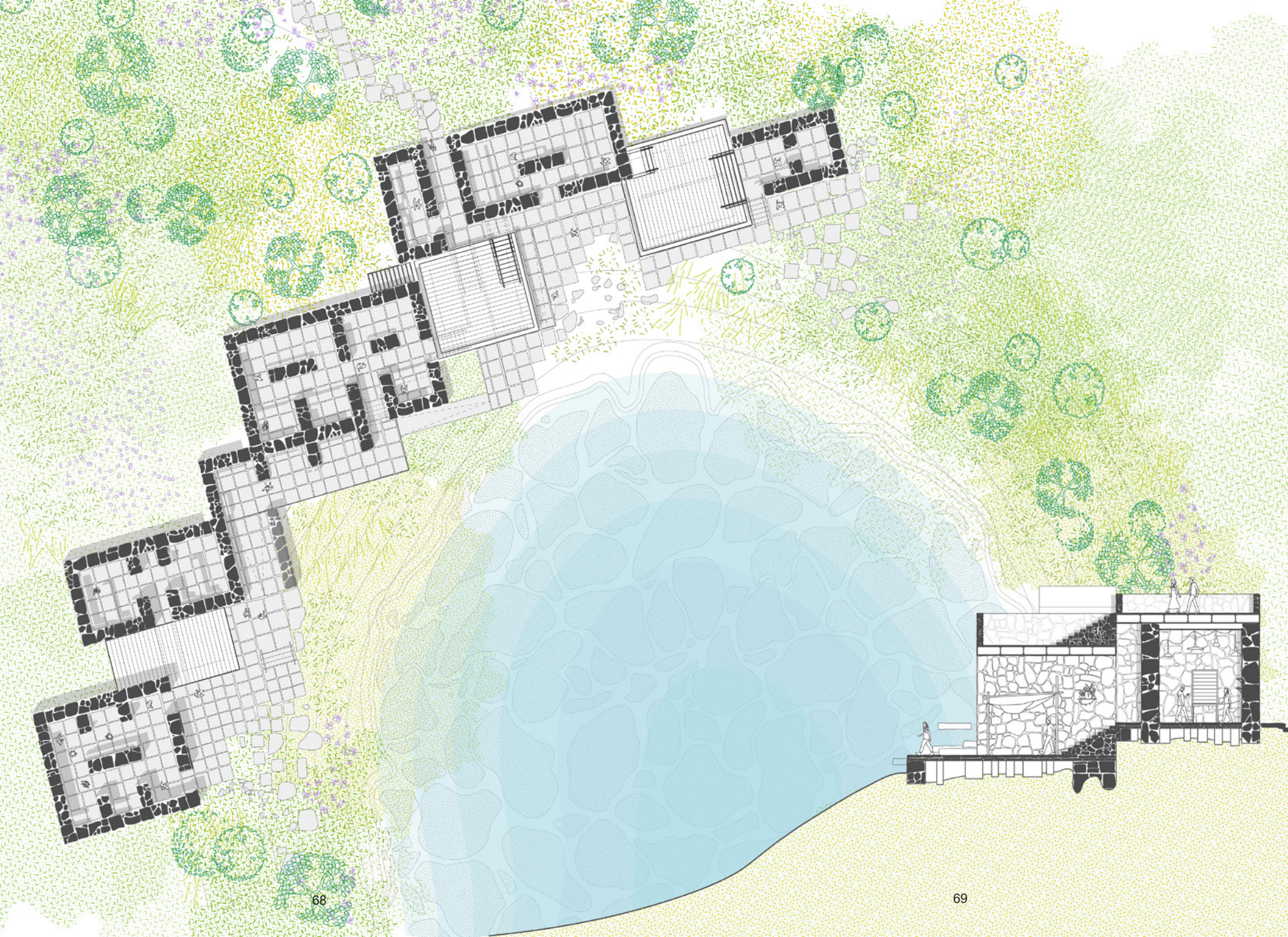


















# BRANCHING

CORE III Housing Studio | Fall 2020

Eric Bunge

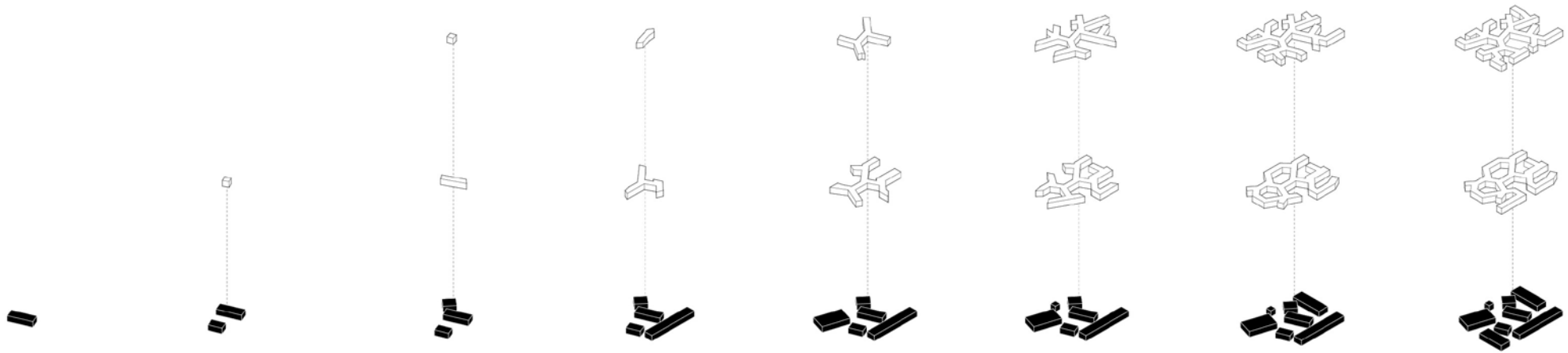
South Bronx, New York

Academic Partnered Project: Novak Djogo

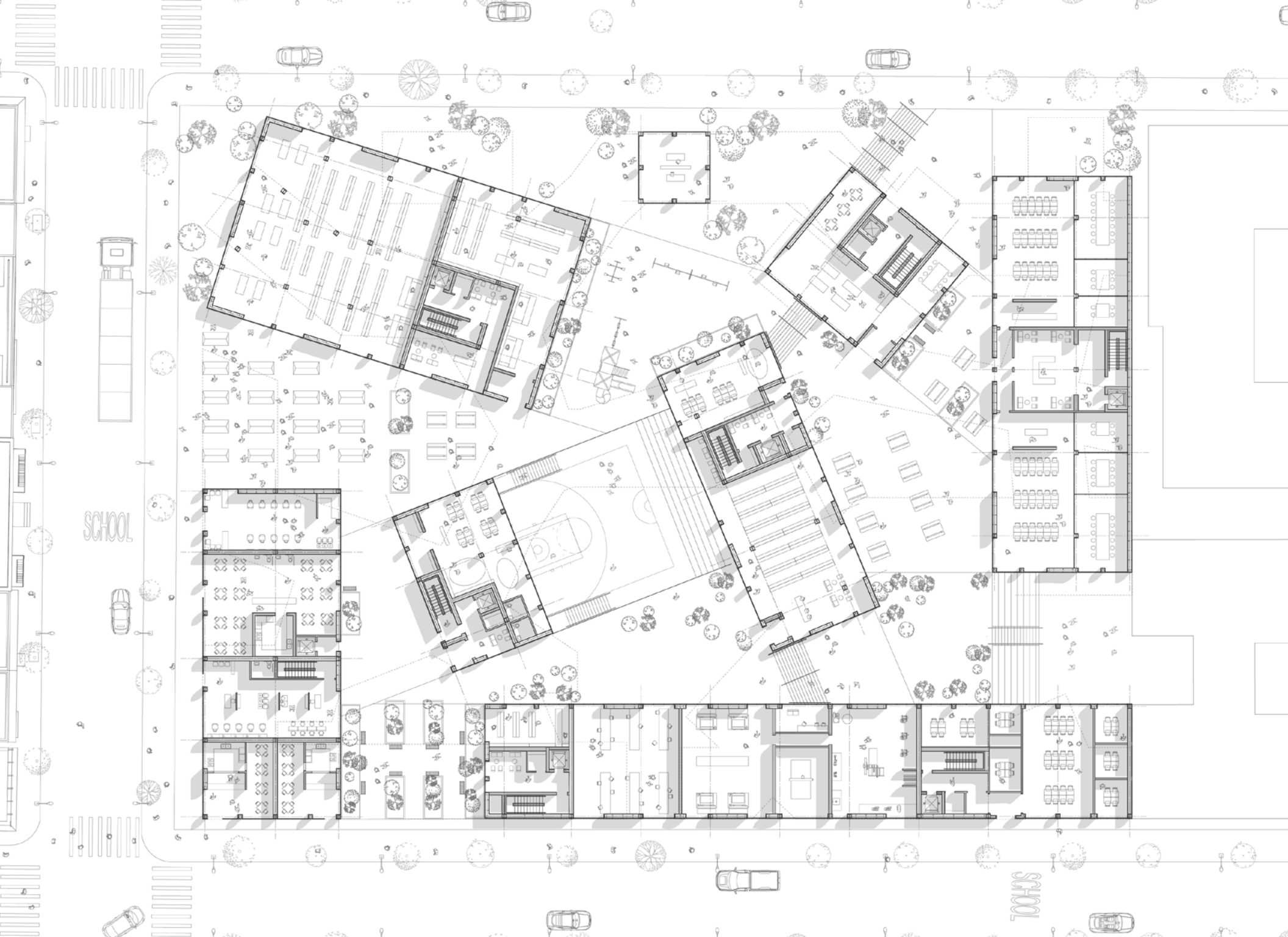
**THIS HOUSING PROPOSAL, LOCATED IN THE SOUTH BRONX, IS A PROPOSAL OF WHAT A MORE SUSTAINABLE FORM OF AFFORDABLE HOUSING COULD BE. BY CHALLENGING WHAT WE SAW AS CONSTRUCTIVE ACCEPTED NORMS OF INDIVIDUAL LIVING THROUGH THE INTEGRATION OF PRINCIPLES OF CO-LIVING AND WORKING INTO THE PROJECT.**

**DIVIDED INTO TWO MAIN COMPONENTS, THE WORK LAYER AND THE LIVING LAYER, THE RESIDENTS HAVE THE ABILITY TO DESCEND INTO THE WORK LAYER WHERE THERE ARE OPPORTUNITIES FOR WORK. IN ADDITION TO THE WORK PROGRAMS ARE AMENITIES WHICH ENABLE OR EASE ACCESS TO EMPLOYMENT OPPORTUNITIES.**



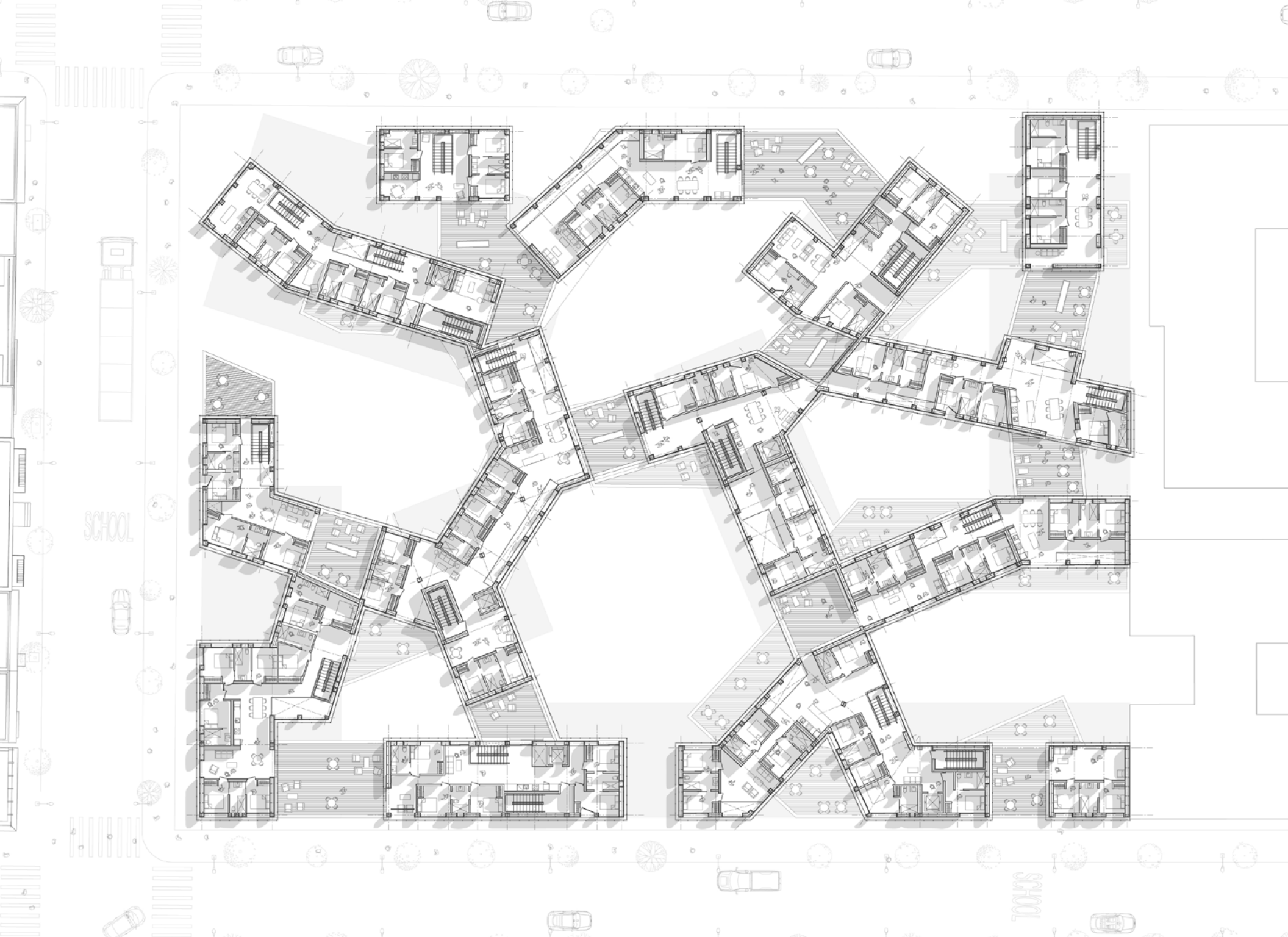




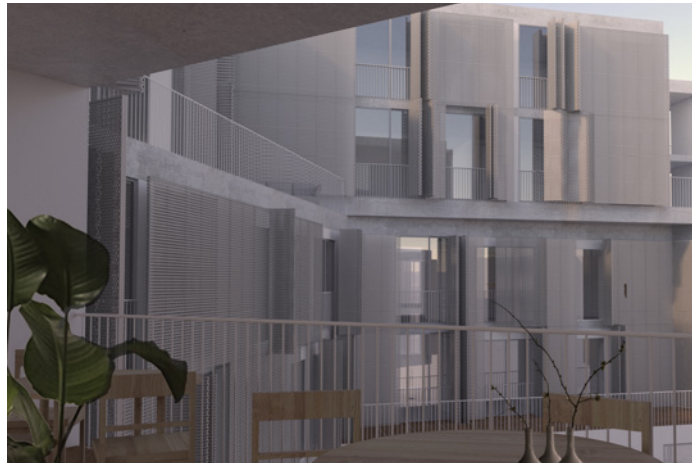
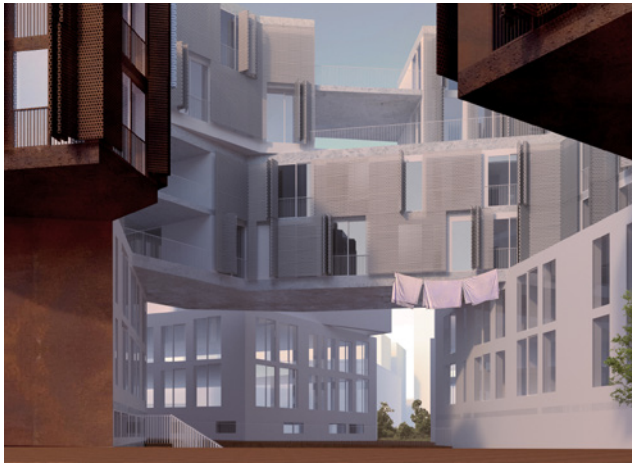


SCHOOL

SCHOOL





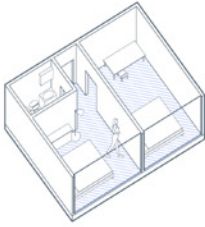




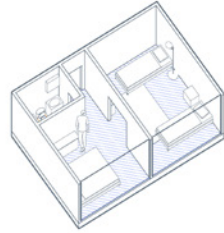




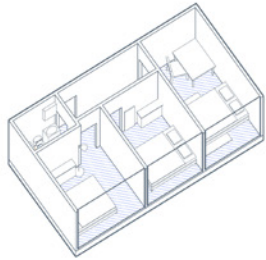
SINGLE  
22 UNITS  
125 SQFT



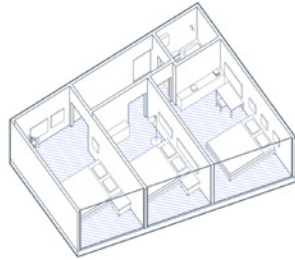
DOUBLE  
20 UNITS  
225 SQFT



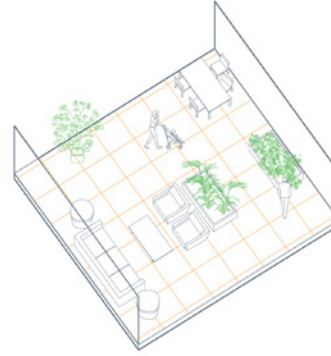
FAMILY  
4 UNITS  
245 SQFT



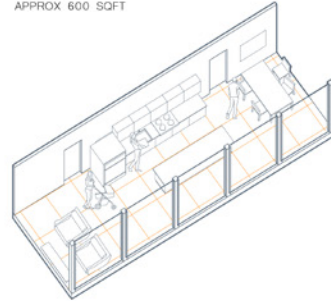
TRIPLE  
4 UNITS  
315 SQFT



TRIPLE  
8 UNITS  
390 SQFT



TERRACE  
7 UNITS  
APPROX 600 SQFT

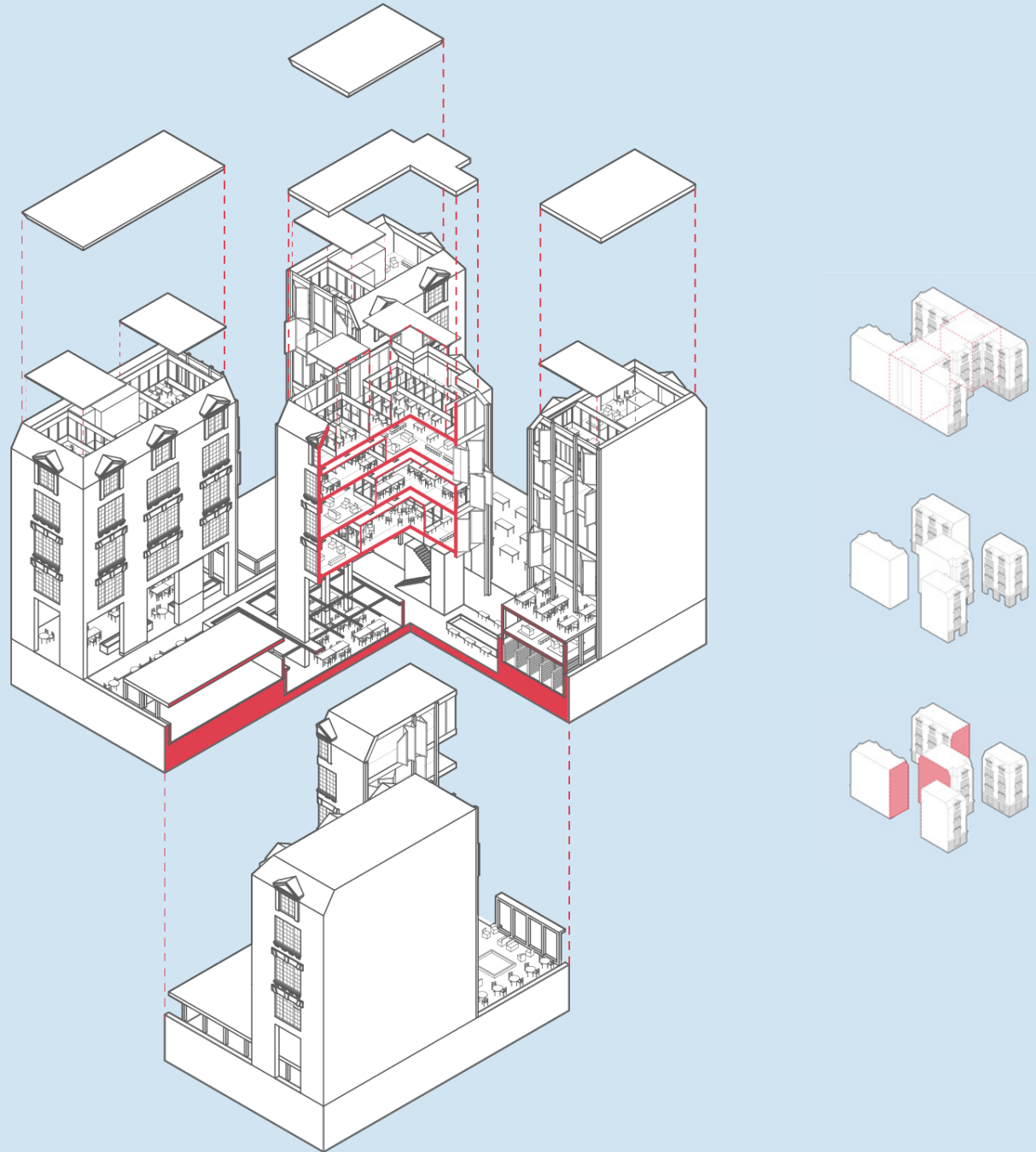


LIVING  
10 UNITS  
APPROX 850 SQFT



# PS 64

CORE II | Spring 2020  
Benjamin Cadena  
East Village, New York  
Individual Academic Project

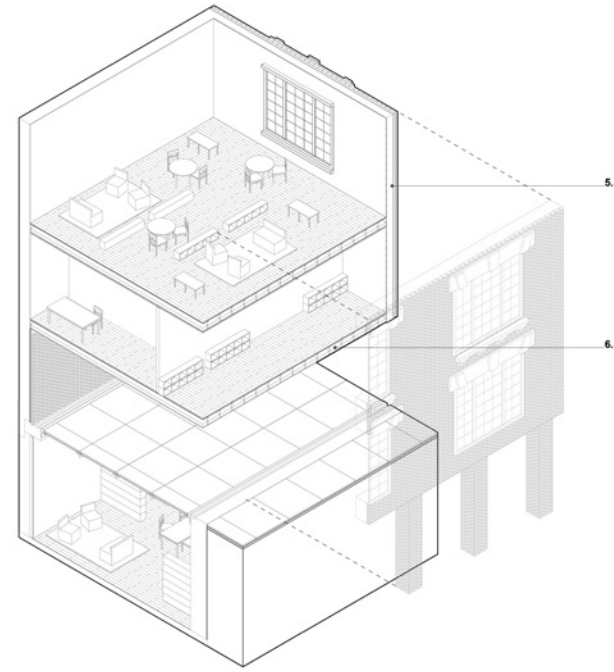
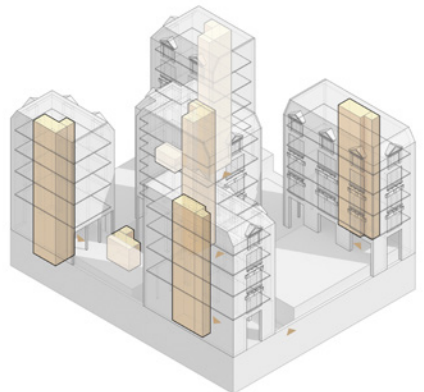
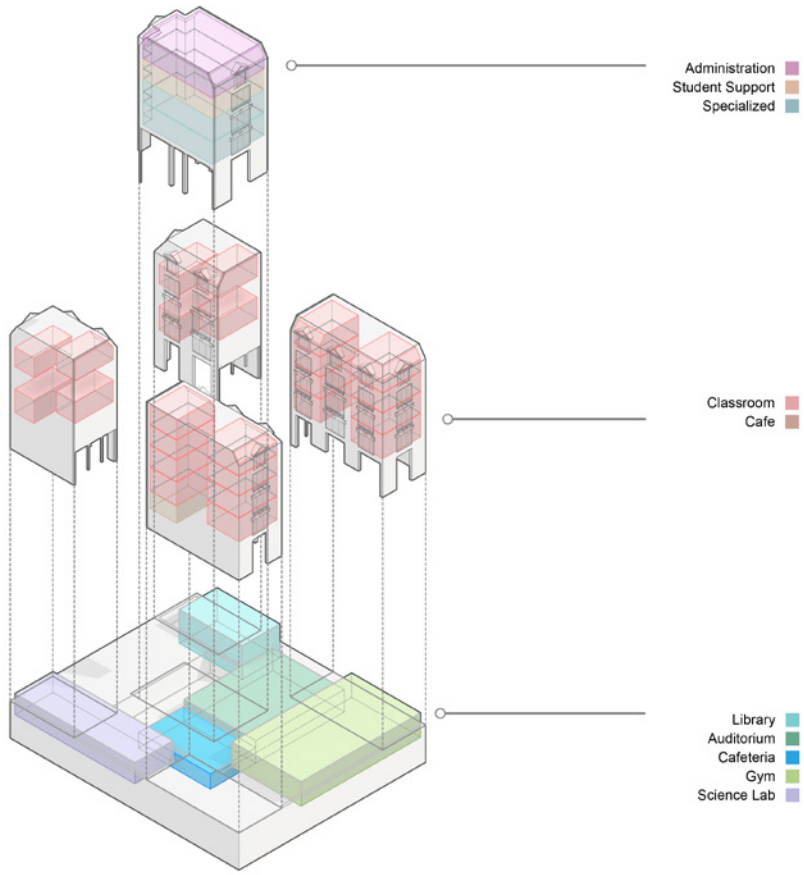


**PS64, IN ITS CURRENT STATE, ENFORCES A DISTINCTION BETWEEN THE PHYSICAL AND VISUAL ACCESS THROUGH THE SITE. THE DELETION OF KEY AREAS OF THE ORIGINAL SCHOOL - SELECTED DUE TO UNFAVOURABLE LIGHTING - AIMS TO CREATE A NEW GROUND CONDITION THAT BECOMES A PHYSICAL AND EXPERIENTIAL CONTINUATION OF THE CITY.**

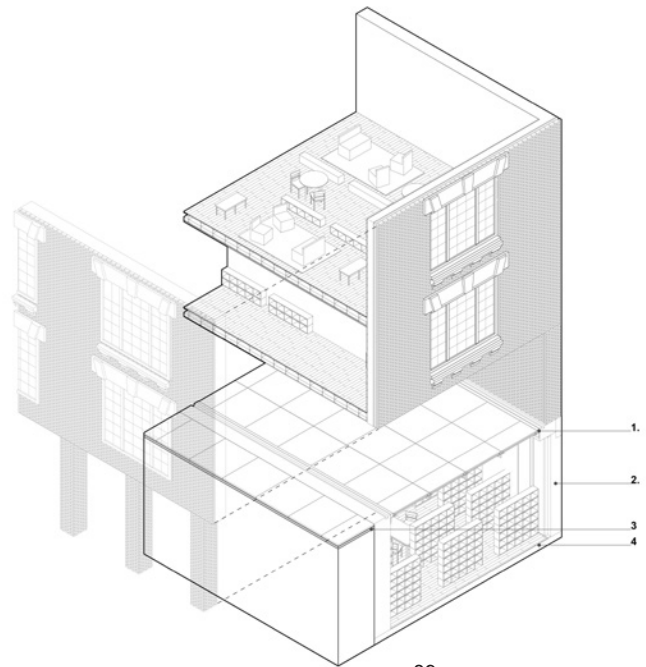
**EXISTING STRUCTURE AND MATERIALS OF THE ORIGINAL BUILDING WOULD BE USED IN THE CONSTRUCTION OF FIVE NEW TOWERS, WHICH ALL SHARE OPEN-PLAN GROUND FLOORS.**

**THE VISUAL CONNECTION BETWEEN THE PLAY SPACES ON THE BALCONIES, AND THOSE ON THE GROUND FLOOR, IS KEY TO MAINTAINING A STRONG CONNECTION BETWEEN FIGURE AND GROUND; SCHOOL AND CITY.**

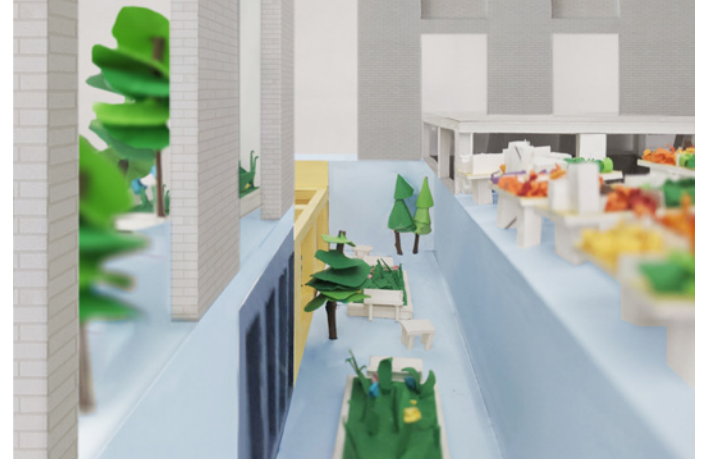
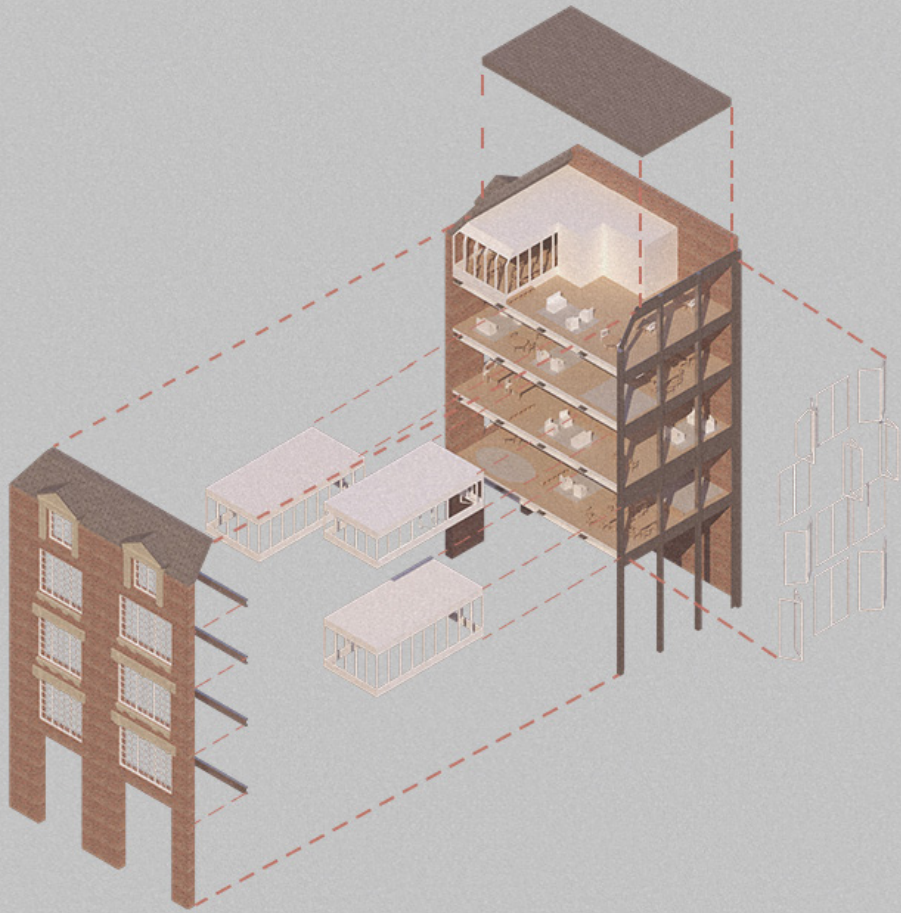




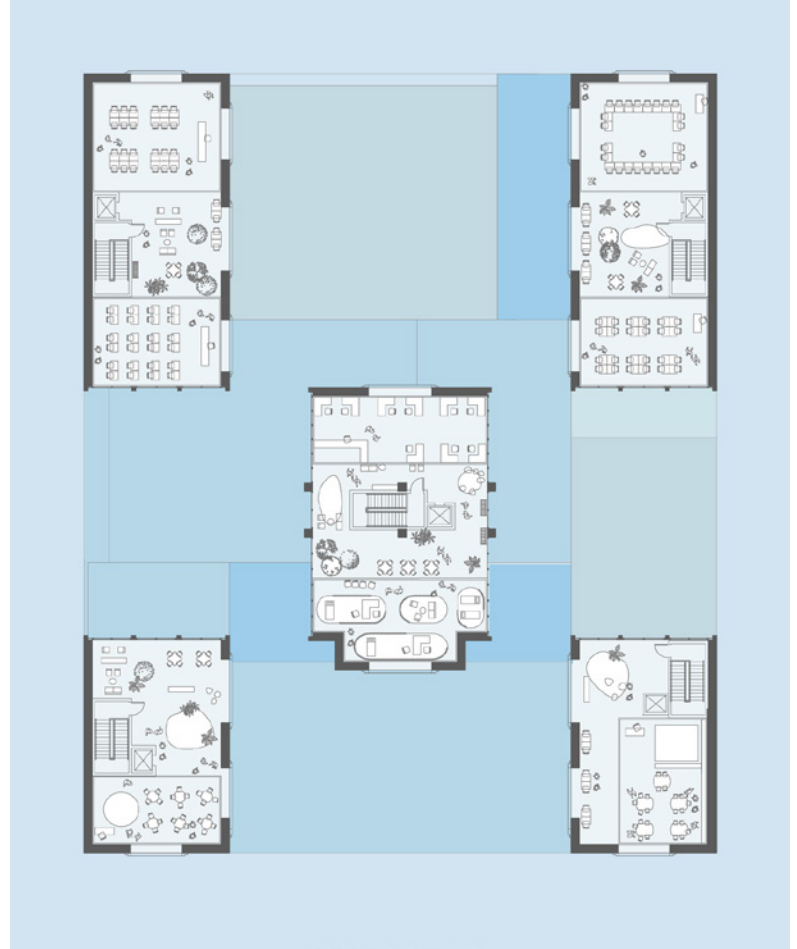
- INSIDE**
- 5. MASONRY WALL**  
CMU WITH CONCRETE MASONRY  
BACKUP  
VAPOUR BARRIER  
AIR BARRIER  
DRAINAGE FLASHING  
RIGID INSULATION  
2" AIR GAP  
MORTAR  
RED BRICK VENEER
- 6. FLOOR**  
6"x36" WOOD PLANK FLOORING  
NOISE BARRIER FOAM  
STEEL L BRACKET  
PLYWOOD SHEETS  
BATT INSULATION  
GLULAM I JOIST  
GYPSUM SHEET  
RIGID INSULATION  
GYPSUM SHEET

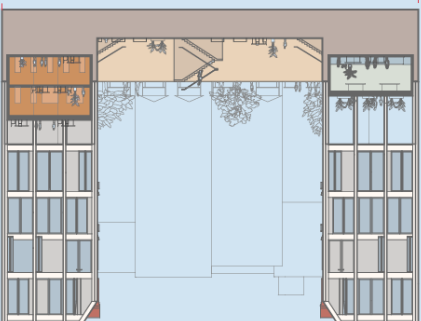


- OUTSIDE**
- 1. GLASS FLOOR**  
RAIN GUTTER  
METAL FRAME  
L BRACKET  
STRUCTURAL SILICONE  
STRUCTURAL GLASS
- 2. BASEMENT MASONRY WALL**  
CMU  
STEEL STUDS  
BATT INSULATION  
VAPOUR BARRIER  
GYPSUM BOARDS  
PAINT
- 3. HARDSCAPE**  
6x6 CONCRETE PAVERS  
SAND  
GRAVEL  
SOIL
- 4. BASEMENT FLOOR**  
WOOD PANELS  
NOISE BARRIER FOAM  
CONCRETE











# CITY GARDEN

URBAN FARM

José Aragüez

New York City, USA

Individual Academic Project



**LOCATED JUST NORTH OF THE UPPER WEST SIDE, THE INTERVENTION WITHIN THE BLOCK'S VOID IS PLACED ON TOP OF A SERIES OF TWO-TO THREE-STORY TUDOR HOUSES THAT ARE FLANKED BY HIGH-RISES ON EACH SIDE. THE INTERVENTION LOOKS AT THE DIFFERING LEVELS OF PRIVACY AFFORDED TO THOSE WHO LIVE IN THE TUDOR HOMES, AND THOSE WHO DO NOT. THE INTENTION WAS TO DESIGN A SERIES OF GARDENS THAT REFLECT THESE DIFFERENCES.**





