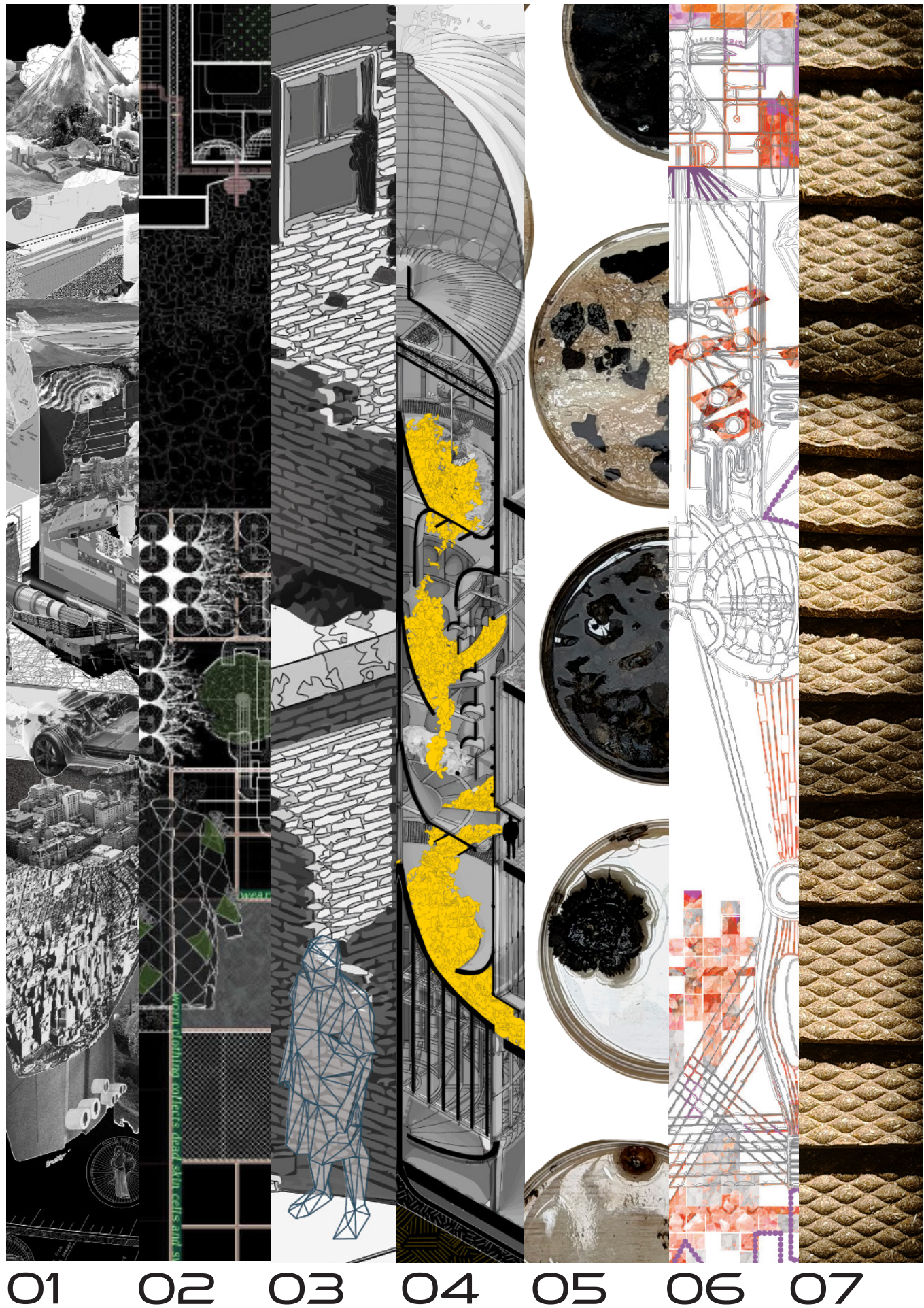


SHANNON LEVKOVITZ



SYNCRETIC
PRACTICES
INTEGRATION THROUGH TENSION



01 02 03 04 05 06 07

To design is to acknowledge that nothing exists in isolation.

What happens at the scale of a wall, a material mix, or a detail reverberates outward, activating systems far beyond our immediate neighborhoods and fields of vision. There is no linear chain of cause and effect, only entangled systems in constant exchange. Matter carries memory, energy carries consequence, and decisions made at the architectural scale propagate across bodies, territories, and time.

A syncretic practice operates across disciplines and scales not to resolve complexity, but to remain accountable to it. Architecture becomes a site of convergence where materials, environments, and infrastructures actively shape daily rituals and livelihoods, conditioning bodily and psychological health. In this role, architecture acts as a mediator, bringing people into closer relationship with nature and setting in motion chains of interaction that reshape how we think about, value, and act upon our environment.

Our buildings are sealed, sterilized, and optimized, yet our bodies grow increasingly fragile inside them. In designing environments to replace natural processes, we have displaced the very systems that once cared for us. I challenge the rituals of daily life under these conditions, investigating architecture as an orchestrator between human and nonhuman, body and environment, health and well-being.

I approach buildings not as inert enclosures, but as spatial and material calibrations that reintroduce the body to the conditions it has evolved with, rather than shielding it from them entirely. How might ancestral materials, microbial life, and ecological intelligence be re-partnered with contemporary tools to support bodily and psychological health?

My journey in unfolding architecture's essence will never cease to retain the microbial scale in the urban, the wearable in the geological, the planetary in the domestic, and the ground in our walls.

All around us, landscapes are shifting: Data centers, electronic scrap yards, and machine infrastructures are materializing themselves as graveyards of human data - monuments to a world spinning too fast to contain itself.

This cosmogram serves as evidence of these ends of worlds, Technospheres of acceleration is a planetary clock, a map of entanglements and extractions tracing the metaphysical cloud, that floating, invisible web of data as it manifests deep within the physical ground of Earth and all the way to the galaxies. Here we ask what are the material realities of the digital age?

This planetary drawing traces the hidden ecological and human costs embedded within the infrastructures that sustain modern life. The cosmogram maps entanglements across scales: from lithium and copper mines in South America, Africa, and South Asia, to data centers, electronic waste sites, landfills, and urban infrastructures in New York City.

This work asks a central question: What does it truly take to power a city? Beneath the polished image of technological progress exists an immense material network of extraction, labor, contamination, and displacement. The “cloud” is not immaterial; it is grounded in mines, servers, energy grids, petrochemical systems, and damaged ecologies. Data centers, electronic scrap yards, and logistical infrastructures become monuments to accelerated modernity—sites where landscapes, bodies, and atmospheres absorb the externalities of contemporary life.

The cosmogram becomes both a map and a methodology. It established the foundation for the projects that followed, where these planetary systems were examined through the concentrated territory of Newtown Creek. If the cosmogram revealed the global system, Newtown Creek became its localized manifestation, an extreme convergence of petrochemical infrastructure, waste transfer, contaminated waterways, housing, and everyday life.

Across each semester, I focused on a different layer of Newtown Creek. I began at the urban scale, studying the proximities between refineries, industrial infrastructures, housing, schools, and community spaces to understand how toxicity becomes embedded within daily life.

I then moved inward, examining housing conditions and the ways environmental exposure enters the body through air, soil, water, and material systems.

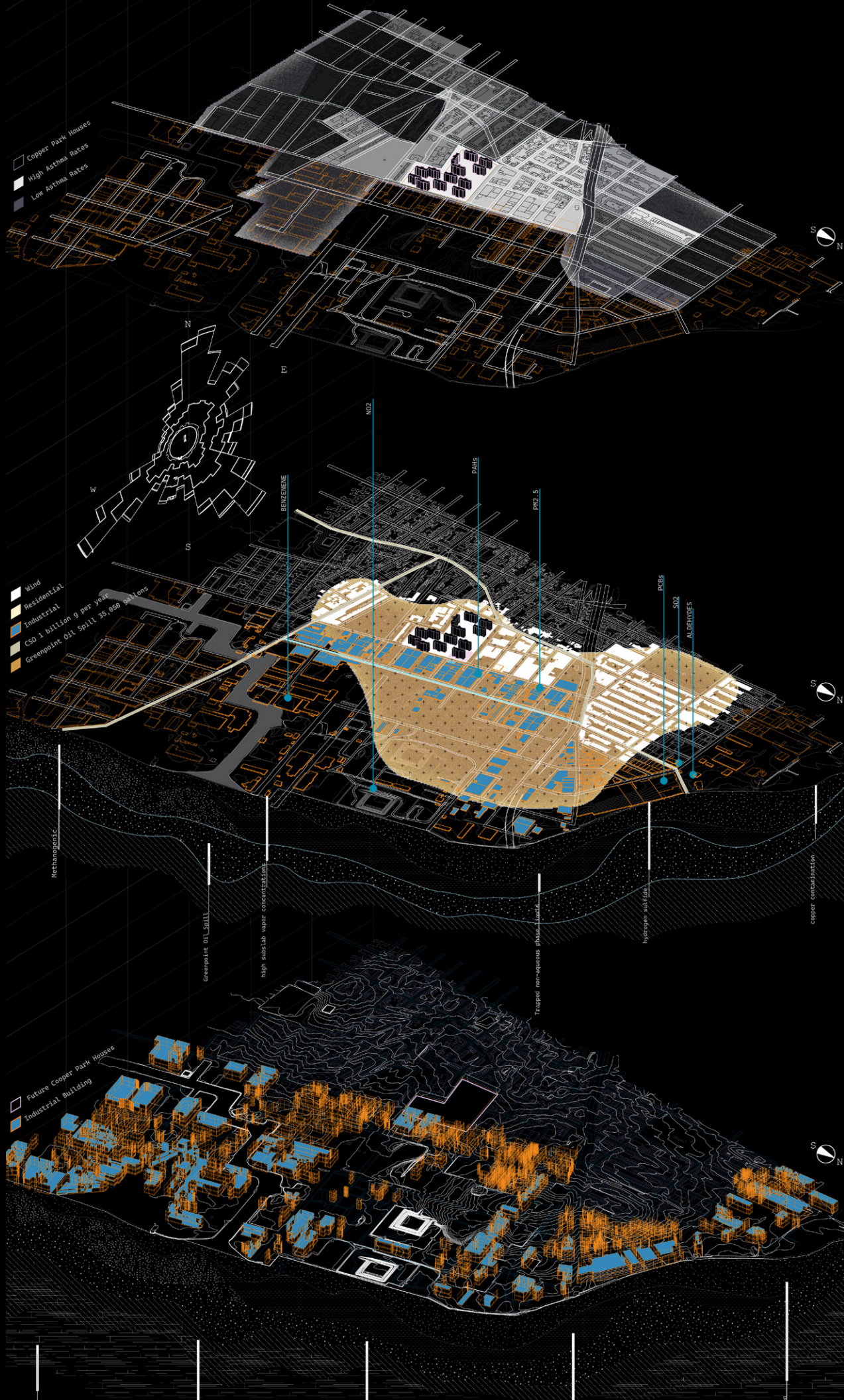
Underlying all of this work is a broader position: toxicity is a condition embedded within sites architects will inevitably encounter. The medicalization of architecture; the recognition that buildings and infrastructures actively shape bodily and ecological health, becomes an important framework for design. By understanding the global material systems activated through construction, extraction, and conventional remediation practices such as sealing and capping, architects can begin to operate with greater agency. These sites should be understood as opportunities for regeneration. How might contaminated sites become biodiverse and ecologically productive? How might localized waste and toxic material streams become resources for renewal rather than displacement? These are viable ambitions for architecture operating within the realities of the contemporary world.

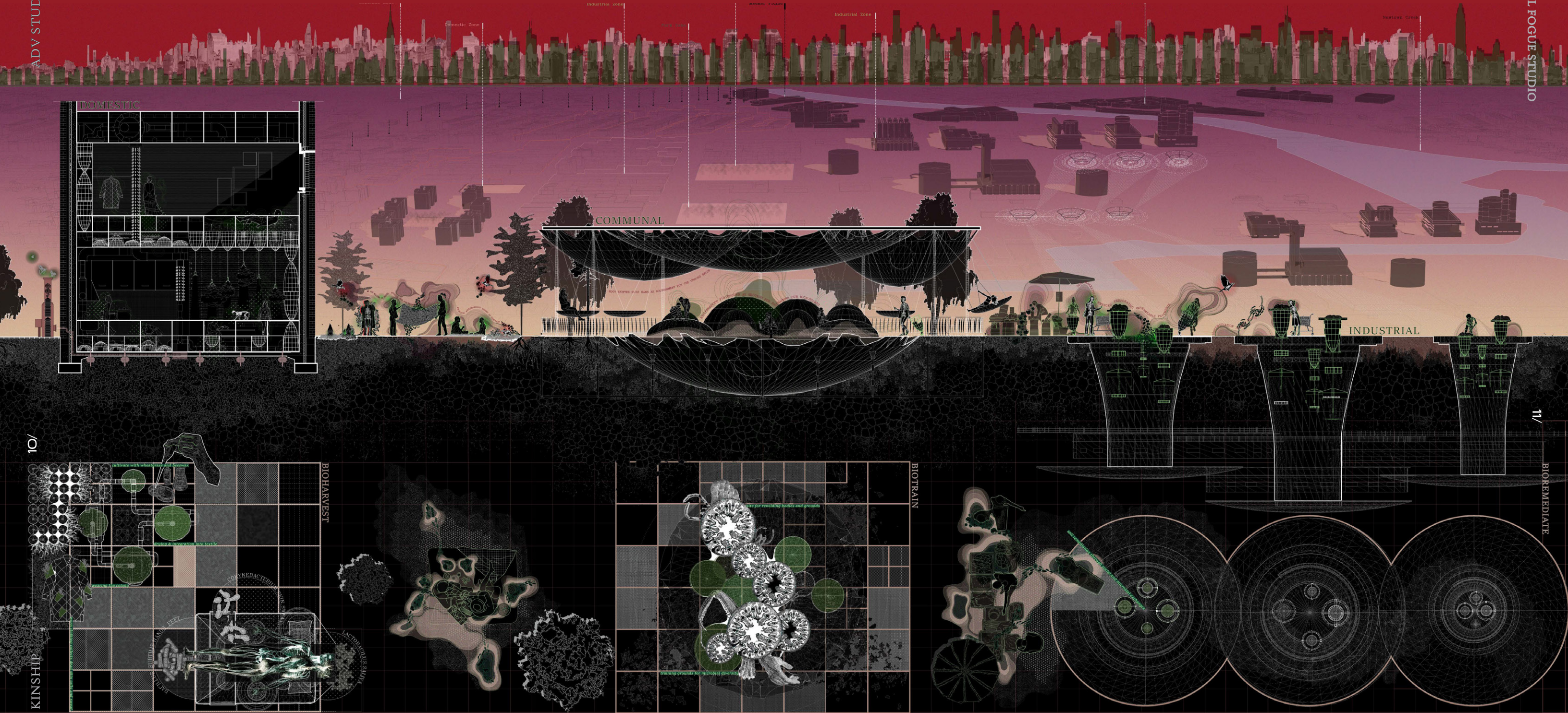
This line of inquiry ultimately extended beyond representation and design into collective action through TOXOS, a student organization developed alongside NGOs and environmental advocates. TOXOS became a real-time extension of the work: a platform for translating research on toxicity, environmental justice, and material systems into public engagement, collaboration, and activism beyond the studio.



02

Newtown Creek, a tributary of the East River and the birthplace of the U.S. petrochemical industry, was repeatedly dredged and industrialized beginning in the 1860s. In the 1940s, refineries operated by ExxonMobil and ChevronTexaco caused the largest underground oil spills in U.S. history – 17 million gallons of petroleum which continue to emit toxic vapors, undiscovered for nearly three decades. While remediation begins, more than 3,500 nearby residences remain affected. The EPA’s sub slab depressurization systems “solution” renders soil inert, further alienating bodies from the ground beneath them. Respiratory and antimicrobial disease rates are among the highest. This project challenges remediation strategies that seal bodies off from contaminated land, proposing instead a multi-scalar choreography where microbial life, daily ritual, and urban infrastructure are re-entangled rather than eradicated.





HVAC systems become instruments of cultivation and life. Floors become breathable sponges: porous structures that capture humidity and microbial traces from the body. These floors function as bio-diffusers, filtering and nourishing internal air, while enabling growth chambers that support wearable ecologies.

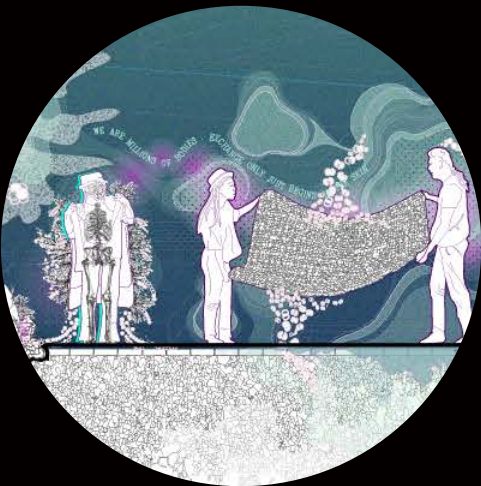
DOMESTIC INTERVENTION

The playground becomes a bio-training ground—one that is intimate and dirty, a tactile space for rewilding the body. This site invites children to engage with soil mounds, sourced from the industrial soil marketplace. Above, root-knitted rugs hang as nourishment for the ground below, setting the stage for an exchange of millions of bodies.

COMMUNAL INTERVENTION

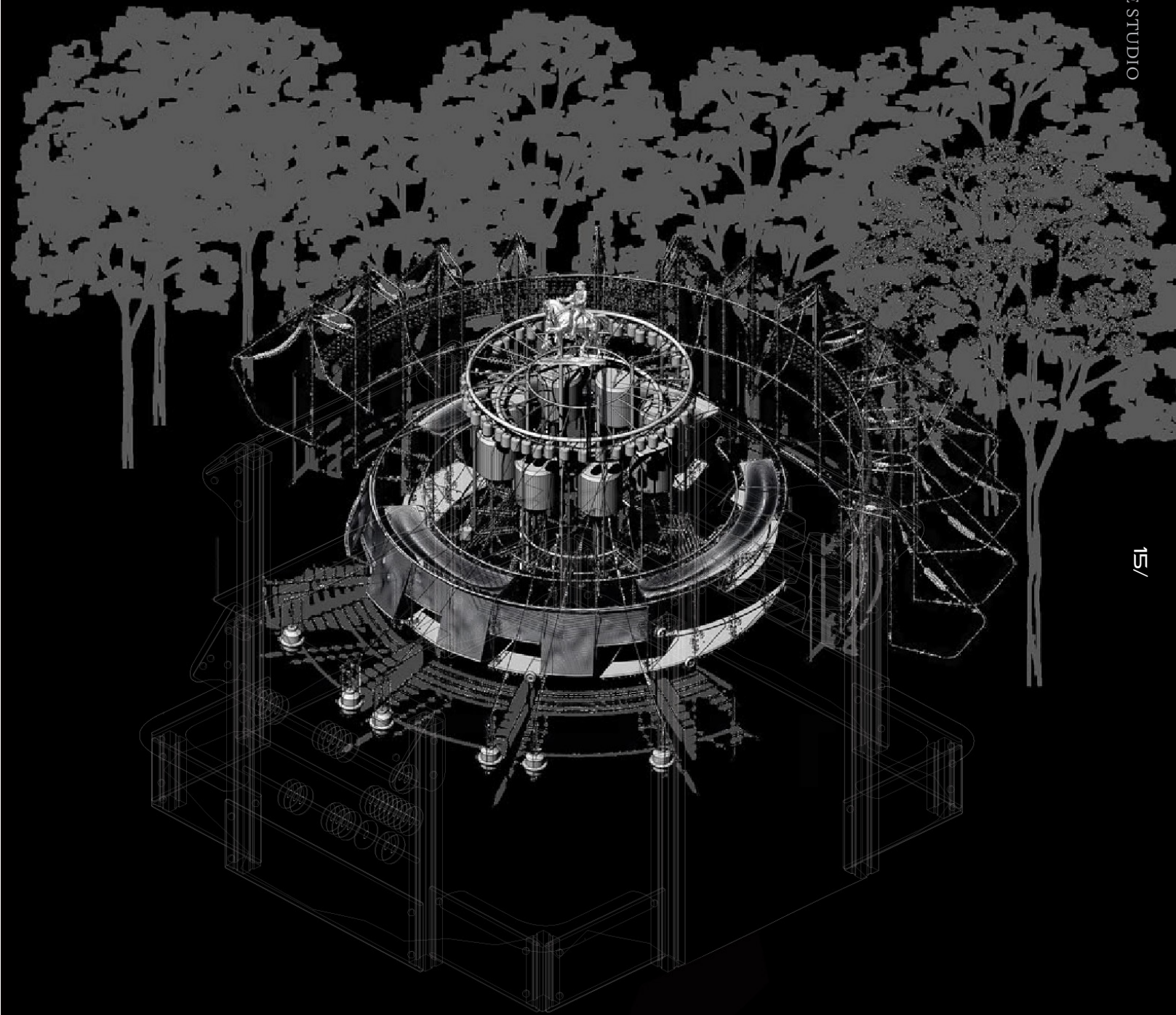
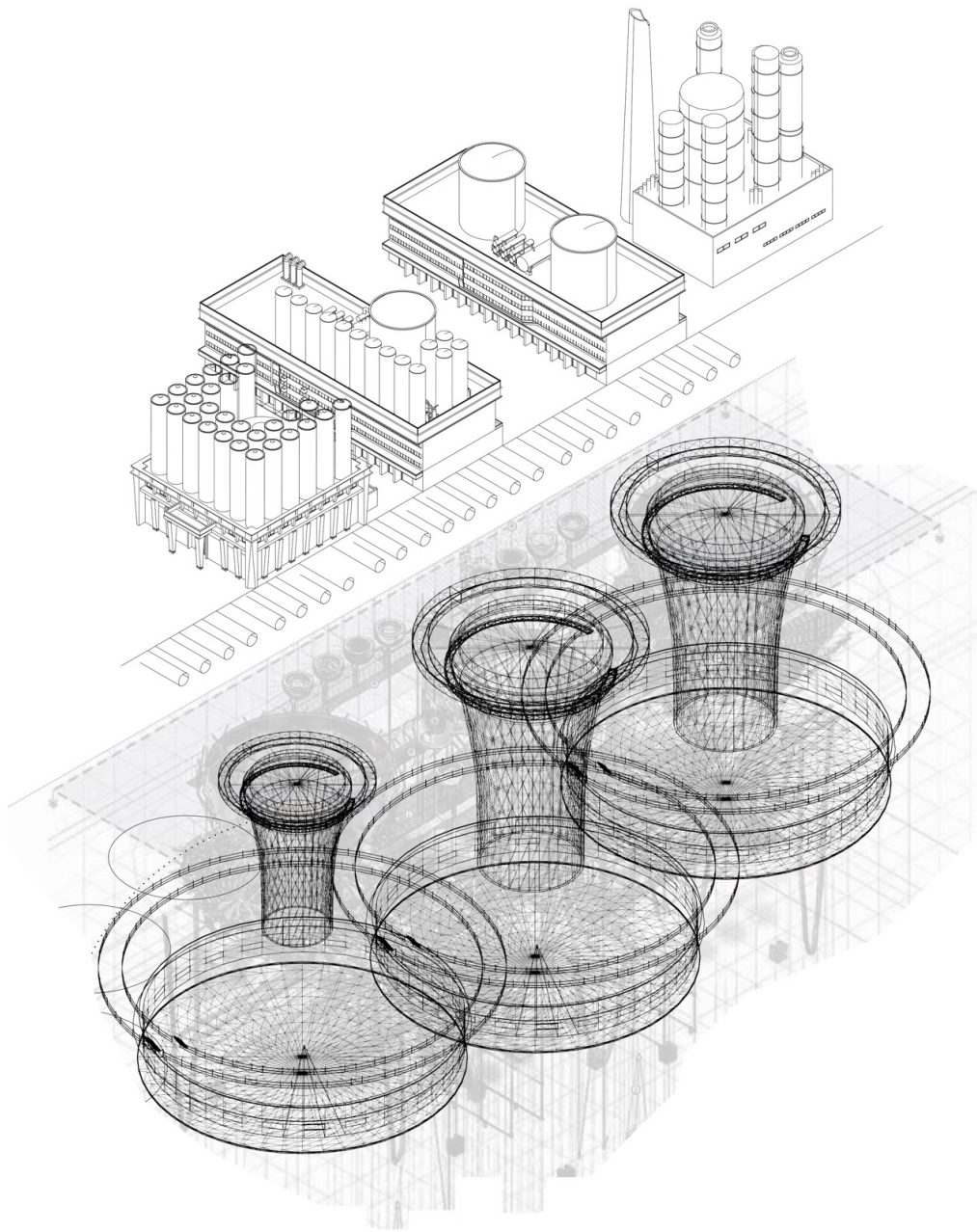
At the boundary where factories meet homes, the fence is transformed from a barrier into a porous corridor. Perforated edges along the sidewalk activate this threshold as a soil marketplace. Air is injected to re-oxygenate compacted ground, rainwater carries natural inoculants, and biosolids from the adjacent treatment facility nourish the soil.

INDUSTRIAL INTERVENTION



INDUSTRIAL INTERVENTION RUPTRURING IMPERVIOUS SURFACES

Rather than isolating contamination, remediation occurs through microbial and social stewardship. Residents are invited to touch, smell, collect, and redistribute soil. Cleanup becomes ritual.



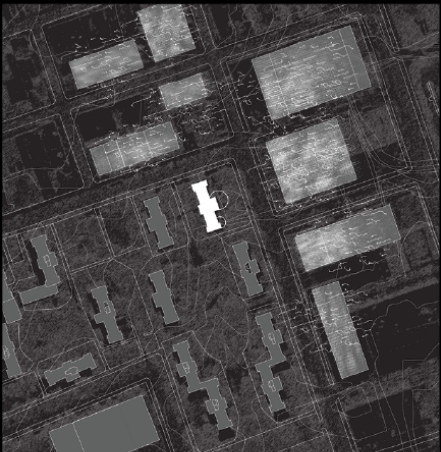
This project repositions soil as an active agent in the urban metabolism of a Superfund site, orchestrating enmeshment with damaged ground rather than denying its presence. This project insists that design must go beyond containment and toward choreography, where toxicity becomes a ground for reimagined kinship.

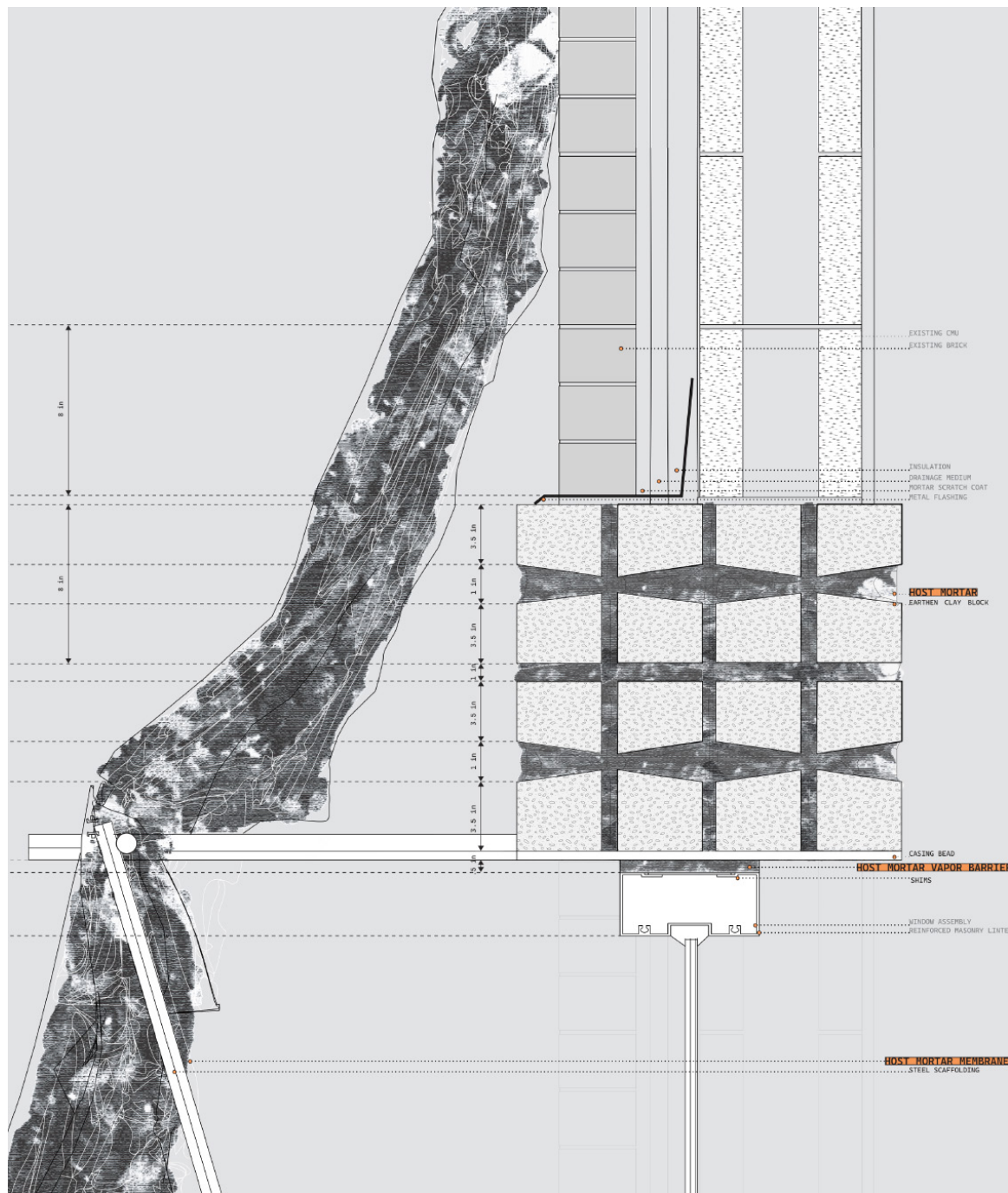
PLAYGROUND AS MEDICINE COMMUNAL INTERVENTION

03 A continuation of *Choreographies of Soil Kinship* in Newtown Creek
This project internalizes radical intervention to the Superfund landscape within the domestic realm. The 700-unit Cooper Park housing towers stand at the convergence of long-standing industrial contamination and corporate negligence. Tenants experience compounded exposure from multiple directions: toxic vapors rise from contaminated soils below, shallow groundwater carries pollutants upward, and aging sewer infrastructure overflows during storms, releasing untreated waste.

Edible Mortars and Membranes for a Contaminated Architecture
In response, the project reconceives the building envelope as an advocate for tenant health. The façade of the Cooper Park Houses, a Section 8 housing, is transformed into a living membrane that mediates exposure. Edible, microbial mortars and membranes respond to wind and vapor intrusion by filtering air, immobilizing toxins, and cultivating biological life within the wall itself. The domestic façade becomes a metabolic interface where contamination is actively engaged through material and biological processes.

DOMESTIC | EXISTING





CONSTRUCTION DETAILS AS COSMOPOLITICAL ENACTMENTS

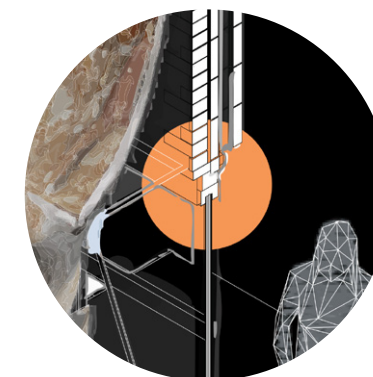
Construction details as cosmopolitical enactments—sites where material behavior, environmental forces, and bodies negotiate with one another. Design began by suspending assumptions of program and site to ask how materials act when given agency: what they admit, what they resist, and how they transform over time. This material-first approach foregrounded porosity, phase change, and microbial selectivity as architectural drivers, allowing material behavior to establish environmental and political relationships before formal or spatial decisions were made.

The mortar creates a low-permeability skin that immobilizes contaminated vapors. The curtain functions as a dynamic exterior filter, wrapping façades and balconies to modulate wind and capture airborne pollutants. The frame activates window and door thresholds, filtering incoming air and supporting microbial life to precondition air before it enters the home.

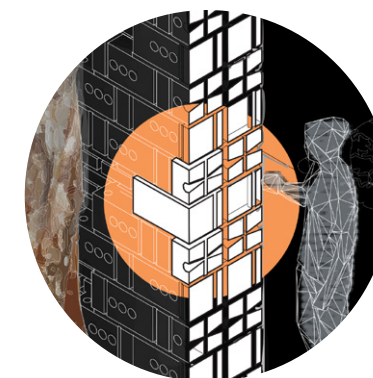
TRIPARTITE WALL INTERVENTION CURTAIN, FRAME, AND MORTAR.



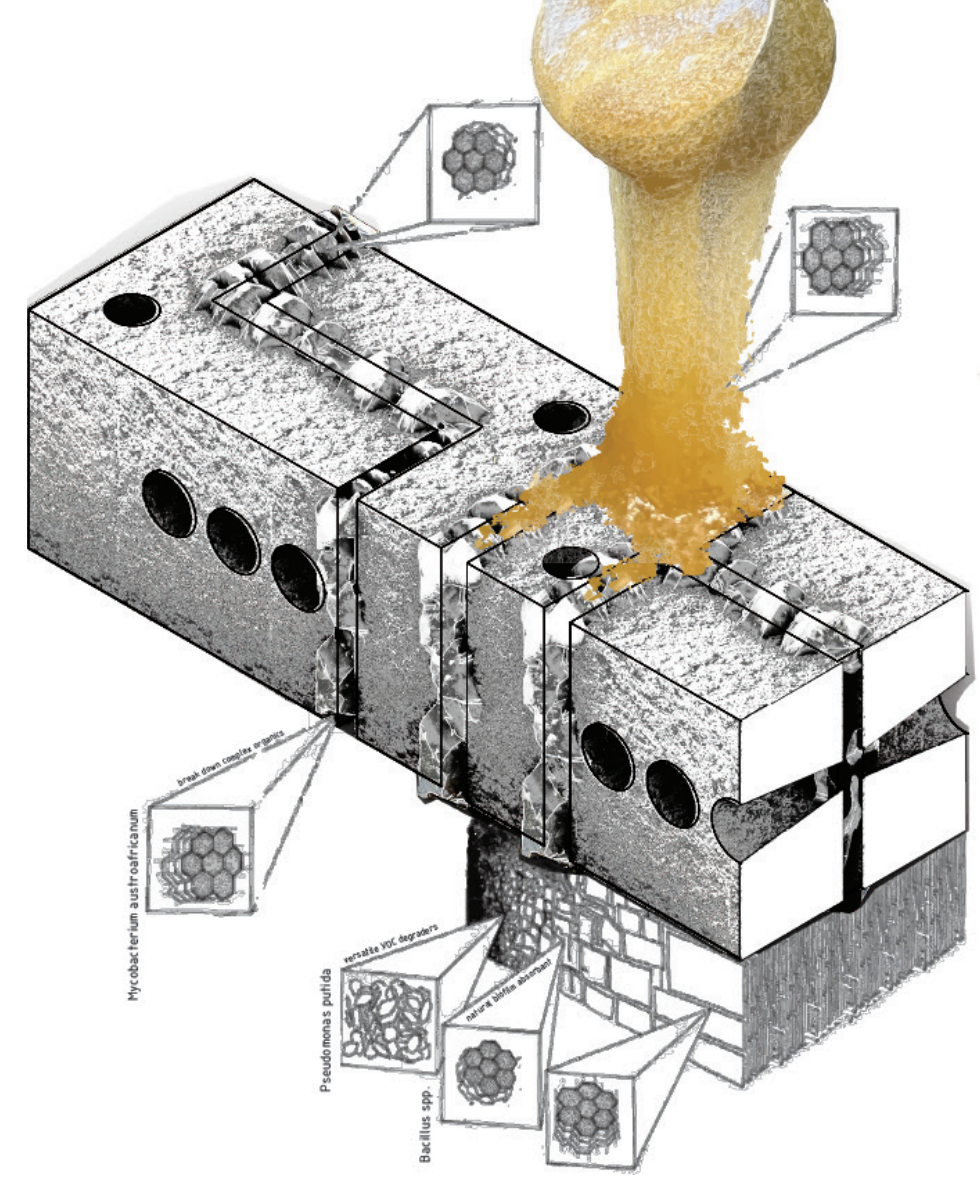
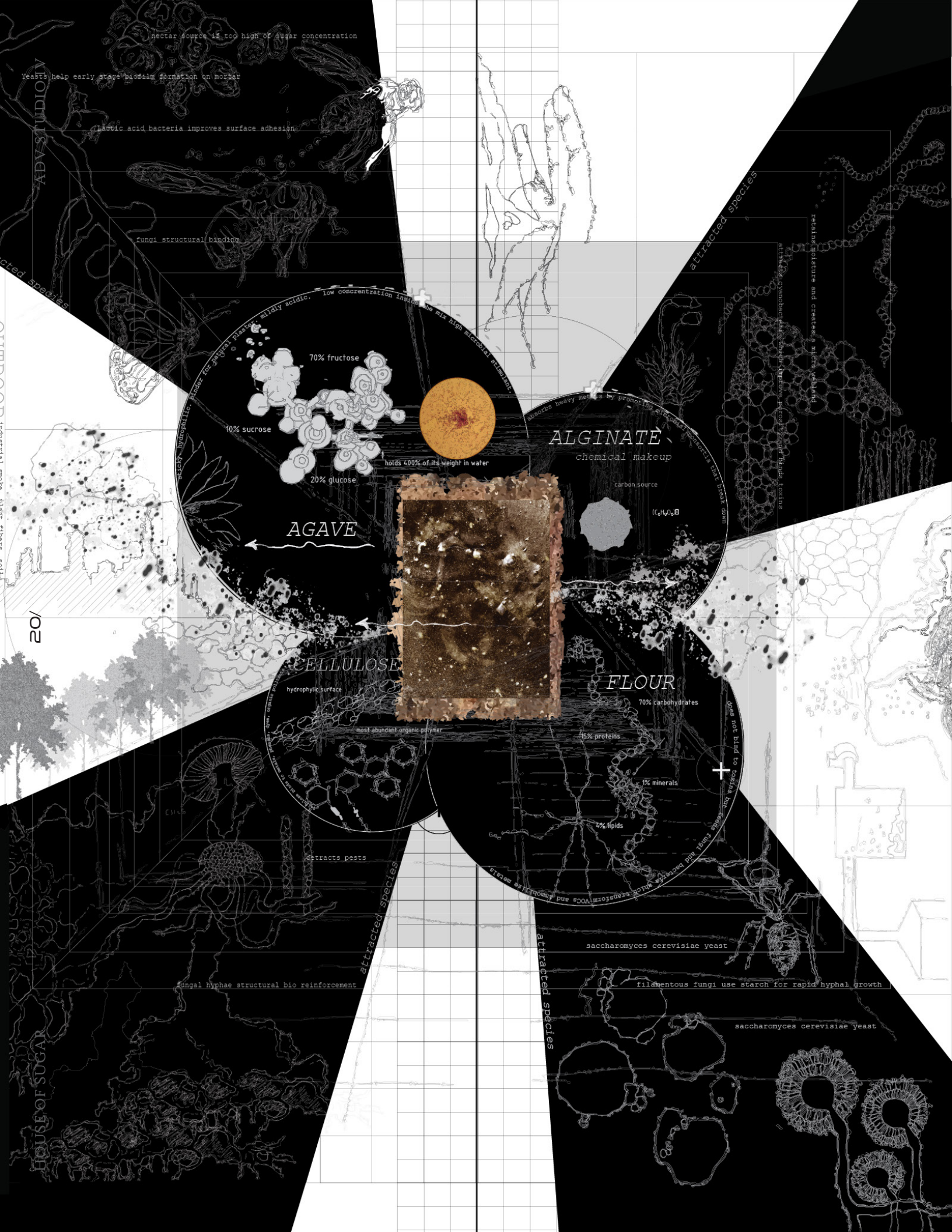
The dynamic curtain filtration system.



The Frame as building's envelope
window and door perimeters.



The Mortar as a vapor barrier.



We began with a cosntruction detail. A series of laboratory experiments tested material state changes, giving the building material assembly agency at the intersection of bodies, space, politics, and aesthetics. A composite of agave, alginate, flour, and cellulose operates as a structural binder that selectively attracts and repels airborne particles

AGAVE, ALGINATE, FLOUR, CELLULOSE MATERIAL RECIPE

outside biodegradable yasts from air allows ecological passive residence resembles yeast air: dry non pathogenic

human contribute skin, breath, clothing that get into ecosystem, making them healthy and ecological

02 GELATIN PHASE

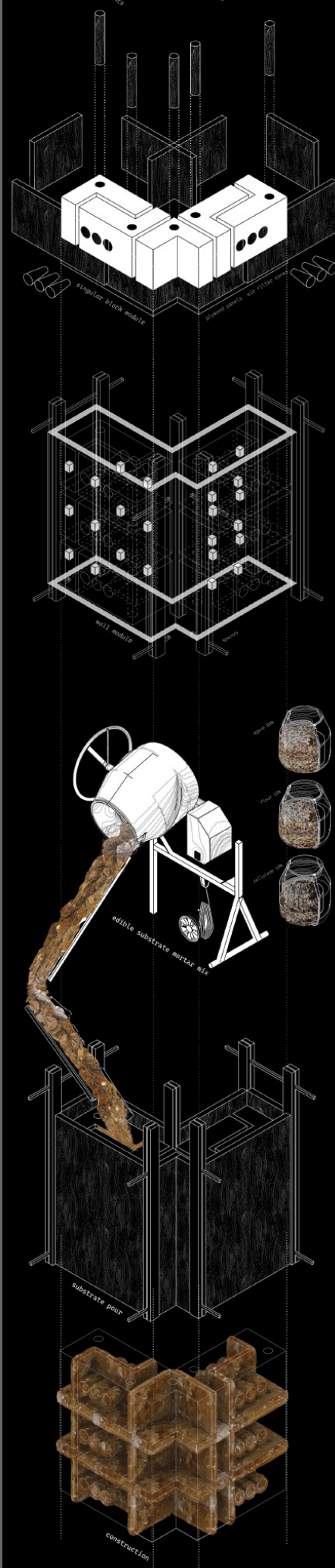
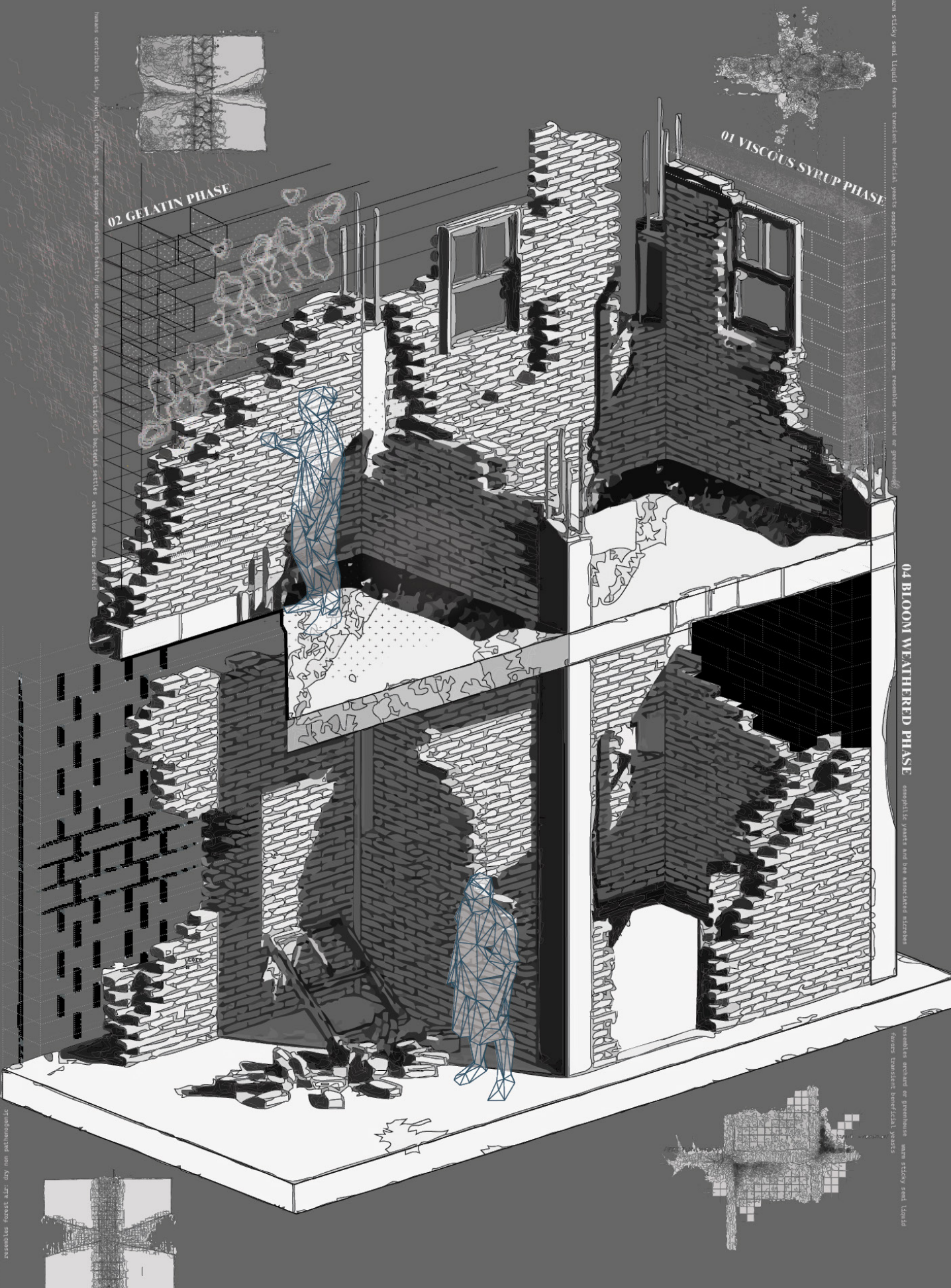
03 CRYSTALLINE SOLID PHASE

04 BLOOM WEATHERED PHASE

01 VISCOUS SYRUP PHASE

weathered evolved on greenhouse with sticky seal liquid favors translucent biodegradable yasts

weathered evolved on greenhouse with sticky seal liquid favors translucent biodegradable yasts

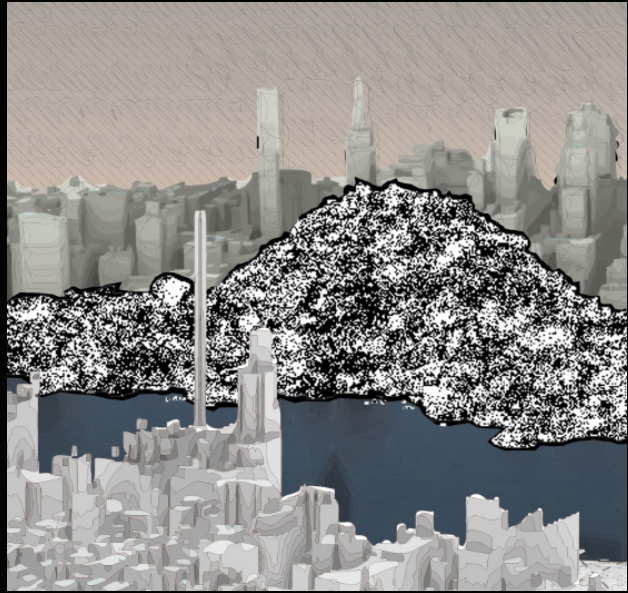


RESPONSIVE MASONRY RETROFIT

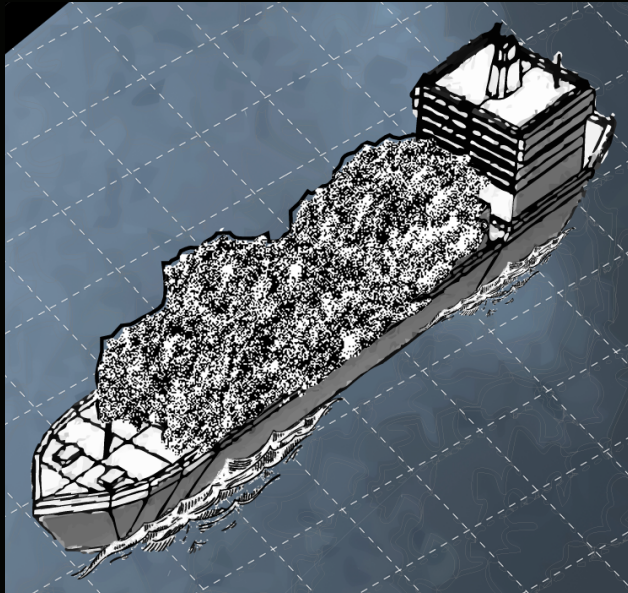
This surgical intervention reframes adaptive reuse and façade repair with an edible mortar system. Leveraging the building's steel structure, masonry elements are exchanged where wind identifies corners, windows, and façade zones with the highest concentration of airborne contaminants—VOCs, lead, copper, and industrial particulates from nearby refineries. The mortar shifts between gelatinous, liquid, and solid states in response to humidity, microbial activity, and environmental loads.

04

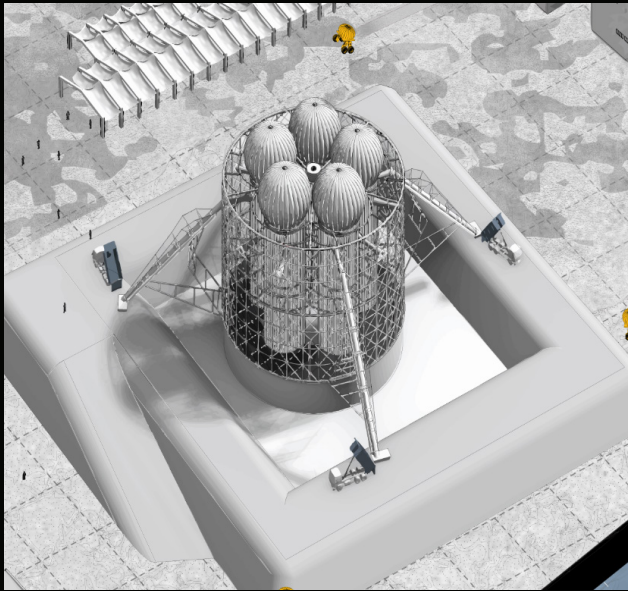
Revival Grounds is about regenerating land and about moving soil. This project reimagines industrial infrastructure at Newtown Creek as an active system for soil remediation. Transforming decommissioned LNG tanks into vessels for processing contaminated earth from the Meeker Plume, the project redirects existing waste flows into a continuous cycle of excavation, composting, and regeneration. Remediation becomes visible and collective-unfolding over time as both an environmental process and a civic space for participation, research, and exchange.



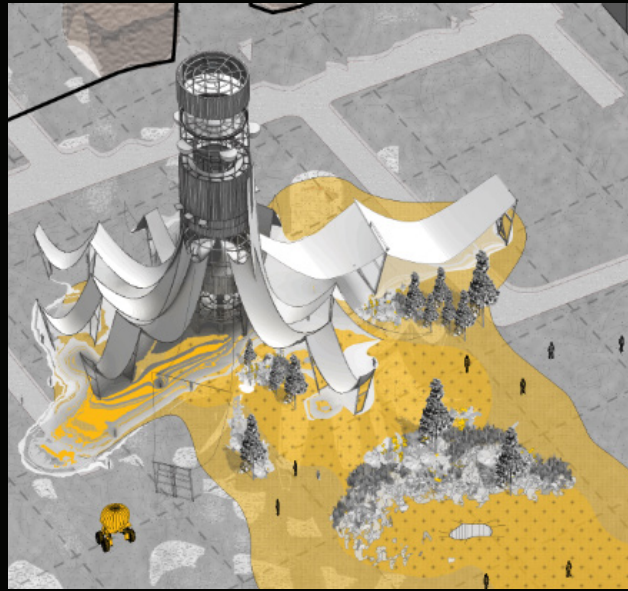
Waste transfer systems handling nearly 40% of Manhattan's organic waste move through Newtown Creek by barge en route to landfills.



The organic waste stream is redirected as nutrient into the decommissioned LNG tanks transformed into aerobic digesters for soil remediation.



Contaminated soil from the oil spill region is excavated and transported to the tanks.



A fully integrated public landscape emerges where remediation becomes ritual.



40% of Manhattan's waste passes through Newtown Creek transfer station before being transported to landfills, an underserved resource stream.

Greenpoint census tract reported 9-10% of children showing elevated blood lead levels, triple the city average, with the highest rates in the district's border.

Newtown Creek Wastewater Treatment Plant processes over 1.3 billion gallons of wastewater daily, producing up to 200 million gallons of waste water daily.

Former Little League Baseball Field was closed 2 years ago due to radioactive soil. It's now being used for the National Grid LNG tanks.

The Meeker Plume, an estimated 17 million gallons of oil-contaminated water from early 80s Century refinery, was discovered decades later and remains directly embedded in the ground and water today.

40% of Manhattan's waste passes through Newtown Creek transfer station before being transported to landfills, an underserved resource stream.

CONVEYOR BELT SYSTEM
INPUT - ORGANIC WASTE / SOIL

ANAEROBIC DIGESTOR 1
FUNGAL + VERMICOMPOSTING

ANAEROBIC DIGESTOR 2
FUNGAL COMPOSTING

ANAEROBIC DIGESTOR 3
VERMICOMPOSTING

CONVEYOR BELT SYSTEM
INPUT - ORGANIC WASTE / SOIL

RESIDUAL OUTPUT
H₂O + CO₂

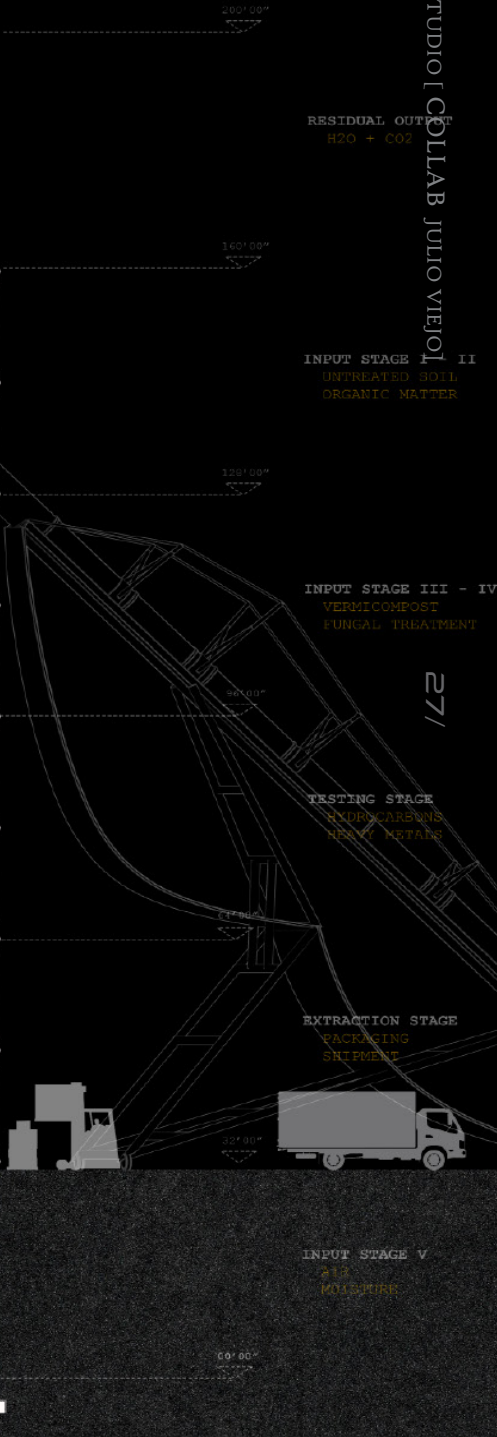
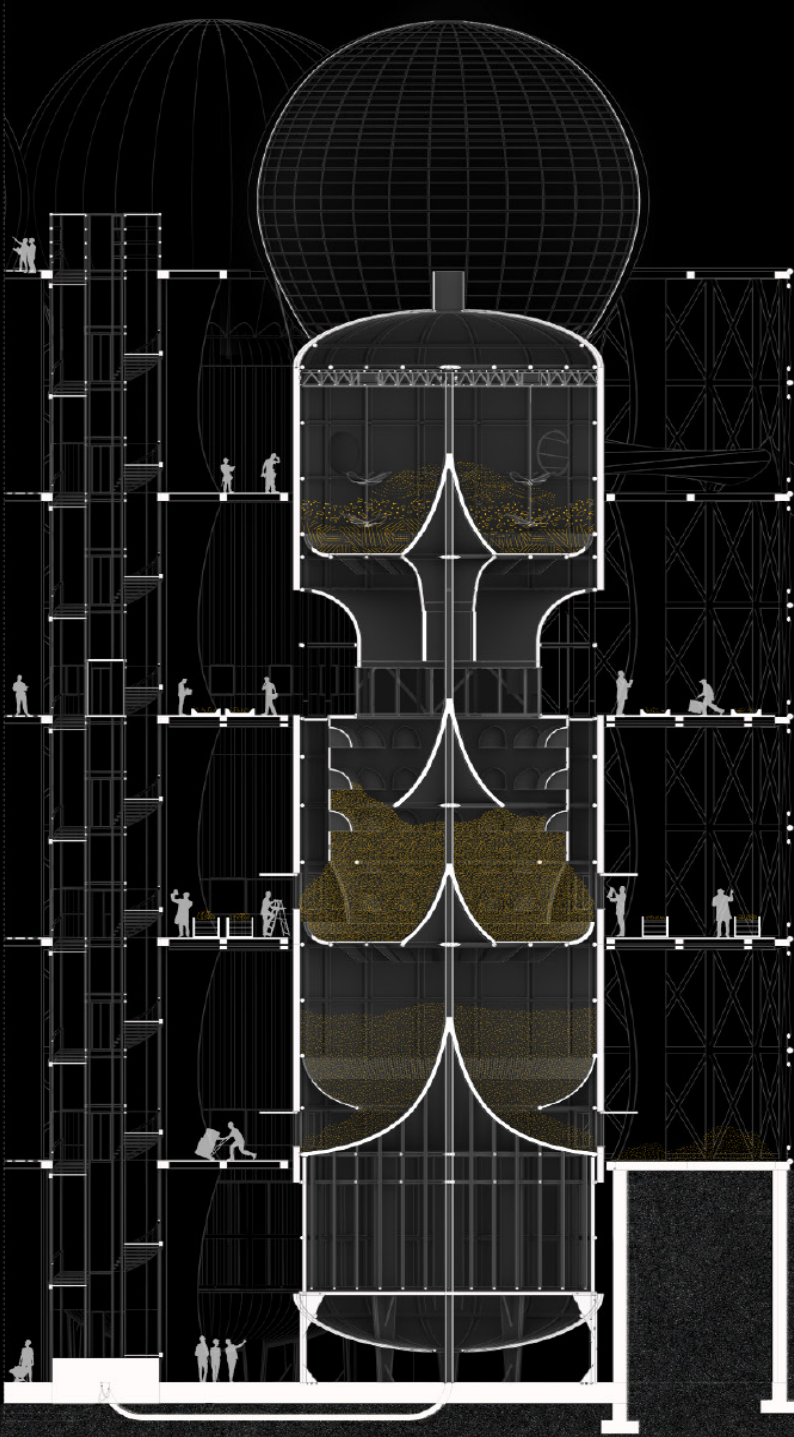
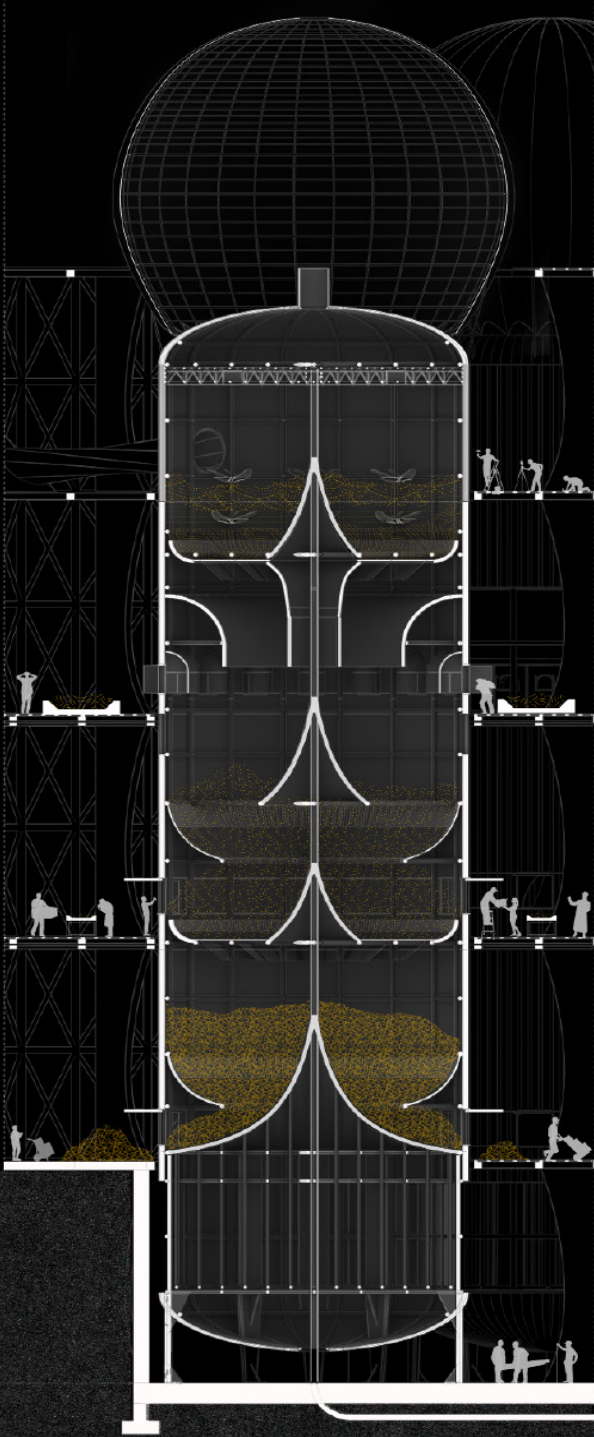
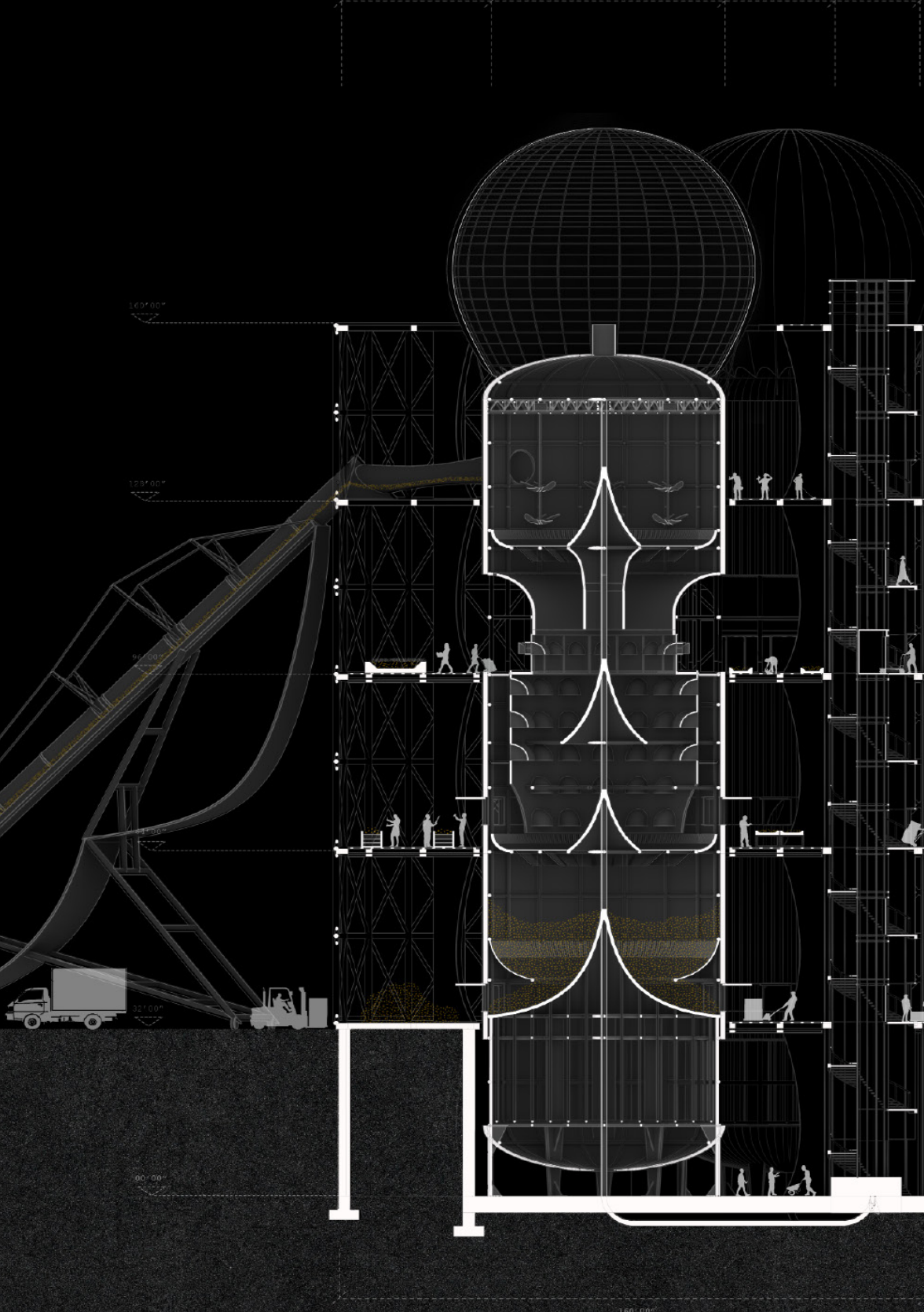
INPUT STAGE I - II
UNTREATED SOIL
ORGANIC MATTER

INPUT STAGE III - IV
VERMICOMPOST
FUNGAL TREATMENT

TESTING STAGE
HYDROCARBONS
HEAVY METALS

EXTRACTION STAGE
PACKAGING
SHIPMENT

INPUT STAGE V
31%
WORMS/FAUNA



COMMON INPUTS



CONTAMINATED SOIL
From nearby sites



ORGANIC WASTE
When incinerated
for charcoal



WOODCHIP MIX
For microbial
diversity



COMBINED MIX
System with fungal
and worms



SHREDDED LEAVES
To enhance
vermicomposting



FINAL OUTPUT
30 day cycle,
ready to deploy



WOODCHIP MIX
For microbial
growth



FUNGAL MIX
Enhanced breakdown
of contaminants



FINAL OUTPUT
45 day cycle,
ready to deploy



WORM MIX
Enhanced breakdown
of contaminants



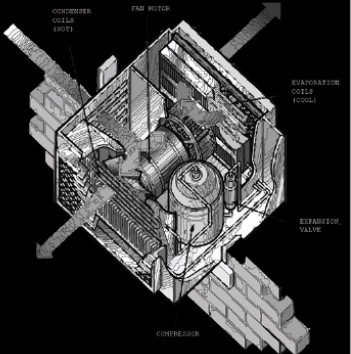
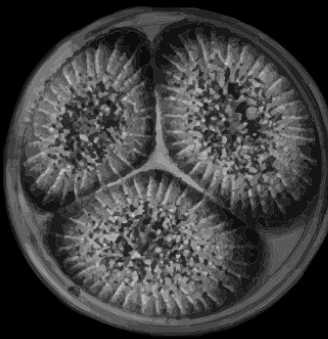
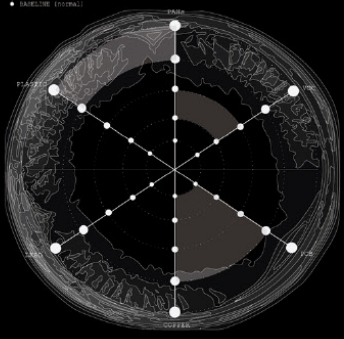
SHREDDED LEAVES
To enhance
vermicomposting

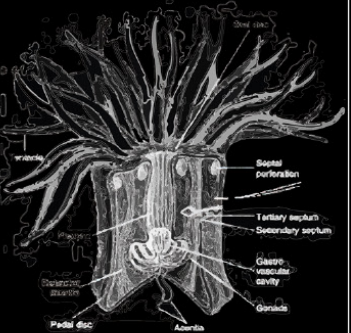
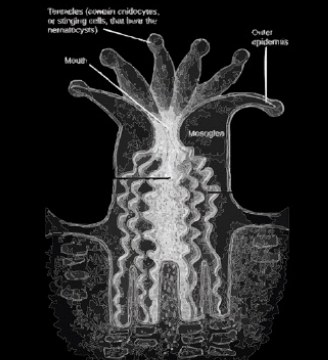
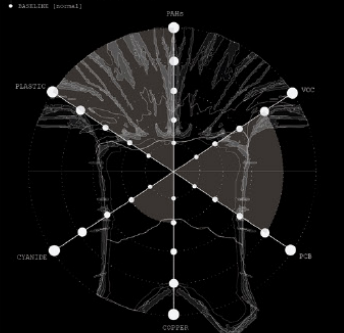


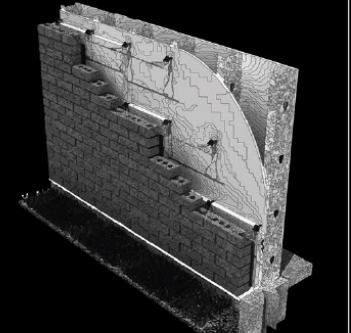
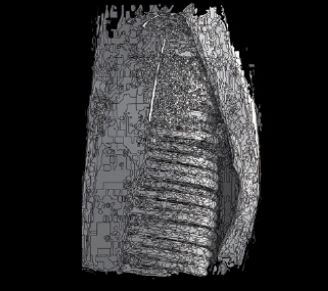
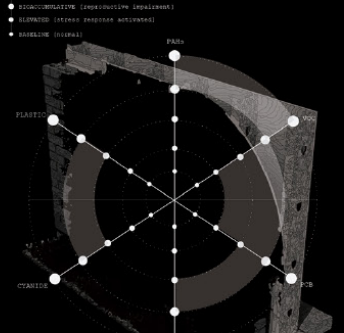
FINAL OUTPUT
45 day cycle,
ready to deploy

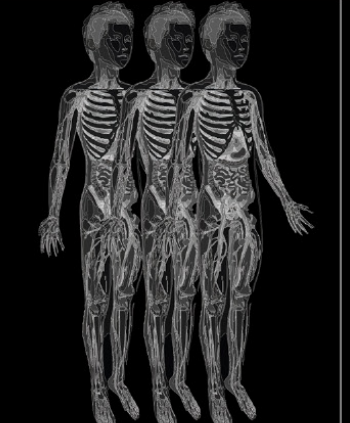
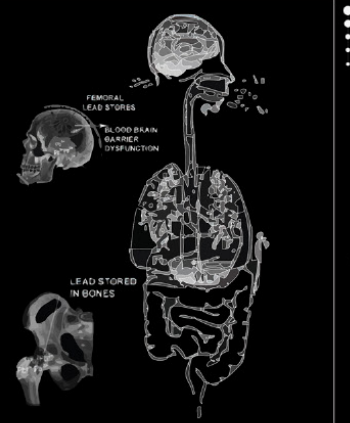
SELECTED INPUTS

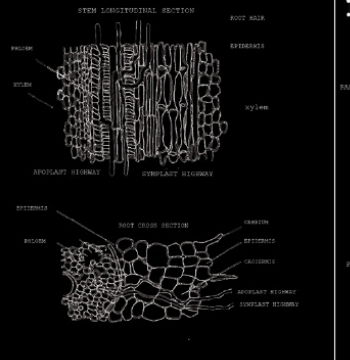
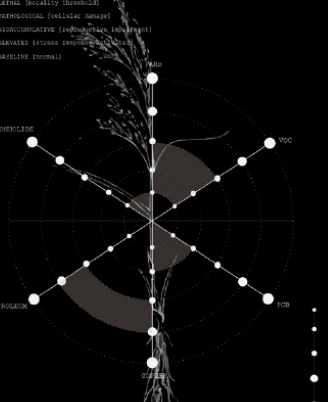
MIX / OUTPUTS

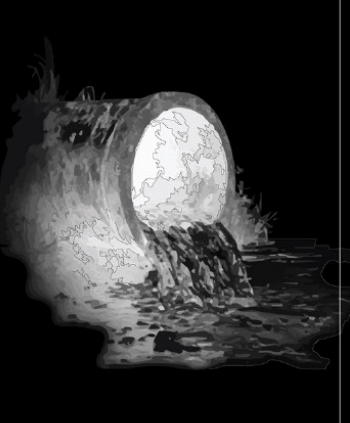
KINGDOM AIR DUCT MOLD		FORENSIC BODY #0006	DUCT SPECIES
Taxonomy of Bodies as Mediums to Analyze Toxic Conditions			
		● SPERMAL toxicity threshold ● PERMEOSMOLAL (cellular damage) ● RADIACUMULATIVE (reproductive impairment) ● ELUVATED (stress response activated) ● BASELINE (normal) 	
SCIENTIFIC TAXONOMY	MICROBIAL ANATOMY OF DUST PARTICLE	THRESHOLDS OF TOXICITY	
All: Vent Aspergillus AS, Smigebus A. Flavus	produces thick-walled spores that resist drying, heat, and chemical stress. It makes antioxidant enzymes to survive oxidative damage from pollutants. It can tolerate heavy metals by binding and sequestering them inside cells. Once inhaled , they enter the bloodstream.	Tiny spores become airborne and are inhaled into the lungs. They pass deep into the alveoli because of their very small size. In healthy people, immune cells usually clear them. In people with asthma, they can trigger inflammation. In immunocompromised individuals, spores can germinate and invade lung tissue, causing invasive aspergillosis.	

KINGDOM TUBE DWELLING ANEMONE		FORENSIC BODY #0001	SEA SPECIES
Taxonomy of Bodies as Mediums to Analyze Toxic Conditions			
		● SPERMAL toxicity threshold ● PERMEOSMOLAL (cellular damage) ● RADIACUMULATIVE (reproductive impairment) ● ELUVATED (stress response activated) ● BASELINE (normal) 	
SCIENTIFIC TAXONOMY	MICROBIAL ANATOMY OF TENTACLE	THRESHOLDS OF TOXICITY	
Cerianthus spp., Pectyocerianthus spp.	Tentacles are the first contact zone, the epidermal tissue next to the diffusion interface, then gastrovascular cavity, the digestive pathway, mesenteries, finally the tube wall mucus.	Direct contact across the body surface (epithelium and tentacles) Metals like copper, iron, cadmium, and lead can concentrate in tissues. Ingestion of contaminated prey or particles. Absorption through mucus and oral tissues.	

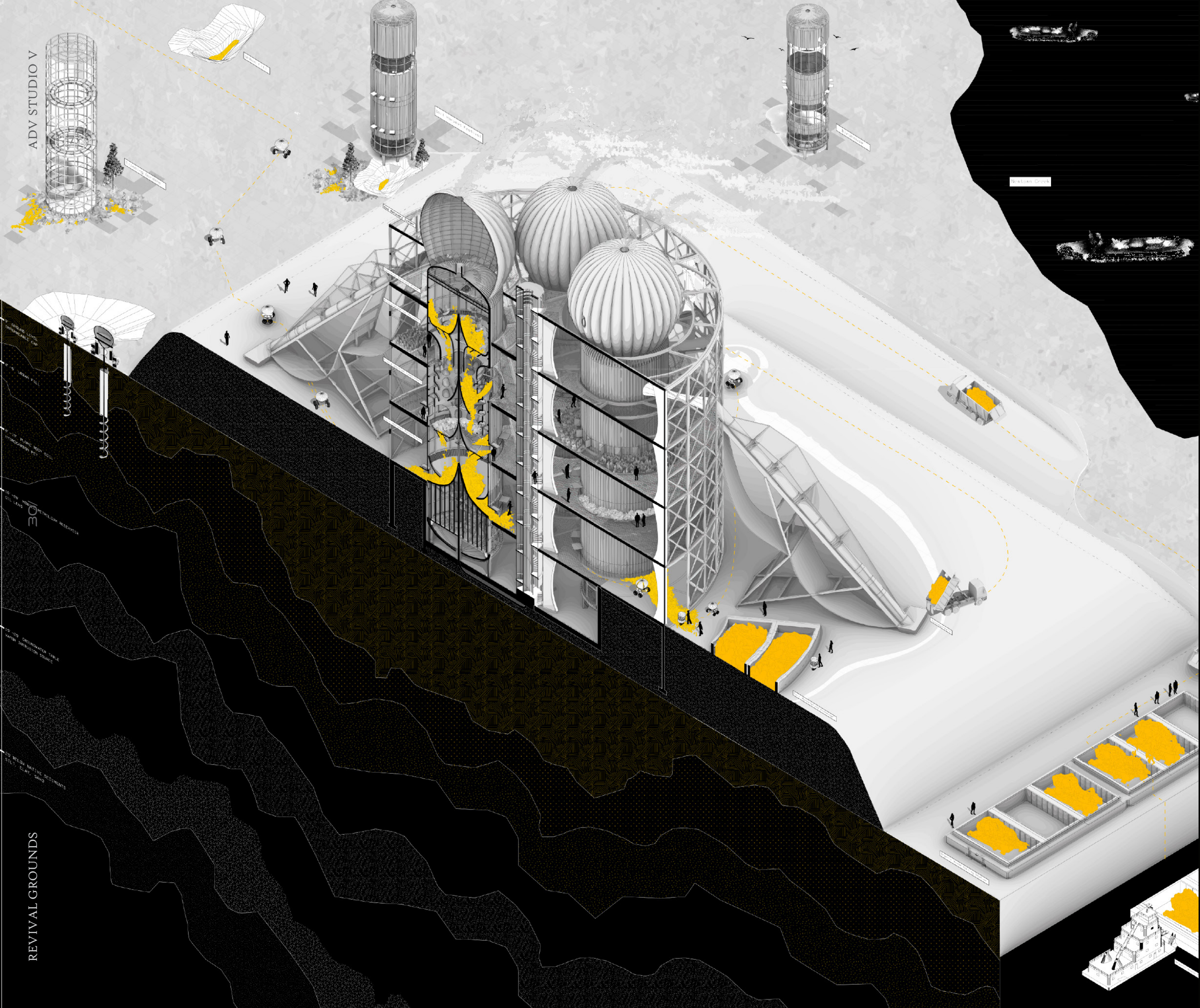
KINGDOM Mineral-Synthetic Composite Systems		FORENSIC BODY #0009	Vapor-Intrusion-Exposed Wall
Taxonomy of Bodies as Mediums to Analyze Toxic Conditions			
		● SPERMAL toxicity threshold ● PERMEOSMOLAL (cellular damage) ● RADIACUMULATIVE (reproductive impairment) ● ELUVATED (stress response activated) ● BASELINE (normal) 	
SCIENTIFIC TAXONOMY	MICROBIAL ANATOMY OF LEAD INTRUSION	THRESHOLDS OF TOXICITY	
Porous mineral composite system	The wall exchanges air and vapor with its surroundings, drawing contaminated soil gas through cracks and pores where volatile chemicals diffuse, sorb, and re-emit into interior space.	The wall accumulates and stores contaminants—lead as embedded dust and particles, chlorinated solvents as absorbed vapors—reaching thresholds where concentrations become hazardous to human health.	

KINGDOM CHILDREN EXPOSED TO LEAD		FORENSIC BODY #0008	HUMAN SPECIES
Taxonomy of Bodies as Mediums to Analyze Toxic Conditions			
		● SPERMAL toxicity threshold ● PERMEOSMOLAL (cellular damage) ● RADIACUMULATIVE (reproductive impairment) ● ELUVATED (stress response activated) ● BASELINE (normal) 	
SCIENTIFIC TAXONOMY	MICROBIAL ANATOMY OF LUNGS + BRAIN	THRESHOLDS OF TOXICITY	
Biopneumococcus, Flavocella	Lead accumulates in the cortex, hippocampus, and cerebellum. 20 -35 ug/dL lead in blood can lead to severe cognitive impairment.	Lungs/gut inhale dust , transported to blood where it binds erythrocytes, tissues accumulate oxidative stress, and a disrupted neurotransmission.	

KINGDOM TALL FESCUE		FORENSIC BODY #0005	PLANT SPECIES
Taxonomy of Bodies as Mediums to Analyze Toxic Conditions			
		● SPERMAL toxicity threshold ● PERMEOSMOLAL (cellular damage) ● RADIACUMULATIVE (reproductive impairment) ● ELUVATED (stress response activated) ● BASELINE (normal) 	
SCIENTIFIC TAXONOMY	MICROBIAL ANATOMY OF ROOT + STEM	THRESHOLDS OF TOXICITY	
Pectuce arundinacea	Lead tolerant, produce enzymes like glutathione-S-transferase (GST), catalase, glutathione peroxidase, and others that counteract oxidative stress caused by metal exposure	Deep root system (can reach 2-3+ feet) Sequesters metals primarily in roots (phytostabilisation) Strong rhizosphere microbial associations	

KINGDOM BACTERIA SEWAGE		FORENSIC BODY #0007	INFRASTRUCTURAL WASTE SPECIES
Taxonomy of Bodies as Mediums to Analyze Toxic Conditions			
		● SPERMAL toxicity threshold ● PERMEOSMOLAL (cellular damage) ● RADIACUMULATIVE (reproductive impairment) ● ELUVATED (stress response activated) ● BASELINE (normal) 	
SCIENTIFIC TAXONOMY	MICROBIAL ANATOMY OF SEWAGE	THRESHOLDS OF TOXICITY	
Escherichia coli (E. coli)	GSD carry stimulator and sewage directly into the creek during heavy rain. Heavy's treat Metals or chemicals, as toxins enter the water untreated. Overflow events spread contaminants over large areas quickly.	Pipes as raw domestic sewage, industrial solvents and chemicals used in manufacturing can be carcinogenic and toxic. Sources of fat and grease from restaurants, wet wipes, sanitary products, and other non-degradable "floatable" materials are trapped in catchpots of silt, FGMs, and heavy metals.	

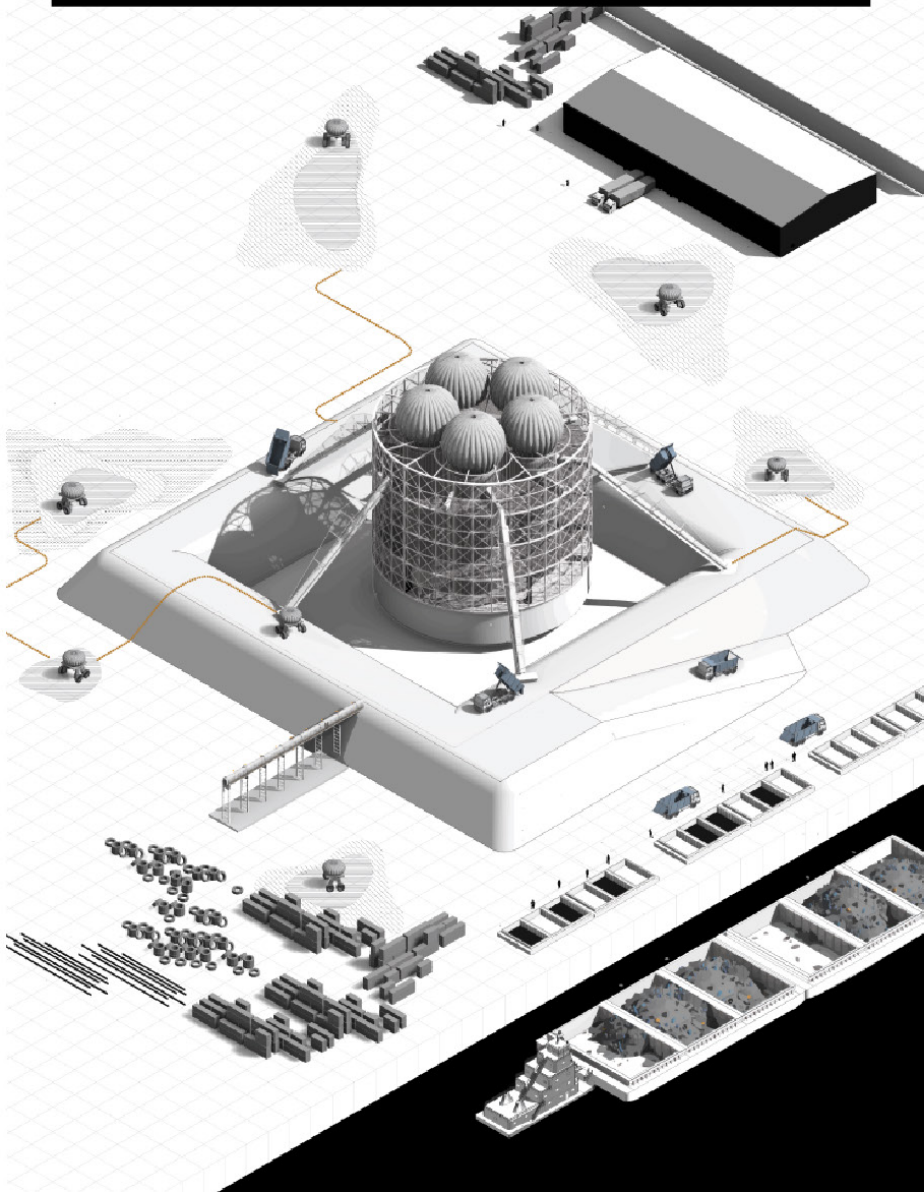
This is an atlas, a taxonomy of bodies as mediums for analyzing toxic conditions. These bodies become a recording device. A site of evidence. Through this framework, toxicity is understood as dispersed across space, time, infrastructure, and anatomy.



PHASE 01 [EXCAVATION]

YEAR 2026

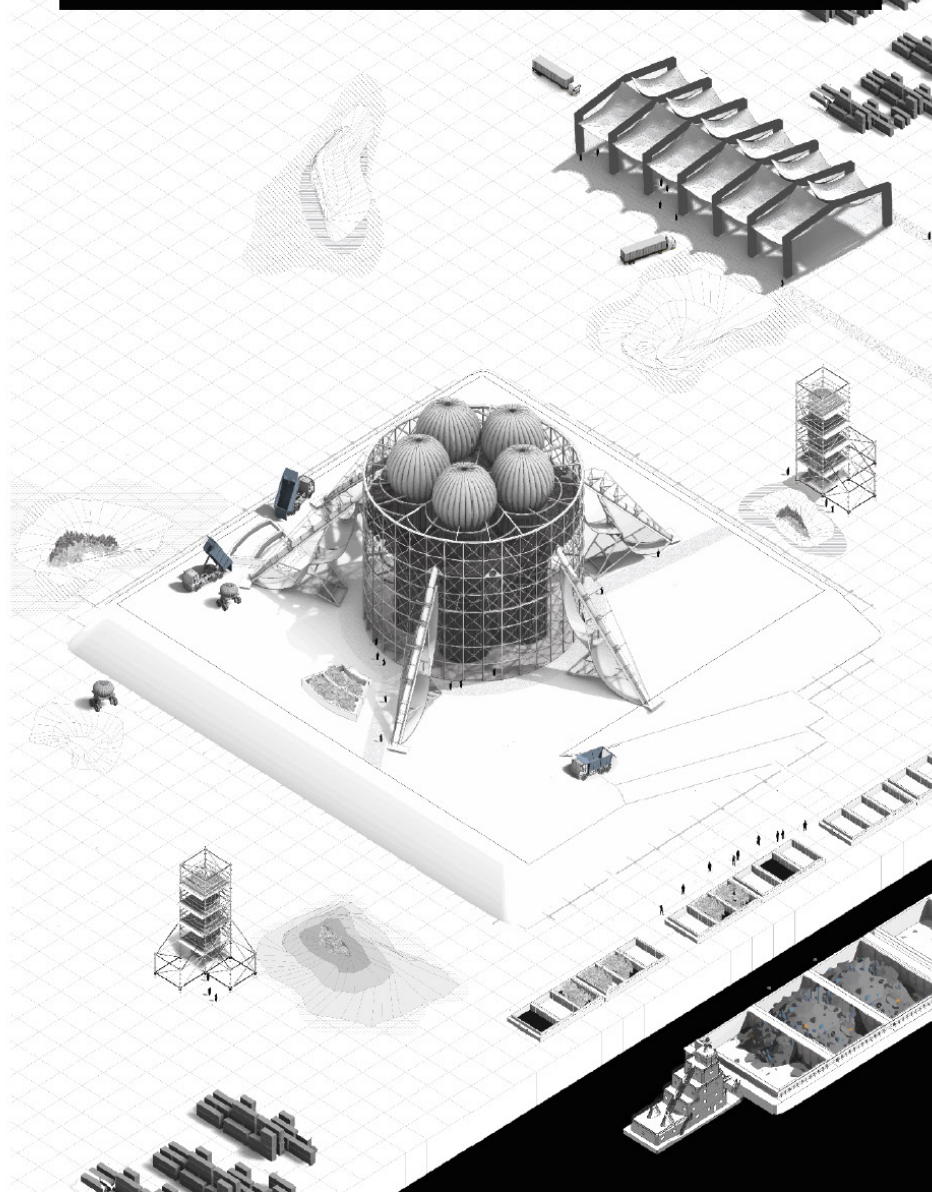
SENSING, COLLECTING, HARVESTING, EXCAVATING SOIL, INITIATING REGENERATION



PHASE 02 [DEPOSITION]

YEAR 2031

PROCESSING, DEPOSITING, BUBBLING, EXPERIMENTING



PHASE 03 [REGENERATION]

YEAR 2051

GARDEN, FESTIVAL, SOIL EXCHANGE, TRANSFORMATION



PHASE 01 : EXCAVATION

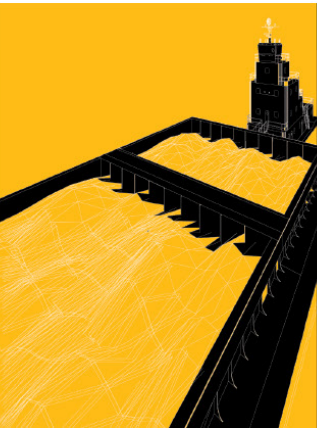
Existing industrial infrastructures mobilize/move contaminated soil from the Meeker Plume and organic waste from transfer stations into the remediation vessels, establishing a closed system of extraction, transport, and processing.

PHASE 02 : DEPOSITION

Public access begins as the field station activates into a working laboratory and soil marketplace, while early remediated soil returns to the ground as nutrient and ecological bloom begins.

PHASE 03 : REGENERATION

A fully integrated public landscape emerges where remediation becomes ritual, infrastructure opens to the public, and vessels disperse across the site as spaces for gardening, dancing, bird watching, and collective ecological life.



ORGANIC WASTE TRANSFER STATION



EXCAVATION



DEPOSITION + CONVEYOR BELT MIXTURE



VERMI + FUNGI HARVEST



FIELD STATION LABORATORY



DEPOSITION HARVEST



SOIL MARKETPLACE



COLLECTIVE & VISIBLE REMEDIATION

Today, everything in our surroundings is perceived as a possible source of disease, so the health, defence and fortification of the body has become an obsessive pursuit. Yet this obsession often remains detached from the broader systems it depends upon. To design today, is to work with what is present, proximate, and often contaminated. Toxicity is not located in one place, nor in one moment. It is dispersed through bodies, objects, infrastructures, and landscapes. For this reason, Revival Grounds focuses on moving earth—not as removal alone, but as an ongoing process of transformation of infrastructural and civic space, recognizing waste and contaminated soil as a living, shared, and regenerative resource

05

TOXOS is derived from the Greek toxikon (τοξικόν), meaning poison for arrows. It is a metaphorical tool for tracing design systems and identifying novel points of intervention through collaboration across Columbia.

Founded in September of 2025, TOXOS is a GSAPP student organization and transdisciplinary collective spanning architecture, science, and the humanities. Operating as both a think tank and experimental forum, we convene students and experts of which are typically siloed. Our goal is to address toxic ecologies: a condition too complex for any single discipline to encompass.

Together, we gather scientific data, human and ecological narratives, and material archives. By integrating the methods of these various disciplines, the research and design process is inherently multi-scalar. To ground our conversations in action, TOXOS works with the Newtown Creek Alliance, an NGO advocating for one of the most polluted waterways and surrounding soils in the United States. Through this collaboration, we are developing a digital and spatial platform which makes environmental harm legible, undeniable, and publicly contestable.

Rather than understanding contamination as a linear pathway of causal relationships, TOXOS frames it as a cycle, moving from factory to soil to resident and back again. Since causality in the case of Newtown Creek is undeniable, we engage with the complexity of how the causality proliferates through larger systems that the creek is embedded in. This cyclical approach allows us to better understand how toxicity accumulates, circulates, and persists across environments and bodies, in and out of the creek.

As designers of the 21st century, we confront toxicity as an embedded condition shaping the histories of land, buildings, and bodies. This project asks: how do we engage these complexities rather than erase them? into a continuous cycle of excavation, composting, and regeneration. Remediation becomes visible and collective—unfolding over time as both an environmental process and a civic space for participation, research, and exchange.

We frame our analysis within three methods of tracing and documentation of the existing conditions: material, oral, and computational. These three networks of information situate the toxicity of the site within activations of the living systems that move and thrive within it—the stakeholders of the clean-up, current residents, business owners, club goers, aquatic and microbial life found in the creek, to those who advocate for their right to swim in local waterways.

Through a collection of archives, we reveal:

Agents: The corporate and political entities that shaped the creek’s industrial past.

Bodies: The human and non-human lives impacted by the Creek’s chemical makeup.

Stories: The oral and physical histories that inhabit this highly toxic environment—some of which even find ways to thrive within it

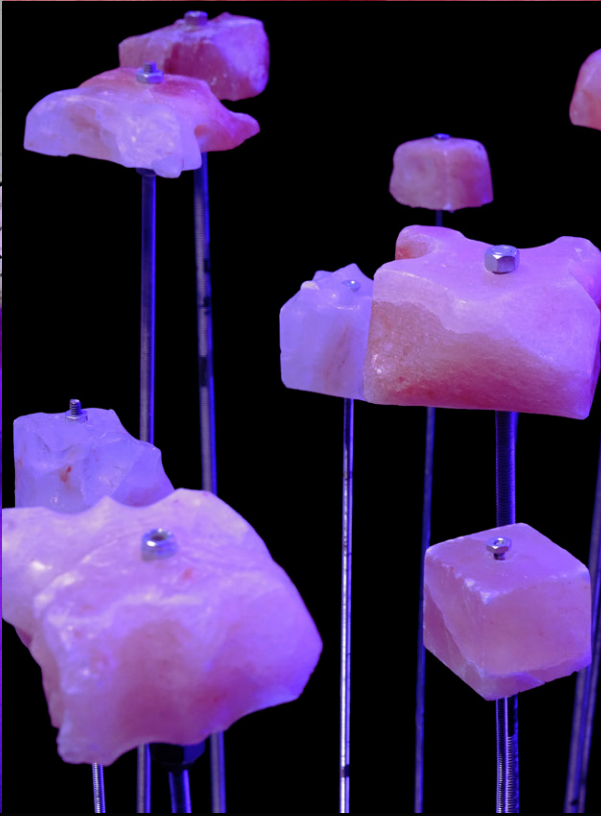


06 WHAT IF THE WORLD WAS SALTIER? The Salt Commons stages a near-future where architecture and cuisine collapse into the same mineral substrate. Salt—once the foundation of economies, preservation, and human survival—is treated as infinite, like the electricity that cools our fridges.

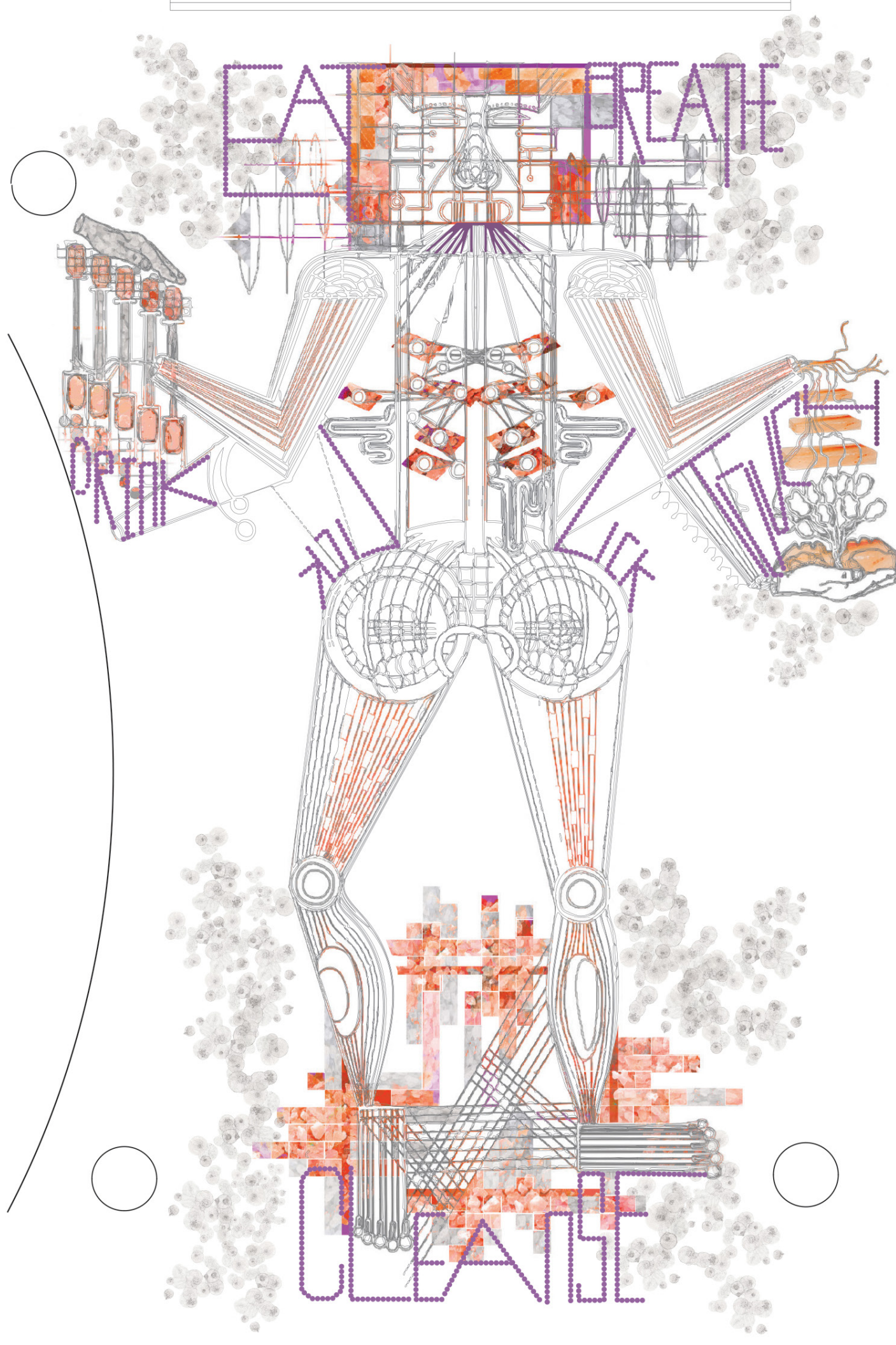


As rising seas, soil salinization, and ecological stress accumulate, that illusion fractures. In this imagined world, food and shelter are made of the same substance. The dining table becomes a crystalline monolith of food-grade salt bricks and slabs: a surface that seasons as it preserves, a refrigerator without power.



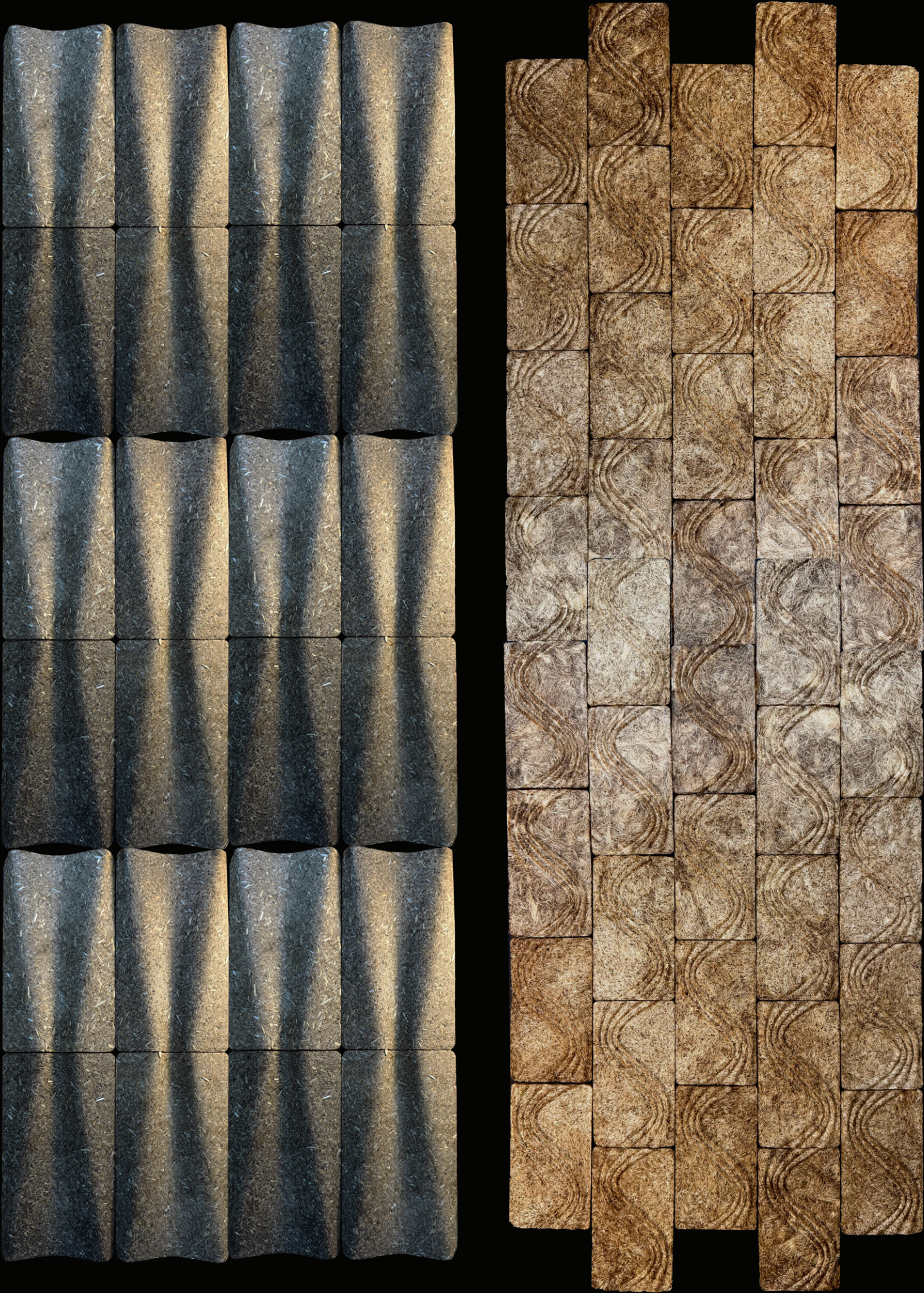


The table erodes, the architecture itself is consumed, tracking scarcity and excess grain by grain. The performance provokes questions of hygiene, labor, and resource governance: Who maintains the table? Who gets to eat it? By collapsing edibility and buildability into salt, The Salt Commons reframes the dining table as both infrastructure and commons—a thing. In this saltier future, soils, bodies, and cities all carry its taste. That night, we ate the table—and left with a sharper appetite for rethinking the architectures of food, preservation, and survival.



07

At the Natural Materials Lab, I developed wall panels from agricultural waste fibers—straw, fique, banana, and hemp—bound with a biopolymer to form durable, wood-like composites. Tested in a controlled air chamber, these panels actively absorb volatile organic compounds (VOCs), positioning material assemblies as both structural and atmospheric agents. The work reframes waste as a high-performance medium for healthier indoor environments. The fabrication process centered on iterative mixing and heat pressing, calibrating fiber ratios, moisture content, and temperature to control density and performance. Small shifts in composition determined whether the panels behaved as strong, cohesive composites or became brittle and prone to fracture. Through repeated strength testing and recipe adjustments, the material was refined into a stable, high-performance assembly.





SHANNON LEVKOVITZ

SHANNONLEV@GMAIL.COM
704-957-6057