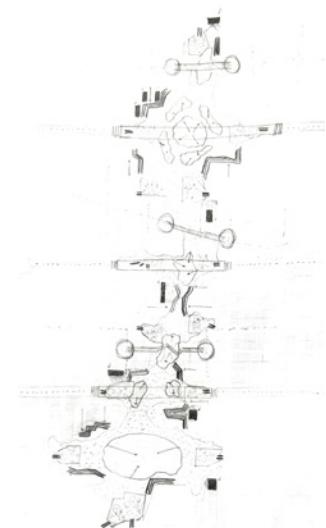


SEUNGHU KIM

Work Samples



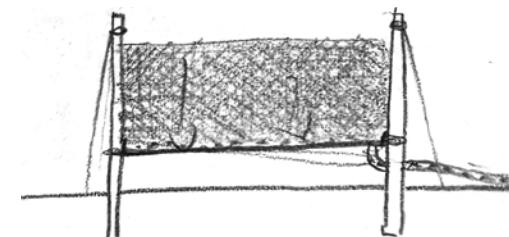
Blue Scar

QGIS
Rhino
Illustrator
Photoshop
Indesign
Lumion
Excel



Dreaming the Ruins

Rhino
Grasshopper
ArcGIS Pro
Enscape
Illustrator
Photoshop
Physical Model



Atrapanieblas - The Fogcatcher

QGIS
Illustrator
Photoshop

BLUE SCAR

Summer Studio Project

Project Statement

In the face of unprecedented climate crisis, New York City's deteriorating sewer system is at a critical point of failure, especially with the mismatch between the water and sewershed. This project deconstructs parts of the Gravesend neighborhood in Brooklyn, a flood prone area where water wants to be, to construct water basin that captures the stormwater with gravity.

Critical Research

John Wesley Powell - Watershed Map
Dogma - Everyday is Like Sunday

August 2024

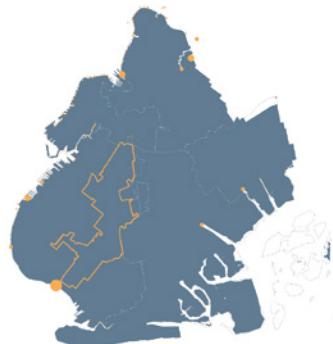
Seunghu Kim, Jiali Jia, Maissa Eid, Patricio Munoz
M.S. Architecture and Urban Design
Columbia University

Managed Retreat

→ Transition of Frequent Flooding Neighborhood

Blue Scar filled after a flashflood event, holding 382 olympic size pools worth of stormwater, buying time and slowly releasing towards wastewater treatment plant, minimizing massive combined sewer overflows.





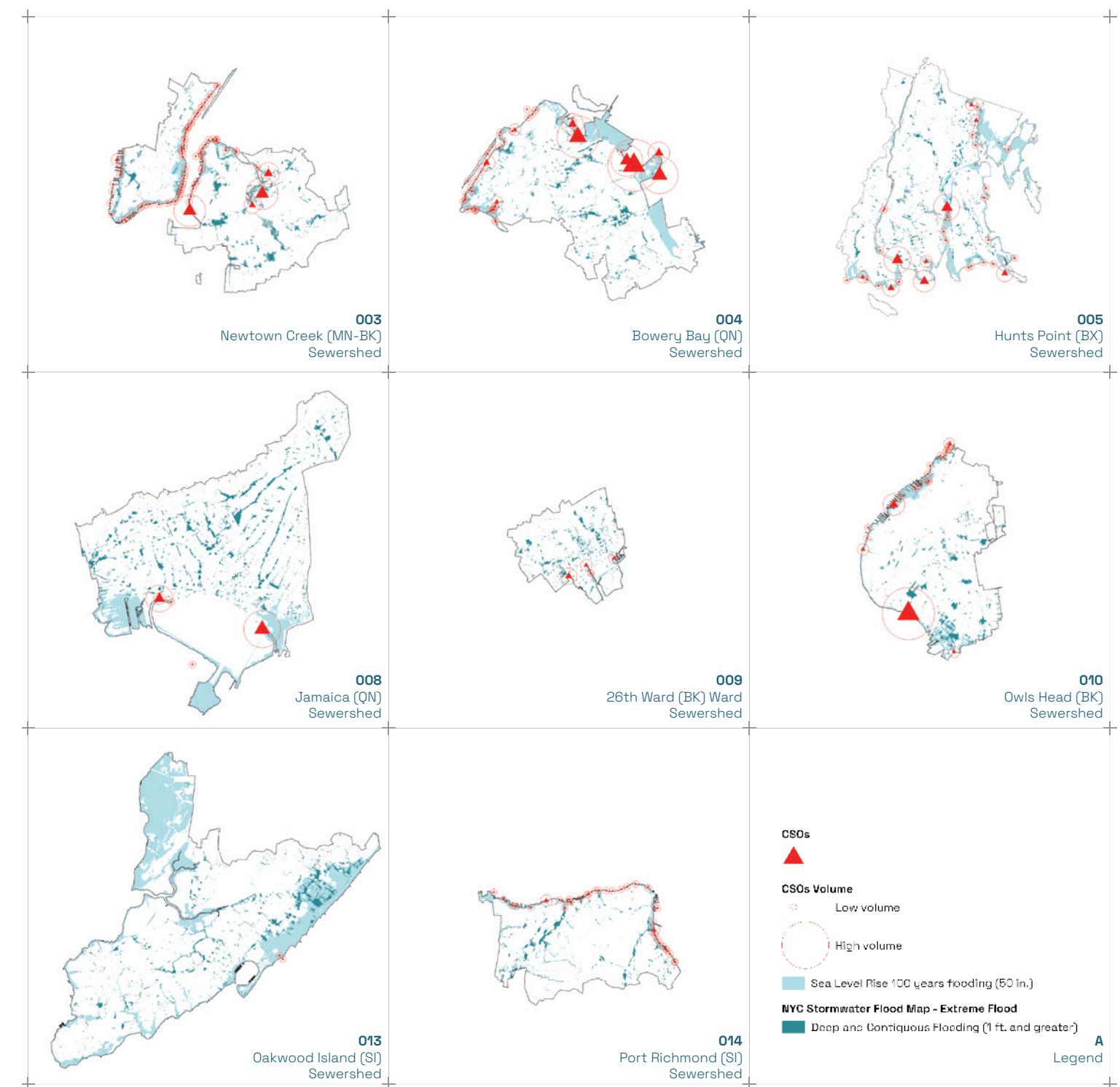
Brooklyn Sewersheds



Brooklyn Watershed



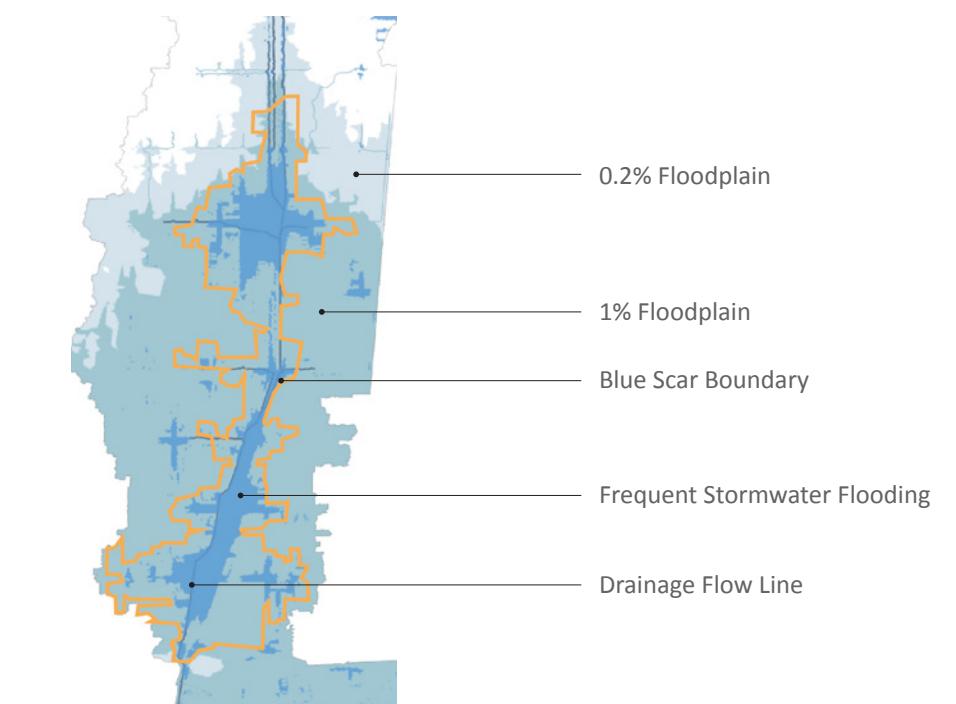
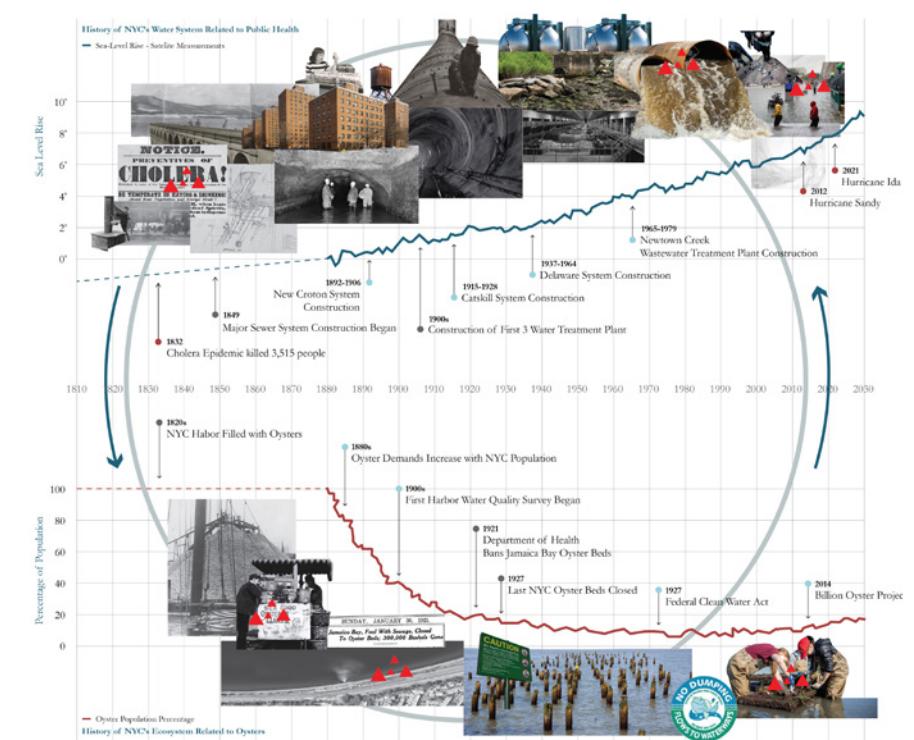
Mismatch

**Systematic Mismatch**

Conflict between two systems, causing massive infrastructure failure.

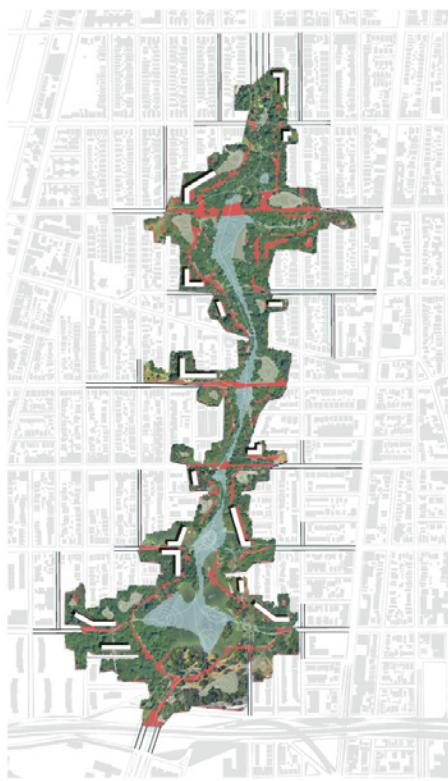
NYC Sewersheds Catalog

A new way of mapping NYC. Ever more increasing pluvial flooding threatens to revert the glorious New York City back to the 1850s when waterborne diseases were out of control. This sewersheds catalog reveals where infrastructure is failing.

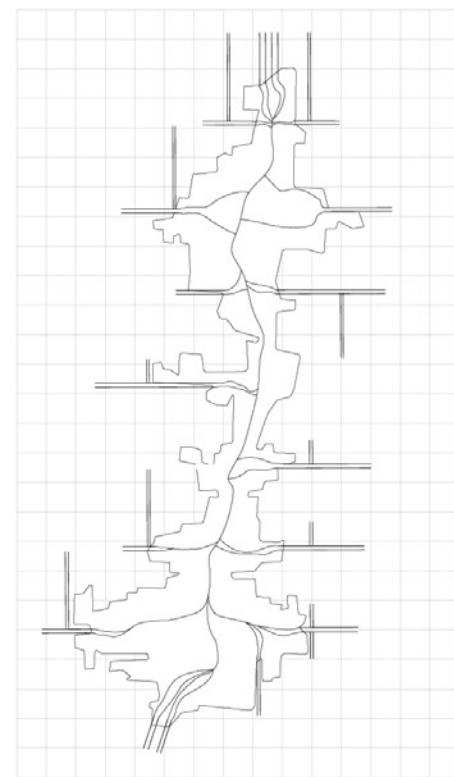
**CSOs Storymap / Boundary of the Blue Scar**

↑ Understanding the history of NYC getting its freshwater from 120 miles up north, using it and dumping it as CSOs, resulting sea level rise and near extinction of oysters.

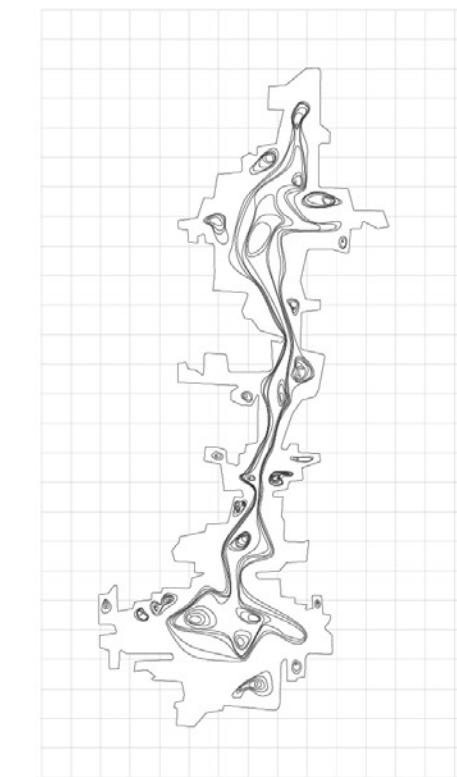
↓ The boundary of the Blue Scar was given by the area stormwater flooding area, acknowledging that this is where the water wants to be.



Blue Scar
New Ecological Infrastructure



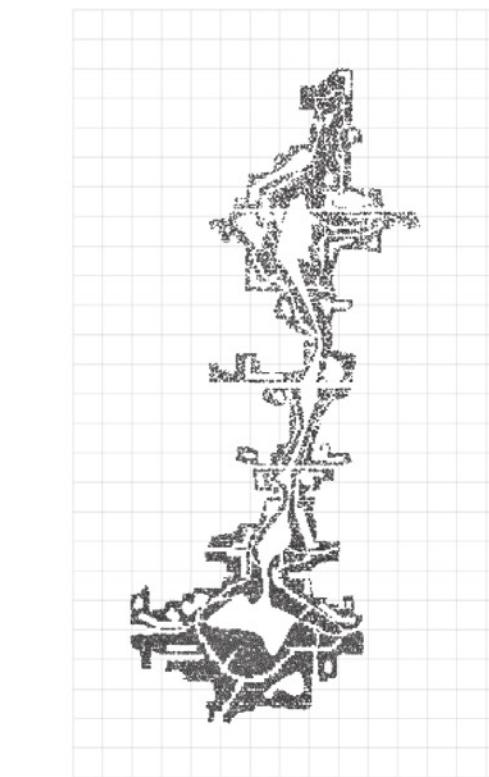
Water Entry
Street Water Collection



Topography
Mounds / Basins



New Housing
Housing for Migrating Residents

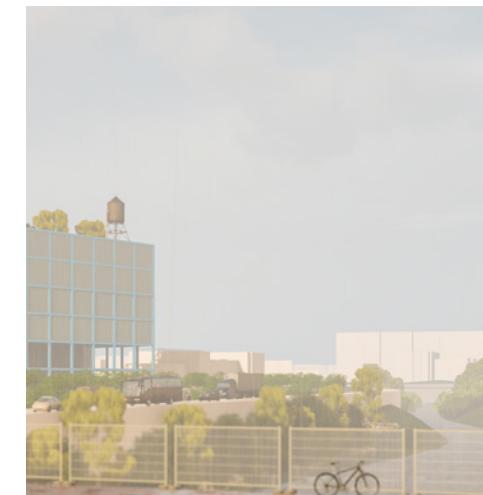


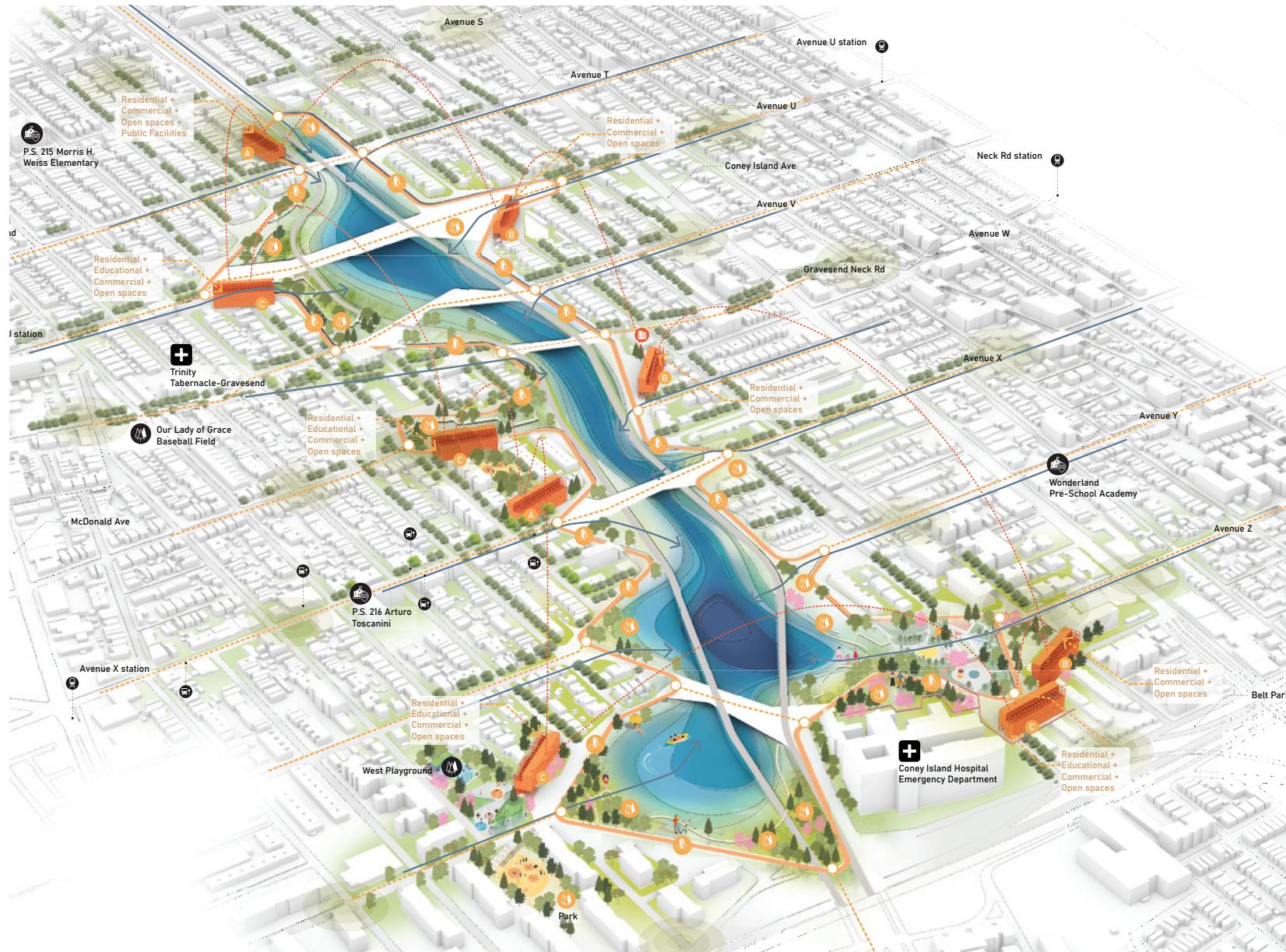
Vegetation
Trees, Shrubs, and Grass



Elements of the Blue Scar

Different layers of elements playing crucial role of holding rainwater. How does the water actually come into the Blue Scar? Ways to capture stormwater by closing catchment basins on streets towards treatment plants, creating water corridor to guide the stormwater effectively.

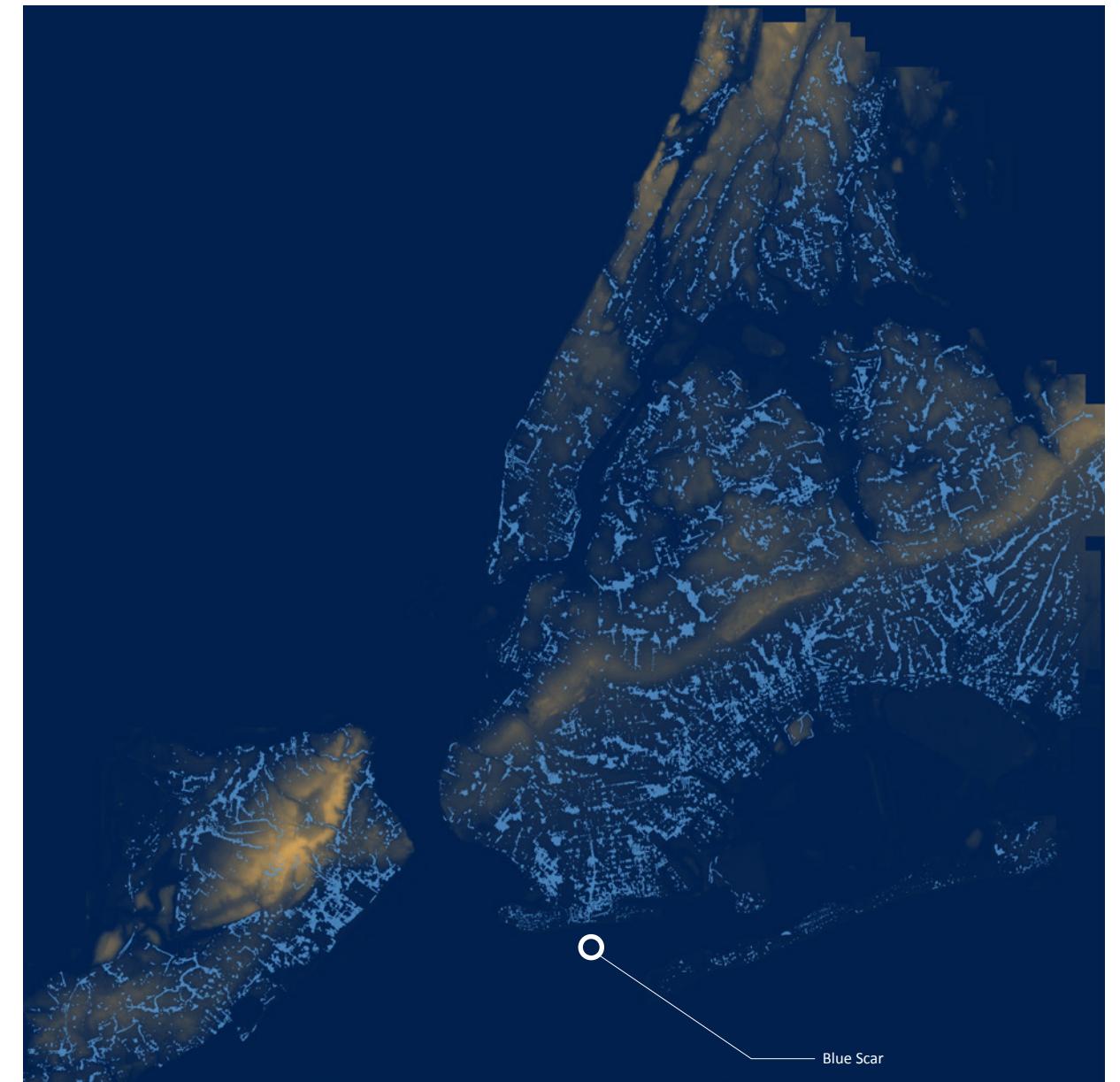




Overall Diagram of the Blue Scar

Blue Scar integrated in the neighborhood, providing stormwater basin and unique experience for community. Filled with stormwater after flash flood event, rather than going towards sewer system, causing CSOs.

Through permanent dry/wet areas, the Blue Scar becomes an recreation assets during dry seasons. Previously neglected area of the neighborhood became a place of building new relationship with nature.



NYC Stormwater Flooding Map

Once mapped as a threat, this is now an opportunity to dismantle parts of our city to cohabit with nature, creating a meaningful dialogue and relationship with nature.

DREAMING THE RUINS

Capstone Thesis Project

Project Statement

Historically, humans tried to tame the nature, building an extractive relationship, believing that we could control it. The continuous development of land, growth of industry along the waterfront caused massive environmental harm against the nature. In the context of Port Morris, rather than resisting rising sea levels with engineering, this project surrenders to flooding in a purposeful manner, fostering meaningful dialogue between the humans and nature by dismantling.

Critical Research

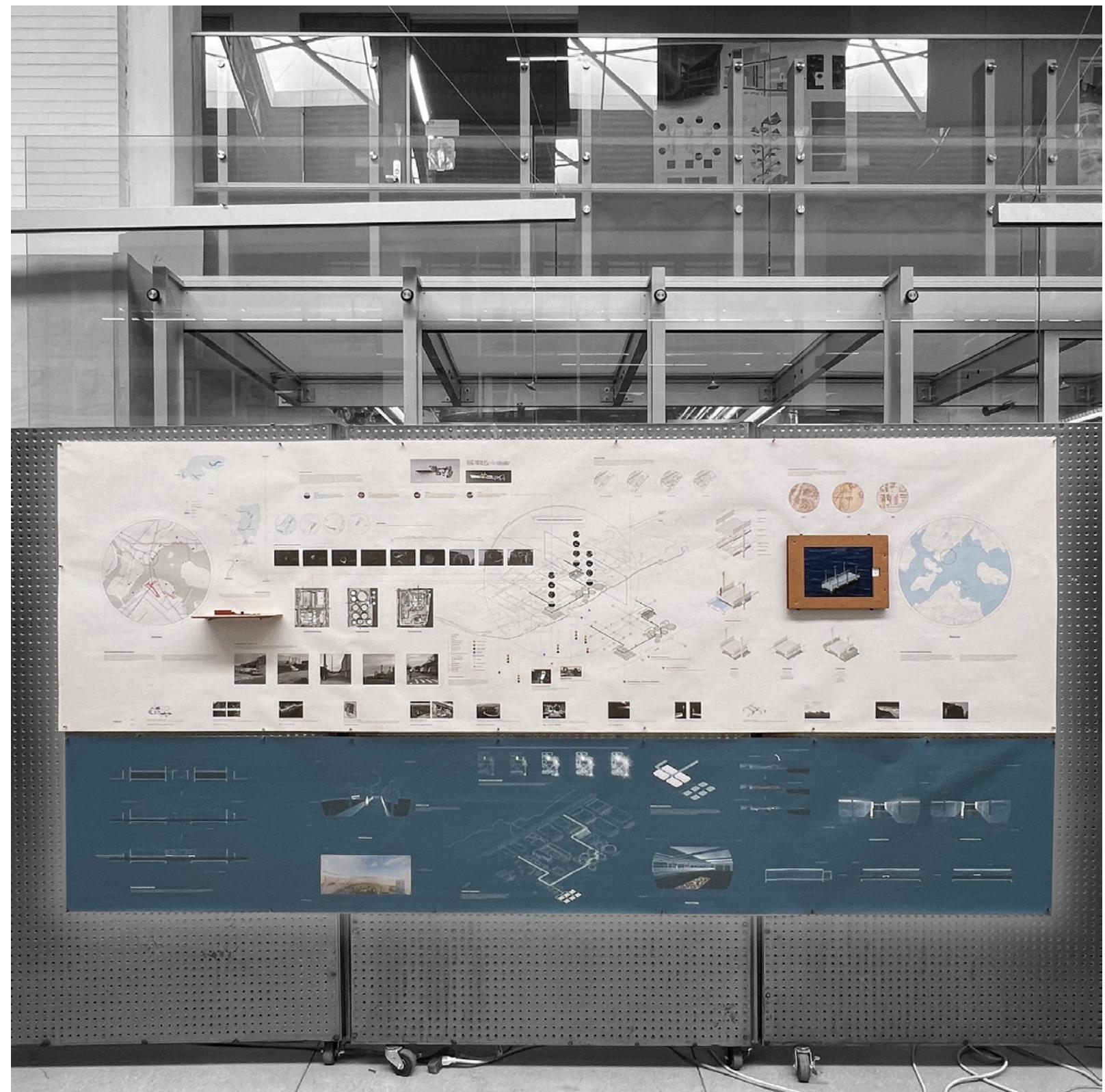
Dilip Da Cunha - The Invention of Rivers
Gordon Matta Clark - Conical Intersect
Natalie Jeremijenko - Amphibious Architecture
Toyo Ito - Learning from a Tree
Yusuke Obuchi - The Wave Garden

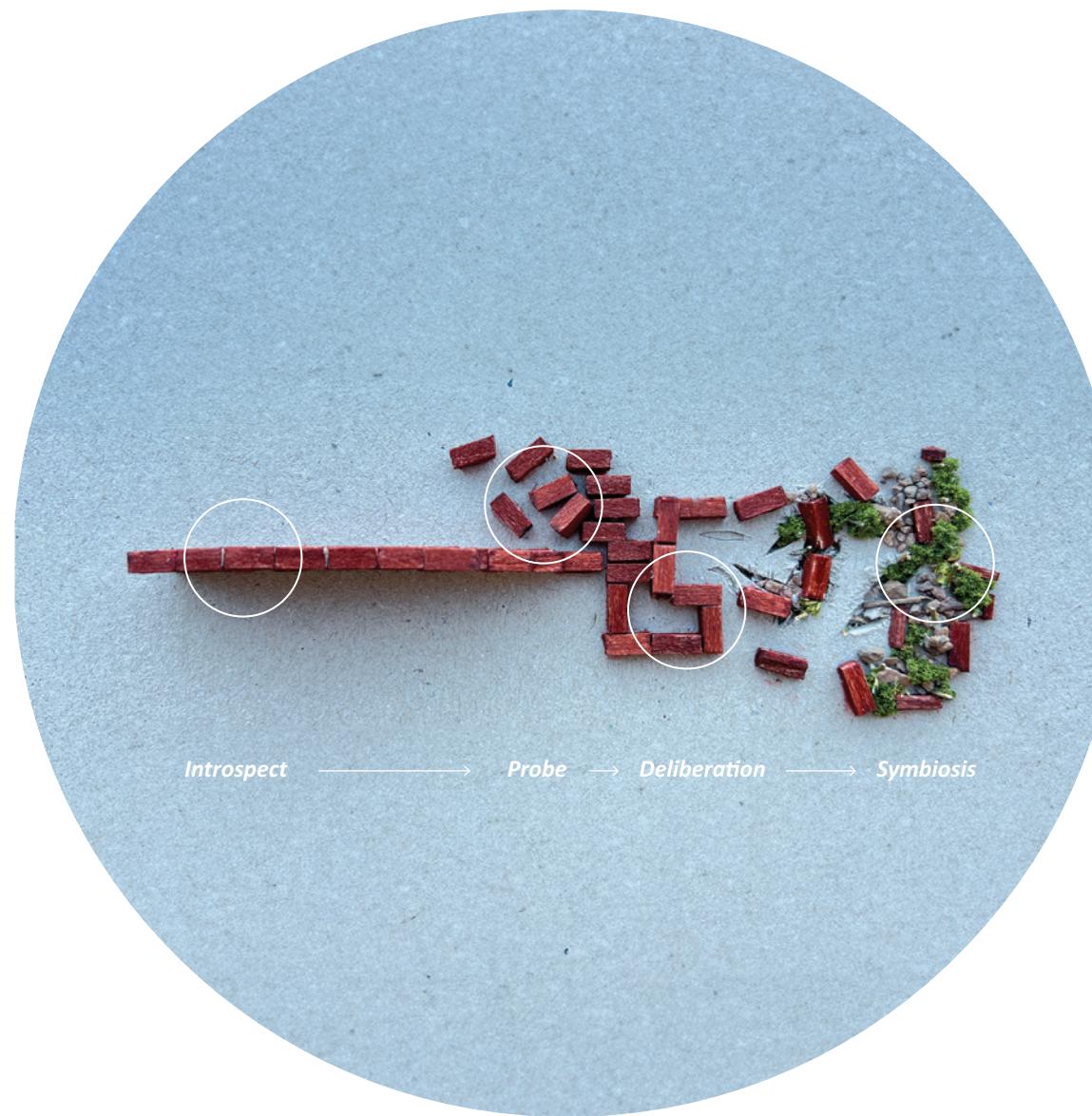
May 2024
Seunghu Kim
B. Architecture
The University of Arizona

Dismantling

→ Capstone Exhibition Curation 36x120 in.

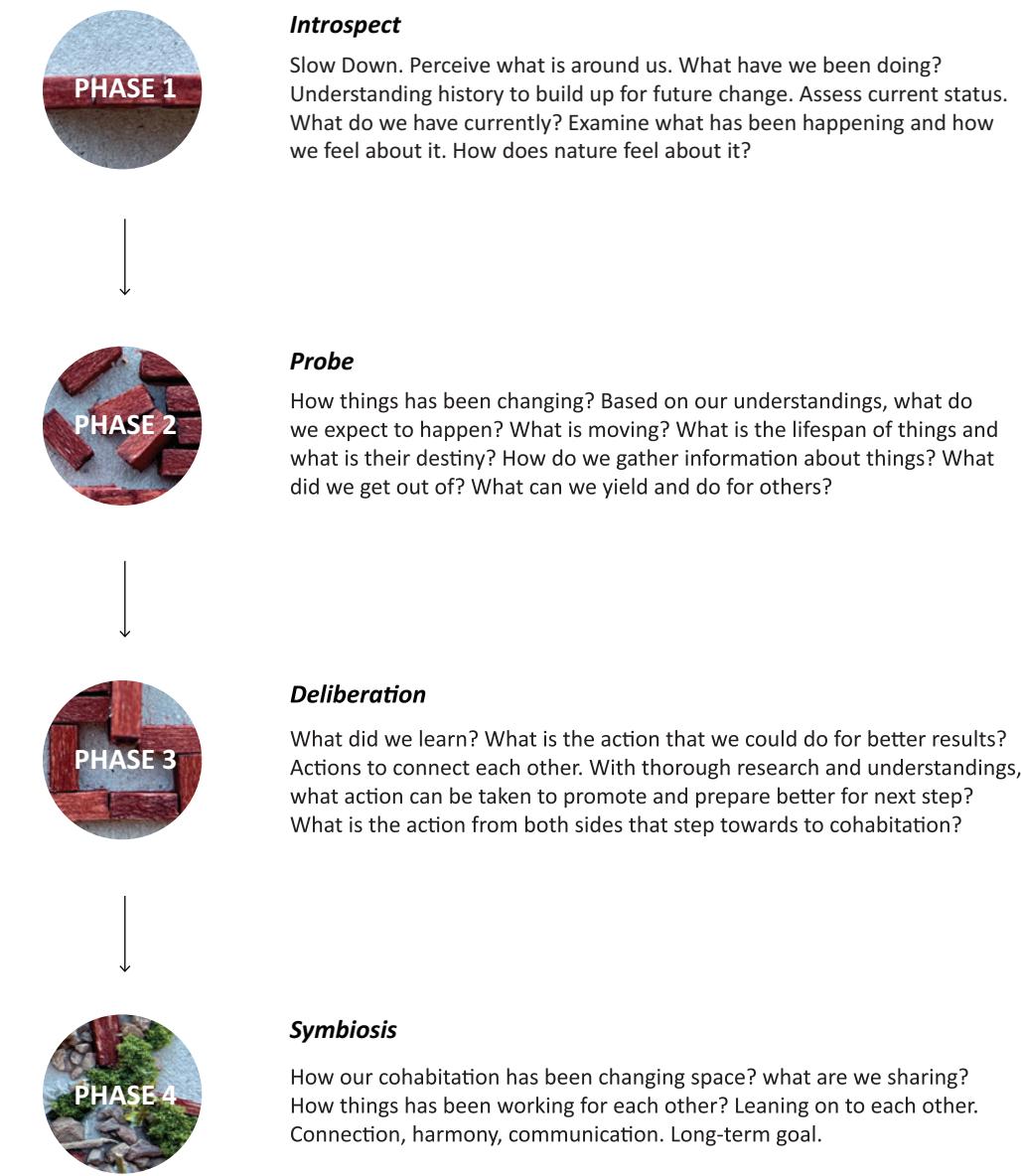
Top white space showing process and concept, bottom blue space illustrating dismantled built environment submerged under water. Exhibition curated with iPad, utilizing time-based medium and physical model integrated to the board.





Four Phases to Create a Meaningful Dialogue

From the beginning, we see our action of drawing lines against nature. In this phase of introspect, we slow down and perceive what is around us. Assess and examine status. Then we begin to see the deteriorating architecture in the phase of probe. Here, based on our understanding, we begin to question. What do we expect to happen, the information's we gathered, what are the things we are getting out of?



Based on the past two phases of conversation, in deliberation phase, we dismantle the built environment that will be useful for us today and be beneficial for nature tomorrow. Here we see actions that leads to cohabitation between humans and natures. At the end, symbiosis. We lean onto each. Connect, harmonize, and communicate. The long-term goal.

Gordon Matta Clark, Conical Intersect

Dismantling existing architecture form to create new spatial experience. Provide new function to the building that can cohabitiate with ecology.

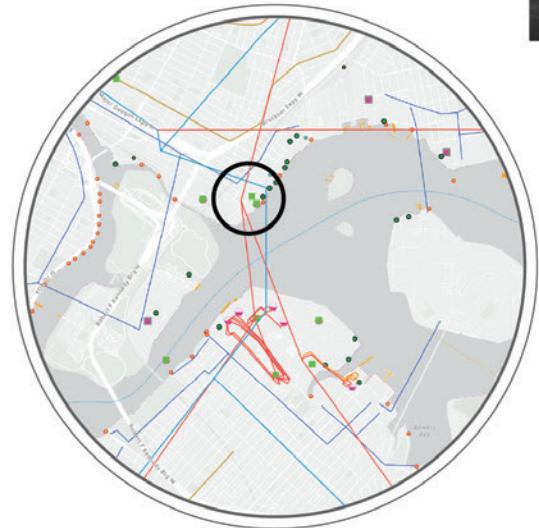
**New Waterfront**

SLR 10'

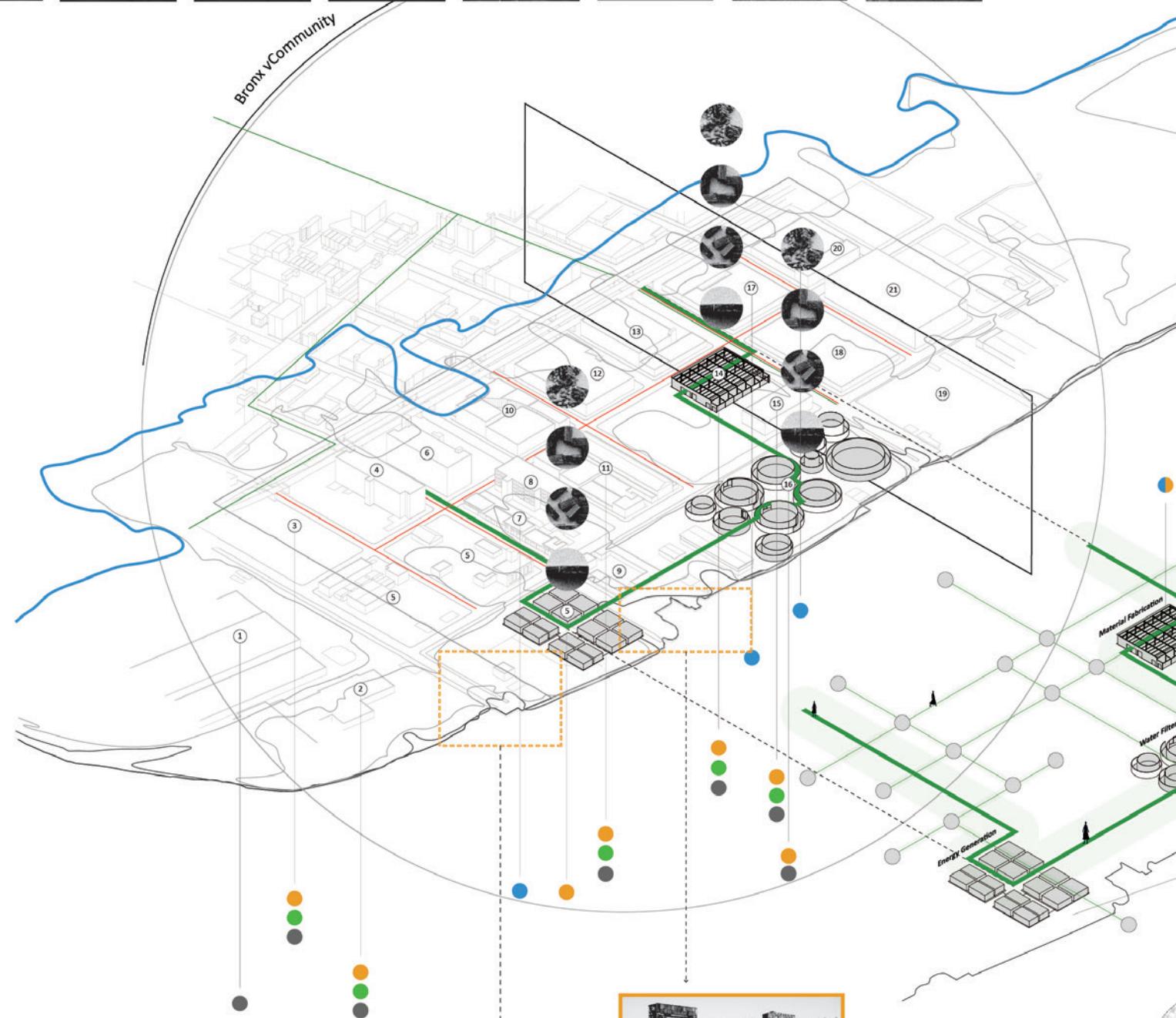
SLR 6'

SLR 3'

SLR 0'

**Nature****Human**

- Critical Infrastructure
- Waste Management
- Diesel Truck Reliant
- Manufacturer
- Potential Growth
- Bike Route
- Major Truck Route
- Green Floating Loop
- Historic Landmark

**Biomaterial Manufacture**

Recyclable materials like oyster shells will be processed to create ecological materials

Oyster Water Filtration Plant

Oysters will be utilized to filter plankton and contaminants and provide clean water

Electricity Storage + Wave Power Generation

Capturing wave energy and stored to meet the peak electricity demand

**Decayed Gantry**

Post-industrial landscape, Bronx community's waterfront loss.

Introspect / Probe

Starting to understand what is around us and what will happen. Feeling of history, in search of memory to speak.

Con Ed Gas Line Explosion
Closed and private infrastructure became a problem for both human and nature.



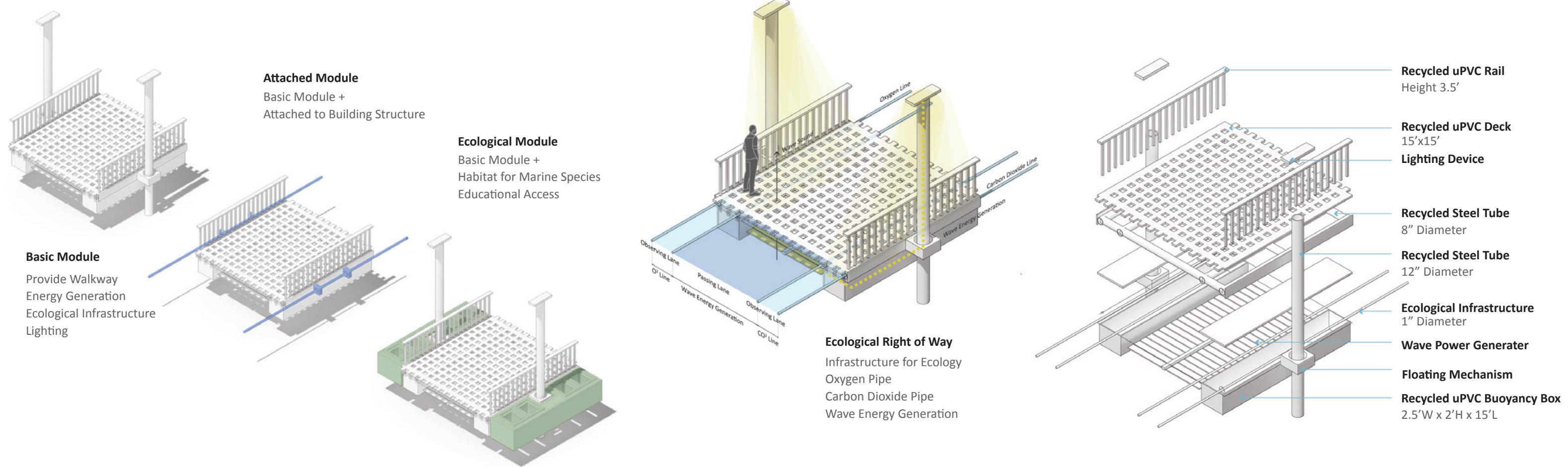
SLR_1-5'



SLR_6-9'



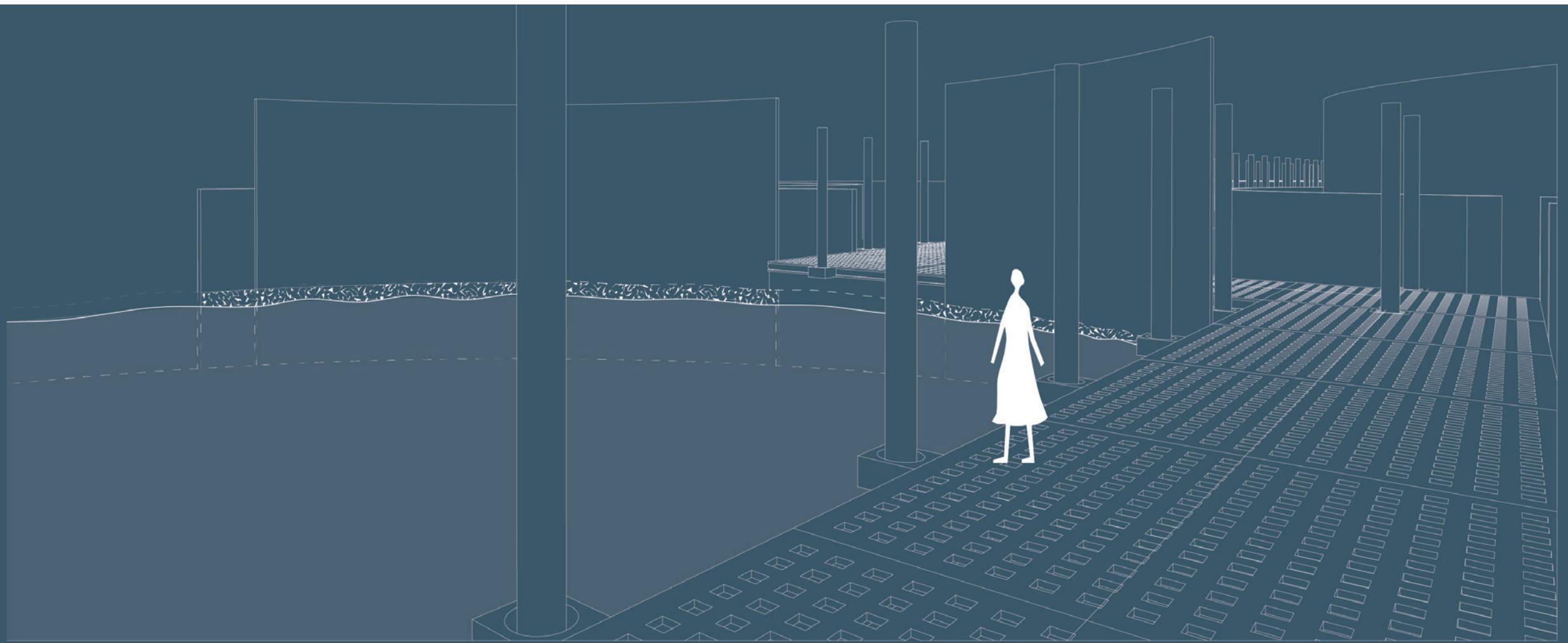
SLR_10'+

**Deliberation / Symbiosis**

Actions based on research. Preparing for the nature to take over. Cohabitating the only planet we have.

Building as Memory Device

Corrugated Oil Tank Marking Sea Levels. This becomes an educational device which people who passes by starts to understand the rydham of nature. Advocate to embrace flux, not permanence.



Atrapanieblas - The Fogcatcher

Spring Studio Case Study

Project Statement

Atrapanieblas, or fogcatchers, are simple yet ingenious devices that harvest water in places where rain is almost nonexistent, such as the Atacama Desert—the driest desert in the world. Made of nothing more than locally sourced materials, they capture droplets from the dense coastal fog known as la camanchaca, which condense on the mesh and trickle down into storage. These structures provide a steady, reliable source of freshwater, offering communities not only a practical solution to extreme scarcity but also a form of water sovereignty—empowering them to secure their own resources independently of costly infrastructure relied on energy.

Critical Research

Blur Building - Elizabeth Diller / Ricardo Scofidio

Noel Ban Dooren - Drawing Time

February 2025

Seunghu Kim

M.S. Architecture and Urban Design

Columbia University

Low-Technology

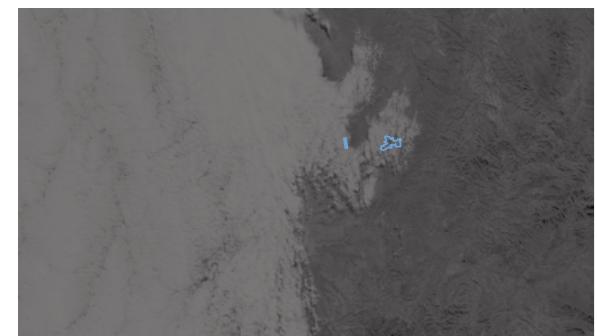
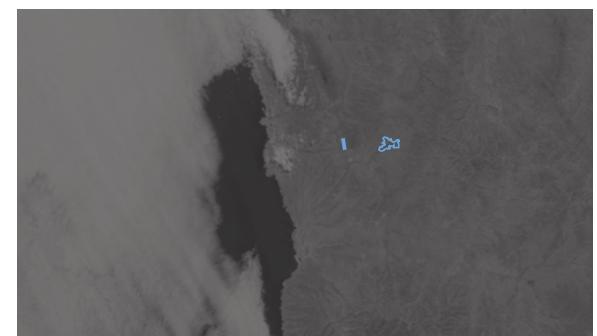
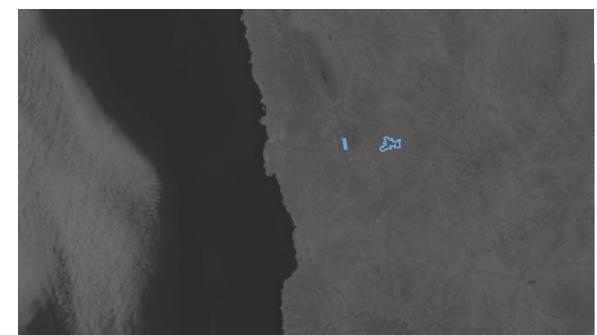
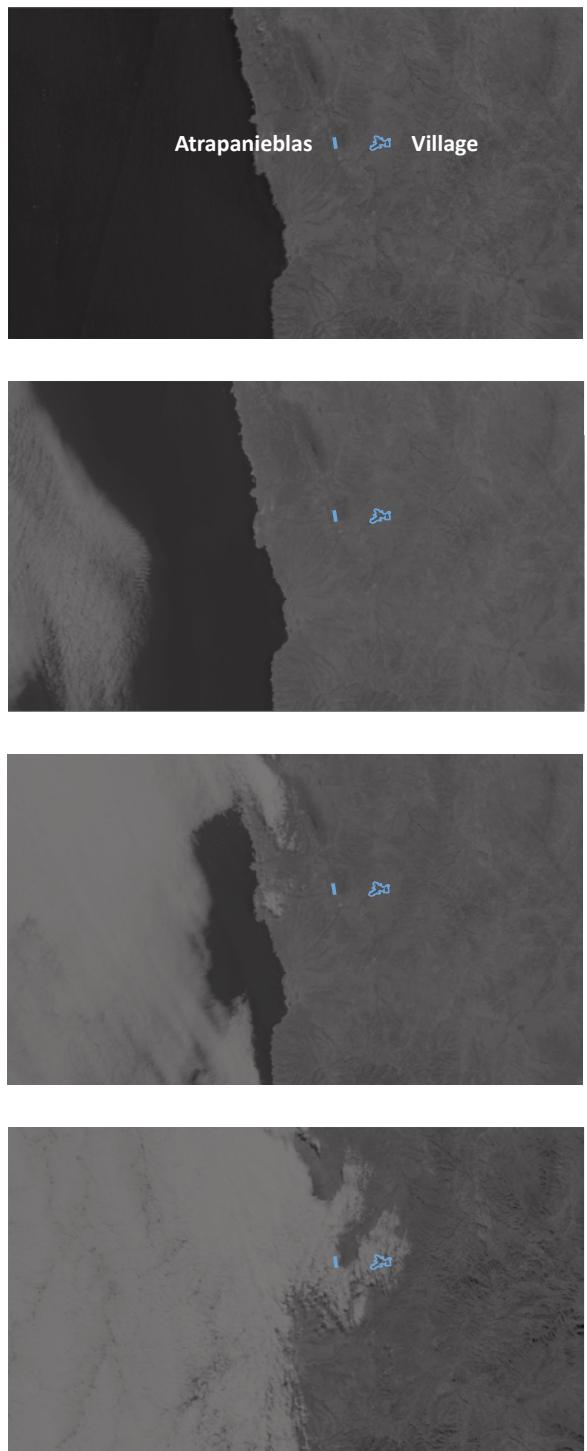
Water Sovereignty

→ Atrapanieblas in Action

Capturing 20L/m²/day of freshwater using only four materials: poles, pipes, net, and stone. The water then flows to the villages by gravity.



Sofia Yanjari - Atrapanieblas in the Cerro Grande Ecological Reserve in the town of Peña Blanca, in Coquimbo, Chile.

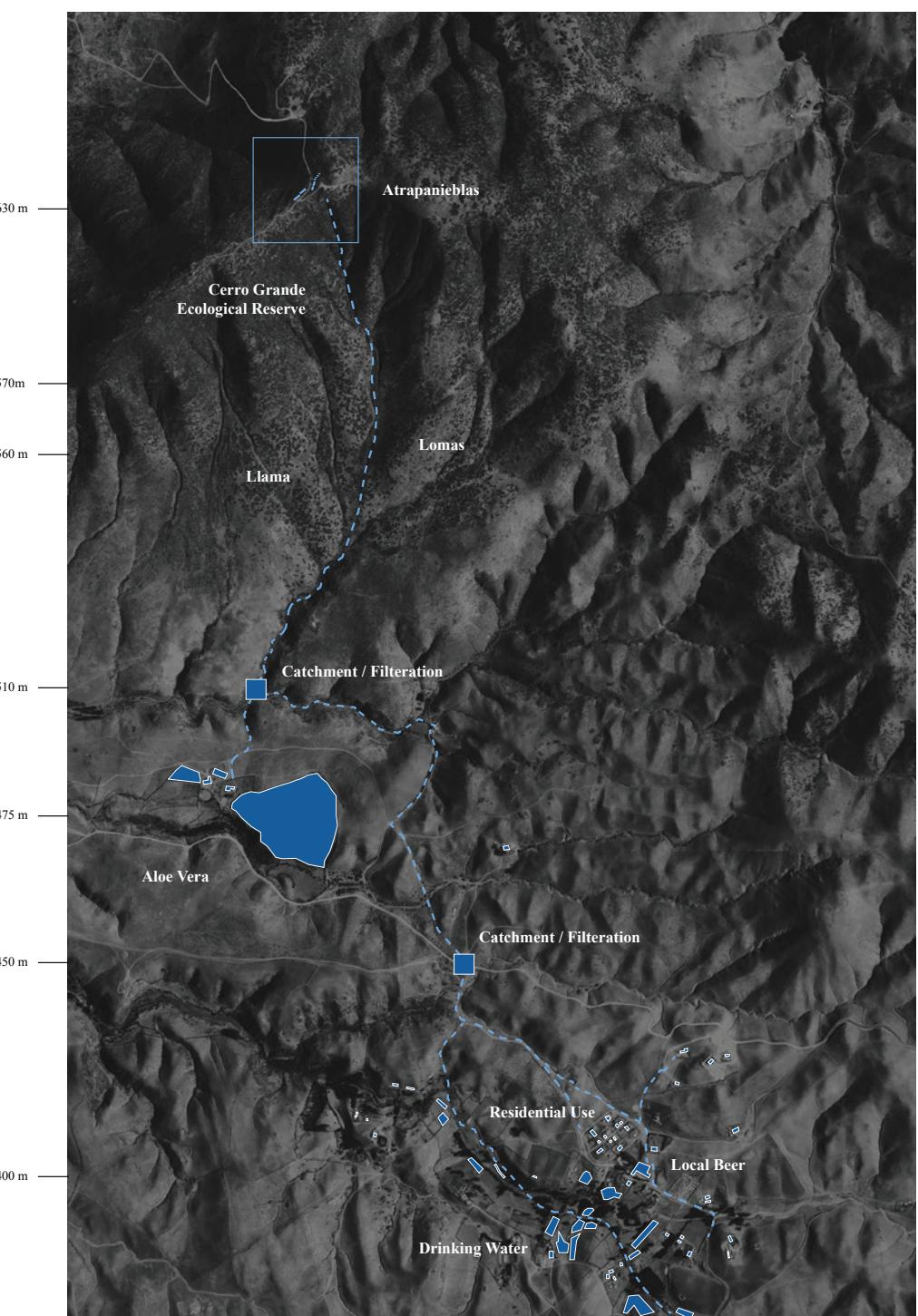


La Camanchaca - The Coastal Fog

A thick fog phenomenon; marine stratocumulus cloud banks that form on the Chilean coast, along the Earth's driest desert, the Atacama Desert.

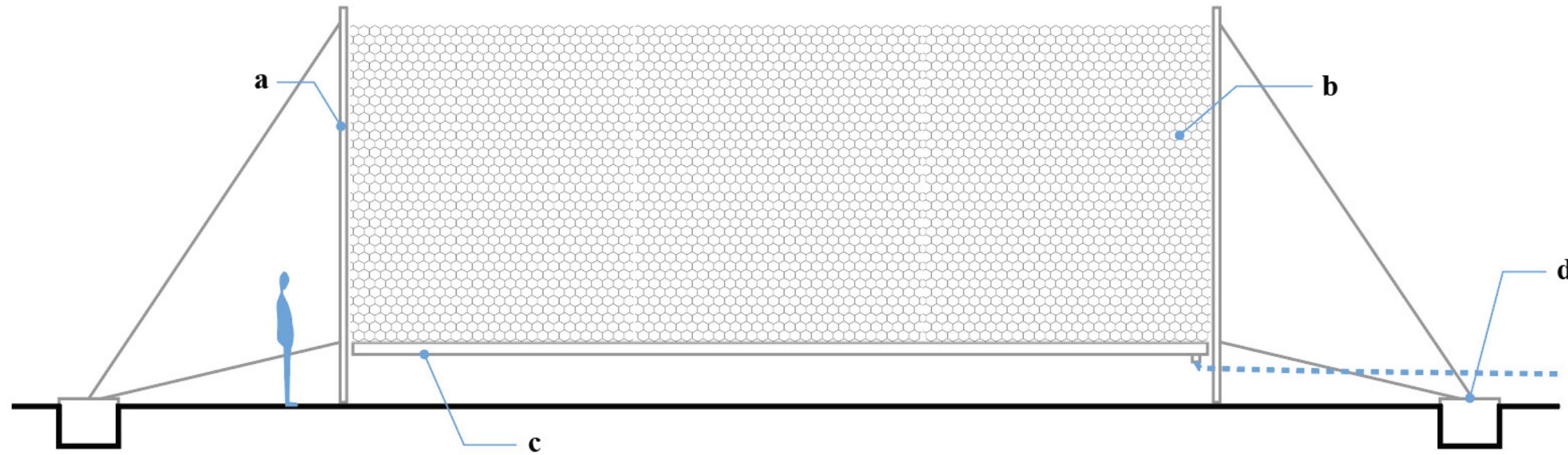
Implementation

Placed at a high elevation, it effectively harvest fog where the wind is strong, provides reliable source of freshwater.

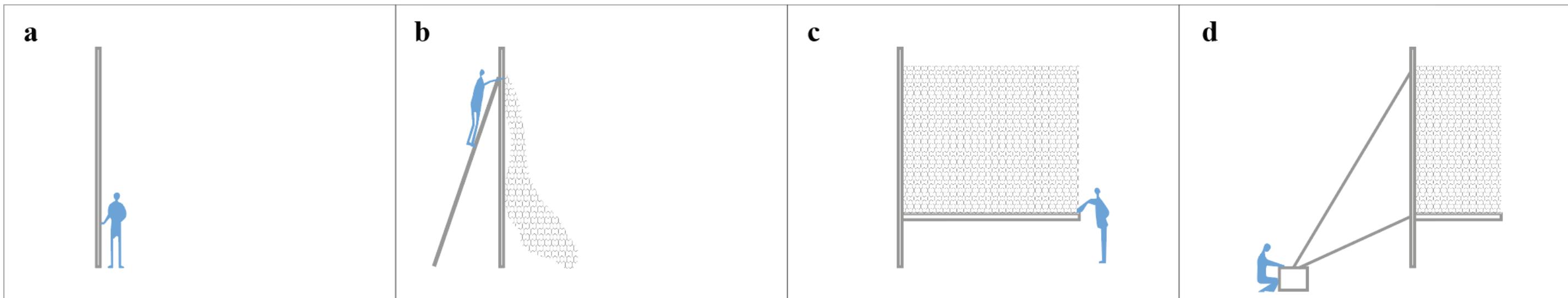


Atrapanieblas Watershed

The water flows naturally along the valley into catchment basins and is filtered towards the village, all without using any external power.

**Low-Technology Using Local Materials**

A net structure, held by two poles with small openings, harvests water from the fog.



Pole
Stainless Steel
or
Wood
Bamboo

Mesh
Plastic Net
or
Shade Cloth

Water Collector
Rain Gutter
or
U-Shape Pipe

Anchor
Stone Footing
+
Rope

Visit www.seunghu.kim for more

Daylighting Democracy: Repairing Tibbetts Brook
Framing daylighting not only as ecological repair, but also civic restoration.

How to Break a City?
From dismantling cityscape to hacking infrastructure.

Deproblematizing Flooding by Problematising the Waterfront
GIS-based analysis of waterfronts based on the notion of flooding as a human invention.

Saemaul Undong: South Korea's New Village Movement
Analysis of Korean rural village transformation through collective action.