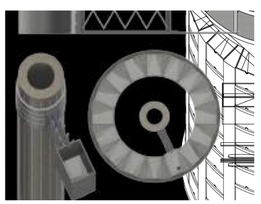
portfolio.

Lucas Fay

contents.

01.



02.

03.

04.

05.

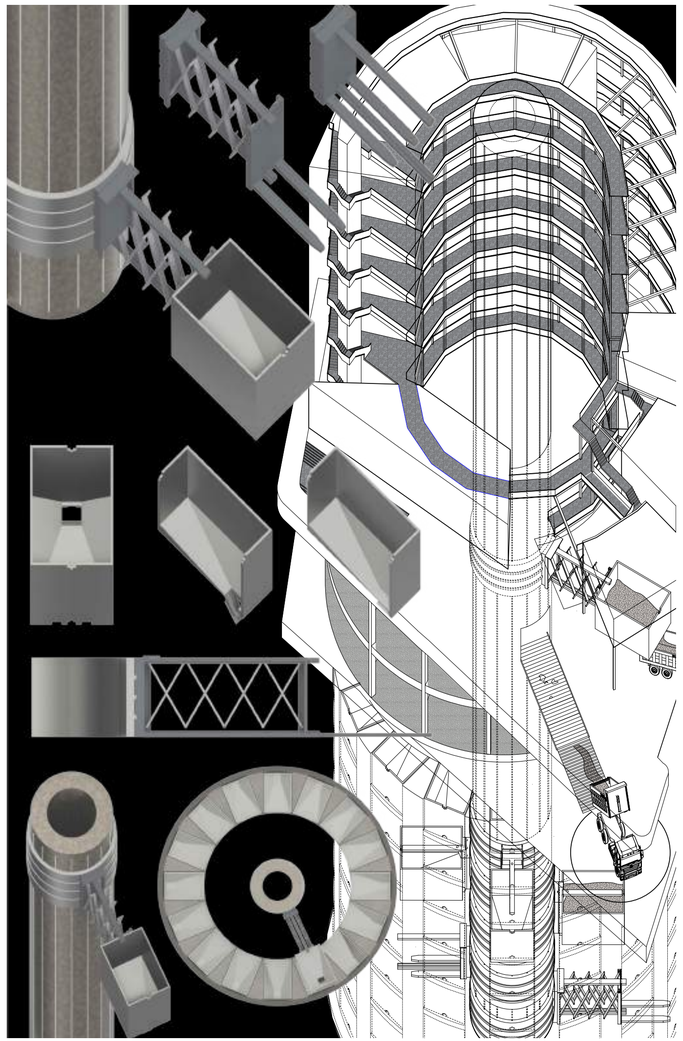
01 the clean soil bank.

Fall 2024 | New York, NY | Ivi Diamantopoulou | Rhino3D | Collaborator: Xander Anis, Lulu Yao

The Clean Soil Bank provides New York City with an organized system for sorting, categorizing, and transporting soil. It engages with the public as an attraction, exposing the unrecognized importance of soil while successfully providing back to the people. Trucks carrying soil from around the city circulate down the truck ramp where soil is dumped, sifted, and sorted. A central core holds a crane which sorts the various types of soil into the hundreds of storage spaces. Modular elements are placed in empty storage containers providing space and activity for the public to engage in. Majority of the project is immersed in the soil itself, and although unseen it is the hearth of the project.

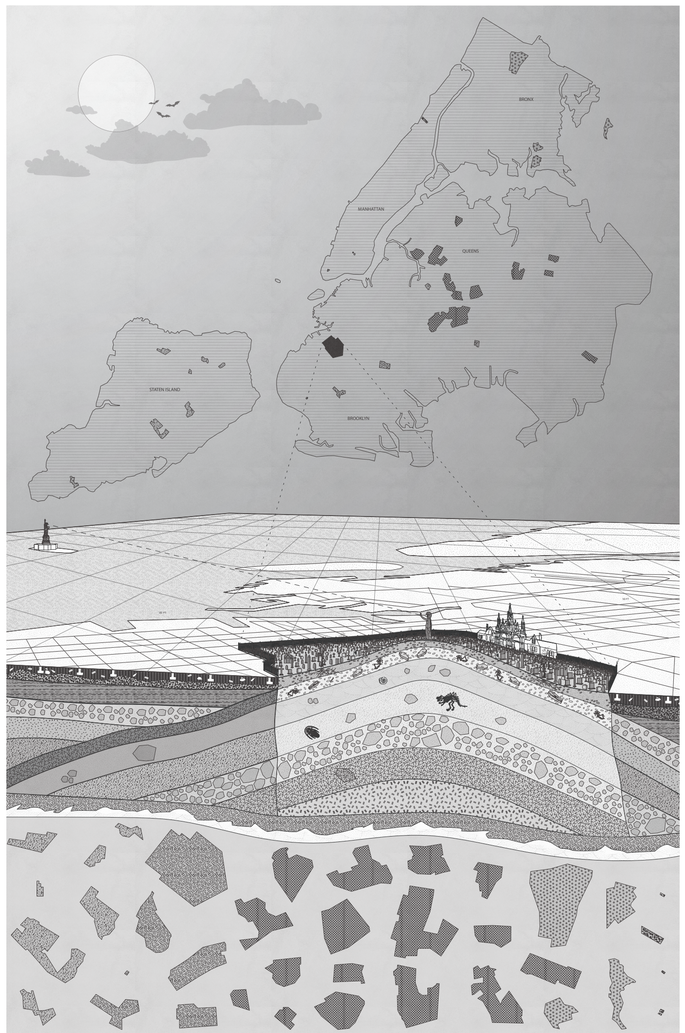
field work at the clean soil bank

composite plan drawing

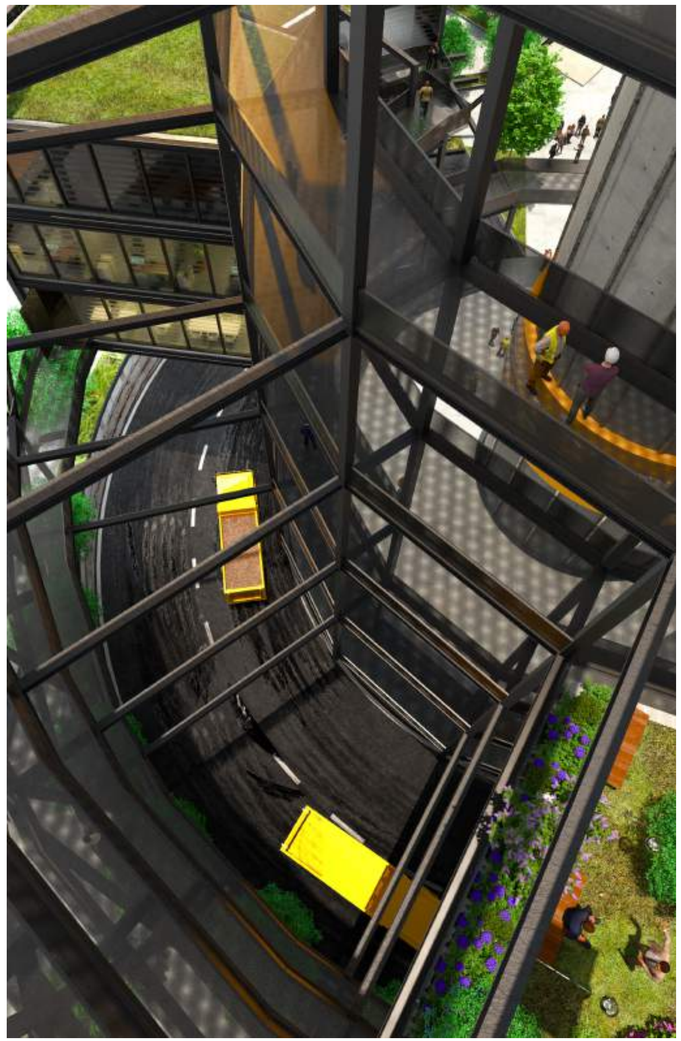


axonometric drawing of parts

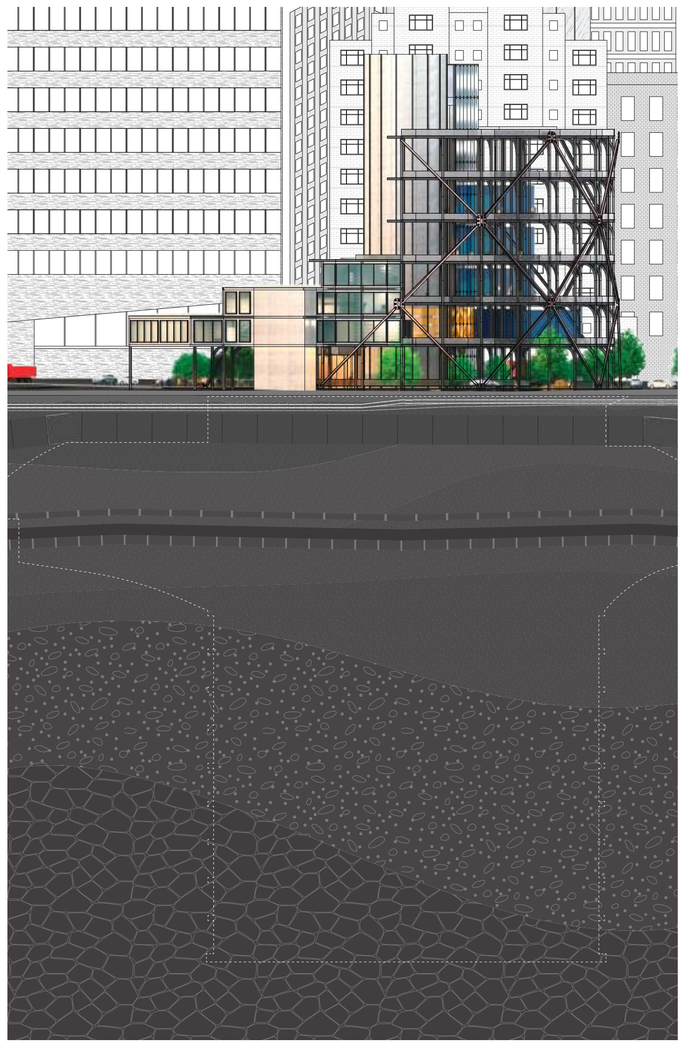
rendering of Greenwood cemetery



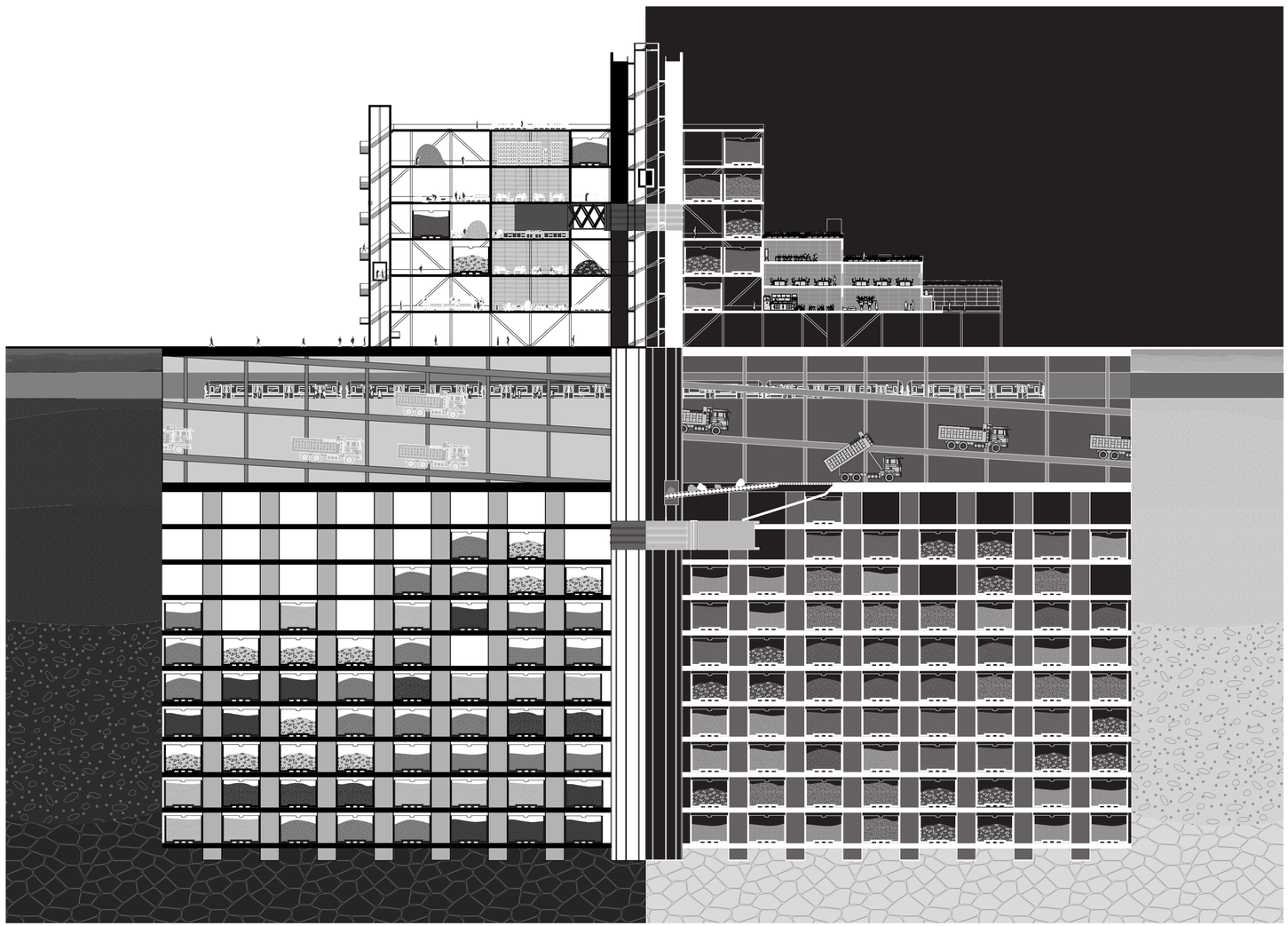
superdrawing analyzing the static soil in cemeteries throughout New York City



rendering from top floor showing truck circulation and modular spaces



elevation with underground footprint



unrolled section drawing illustrating human activity
on the left and soil activity on the right

02 temporal remnants.

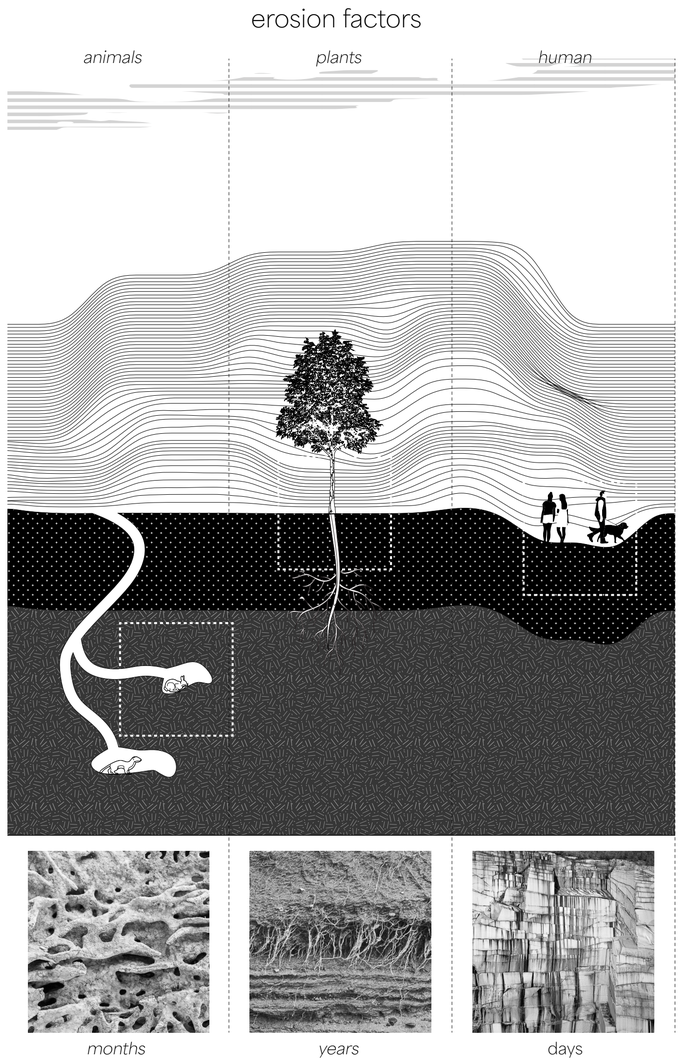
Spring 2024 | Rio Marina, Italy | Olivia Gori | Rhino3D | Collaborator: Mingrui Xie, Lillian Waddel

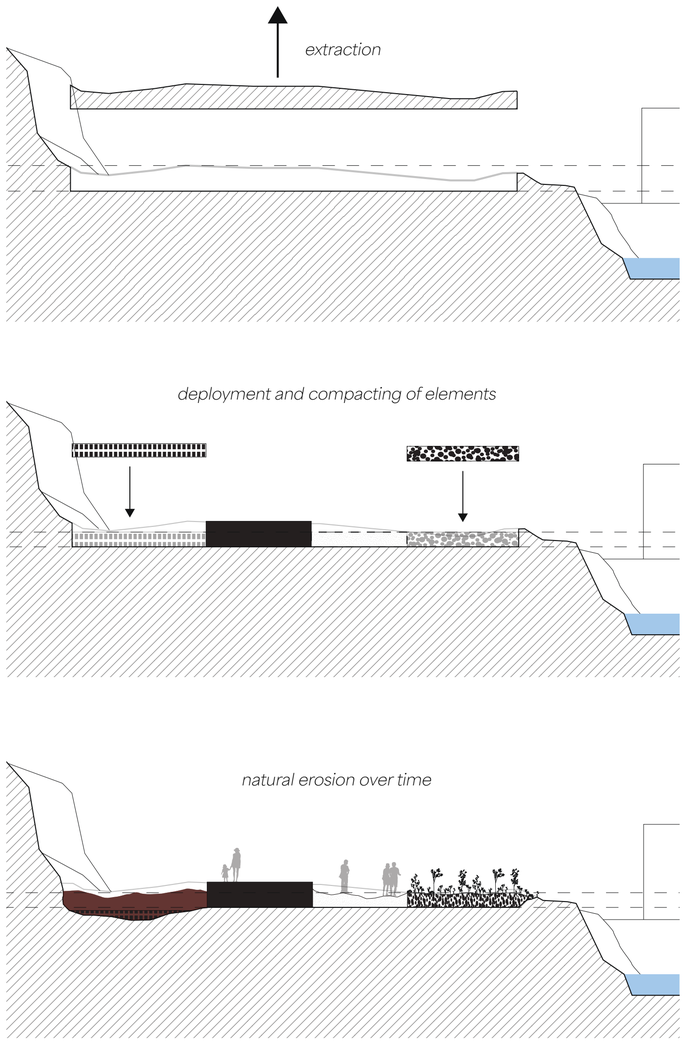
Temporal Remnants aimed to create a dynamic public space that evolves over time by repurposing extracted materials from the site. Including rammed earth, concrete with rust, dirt with iron ore, and enriched soil encouraging plant growth. We intervened on the site by extracting one meter and repurposing materials according to the program. Our design considers human experiences and circulation patterns while envisioning a future where the landscape transforms from its elements and users, forming features like the red iron pool and native flora pathways. Overall, the project merges the aspect of time, nature, and human interaction to create a poetic and evolving space for exploration and connection.

site axon of a possible future

chunk model using casted concrete and resin to represent the raised platforms and iron reactive pool

watercolor painting abstracting the layers of elements and how they could interact over time





process diagram illustrating the extraction of the site and repurposing of materials

site plan diagraming the various tiles, their materiality, and the associated program

chunk model representing a possible future:
casted concrete, dye, saw dust, moss, and resin

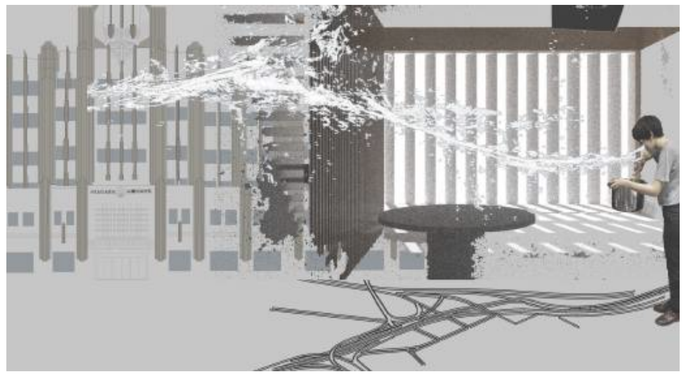
rendering of the site directly after intervention showcasing the dirt pathways, raised platforms, greenery tiles, and pre-existing ruins

model representing human-eroded pathways

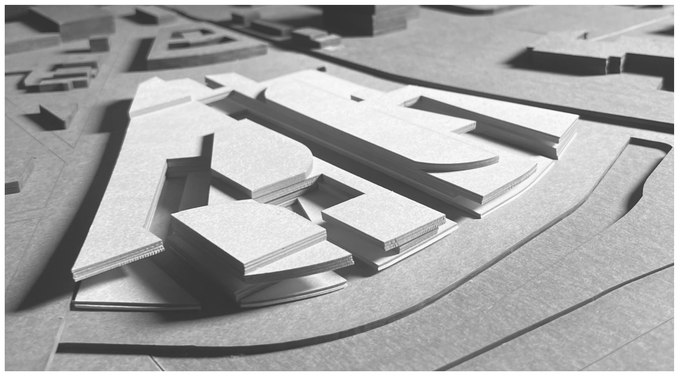
03 niagara mohawk housing.

Fall 2023 | Syracuse, NY | Elizabeth Kammel | Rhino3D

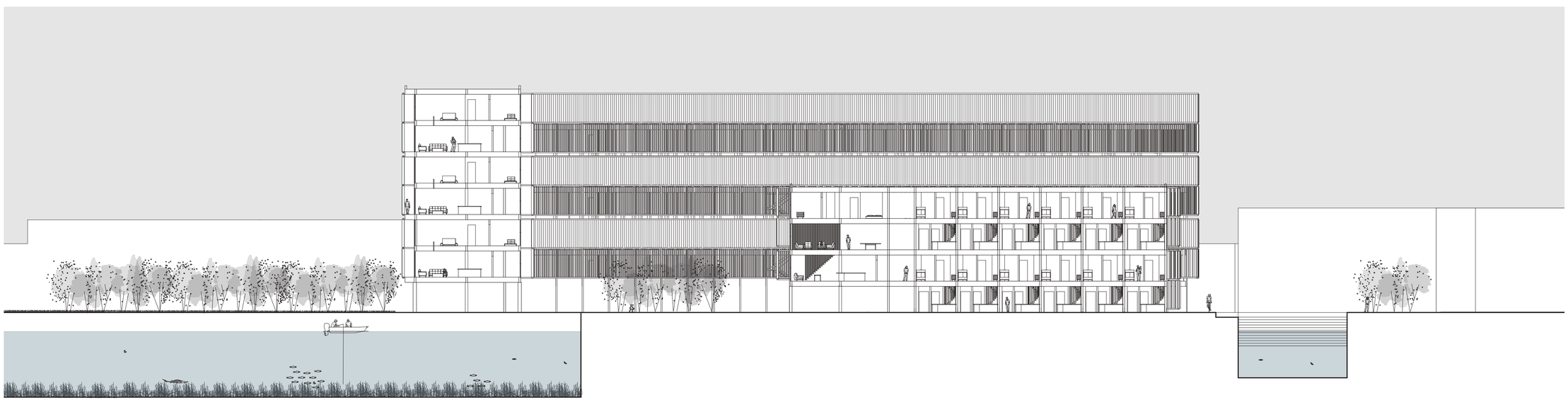
Niagara Mohawk Housing connects its habitants to the nearby downtown and water from Onondaga creek and lake. The man-made creek provided a deficient habitat for the local biodiversity. A proposed widening of the creek would slow the flow of water and decrease its temperature, allowing the local fish and wildlife to return and provide a new greenspace for the city. The center of the site has a stepped canal to emphasize the rise and fall of water levels in an attempt to make the public more aware of the natural dynamics of water. This project aims to seamlessly blend sustainable design with community needs, fostering a deeper connection between people, nature, and the surrounding environment for a more resilient and harmonious urban future.



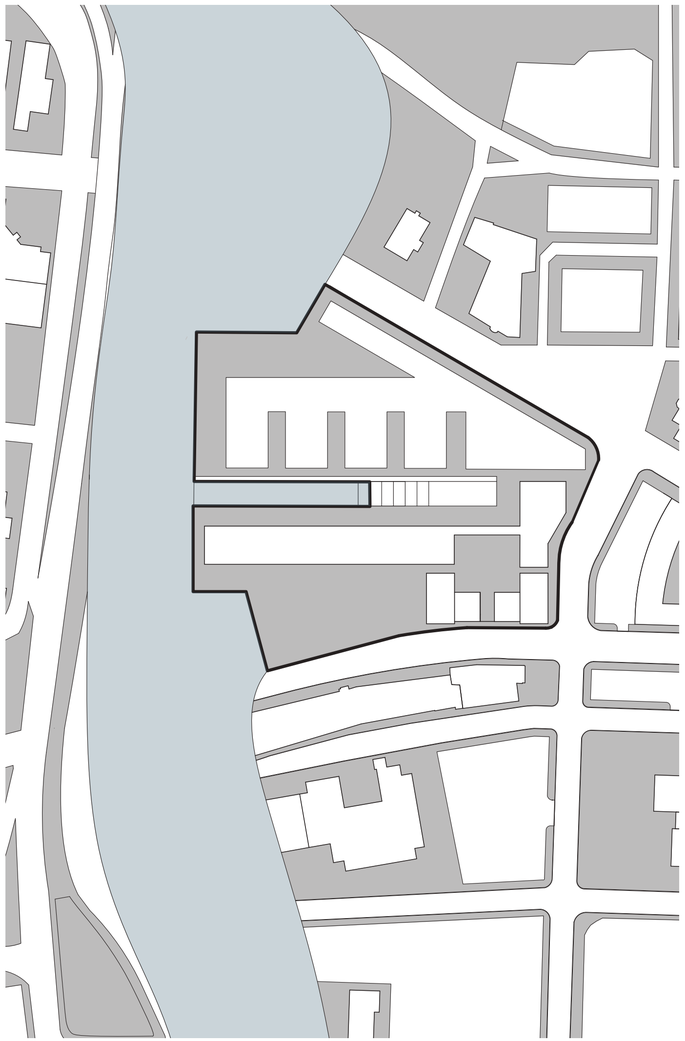
collage which portrays resident's connection to water



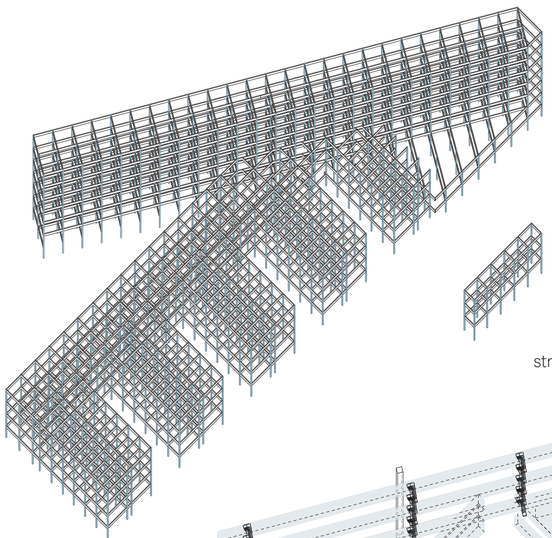
study model



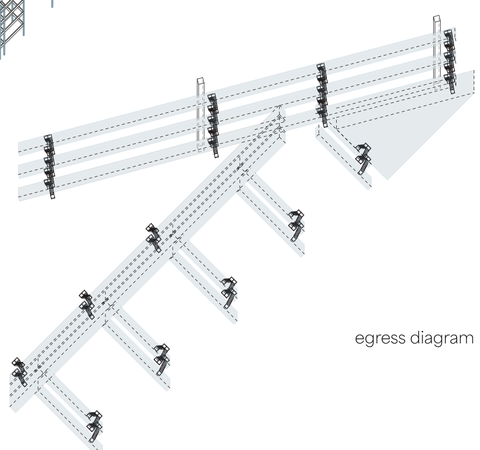
site section



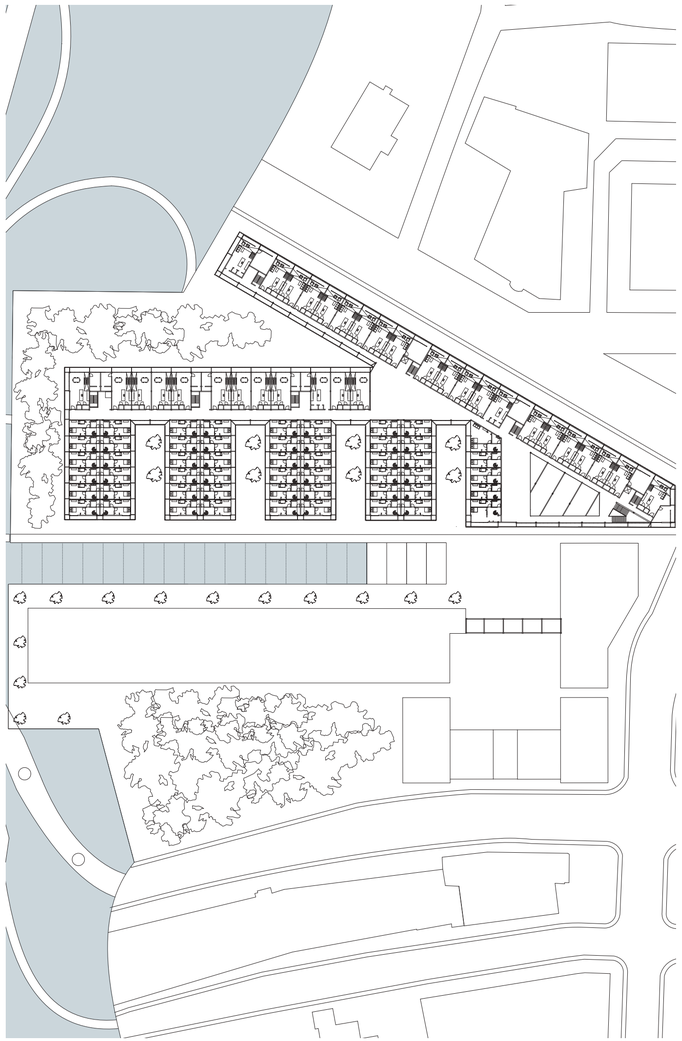
foreground plan



structure diagram



egress diagram

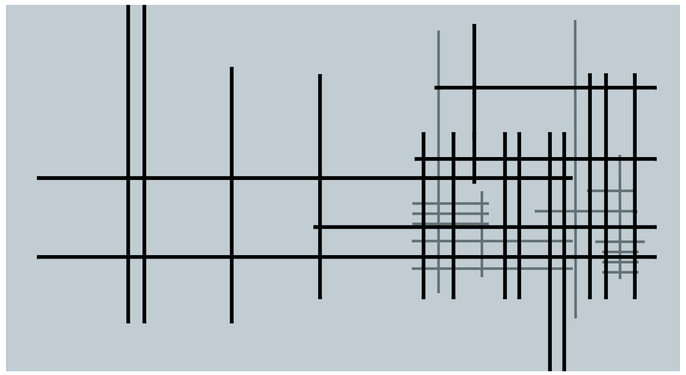


second floor plan

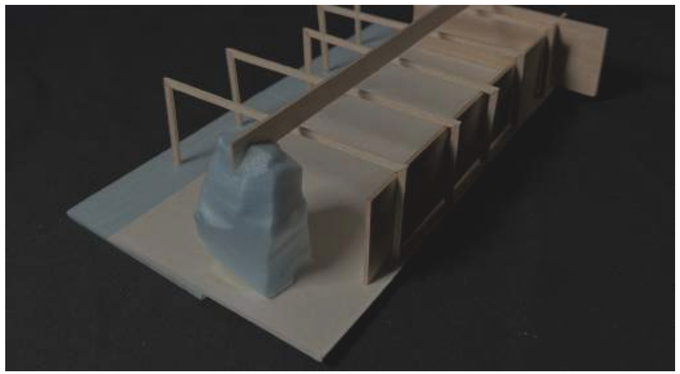
04 erie canal pools.

Spring 2023 | Syracuse, NY | Lawrence Davis | Rhino3D

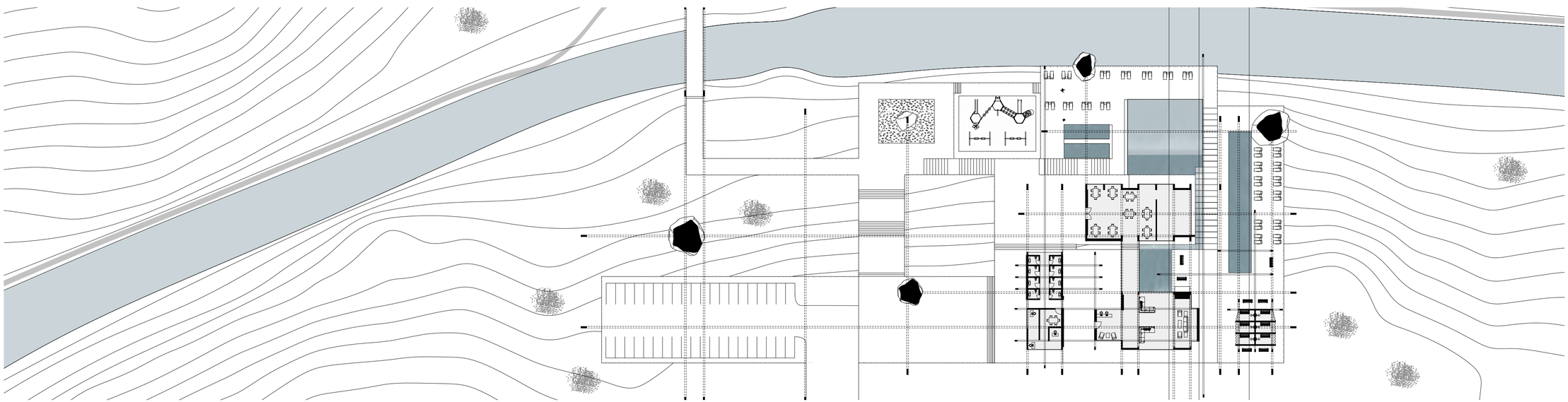
The Erie Canal Pools provide a public park and pool facility through a series of primary and secondary beams which stretch across the site touching the ground as columns and artificial boulders. This interplay of scale not only connects users to the natural environment but also challenges the perception of what is truly “natural.” This body of water exists because of industry, but that doesn’t make it any less enjoyable.



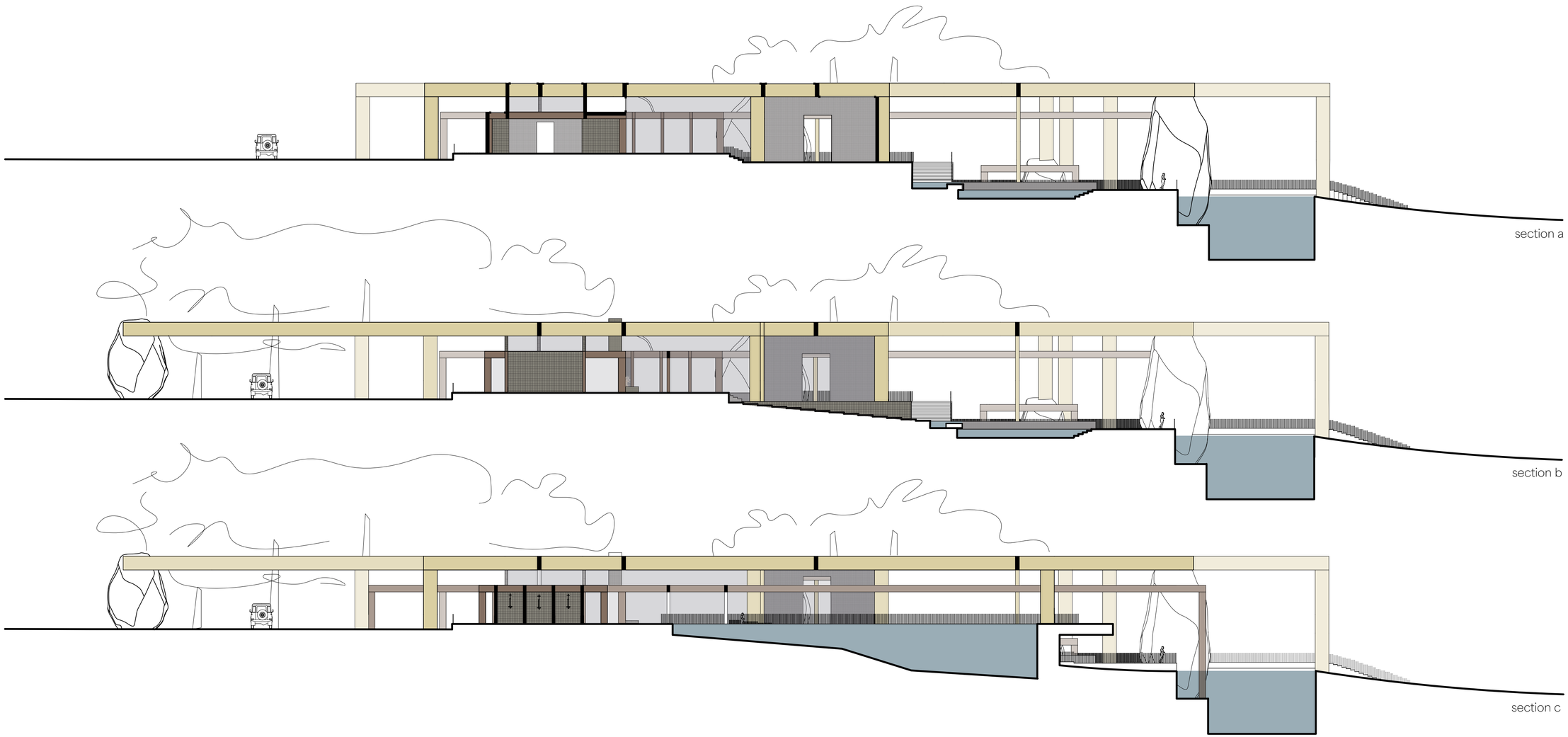
beam diagram

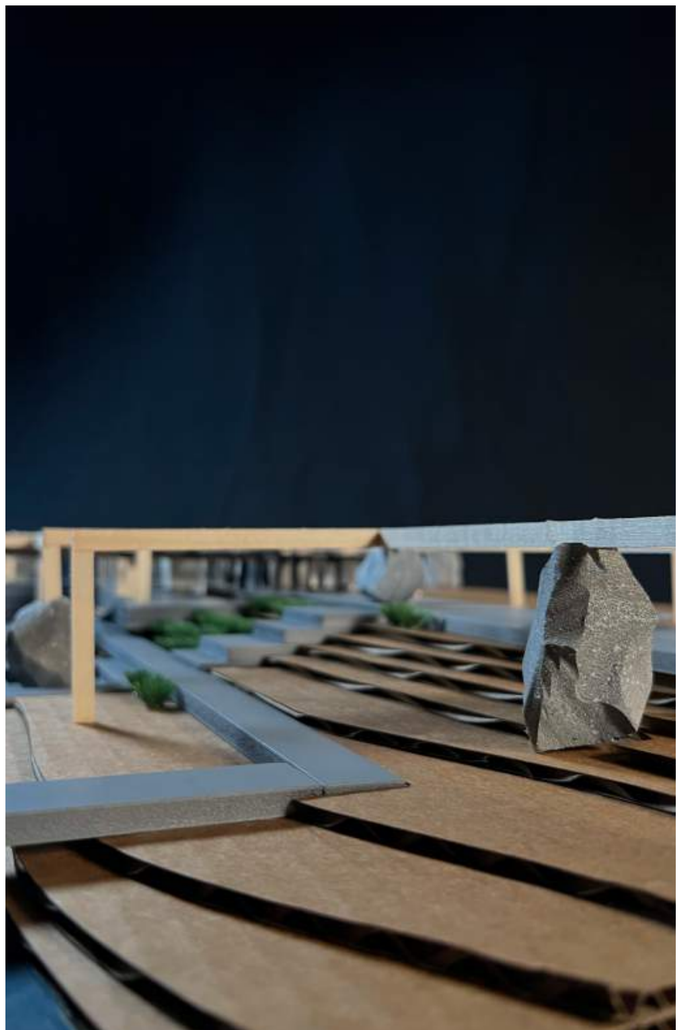


study model



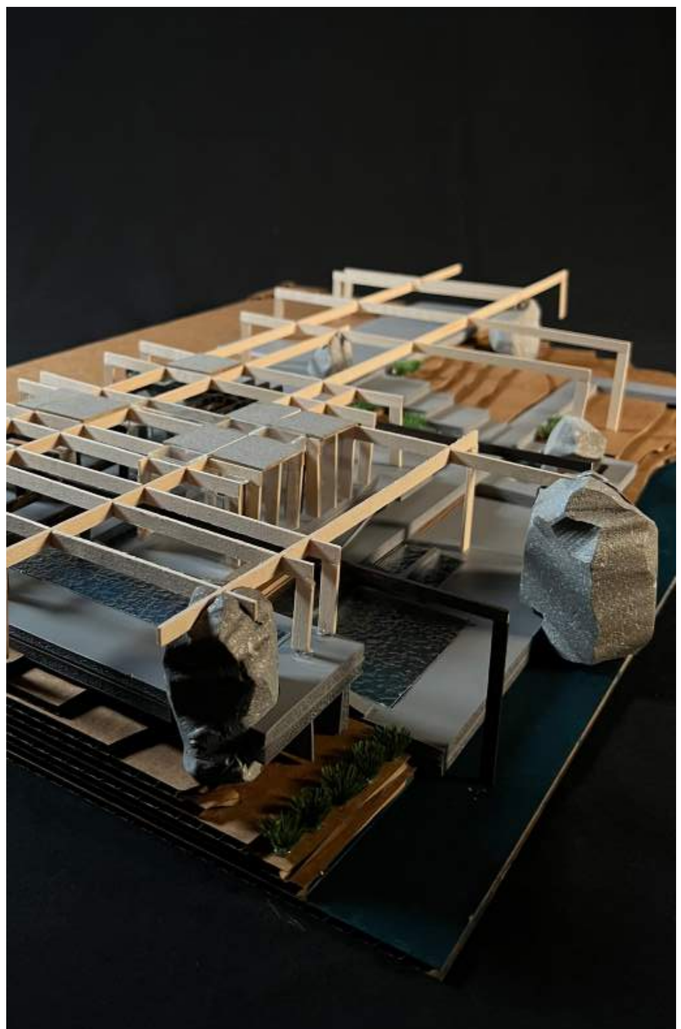
site plan


section a
section b
section c



model photo showcasing how the project integrates with and cuts into the landscape

model photo revealing the beam and artificial boulder connection

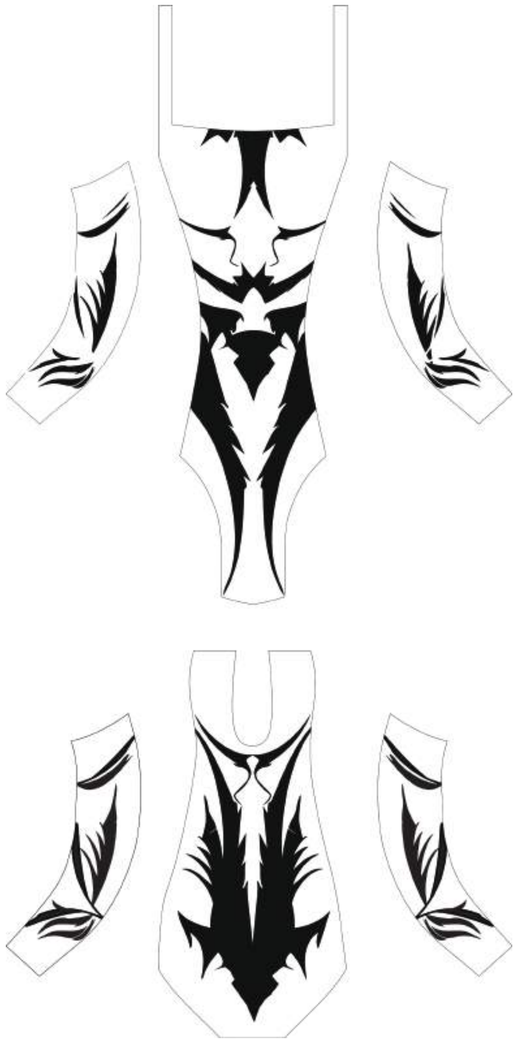


model photo featuring the series of primary and secondary beams

05 miscellaneous.

Fall 2022 - Present

rendering of a leotard and its pattern that highlights and accentuates the dancer's curves, designed using CLO

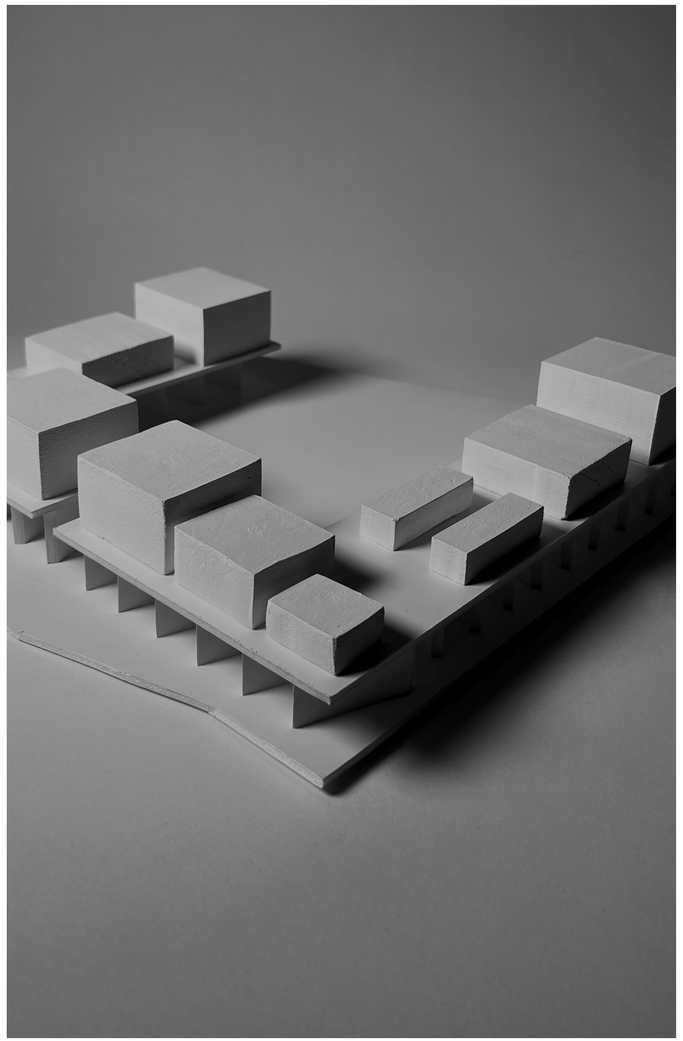


pieces of the garment showcasing its pattern and how it's sewn together

rendering of the skin featuring a pattern that emphasizes the curves of the human body, designed using CLO

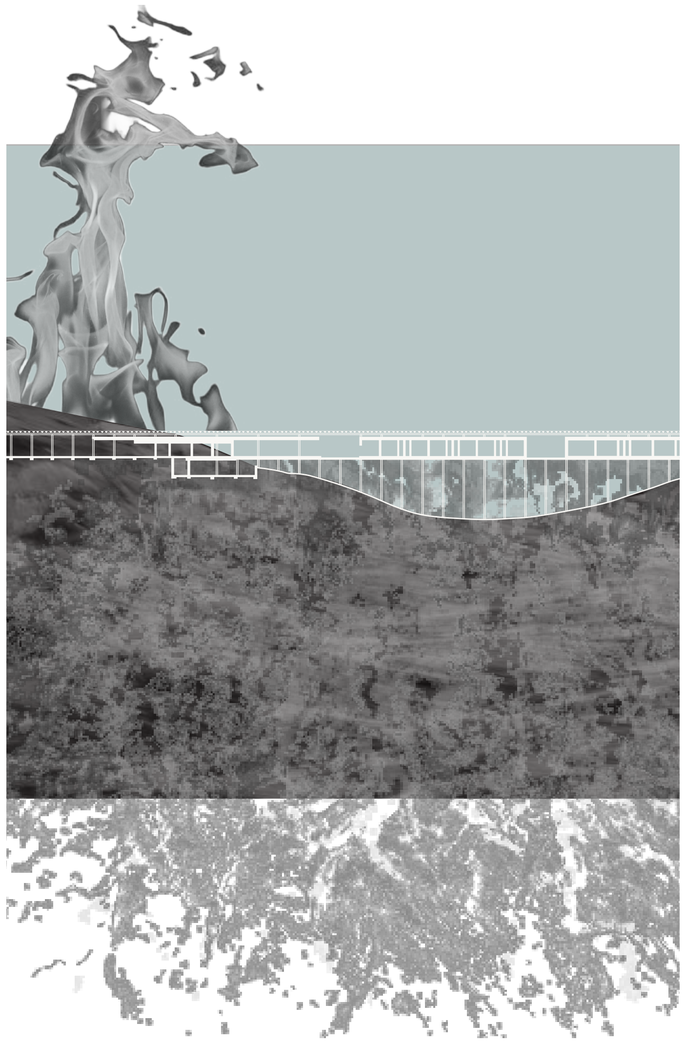
close up model photo highlighting the steel mesh wall

concrete chunk model showcasing the building's techtonics

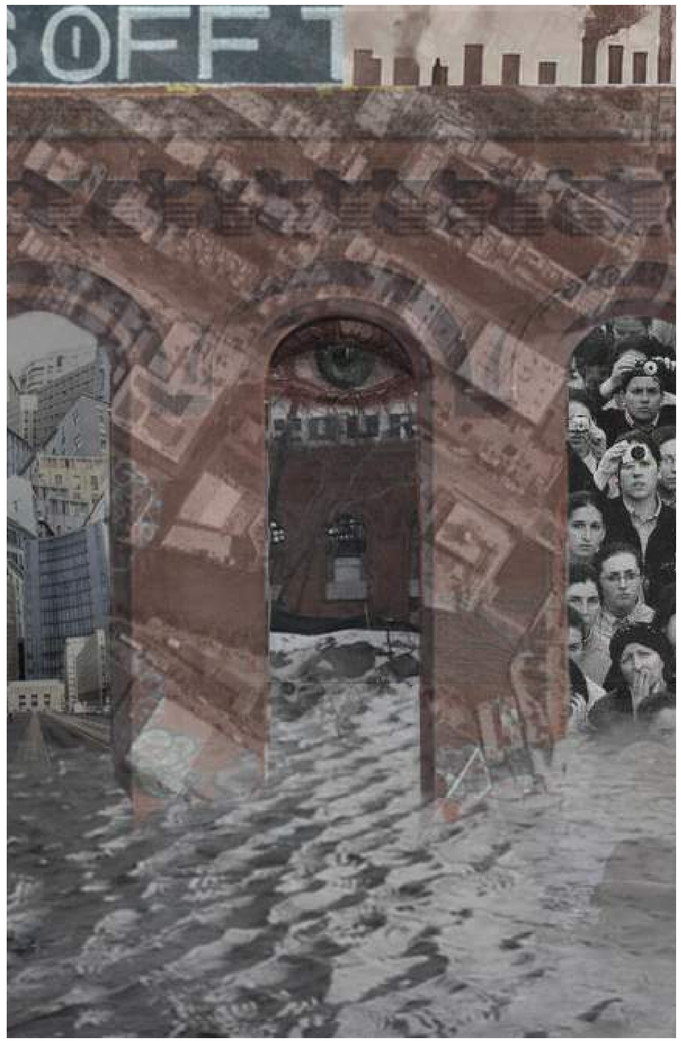


massing model highlighting the building's stepped footprints and varying building elevations

Bundannon Museum collage emphasizing its connection to natural and indigenous lands

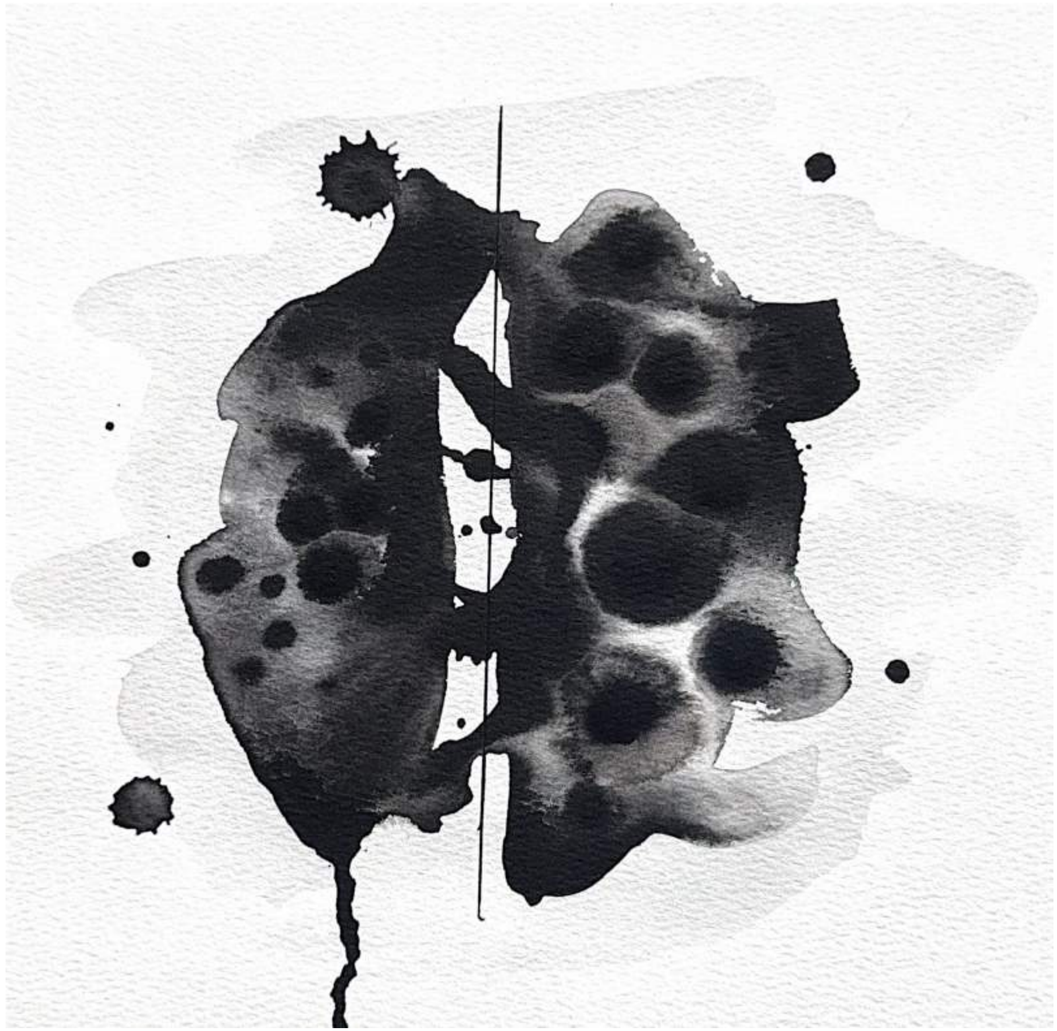


Bundannon Musem collage representing the building's resilience to wildfires and floods



Powerhouse Arts collage depicting the neighborhood's industrial past and gentrified future

thank you.



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