

Ground Conditions

Stephen Zimmerer

My work is guided by my studies and experiences in two distinct disciplines, architecture and landscape architecture. In practice, landscapes are researched and designed through unique methods from buildings, guided by a separate set of design technologies: the regional transect, the grading plan, the planting schedule. In the enclosed works, I apply the operative methods and technologies of landscape to the practice of researching and making architecture.

Emergent from these technologies, landscape architectural practice conditions a separate sensibility from making buildings, with alternative priorities and values. This conceptual framework emphasizes ecosystemic transformation, surface articulation, and practices of multi-species care. Landscape is ground without figure, narrative without climax, mise-en-scène, insects in the night air. It is an outsider's discipline, a minority language in the built environment. It suggests an alternative design approach to architecture, urbanism, and infrastructure.

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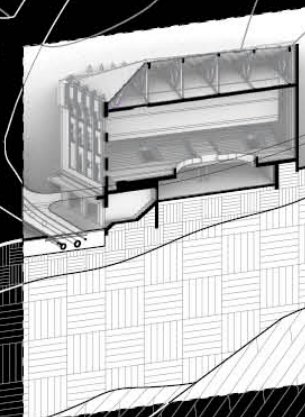
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Assembling Change

Design Technology:
The Regional Transect

The regional transect is a tool for studying the aspect and materiality of the earth. Transect builds from the latin prefix *trans*—*across, beyond, through, so as to change*—and the architecturally familiar *-sect*—*to cut*. The transect works in conversation with the map. But while maps work with vectors and pixels to bound and define territories, transects are concerned with *ecotones*, or moments of transition: how city becomes sea; how field becomes forest. In landscape architectural practice, the regional transect borrows from the Valley Section, a representational technology developed by Patrick Geddes in 1909 to survey relationships between land use and earth. These documents situate buildings and landscapes in multi-scalar and trans-temporal environments, ranging from the bacterial to the geologic. They suggest the capacity of minor infections to change entire systems.



Evening Lark

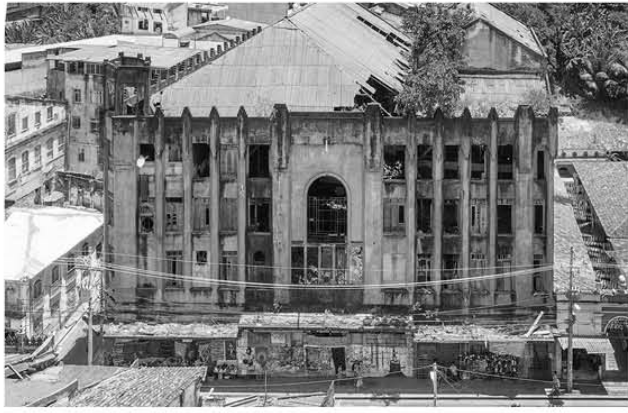
Advanced Studio VI
Salvador, Brazil
Spring 2024

Critic
Mario Gooden

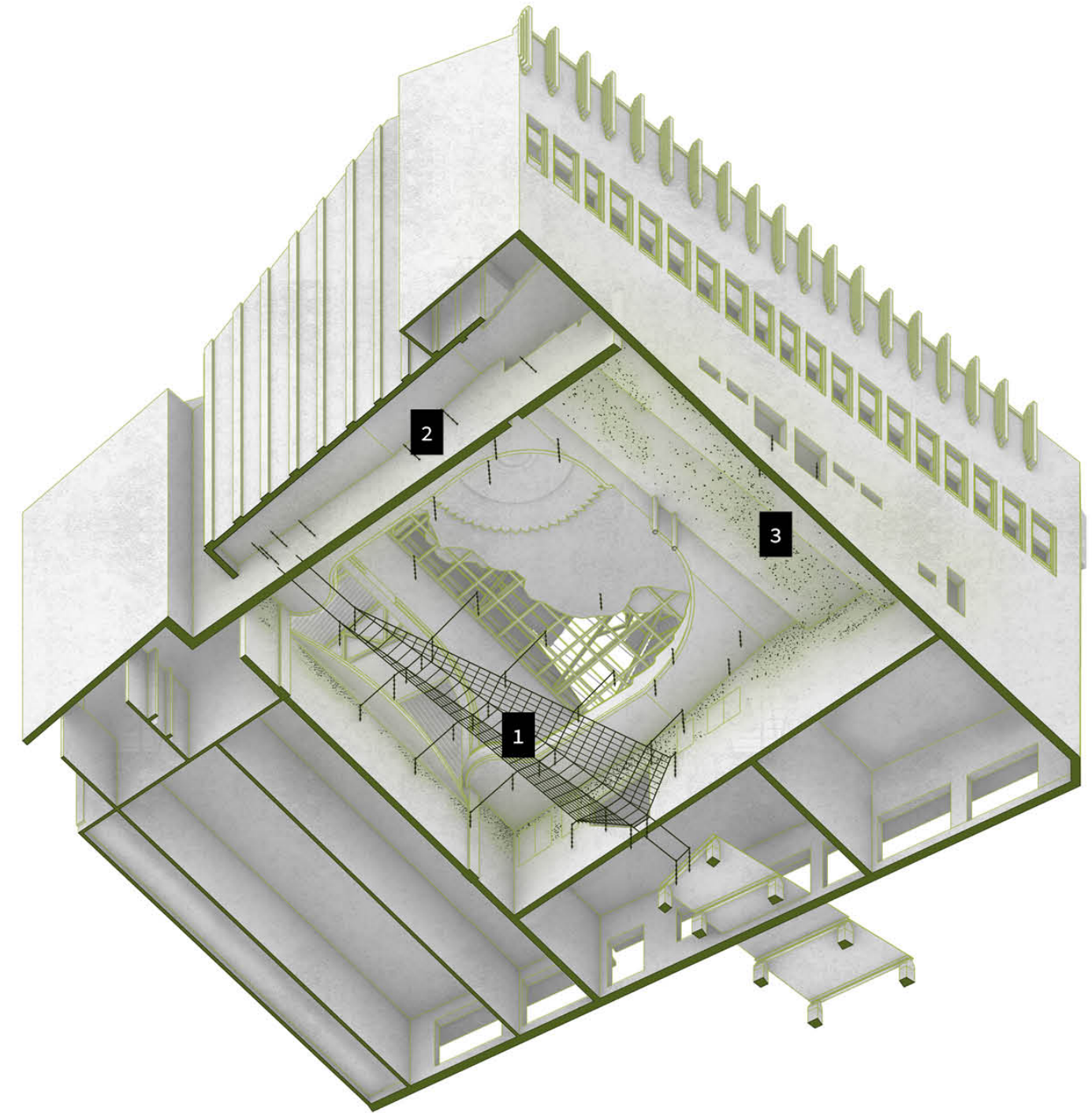
Key Words
Adaptive Reuse, Ecology

Key Dimensions
2,480 square feet





Evening Lark takes place in an art deco theater in Salvador, Brazil undergoing an advanced state of material and ecological decay. The theater is a zone of the future which has already happened, in which vegetal and cerebral, bacterial and architectural, native and traveler, and past, present, and future enter into new relations, facilitated by the decay of its abandoned interior. A vocabulary of cuts stages an encounter and an infection between this zone and the infrastructure of the former river outside.

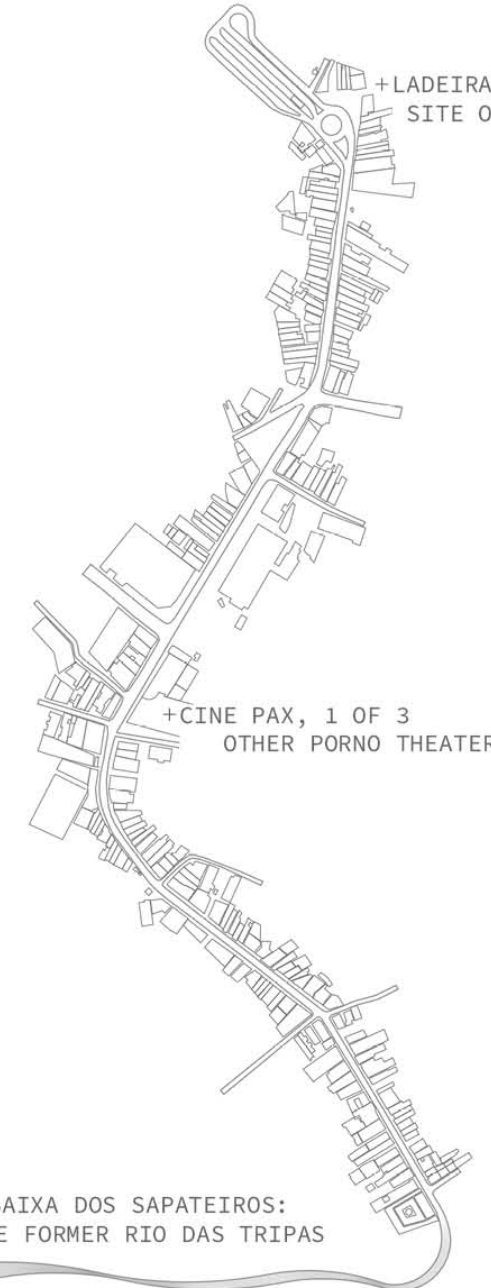


- 1 Rope-Stabilized Incision in Auditorium Floor
- 2 50 Weep Holes
- 3 Plaster Etchings

Worm's-Eye Axonometric
A vocabulary of cuts

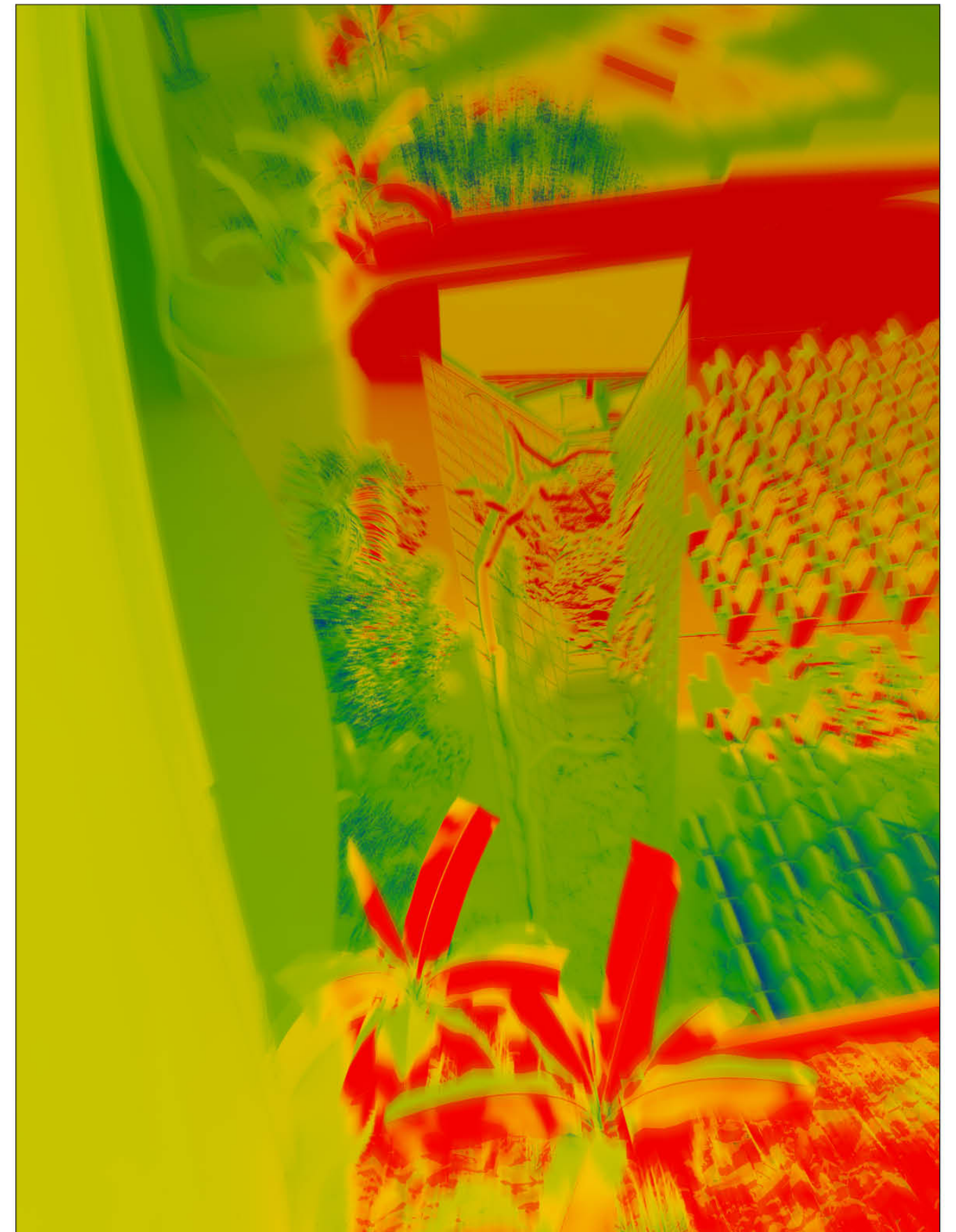
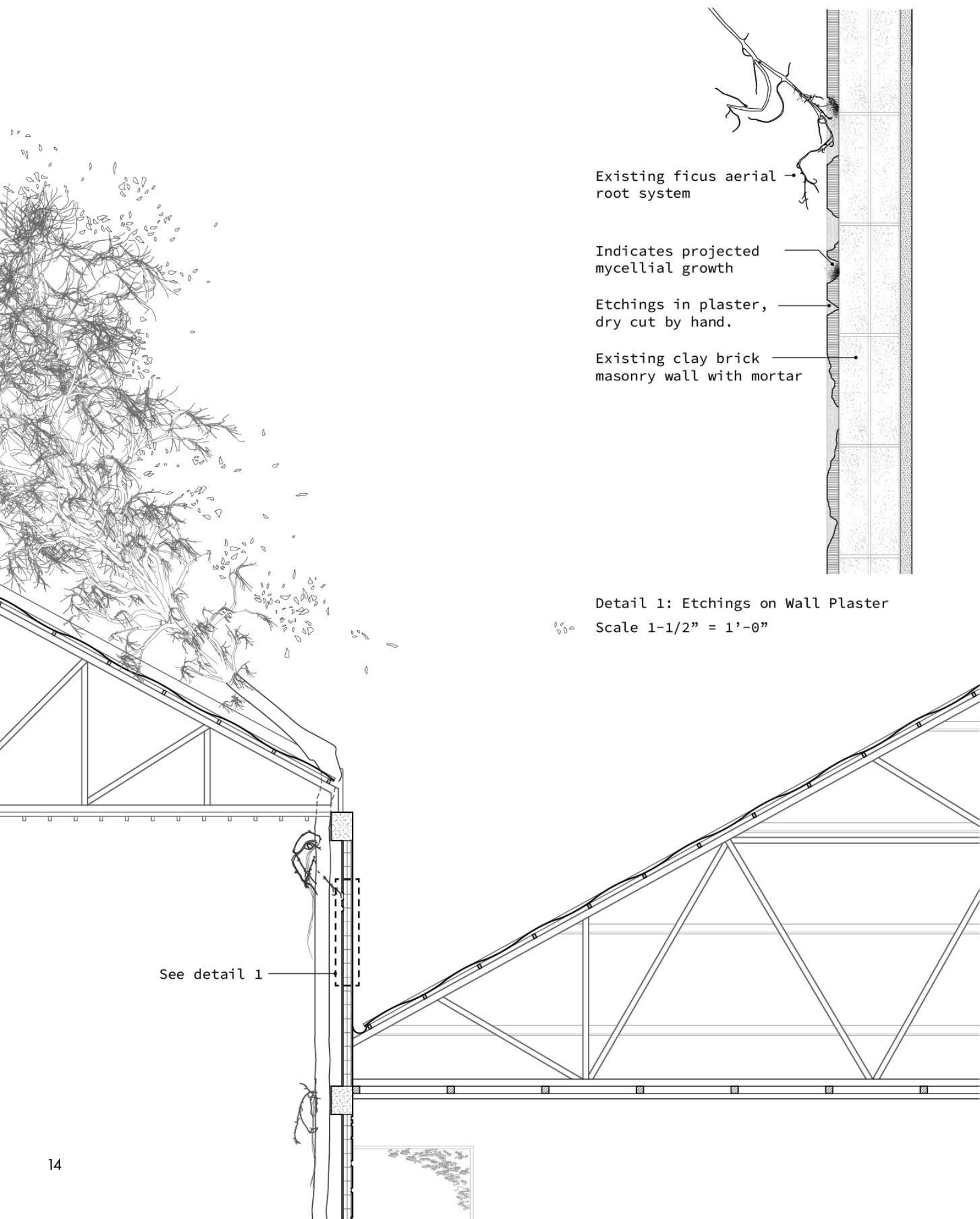


+LADEIRA DAS HORTAS:
SITE OF THE FORMER DAM



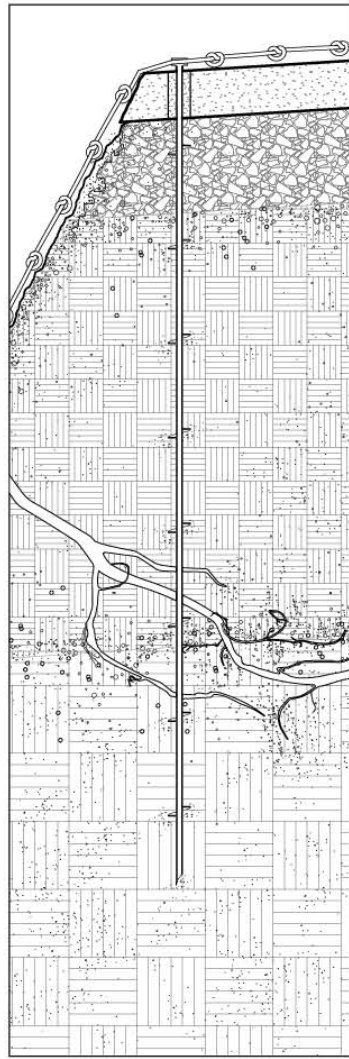
+CINE PAX, 1 OF 3
OTHER PORNO THEATERS

BAIXA DOS SAPATEIROS:
THE FORMER RIO DAS TRIPAS



Interior Perspective from Inside the Roof

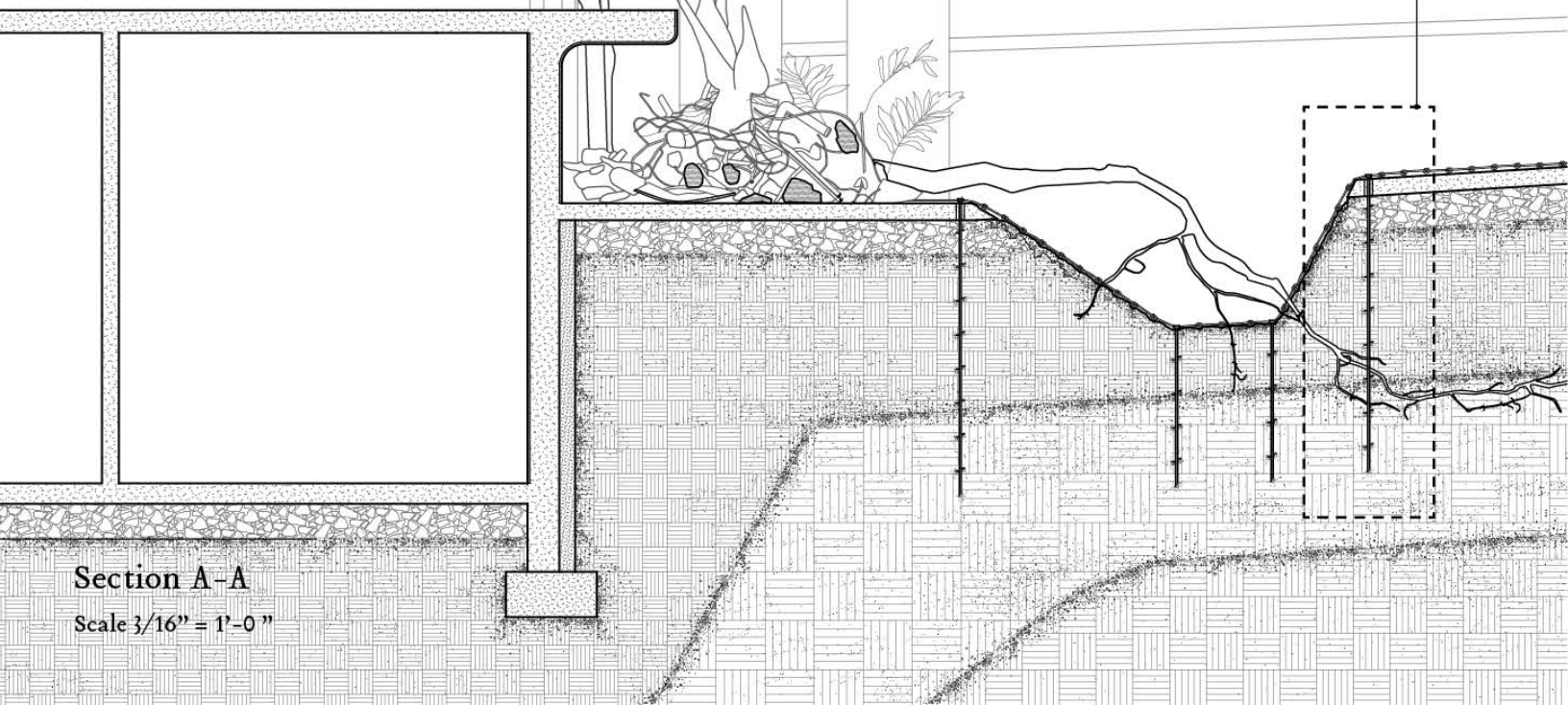
Point of View: Tropical Mockingbird



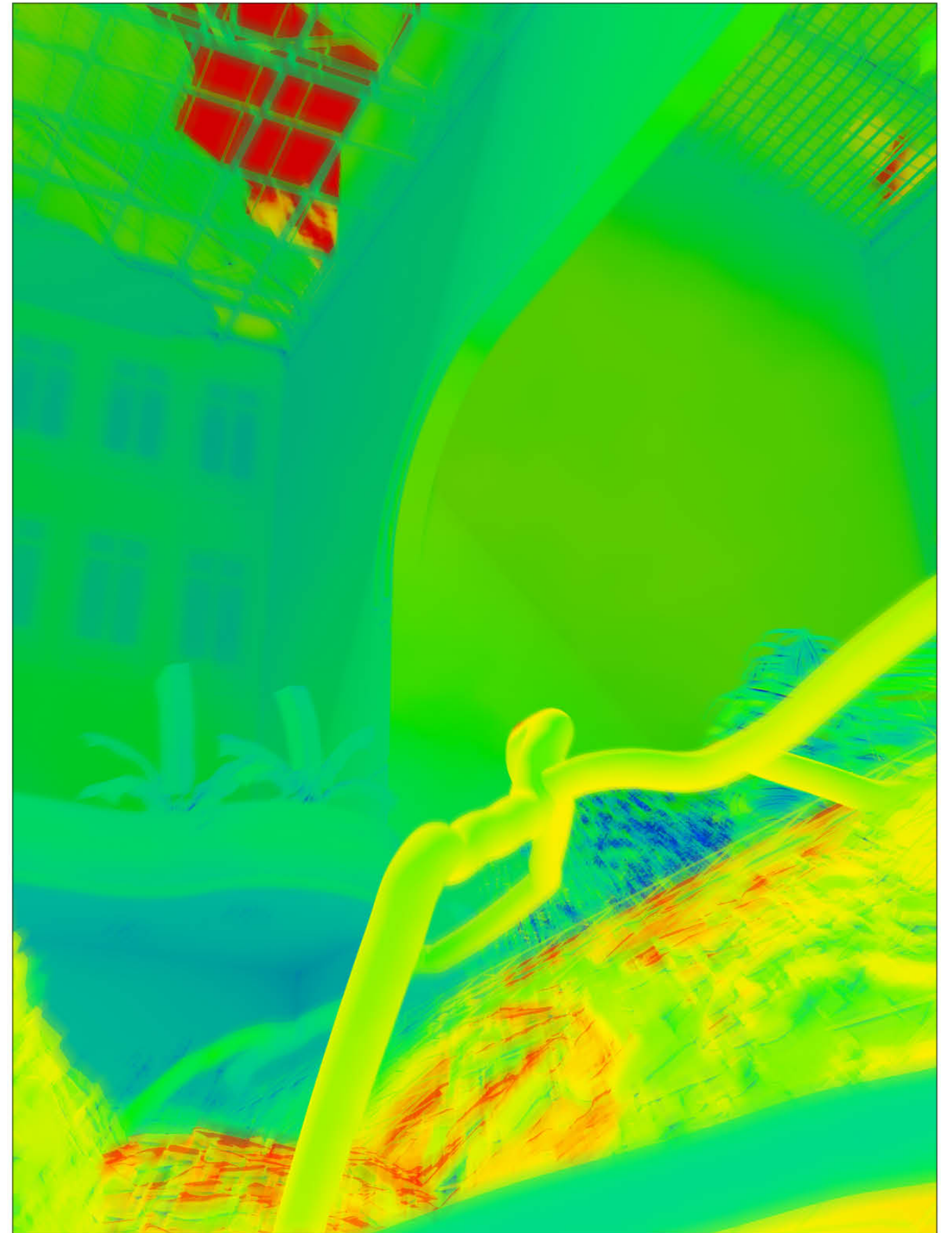
Detail 2: Floor Incision and Weep Hole
Scale 3/8" = 1'-0"



See detail 2

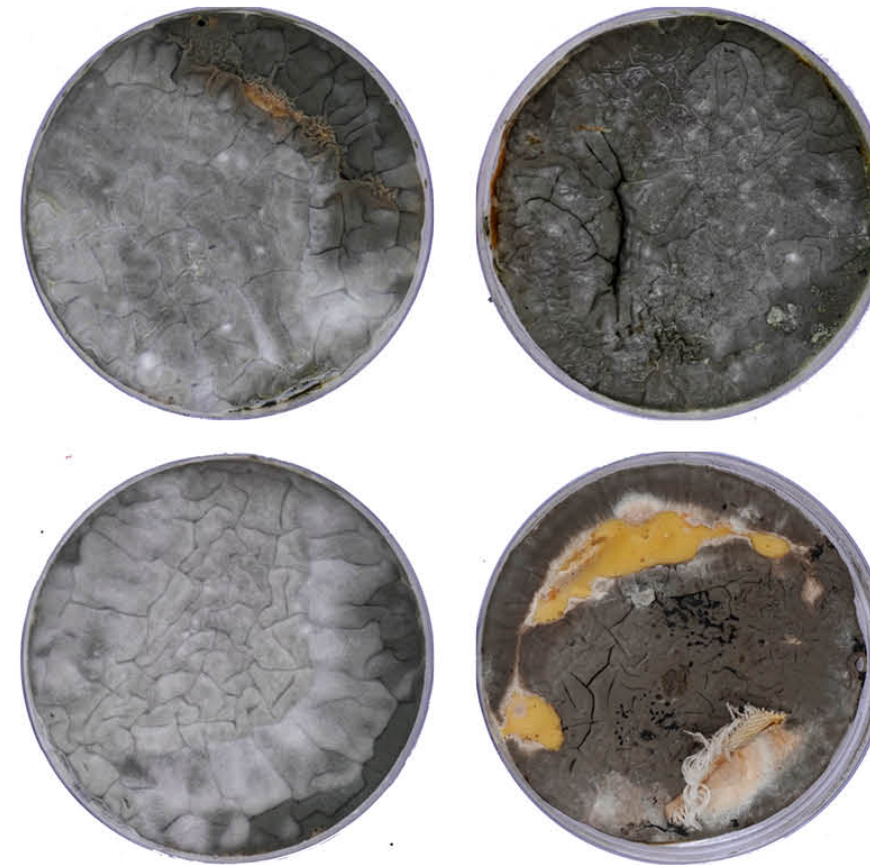


Section A-A
Scale 3/16" = 1'-0"



Interior Perspective from Inside the Incision

Point of View: Molded Mycelium



1 100 mL Raw Milk (Jersey)
1.3 g Agar
0.6 mL P. Roqueforti

2 100 mL Butter Milk (Jersey)
1.3 g Agar
0.6 mL P. Roqueforti
2 g Bread Crumbs

3 100 mL Raw Milk (Jersey)
1.3 g Agar
0.6 mL P. Roqueforti
5 g Banana

4 100 mL Raw Milk (Guernsey)
1.3 g Agar
0.6 mL P. Roqueforti
Canvas

1:1 Model and Process Images

The theater's interior is an exuberant garden of penicillium molds growing in the enclosures of the rotted, spongy plaster. Unknowably to us, the plants above use these mycellial networks to eat, think, and communicate. In *Evening Lark*, a series of small etchings tills the plaster, creating more surface area on which the molds can grow. For this model, *Penicillium roqueforti* was cultured on milk-based solutions, and planted on the etched model of the theater wall.

Installation and Performance

The story of the theater is told through a dialogue, performed between the author of the project (*narrator*) and a historian. The narrator speaks slowly and in a whisper; the historian speaks quickly and matter-of-fact. The narrator's audio is prerecorded, and delivered as a voiceover. Background image: installation photograph, Avery Hall.

Narrator

Evening Lark

Have you ever been wayward?
Have you had dreams from which you didn't wake up?
Gotten so high that you left yourself for days on end?
Have you spent time at your limit?
What did the world look like while you were there?
Have you searched and been unable to find yourself?
What did you encounter instead?
Where do you go when no one is watching?
Who are your companions during time spent alone?

Outsider, invasive, alien, contaminant, feral, lawless,
sick, dangerous:
These were the other names it went by.
An infection, to be quarantined.

Historian

A series of incisions were made in the auditorium floors. They followed the aspect of the earth, but left the existing garden undisturbed. By shifting the low point of the theater, their void created a space for the roots to construct their own architectural futures. After one rainy summer, these cuts gathered into a trough. The swell of water threatened to condemn the theater entirely. Weep holes were cut into the floor to release pressure from beneath the slab. An opening was cut into its facade so that the swell of water could meet the outside.

When the muddy water finally reached the street, it was channeled back underground, covered with a porous metal grate. The workers tasked with installing it—new to the city—were shocked to realize there was a river running beneath. They mirrored the gesture outside of the neighborhood's other porno theaters, Tupy and Pax. Now, when it was wet, the sound of a trickling stream filled the streets. The hot humidity would rise, a reminder of the repressed stench of the city.

The Rio das Tripas was a European invention. Upon contact, Portuguese cartographers described the zone of the future river as a swamp full of vegetable gardens surrounding the city. They dammed it at two locations to create a deep moat on the city's eastern face, and a river was born.

The poorest residents settled along its banks, and it became a dumping ground for the colony's sewage. Citing hygienist planning principles, the city eventually repressed the former river. Salvador's first major commercial avenue was built above. The city's three largest cinemas were built along its length: Jandaia, Tupy, and Pax. These theaters, dams, and streets were the architecture of the Rio das Tripas, its invention and its infill. Muddy water passed in cavities beneath.

Following fantasies of further enclosure, white residents left in the 1970s and Salvador's city center was made-vacant. The theaters avoided the preservationist fallacy of the rest of the Pelhourinho, which was painted cream and pastel to feed a narrative of white consumption and black danger. They began to screen porn, fell into disrepair, became heterotopia where patrons encountered sexual partners. Freed from the enclosure of historical progress, the theaters began to transform.

A tropical mockingbird dropped a fig seed into the clogged gutters of Cine Teatro Jandaia. In muddied waters, the tree's roots took hold. A diasporic garden emerged beneath. Devoid of conventional ecological meaning, it was a performance of pleasure and procreation. The streamlined art deco interior crescendoed with the baroque ornamentation of rotted molds and mycelium. The fig tree's roots reached all the way through the proscenium in search of the water that was beneath the floor.

What about the outsider scared them?
Its ability to live exuberantly on disturbed ground?
To adapt to change?
Its commitment to climax and procreation, its refusal
to navel gaze nostalgically at memory?
Its refusal of meaning altogether?

Last night I came back again.
I can't stop thinking about him, and so I come here
where the cockroaches and the bats help me to escape
from one reality into another.
A keymaker grants entrance to deviants like me for
twenty bucks.
I began to make scratches in the theater's walls.
The blue-green mold which flowers on the tree's roots
takes to their enclosures.
I am a gardener, tilling a spongy field of rotted plaster.
I get breathless, asphyxiated, high as the spores coat the
interior of my lungs.

My bare feet lick up the muddy water at which your
roots lap up the bacteria coating the auditorium floor.
I know, somewhere, that means we are enjoying an
exchange of cells, or even DNA.
But every time I try to interrogate what we've done it
flies away.
I have become different—not necessarily better or
worse, but at times sad, heartbroken, and euphorically
high. I have become different for these impossible
moments of transition that we share, and that only we
know.
I believe the rest of the group chose to wake up from
the dream. They decided it was a nightmare, and that
dreams aren't important, anyways.
I return to it night after night, after the sun goes down.

The Bride Stripped Bare by Her Bachelors, Even was a diptych of two realms told by Marcel Duchamp in 1913. The realm of the Bride sat above. The Bride took an insectoid form, with antennae to send and receive messages. In the realm below, The Bachelors competed for The Bride's attention. The Bachelors were not so advanced as the Bride: they could only receive her messages. Both zones imagined and described each other, without any possibility of mutual comprehension.

We were the bachelors. The theater was the Bride, a zone of the future which had already happened, in which vegetal and cerebral, bacterial and architectural, native and traveler, past, present, and future entered into new relations, facilitated by the decay of the theater's abandoned interior. A vocabulary of cuts facilitated an encounter and an infection between this zone and the architectures of the former river outside.

Normative ecological discourse described what was happening in the theater through the language of succession, or how a site returns to nature following a disturbance. The disturbance, by this logic, was the construction of an enclosure; the nature was the Atlantic Forest, pre-European Contact. Ecological succession follows in discrete stages, corresponding to physical zones and the actors who perform: the pioneer species, the corridor, the climax community.

The fig tree growing on the theater's roof was regarded as a keystone species, one which indicated the vibrance of ecological relations surrounding its canopy. Its presence disturbed the narrative teleology of succession, suggesting that this was an ecological community in climax, precisely because of the disturbance it had survived.

We bachelors beneath, we were suffering the more suffocating disturbance. Unbeknownst to us, we were waiting to be infected. The river was the corridor, the stepping stone, the threshold—not between past and future, but between here and beyond.

Herbivory

Core Studio I
Manhattan, New York
Fall 2020

Critic
Alessandro Orsini

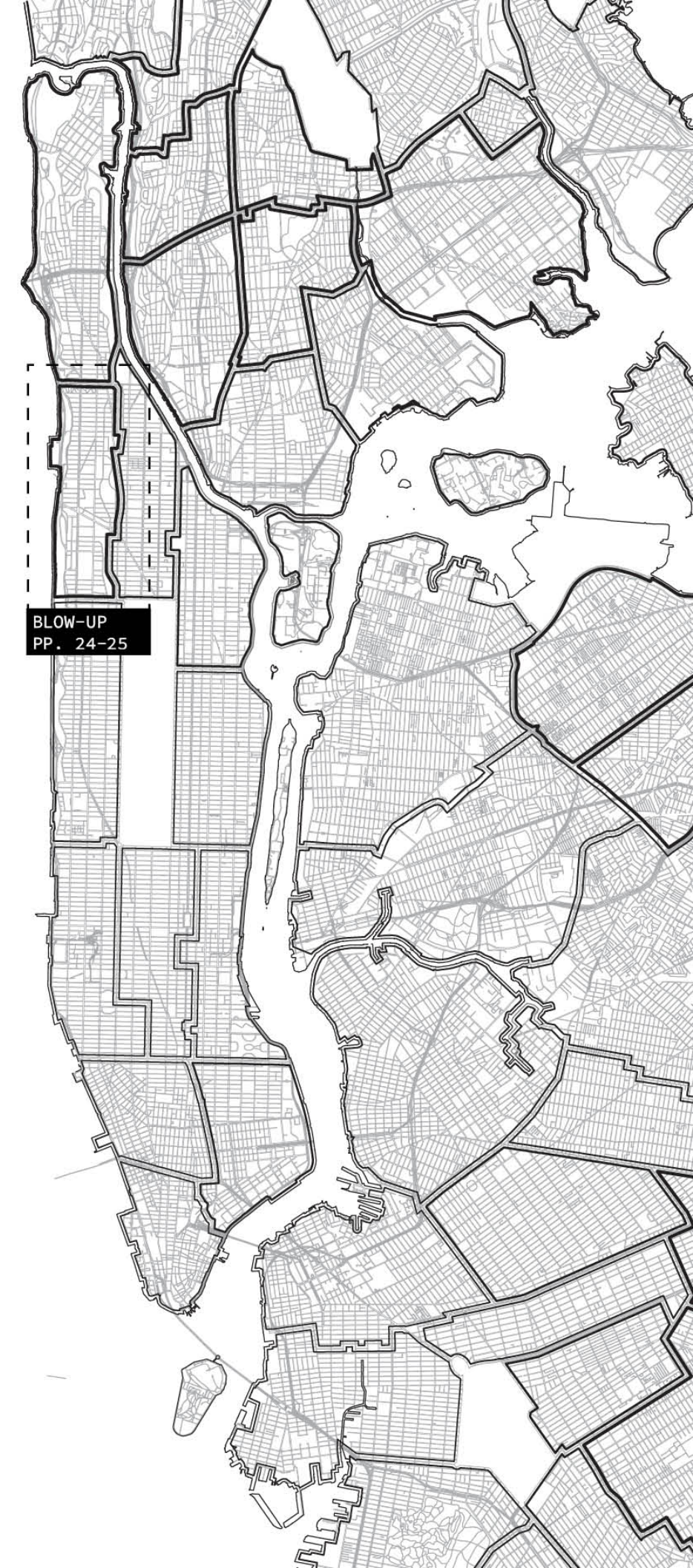
Key Words
Adaptive Reuse, Community Center, Food Rescue

Key Dimensions
1,830 square feet

Three violences of attrition, performed by white capital against black bodies between 1975 and 1985, caused crises of unemployment and poverty to balloon in New York City along racial lines. Municipal austerity, post-Fordist economics, and the crack-cocaine epidemic created a fabric of vacant urban spaces that were transformed into economic commodities by property developers. We are living through the third act of this story, in which a global pandemic has brought into stark relief the conditions of precarity and inequality exacerbated over the last forty years. A growing circuitry of free food and caregiving authored in the shadow of 2020 constitutes an emergent fourth act, in which the landscape re-industrializes around the trope of care.

New York City
Community Districts

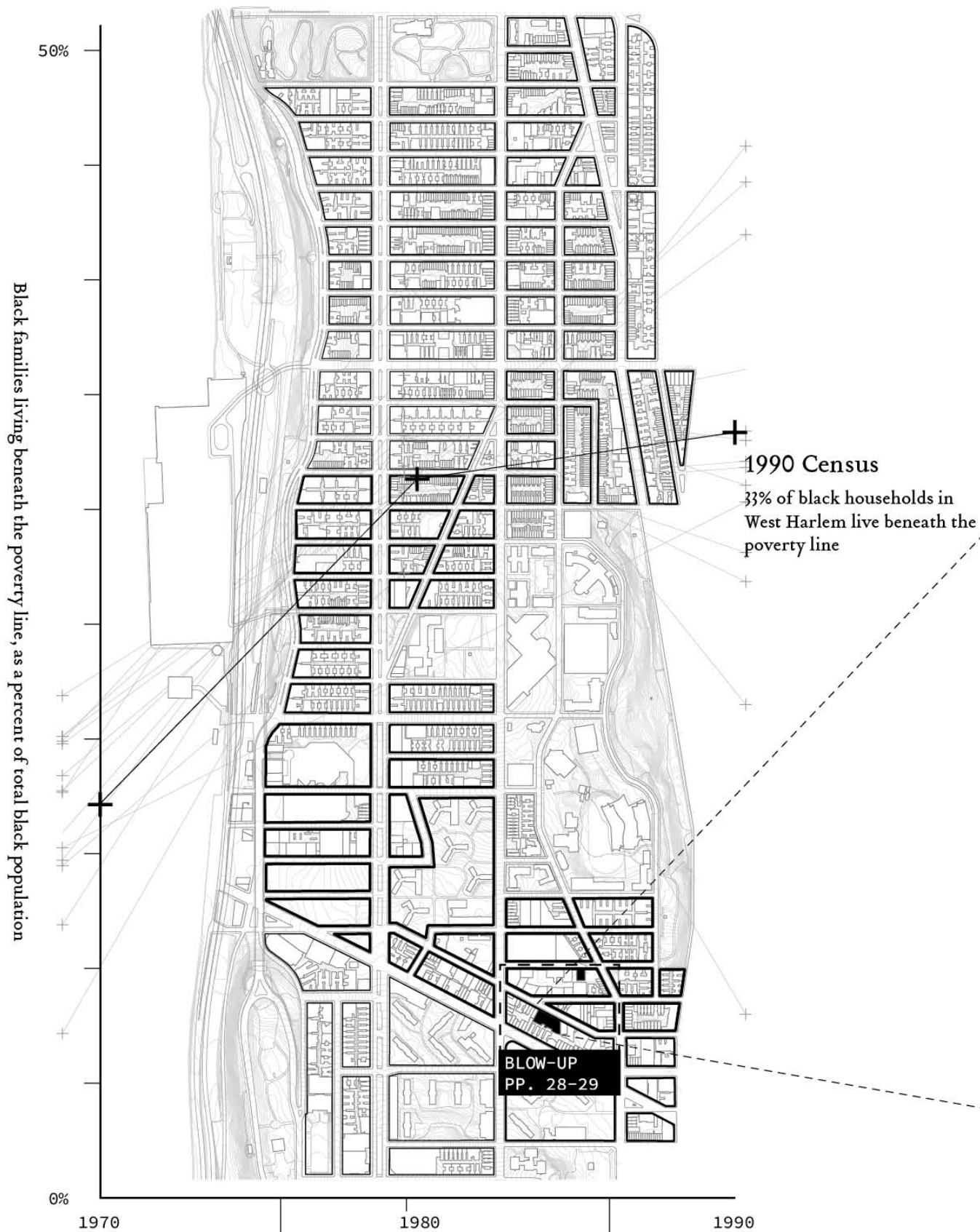
Scaled according to rates of food hardship, 2019



BLOW-UP
PP. 24-25

City Blocks Between 125th And 155th Streets

Scaled according to percent increases in black families living in poverty, 1970-1990



Black families living beneath the poverty line, as a percent of total black population

50%

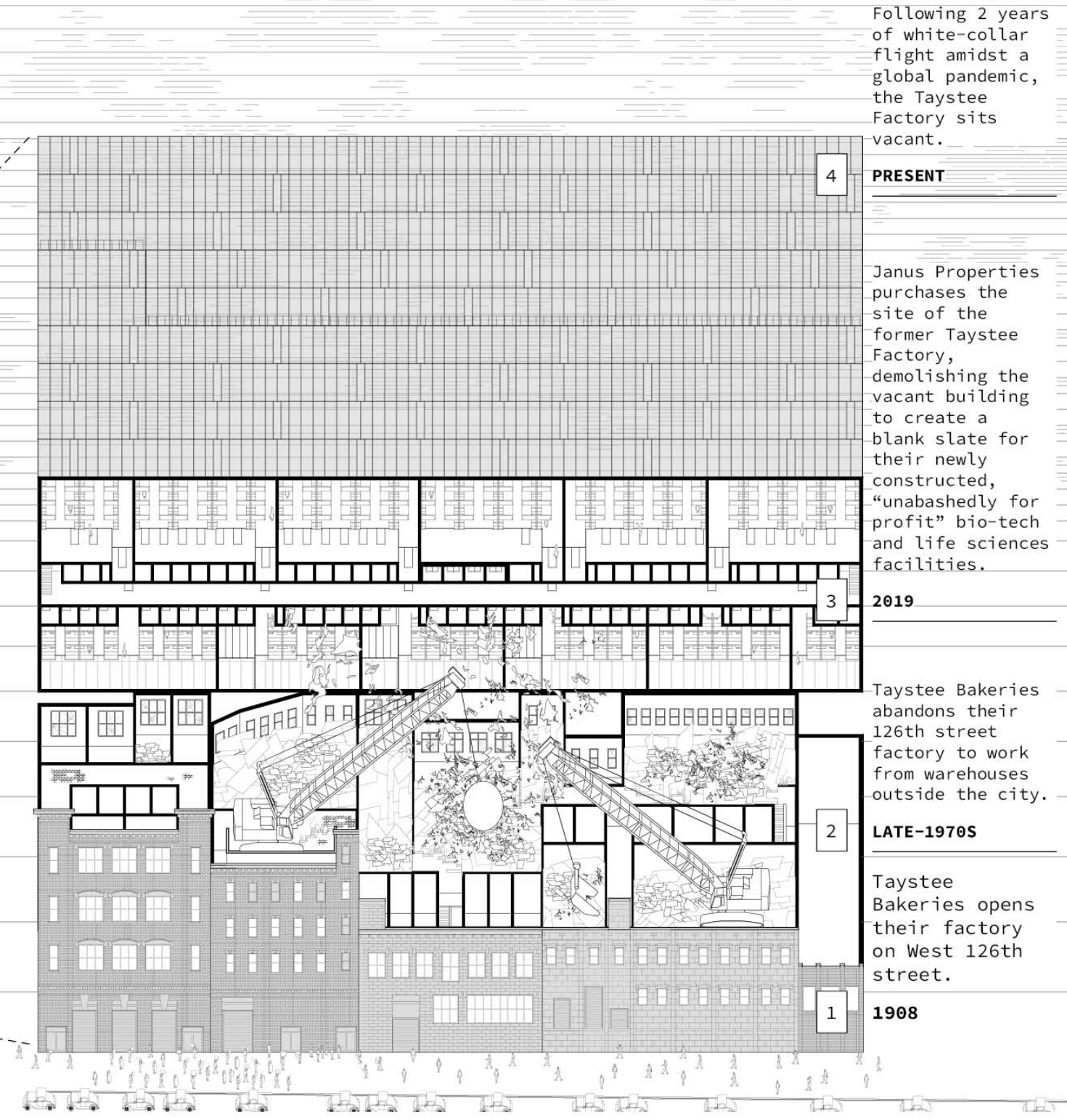
0%

1970 1980 1990

Oct. 16, 1975 Oct. 6, 1979 Nov. 17, 1985

City declares bankruptcy Fed raises interest rates "Crack" first appears in news print
 Beginning of municipal austerity Advent of Post-Fordism Start of epidemic

BLOW-UP
PP. 28-29



Following 2 years of white-collar flight amidst a global pandemic, the Taystee Factory sits vacant.

4 PRESENT

Janus Properties purchases the site of the former Taystee Factory, demolishing the vacant building to create a blank slate for their newly constructed, "unabashedly for profit" bio-tech and life sciences facilities.

3 2019

Taystee Bakeries abandons their 126th street factory to work from warehouses outside the city.

2 LATE-1970S

Taystee Bakeries opens their factory on West 126th street.

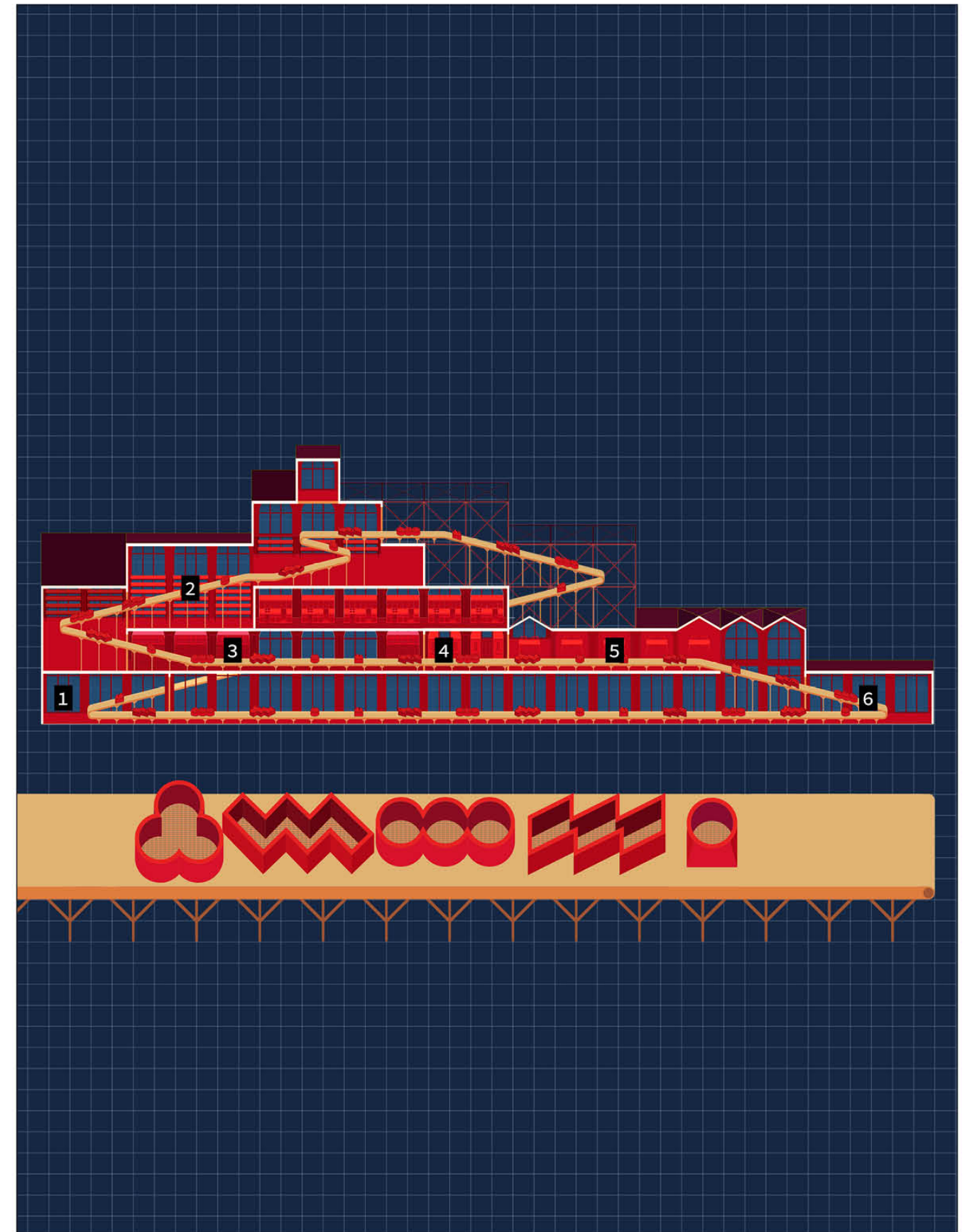
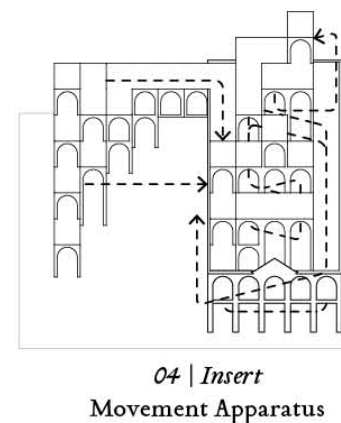
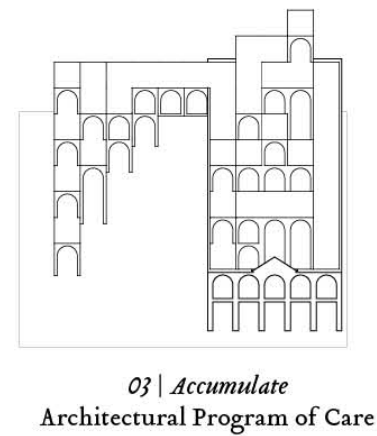
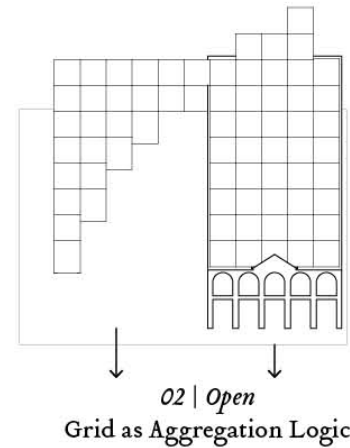
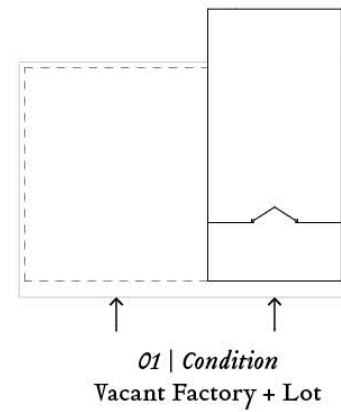
1 1908

The Life and Death of the Taystee Factory

Block transect, 1975-present

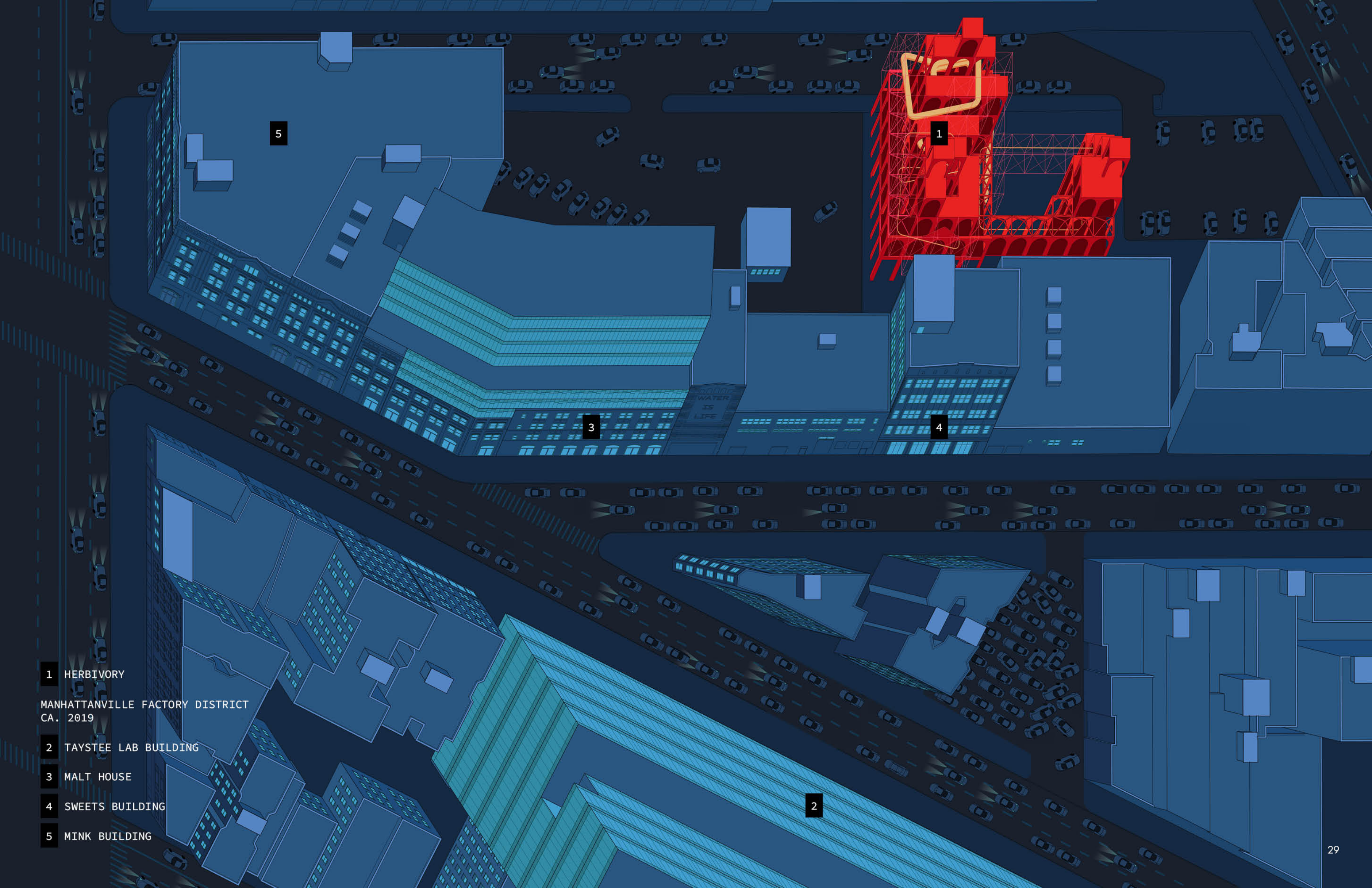
In this fourth act, *Herbivory* occupies a vacant factory in West Harlem and speculates a community center organized around food rescue and the act of sharing meals. Architectural components travel on tracks from drop-off and delivery to the warehouse, storage, pantry, refrigerators, and kitchen. They evoke the assembly line of the industrial factory. The tracks converge around the community dining room, where togetherness is performed through the breaking of bread among friends and strangers.

Herbivory speculates a de-carbonized future that foregrounds care, healing, and justice. Through food rescue, the warehouse saves 60,000 tons of methane-emitting food waste from landfills each year; by transforming rescue into hot meals, the kitchen saves 175,000 tons of CO2 from entering the atmosphere. It mitigates gas emissions by feeding neighbors and restructuring relationships between workers, communities, and the environment that liquid white capital has unraveled over the last forty years. *Herbivory* affirms that workers' rights are environmental rights; to care for one another is to care for the planet; and access to food is a human right.



Unfolded Section

Architectural components traverse the community center on conveyor belts as they assist in the assembly of food rescue and preparation: (1) drop-off, (2) storage, (3) kitchen, (4) community pantry, (5) dining, and (6) pick-up.



5

1

3

4

2

1 HERBIVORY

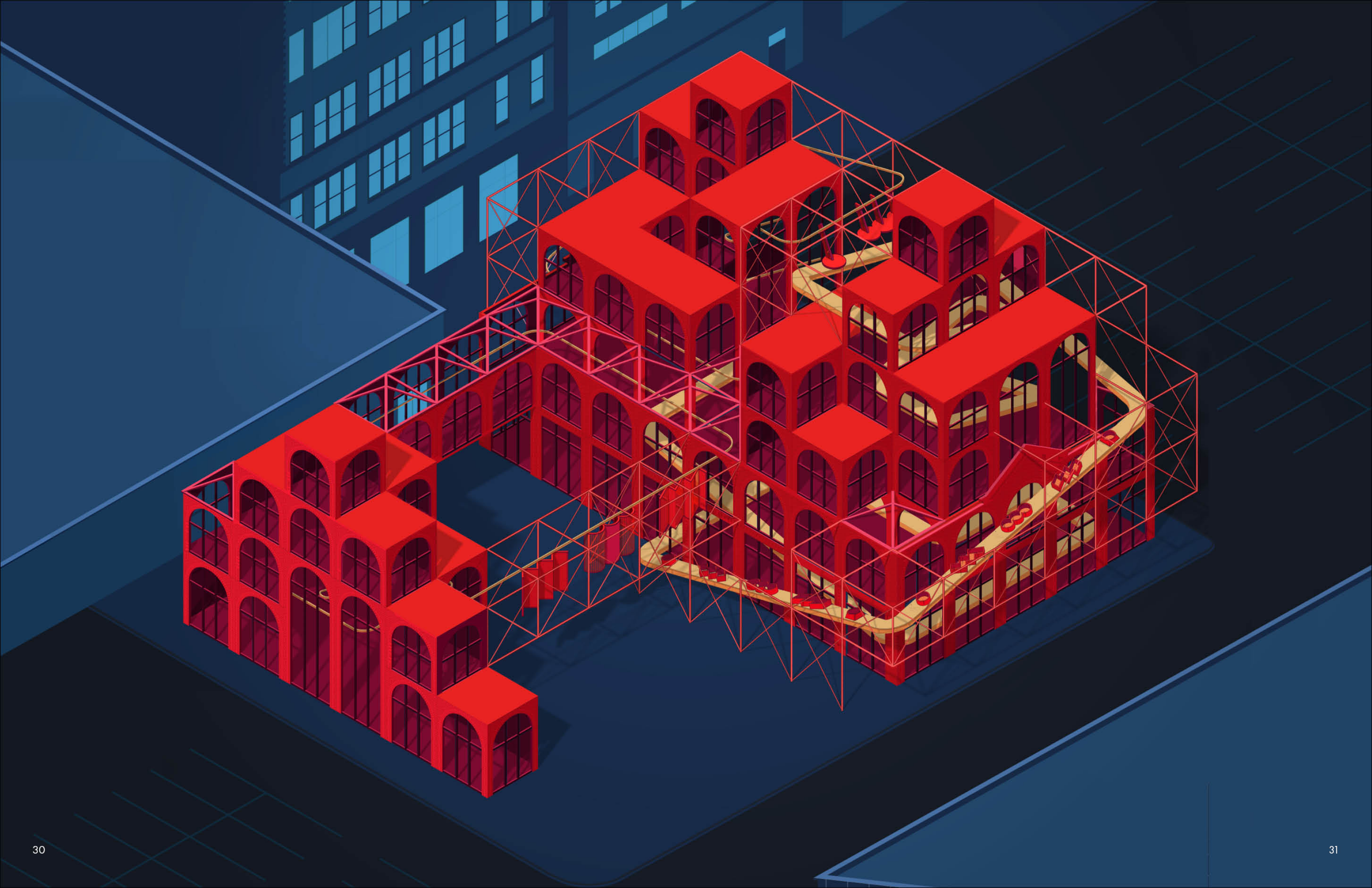
MANHATTANVILLE FACTORY DISTRICT
CA. 2019

2 TAYSTEE LAB BUILDING

3 MALT HOUSE

4 SWEETS BUILDING

5 MINK BUILDING





1-4 Herbivory

Tracking components as they traverse the factory's conveyor belts.

1 | Food Storage

2 | Community Kitchen

3 | 24/7 Refrigerator and Pantry

4 | Community Dining Room



Expo '70

Cybernetic Nightmares and the Production of Control

Questions in Architectural History II
Professor Felicity Scott
Spring 2021

Key Words
Cybernetics, Post-Fordism, Metabolists, Expo '70

Abstract

This paper examines Osaka's Expo '70 as occurring at the geographic epicenter and temporal midpoint of a global transition from Fordist to post-Fordist economic regimes, a transformation underpinned by the emergent conceptual model of cybernetics. Kisho Kurokawa's capsule pavilion, installed within the Expo's Big Roof, was the cybernetic projection of a world populated by capsule dwellings and the subjects who would inhabit them. Kurokawa was a loyal disciple of Kenzo Tange, leader of the Metabolist group, and his 1969 *Capsule Declaration* stands as a figure for the techno-utopian cybernetic future the Metabolists embraced. Iconoclast Arata Isozaki appears and reappears as the antagonist of Metabolist dreams, haunted by nightmares that a cybernetic future would yield unprecedented authoritarian power and control.

I. Towards a Cybernetic Post-Modernity

Kisho Kurokawa's capsule pavilion at Osaka's 1970 World Expo engaged cybernetic tropes to facilitate and aestheticize the decentralized economic paradigm of the Post-War developed world. Earlier centralized modes of production, embodied in Ford's assembly line in America, were premised upon manufacturing-based economies and underpinned by modernity's promises of technological and social progress. A



Figure 1. Kisho Kurokawa's Capsule House installed inside the space frame of Kenzo Tange's Big Roof, suspended thirty meters above the festival plaza.

decentralized economic paradigm, embodied in Toyota's supply chains headquartered in Japan, was premised upon the accumulation of value through trade. Osaka's Expo '70 performed at the geographic and temporal center of this transition, signaling a Toyotist image of the city and society defined by cybernetic tropes including radical heterogeneity, invisible technological systems, and techno-utopian fantasies of vast, self-regulating systems.

Alternatively referred to as Toyotism, post-Fordism, or neoliberalism, the roots of the current industrial and cultural production paradigm can be traced to Toyota's factory floors after the Second World War [01]. Lacking natural resources for mass

Over By Machines of Loving Grace. Episode 2, "The Use and Abuse of Vegetational Concepts." British Broadcast Television, 2011.

10 | Wiener, Norbert. *Cybernetics, or Control and Communication in the Animal and the Machine* (Cambridge: MIT Press, 1948).

11 | Curtis, Adam, director. *All Watched Over By Machines of Loving Grace. Episode 2, "The Use and Abuse of Vegetational Concepts."* British Broadcast Television, 2011.

12 | Ibid.

13 | Scott, Felicity, "Out of Place: Arata Isozaki's *Electric Labyrinth*, 1968," in *Place and Displacement: Exhibiting Architecture*, edited by Thordis Arrenhius, Mari Lending, Wallis Miller and Jeremie Michael McGowan (Zurich: Lars Muller Publishers, 2014).

14 | Cho, Hyungjung. "Expo '70: The Model City of an Information Society," *Review of Japanese Culture and Society*, Vol. 23 (2011).

15 | Shaffer, Marcus, "Incongruity, Bizarreness, and Transcendence: The Cultural/Ritual Machine vs. Technocratic Rationalism at Expo '70," *Globalizing Architecture: Flows and Disruptions* no. 1 (2014).

16 | Scott, Felicity, "Out of Place: Arata Isozaki's *Electric Labyrinth*, 1968," in *Place and Displacement: Exhibiting Architecture*, edited by Thordis Arrenhius, Mari Lending, Wallis Miller and Jeremie Michael McGowan (Zurich: Lars

production, Japan developed a model of growth in which capital accumulated through trade and translation across international lines [02]. The Japanese financial crises of the late 1940s and subsequent workers strikes of the 1950s enabled this early prototype of the supply chain to reach its zenith in the Japanese Post-War economic boom. To stay competitive in increasingly international markets, corporations cut labor costs through lean production and outsourcing. Temporary unemployment became normal. With Toyota at the helm, Japanese corporations responded to crises by inventing "just-in-time" production, a mode of flexible production in which manufacturing was directly governed by retail data, a departure from Taylorist modes of planned mass-production. Simultaneously, losses suffered by striking unions marked a shift from professional, industry-wide trade unions to smaller internal unions, incapable of organizing en masse [03]. This shrinking of organized labor enabled Toyota to stitch together a new image of *their* working class, one that was "entrepreneurial [in] spirit, faithful to the firm's objectives, capable of adapting to its imperatives and ready to identify with its destiny" [04].

In the decades that followed, American corporations became intimidated by the unrelenting boom of Japanese Post-War financial markets. In the "shareholder revolution" of the 1980s, "American business leaders destroyed the corporation as a social institution and propelled the U.S. economy into the world of Japanese-style supply chains" [05]. These increasingly invisible, precarious, and competitive modes of production were matched by cultural instability. Global supply chains, and their ability to outsource internationally, allowed lead corporations to let go of their commitment to investing in domestic labor [06]. This ushered an era of eroded corporate investment in the domestic working class, most notably in the forms of education and regulated employment. Assumptions of generational progress began to dissolve.

This economic and cultural transition across the developed world was leavened by an emergent scientific and conceptual model known as cybernetics. Coined by Norbert Wiener to describe research on computing machines developed during the Second World War, cybernetics shares etymological roots with steersman or governor, directly connecting communication theory with symbols of technocratic control [07]. The discipline builds from the hypothesis that new computing technologies are analogous to living tissue [08], and that systems, from computers to brains to entire cities, can be studied and predicted as machines [09]. Feedback—the behavioral impulse to course-correct actions based upon "the difference between a desired pattern and an actually performed

pattern" [10]—was the law imagined to govern these biotic and bionic systems, enabling self-regulation without human interference [11].

In this systems-eye view of the world, humans are modular components in rational environments [12]. The distinction between humans and nature erodes into a new arrangement in which both are expected to perform as robotic cogs, the interactions between which could be studied and predicted as circuitry. Finally, in a world governed by feedback, there would be a little need for political movements and governance. Simultaneously catering to capital's interest in eroding government regulation and the skepticism towards power held by the post-1968 left, cybernetics posited that human, animal, and machine systems could self-stabilize in a dispersed vacuum of government intervention.



Figure 2. Plan for Tokyo Bay by the office of Kenzo Tange, drawn in 1960-1961.

II. Expo '70 and the Metabolists

As corporations spread tentacular across international lines, these cybernetic concepts created a new conceptual model for architecture, urbanism, and the city in a shift from industrial modernism to cybernetic postmodernity [13]. The Metabolists, a group of experimental Japanese architects who had been established in preparation for the 1960 World Design Conference [14], submitted heavily to cybernetic visions of the city and positioned themselves at the center of this shifting imagination. As students and staff under the leadership of Kenzo Tange, the Metabolists rose to international fame with schemes to address Japan's urban density that were characterized by organic metaphor and technological utopianism [15]. Arata Isozaki, who spent a decade in Tange's office, posited themes by which cybernetic cities of the future might be imagined in his 1966 essay *Invisible City*: the interchangeability of modular

Muller Publishers, 2014).

17 | Shaffer, Marcus, "Incongruity, Bizarreness, and Transcendence: The Cultural/Ritual Machine vs. Technocratic Rationalism at Expo '70," *Globalizing Architecture: Flows and Disruptions* no. 1 (2014).

18 | Cho, Hyungjung. "Expo '70: The Model City of an Information Society," *Review of Japanese Culture and Society*, Vol. 23 (2011).

19 | Ibid.

20 | Ibid.

21 | Wiener, Norbert. *Cybernetics, or Control and Communication in the Animal and the Machine* (Cambridge: MIT Press, 1948).

22 | Scott, Felicity, "Space Educates," in *Oskar Hansen: Opening Modernism*, ed. Aleksandra Kedziorek and Lukasz Ronduda, 136-160, Warsaw: Museum of Modern Art, 2014.

23 | Isozaki, Arata, "Invisible City" [1966], in *Architecture Culture, 1943-1968: A Documentary Anthology*, edited by Joan Ockman with Edward Eigen (New York: Rizzoli, 1993).

24 | Ibid.

25 | Ibid.

26 | Ibid.

27 | Cho, Hyungjung. "Expo '70: The Model City of an Information Society," *Review of Japanese Culture and Society*, Vol. 23 (2011).

28 | Shaffer, Marcus, "Incongruity, Bizarreness, and Transcendence:

spaces, the enclosure of urban systems, the presence of self-regulating feedback channels, and a man-machine cyborg occupant. The spaces of the city would take an increasingly secondary role to invisible technological systems, facilitating a transition from a fixed imagination of city-making to one that was unstable, indeterminate, and in constant motion.

World Expo 1970 in Osaka provided a stage for these imaginations and utopias. Like Expo '67 in Montreal, it represented a rising fascination with electronically- and technologically-mediated environments [16], though here supplemented with architecture and construction technologies that Japan, after massive rebuilding efforts following the Second World War, was uniquely positioned to exhibit [17]. At the forefront of design efforts at Expo '70 were the Metabolists, who oversaw master planning and design of the central facilities. Embracing cybernetic tropes and quintessentially Metabolist organic metaphors, Tange's masterplan for Expo '70 was conceived as a living organism, whose perpetual motion was coordinated into a dynamic equilibrium by "a vast central management and control system" [18]. The theme, "Progress and Harmony for Humankind," was problematized by the techno-utopian nature of the pavilions: in a Metabolist future, cyberotechnology would be the agent gifting these promises.

Tange's Big Roof sat at the center. Conceived as a scaffold capable of housing any architectural configuration, the Big Roof represented an attempt to actualize environments that could support fluid spatial compositions instead of yielding a concrete or finalized physical form [19]. Inside the space frame armature of the Big Roof was the Mid-Air Exhibition, hosted thirty meters above the Festival Plaza, for which Kisho Kurokawa's suspended Capsule House was the central installation [20]. Beneath the Big Roof was the festival plaza, designed by Arata Isozaki.

Kisho Kurokawa's Capsule House materialized the architect's imagination of a world governed by cybernetics, populated by mobile capsules and the subjects who inhabit them. It gave form to the *Capsule Declaration* from one year earlier, a speculative future of a world built from capsule dwellings, one which valued individuality above collective belonging, mobility above land, and information technology above industrially produced objects. The capsules were mass-customizable equipment to be housed in vast steel armatures. Their scaffolds were to be capable of infinite replication and extension in both vertical and horizontal directions, and to be populated with a flexible number of pre-fabricated dwellings. Designed to the scale of the individual, instead of the family or community, Kurokawa's capsules accommodated an increasingly mobile population by emancipating architecture from land, stationed like

automobiles that could move freely from their space frame parking garage. The cyborg was the conceptual subject for Kurokawa's capsule dwelling, a figure inseparably integrated with architectural technology who could no longer be described as solely human or machine.



Figures 3-4. Exterior and inside of Kurokawa's Capsule House, stored inside Kenzo Tange's Big Roof.

III. Three Cybernetic Tropes in the Capsule House

Kurokawa's Capsule House engaged cybernetic tropes of modular interchangeability, closed-system circuitry, and self-regulating feedback to provide an aesthetic figure for the nascent Toyotist paradigm. Two decades previous, mathematician Norbert Wiener's preliminary studies for the development of computing machines posited three concepts to be incorporated into cybernetic research: addition and multiplication apparatuses, electronic tubes

The Cultural/Ritual Machine vs. Technocratic Rationalism at Expo '70," *Globalizing Architecture: Flows and Disruptions* no. 1 (2014).

29 | Ibid.

30 | Ibid.

31 | Deleuze, Gilles, "Postscript on the Societies of Control," in *October*, Vol. 59 (1992): 3-7.

32 | Kurokawa, Kisho, "Capsule Declaration" [1969], in *Metabolism in Architecture* (London: Studio Vista, 1977).

33 | Ibid.

34 | Cowen, Deborah. *The Deadly Life of Logistics: Mapping Violence in Global Trade* (Minneapolis: University of Minnesota Press, 2014).

35 | Ibid.

36 | Ibid.

37 | Colquhoun, Alan. "Plateau Beaubourg." In *Essays in Architectural Criticism: Modern Architecture and Historical Change*. Cambridge: MIT Press, 1981.

38 | Scott, Felicity, "Space Educates," in *Oskar Hansen: Opening Modernism*, ed. Aleksandra Kedziorek and Lukasz Ronduda, 136-160, Warsaw: Museum of Modern Art, 2014.

39 | Wiener, Norbert. *Cybernetics, or Control and Communication in the Animal and the Machine* (Cambridge: MIT Press, 1948).

40 | Cho, Hyungjung. "Expo '70: The Model City of an Information Society," *Review of Japanese Culture and*

to conduct the flow of data, and logical machine-learning so that no human intervention would be necessary to control and compute data [21]. In Osaka, Wiener's concepts were translated into three elements of a cybernetic spatial apparatus. Addition and multiplication instruments became points, nodes, and cells; data flows became connective tubes, arteries, and synapses; cybernetic machine-learning became the governance of flows, energy, and informational exchange.

The cybernetic element of point, node, or cell was materialized in the Capsule House through the strategy of modular interchangeability. Ironically, a systems-eye view of the biotic and bionic worlds employed modularity to accommodate a population that was increasingly characterized by heterogeneity instead of collective belonging. Cells were individuated and aggregated, and mass diversification could be achieved inside of predetermined limits or constraints. Each capsule was to be pre-fabricated and mass-produced on a selective system, similar to the Ford Mustang, which would use interchangeable parts to create a flexible whole. This combination of parts meant the units could metabolize over time as components broke or became obsolete, creating maximum individuation for what Kurokawa imagined as an increasingly diverse population. These aggregated into cybernetic postmodern architectures that refused the fixed, conforming stability of modernity [22].

The cybernetic element of tube, artery, or synapse was expressed in the Capsule House through the logic of closed-system circuitry. Cybernetics analyzed animal and machine ecologies as enclosed circuitry, reducing vast biotic and bionic relations into data that could be analyzed and predicted. At the scale of the body, each capsule was to enclose and equilibrate with its occupant as in a sealed spaceship. Outside, capsules aggregated into a network circuitry that moved between cities, suburbs, and holiday destinations: a roving cyborg territory, propelled by the economic, geographic, and political conditions that supported this network of motion. Kurokawa's insistence upon systemic mapping and enclosure echoed Arata Isozaki's 1966 *Invisible City*, in which the author projected a cybernetic city of the future "enveloped in a protective membrane for the sake of preserving definite, balanced conditions" [23]. Just as modularity accommodated heterogeneity, the enclosure of circuit ecosystems was conceived to accommodate collective states increasingly defined by instability and constant motion. While the collective and fixed perception of life dissolved into what Isozaki termed the "liquid state" of the cybernetic city [24], this disintegration could be regulated and monitored by the control apparatuses coded into and

governing the perimeter of each limit or enclosure.

The governance of flows, energy, and informational exchange in cybernetic systems was materialized through the concept of feedback. In both animal nervous systems and in computing machines, feedback was imagined to govern and control subjects as they interacted with and processed information. Kurokawa imagined feedback loops by describing his capsules as equipment—even as a weapons [25]—armed to safeguard occupants from unwanted or unnecessary information. He speculated an age in which information would become currency, and his capsules as tools for its transmission and reception. While Kurokawa remained vague as to how this techno-utopian aspiration would be realized, this framework for the governance of interaction indicated a shift in the project of cybernetic architecture from controlling the visual and spatial to capturing attention and behavior. Architecture increasingly became conceived as an equipment for facilitating and predicting interactions, and space increasingly referred to as an environment for supporting these relations. The architect, curator, and artist, as they conceptualized feedback loops to participate in these cybernetic projects, became cogs in new technocratic regimes aimed at facilitating behavioral control.



Figure 5. Isozaki's Demonstration Robot gazing across the Festival Plaza, with Kurokawa's Capsule House installed above.

The work of Arata Isozaki for the Festival Plaza, located directly beneath the space frame supporting the Capsule House, also choreographed behavior and attention through feedback, albeit towards different ends. Isozaki's installation foregrounded feedback to evoke, and even make visible, the "various communication networks" [26] covering the emergent urban form. Isozaki programmed the space with two 20-meter tall robots, named Deme

Society, Vol. 23 (2011).

41 | Ibid.

42 | Scott, Felicity, "Space Educates," in *Oskar Hansen: Opening Modernism*, ed. Aleksandra Kedziorek and Lukasz Ronduda, 136-160, Warsaw: Museum of Modern Art, 2014.

43 | Isozaki, Arata, "Invisible City" [1966], in *Architecture Culture, 1943-1968: A Documentary Anthology*, edited by Joan Ockman with Edward Eigen (New York: Rizzolo, 1993).

44 | Shaffer, Marcus, "Incongruity, Bizarreness, and Transcendence: The Cultural/Ritual Machine vs. Technocratic Rationalism at Expo '70," *Globalizing Architecture: Flows and Disruptions* no. 1 (2014).

45 | Ibid.

46 | Ibid.

47 | Kenneth Frampton and Arata Isozaki, *GA Architect 6: Arata Isozaki* vol. 1: 1959-1978. (Tokyo: A.D.A. Editions, 1991).

48 | Shaffer, Marcus, "Incongruity, Bizarreness, and Transcendence: The Cultural/Ritual Machine vs. Technocratic Rationalism at Expo '70," *Globalizing Architecture: Flows and Disruptions* no. 1 (2014).

49 | Scott, Felicity, "Out of Place: Arata Isozaki's *Electric Labyrinth*, 1968," in *Place and Displacement: Exhibiting Architecture*, edited by Thordis Arrhenius, Mari Lending, Wallis Miller and Jeremie Michael McGowan (Zurich: Lars

and Deku. Scripted through feedback, the head of each robot was an automated operation center that sensed, emitted, and responded to smoke, smell, light, and sound [27]. Evoking self-regulating behavioral feedback as well as formal flexibility and indeterminacy, the hallucination was initiated by Isozaki, but the final form of the Festival Plaza was left open to the automatronic expression of Deme and Deku [28].

Where the Capsule House submitted to feedback as a tool for the realization and governance of techno-utopian futures, the robots underneath more critically challenged the underpinnings of a cybernetic tomorrow. By engaging robotic, instead of human, actors as his subjects, Isozaki challenged the assumption that the human subject had a place in techno-utopian futures, suggesting instead that "the true inhabitants of a techno-rationalized space are products of technology (machines)" [29]. Rather than attempting to facilitate cybernetic governance, the Festival Plaza created a stage to encounter its invisible forces.

IV. Cybernetic Toyotist Control Paradigm

Through and beyond Expo '70, the techno-utopian cybernetic imagination was instrumentalized to advocate for a shifting global paradigm. For a world in which modular, enclosed circuitries self-regulated through feedback, welfare states and protective tariffs were deemed decreasingly necessary. The Metabolists, along with other experimental architecture practices of the time, acted "unknowingly as a 'research and development' arm" [30] for Toyotist capitalism by submitting to the logics of computing machines, and with them the decentralized global economy. Modular interchangeability, closed-system circuitry, and feedback enabled their work to be instrumentalized as an aesthetic figure for a cybernetic governance paradigm and as a facilitating agent for the logics of increasingly liquid global capital.

The logic of value-through-combination, materialized in the interchangeability of each capsule's parts, became the spine of the developed Toyotist economies. Markets across the developed world became increasingly concerned with buying and assembling finished products and less with production, which they regulated to the Third World [31]. Through the mass-customization enabled, capsule-like commodities were constructed to the unit of the individual instead of the group, presupposing more alienated societies. These heterogeneous and diversified products were tailored to a world market made increasingly volatile by the instantaneous

feedback between retail data and the production line.

The cybernetic fantasy of increased mobility, made material in the capsule dwelling, could be rendered as a fetishization of the Toyotist labor market and forms of spatial governance. Kurokawa's fantasy of a population traveling in capsules between cities, suburbs, and holiday destinations was rooted in a naive romanticization of the "increase of population mobility in the United States" [32] and the increasingly high fluidity of its labor market [33], both of which were facilitated by the streamlining of Post-War production through outsourcing. At the scale of the territory, these imagined networks of white-collar travelers began to evoke new forms of spatial governance articulated by movement instead of territory, mapped by logistics routes and supply chains. The characteristically Toyotist accumulation of value through trade, translation, and combination yielded a global transition in definitions of sovereignty as goods and capital moved across increasingly fluid borders and boundaries [34]. The rise to prominence of the transnational supply chain announced the foreclosure of the nation state as a particular geographic organization, and the rise of a new types of territoriality, defined by circulations, movements, and flows that cut across previously-defined jurisdictions [35]. Governance under Toyotism was no longer a question of fixed borders and domestic interiors, but increasingly of controlling circulations, mobilities, and movements [36]. The emergence of this paradigm of territorial control challenged the idea that Kurokawa had liberated his subjects from the land through increased mobility, as he claimed. Instead, he submitted to a new system of governance to which goods, bodies, and capital were exploited and coerced.

The massive physicality of the space frames required to house capsules revealed that the dwellings could never move as freely as thoughts or images, as Kurokawa imagined. Instead, capsules would require technocratic agencies to be moved, fixed, and installed, resulting in "the invention of a new type of bureaucrat—the 'programmer'" [37]. The promise that cybernetic subjects might gain a level of agency by transforming indeterminate works of architecture was undermined by architecture's materiality and the economics of these transformations [38]. Indeterminate environments that professed to embrace instability, uncertainty, and constant motion ultimately yielded an expanded authoritarian control to the architects, corporations, and state agencies responsible for this change. This expanded control was forecasted in Wiener's fear, decades previous, that his early research on computing machines would accelerate the concentration of power [39].

Feedback, through the design of architectural

Muller Publishers, 2014).

50 | Wiener, Norbert. *Cybernetics, or Control and Communication in the Animal and the Machine* (Cambridge: MIT Press, 1948).

Figure 1 | Kenneth Frampton and Arata Isozaki, *GA Architect 6: Arata Isozaki*

Figure 2 | The Office of Kenzo Tange

Figures 3, 4 | Architecture Indo Pacific

Figure 5 | Kenneth Frampton and Arata Isozaki, *GA Architect 6: Arata Isozaki*

equipment to script interaction and participation, was embraced as central to a techno-utopian liberation. Beneath the Capsule House, feedback was instrumentalized to facilitate a performance between Isozaki's robots, Expo visitors, authorities, and the plaza itself. In spite of his effort to abstain from submitting uncritically to the cybernetic utopia dreamt by the Metabolists, Isozaki boxed himself into an architectural role that, no longer concerned with the aestheticization of space, represented a new type of bureaucrat "who channeled users' activities and mobility in the service of the fair authorities" [40]. Though its final physical expression was flexible and uncertain, the plaza was experienced as a highly controlled space, in which primary emphasis was given to safety [41]. Through Isozaki, the design of such flexible environments could be understood to take on a more sinister potential: "not the scripting of an environment in which spontaneous events might occur, but a system in which outcomes could be precisely monitored and managed" [42].

V. Kurokawa's Dreams, Isozaki's Nightmares

If Kisho Kurokawa's role within the Metabolist group was that of a loyal disciple to its leader, Kenzo Tange, Arata Isozaki's relationship was hardly as consistent. In the 1966 publication of *Invisible City*, Isozaki spoke optimistically about techno-utopian cybernetic concepts embraced by the Metabolists [43]. The second half of the decade leading to World Expo '70, however, witnessed Isozaki establishing critical distance from Tange and the Metabolists, wary that the group was willing to sell their avant-garde ideas to the Japanese authorities and establishment [44]. During the design phase of Expo '70, the architect experienced a premonition of the downfall associated with Metabolism, believing his colleagues lacked a necessary skepticism regarding their techno-utopia [45]. On the eve of the opening ceremony the architect was hospitalized on account of physical and psychological fatigue, in a state of exhaustion and bewilderment, on the verge of mental collapse [46]. Wrote Isozaki later, "I wanted to stop and destroy it. It was as if I had been helping to carry out a war but at last had emotionally dropped out" [47].

We might speculate that Isozaki's nervous breakdown owed to the architect's dawning realization that the movement he had participated in over ten years was facilitating a dystopian nightmare. An increasingly heterogeneous population found itself alienated and alone inside the totalizing system of global capital. Mobility stood not only for the movement of bodies, but for the liberation

and liquidity of commodities and new forms of bureaucracy to manage their movement. Cyber-utopian dreams of self-stabilizing, democratic systems governed by feedback were manipulated to facilitate the deregulation of global markets. Isozaki later destroyed and disavowed robots Deme and Deku [48]. A transformed Isozaki, seen 10 years later at Leo Castelli Gallery's *Houses for Sale* exhibition in New York, no longer mused invisible, unstable, and liquid images of the city but returned to a historicist conceptualization of architecture as solid and fixed objects [49].

In the introduction to his first publication concerning the science of cybernetics, Norbert Wiener warned that the advent of machine learning foreshadowed an emergent class of mechanical slaves and the devaluation of the human mind. As the first industrial revolution had made obsolete the pick-and-shovel laborer, "the modern industrial revolution is similarly bound to devalue the human brain, at least in its simpler and more routine decisions... taking the second revolution as accomplished, the average human being of mediocre attainments or less has nothing to sell that is worth anyone's money to buy" [50]. The desperation of the increasingly obsolete working class was to be matched by an increasingly totalizing assertion of control facilitated by the computing machines which replaced them. Flexibility, mobility, and feedback were the garish robes worn by this nightmarish loop of coercion. Experimental architecture practices of the 1960s dreamt of environments that accommodate diversity, mobility, and interaction. Knowingly or not, they facilitated the dawn of the Toyotist paradigm, a totalizing nightmare of inflexibility, bureaucracy, and control.



Surface Articulation

Design Technology:
The Grading Plan

The history of architectural design is shaped by the technology of the floor plan. In contrast, landscapes are developed through an alternative orthographic technology: the grading plan, a logic for articulating the surface of the earth. If the technology of the floor plan is determined to produce enclosure, the articulation of the ground through grading is an expression of horizontality, continuity, and openness. Applied to the practice of making buildings, this topographic logic produces complex relationships between ground, site, and street. The continuity of surfaces produced through grading is one reason why landscapes are typically addressed to the broadly-bound public, instead of to specific, predetermined architectural user groups. Landscapes don't enclose: they fold, unfold, and extend forever.

Phasmid

Advanced Studio V
Bronx, New York
Fall 2023

Critic
Laurie Hawkinson

Key Words
Adaptive Reuse, Public School, Campus, Educational Condenser

Key Dimensions
453,763 square feet

Collaborators
Sudhanshu Singh



- 1 Kingsbridge Armory, the largest armory in the country
- 2 PS 86 + 340, Public Elementary Schools
- 3 Walton Public High School + Arts Magnet
- 4 Lehman College, City University of New York



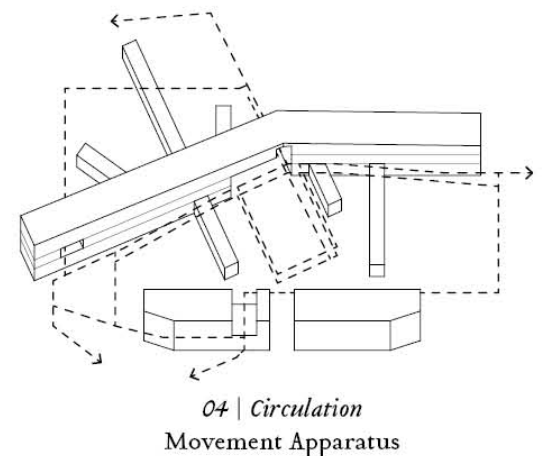
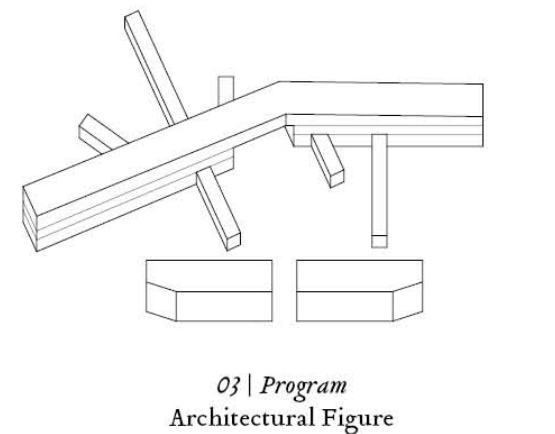
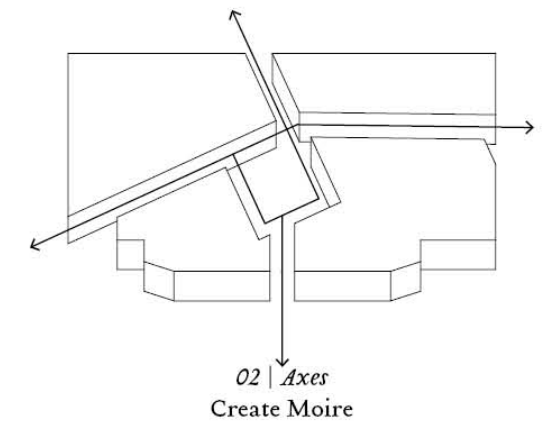
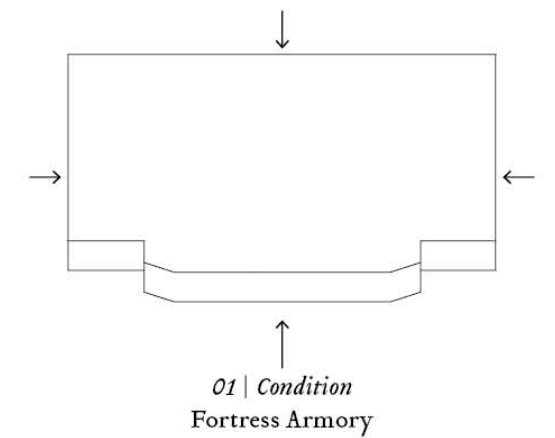
Kingsbridge Armory in the Bronx has been vacant since 1996. Inside, twenty-eight trusses clear span the 180,000 square foot drill hall floor, making it the largest armory in the country and possibly the world.

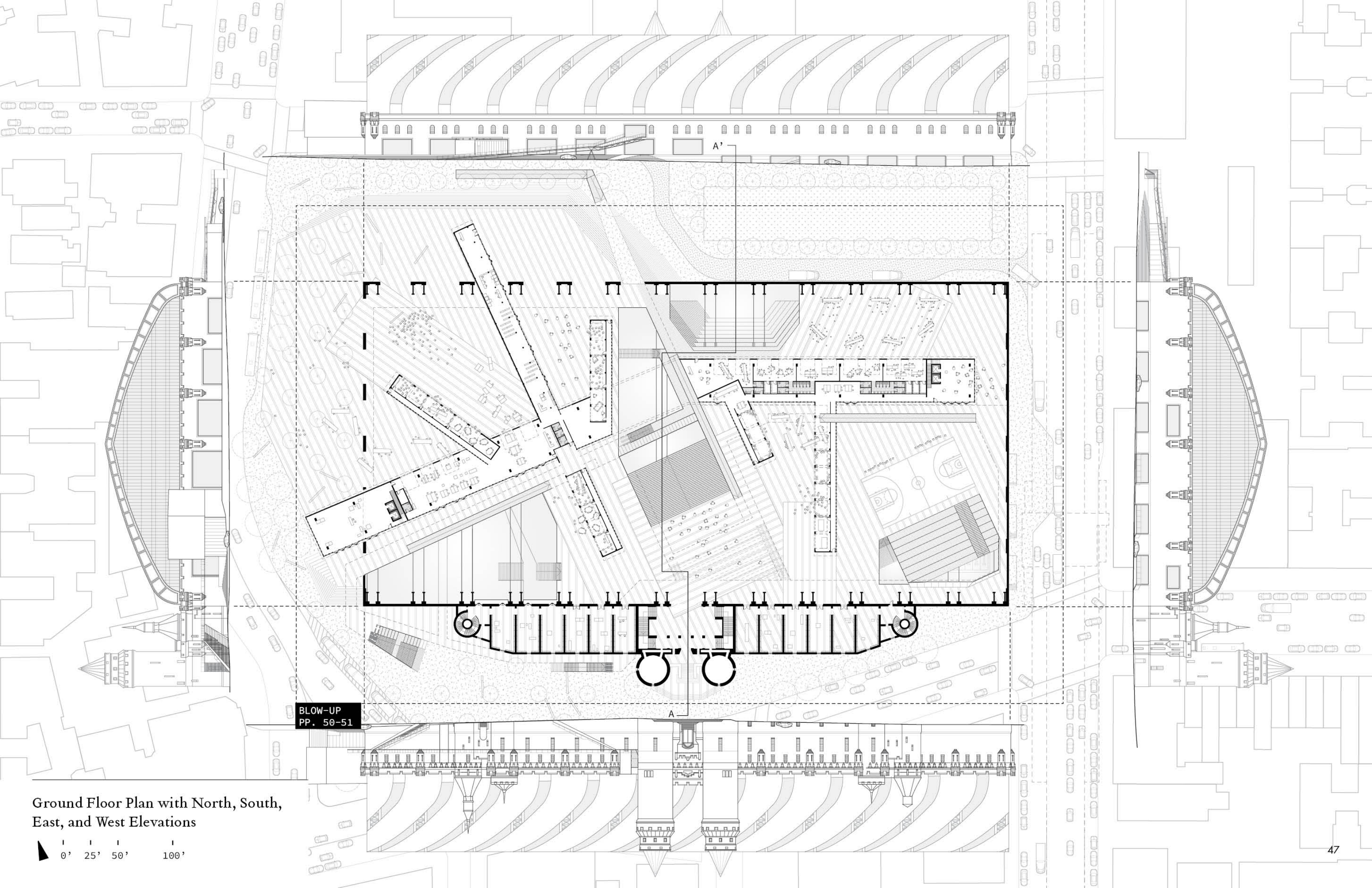
Phasmid locates the armory as a battery within an existing field of public elementary schools, high schools, and universities. By supplementing and supporting their existing educational programs, the vacant armory becomes the core of a complete cradle-to-career campus for the Bronx.

Sculpted site work enables street-level entrances on every floor of the armory, activating the basement mezzanine, ground floor, and balcony. Within this topographic expression, two axes slice through the structure's fortress walls. These connect the inside to the street and establish an off-center moiré.

Inside this field, intergenerational educational programs condense and aggregate in a new, lightweight structure clad in metal and polycarbonate. Pre-kindergarten, after-school, vocational training, and senior activity rooms are united by an axial spine of making spaces. The corrugated remainder of the drill hall floor is given to the city as unconditioned public space, with facilities for sports, performances, and events.

Above, a catwalk is suspended in tension from the armory's trusses. This viewing and circulation apparatus bridges the sleeping giant to the educational institutions beyond. The new structures do not touch the armory's masonry walls except at deliberate encounters, allowing the intervention to be adapted for future uses.





BLOW-UP
PP. 50-51

Ground Floor Plan with North, South,
East, and West Elevations

0' 25' 50' 100'

Ground Floor Plan (following)

Making Core

- 1 Wood and Metal Shop
- 2 Fabrication Benches
- 3 Prototyping Labs
- 4 Tool Library
- 5 Sewing Stations

Activity Rooms

- 6 Pre-Kindergarten
- 7 Childcare+After School
- 8 Senior Center
- 9 Vo-Tech Lounge
- 10 Language Workshop

Public Programs

- 11 Large Event Space
- 12 Sport Court+Bleachers
- 13 Amphitheater
- 14 Armory Museum
- 15 Community Reading Room

Access Key

- ▲ Open to Street at Drill Hall Floor
- △ Open to Street at -1 Floor
- △ Open to Street or Subway at +2 Floor

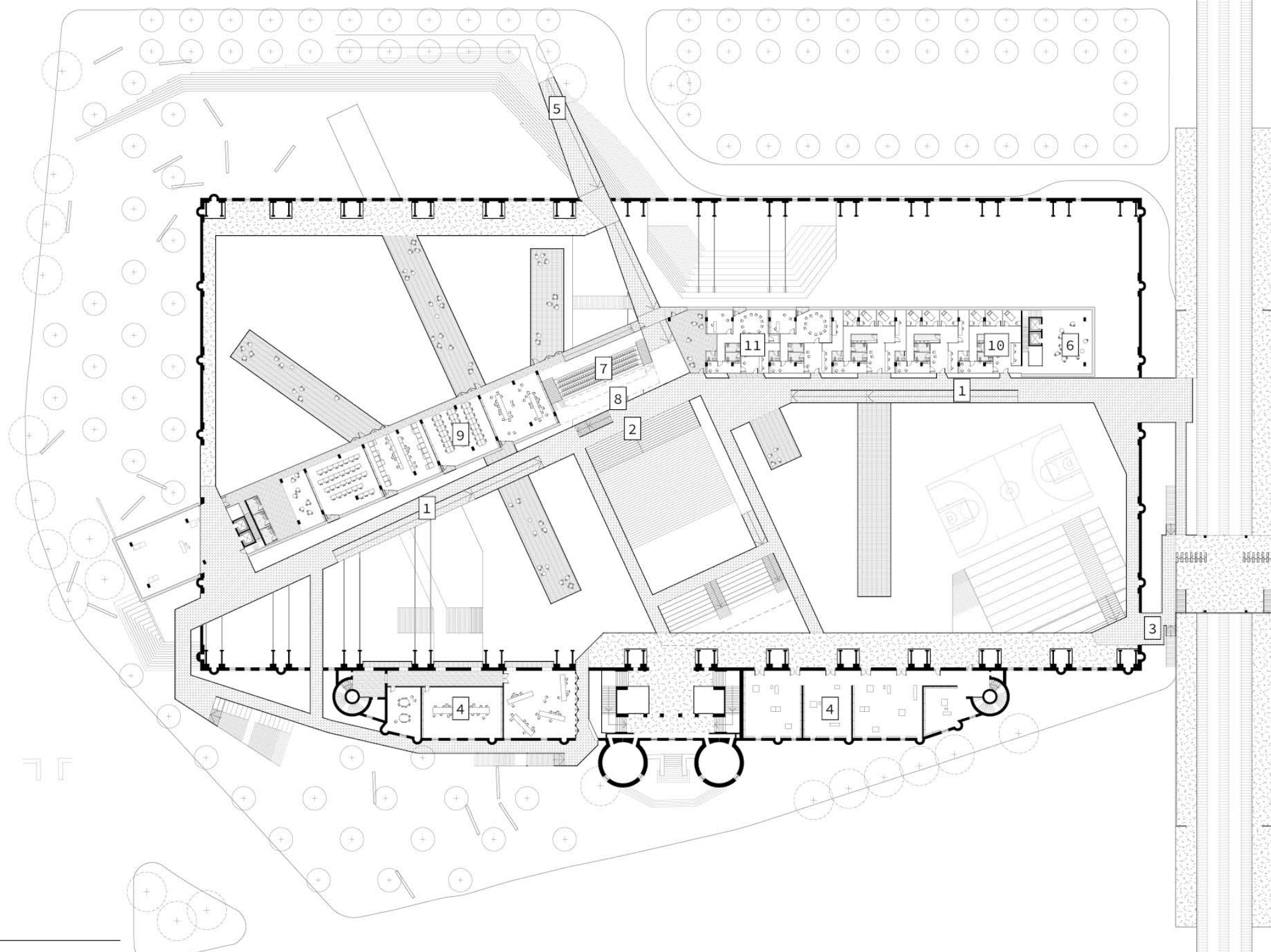
Second Floor Plan (right)

Public Programs

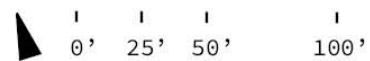
- 1 Suspended Catwalk
- 2 Large Event Space
- 3 Connection to Subway
- 4 Armory Museum
- 5 Bridge to Neighboring Schools
- 6 Canteen

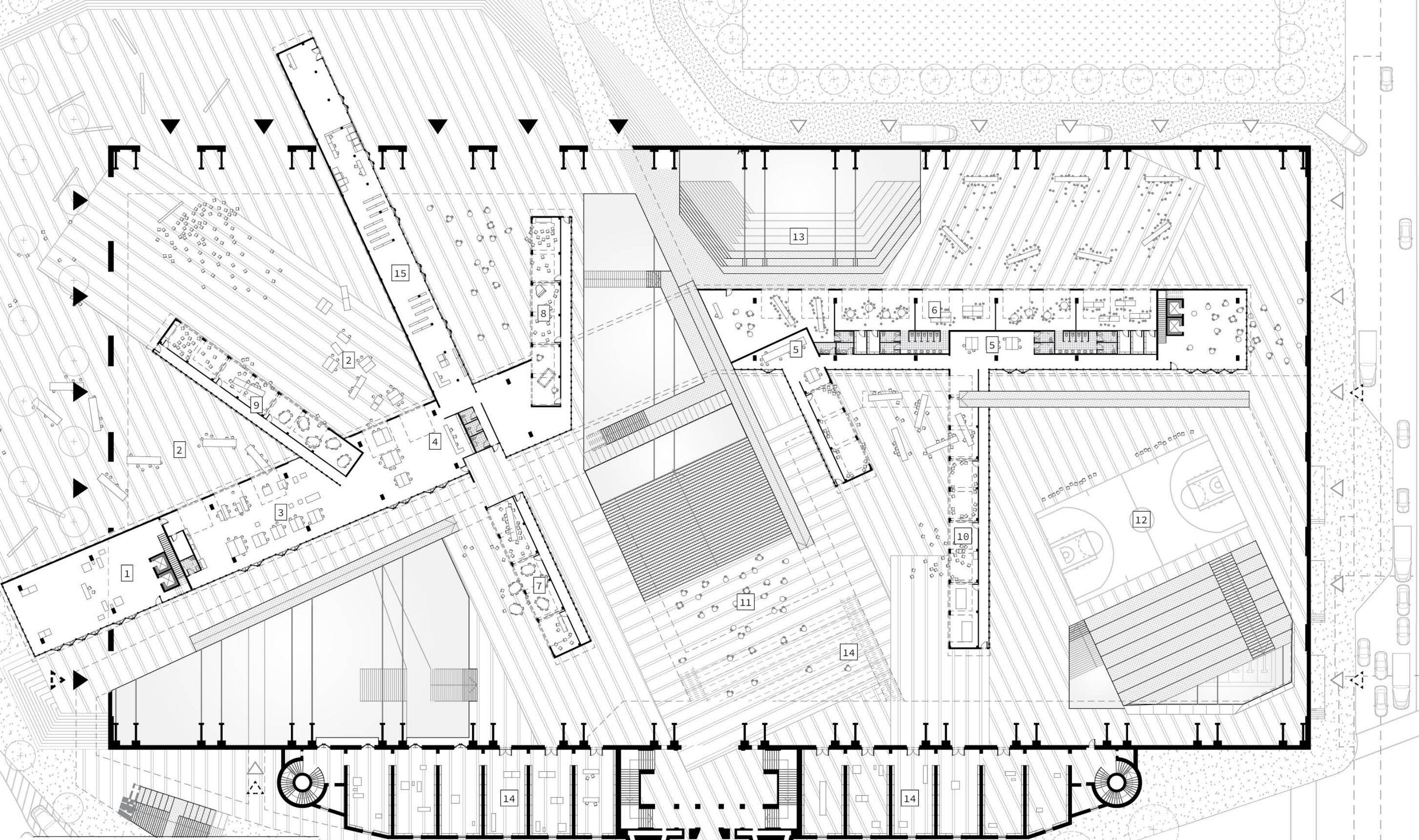
Health & Education

- 7 Lecture Hall
- 8 Projection Room
- 9 Conference+Pin-Up Rooms
- 10 Clinic Pods A-C
- 11 Group Health+Therapy



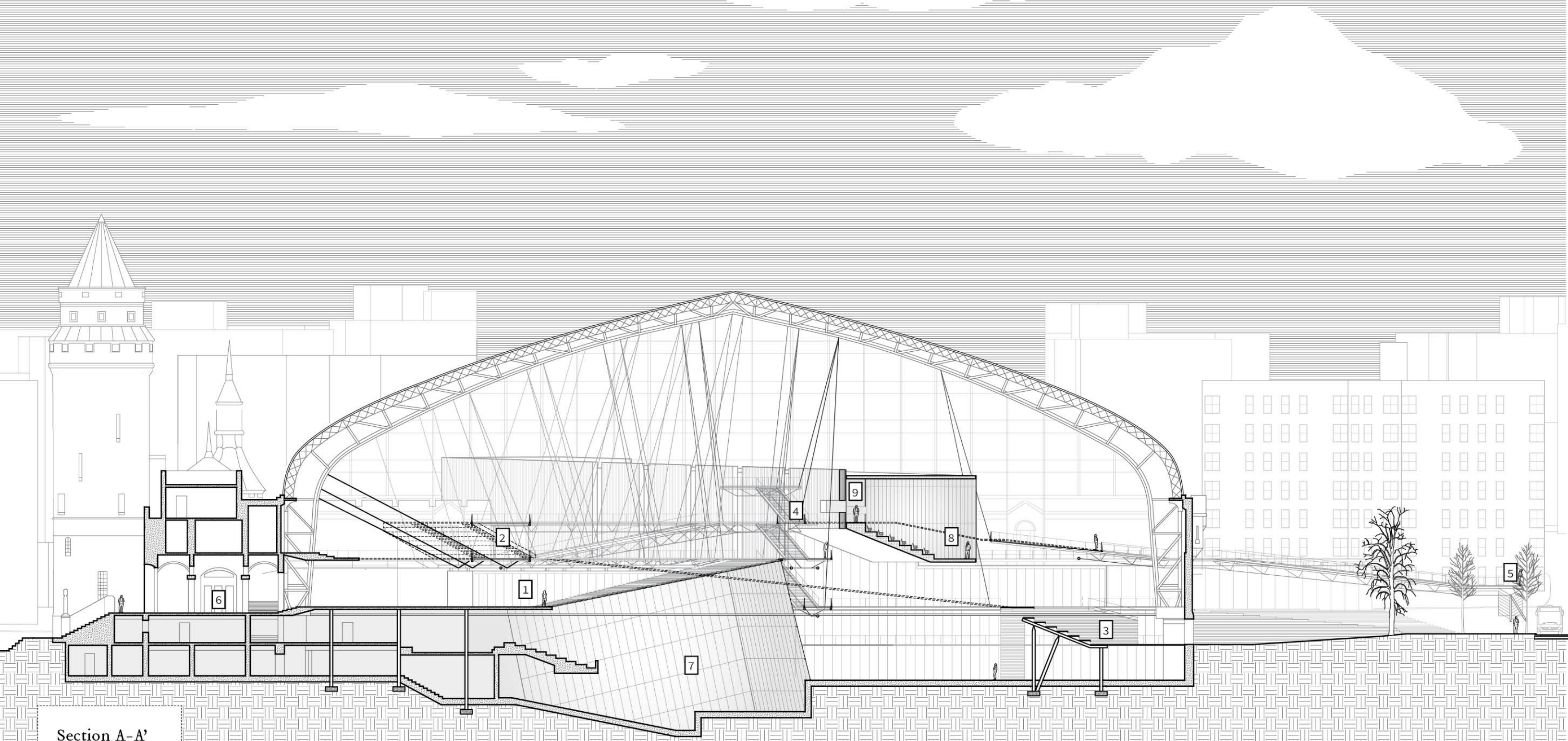
Second Floor Plan





Ground Floor Plan Blow-Up





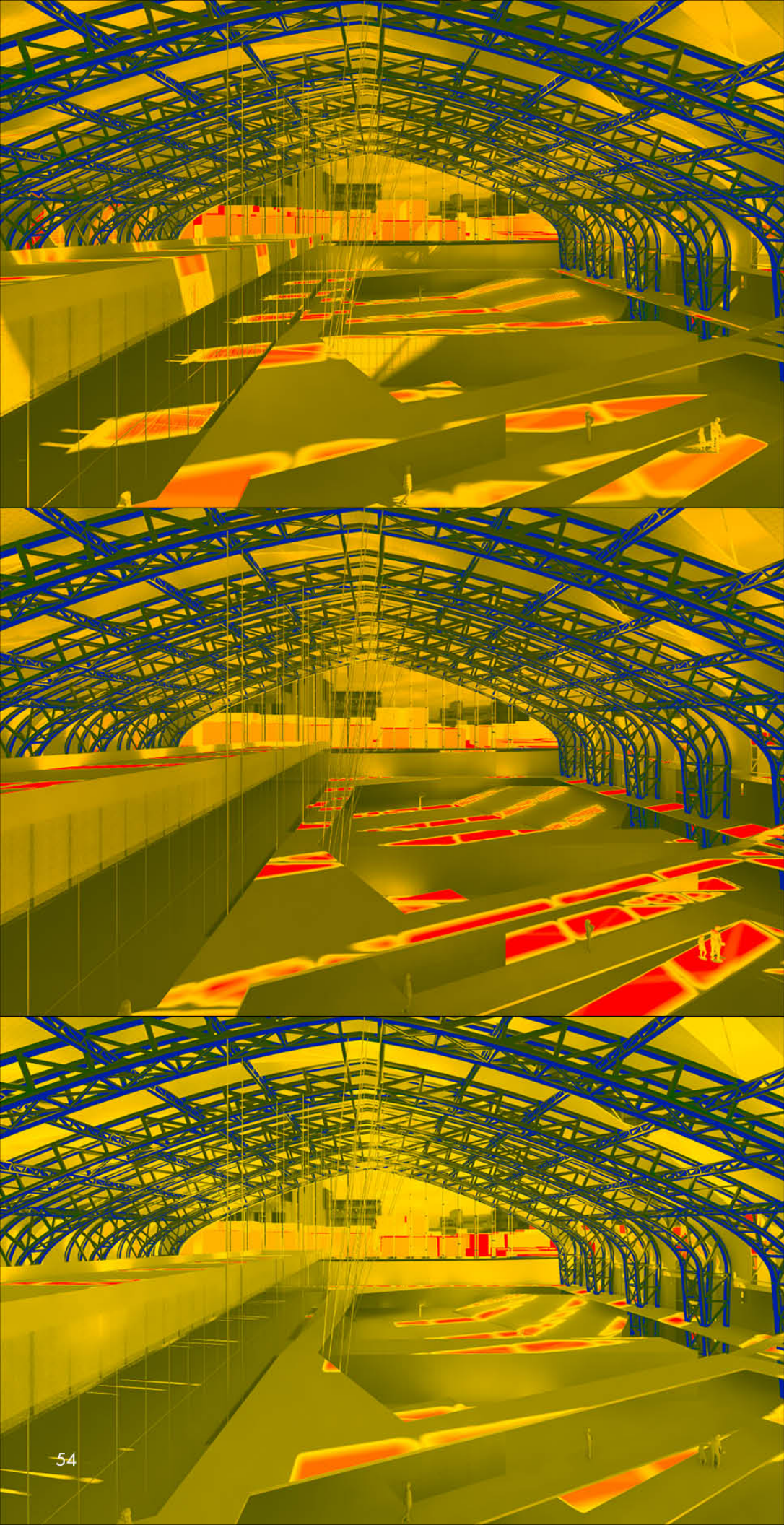
Section A-A'

Unconditioned

- 1** Large Event Space
- 2** Event Viewing Area
- 3** Amphitheater
- 4** Suspended Catwalk
- 5** Bridge to Neighboring Schools

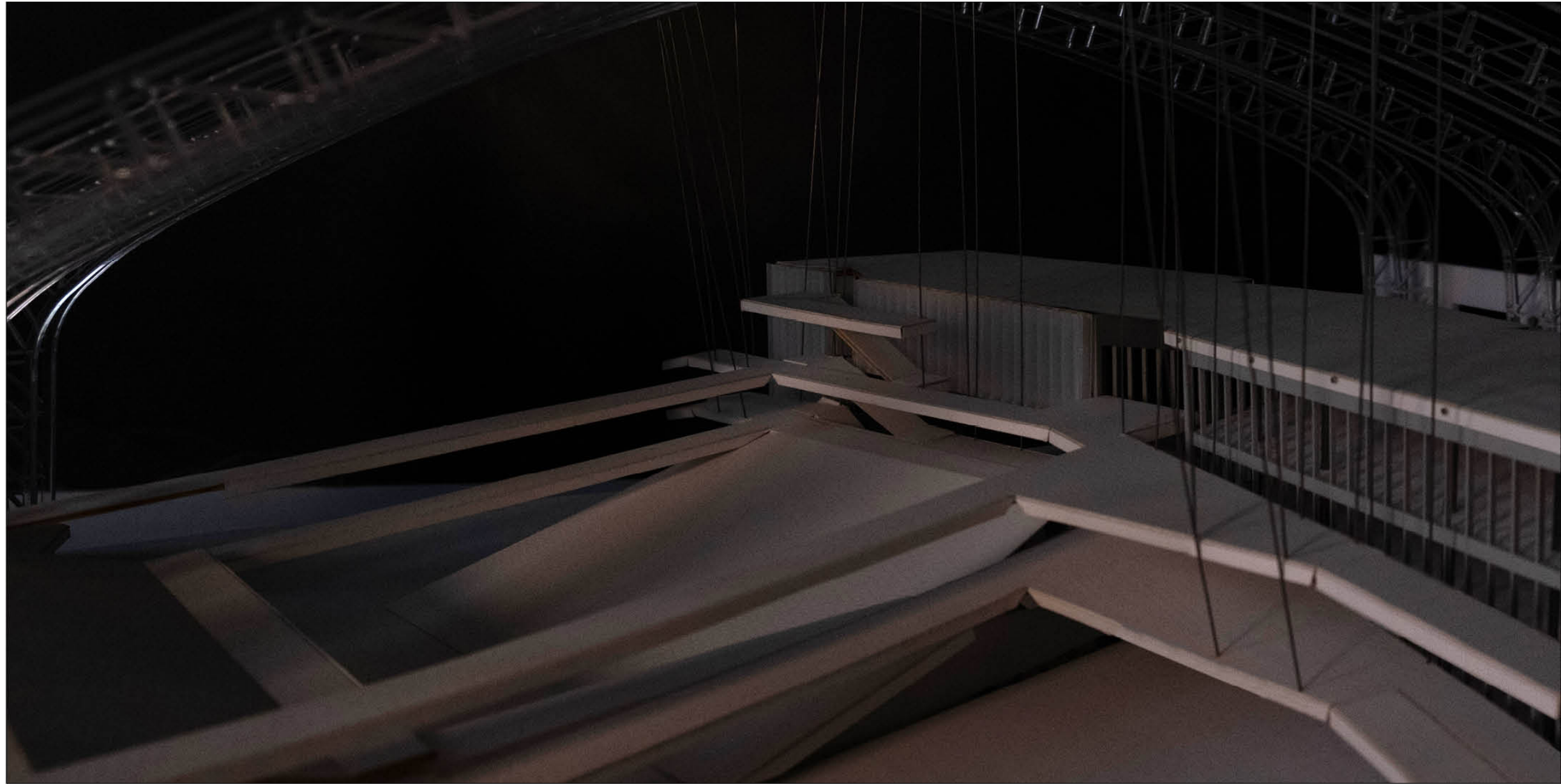
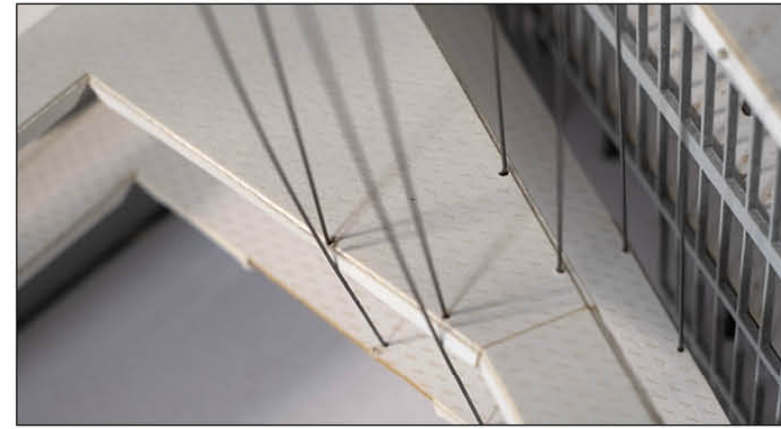
Conditioned

- 6** Armory Museum Entrance
- 7** Underground Theater
- 8** Lecture Hall
- 9** Projection Room



Sunlight Analysis (Opposite)

ETFE panels are integrated into the existing armory roof in a moiré. Sunlight is projected through, studied at 9 a.m. (top), noon (middle), and 3 p.m. (bottom).



Phasmid

A paper study model is photographed throughout the day, narrated by a high school teacher at the Walton School across the street.

9 a.m.

Once a week, I take my students to Kingsbridge, where they take fabrication workshops with the engineers who lease the incubators.

2 p.m.

I have become friends with an elderly gay man who comes here during the day. He taught me to use the sewing machines.

4 p.m.

In the afternoons, when school is over, I host a reading group in one of the empty classrooms. We are reading Deleuze.

6 p.m.

At 6 the pool in the basement opens for adult lap swim. I always go for my workout, and then relax in the sauna afterwards.

Midnight

There is a big concert at Kingsbridge tonight. A bunch of my friends are coming up from Manhattan and Brooklyn to see.



Installation Photograph

Collective work was assembled into an exhibition in Avery Hall in November 2023, attended by U.S. Representative Adriano Espaillat, Columbia University President Minouche Shafik, and GSAPP Dean Andres Jaque. Installation photograph courtesy Columbia University GSAPP.

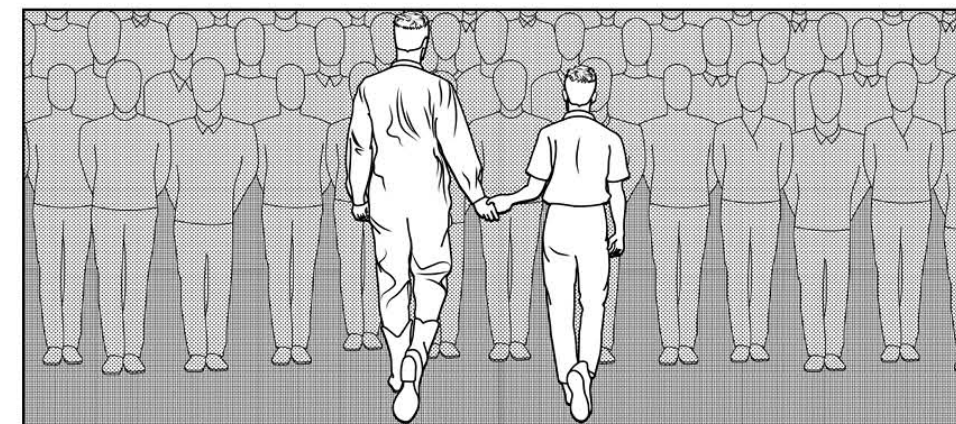
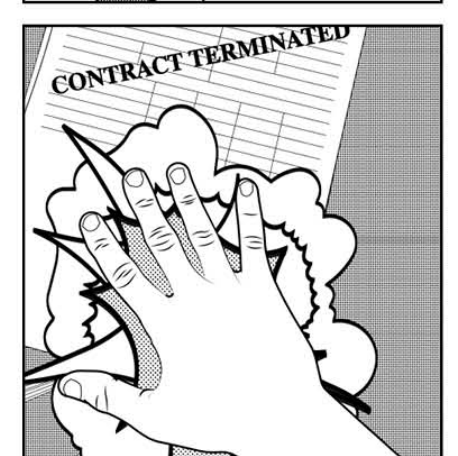
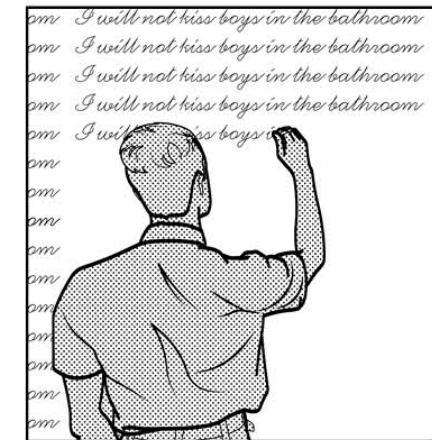
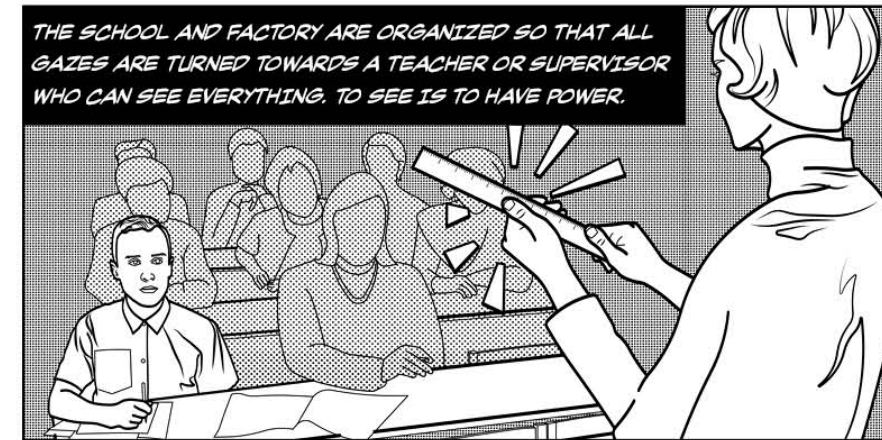
Scion

Core Studio II
Manhattan, New York
Spring 2021

Critic
Emmett Zeifman

Key Words
Adaptive Reuse, Public School, Swimming Pool

Key Dimensions
80,410 square feet



EXAMS AND DOCUMENTATION LEND A CENTRALIZING BODY THE ABILITY TO DESCRIBE AND CONTROL EACH INDIVIDUAL. AS FACTORIES PRODUCE OBJECTS, SCHOOLS PRODUCE DISCIPLINED SUBJECTS IN SERVICE OF INDUSTRIAL CAPITALISM.

TO BE CONTINUED...

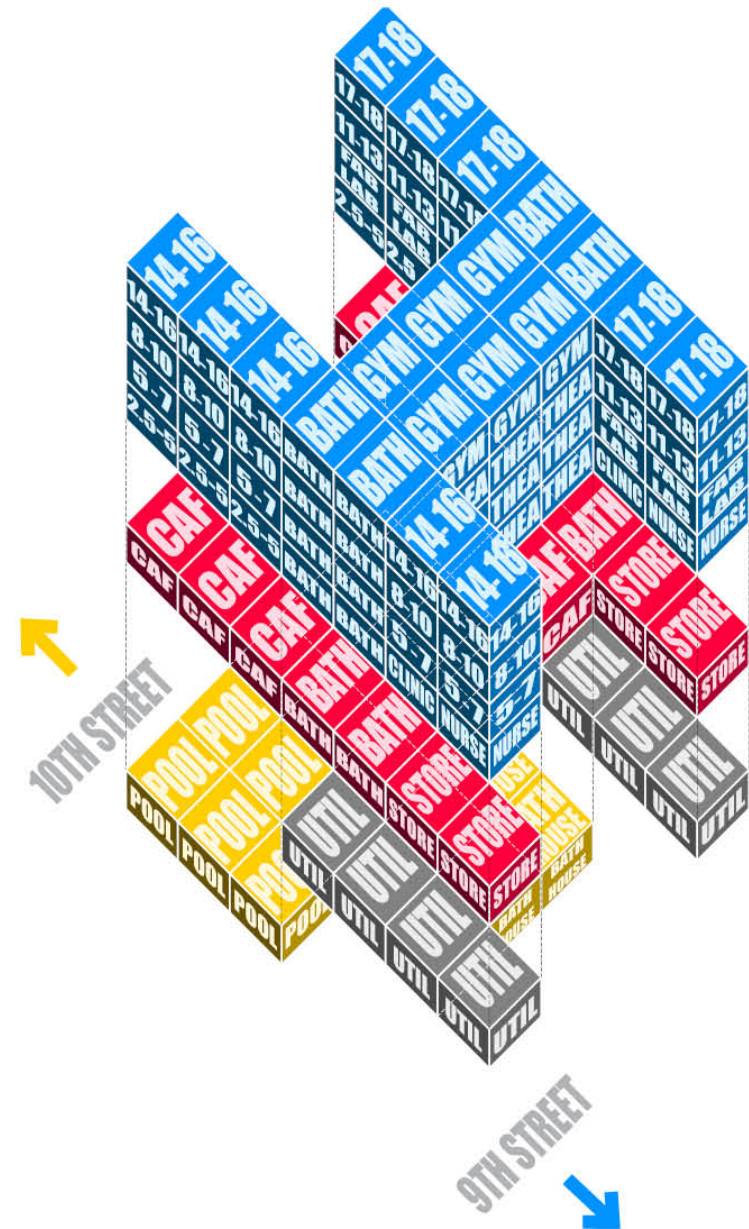
Narrative Analysis

Exploring the spatial and social mechanics of discipline in the American public school and factory.

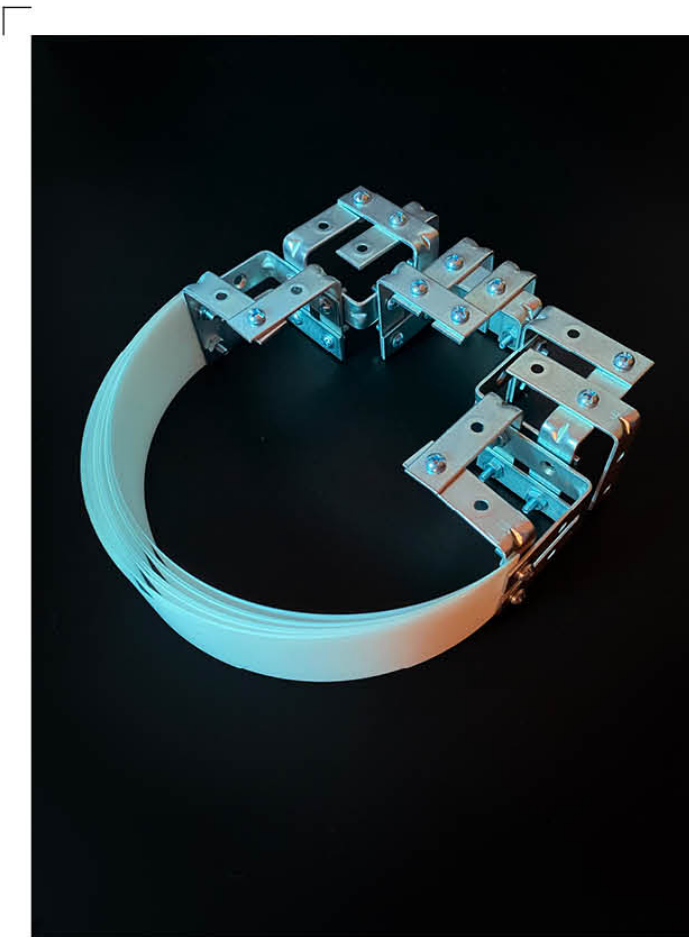
Scion imagines a public school housed inside the former P.S. 64 that educates 384 students in thirty-two twelve-person classrooms. The former public school's H-plan is sandwiched between 9th and 10th streets in New York's East Village. In this speculative fiction, the existing building's floor plates and French Renaissance Revival facades remain intact. Neoclassical finishes are juxtaposed against a high-tech functionalist circulatory system that traverses the structure, as a plant grafted to a host.

Scion begins with an understanding that different types of publicly-owned spaces adhere to different models of governance, and that condensing multiple types of public space into a single building might yield more democracy. Staggered street levels create an opportunity to condense complimentary programs into the building's envelope. 9th street is level with the ground floor, while 10th street is flush with the basement. A community health club is programmed on the basement level, with an independent entrance on 10th. It includes a public swimming pool and spaces for meeting and organizing. The school becomes a place where neighborhoods can exercise autonomy when the state fails them, as it did in the 1980s.

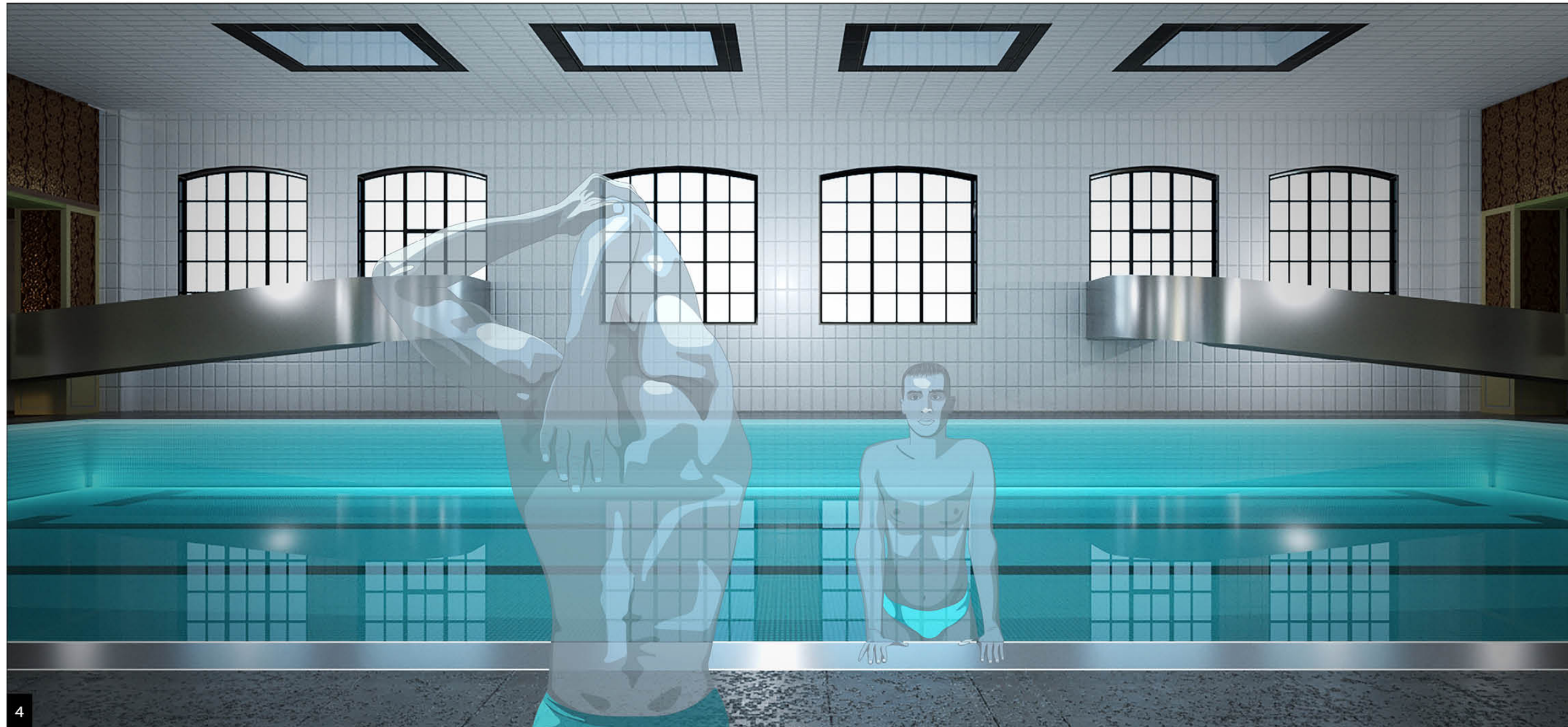
The pre-K-through-12 school is located on floors 1-5 above, with its own entrance from the ground floor at 9th street. Classrooms are housed in the wings of the H-plan, designed as collapsible enfilades. Students can move through the floor throughout the day with their classmates, co-creating spaces with their teachers and peers based on their needs and learning styles. Collective functions, including the theater, library, and gym, are stored in the school's core. Between collective and classroom spaces are mixed-gender bathrooms where students can smoke cigarettes, put on makeup, and hang out with friends outside the gaze of the teacher.



- **Public School**
Schoolboard owned;
Public school, 8 am - 6 pm M-F;
Community use and access, 6 pm - 10 pm M-F
and 10 am - 10 pm weekends
- **Public Program**
Schoolboard owned;
Community + school use and access, 9 am -
11 am & 1 pm - 12 am M-F and 10 am - 10 pm
weekends
- **Utilities And Back Of House**
Public schoolboard owned
- **Public Pool and Health Club**
Community owned and governed;
24-7 bathroom access;
10 am - 12 am pool and bathhouse access 7
days/week



Preliminary concept model.



1-8

Scion

On an autumn day in 1987, time traveler "A." experiences imagination, care, and desire over 32 lived years at P.S. 64.

1

The Street, Age 4

"A. is dropped off for their first day of school: easy, since they live with their mother just around the corner..."

2

The Classroom, Age 6

"The curriculum is organized around imagination: drawing, fabrication, and experimentation."

3

The Homeroom, Age 10

"Students discuss the nascent HIV/AIDS crisis: what is a disease, and how to care for their families."

4

The Swimming Pool, Age 12

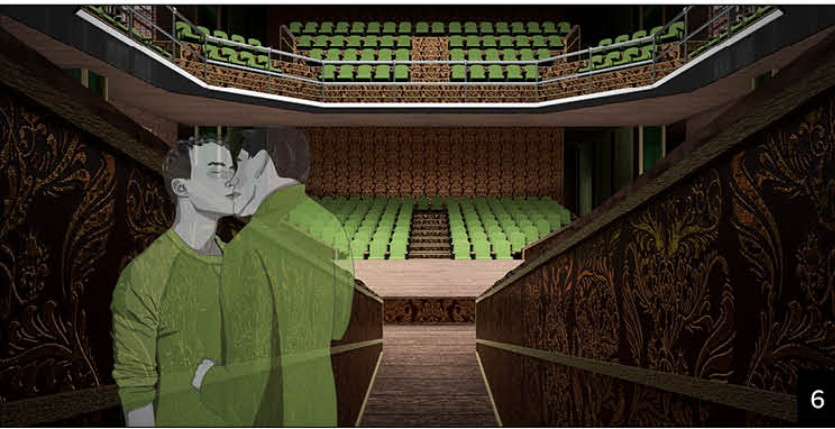
"After school, A. goes for a swim in the pool downstairs, where they discover silver desire."

5 (following)

The Bathroom, Age 16

"A. feels cool as hell."





6



7



8

6

The Auditorium, Age 18

“On a spring day before graduation, A. skips class and sneaks off to the auditorium to have their first kiss.”

7

The Classroom, Age 31

“At 7 pm on Wednesday evenings, A. hosts a support group for sick community members.”

8

The Cafeteria, Age 36

“A. shares lunch with a student they mentor. “Reminds me a bit of myself,” they muse...”

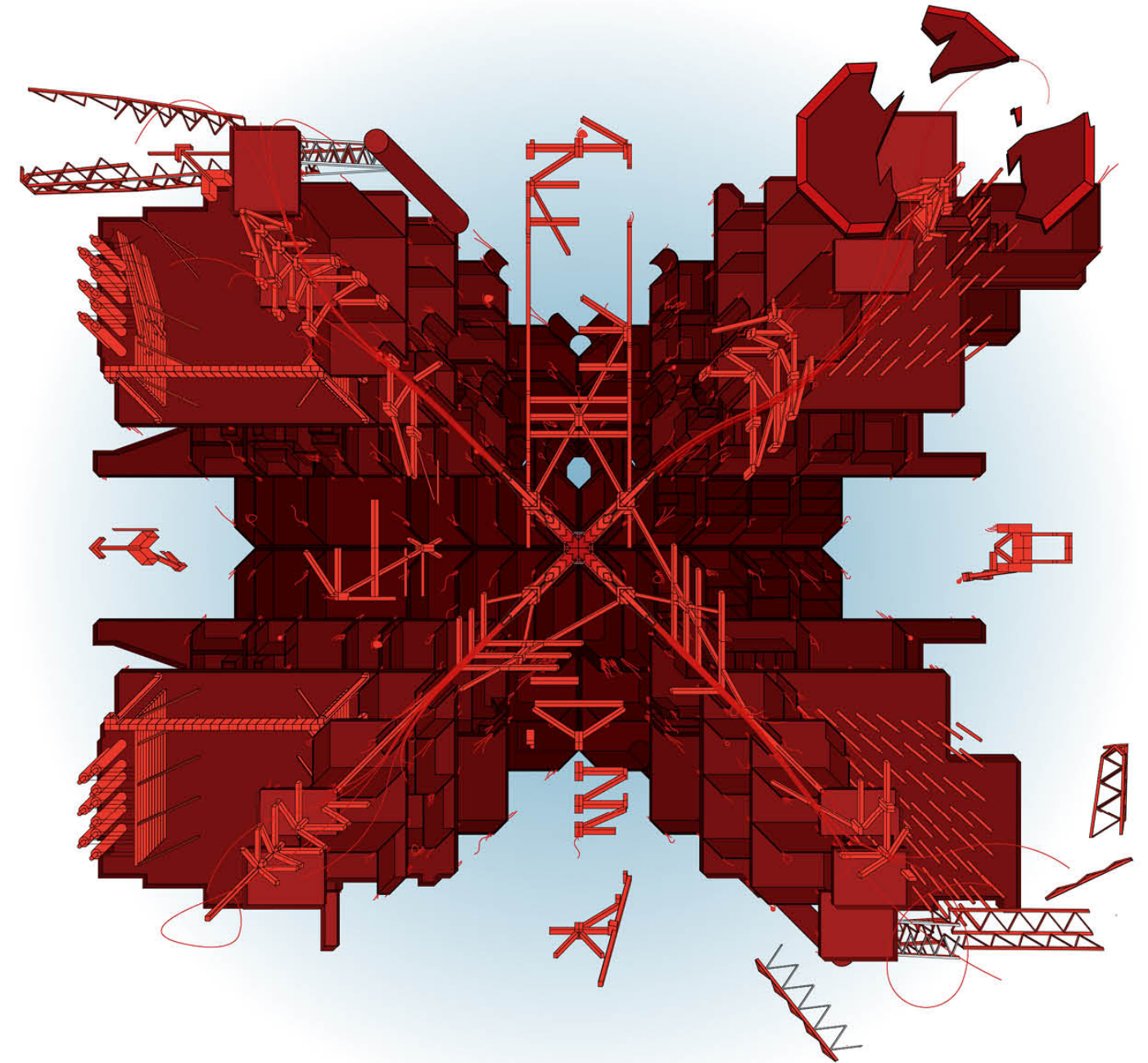
Deepwater Horizon

Architectural Drawing + Representation I
The Gulf of Mexico
Fall 2020

Instructor
Zachary White

Key Words
Oil, Extraction, Explosion

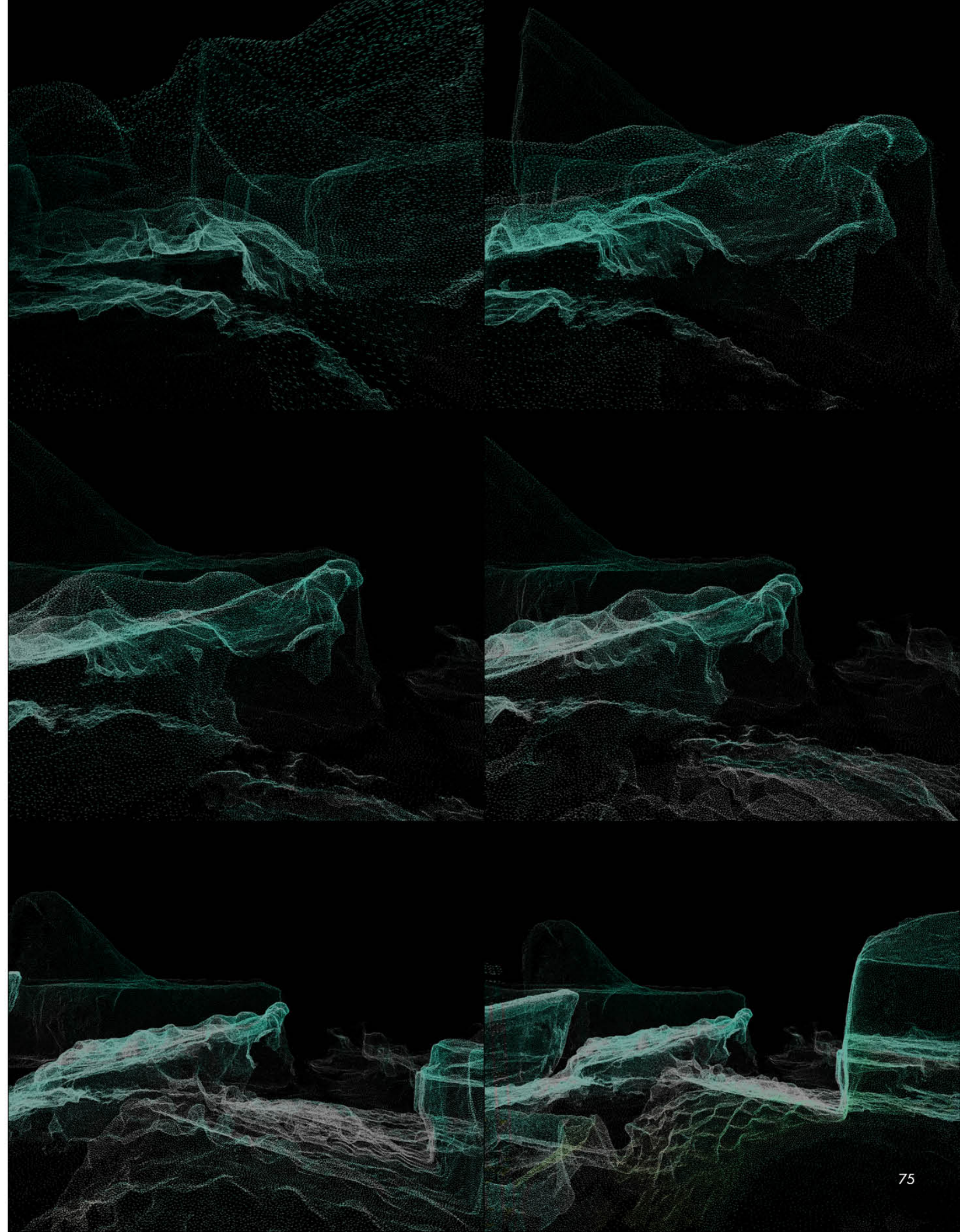
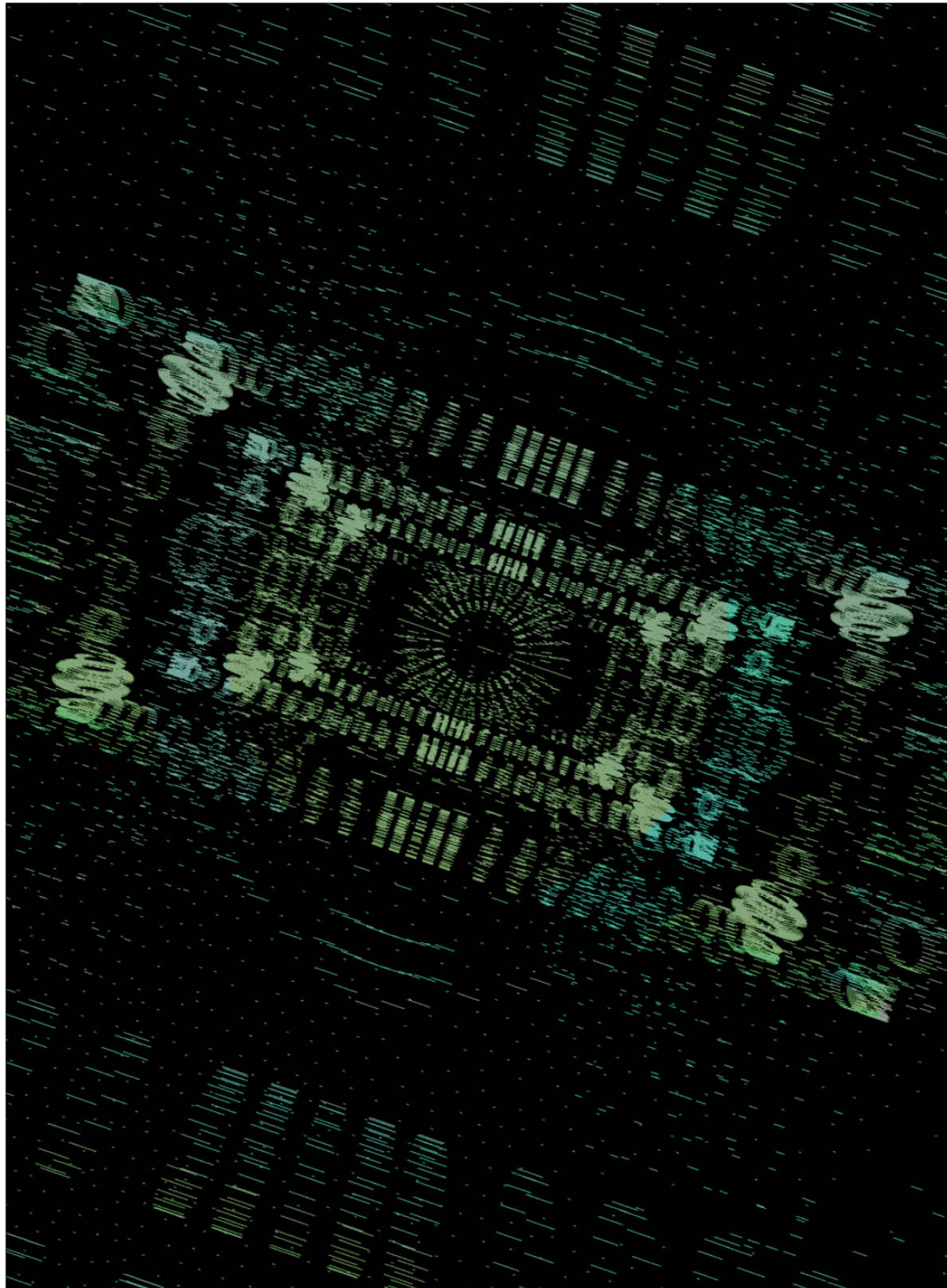
Key Dimensions
N/A



This animation tracks the explosion and wreckage of Deepwater Horizon at the Macondo Prospect. The 101,376 square foot offshore drilling rig was allegedly capable of operating in waters up to 8,000 feet deep, using a 15,000 PSI blowout preventer extracting oil from the seabed below. In February 2010, it commenced drilling an exploratory well 41 miles off the southeast coast of Louisiana, the rights to which had been acquired by British Petroleum in 2009. On April 20, a blowout caused an inextinguishable fire, leading to the violent destruction of the rig. The well, left gushing at the seabed, created the largest marine oil spill in history.

In this forensic analysis, a digital model was built following published orthographic drawings of the rig and blowout preventer pre-explosion. Following this model, the explosion itself was illustrated and a PLA model of the rig was 3D printed. The 3D prints were melted using a flame torch. These melted prints were then scanned, digitized, and collaged to approximate the surface condition of the ocean floor. A video was filmed moving through this digital model, itself a composition of point clouds, meshes, and drawings.

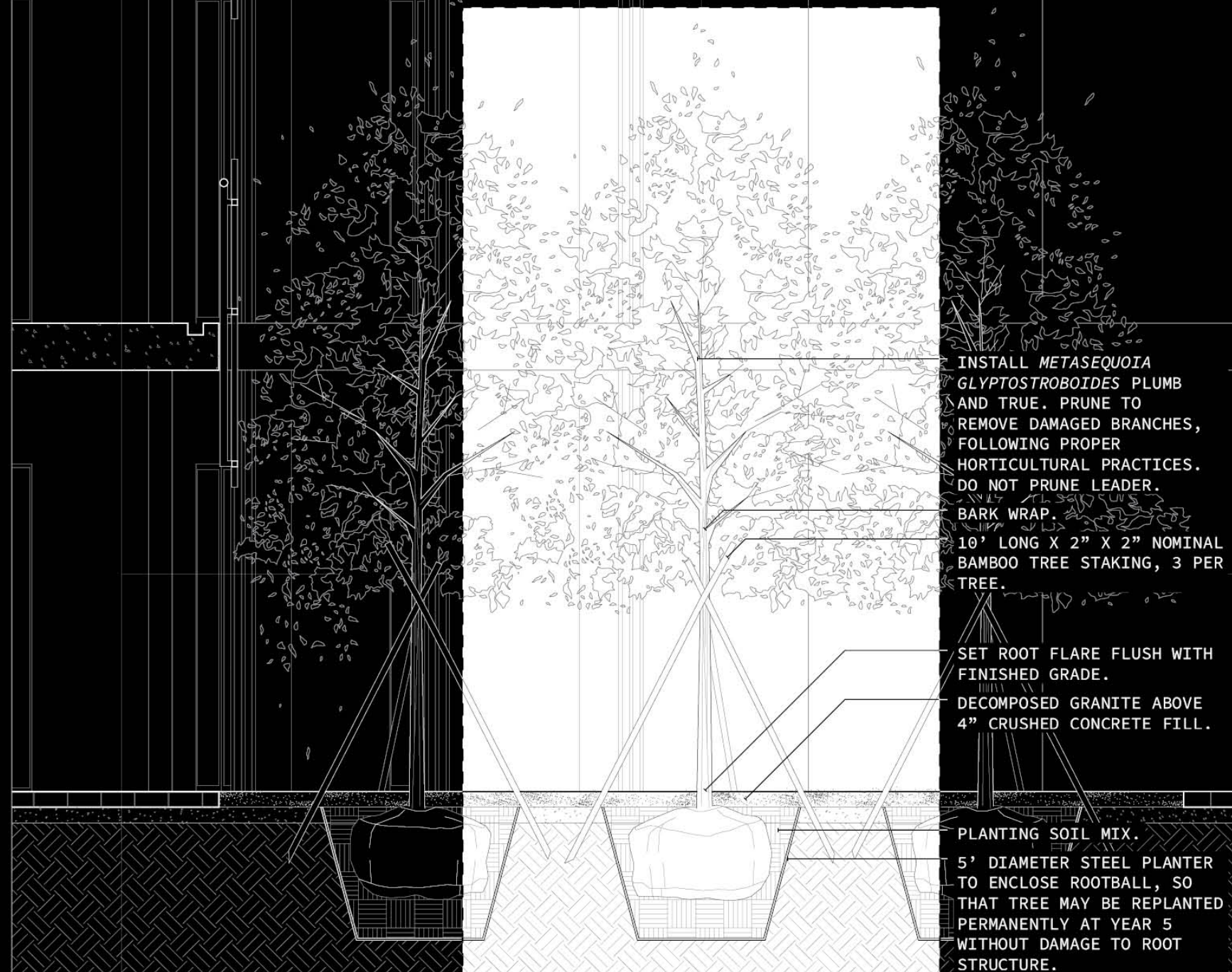
Video Stills



Multi-Species Care

Design Technology:
The Planting Schedule

The planting schedule indicates plant species, size, and spacing to be installed in a given landscape. It is typically accompanied by details indicating soil depth and type. These are biological provocations and instructions for multi-species care, indicating what will live well in a given place. As for any provision of care, these documents invoke multiple forms of anticipated time, from the cyclical measure of seasonality to the indeterminate rhythm of plant growth. Planting schedules condition a sensibility geared towards the more-than-human, and tell stories of migration and adaptation on a changing planet.



Quantity	03
Botanical Name	<i>Metasequoia glyptostroboides</i>
Common Name	Dawn Redwood
Installation Size	4.5" Cal
Comments	Limbed Up 6' Height

Earwig

Core Studio III
Bronx, New York
Fall 2021

Critic
Hilary Sample

Key Words
Ground-Up, Social Housing

Key Dimensions
115,000 square feet

Research Associates
Ari Nadrach



Proposed Units
Proposed Occupancy
Proposed Density
Existing Neighborhood Density

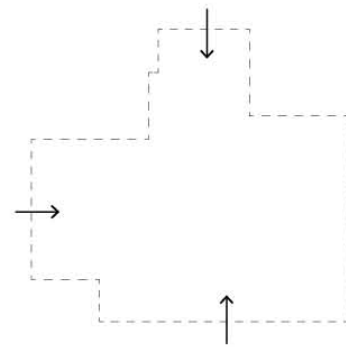
88 Dwelling Units
280 Tenants (Max. Occupancy)
179,200 People / Square Mile
81,000 People / Square Mile

Earwig is a model of affordable housing for which every household applies with a separate “partner household,” with which they share collective living spaces. These households could be mutually dependent for various reasons: pairs of elderly couples who depend upon each other for shopping, parents of differently abled children who rely on similar resources, siblings who are now adults, strangers who don’t want to live alone. As it folds upon itself, the building anticipates negotiations and performances across the various screens that divide public and private life.

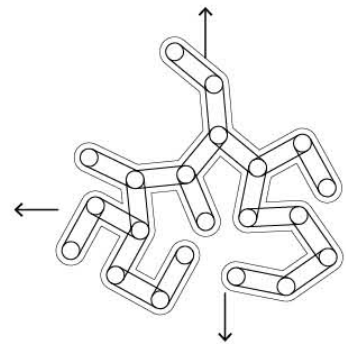
An aggregation of dwelling units follow one another in a compound linear sequence. Between each module are the building’s collective spaces: living rooms and dining rooms, rooms for playing games and rooms for making art. The corrugated pattern of accumulation enables the building to cradle shared outdoor spaces in the landscapes between units.

The modular sequence of dwelling units is extruded five stories. Three oversized staircases bisect the building, connecting the public realm with the most private domestic spaces. A single-loaded corridor snakes across alternating faces of the building. The facade is clad in standing seam aluminum, delivered in one foot rolls and assembled on-site.

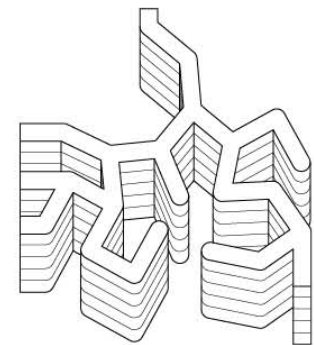
The compound linearity of the building’s dwelling units is repeated at the scale of the unit. Each unit is subdivided into one or two bedrooms and a kitchen. Space is distributed evenly; there is no primary suite. The generous spatial provision of a single-loaded corridor necessitates efficient unit layouts. Wet walls are strategically placed to minimize plumbing. Bedrooms are compact, but with a maximum provision of light and air.



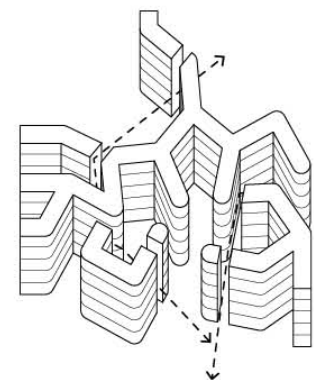
01 | *Condition*
Vacant Lot



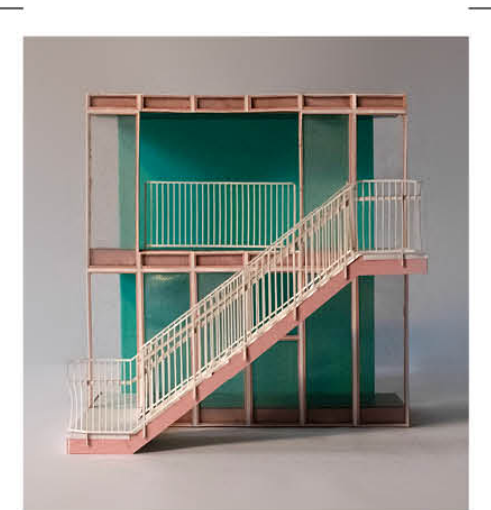
02 | *Aggregate*
Corrugated Architectural Figure



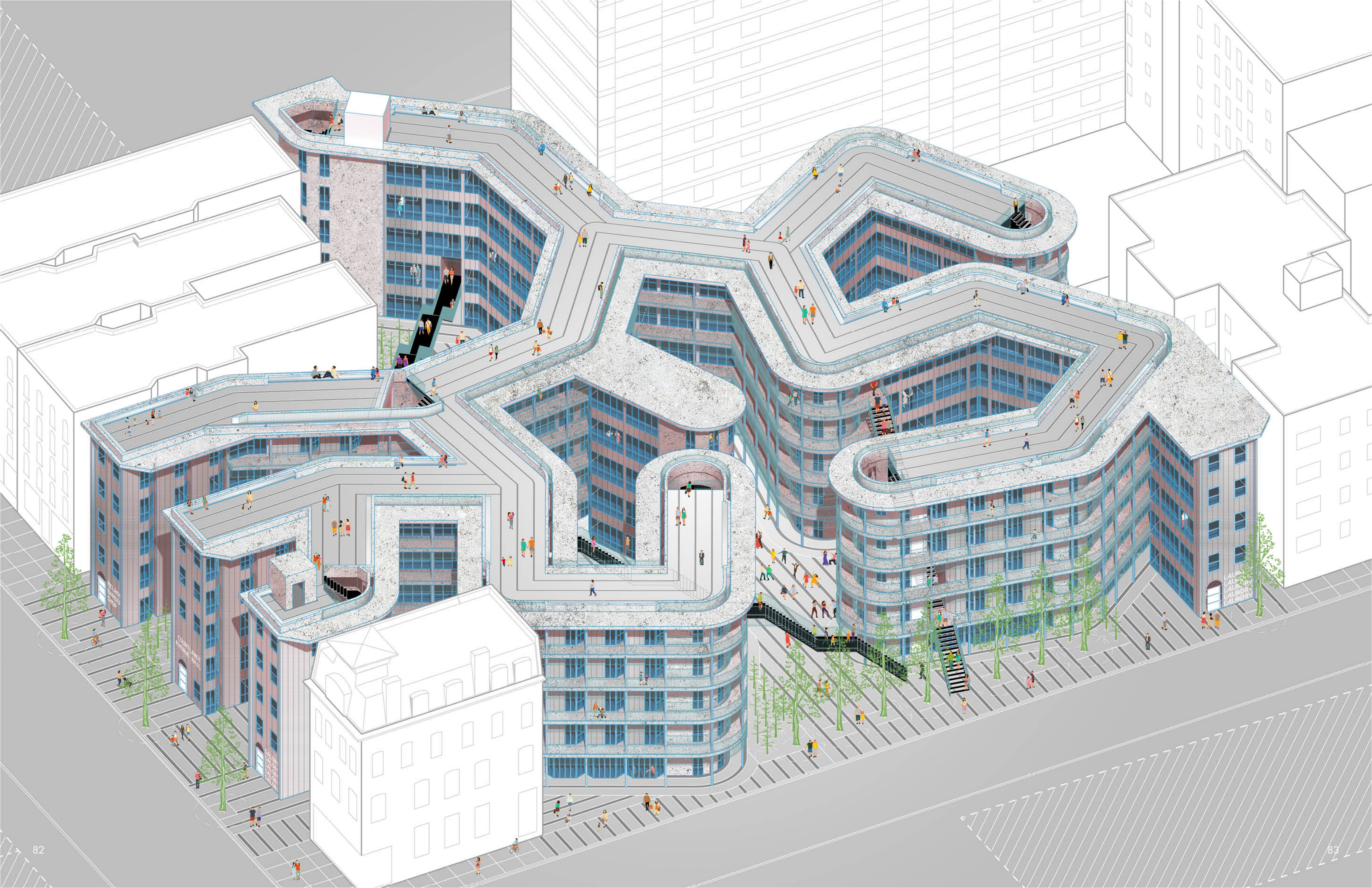
03 | *Extrude*
Accumulation of Dwelling Units

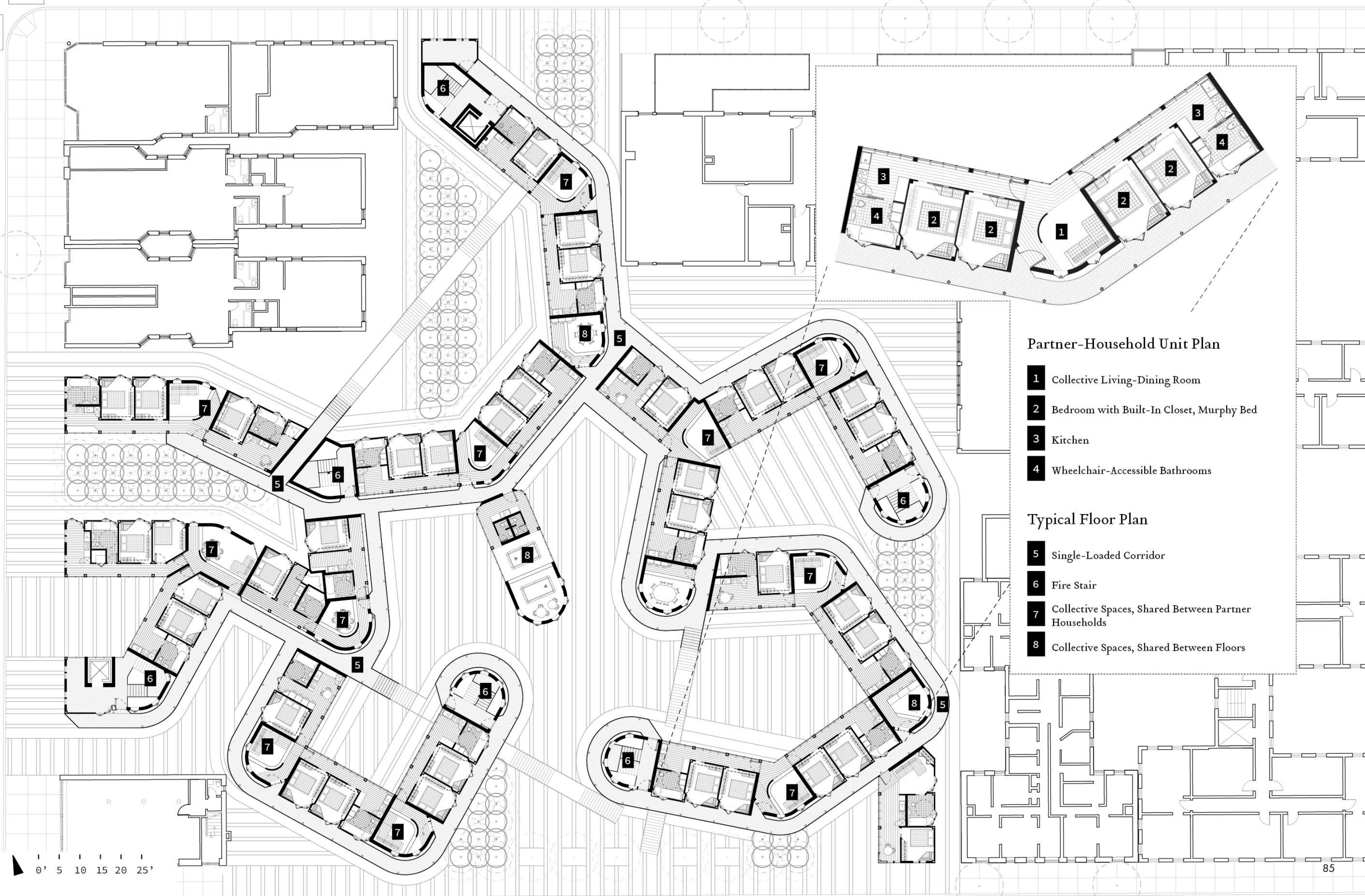


04 | *Slice*
Connect Units to Street



Staircase study model made from recycled paper, photographed by morning and night.





Partner-Household Unit Plan

- 1** Collective Living-Dining Room
- 2** Bedroom with Built-In Closet, Murphy Bed
- 3** Kitchen
- 4** Wheelchair-Accessible Bathrooms

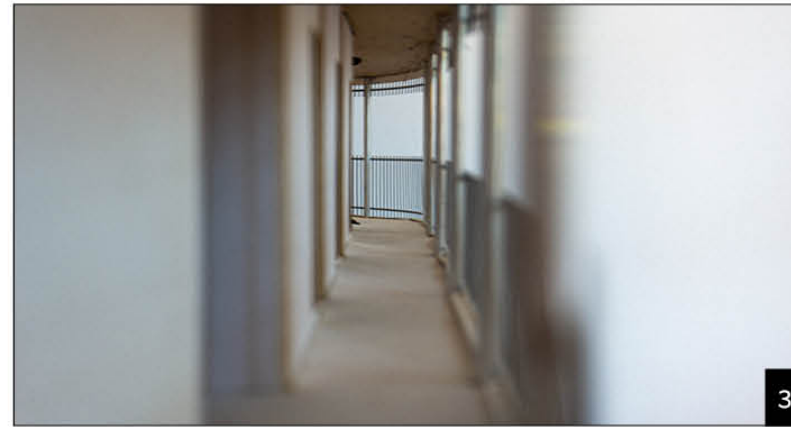
Typical Floor Plan

- 5** Single-Loaded Corridor
- 6** Fire Stair
- 7** Collective Spaces, Shared Between Partner Households
- 8** Collective Spaces, Shared Between Floors

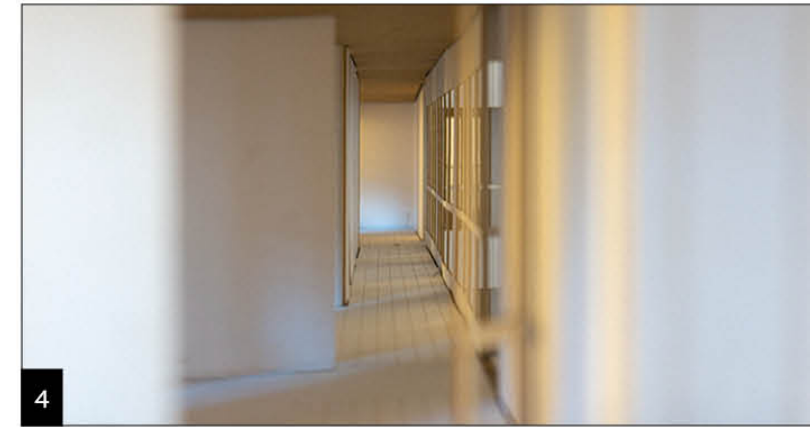
0' 5' 10' 15' 20' 25'



2



3



4



1

1-4

Earwig

A speculative screenplay tracks public and private moments across one summer's afternoon.

1

The Street

"Everything feels ok now. Why can't it every day? What happened on Monday? What happened this morning?"

2

The Courtyard

"Someday hindsight will be 20-20. I don't think I will regret it, and for that I wish I could trust my instincts."

3

The Corridor

"I'm scared of what I want—that it leaves me humiliated, in a body I don't recognize, with work. I'm not proud of."

4

The Hallway

"I hope he liked it, I hope they all did. He is my midnight sun, heroin, something I might never quit."



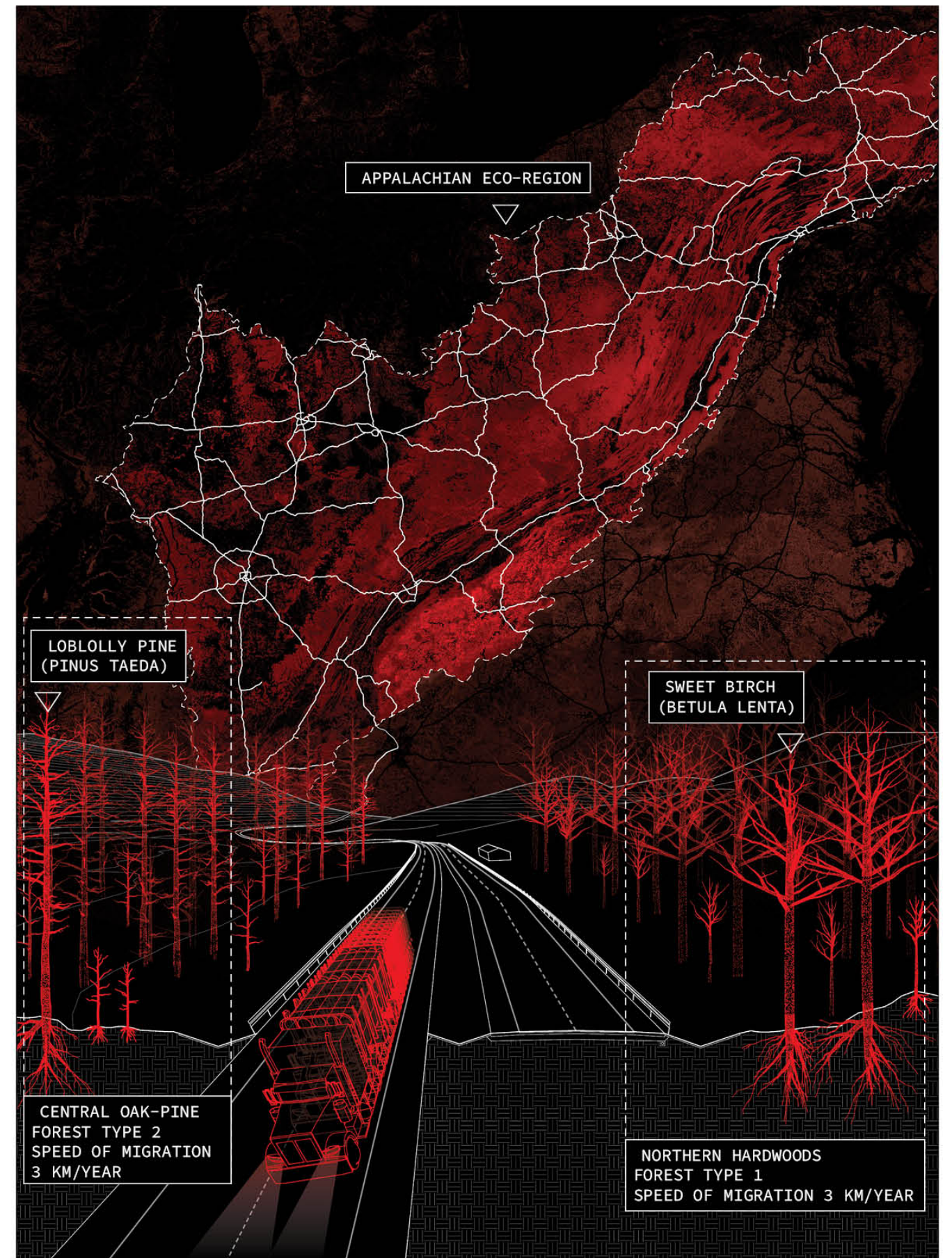
Cottonmouth

Advanced Studio IV
Appalachia, United States
Spring 2022

Critic
Lindsey Wikstrom

Key Words
Mass Timber, Ecology, Infrastructure, Adaptation, Unbuilding

Key Dimensions
340,000 square feet



The great American forests had begun to die. So-called native trees were unable to adapt to warming temperatures, and their seedlings could not migrate north across the interstate matrix. In this climate, arguments to plant native forests were a fallacy. *Things would be different.*

But on this continent, warming temperatures were not new. The *dawn of modern flora* was a geologic event of global warming 55 million years ago, triggered by the massive release of carbon into the atmosphere. During this time, when global carbon levels far surpassed the most catastrophic projections for the year 2100, a different family of plants called the North American continent home. Theirs were forests of Ginkgo biloba and Metasequoia glyptostroboides—species no longer considered “native” to North American forests, but which were projected to adapt to the planet’s rapidly warming surface.

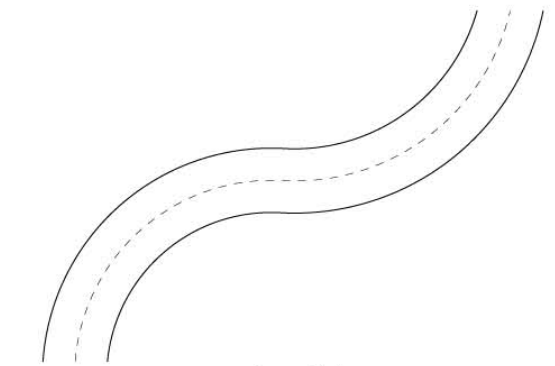
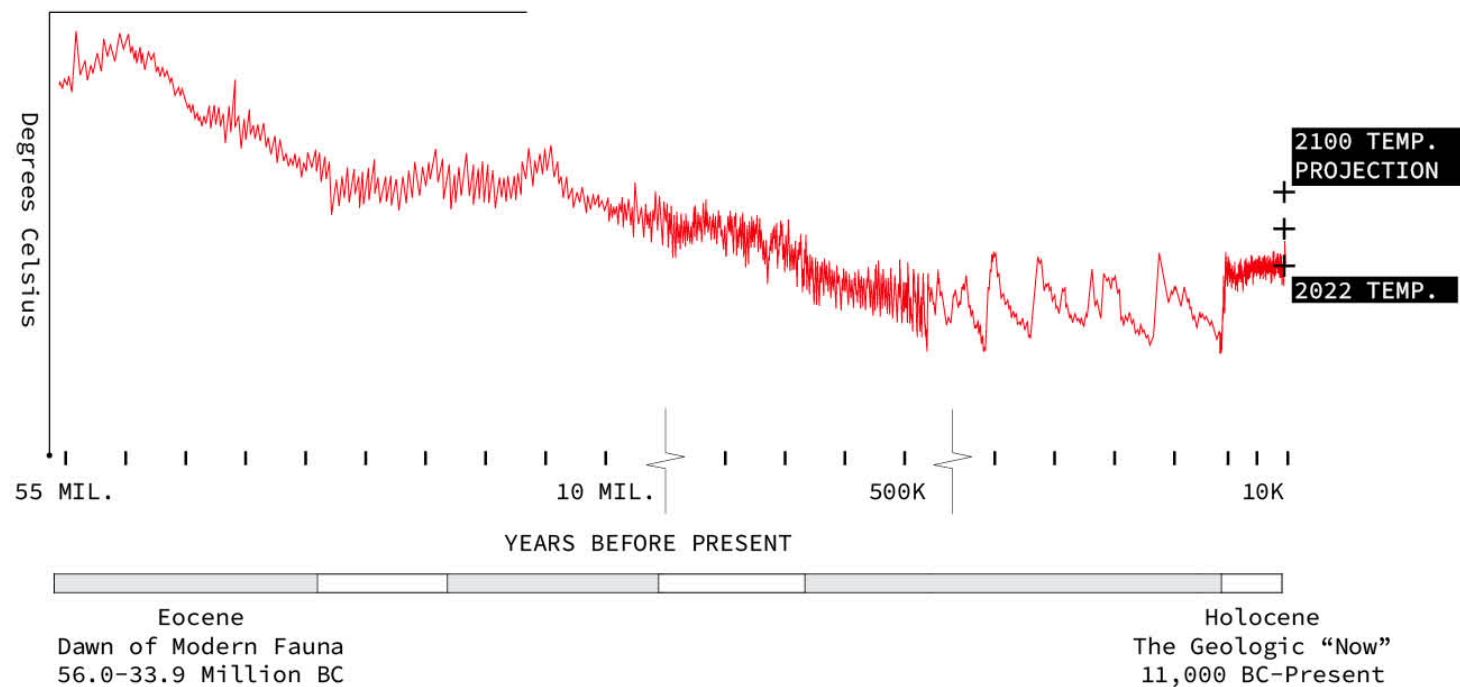
Cottonmouth was the story of a federal relief program in which 200-person battalions were assigned the task of unbuilding American

interstates, constructing mass timber viaducts, and planting corridors of adaptive tree species. Told as science fiction, this was the story of Company No. 3001, the pilot contingent in New York State. It launched in 2024.

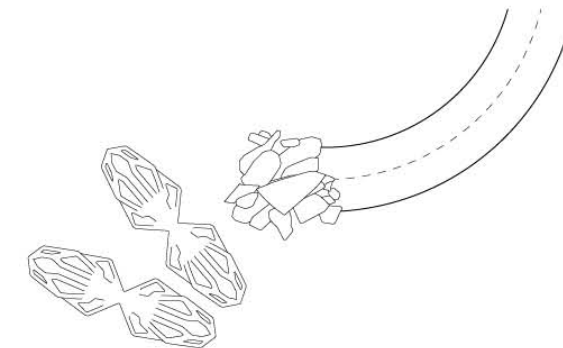
Where they tore up the road, each battalion installed laminated wood superstructures spanning 190’ wide, 75’ deep, and 40’ tall. The superstructures were porous to accommodate the growth of trees beneath, and their sinuous forms encased the linear movement of a continuous welded rail and utilities. Under their collective roof, the camps did not need walls. Enrollees slept in tents as they traveled down the road.

They planted seed bank corridors of Ginkgo and Metasequoia, pioneer species to infect the dying forests with adaptive arborescent life. In 30 years, the battalions would return to harvest what they planted. Many of the original enrollees still participated, only returning home for holidays in the summer. It was easy work, and familiar company. Above their tents, trains carried wood south to New York City.

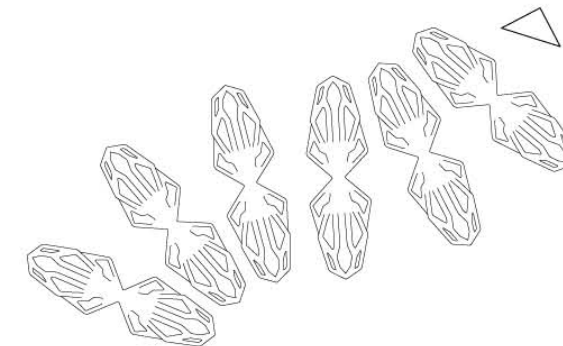
Paleocene-Eocene Thermal Maximum
A period of intense warming, brought by release of carbon en masse into the atmosphere



01 | Condition
The Road



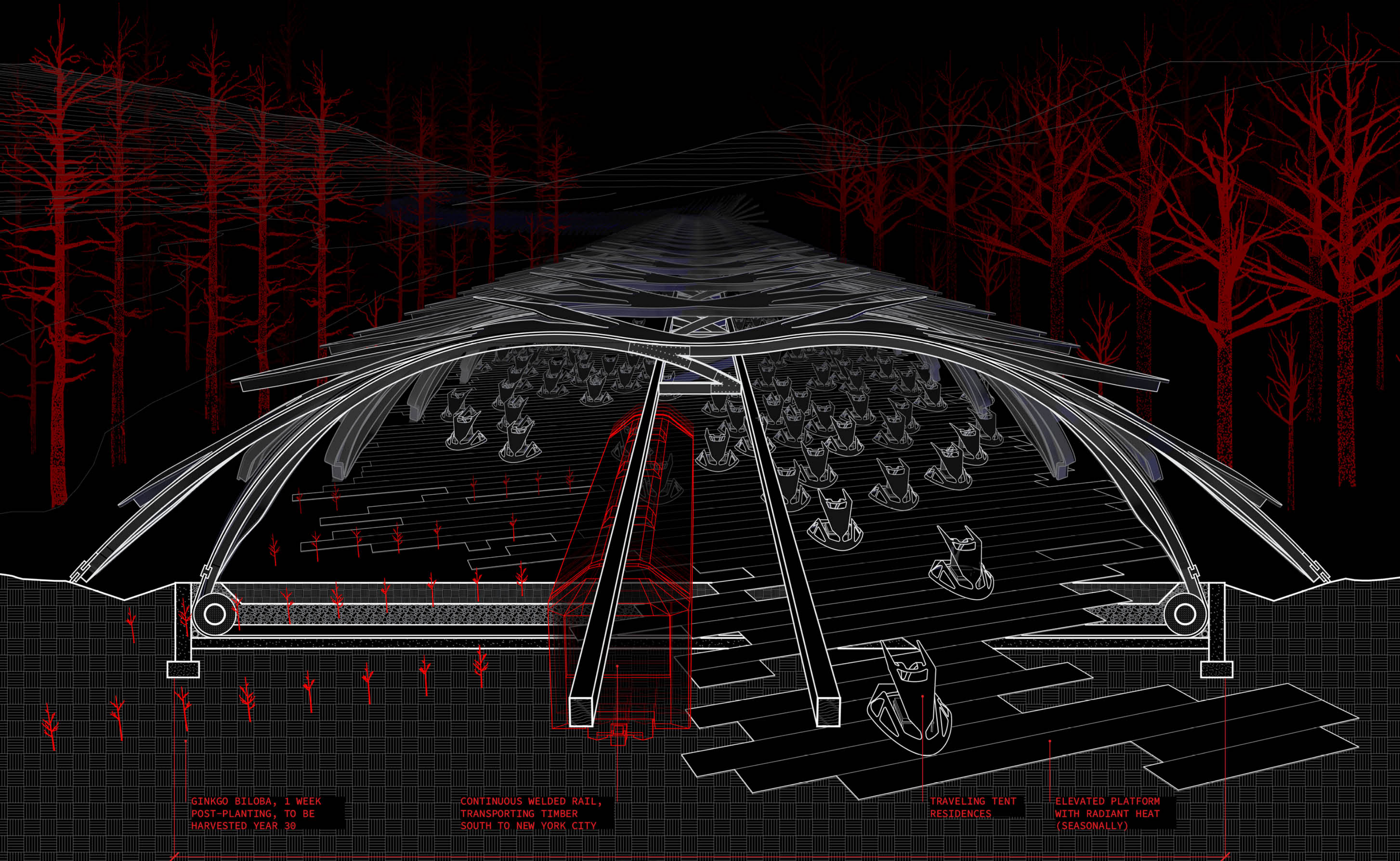
02 | Unbuild
American Interstate Matrix



03 | Construct
New Infrastructure



04 | Plant
The Future Forest



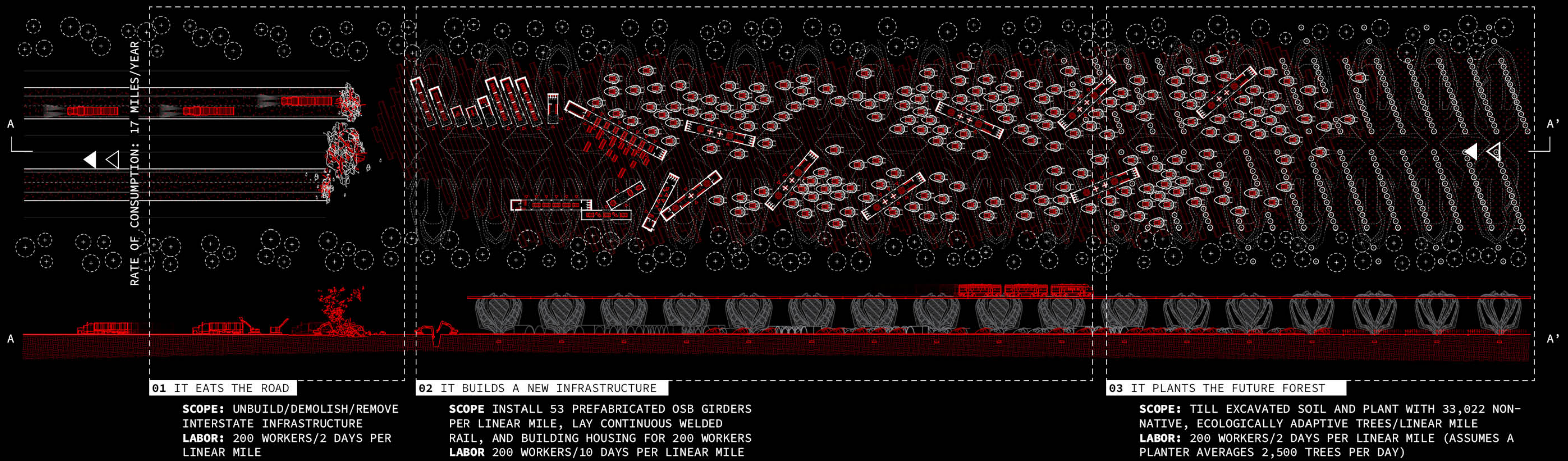
GINKGO BILOBA, 1 WEEK
POST-PLANTING, TO BE
HARVESTED YEAR 30

CONTINUOUS WELDED RAIL,
TRANSPORTING TIMBER
SOUTH TO NEW YORK CITY

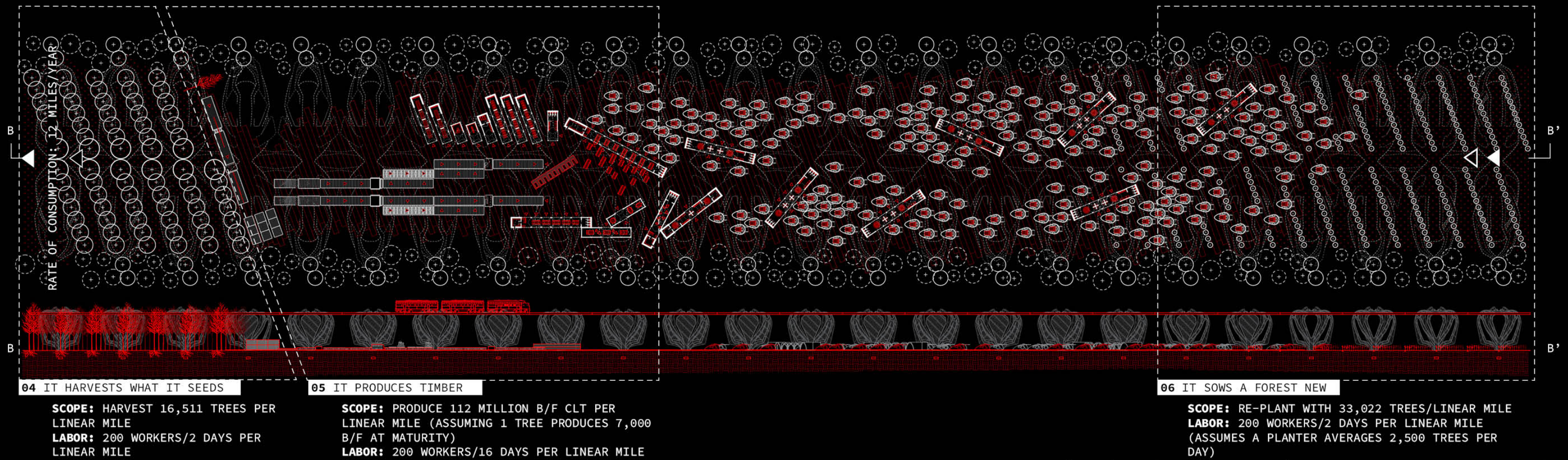
TRAVELING TENT
RESIDENCES

ELEVATED PLATFORM
WITH RADIANT HEAT
(SEASONALLY)

190'



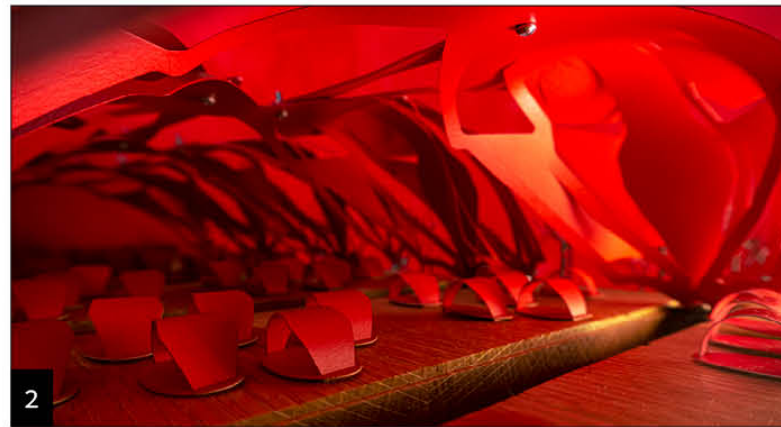
Typical Plan + Section, Year 0 (Above)



Typical Plan + Section, Year 30



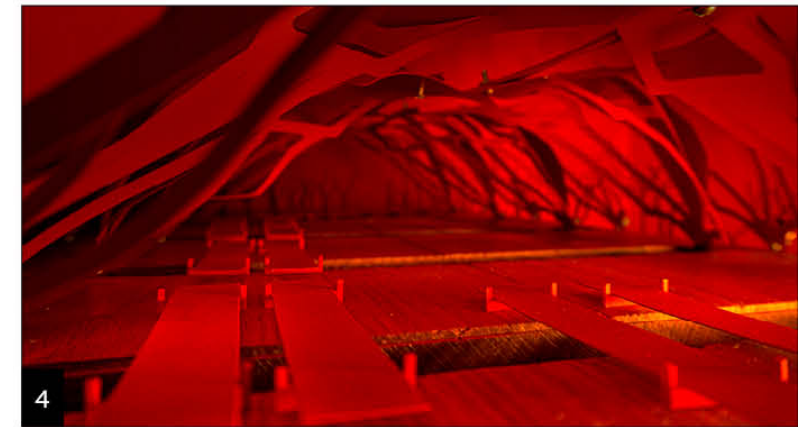
1



2



3



4



5

1-5

Cottonmouth

A paper study model is used to storyboard scenes from one participant's experience in the federal program.

1

The Road

"Sawtooth Sawyer's crush was eighteen and had tattoos, a fit figure, he wore jewelry and smoked Marlboro reds..."

2

The Camp

"It was callous, rushed, unromantic. The air smelled of dew and trains above rattled to New York City."

3

The Saplings

"Sawtooth felt an affinity to the trees, both strangers in unfamiliar landscapes -- an intoxicating anonymity."

4

The Machines

"Suddenly, he did not want to leave when the camp packed up to return to homes that felt decreasingly familiar."

5

The Harvest

"One day, the mature trees began to drop their leaves. A tattooed man sat beneath one, watching the sky uncanny orange."





Appendices

A Chamber for Future Memories

with New-Territories
Paris, France
September 2024

Team

New-Territories with Francois Roche, Emmanuele Coccia, Mika Tamori, Chris Delaporte, and Stephen Zimmerer, Intern

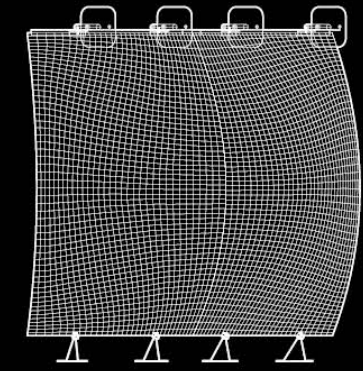
Key Words

Installation, Film, Robot

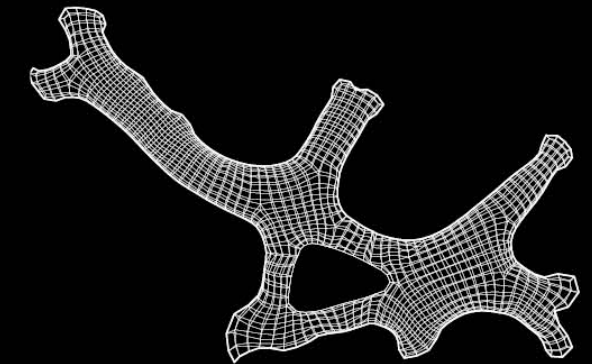
Key Dimensions
3,390 square feet

Une chambre des mémoires à venir is an apparatus built in a forgotten concrete zone forty meters beneath La Defense, the purpose-built business district on the periphery of Paris. After a preview at the Ricard Foundation in December 2022, visitors in September 2023 visited this zone of limited light and oxygen in 19-person groups led by a guide. The project was underwritten by the Mondes Nouveaux initiative of the French Ministry of Culture. This internship was completed over the course of one year between 2022-2023, during a leave of absence from Columbia University GSAPP.

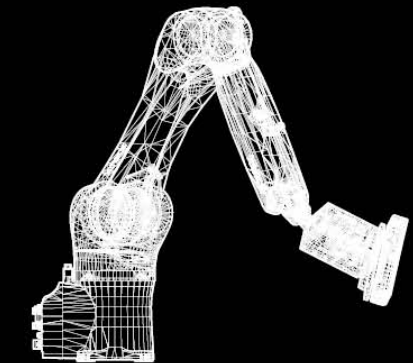
Installed within this underground chamber, a curved glass screen depicts a twelve-minute film in which three avatars perform a pantomime. The avatars are rendered as swarms of oozing bacteria, and ridicule their audience for being unable to see the future that is right before them. Piled around the screen are 170 interlocking PVC inflatables, suspended in a state of slight deflation. Hovering above the inflatables, a melancholic robotic arm plays the role of the lonely gardener. It surveys and scans its plot with a 3D scanner affixed to its head, and then generates paths of movement based upon what it witnesses. As it travels, a 30-centimeter silicone tongue emerges from the robot's latex head and gently licks the plastic with a warm bacterial solution. As such, the robot's garden of PVC spicules are already in a state of decay when they are installed, and only become more ugly, disgusting, and disappointing over the course of the installation.



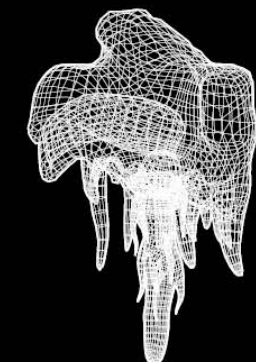
01 | Screen
Double Curved Glass



02 | Spicule
Inflatable Polyvinyl Chloride (PVC)



03 | Robot
Six-axis Robot with 3D Scanner



04 | Head
Latex with Silicone Tongue and Servo Motors

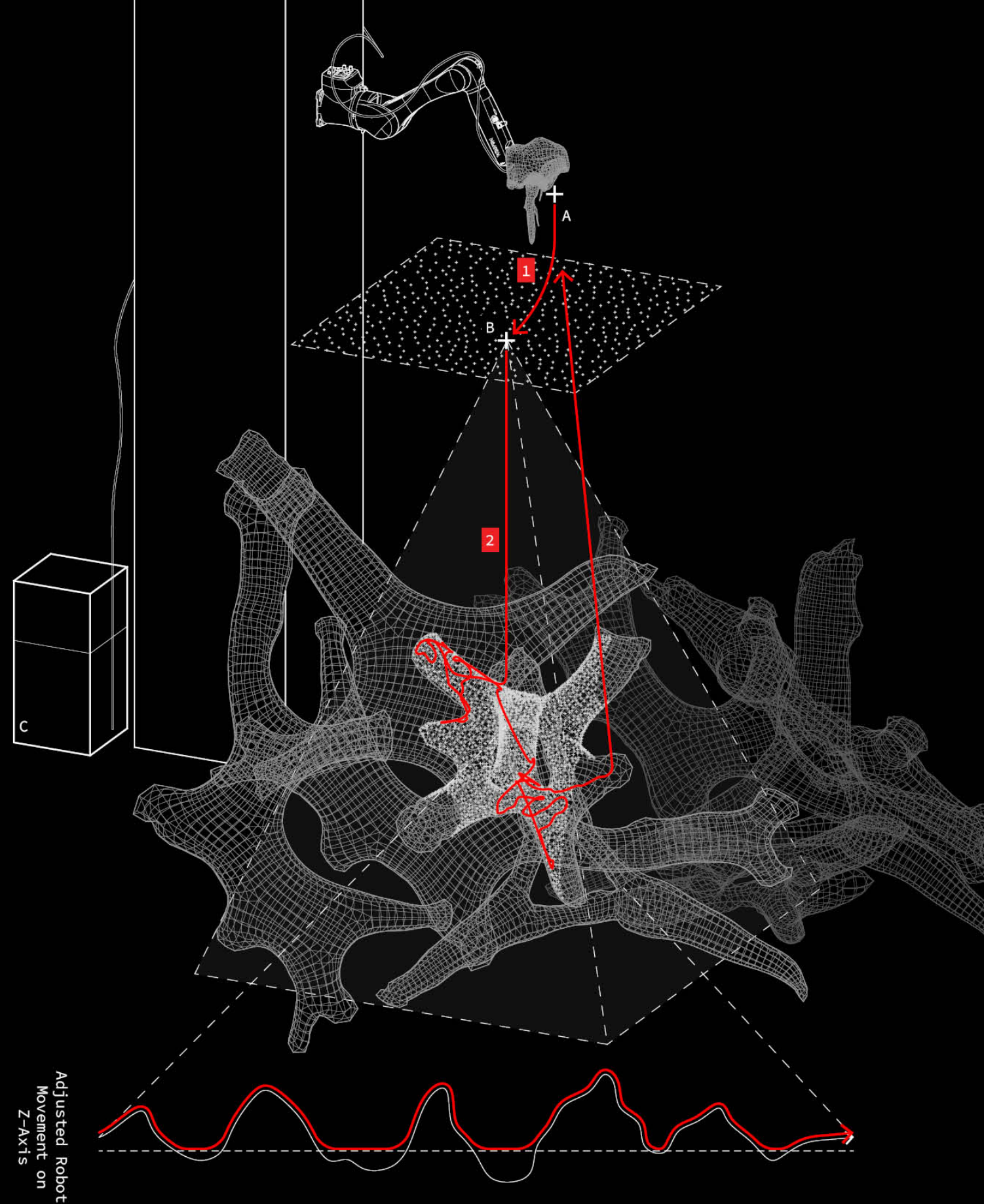
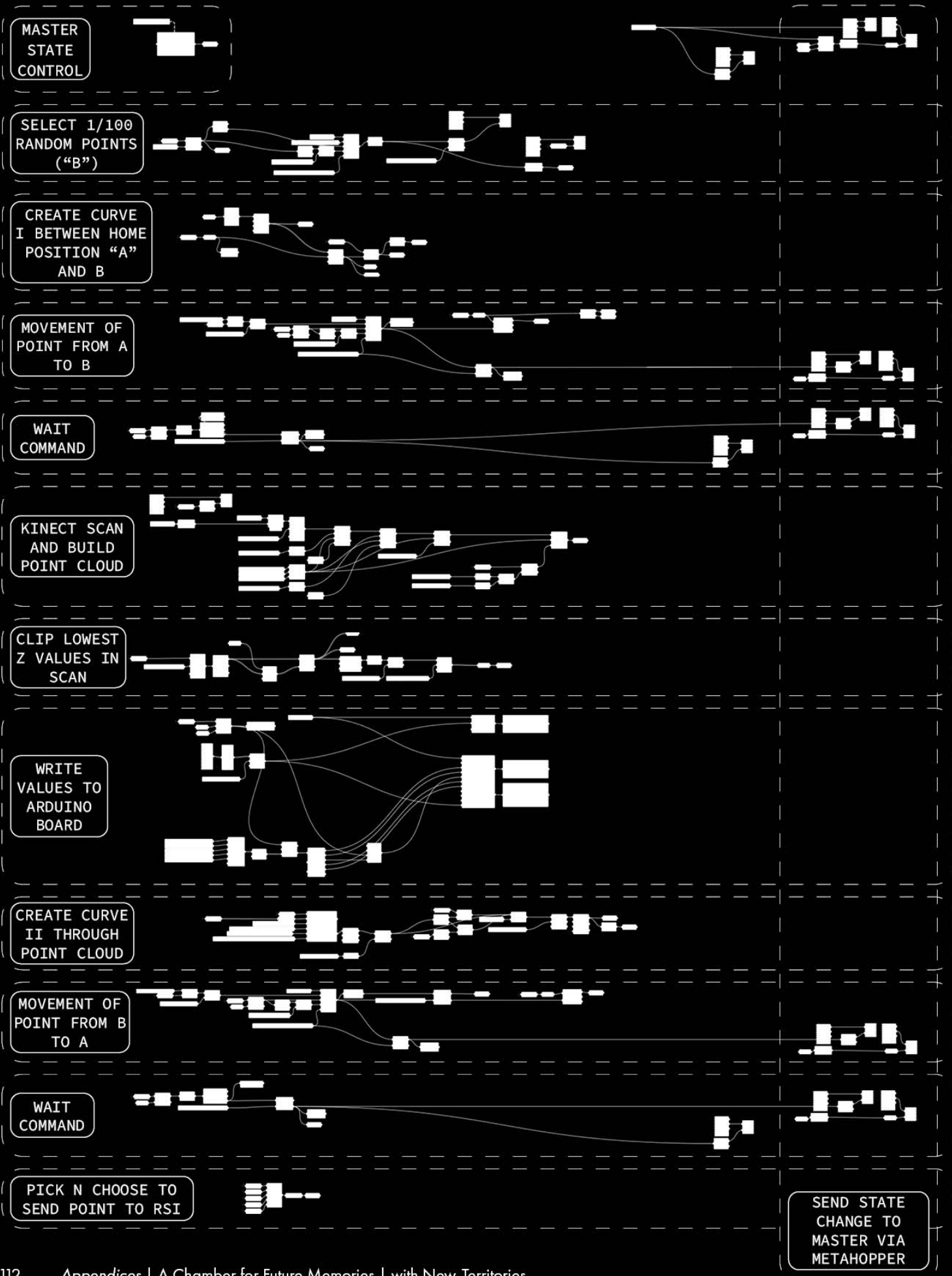


Photogaia

Petrophytis 1

Petrophytis 2

Video Still



Robotic Script

The robot runs directly through Grasshopper (opposite), facilitated by Robot Sensor Interface. It scans the inflatables, generates a path of movement, and leaks a solution stored in a tank (C) across its trajectory, before starting over again.

Desire or Pleasure

Deleuze, Foucault, and Sexual Politics After May '68

Gilles Deleuze: Thinking in Art
Professor John Rajchman
Fall 2023

Key Words
1968, Sexual Politics, Post-Structuralism

Introduction

In 1976, Michel Foucault published Volume 1 of *The History of Sexuality: The Will to Knowledge*. In recent works, Foucault analyzed how formations of knowledge and apparatuses of power become reflected in how we live and speak, with a particular interest in the political history of truth. These accounts were most recently formulated in *Discipline and Punish* (1975), which bore the mark of May '68 in shifting its analysis from formations of knowledge to apparatuses of power. His new book, which Foucault originally wanted to call “sex and truth” [01], overlaid the politics of truth upon a study of the history of sexuality.

In Volume 1, Foucault studied post-1968 sexual liberation movements as responsive to a codified body of sexual utterances which emerged throughout the 19th and 20th centuries, and which had generated, particularly through rituals of confession, penitence, and avowal, a specific extrusion of knowledge and discourse. This volume centered upon Foucault's dismissal of the repressive hypothesis: the notion, expressed by feminist and gay liberation movements of the time, that Western institutions including Christianity exerted political power through sexual repression. Instead of repressing, Foucault observed that this codified body of sexual utterances augmented sexual discourse, emphasizing the western *scientia sexualis*, which obliges us to render into language the truth of sex. Taken in their totality, these sexual

utterances became a modern European governing apparatus centered upon a distinction between that normal and the pathological, one whose development was coincident and inseparable from the rise of state racism, psychiatry, and biopower.

This paper centers upon a careful reading of “Desire and Pleasure,” a note written by Deleuze to Foucault in 1977 after the publication of Volume 1. In doing so, it situates both writers within French sexual political movements after May '68, as well as the within contours of their interpersonal relationship. Finally, it explores sexual politics—and particularly the distinction between desire and pleasure identified by Deleuze—as central to the divergent images of thought specific to both writers.

Part I

Deleuze traced his friendship with Foucault to 1962, when the two shared an interest in the French author Raymond Roussel [02]. Perhaps more foundational to their intellectual relationship was a 1967 invitation, by the East German government, of Italian scholars Colli and Montinari to make a new edition of Friedrich Nietzsche's complete works. Nietzsche's notes towards a final book, *The Will to Power*, had been published posthumously as a restricted version in 1901 by his sister, with an intention to promote Nazi anti-Semitism [03]. Following the Second World War, the

Columbia Law School.
October 25, 2016.

05 | Gilles Deleuze, “Breaking Things Open, Breaking Words Open,” interview by Robert Maggiori, trans. Martin Joughin, in *Negotiations* (New York: Columbia University Press, 1995).

06 | John Rajchman. “Deleuze's Nietzsche.” Nietzsche 13/13 (Blog). Columbia Law School. October 25, 2016.

07 | John Rajchman, “Foucault's Troublesome Hypothesis: Notes on a New History,” eds. Augustin Colombo, Edward McGushin, and Geoff Pfeifer, in *The Politics of Desire: Foucault, Deleuze, and Psychoanalysis* (Maryland: Rowman & Littlefield Publishers, 2022).

08 | John Rajchman. “Deleuze's Nietzsche.” Nietzsche 13/13 (Blog). Columbia Law School. October 25, 2016.

09 | Kevin Thompson and Perry Zurn. “Introduction: Legacies of Militancy and Theory” in *Intolerable: Writings from Michel Foucault and the Prisons Information Group (1970-1980)* (Minneapolis: University of Minnesota Press, 2021), 1-34.

10 | Ibid.

11 | Ibid.

12 | Gilles Deleuze, “Breaking Things Open, Breaking Words Open,” interview by Robert Maggiori, trans. Martin Joughin, in *Negotiations* (New York: Columbia University Press, 1995).

complete version lived in East Germany until being translated to Italian, and eventually into French in an edition organized by Foucault and Deleuze [04], initiating a “Nietzsche Renaissance” on the continent [05]. This moment marked a pivotal convergence in the relationship between Deleuze and Foucault, as well as a new translation of Nietzsche within a critical moment of philosophical, and eventually political, invention in France.

Through Nietzsche, Deleuze and Foucault both developed a refusal of The Law, and its retro-stabilizing concepts of repressed desire and transgression, as it had been positioned by Lacan, Bataille, and Levi-Strauss at the core of psychoanalytic ideas of sexuality and desire [06]. Foucault, for his part, worked through Nietzsche to develop a political history of the confession and a political materialism of the body in which power was not simply exclusionary but also positive and productive, to be reflected in his repressive hypothesis [07]. From Nietzsche, and through Spinoza and Masoch, Deleuze developed an interest in a materialism of the body related to what it could do and as a pure immanence, prior to any Law. While others in France, including Derrida and Lyotard, posited a re-establishment of the idea of The Law in some form, Deleuze and Foucault shared a consensus that sexual politics needed to move beyond ideas of judgment, the Court of Reason, or any sort of transcendent Law and to search for anti-juridical conceptions of power [08]. These mutual interests were reflected in 1972's *Anti-Oedipus* (for Deleuze and his collaborator, Félix Guattari) and in Foucault's lectures on truth and juridical forms in Rio de Janeiro in 1973.

In 1970, Foucault began teaching at the College de France, where his inaugural course was connected with practices of confession and Nietzsche's “will to truth.” Between this time and 1977 he and Deleuze participated in many interviews together. Central to their friendship was the Group for Information on Prisons, or G.I.P., established in 1970 to circulate information about the inhumane conditions within the French Prison system following the government repression of radical activists [09]. Foucault was recruited to serve as director of the G.I.P. by a group including his partner Daniel Defert, himself an experienced activist and leading member of the Organization of Political Prisoners. While the G.I.P. employed many protest techniques, its most unique were its “intolerance investigations,” which became the basis for four *Intolerable* booklets published from 1971 to 1973 [10].

Foucault's G.I.P. was less interested in prison abolition than in collecting and making public “as much information as possible about prison conditions” [11], and in creating a space within which

prisoners could speak and act for themselves. Deleuze admired and participated in this group: he considered it a transversal group, of the type described by Félix Guattari, as opposed to hierarchical groups in which one participant speaks on behalf of the others [12]. For Foucault, the G.I.P. marked a complication of his conception of power, which he had previously mapped in *Madness and Civilization* (1961) and *The Order of Things* (1966). In these earlier projects Foucault used “a purely negative conception of power,” and yet “it seemed...after a while, that this was insufficient, and...that power should not be considered in terms of law but in terms of technology, in terms of tactics and strategy” [13]. He most comprehensively mapped this tactical and strategic grid in *Discipline and Punish* (1975), before attempting to redeploy it the following year in Volume 1 of *The History of Sexuality*.

Recherches was a corresponding review of another transversal group, the C.E.R.F.I. (Federation of Groups for Institutional Study & Research), established in 1966 by Félix Guattari. In 1973, *Recherches* eschewed their funding from the French state to produce their twelfth special issue, “Three Billion Perverts: The Great Encyclopedia of Homosexualities.” Over six months, the issue was produced by several members of the F.H.A.R., or Homosexual Revolutionary Action front, a group that met between 1971 and 1976, whose representatives included Guy Hocquenghem. Its text and layout were collectively written and produced by its 36 authors including Gilles and Fanny Deleuze, Guattari, Hocquenghem, and Foucault.

In his prefatory note to the *Recherches* #12, Guattari declared that “it is not sufficient to “give voice” to the subjects concerned,” and that the issue was about creating “the conditions for a total, indeed a paroxysmic, exercise of that enunciation” [14]. As such, for both its contributors and content, the issue can be considered as a product of May '68 alongside Foucault's G.I.P., which sought to give voice to the average prisoner instead of to a judge, or policeman, or model convict. To Guattari, a skeptic of transgression, the only thing “shocking” about this issue was that the homosexual was allowed to speak freely; what was at stake were precisely the political values of 1968, of “finally [allowing] people to express themselves without having recourse to ‘representatives’” [15].

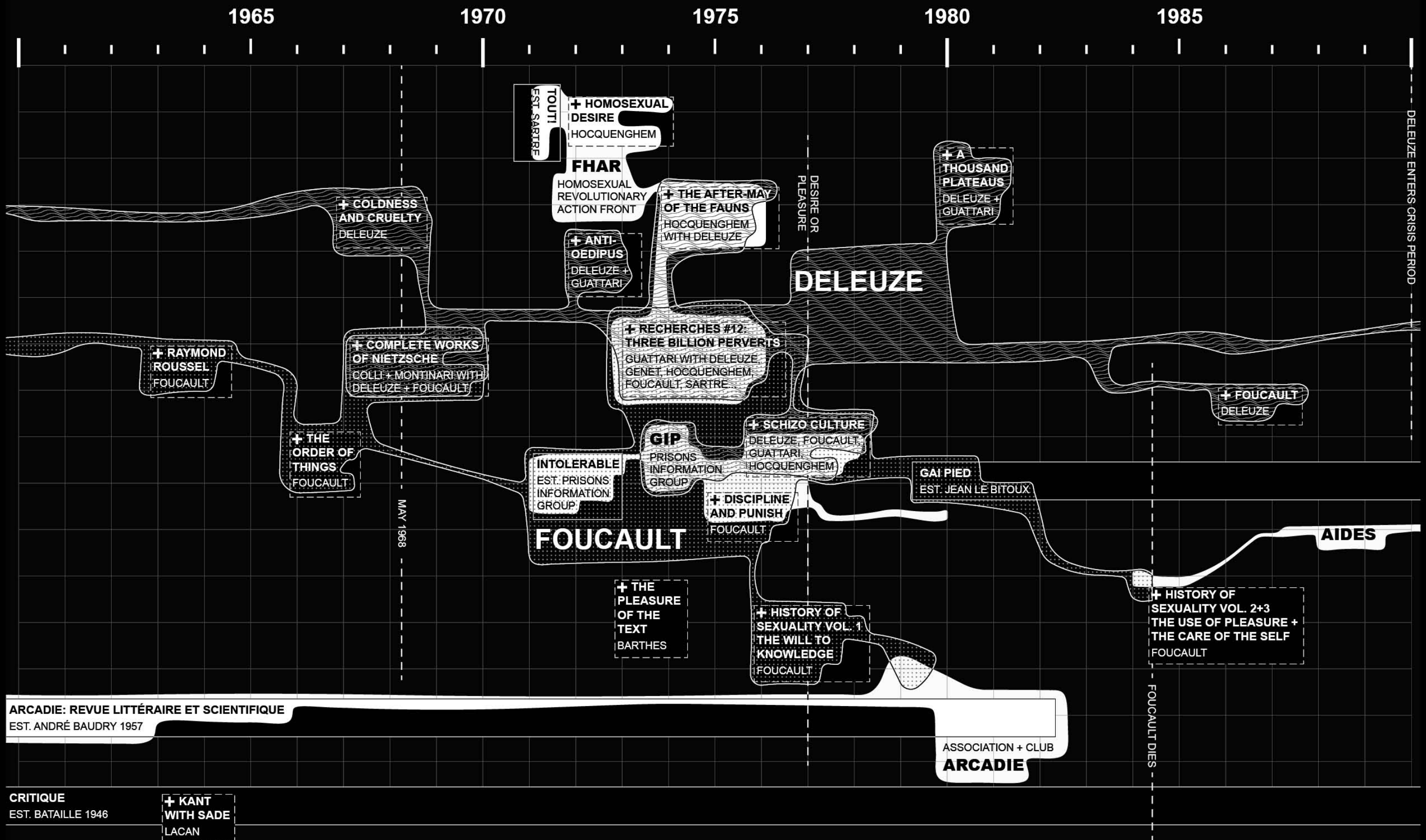
Through “Three Billion Perverts,” Deleuze and Guattari promoted the revolutionary capacity of desire, lending it an intellectual focus that became foundational to their thinking and would eventually be contested by Michel Foucault, despite the latter's participation in the publication and its afterlife. Desire, to Deleuze and Guattari, was everything which overflows from us without origin or goal, not indicating lack, but constituting lines of flight on the

01 | John Rajchman, “Foucault's Troublesome Hypothesis: Notes on a New History,” eds. Augustin Colombo, Edward McGushin, and Geoff Pfeifer, in *The Politics of Desire: Foucault, Deleuze, and Psychoanalysis* (Maryland: Rowman & Littlefield Publishers, 2022).

02 | Gilles Deleuze, “Breaking Things Open, Breaking Words Open,” interview by Robert Maggiori, trans. Martin Joughin, in *Negotiations* (New York: Columbia University Press, 1995).

03 | Gilles Deleuze, “Nietzsche,” trans. Anne Boyman, in *Pure Immanence: Essays on a Life* (Brooklyn: Zone Books, 2021).

04 | John Rajchman. “Deleuze's Nietzsche.” Nietzsche 13/13 (Blog).



Diagram

13 | Michel Foucault, “27. Power Affects the Body,” trans. Jeanine Herman, in *Foucault Live (Interviews, 1961-1984)* (New York: Semiotext(e), 1989).

14 | Félix Guattari, “1. Prefatory Note” in “Three Billion Perverts on the Stand,” trans. Gary Genosko, in *The Guattari Reader* (Cambridge, Massachusetts: Blackwell Publishers Inc., 1996).

15 | Félix Guattari, “3. 17th Magistrate’s Court” in “Three Billion Perverts on the Stand,” trans. Gary Genosko, in *The Guattari Reader* (Cambridge, Massachusetts: Blackwell Publishers Inc., 1996).

16 | Gilles Deleuze, “Preface to Hocquenghem’s *L’Après-Mai des faunes*,” trans. Michael Taormina, in *Desert Islands and Other Texts*, ed. David Lapoujade, 1953-1974, (Pasadena: Semiotext(e), 2004).

17 | Ibid.

18 | Félix Guattari, “3. 17th Magistrate’s Court” in “Three Billion Perverts on the Stand,” trans. Gary Genosko, in *The Guattari Reader* (Cambridge, Massachusetts: Blackwell Publishers Inc., 1996).

19 | Félix Guattari, “Trois milliards de pervers a la barre,” trans. Sophie Thomas, in *La Révolution Moléculaire*, (Fontenay-sous-Bois: Encres/Recherches, 1977).

20 | Michel Foucault, “Testimony at the Trial of Félix Guattari,” Trans. Gila Walker, *Glass Bead* no. 2 (2019).

21 | Ibid.

22 | Félix Guattari, “Trois

collective field of immanence. Desire was something irreducible, a matter of “experimentation and not interpretation,” which psychoanalysis had therefore never been able to tolerate [16]. Aligned with militant gay values of the F.H.A.R., the group were unconcerned with the liberation of sexual minorities as such, but rather with how the gay, like the schizo, was a site of revolutionary potential, a disruption in society through desire.

In later interviews, Guattari remarked that all forms of sexuality are linked to homosexuality and to becomings-woman, going so far as to assert that there is no hetero-sexuality, since desire “always belongs to a minority” and since any semiotics of the body are repressed by capitalist and bureaucratic systems. Deleuze described homosexual desire as a strategy, one without social utility, for opening “all sorts of possible new relations...essentially reversible, transversal relations, with as many sexes as there are assemblages, not even excluding new relations between men and women” [17]. Homosexuality was a tool, then, and what was at stake for the group was the freedom of desire through the becoming-minoritarian of all sexual practices.

Guattari had been in Canada for a conference at the time of the journal’s publication. He returned to Paris to find police had searched the premises of his apartment and padlocked the door, searching all of his belongings and papers, as well as his clinic of La Borde [18]. The issue had been judged to constitute a “detailed display of turpitude and sexual deviation,” the “libidinous exhibition of a minority of perverts” [19], and Guattari was taken to trial.

Foucault was called upon to testify at the trial, which was framed as a dispute over whether the issue constituted pornography. In his testimony, Foucault declared the pornography issue a smokescreen, and that the censorship was concerned with two more fundamental questions: whether homosexuality could be granted rights as a sexual practice, and whether practicing sexuality might constitute a political right [20]. Foucault identified that political freedom was at stake in the trial, and the question of whether subjects would be able to regain possession of their bodies for uses other than workforce agents [21]. The testimony was a failure, all copies of the issue were ordered to be destroyed, and Guattari was fined 600 francs for affronting public decency [22].

Deleuze, Guattari, and Foucault were brought back together two years later for the *Schizo-Culture* conference at Columbia University in November 1975. At the event, Guattari participated in a panel discussion on psychiatry and its critiques. Deleuze shared his first notes on the theory of the rhizome, and Foucault shared his on sexual repression. When it was published the following summer, Volume 1 of

The History of Sexuality was devoid of documentation of masturbation, incest, or perversion. It was a short and abstract volume centered upon the repressive hypothesis.

Interlude: “Desire and Pleasure”

Volume 1 of *The History of Sexuality* initiated a discord between Deleuze and Foucault, opening a divergence that proved permanent. “Desire and Pleasure” was a collection of notes on that Deleuze asked Francois Ewald—then assistant to Foucault—to deliver in 1977, one year after the publication of Volume 1. The note could be read as a breakup note, for saying that Deleuze was no longer interested in what Foucault was working on, and for the fact that the two would not speak thereafter until the occasion of Foucault’s death. According to Ewald’s account, Deleuze wrote it to extend the support of his friendship to Foucault, who had begun suffering a crisis following the publication of Volume 1 [23].

In the letter, Deleuze offered an alternative diagram of power, desire, and resistance to the one drawn by Foucault, with desire maintaining primacy over power. To Deleuze, desire and power were both vectors located within historically contingent assemblages. These assemblages were composed of territorializations and deterritorializations, processes of stratification and flight lines of desire, with the latter leaking out constantly on all sides. In this image, power arrangements surface whenever reterritorialization takes place, sealing off and stratifying lines of flight. Deleuze countered Foucault’s repressive hypothesis by observing a repressive effect at work whenever power arrangements stamped out the tips of desire: reducing the assemblage of sexuality, for example, to the molar agency of sex [24]. While Foucault believed power normalizes and disciplines, Deleuze believed power arrangements stratify and reterritorialize.

At the root of the discord was the primacy given to desire and pleasure respectively. Foucault, for his part, had become deeply skeptical of desire. As Deleuze remarked in the letter,

“The last time we saw each other, Michel kindly and affectionately told me...I can’t stand the word desire...I can’t stop myself from thinking or experiencing the fact that desire = lack, or that desire is repressed...So, what I call ‘pleasure’ is maybe what you call ‘desire,’ but in any case, I need a word other than desire” [25].

Foucault believed there was nothing revolutionary about desire, that it was just a refraction of the modern European apparatus of sexuality.

In his letter, Deleuze countered by reasserting

milliards de pervers a la barre,” trans. Sophie Thomas, in *La Révolution Moléculaire*, (Fontenay-sous-Bois: Encres/Recherches, 1977).

23 | David Lapoujade, Sources for “Desire and Pleasure,” in *Two Regimes of Madness*, ed. David Lapoujade (Pasadena: Semiotext(e), 2007).

24 | Gilles Deleuze, “Desire and Pleasure,” trans. Ames Hodges and Mike Taormina, in *Two Regimes of Madness*, ed. David Lapoujade (Pasadena: Semiotext(e), 2007).

25 | Ibid.

26 | Ibid.

27 | Gilles Deleuze, “Breaking Things Open, Breaking Words Open,” interview by Robert Maggiori, trans. Martin Joughin, in *Negotiations* (New York: Columbia University Press, 1995).

28 | Ibid.

29 | Michel Foucault, “27. Power Affects the Body,” trans. Jeanine Herman, in *Foucault Live (Interviews, 1961-1984)* (New York: Semiotext(e), 1989).

30 | Gilles Deleuze, “Foucault and Prison,” trans. Ames Hodges and Mike Taormina, in *Two Regimes of Madness*, ed. David Lapoujade (Pasadena: Semiotext(e), 2007).

31 | Gilles Deleuze, “Desire and Pleasure,” trans. Ames Hodges and Mike Taormina, in *Two Regimes of Madness*, ed. David Lapoujade (Pasadena: Semiotext(e), 2007).

32 | Gilles Deleuze,

that desire is revolutionary, that it includes no lack, and that it was he who could not stand the concept of pleasure:

“Desire is wholly a part of a functioning heterogeneous assemblage. It is a process...it is a haecceity...it is an event, not a thing or a person...it implies the constitution of a field of immanence or a body-without-organs, which is defined by zones of intensity, thresholds, degrees and fluxes. This body is as biological as it is collective and political” [26].

The body-without-organs is opposed to all strata or organization, power or territorialization. Deleuze found pleasure on the side of the strata, interrupting the process of desire, and he refused to give it any positive value. Pleasure, to Deleuze, was re-territorialization.

Part II

Foucault announced *The Will to Knowledge* as the first part of a five volume project elaborately reconsidering questions of power. He subsequently entered a crisis period and abandoned the plan, and nearly the project altogether, refocusing through his studies on the political history of truth and truth-saying. Over the subsequent decade, his lectures and courses focused on processes of subjectification, including themes of refusal, disobedience, and dissidence in the governing of the self and others. These lectures were not attended by Deleuze, with whom he had stopped speaking following the publication of “Desire and Pleasure.” Concerning the period, Deleuze remarked that “[Foucault] wanted to be left alone, to go where none but his closest friends could follow him. I needed him much more than he needed me” [27]. Foucault did not publish any books at this time.

Deleuze and Foucault had been allies in thought. Deleuze described the two as having been on the same side, and as having had the same enemies, alongside Félix Guattari, Jean-François Lyotard, François Châtelet, and René Schérer [28]. They shared a core belief that truth is a matter of this world and of its many possibilities, prior to any mystical Law, Judgement, or Reason. Yet these alliances in belief were accompanied by two radically different images of thought, one tethered to desire and the other pleasure, each indicating its own working methods and purposes, divergent conceptions of society and metaphors for resistance.

The image of thought associated with Foucault is architectural and analytic, a hidden apparatus which allows everything visible and audible to be seen and heard. It is the map of Bentham’s panopticon, a

precisely rendered diagram of knowledge and power. Deleuze referred to this image as the transcendent plane of organization and development, linked to—though separate from—the State. This image is a tactical grid in which pleasure and power are enmeshed as strata of organization, in which “different instances or different resting points of power [are] caught...in the pleasure of their exercise” [29]. By Deleuze’s telling, what surprised Foucault was that, faced with all of this devious power, society could still resist [30].

The image of thought associated with Deleuze is fluid, flight lines of desire that constantly escape outwards in every direction. There is no development, only degrees of speed and slowness. It is the dreamlike field of immanence, or body-without-organs, where assemblages are made and then trace their flight lines, in turn opposed to all strata and organization [31]. Society to Deleuze was fluid, even gas, leaking out on all sides, fueled by desire. Resistance, to Deleuze, was a question of finding the assemblage capable of implementing this war-machine diagram of flight lines. What surprised Deleuze was that, faced with all of these leakages and flows, governments could still hold power.

These divergent images help to understand the development of Foucault’s thought, and in particular the period of crisis he entered following the publication of *The Will to Knowledge*. Throughout his life, Foucault’s thought underwent volatile progressions; instead of gradual developments, his thinking experienced significant rethinking and reformatting following moments of crisis, which provided “the mark of its ultimate consistency” [32]. In 1976, Foucault entered one such period of crisis.

Foucault’s crisis period could be attributed to a disappointment about the way things were going as May ‘68 receded into the background with regards to the failure of the prison movement, revolutions in Iran and Poland, and French social and cultural life broadly [33]. Yet the crisis was related to internal factors within the development of Foucault’s thought as well. To Foucault, thinking was a way of grasping something’s limit, its Outside, its mortality—even his own [34]. If the ambition of Foucault’s thought was the precise completion of the analytic diagram, his life was punctuated by points of finitude and completion in which he was faced with no option but to stop writing altogether or to pursue a new discovery, a radical rewriting, thrown back onto the open sea.

The Will to Knowledge remained largely within the contours of Foucault’s established analytic method, analyzing how formations of knowledge and power are reflected in the ways we live and speak, and historicizing the present into our understanding of Truth. And yet the work brought Foucault to an

“Breaking Things Open, Breaking Words Open,” interview by Robert Maggiori, trans. Martin Joughin, in *Negotiations* (New York: Columbia University Press, 1995).

33 | Gilles Deleuze, “A Portrait of Foucault,” interview by Claire Parnet, trans. Martin Joughin, in *Negotiations* (New York: Columbia University Press, 1995).

34 | Gilles Deleuze, “Foucault and Prison,” trans. Ames Hodges and Mike Taormina, in *Two Regimes of Madness*, ed. David Lapoujade (Pasadena: Semiotext(e), 2007).

35 | Gilles Deleuze, “A Portrait of Foucault,” interview by Claire Parnet, trans. Martin Joughin, in *Negotiations* (New York: Columbia University Press, 1995).

36 | Mitchell Dean and Daniel Zamora, *The Last Man Takes LSD: Foucault and the End of Revolution* (Verso: Brooklyn, 2021).

37 | Gilles Deleuze, “Life as a Work of Art,” interview by Didier Eribon, trans. Martin Joughin, in *Negotiations* (New York: Columbia University Press, 1995).

38 | David Lapoujade, Sources for “What is a Dispositif?” in *Two Regimes of Madness*, ed. David Lapoujade (Pasadena: Semiotext(e), 2007).

39 | Gilles Deleuze, “Desire and Pleasure,” trans. Ames Hodges and Mike Taormina, in *Two Regimes of Madness*, ed. David Lapoujade (Pasadena: Semiotext(e), 2007).

impasse, left to wonder whether beyond power was anything at all. Foucault’s analytic image of thought, a diagram rendered so complete and precise, had left him “mesmerized by and trapped in something he hated” [35].

While Foucault’s earlier books analyzed apparatuses of power behind knowledge, his later work became concerned with the modes of subjectification behind power: what separates us from ourselves. If Foucault needed to add a third dimension—subjectification—to those of knowledge and power, it was because he had reached the end of the line, the completion of the diagram. Self, to Foucault, represented a relation of force to itself, as opposed to power, which described the relation of force to other forces. Practices of the Self were not about persons or identities, but about individuated fields of intensity. Through the lens of subjectification, Foucault refocused his interest upon Ancient Greece, which had invented practices of the self by creating the concept of the free man, of the man who governs himself.

This final chapter was cut short in 1984, when Foucault died suddenly to AIDS. The disease had originally been misdiagnosed, and he only had a period of about 5 months where he knew he was going to die. Volumes 2 and 3 of *The History of Sexuality* were put together hastily as Foucault was dying, and shifted his focus from the sexual apparatus of modern Europe, with its questions of sexual identity and normality, to the role of sex in ancient Greece and Rome. The originally-planned Volume 2 of *The History of Sexuality* was published in 2018 as Volume 4, *Confessions of the Flesh*, a posthumous collection of his notes on the subject. Following his death, his partner, Defert, set up another transversal group, AIDES, organizing simultaneous support, information, and struggle for those living with the virus.

Defert suggested that even AIDS had been interpreted by Foucault as a limit-experience, a reckoning with his own subjectivity and practices of the self. In the face of death, the author discovered new solidarities being created in the sauna subcultures of San Francisco [36]. Understood as such, Foucault’s later lectures on governance, dissidence, truth-saying were about subjectification and individuation, about establishing alternative ways of existing upon and folding this line which traces the Outside. Alongside power and knowledge, they sketched an emergent, three-dimensional figure of the present.

Deleuze, for his part, entered a period of crisis a few years after the death of Foucault, and lived in seclusion from 1987 until his death in 1995. Foucault was the only contemporary thinker Deleuze focused seriously on, let alone devoted an entire book to. He described the logic of Foucault’s thought as “one of

the greatest of modern philosophies” [37]. His last public intervention, the 1988 conference paper “What is a Dispositif?,” can be read as a love letter to his friend [38].

Conclusion

At the end of “Desire and Pleasure,” Deleuze wrote, perhaps tongue in cheek, that “it is not a coincidence if Michel emphasizes Sade, and I, on the contrary, Masoch” [39]. Following his 1967 essay *Coldness and Cruelty*, Deleuze aligned himself once again with Masoch and against Sadistic pleasure, itself an interruption in the positive flow of desire.

To speak crassly, perhaps Deleuze was suggesting Foucault a sadistic dominant, and he a masochistic submissive, if for the passages of de- and reterritorialization implied by each. Deleuze was, after all, a philosopher of absolute deterritorialization—of a deterritorialization so absolute that one cannot go back, left with no prior referents. The destruction of the superego in the mystical, masochistic war-machine of the present. Perhaps, then, the volatile progression of Foucault’s thought, with his crises and reformattings, could be understood through the trope of the Sadistic dominant and his architectural diagram, having finally exhausted the precision of pleasure and the pleasure of precision. In a sea of cold atheism, he comes face to face with his own mortality.

Where does this story of radical sexual politics, with its abrupt ending on the doorstep of the AIDS Epidemic, leave the questions raised by *The Will to Knowledge* and “Desire and Pleasure” today? Though having broken apart decades before, militant groups such as the F.H.A.R. were decimated by the virus, paving the way for a respectabilization of the gay movement and normalization of gay rights, exactly as feared by Hocquenghem in his 1978 contribution to *Schizo-Culture*.

It is impossible to say what an alternative, or finished, history of sexuality project might have contained. Over the 40 years since Foucault’s death, liberal Western cultural figures and politicians normalized gay rights by painting the portrait of homosexuality as innate, and therefore a biological imperative for legal rights. Against the disappointment and shortcomings of this landscape—not in the least of which is its tenuous stability—Foucault’s hypothesis of a sexuality that is culturally learned remains an insurgent tool, a strategy and counter-narrative.

