

BEHIND - THE - SCENES FOOTAGE
EVERYTHING WE NEED
IS ALREADY HERE.

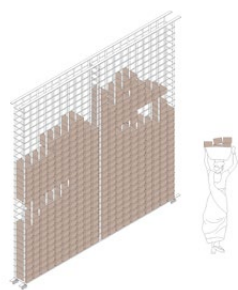
ADI KLEIN
adi.klein@columbia.edu
+1 646-430-2301



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HANSALI COMMUNITY, DOCUMENTED DURING THE KINNE TRIP TO HANSALI VILLAGE, PUNJAB, INDIA - PART OF THE ADVANCED VI STUDIO.

HANSALI VILLAGE, PUNJAB, RICE FIELDS DOCUMENTED DURING THE KINNE TRIP TO INDIA.



DRYING RACKS IN MOTION - BRICKS ARE ADDED OR REMOVED, SHIFTING THEM FROM FULL TO POROUS, STATIC TO ACTIVE.

3 Introduction

4 (In)grain Collectives *

A collective system in Punjab transforms rice straw from agricultural waste into carbon-storing building materials. Formed during the 15-day harvest window, straw-mud bricks are made through a seasonal festival and stored in a flexible Material Bank.

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* Group projects with partners' names specified; the rest are individual.

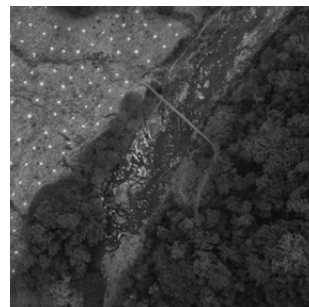
MAY 2025

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PART OF THE ASSEMBLED
FULL-SCALE INSTALLATION
FOR THE 'CARE FOR' PROJECT.

-
- Water Pump
- Channel
- Harvesting Fog First Stage
- Agroforestry
- Reforestation Terraces
- Climate natural change
- Local Components
- Laundry
 - Gatherers
 - Safe Space
 - Leisure
- Water Channels to the river
- Break the firm
- Laundry
- Exchange Information from
- water channels
- Small dam = Public Swimming Area for The Kids
- Lavanderos Público + Public Swimming Area

THE CORRIDOR SERVES AS
SOFT INFRASTRUCTURE,
RESTORING THE ECOSYSTEM
BY HARVESTING WATER,
PROVIDING CLEAN, NATURAL
WATER TO THE LOCALS, AND
SERVING AS A PUBLIC SPACE



Before arriving at GSAPP, I didn't yet have the precise words to articulate the questions that were already shaping my thinking. I had long been drawn to issues of care, equity, ecology, and the politics of space, but it was here that I found a vocabulary—and a framework—that allowed those ideas to crystallize. Through design, dialogue, and research, GSAPP quickly became a place where my interests could unfold with greater clarity and intention.

One book, encountered years earlier, captured these questions before I had the language to define them. Kyoichi Tsuzuki's *Tokyo Style* is a 4.15 x 5.8-inch raw and unfiltered gem that defies conventional standards of beauty while revealing profound insights into contemporary society. It offered a unique glimpse into Japanese homes at a pivotal moment in 1993—challenging prevailing notions of the Japanese aesthetic. His unvarnished portrayal of young people, many economically disadvantaged, living in Tokyo offers an unapologetic view of their daily lives. His work forced me to contemplate the masks we wear, the truths we conceal, and the aspects of our existence we choose to obscure.

These photographs underscore two crucial points. First, their beauty does not lie in their aesthetic perfection but rather in the safety and freedom of Tokyo, where one can venture out at any hour without fear. This liberating sense of security allows individuals to transform the entire city into an extension of their personal space.

The second point revolves around what I term the “behind-the-scenes” phenomenon. While bookstores abound with images of traditional Japanese beauty and meticulously styled contemporary spaces, they seldom capture the authentic lives of those who reside there. These images often prioritize the work of architects, stylists, and photographers over the lived experiences. Tsuzuki sought to reveal the true essence of “Tokyo style,” which may be cramped and messy but undeniably authentic.

While the projects included may not directly address Japanese spaces or culture, they are a manifestation of my commitment to shedding light on the often-overlooked politics of the built environment, ecology, and society. These projects delve into uncharted territories of carbon and equity, radical pedagogies in architecture, more-than-human alliances, and restoring ecosystems through soft infrastructures. They aim to reveal the controversies, the marginalized, and the ideas we tend to sidestep. *Architecture is a tool to improve lives—and everything we need is already here.* By bringing these issues to the forefront, both within architecture and beyond, I aspire to analyze and develop methodologies and strategies that engage with what is too often disregarded or left at the margins.

There are parts of the truth you just
can't make up. The rest, we did.

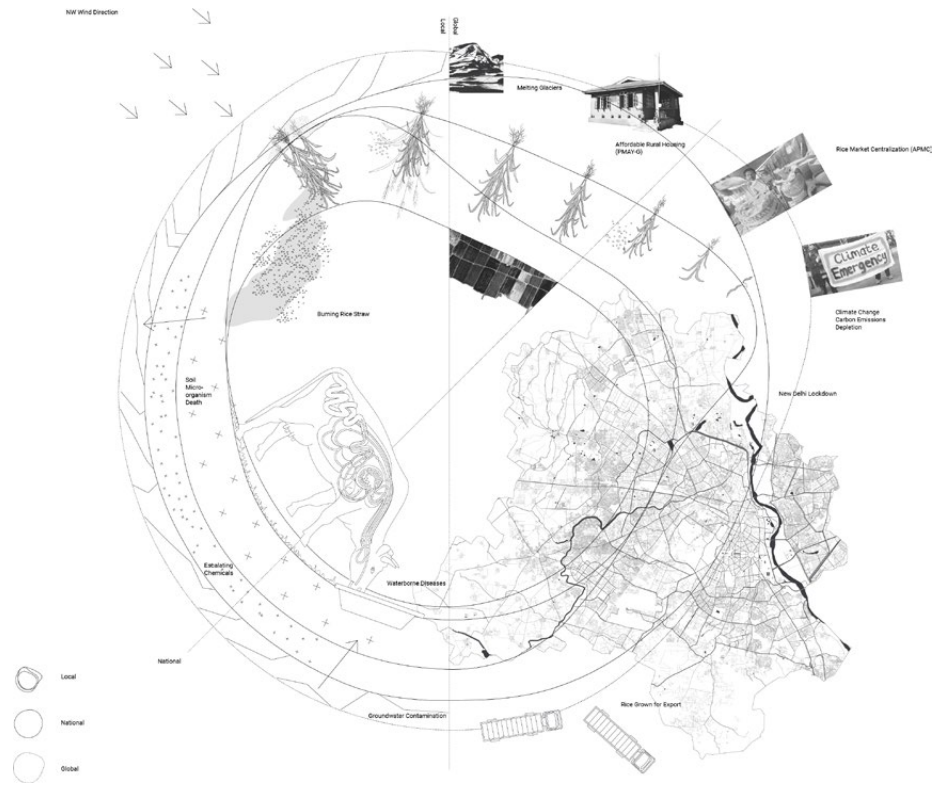
The Beanie Bubble, 2023

* **Group projects** with partners' names specified; the rest are individual.

(IN) GRAIN COLLECTIVES

A LOW-TECH, COLLECTIVE PROCESS THAT
TRANSFORMS AGRICULTURAL WASTE INTO A
MATERIAL BANK FOR CARBON STORAGE

A COLLECTIVE SYSTEM IN
PUNJAB, INDIA TRANSFORMS
RICE STRAW FROM WASTE INTO
CARBON-STORING BRICKS. BUILT
DURING THE HARVEST WINDOW
THROUGH COMMUNITY LABOR,
THE BRICKS FORM A MATERIAL
BANK - A FLEXIBLE SPACE
THAT STORES CARBON, HOSTS
GATHERINGS, AND ADAPTS TO
THE LAND OVER TIME.



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Each year Punjab, India produces 17.52 million tons of rice straw from growing rice—a straw with high levels of silica, that is inedible for livestock, unlike wheat, and consequently seen as waste. A 15-day window between

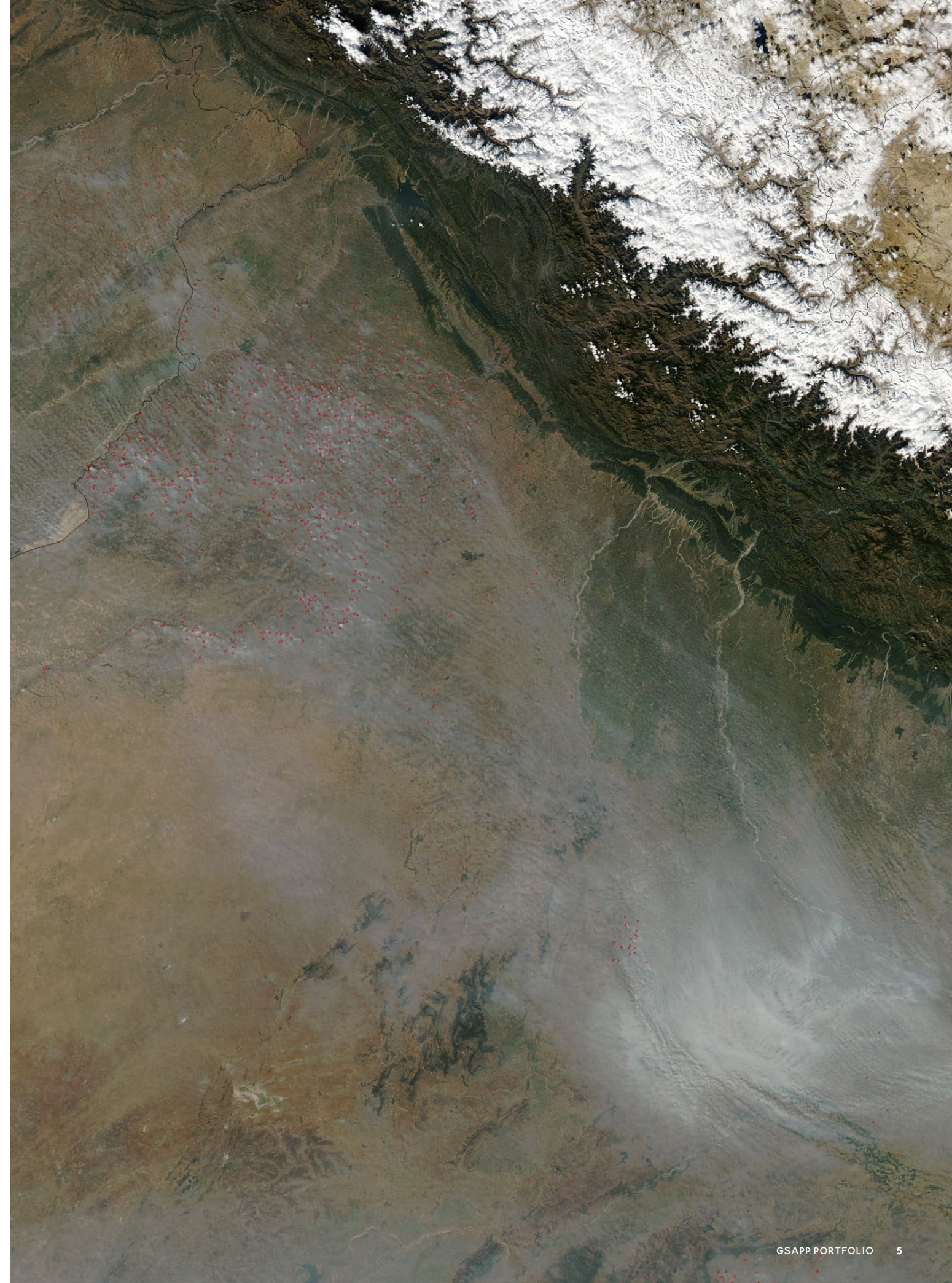
harvesting rice and planting wheat pressures farmers to find a quick, accessible solution: burning the straw to clear the fields. In 2024 alone, the state burned 1.9 million acres, discarding 80% of the region's rice straw waste and releasing 5.6 million tons of CO₂ into the atmosphere.

This project stems from these burning practices in rural India: an existing closed system. This system is multiscalar. At the local level, burning kills microorganisms, depleting soil and water health and increasing disease in rural populations. At the national and global scale, burning triggers urban lockdowns in Delhi, accelerates glacier melting in the Himalayas, and contributes to climate change.

The harvest window is reimaged as a moment of transformation—where waste turns into material, labor into gathering, and emissions into storage.

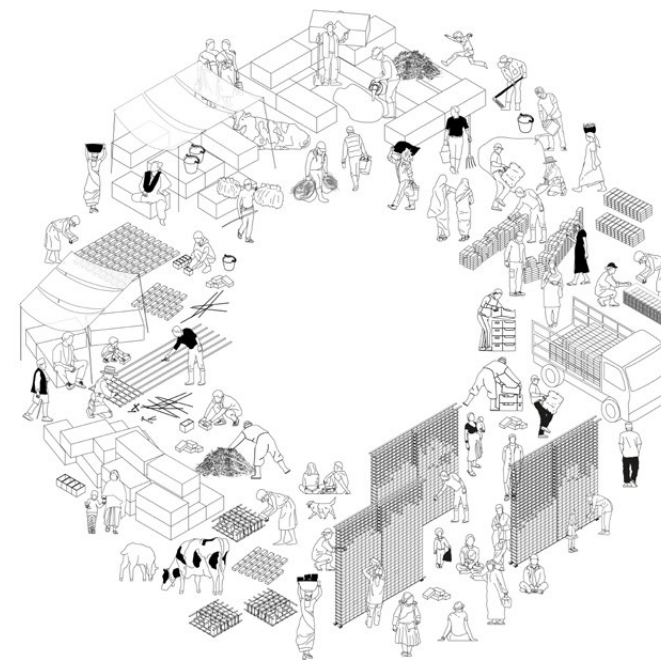


ABOVE AGRICULTURAL FIRES IN PUNJAB DURING THE RICE HARVEST. **TOP** A DIAGRAM MAPPING EXISTING SYSTEMS AND EFFECTS. **OPPOSITE** SATELLITE IMAGERY OF PUNJAB, INDIA DURING RICE STRAW BURNING, 2024. RED DOTS MARK ACTIVE FIRES; SMOKE TRAVELS ALONG THE HIMALAYAS DOWNSTREAM TO DELHI. (SOURCE: NASA)





“THE WHEAT STRAW IS USABLE AND VALUABLE, SO THAT’S NOT REALLY A WASTE DROP. IT’S ALREADY COLLECTED – IT’S NOT BURNED. BUT RICE – IT HAS SILICON, IT’S NOT USABLE, AND THE FARMER DOESN’T SEE ANY VALUE.” – PAVEL, HANSALI ORGANIC FARM, PUNJAB, INDIA

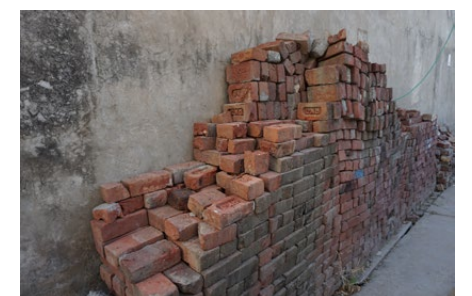


ABOVE CONCEPT DIAGRAM ILLUSTRATING THE PROCESS OF MIXING, FORMING, DRYING, AND STORING THE BRICKS. THE SYSTEM IS ORGANIZED INTO TWO MAIN COMPONENTS: THE RICE HARVEST FESTIVAL AND THE MATERIAL BANK. TOP PROJECT SITE PLAN AND IMAGES OF HANSALI VILLAGE, PUNJAB, INDIA. OPPOSITE SEQUENTIAL IMAGES CAPTURING THE BRICK-MAKING PROCESS IN THE FIELDS.



The site is in Hansali Village, Punjab—home to 500 people and 100 farms—and is one instance where our collective could take root. Located at the dynamic intersection of rice farms, local leadership meetings (Panchayat), and a neighboring school, our material bank engages all community members.

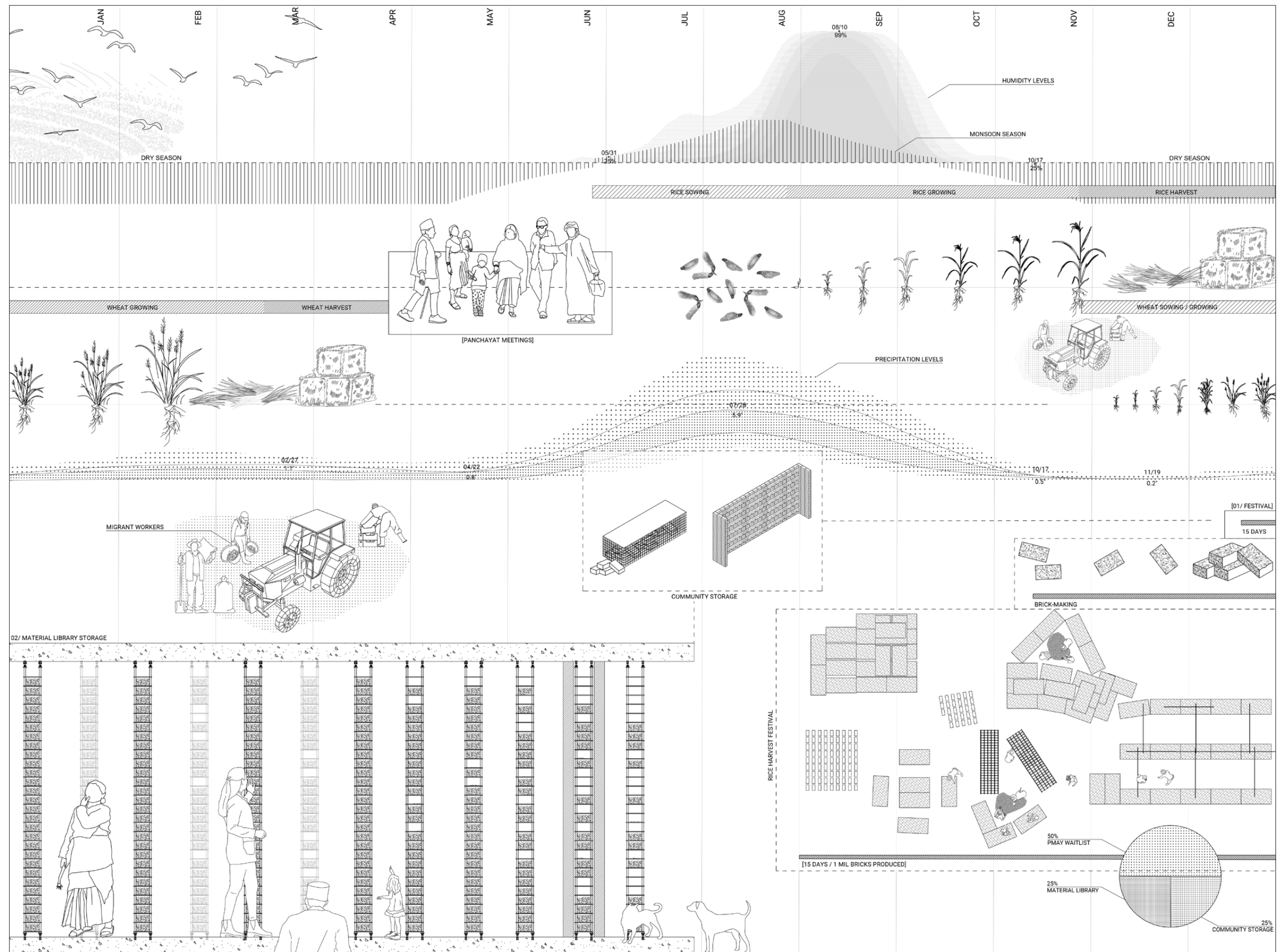
We had the chance to visit Hansali during our Kinne Week and we saw how materiality and collectiveness are deeply ingrained in their culture.



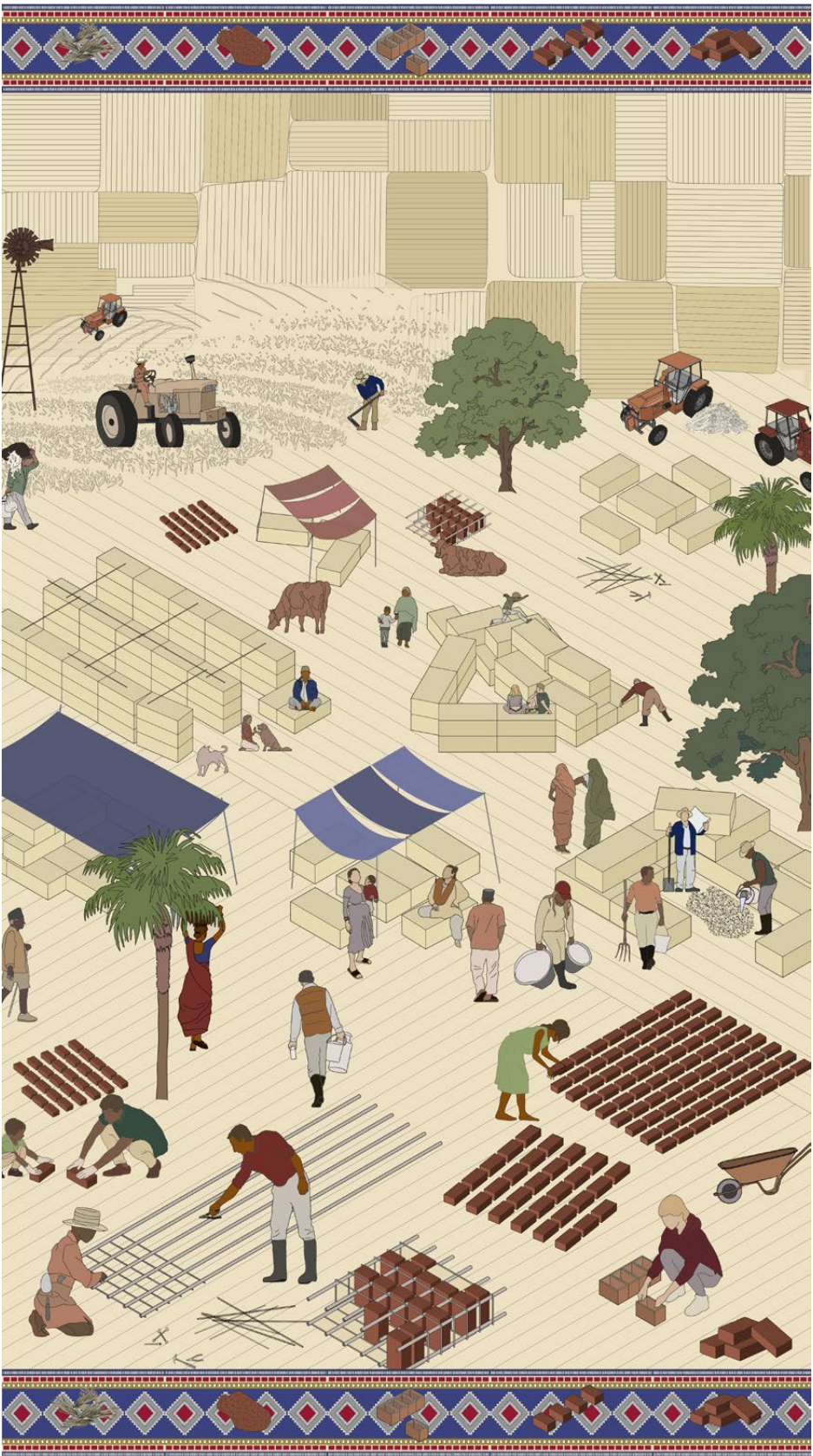
We propose a shift from burning to producing. Using local skills inspired by the established brick industry, rice straw can be transformed into straw mud-bricks. By producing these bricks, 62 million tons of carbon emissions can be avoided and captured in the material itself every year. Simultaneously, farmers can earn ten times more revenue by selling these bricks rather than selling only the rice.

The new system is an open one that intervenes in the 4 stages of brick-making. The first two, mixing and forming the bricks, initiate our project through a rice harvest festival held in the fields.

The following stages, drying and storing, establish our collective material bank by reframing walls as a system of drying racks. Instead of occupying large amounts of land to dry the bricks, these racks enable vertical drying with 1-2 inch gaps between bricks, eliminating the need to turn them and maximizing air flow.



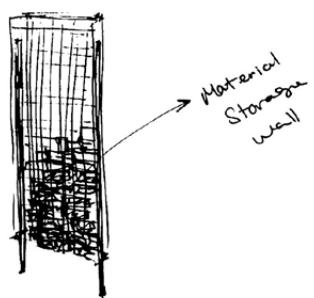
THIS PROJECT PARALLELS SEASONS AND WEATHER PATTERNS, AS WELL AS HARVEST AND LABOR CYCLES. BY ACTIVATING THE 15-DAY WINDOW, A FESTIVAL OF BRICK-MAKING ENGAGES FARMERS, BUILDERS, AND VOLUNTEERS TO CREATE 1 MILLION BRICKS. IT'S BOTH A CELEBRATION AND A LABOR OF CARE. HALF WILL GO TOWARD THE PMAY-G WAITLIST SYSTEM (A GOVERNMENT-RUN RURAL HOUSING SCHEME), A QUARTER WILL BE STORED IN OUR MATERIAL BANK, AND A QUARTER STORED IN COMMUNITY INFRASTRUCTURE.



This is a people-centered story grounded in existing landscapes. The temporary festival during harvest extends into the material bank: a decentralized, community-owned production and storage space. From the dry season to monsoon season, our system is constantly adapting to environmental changes and weaving people, materials, and landscape together.



TOP RICE HARVEST FESTIVAL - A CELEBRATION OF CROPS, LABOR, AND MATERIAL-MAKING. OPPOSITE IMAGES TAKEN DURING KINNE WEEK, SHOWING LOW-TECH REBAR TYING AND A MIXING AREA AT A CONSTRUCTION SITE IN DELHI, INDIA.



This festival is a celebration of crops and materials. We embrace their dynamic cycles through temporary bale structures for resting, gathering, and eating, while simultaneously mixing and forming the bricks on the land itself. Rather than pressurizing these 15 days, we see them as an opportunity to bring farmers and community members together in the field. At the same time as brick-making, the festival produces the low-tech drying racks made out of rebar, inspired by the local construction methods we saw on our trip.

These racks do not require any additional equipment or specialized labor. They're solely dependent on the established skills and knowledge of local labor.

Our Material Bank acts as a soft, open system rather than a closed one, allowing energy and matter to pass through, creating an ecosystem of community interaction. Sliding walls function as drying racks and storage for 250,000 bricks — forming a link between input and output that are always in flux. These walls follow along the landscape of rice rows, weaving the fields into the building. The building hosts temporary programs such as intimate workshops and classes. It also provides space for local Panchayat meetings.

As the monsoon approaches, all racks are pushed inside. The floating roof allows cross-ventilation and serves as a water collector during this season. Bricks stored in community infrastructure—benches, curbs, and fences—continue our language of material storage throughout the village.



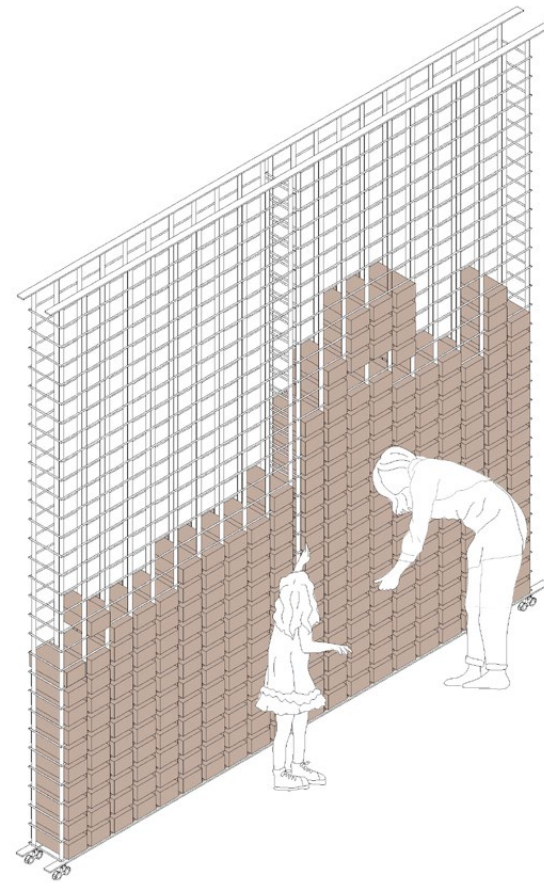
CLOCKWISE FROM TOP WOVEN PANELS MADE FROM COTTON FABRIC. PRESENTED AT THE FINAL REVIEW; PHYSICAL MODEL OF A REBAR WALL SECTION, MADE FROM $\frac{1}{2}$ " STEEL REBARS, WIRE TIES, AND 9"×6"×3" STRAW-MUD BRICKS.



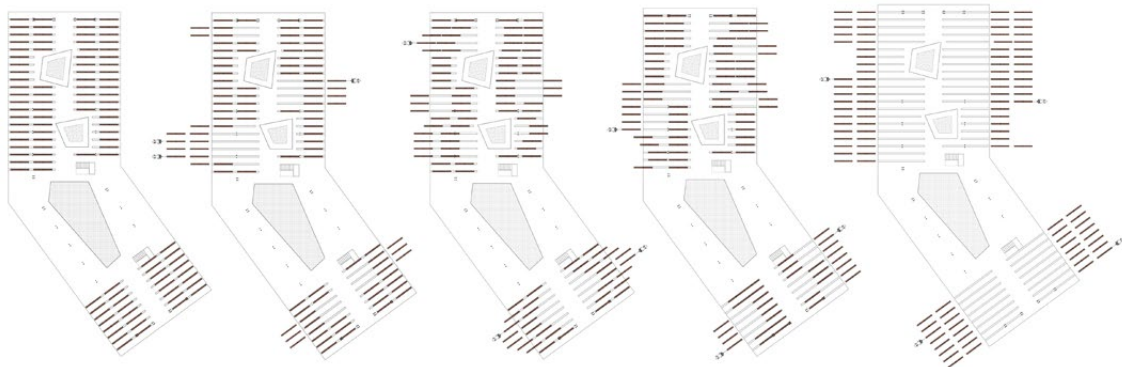
FINAL REVIEW EXHIBIT

Rather than thinking about our built environment as static, we imagine it as something flexible—with a sort of choreography that changes over time, enabling interaction between people and space. Sliding volumes, porous walls, straw-woven panels and mesh circulation challenge the definition of architectural structures. From the building scale to the individual detail, our project sets conditions in motion to allow distributed agency to take root.

We are reimagining the traditional idea of what a “wall” is, turning the wall 90 degrees and blurring the line between exterior and interior space. Bricks can be individually pulled out of the racks, supplying needs as they arise and creating different layers of porosity. At the same time, drying racks can be wheeled fully outside, fully inside, or in-between, opening pockets of space to accommodate different uses.

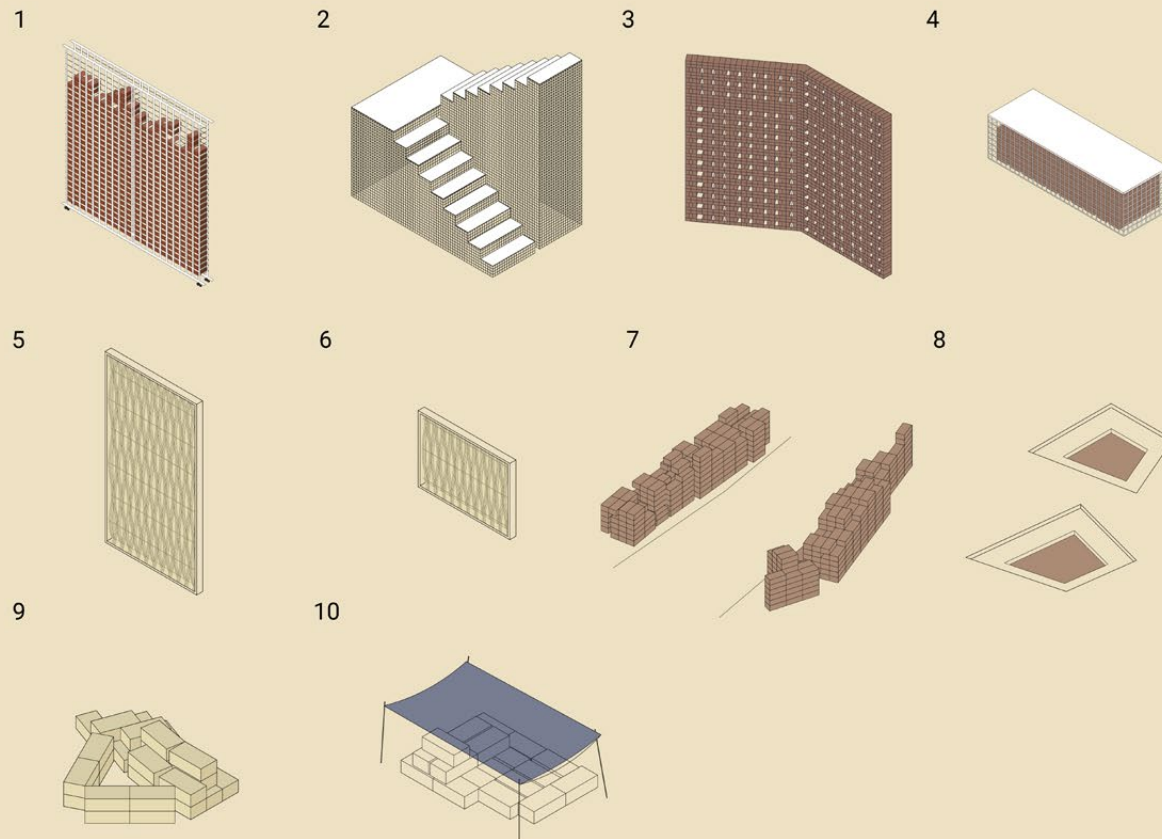


ABOVE DRYING RACKS IN MOTION—THEIR CHANGING STATE REFLECTS COMMUNITY INTERACTION. BRICKS CAN BE REMOVED OR ADDED, TRANSFORMING THE RACKS FROM FULL TO POROUS, FROM STATIC TO ACTIVE. **BELOW** GROUND FLOOR PLAN MAPPING THE FLEXIBLE CHOREOGRAPHY OF SPACE. AS DRYING RACKS SLIDE AND SHIFT, THE BUILDING ITSELF CHANGES—OPENING, CLOSING, AND ADAPTING TO USE. **RIGHT** A COLLECTIVE TOOLKIT—COMPONENTS FOR BUILDING, MAKING, AND ADAPTING THE SYSTEM OVER TIME.



MATERIAL BANK FOR CARBON STORAGE

COLLECTIVE TOOL KIT



Details

- 1 Drying/storage rack
- 2 Stairs for broken bricks
- 3 Porous brick wall
- 4 Storage brick bench
- 5 Wovean straw panel
- 6 Wovean straw railing
- 7 Curbs
- 8 Mixing areas
- 9 Straw-bale furniture
- 10 Shading

“If you involve people in making, they take care of it differently—because it’s theirs.”

— Pavel, Hansali Organic Farm, Punjab, India

The collective tool kit is more than a set of construction tools—it is a shared language of making. Developed in response to the constraints and capacities of local contexts, it prioritizes simplicity, affordability, and accessibility. Each tool is designed to be used by anyone—farmers, students, or visitors—without requiring technical expertise. The tool kit supports low-tech, high-agency building processes, enabling the transformation of agricultural waste into architectural material through collective labor. It invites participation at every stage—from mixing and shaping to drying and assembling.

The tool kit also serves a pedagogical role. It teaches through doing, inviting people to experiment, adapt, and learn together. Its components can be assembled from reused materials on site, or disassembled and returned to the earth—or to another site—as needs change. It extends the logic of the building itself: flexible, mobile, and participatory. As people gather, they don’t just build walls or racks—they build relationships, practices, and a sense of ownership. Like the bricks, these details carry the imprints of those who use them, anchoring care and continuity in the act of making.



CLOCKWISE FROM TOP INTERIOR VIEW SHOWING A WORKSHOP GATHERING ALONGSIDE A PANCHAYAT (LOCAL LEADERSHIP) MEETING; IMAGES FROM HANSALI VILLAGE, PUNJAB, INDIA, TAKEN DURING KINNE WEE.

Sliding walls carve out workshop spaces to foster collective knowledge exchange, reframing space not only as the “built” but what is continually becoming. Agency, materials, and money is kept in the hands of the village rather than the government, reversing the roles and increasing the state’s dependency on the collective.

At its core, the system is not defined by walls but by relationships. Brick racks slide, spaces open, and materials pass between hands—each gesture contributing to a choreography of participation. Instead of permanence, the design embraces adaptation: structures flex, reorient, and evolve through use. Spatial systems act as relays of energy, movement, and perception, inviting continuous negotiation between people, materials, and environment. What emerges is not a fixed form, but a framework shaped by continuity and response.

Whether it stems in Hansali or another nearby village, the environment becomes one of potential rather than conclusion. From carbon capturing to material storing, our system empowers farmers and centers the community around the strength of a collective.





Addressing global demands for critical minerals such as cobalt and nickel, which are vital for technologies such as lithium-ion batteries, has become increasingly important. Traditional land-based mining practices have often resulted in severe environmental damage, including deforestation, soil erosion, and water contamination.¹ For instance, cobalt mining in the Democratic Republic of Congo has led to extensive deforestation and soil erosion, impacting local communities and ecosystems.² As the world transitions towards renewable energy, the need for these minerals has intensified, necessitating more responsible extraction methods.

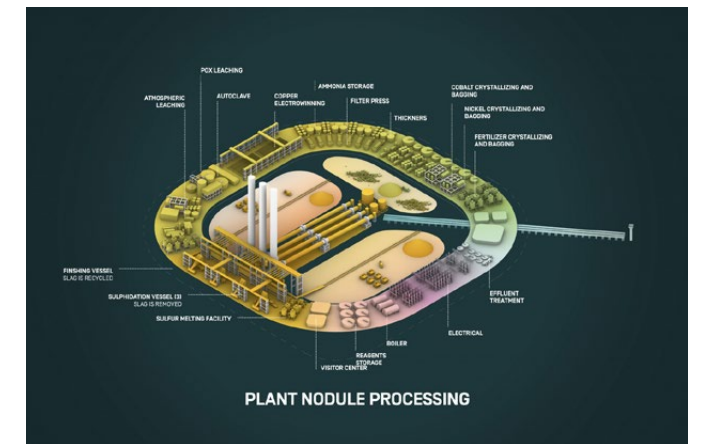
The pursuit of sustainable deep-sea mineral extraction has emerged as a critical endeavor in the face of growing global demand for these minerals.³ The seeds of deep-sea mining were sown during the post-war boom when the demand for raw materials exceeded conventional sources due to massive wartime destruction.⁴ The Deep Sea Mining project by Bjarke Ingels (BIG), in collaboration with The

Metals Company, represents an effort to address this demand while attempting to mitigate environmental impacts. However, it also raises significant ecological and ethical concerns that warrant critical examination.

The project targets polymetallic nodules on the ocean floor, which are rich in essential minerals. To minimize environmental disruption, it employs robotic mineral collectors inspired by biomimicry and equipped with advanced sensors and AI-driven algorithms. These technologies enable accurate navigation and extraction of nodules, potentially reducing the environmental footprint compared to traditional mining methods.⁵ The modular design allows scalability and adaptability to various oceanic conditions, ensuring minimal ecological impact while maximizing efficiency. This approach reflects BIG's commitment to sustainable resource extraction. As Bjarke Ingels stated, "We wanted to create a project that harnesses the potential of the ocean while minimizing its impact on the environment".⁶

The evolving political landscape surrounding deep-sea mining involves a diverse array of political actors, including governments, NGOs, and local communities. By navigating complex maritime territories and international waters, the project integrates legal frameworks and spatial planning to redefine how nations and international bodies approach deep-sea mining. Over time, these collaborations evolve to address emerging environmental and socio-economic challenges, influencing global policies on marine resource management.⁷ The project's ability to foster transparent governance and equitable resource distribution highlights the evolving political landscape in which deep-sea mining operates.

However, deep-sea mining presents risks. Potential environmental impacts include disrupting sensitive habitats, releasing pollutants, and altering natural currents, complicating efforts to ensure effective environmental protection.⁸ BIG's project aims to address these issues with sustainable



LEFT COBALT MINING SITE NEAR KASULO, DEMOCRATIC REPUBLIC OF CONGO. PHOTO BY SIDDHARTH KARA, THE GUARDIAN, OCTOBER 12, 2018. RIGHT BJARKE INGELS GROUP, CONCEPT IMAGES FOR A ROBOTIC MINERAL COLLECTING FACILITY. ARCHDAILY, MAY 19, 2021.

THE PROMISE AND RISKS OF DEEP-SEA MINING: A CASE STUDY OF BIG'S PROJECT

ARCHA4402 TRANSSCALARITIES, SUMMER 24'
INSTRUCTOR ALAN J. ALANIZ



technologies and practices. Yet it simultaneously raises critical questions: Can architects truly solve global issues and elevate the profession to a new scale? If deep-sea mining meets both environmental and resource needs, who will ultimately own and claim these natural resources? Can architects, through top-down planning, balance the needs for cobalt, environmentalism, and sustainability while addressing under-seen sovereignty? These enduring questions challenge the trajectory of sustainable development in deep-sea mining.

This project forces us to reconsider our relationship with

nature and the distinction between the man-made and natural worlds, challenging us to reflect on what this relationship means and how our reliance on these resources impacts the environment.⁹ While this practice appears promising, it might have long-term ecological impacts that are yet to be fully understood, posing a significant threat to global ecosystems.

LEFT 'RISK!' PAINTED ON NORMAND ENERGY DURING GSR MINING TESTS. PHOTO BY MARTEN VAN DIJL / GREENPEACE, MAY 14, 2021. RIGHT BJARKE INGELS GROUP, CONCEPT IMAGES FOR A ROBOTIC MINERAL COLLECTING FACILITY. ARCHDAILY, MAY 19, 2021.



If deep-sea mining meets both environmental and resource needs, who will ultimately own and claim these natural resources?

¹ Rahul Sharma, ed., Perspectives on Deep-Sea Mining: Sustainability, Technology, Environmental Policy and Management (Cham: Springer International Publishing, 2022), 39-41.

² Siddharth Kara, "Is your phone tainted by the misery of the 35,000 children in Congo's mines?," The Guardian, October 12, 2018

³ Sharma, Perspectives on Deep-Sea Mining, 4-7; Rahul Sharma, ed., Deep-Sea Mining: Resource Potential, Technical and Environmental Considerations (Cham: Springer International Publishing, 2017), 3-14.

⁴ Juergen B. Donges, ed., The Economics of Deep-Sea Mining (Berlin: Springer-Verlag, 1985), VII-X.

⁵ The Metals Company, "DeepGreen & Bjarke Ingels Group - Giving Form to a New Frontier - How to Change the World 2020," YouTube video, 32:11, December 8, 2020

^{6, 7} Ibid.

⁸ Sharma, Perspectives on Deep-Sea Mining, 497-526.

⁹ Sharma, Deep-Sea Mining, 14-16.

WHEN DUST SHAPES CLOUDS, WATER FOLLOWS...

ARCH 6912 EMERGING OPTIMISM: RESOURCES
& THE FOURTH INDUSTRIAL REVOLUTION, SP 25'

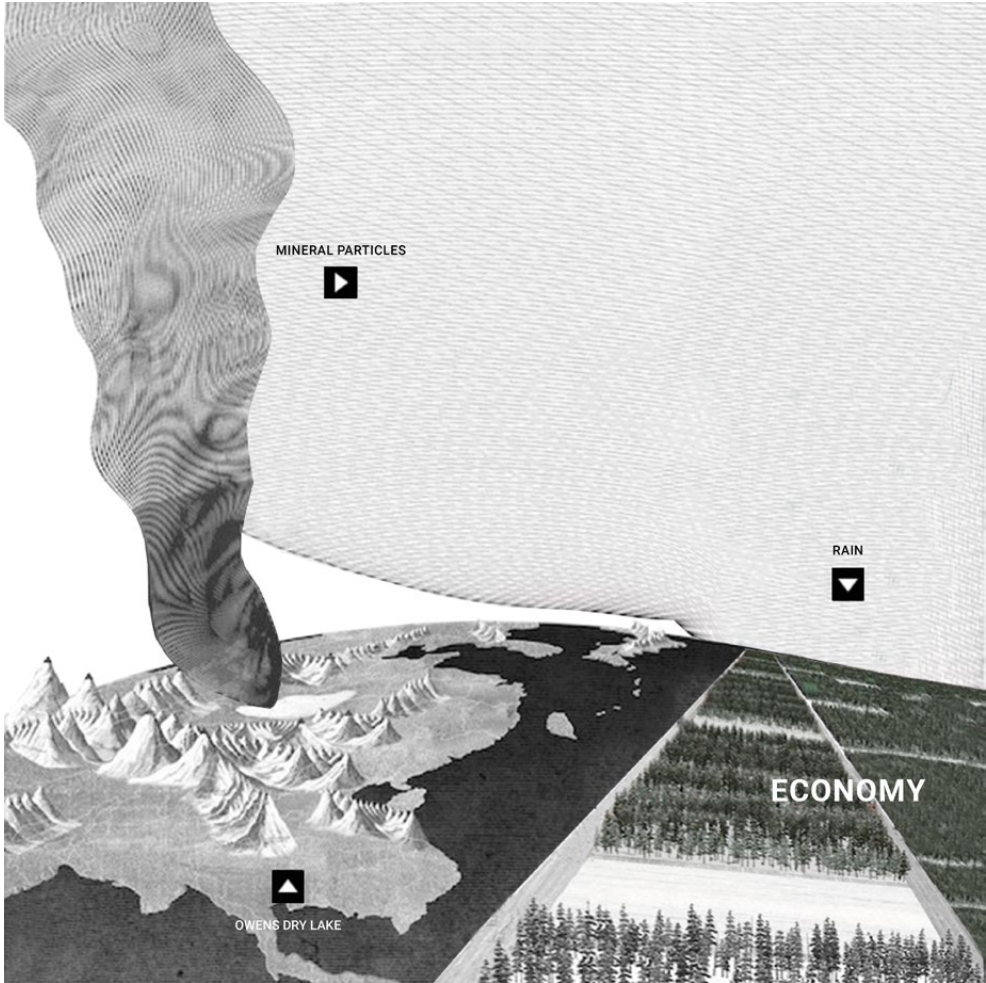
LED BY SEAN A. GALLAGHER

DUST

TO

DROP

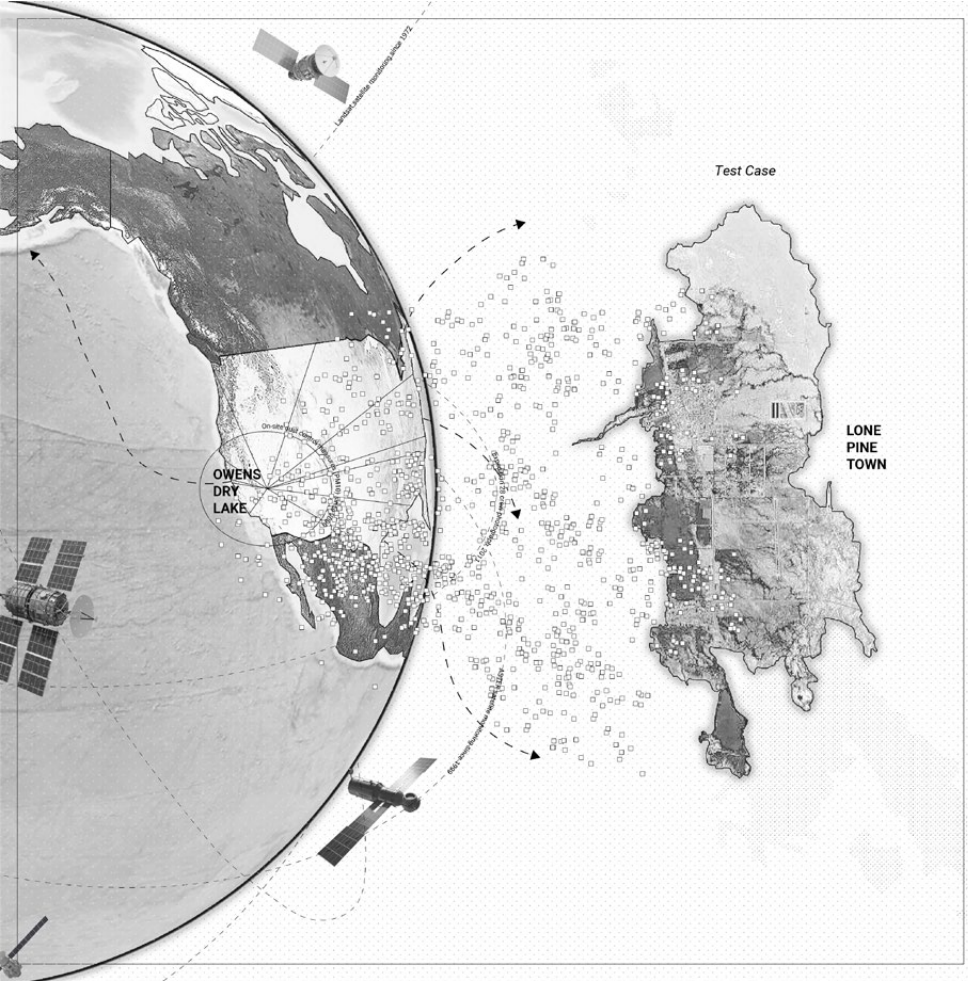
This project proposes a shift from remediation to adaptation in Owens Valley by transforming toxic dust into a hydrological asset. Using monitored dust storms as a resource, a system of scaled vacuums captures and releases mineral particles to seed rain. Lone Pine serves as a test case, showing how atmospheric pollution might sustain a new climate-driven economy.



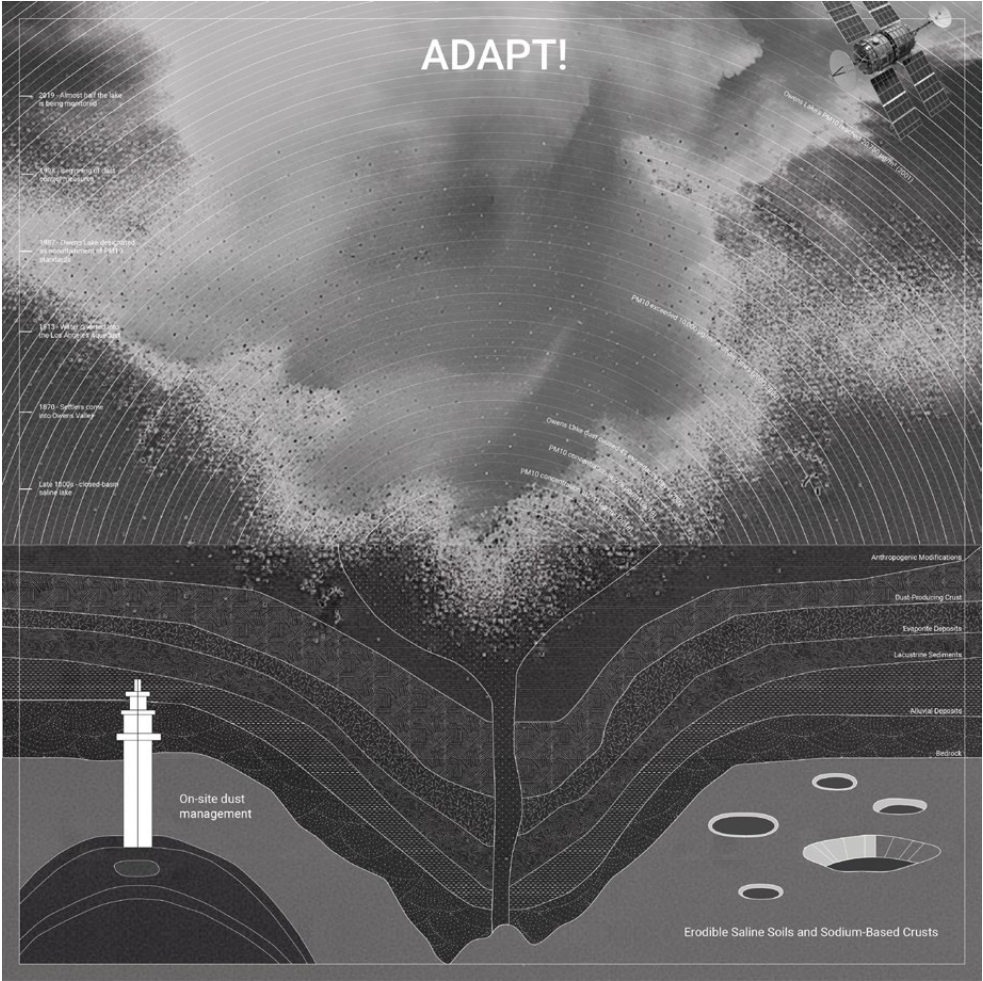
Can toxic dust become a resource?

In Owens Valley, California, storms carry industrial dust—the toxic legacy of a drained lake. But what if that pollution could become a source of water? What if dust could grow the next economy instead of choking the last one? This project proposes a system that turns something we see as unhealthy into something beneficial.

During the colder months, brittle salt crusts break apart, releasing dust into the air. These particles act as condensation nuclei, enabling cloud formation across the valley—transforming airborne dust into a microclimatic agent. By capturing and seeding this dust, we turn pollution into water and water into the foundation of a new economy.



In 1913, the Los Angeles Aqueduct drained Owens Lake to fuel the city's growth. The exposed lakebed became the largest source of dust pollution in the U.S., monitored to this day.



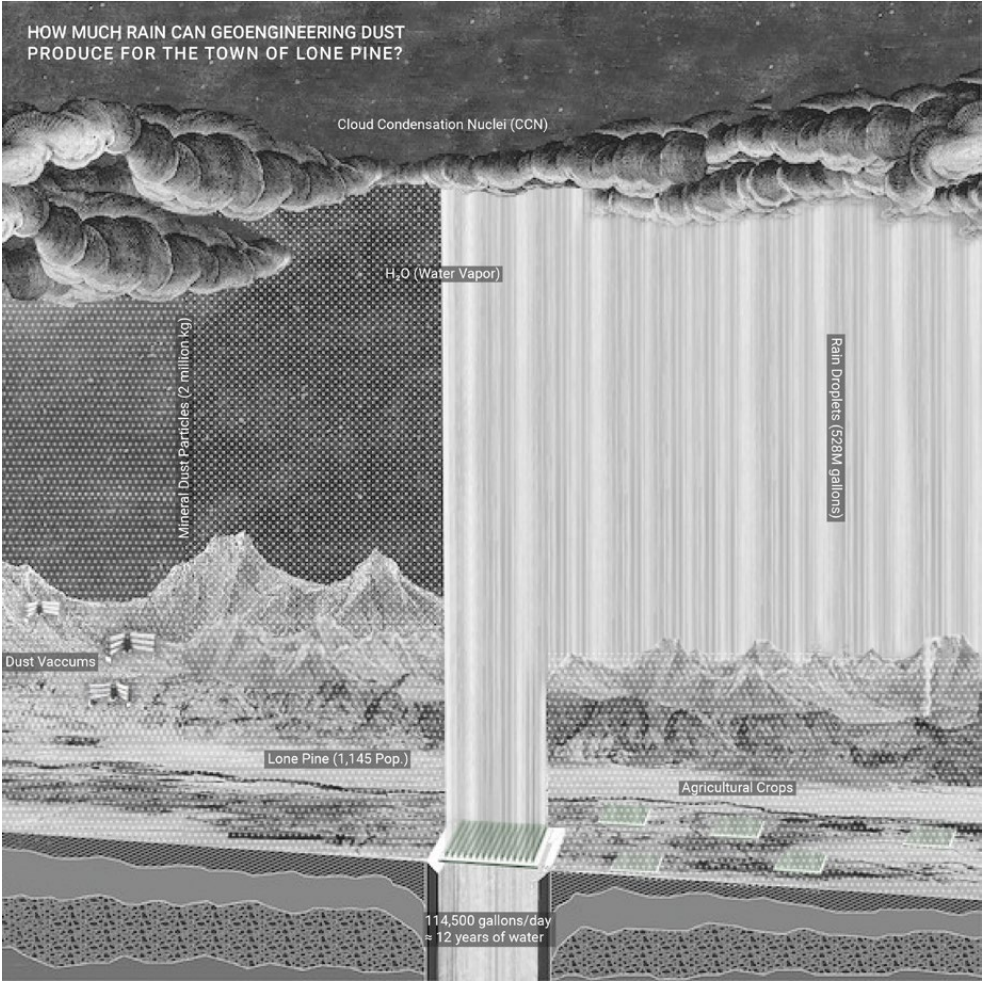
Despite new technologies, the lake's transformation remains unresolved. Its layered histories and contested infrastructures demand a shift—from remediation to adaptation. We often focus on cleaning pollution, not using it. But here, the dust itself is a resource. We have eyes and ears on the ground. We can track storms precisely—we know when they form, how big they are, and what they carry. This level of knowledge makes the dust not just manageable, but usable.



Lone Pine serves as a test case—a community both exposed to dust storms and in need of alternative water sources.



By capturing and storing mineral dust through a scaled vacuum–chimney, the system enables targeted release during high humidity and wind conditions, allowing the particles to act as condensation nuclei and trigger cloud formation.



A single storm can release 2,000 tons of fine particles—enough to generate up to 2 billion liters of rain. That’s more than 12 years of water for Lone Pine. Even at just 10% efficiency, it could supply the town for an entire year. While Los Angeles turns to energy-intensive desalination, this system offers a low-input alternative rooted in the landscape itself.



Dust to Drop points toward a future where environmental repair and economic logic align. It doesn’t just make sense ecologically—it makes sense economically. A new economy begins with what’s already in the air.

FROM SLOW VIOLENCE TO PROACTIVE COORDINATION: RETHINKING CRISIS IN ARCHITECTURE

Understanding the link between local actions and global consequences is crucial for addressing the environmental crisis, particularly climate change and ecological imbalance. This raises a key question: How can localized interventions, informed by local knowledge, challenge dominant narratives of global environmental control and foster a more equitable ecological balance?

This essay examines Xu Tiantian's acupuncture interventions on Meizhou Island, China, which use regional movements and local knowledge to connect the island's cultural practices with its environmental context, alongside Susan Schuppli's analysis of ice movements as a form of 'slow violence' that reveals the hidden global impacts of logistical capitalism and environmental manipulation intertwined with industrialization and coloniality. Both perspectives challenge the conventional crisis-response mindset, advocating for proactive coordination rather than reactive mitigation. By embracing localized, temporal perspectives and recognizing environmental evidence, this analysis redefines the global as a dynamic network shaped by specific local actions. This redefinition challenges conventional crisis-response thinking, framing crises as ongoing conditions and fostering a more nuanced, interconnected approach to global environmental challenges.

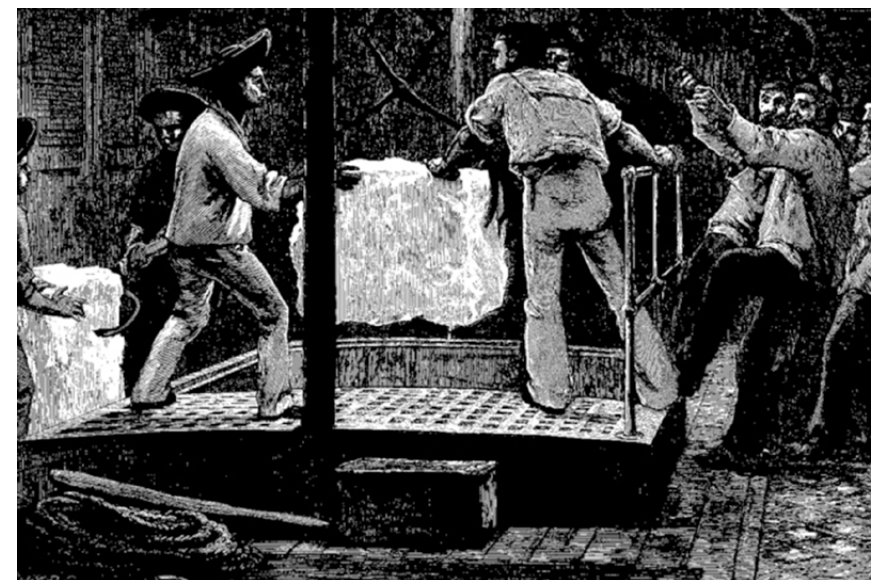
Xu Tiantian's work on Meizhou Island exemplifies a localized, context-sensitive approach. Described as 'acupuncture,' her method involves small-scale, strategically placed interventions that integrate seamlessly with the island's ecological and cultural systems.¹ Rather than focusing on a single iconic project, Xu implemented a series of humble interventions across the island, each aligned with natural rhythms such as tidal movements and agricultural cycles.² Her projects include revitalizing abandoned vegetable farms through water management systems and constructing floating platforms that support aquaculture and educational activities. These interventions reflect her commitment to understanding and restoring the cultural and environmental context of the area through regional circulation and meaningful encounters with local systems.

Her practice resonates with James Scott's concept of 'Metis' from



Seeing Like a State, which emphasizes the importance of ground-level, experiential knowledge in planning and development through actions.³ Unlike his critics of the power of top-down, generalized solutions, her interventions are deeply informed by the local community's lived experiences and embedded wisdom. For example, the community's durational engagement with the mangrove ecosystems over generations has fostered an intricate understanding of how these forests clean the water, retain soil, and support biodiversity—crucial for the broader ecology of the littoral landscape. As Xu notes, "We consider just standing on the land and observing this landscape, noticing the shifts and changes brought by the tide, and understanding the network system and biodiversity as an educational space."⁴ By integrating such practices into her designs, Xu challenges the notion that effective solutions must be grand or technologically advanced. Her work demonstrates how context-sensitive actions can reverberate through a larger system, fostering connections that benefit both human and non-human societies. Akin to the needles used in traditional Chinese acupuncture, these interventions appear physically humble but are profoundly ambitious, engaging with the entire circulatory network of activities across the island.

Xu's approach can be seen as a nuanced response to the 'crisis



LEFT AND TOP 'INTO THE ISLAND,' XU TIAN TIAN, 41:00 MINS, 2024, DIGITAL FILM—STILLS DOCUMENTING ARCHITECTURAL INTERVENTIONS ON MEIZHOU ISLAND. UNDER 'MOVING ICE,' SUSAN SCHUPPLI, 4K COLOR & SOUND, 48:39 MINS, 2024.

epistemology' critiqued by Kyle Whyte, who argues that framing environmental challenges as crises allows states to evade responsibility, focusing on short-term, reactive interventions.⁵ This crisis-driven mindset often dismisses the knowledge of communities who have lived through environmental changes for generations. By embedding her interventions within localized, adaptable systems, Xu reorients the focus from immediate crisis management to a coordinated, long-term approach.⁶ Instead of creating new structures, Xu emphasizes the importance of understanding community needs in relation to the various transformations brought by climate change. This grounded approach advocates moving beyond the paralysis of impending disaster, shifting from crisis to coordination to foster tangible impacts. By recognizing climate change as an ongoing issue, Xu's work underscores the importance of proactive engagement and the value of local knowledge in addressing global environmental challenges.

Susan Schuppli broadens the discussion by exploring how historical practices of environmental manipulation, deeply intertwined with industrialization and colonialism, shape our contemporary ecological realities. Her work critically interrogates these connections, particularly through the lens of ice and time, emphasizing Rob Nixon's 'slow violence' in her

“We consider just standing on the land and observing this landscape, noticing the shifts and changes brought by the tide, and understanding the network system and biodiversity as an educational space.”—*Xu Tiantian*

analysis of Moving Ice.⁷ Schuppli reveals the often unseen but profoundly damaging consequences of exploitative practices such as the global ice trade, illustrating how the extraction and transportation of ice were integral to the development of capitalist systems. This investigation reexamines the historical processes involved in capitalist development, challenging the conventional narrative that industrialization precedes climate change.⁸ Instead, Schuppli argues that the desire to manipulate and control the environment has been a driving force behind industrial development itself, reconfiguring environmental degradation as an inherent part of industrialization, not merely an unintended consequence.

Schuppli's analysis is enriched by the theories of Fred Moten and Stefano Harney.⁹ Their concept of 'logistical capitalism' describes the exploitative movement of resources and labor, rooted in the Atlantic slave trade and the plantation economy.¹⁰ Schuppli extends this idea to the global ice trade, revealing how environmental manipulation has been central to capitalist development. She also draws on Walter Mignolo's theory of 'modernity-coloniality,' which argues that modern scientific and technological advancements are inseparable from their colonial origins.¹¹ In this context, decolonizing environmental research, as Schuppli argues, requires "challenging the institutional frameworks that were established under colonial rule, which continue to shape the way scientific knowledge is produced and disseminated today."¹² By tracing the commodification of natural resources such as ice to the intertwined

histories of colonization and industrialization, Schuppli reframes climate change as a direct outcome of these exploitative processes.

Introducing the concept of environmental evidence as a form of justice, Schuppli emphasizes the need to document and understand the lived experiences of those impacted by environmental changes. By reframing environmental phenomena not just as resources or scientific data, but as living testimonies, she validates the experiences of marginalized communities often overlooked in global systems. This approach is exemplified in her work *Listening to Ice*, where she integrates scientific research with local knowledge to document the material transformations of receding glaciers and the lived experiences of communities affected by glacier recession and water scarcity.¹³ Her perspective challenges conventional methods of addressing climate change and advocates for an integrated approach that values local practices and the contributions of communities directly impacted by environmental shifts, urging a reconsideration of how we approach environmental resources on a global scale.

Xu Tiantian and Susan Schuppli's work, though distinct in methods and contexts, converge on critical themes that challenge global environmental narratives. Both explore the interplay between the local and the global, demonstrating how localized interventions can resonate across broader systems and reshape global environmental management. By engaging with temporal scales, they disrupt linear narratives of environmental crisis, emphasizing ongoing, dynamic

processes that unfold over time. Xu's focus on natural and cultural rhythms offers an alternative to dominant paradigms, emphasizing the importance of understanding and restoring ecosystems. Her site-specific interventions harmonize with local contexts, showing how thoughtful engagement with these systems fosters ecological balance. In parallel, Schuppli examines the movements and impacts of historical and contemporary resource control, revealing how environmental exploitation—rooted in industrialization and colonialism—has shaped our current ecological realities. Together, their perspectives illuminate two pathways of environmental engagement: one exposing the consequences of environmental manipulation, the other advocating for an integrative approach rooted in local knowledge and restoration. This duality challenges dominant global narratives and offers a more interconnected approach to addressing ecological challenges, acknowledging the power of local actions in shaping global outcomes.



¹ In the context of Xu Tiantian's architectural practice, acupuncture interventions refer to precise, small-scale projects that strategically engage with and enhance existing environmental and social systems. Similar to acupuncture in traditional Chinese medicine, these interventions are designed to stimulate and harmonize the broader ecological and cultural flows of the island, creating a network of interlinked activities and relationships.

² As Xu Tiantian explained in her July 3, 2024 lecture at Columbia University GSAPP, "Initially, the proposal was to create a central museum to attract tourists, but after understanding the island's environment and culture, we shifted focus. Instead of a singular attraction, we developed interventions dispersed across the island, integrating with local villages to prioritize regional circulation and sustainable development."

³ *Seeing Like a State* by James C. Scott is a seminal work that critiques the top-down, standardized approaches often used by states and large institutions in planning and development. Scott argues for the value of 'Metis,' a form of knowledge that is practical, experiential, and rooted in a local context. See James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 2020).

⁴ TianTian Xu, "Into the Island," Arguments Course (class lecture, Columbia University GSAPP, New York, NY, July 3, 2024).

⁵ Kyle Whyte critiques 'crisis epistemology,' the framing of challenges as immediate crises that often lead to short-term solutions. He argues this approach overlooks ongoing issues and fails to address root causes, advocating instead for long-term, community-driven strategies informed by Indigenous knowledge. See Kyle Whyte, "Against Crisis Epistemology," in *Handbook of Critical Indigenous Studies*, ed. Aileen Moreton-Robinson, Linda Tuhiwai-Smith, Chris Andersen, and Steve Larkin (New York: Routledge, 2021), 52-64.

⁶ Her work on Meizhou Island exemplifies this approach by leveraging existing local techniques, such as the preservation and enhancement of mangrove forests. These natural systems have long been employed by the community for soil retention and seasonal land management, reflecting a coordinated environmental strategy that engages with and enhances the existing ecological balance.

⁷ Susan Schuppli's film *Moving Ice* explores the historical movement of ice as a commodity, beginning in the early 1800s with the 'frozen water trade,' where natural ice was shipped from glaciers and winter lakes to colonial elites in the tropics. This practice, rooted in colonialism and capitalism, is linked to the broader concept of 'slow violence,' a term coined by Rob Nixon to describe the gradual, often invisible, environmental harm that disproportionately affects marginalized communities. Schuppli uses this framework to reveal how environmental manipulation for profit has long contributed to the acceleration of climate change. See Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge, MA: Harvard University Press, 2011).

⁸ historical processes refers to the unfolding timeline of events and practices that shape capitalism, particularly how environmental manipulation has been integral to capitalist development. This perspective challenges the assumption that environmental degradation is merely a byproduct of industrialization, suggesting instead that it is an inherent aspect of the system.

⁹ Moten and Harney's concept of 'logistical capitalism' critiques how capitalism organizes and controls labor and resources for profit, with historical roots in the Atlantic slave trade and plantation economy. See Fred Moten and Stefano Harney, *The Undercommons: Fugitive Planning and Black Study* (Wivenhoe: Minor Compositions, 2013).

¹⁰ The Atlantic slave trade and the plantation economy were fundamental components of the early capitalist system, where the exploitation of enslaved labor and the production of cash crops such as sugar and cotton laid the groundwork for modern industrial capitalism. This system also involved the large-scale environmental manipulation of tropical landscapes to meet the demands of European markets, demonstrating an early form of the extractive processes that continue to influence global capitalism today.

¹¹ Walter D. Mignolo argues that coloniality is the darker side of Western modernity, a complex matrix of power created and controlled by Western men and institutions from the Renaissance, driven by Christian theology, through the late twentieth century and the dictates of neoliberalism. He suggests that this cycle of coloniality is coming to an end. See Walter Mignolo, *The Darker Side of Western Modernity: Global Futures, Decolonial Options* (Durham: Duke University Press, 2011).

¹² Susan Schuppli, "Just Ice," Arguments Course (class lecture, Columbia University GSAPP, New York, NY, July 17, 2024).

¹³ *Listening to Ice* documents activities conducted at Drang Drung Glacier in the Zaskar Range of the northeastern Himalayas in 2021. Schuppli's team used sonic instrumentation and conducted workshops with local villagers to study the glacier's transformations and engage with communities who have developed practices for managing glacial streams. Some of these communities have faced forced climate migration due to water shortages, highlighting the severe impact of glacier recession on local populations.

"Soft-Infrastructure"

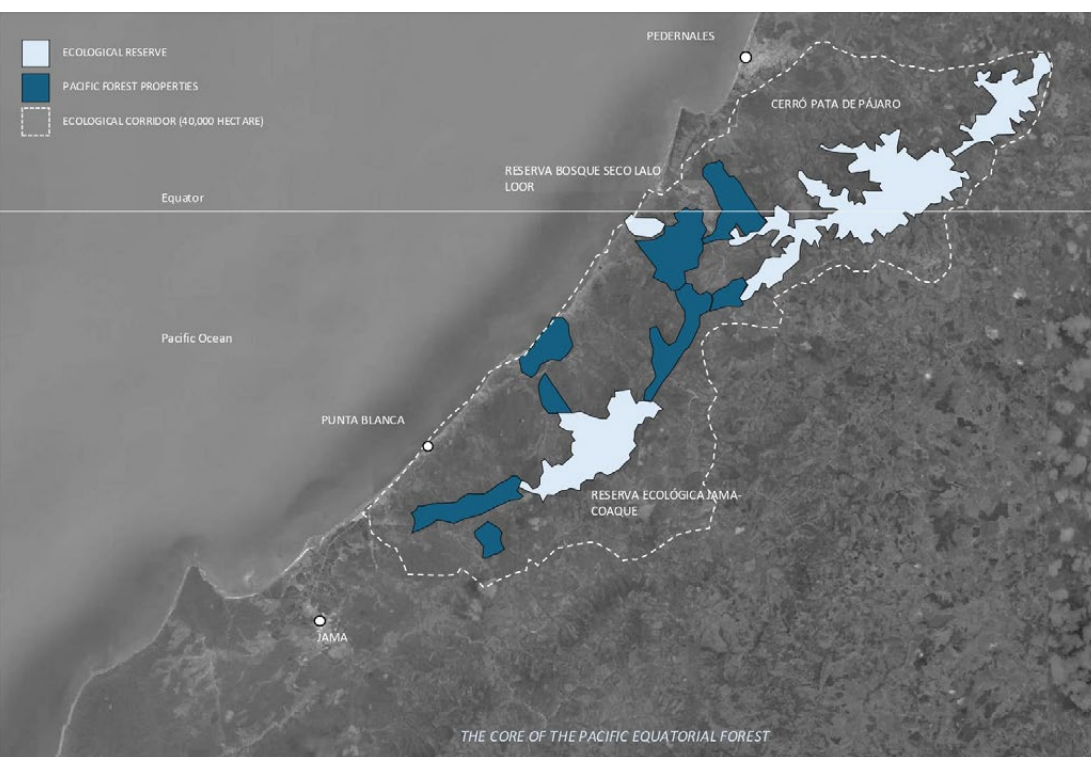
caring for

THE RIGHT TO THE BEACH / SUSTAINABLE
COMMUNITIES IN THE ECUADORIAN COAST
ARCHA6853 ADVANCED ARCHITECTURAL DESIGN
STUDIO, SUMMER 2024
LED BY DAVID BARRAGÁN, ABDULLAH MADDAN

THIS PROJECT EXPLORES
THE TERRAIN WHERE THE
POLITICAL DIMENSION OF
DESIGN CAN BE EXAMINED,
CONSIDERING ARCHITECTURE
NOT MERELY AS A SPACE FOR
SOCIETIES TO WALK IN, BUT
AS A COMPOSITIONAL OR
COSMOPOLITICAL PRACTICE
THAT CONNECTS AND
DISCONNECTS, CREATING A
BODY OF EVIDENCE THAT GIVES
VOICE TO CONTROVERSIES.

This is a song between us, the sea, the trees. A forest
of us. A symbiotic symmetry. A branching geometry
that flows within us and around us. But do you see it?
Can you feel it? Do you breathe it? Can you find it?

ASSEMBLED FULL-SCALE INSTALLATION 255"



Understanding Ancient Practices

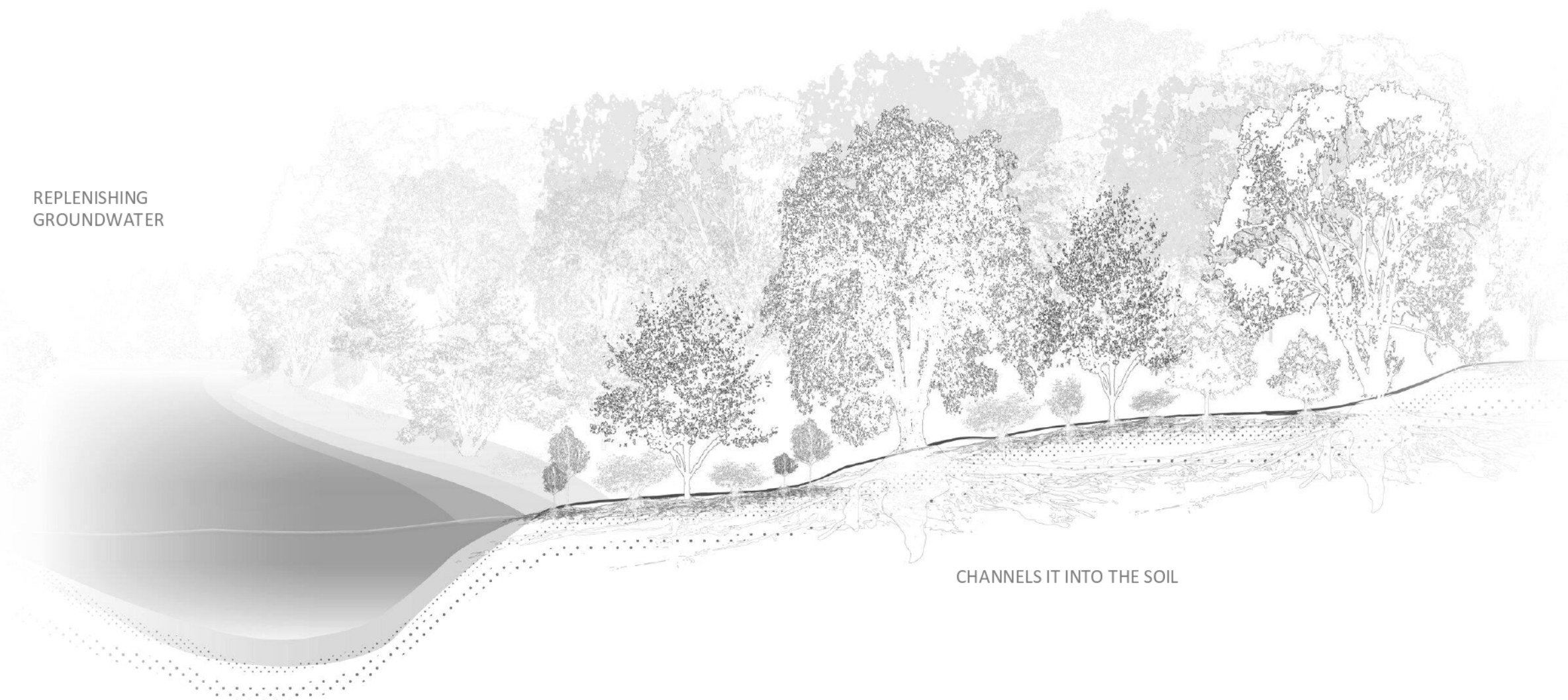
The Pacific Equatorial Forest is a tropical forest ecosystem located along Ecuador's coastal mountain range, primarily concentrated in northwestern Manabí. This forest is renowned for its rich biodiversity and unique ecological significance. The core of the forest lies between Jama and Pedernales, encompassing three government-managed ecological reserves that are part of an essential ecological corridor, maintaining biological connectivity. This project focuses on the area between Punta Blanca and the Pacific Forest of Ecuador, serving as a crucial link between the coastal and forest ecosystems.

Over the past 50 years, the rainy season in this region has shrunk from eight months to four, leading to prolonged droughts. The loss of 98% of regional forest cover has disrupted the precipitation cycle, dried up rivers, and depleted soil fertility. This process of 'desertification' poses severe threats to food security, exacerbates climate change, and drives poverty. Coastal Ecuador, particularly northern Manabí, remains one of the last ecologically viable areas in the region.

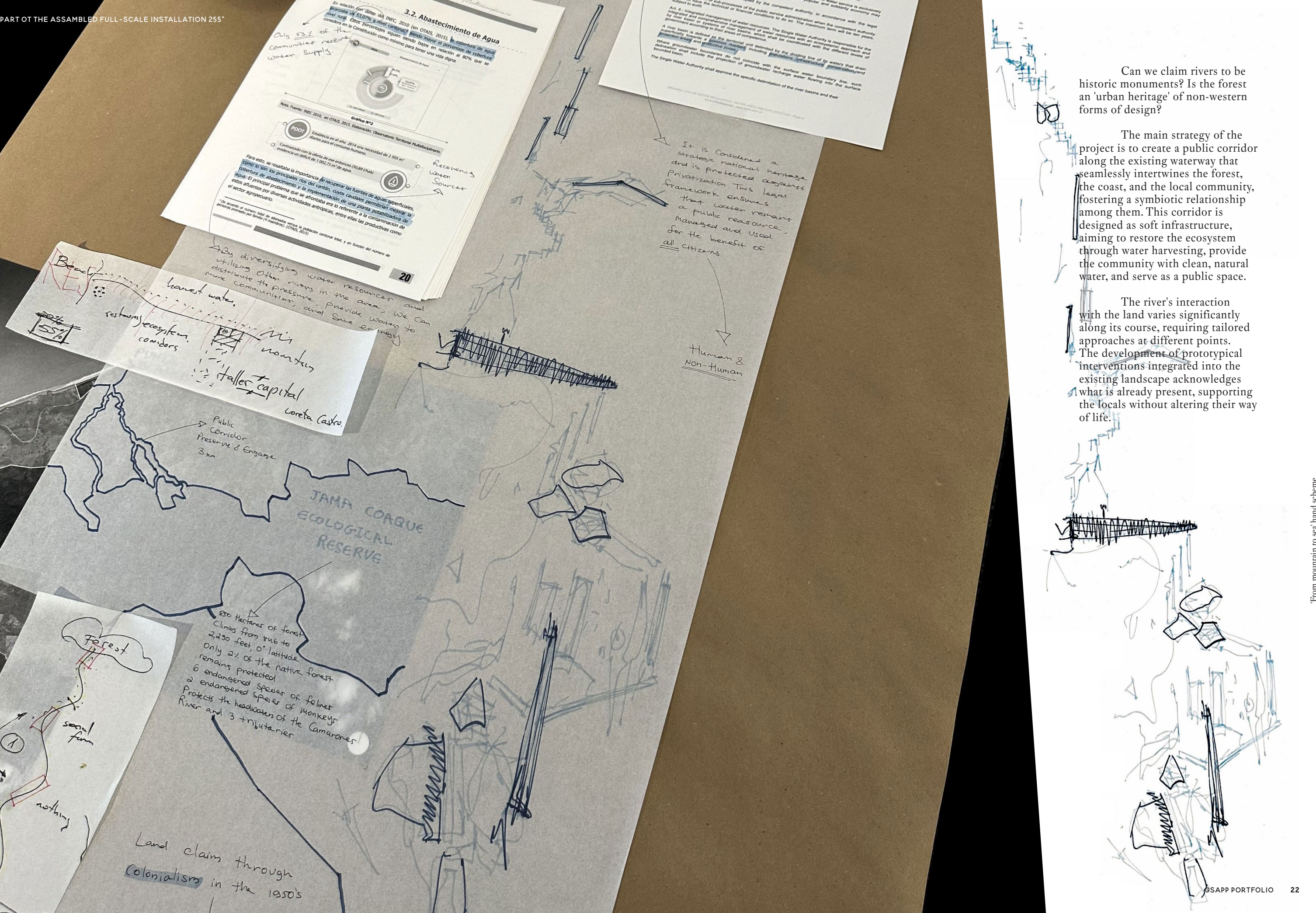
Regenerative agroforestry systems, implemented by farmers in this area, play a critical role in water conservation. The dense vegetation of these agroforestry plots captures moisture from the air and channels it into the soil, replenishing groundwater and supporting local streams. Currently, most of the water supplied to communities in the Jama district comes from Rio Jama. However, the rivers do not receive adequate treatment to be fully suitable for human consumption, and only 53% of the communities have access to water. By diversifying water resources and utilizing other rivers in the area, we can reduce pressure on existing sources, provide water to more communities, and conserve energy.

DENSE VEGETATION CAPTURES MOISTURE

REPLENISHING GROUNDWATER



CHANNELS IT INTO THE SOIL

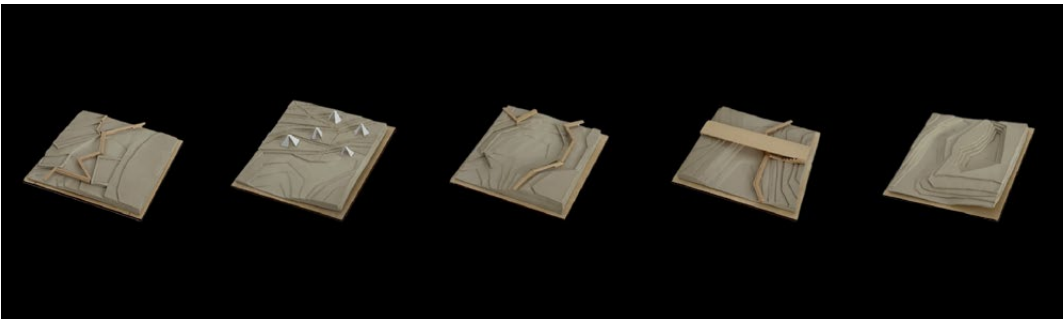
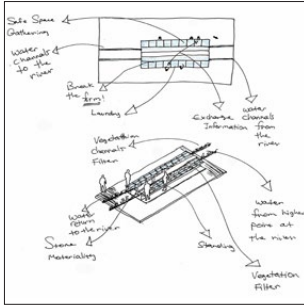
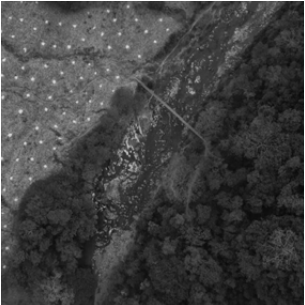
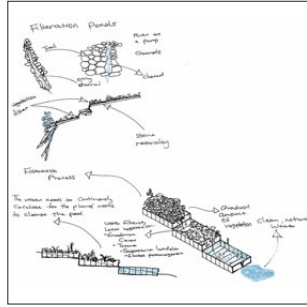


Can we claim rivers to be historic monuments? Is the forest an 'urban heritage' of non-western forms of design?

The main strategy of the project is to create a public corridor along the existing waterway that seamlessly intertwines the forest, the coast, and the local community, fostering a symbiotic relationship among them. This corridor is designed as soft infrastructure, aiming to restore the ecosystem through water harvesting, provide the community with clean, natural water, and serve as a public space.

The river's interaction with the land varies significantly along its course, requiring tailored approaches at different points. The development of prototypical interventions integrated into the existing landscape acknowledges what is already present, supporting the locals without altering their way of life.

'From mountain to sea' hand scheme



Hands-On Landscape Heritage

Water collection in this area is primarily managed by women, who are responsible for the household, including the gathering and management of water. Despite the rivers being polluted, locals still use them to collect water for laundry and agriculture, which are the main contributors to the pollution. While serving as a public space, it will also be a safe space, a gathering space, a place for exchanging information, a place where the children can play safely around.

Drawing on local traditions from the Inca culture, which are prevalent throughout Latin America, this project utilizes 'Pirca' stones for construction. These stones, traditionally used for building water systems to collect water from the mountains, are locally sourced, easy to work with, and accessible in the area. They can be built with local labor without requiring specialized skills, making them ideal for this project. The use of 'Pirca' stones is complemented by local wood, which together form the primary materials for the

project. Through the exploration of clay models, five scenarios were developed: Filtration ponds, Agroforestry terraces, a public laundry area, a transitional area between the forest and the coast, and a Safe Water Pool.

These interventions are designed to harvest water and serve as public spaces, utilizing the river's natural flow and topography as a natural pump. Filtration ponds with vegetation gradually purify water through interconnected channels, with a floating trail following the water's path. Agroforestry terraces use river channels for irrigation, preserving the forest and supporting local agriculture without altering the terrain. The public laundry area, situated beside the river, prevents pollution while creating a safer space for children to play. The transitional area ensures safe access to the river, and the Safe Water Pool on the coast offers a secure spot for swimming and learning about water collection, contrasting with the river's natural wildness.

PART OF THE ASSEMBLED FULL-SCALE INSTALLATION 255"





WEAVING THE THREAD

A metabolic and ecological research-based artwork on Eri silk, exhibited as part of the *MetMat* exhibition at GSAPP

ARCH 6911 | METABOLIC MATERIALS | SPRING 25' | LED BY MICHAEL WANG | PARTNERED WITH ANDREA ZAMORA



ABOVE AN INTERACTION WITH THE EXHIBITED ERI SILK COCOON, CREATING A SENSORY EXPERIENCE OF MORE -THAN- HUMAN METAMORPHOSIS. OPPOSITE A DETAILED IMAGE REVEALING THE LAYERED STRUCTURE OF COCOON THREADS.



"Knowledge can no longer be ascribed to, or produced within, disciplinary boundaries, but is entirely entangled." —*Neri Oxman*

The cycle of the eri silk cocoon. What is toxic to some becomes a resource to others. What is waste to others becomes shelter of some. Intra-scalar relationships start taking place. The intricate architecture of a worm is woven inside the architecture of the human.

From the soil, to the leaf, to the worm, to the human, to the soil. On and on again. The thread between human and non-human is never ending. The path not clear, the relationship nonlinear. Still, it weaves.

It weaves a space porous enough to breathe, yet layered enough to protect. Its threads overlap and loop, a shelter that is both boundary and invitation. And invitation to transform.

Inside, but filtering in the outside. Light fills in, air moves through, a reminder that boundaries are not binaries. The cocoon becomes liminal; nor inside or outside; but suspended in an inbetween. A moment frozen but continuous in time.

Tension arises. The worm processes toxins. A shelter is formed. A new form life is born from the cocoon. The cocoon a residue, is now rewoven anew. Another species finds refuge. We return, again, to Earth. In this maze we find ourselves relying on our environment to shield ourselves from its factors.

On and on the worm weaves its thread. Tension, transformation, release and return. From the soil, to the leaf, to the worm, to the human, to the soil.

Again

And again

And again.

TOP QUOTE NERI OXMAN ON THE METABOLIC BIOFEEDBACK CYCLE BETWEEN RESEARCH DOMAINS NECESSARY FOR APPLIED CREATIVITY. REFERENCING THE KREBS CYCLE.

LEFT AND TOP IMAGES FROM THE METMAT EXHIBITION AT GSAPP, APRIL 2025, SHOWING THE LAYERED WEAVING AND MATERIAL CONNECTIVITY OF THE ERI SILK INSTALLATION. THE LEFT IMAGE ALSO LEADS TO A SHORT FILM. LOWER RIGHT SILK PAVILION II BY NERI OXMAN-A SPATIAL STRUCTURE FABRICATED THROUGH CO-CREATION WITH SILKWORMS, EXPLORING MATERIAL ECOLOGY AND BIO-DESIGN.



Click to watch a short film <https://youtu.be/pa6vmv15C7M>

One of the most distinctive characteristics of the human species is a fraught relationship with change. Inescapable, change touches each creature, community and system uniquely; to each, it manifests at distinct speeds and scales and in different cycles. Most entities—glaciers, plankton, clouds, worms, or dandelions, for instance—go with the flow, adapting and evolving over time to accommodate change and accept its aftermath, however unfortunate. Not humans. Except for the faithful or the wisest among us, most human beings either resist, pursue, seek to control, or amplify change. We take pride in our ability to interfere with and even manipulate the flow. In doing so, we create consequences—not only for us, but for all species. So much have we tinkered that we seem to have lost control of the mutation, which now ever accelerates, like a cancerous growth.

The eri silkworm does not resist change; it surrenders to it completely. In the quiet space between larva and moth, it seals itself off—spinning from its own body a structure that is both protection and offering. No material is added from outside, no energy wasted. For 10 to 15 days, the organism relies solely on reserves gathered in its brief life before, undergoing one of nature's most radical internal shifts. The architecture it creates is a precise container for transformation, yet one without permanence. It is not built to last. It is built to allow.

Before spinning begins, the larva consumes a diet of castor or tapioca leaves—breaking down plant matter into nutrients, proteins, and trace minerals. These ingested minerals do not vanish into digestion alone; instead, they are absorbed, repurposed, and crystallized within the silk threads. The cocoon becomes a kind of primitive bio-composite: an organic structure reinforced by inorganic fragments of its former meals. The silkworm does not build by intention but through evolutionary intelligence—an embodied design practice that embeds environmental memory into form.

...most human beings either resist, pursue, seek to control, or amplify change. We take pride in our ability to interfere with and even manipulate the flow.

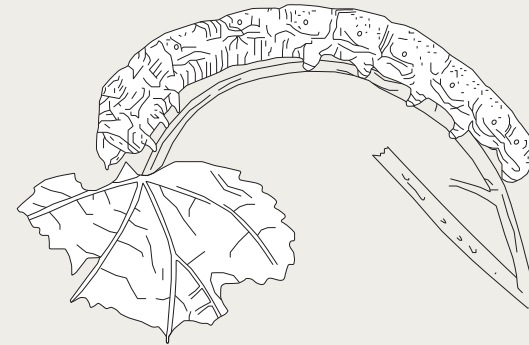
Once enclosed, the worm produces no waste. The cocoon becomes a closed metabolic system: no eating, no excreting, no external input. What little moisture is produced is regulated by the silk, which can absorb and release humidity without saturation. Carbon dioxide diffuses outward; oxygen enters slowly. The cocoon functions as a microclimate regulator, finely tuned to support the most vulnerable phase of life. Its multilayered structure—coarse on the outside, soft within—buffers temperature, balances moisture, and cradles transformation. It is an architecture of equilibrium, where each input and output is accounted for and nothing is left to excess.

Even the aftermath is intentional. When the moth departs, what remains is a clean, hollow shell: no waste, no residue, only the spun architecture of a completed cycle. What the insect discards becomes a resource—woven into fabric, decomposed into soil, gathered by birds for new nests. It is a self-cleaning life cycle, where architecture is not the end of a process but the continuity of one. It offers a lesson not only in form, but in responsibility: to build with what we have, to allow what is left to become resource, and to recognize that every act of making is also an act of metabolizing the world.

In the silence of the cocoon, a quiet intelligence unfolds—one that does not separate body from shelter, need from surplus, or making from unmaking. Its architecture is not imposed but grown; not static, but responsive. For humans, this may be the most difficult shift: to accept that architecture, too, can be ephemeral, porous, metabolically entangled with life. The silkworm reminds us that material memory begins long before design and continues long after use—that the thread is never just a line, but a cycle.

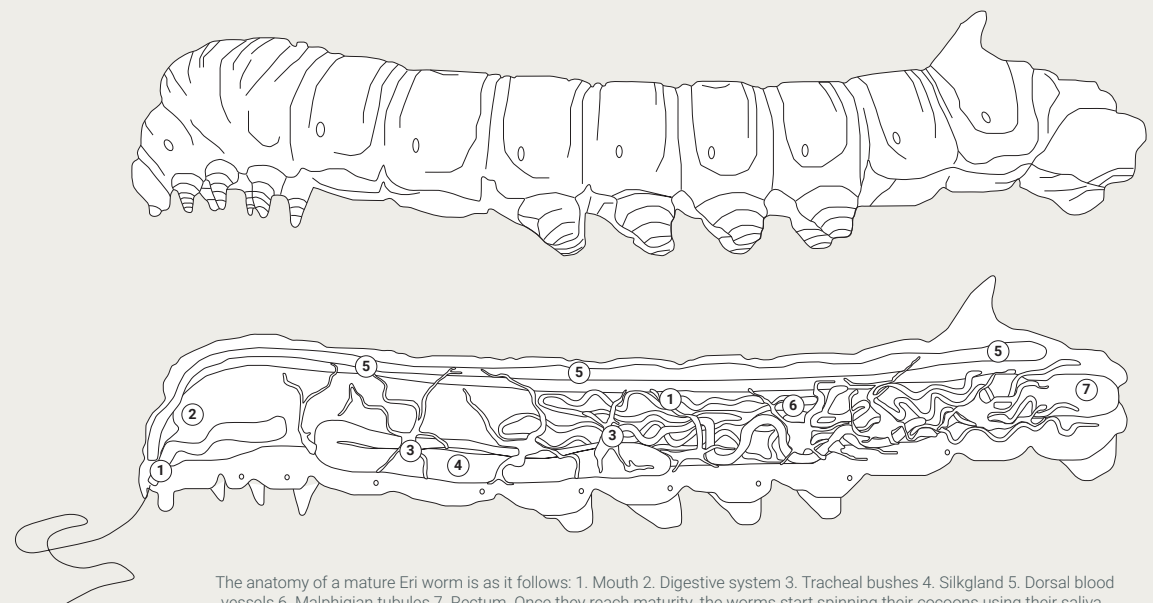
THIS DRAWING WAS PRODUCED AS PART OF THE EXTRACTION RESEARCH, EXPLORING THE BIOLOGICAL, MATERIAL, AND ECOLOGICAL SYSTEMS BEHIND ERI SILK PRODUCTION.

30 days: hatching and feeding



Eri silkworms have a continuous life cycle without undergoing diapause, meaning their development proceeds without being affected by seasonal changes. Their life begins when an Eri moth lays hundreds of eggs, which hatch after approximately 10 days into larvae. These silkworms primarily feed on castor, tapioca, cassava, and payam leaves for about 20 days until they reach full size.

10-15 days: cocoon spinning and emergence



The anatomy of a mature Eri worm is as it follows: 1. Mouth 2. Digestive system 3. Tracheal bushes 4. Silk gland 5. Dorsal blood vessels 6. Malpighian tubules 7. Rectum. Once they reach maturity, the worms start spinning their cocoons using their saliva, which is where the silk fiber comes from.



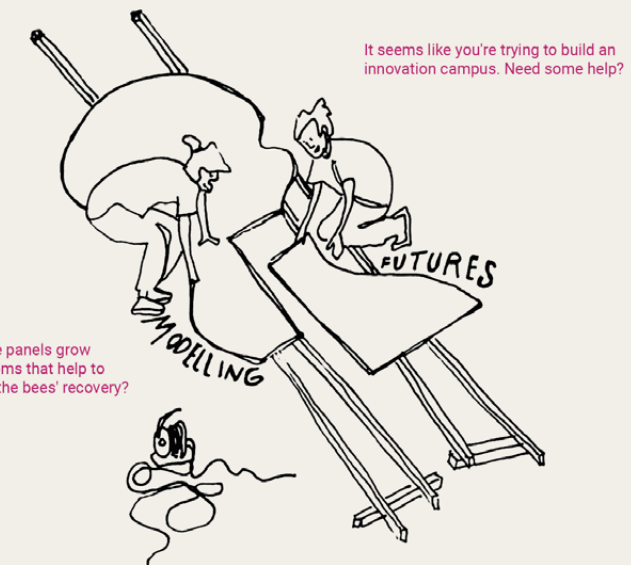
They do so in a unique manner—casting fibers onto available surfaces and enclosing themselves from the outside in. They continue spinning from within for 10 to 15 days, before shedding their final skin and transitioning into the pupal stage. Eventually, the adult moth emerges from the open end of the cocoon, ready to mate and lay eggs, ensuring the cycle continues uninterrupted.



MAKING LEARNSCAPES

CENTERED ON MENTAL WELL-BEING AND CARE, THIS RADICAL PROGRAM TRANSFORMS EDUCATION INTO AN INTERCONNECTED “LEARNSCAPE” WHERE PARTICIPANTS EXPLORE, EXPERIMENT, AND GROW THROUGH ECOLOGICAL ENGAGEMENT.

MAKING LEARNSCAPES



ORIENTATION DAY

LOCATION: AVERY 115

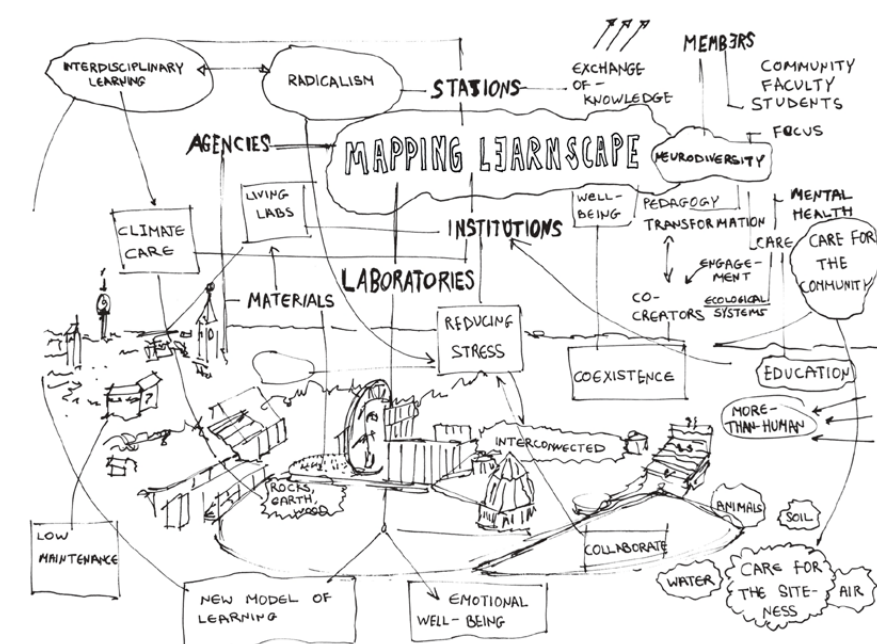
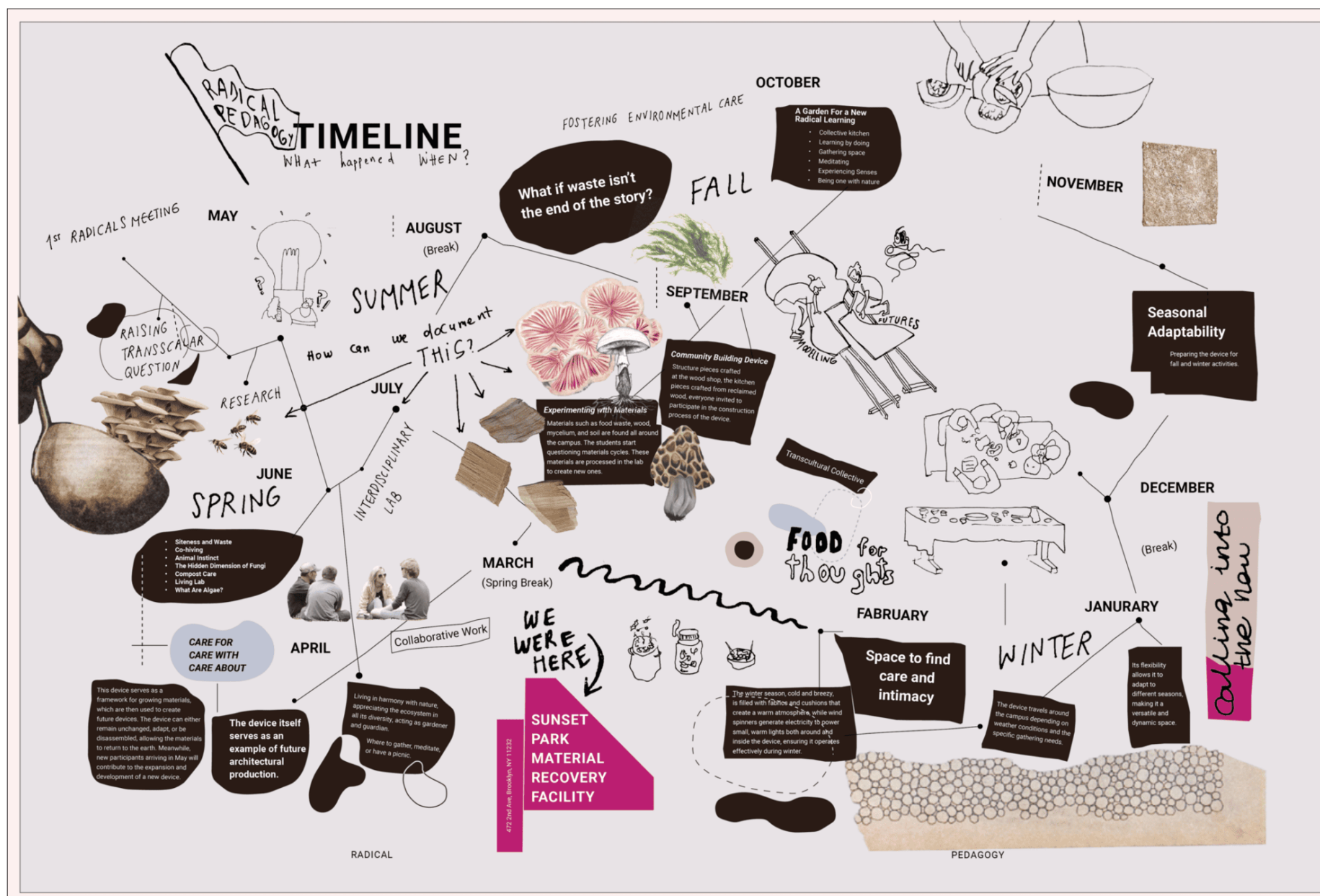
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THE WELL SCHOOL

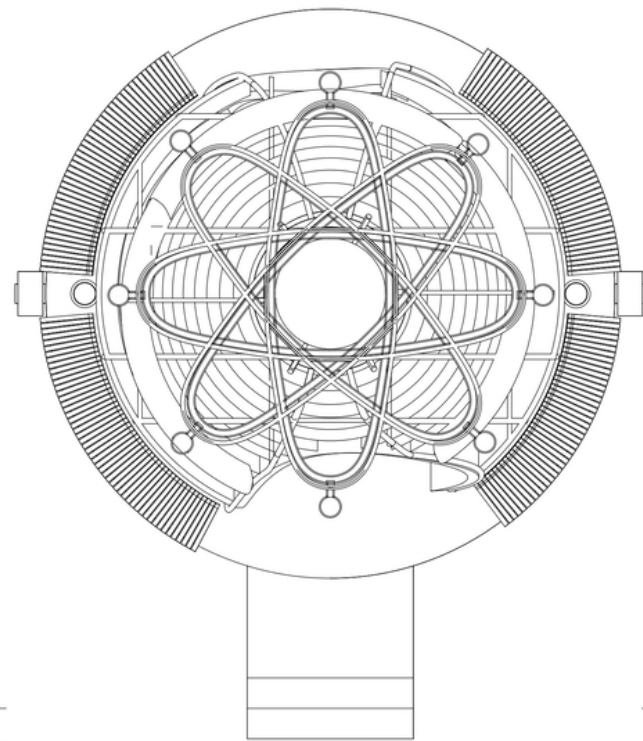
ARCHA4005_001
ADV V STUDIO: FALL 24'
THE WELL SCHOOL

LED BY
BRYONY ROBERTS
ABRIANNAH AIKEN

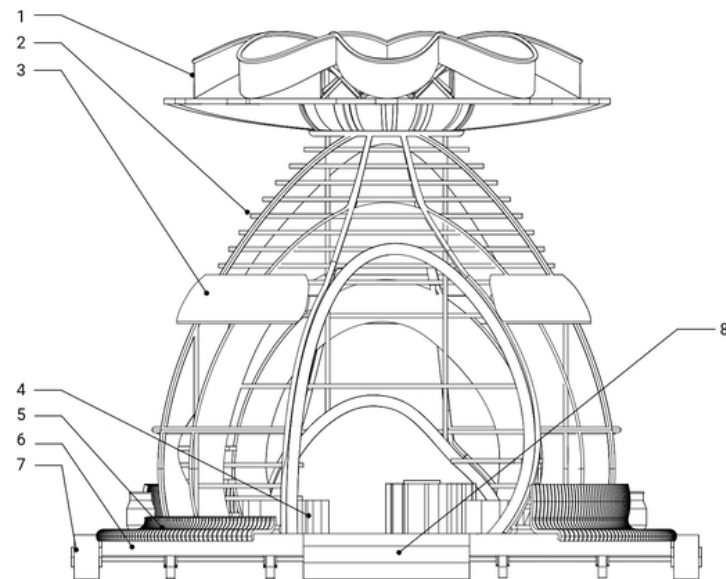
PARTNERED WITH
MARTINA HOLLMANN
YINHUI DONG



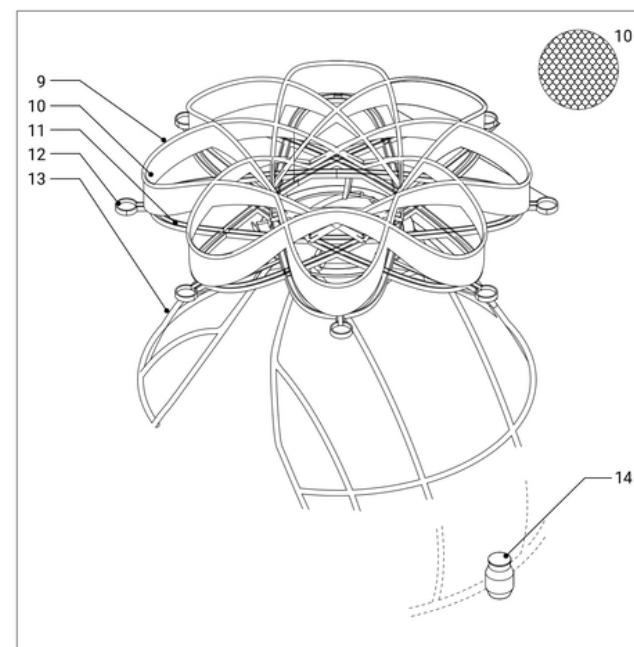
BREAKING FREE FROM TRADITIONAL COURSE STRUCTURES, THIS RADICAL PEDAGOGY INVITES STUDENTS, FACULTY, AND THE COLUMBIA COMMUNITY TO EMBARK ON A SHARED JOURNEY OF DISCOVERY, TRANSCENDING BOUNDARIES TO ADDRESS THE WORLD'S MOST PRESSING CHALLENGES. IT REIMAGINES EDUCATION AS A TAPESTRY OF COLLABORATION, WEAVING CONNECTIONS INTO A LEARNSCAPE WHERE EVERYTHING IS INTERCONNECTED. BY EMPHASIZING ACTIVE ENGAGEMENT, KNOWLEDGE EXCHANGE, AND INCLUSIVITY, THE PROGRAM TRANSFORMS EDUCATION INTO A NURTURING AND DYNAMIC EXPERIENCE - ONE THAT FOSTERS GROWTH AND BUILDS COLLECTIVE KNOWLEDGE. SCHOOLS EVOLVE INTO LIVING LABORATORIES OF EXPERIMENTATION, INTERDEPENDENCE, AND SHARED LEARNING, RATHER THAN CENTERS OF PRODUCTION. THE FIRST DEVICE, INTERSPECIES PICNIC, EMBODIES THIS VISION, FOSTERING COLLABORATION BETWEEN HUMAN AND NONHUMAN CONNECTIONS IN A SHARED SPACE OF EXPLORATION.



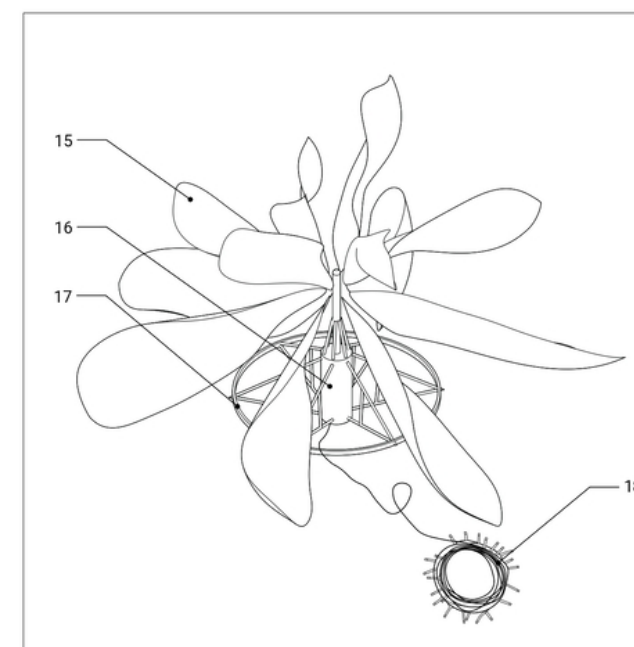
01 TOP VIEW
SCALE 1:20



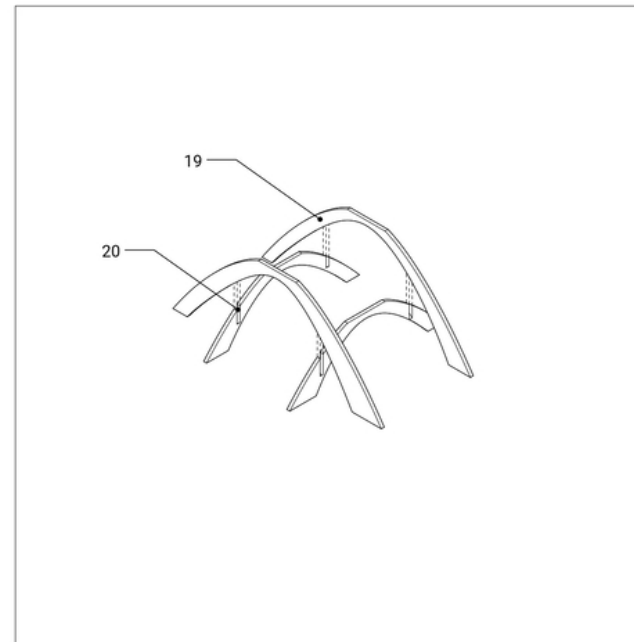
02 ELEVATION OF INTERSPECIES PICNIC
SCALE 1:20



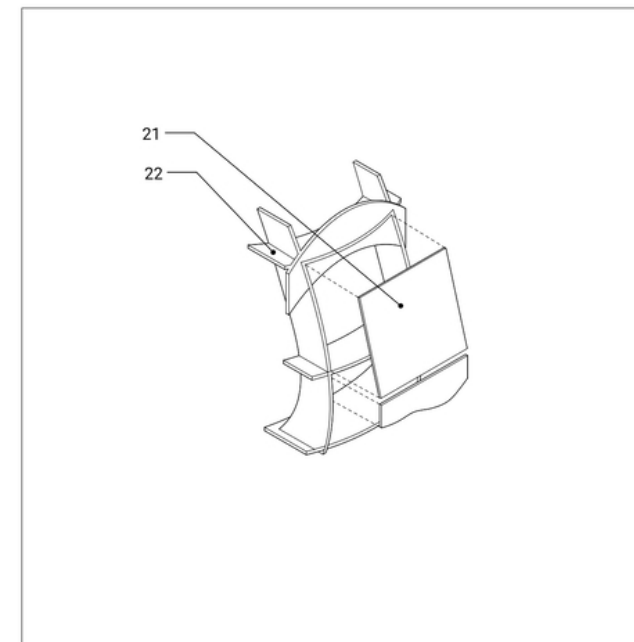
03 DETAIL A (MOISTRE CATCHER)
SCALE 1:20



04 DETAIL B (WIND SPINNER)
SCALE 1:20



05 DETAIL C (WOOD SLABS CONNECTION)
SCALE 1:20



06 DETAIL D (MYCELIUM PANELS)
SCALE 1:20

1. Detail A (Moistre Catcher)
2. Wooden Structure
3. Canopy / Cover-up Shade
4. Collective Kitchen
5. Wooden Bench
6. Wooden Base
7. Wheels
8. Stairs / Ramp
9. Wooden Frame
10. Polypropylene Mesh
11. Gutter
12. Water Bowl for irds
13. Funnels for Algae
14. Liquid Storage
15. Wooden Spinner
16. Wind Generator
17. Wood Frame
18. Golden LED Lights (2700K-3000K)
19. Wooden Slabs
20. Connection Plank (plung / socket)
21. Mycelium Panels
22. Wooden Slabs

Interspecies Picnic: Hive-in Collective Care

This device is part of the Making Learnscape New Radical Pedagogy

Construction Components

Scale as noted
December 9, 2024

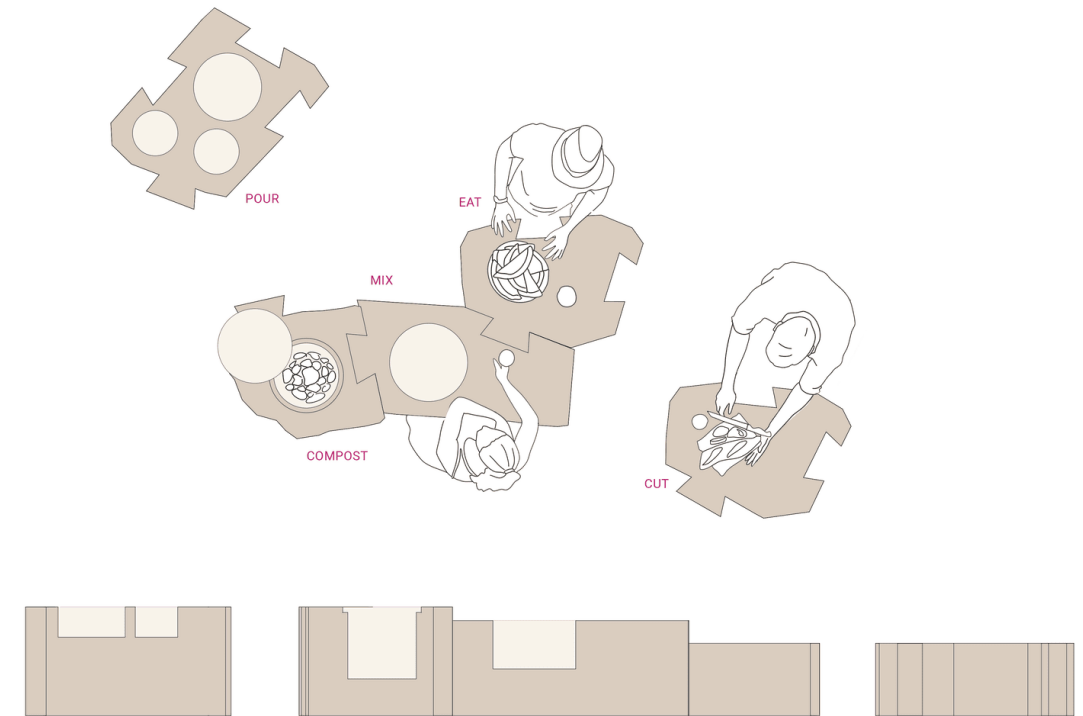


Within this domestic atmosphere, participants find *care and intimacy*—a place for conversation, sharing, and collaboration that feels like home.

THE PROGRAM'S COLLABORATIVE KITCHEN PROMOTES INCLUSION AND COMMUNITY THROUGH PARTICIPATORY COOKING AND DINING. BEYOND TRADITIONAL METRICS, THIS MODEL NURTURES NEURODIVERSE WAYS OF LEARNING, PROVIDING SPACES FOR CREATIVITY, JOY, AND STRESS REDUCTION.

THE COLLECTIVE KITCHEN

COOKING, DIGESTING, GROWING AND DECOMPOSING: AN ALLIANCE BETWEEN DIFFERENT FORMS OF LIFE



In architecture schools, the conditions and environment often lead to pervasive stress, deeply affecting mental health and overall well-being. But does it have to be this way? Within these systems, new possibilities are emerging—spaces of care, mutual support, and collective action. This shift challenges us to rethink the role of architecture—not as a tool for exploitation, but as a medium for building alliances and fostering care.

This new model creates a mindful space where participants can slow down, disconnect from technology, and fully experience their environment. It fosters sensory experiences that connect bodies to natural materials, textures, scents, and the flavors of food. Within this domestic atmosphere, participants find care and intimacy—a place for conversation, sharing, and collaboration that feels like home. By celebrating shared moments of joy and interconnectedness, this setting enhances emotional well-being, stimulates creativity, and deepens our relationship with the world beneath our feet.

This open-form pedagogy creates an inclusive learning environment that supports diverse ways of thinking, improving attention, engagement, and mental well-being for all, including neurodivergent individuals.

It encourages participants to design adaptive and participatory systems, sparking creativity while reducing the pressure of rigid expectations and fostering autonomy and confidence. Through hands-on, experimental learning, participants are motivated to explore, innovate, and engage deeply with the process, while also easing stress and anxiety.

The device, designed by the participants, is a modular system divided into pieces that adapt to seasonal changes, allowing for flexibility and adjustments to fit environmental conditions. During construction, participants work together to bring the device to life, building a collective kitchen as part of the structure. They focus on crafting a wooden framework on a mobile base, taking full ownership of the process. Using wood pieces, sawdust, fabric, pipes, and other materials left as waste in various settings across the campus, they repurpose these to construct the layered device. This hands-on experience allows participants to take control of their learning process, engage with materials, and experiment with building techniques. Once the primary structure is complete, participants install exterior panels made from mycelium to grow mushrooms, plant herbs and crops, harvest materials, and cook together as a community.





PHYSICAL MODEL OF THE INTERSPECIES PICNIC
DEVICE, MADE FROM LASER-CUT WOOD, 3D-PRINTED
COMPONENTS, WIRES, MESH FABRIC, AND MYCELIUM.



REFRAMING THE ROLE OF PEDAGOGY IN ARCHITECTURE

AN ANALYSIS OF RADICAL PEDAGOGIES BOOK, INTRODUCTION CHAPTER



This paper provides an analytical examination of the introduction chapter to the *Radical Pedagogies* book, edited by Beatriz Colomina, Ignacio G. Galán, Evangelos Kotsioris, and Anna-Maria Meister. The analysis evaluates the introduction's transscalar approach, connecting historical and contemporary challenges to broader implications for architectural education and practice. By exploring

the interaction between rhetorical strategies and theoretical content in framing its main arguments, the chapter highlights the necessity of radical pedagogies as a transformative response to entrenched frameworks, advocating for systemic change.

In exploring these ideas, the analysis delves into the rhetorical techniques employed to advance the authors' arguments, bridging the

theoretical and practical dimensions of the introduction. The paper examines how rhetorical devices such as structure, tone, and language amplify the authors' arguments, positioning the introduction not only as a theoretical framework but as a call to action. Through this lens, the text functions as a mechanism for critical engagement, urging readers to reconsider the relationship between architectural education and practice in addressing global social and environmental crises.

Published by The MIT Press on May 31, 2022, the introduction to *Radical Pedagogies* serves as a foundational framework for the book, establishing the historical and thematic context necessary for engaging with its central arguments. It situates unconventional learning approaches within the social and political upheavals of the 1960s and 1970s, emphasizing their emergence as a challenge to entrenched educational and disciplinary norms. The introduction stands alone as a chapter, offering a comprehensive overview of the book's main arguments and providing solid grounding for readers. Within this framework, the authors emphasize the experimental nature of such approaches as a driving force for challenging conventional structures in architectural education.

By highlighting historical pedagogical experiments that operated as "strategic interventions" and "Trojan horses," the authors illustrate how these initiatives tested the boundaries of conventional education and, at times, intentionally failed. The introduction persuades the audience that these seemingly transient, often precarious experiments had lasting impacts on architectural education by challenging both disciplinary standards and broader societal norms. As noted, these experiments constitute "a still-expanding galaxy of these remarkable experiments, which profoundly reshaped architecture by rejecting any normative thinking." This analysis builds upon the introduction's historical grounding, connecting the experiments to the

broader thematic exploration of their implications for pedagogy.

Structurally, the introduction transitions from historical analysis to thematic exploration, framing radical pedagogy as both a response to past conditions and a lens for addressing contemporary challenges. These challenges are anchored in the experimental approaches highlighted earlier, linking their historical significance to their transformative role in reshaping architectural and disciplinary norms. Its placement as the opening chapter underscores its role in orienting readers to the book's critical perspective, ensuring they can navigate the introduction's arguments with an understanding of the historical and theoretical foundations laid out in this chapter. Through its focus on contextualization, argumentation, and thematic clarity, the introduction performs its characteristic function of preparing readers for a detailed critique of architectural pedagogy.

This foundational framework also establishes the experimental nature of the pedagogies discussed. The introduction outlines their enduring influence, highlighting how these pedagogies sought to upend disciplinary foundations and conventional assumptions about the nature of architecture. By challenging modernist and colonial norms, decentering buildings, imagining new roles for the architect, and envisioning participatory forms of practice, the introduction sets the stage for the book's broader examination of radical pedagogies.

The introduction strategically integrates concise historical references to anchor its critique of architectural education. These references, while brief, highlight their foundational role in framing the emergence of radical pedagogies. By connecting these historical moments to the development of experimental pedagogies, the text positions these events as essential to understanding broader disciplinary transformations. Without extensive elaboration, the introduction uses these foundational moments to ground its argument

while prioritizing the thematic connections between radical pedagogies and architectural critique. This approach operates under the assumption that the reader possesses a solid understanding of these historical contexts; however, their significance remains clear in framing the evolution of these educational systems.

For instance, the introduction asserts that teachers have become "a relic of hierarchical power structures now undermined by the democratization of photomechanical and electronic technologies." This statement presumes that readers are familiar with the dynamics of these hierarchical structures and their relationship to the technologies at play; however, it does not elaborate on these concepts. In contrast, the subsequent discussion provides a more detailed analysis of innovations in education, with the authors using both a colon and a dash to structure their explanation: "Educational innovation did not solely hinge on new media: even the inherited technique of nineteenth-century art historical education—the Wölfflinian, comparative slide projection—became an instrument for criticism through new means of exchanging content." The use of such technical complexity in the text mirrors the theoretical argument being advanced: that radical pedagogies operate by deconstructing traditional methods and repurposing them as tools for critique. This structural shift from broad claims to precise examples reflects the authors' overall strategy of grounding theoretical assertions in tangible innovations, thereby reinforcing the transformative potential of radical pedagogies.

Employing a direct and textual layout, the chapter emphasizes the clarity of its arguments without the inclusion of images. This choice to rely solely on text, with endnotes placed collectively at the end of the introduction chapter, is interpreted by the authors as creating a focused narrative that allows the audience to

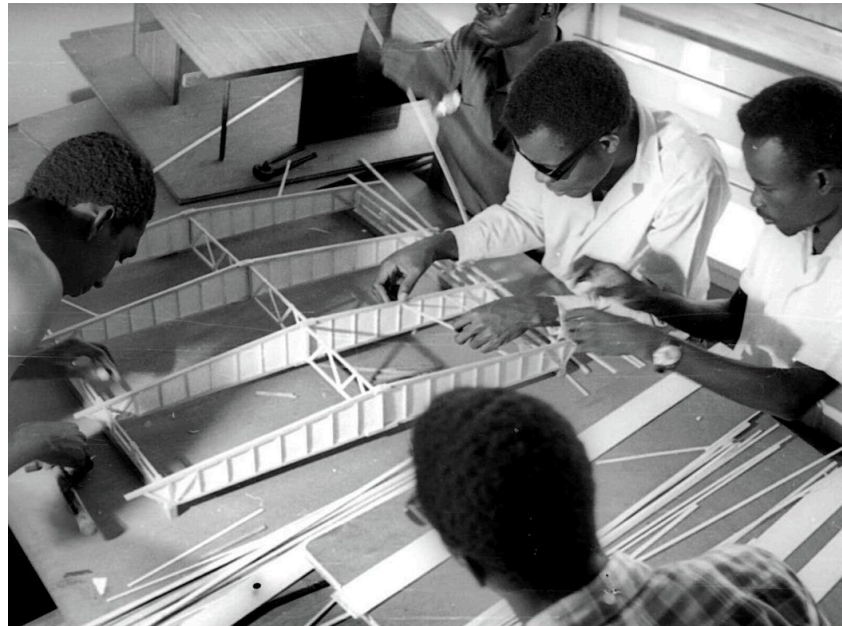


ABOVE PUBLIC VOTING DURING THE EARLY DAYS OF THE "DEMOCRATIZATION" AT TU DELFT, MAY 9, 1969. TOP COVER OF RADICAL PEDAGOGIES: RECONSTRUCTING ARCHITECTURAL EDUCATION. RIGHT KWIEKULIK, GAME ON MOREL'S HILL (GROUP ACTION), 1971.

concentrate fully on the conveyed ideas, serving as a powerful statement on its own. The absence of images can be seen as a deliberate strategy to prioritize the written word, underscoring the significance of the concepts presented rather than depending on visual elements to convey meaning.

This layout enhances the text’s urgency and gravity, aligning the form of the introduction with its radical message and provoking readers to confront established norms critically. By isolating the footnotes, the authors suggest that the sources are supplementary to the primary text, reinforcing the authority of their arguments while simultaneously encouraging readers to engage with the material critically. The text’s structure aligns with its radical message, aiming to provoke thought and challenge established norms in architectural education. This direct approach serves to empower the content, allowing the ideas of radical pedagogy to resonate without graphical elements.

Building upon this foundation, the text seeks to deepen the discourse on architectural education and emphasizes the need for readers to critically examine its foundations and the necessity of reform. The authors frame this exploration as particularly relevant to contemporary challenges, such as escalating social inequities, ecological disruptions, and the demand for more inclusive and collaborative systems of knowledge production. Writing this theory in 2022 reflects an urgency to revisit and adapt the radical pedagogies of the 1960s and 1970s to navigate these pressing global complexities. By situating historical educational experiments within the context of today’s interconnected challenges, the introduction underscores the role of architectural education as a critical tool for fostering societal transformation. The structure supports this aim by briefly outlining the historical context and related events while providing a clear and in-depth framework for educational experiments in architecture.



The introduction situates its theory within this transformative landscape of architectural education. This period, characterized by “a veritable explosion of experimental teaching practices all over the world,” saw widespread societal shifts that reshaped the role of education in architecture. The authors highlight how radical pedagogies emerged as both a response to these shifts and a means of rethinking architecture’s role in addressing social, political, and cultural challenges. By positioning radical pedagogies within this broader context, the introduction invites readers to reconsider how architectural education can function as a site of critical engagement and transformative action.

To achieve this, the authors employ straightforward and functional framing devices. By starting with a historical context, the introduction guides readers to connect past radical shifts to present-day relevance. Additionally, the introduction’s structural clarity—moving from historical context to thematic exploration—reinforces the authors’ intent to create a coherent narrative that aligns with their critical perspective. However, the title ‘Introduction’ adopts a conventional tone, which contrasts

with the text’s radical aspirations. This choice seems to highlight a tension between working within established academic norms and striving to destabilize them, challenging normative frameworks. By framing transformative ideas within a recognizable structure, the text reflects its broader argument that meaningful change often emerges from within existing systems, challenging and reshaping them over time.

Expanding on its approach of framing transformative ideas within established structures, the text integrates elements that ground the discussion in a specific historical moment. By referencing the period’s transformative currents, the authors evoke a time marked by profound societal shifts. While these references are unmistakably tied to that era, the text simultaneously signals their ongoing relevance by weaving them into critiques of modern architecture’s promises and failures, as well as contemporary challenges. This connection is made explicit in passages that frame radical pedagogies as “a panorama of past attempts to subvert the status quo and reveal work to build upon and ideas waiting to be taken up again,” positioning their ethos as a means to address present-day crises. Through

precise language and historical analysis, the text underscores the interplay between historical specificity and contemporary implications, encouraging readers to consider how the values of radical pedagogy might influence ongoing debates in architectural discourse and educational equity.

Extending this historical lens, the text describes how architectural education became “a site of intellectual, aesthetic, and often physical confrontation.” Student protests, particularly those ignited by the events of May 1968, catalyzed a critical reassessment of established frameworks. These protests demanded “student involvement in curriculum design, school administration, and broader access to education across race, class, disability, and gender,” underscoring the urgency of reform within architectural pedagogy. This historical specificity highlights how these educational experiments arose as direct responses to societal disruptions rather than isolated movements.

The connection between educational reform and its broader

political implications is made explicit in the introduction, with the authors noting that these protests “extended into an architectural agenda aimed at undermining authoritative powers, geopolitical hegemonies, colonial hierarchies, and capitalist structures.” These efforts, while diverse, share a common aim: redefining architecture’s role within social and political frameworks. By portraying these pedagogies as a “kaleidoscope of approaches,” the text emphasizes their heterogeneity and collective capacity to challenge entrenched systems.

Additionally, the text critiques architecture’s complicity within these power dynamics, arguing that its alignment with economic and colonial forces led to a diminished social role for the architect. This critique situates architecture’s fragmentation into “anti-modern, pre-modern, and post-modern approaches” within the broader crisis of modern architecture. By identifying how foundational principles often reinforced these systems of power, the authors position this period as a pivotal moment in architectural history, one

in which traditional paradigms were challenged and redefined.

Technological and media advancements following May 1968 further shaped the transformation of architectural education. The authors highlight how “new technologies—satellite television, early computing networks, and VHS—transformed teaching,” allowing radical groups to envision educational frameworks that extended beyond conventional classrooms. This technological shift is presented as integral to the broader critique of institutional structures, underscoring the potential of architectural education to serve as a site for political action, institutional critique, and social transformation.

The introduction identifies its intended audience primarily as architects and architectural historians, inviting them to “open new paths and formulate an unruly set of new questions... to address—a provocation to challenge conventions, categories, and canons.” This call emphasizes the authors’ goal of encouraging a critical examination of established conventions within architectural practice and education. However, the structure of the text suggests a dual audience—while it speaks directly to professionals in the field, it also seems designed to engage architecture students and educators. This layered approach reflects the emerging symptoms of the pedagogical shift, indicating that students and teachers may be the primary audience, as they are the ones actively participating in and shaping these educational transformations.

By describing architecture students as active participants who “demanded involvement in the curriculum and administration of schools” and as “radical agents” in these transformations, the text positions them as collaborators in radical pedagogical experiments. It also incorporates the role of architectural educators as “facilitators” and “co-learners,” reinforcing the idea that educators must adapt their roles to foster a more collaborative learning



ABOVE DRIFTWOOD VILLAGE-COMMUNITY, SEA RANCH, CALIFORNIA. EXPERIMENTS IN ENVIRONMENT WORKSHOP, 1968.
LEFT STUDENTS IN THE STRUCTURES AND STRUCTURAL DESIGN COURSE AT THE KUMASI SCHOOL OF ARCHITECTURE, GHANA, 1965

environment. This framing encourages both educators and students to reflect on how these experimental practices might reshape their roles in architecture, ultimately challenging the traditional hierarchical dynamics present in educational settings.

The collaborative ethos of the introduction is mirrored in the presence of multiple editors, emphasizing decentralization, shared agency, and a rejection of hierarchical structures. This multiplicity of voices aligns with the ethos of radical pedagogies, which advocate for participatory practices and collective engagement as integral to reshaping architectural education.

This resonates in the authors' language of critique, as seen in terms such as "collective agency" and "coming together in solidarity." These phrases suggest that radical pedagogy is not a hierarchical restructuring but rather a bottom-up movement driven by community involvement and shared purpose. Furthermore, imagery such as "the real teacher is now the streets" underscores the authors' call to dismantle barriers between formal education and lived experience. By invoking "streets" as pedagogical spaces, the text challenges traditional academic boundaries, advocating for a curriculum that engages directly with social and political realities outside the classroom.

Positioned as a call for transformative action, the introduction functions as an invitation to critically engage with the themes it presents. Through its rhetorical delivery—bold claims, evocative language, and a structured focus on historical examples—the text provokes interest and emphasizes the urgency of its message. However, while the introduction outlines the theoretical foundation of radical pedagogies, it intentionally refrains from offering a full exploration of these concepts. Instead, its role is to establish the conditions for inquiry, inviting readers to examine how the themes it introduces might be elaborated or tested within the broader context of

architectural education. By doing so, the introduction positions itself as a catalyst for reflection and sets the tone for the critical engagement it demands.

The authors define 'radical' by tracing its etymological root to the Latin *radix*, meaning root, emphasizing that these pedagogies were radical not only in their intent but also in their foundational impact on architectural education. Rather than merely opposing existing norms, these teaching experiments sought to unsettle and redefine the core assumptions underlying the discipline. Radical pedagogies disrupted conventional modes of thinking and practice, fostering entirely new forms of perception, solidarity, and communication. The introduction characterizes these efforts as a "sustained call to revolutionize architecture," positioning them as a means to multiply the discipline's possibilities and reframe its responsibilities. This definition underscores the transformative potential of these revolutionary learning practices—not as transient reactions but as enduring movements to rethink architecture's role in both education and society.

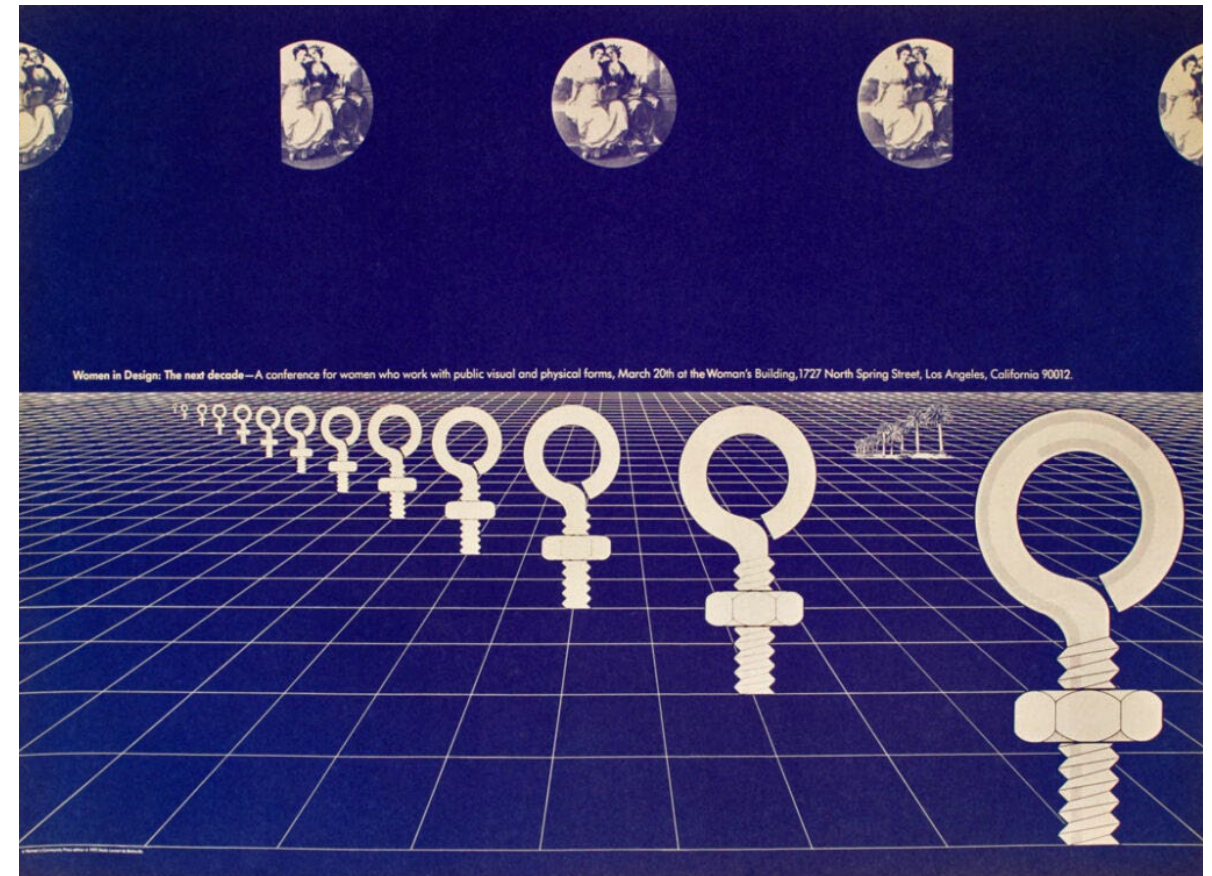
The authors further define 'pedagogy' as "a political arena beyond the confines of architecture teaching," emphasizing the need for architectural education to transcend traditional classroom settings and engage more directly with political and social contexts. This definition suggests that architecture, as a discipline, must operate within and respond to the frameworks of the political systems it inhabits. As the introduction notes, this could manifest as a circle of students gathered in a spontaneous space, as those formed during the student protests of 1968. In this framing, architecture is not limited to its physical form but must also act as a medium of political engagement and societal transformation.

Through these definitions, the text argues that education should be a space where norms are not merely taught but actively questioned. Drawing on lessons from

historical precedents, it highlights the blurred line between protest and pedagogy, suggesting that today, education must once again take an active role in addressing pressing issues such as "global crises, ecological catastrophe, and rapidly increasing inequities," urging that such a shift "can, and must, happen in the spaces of education." While the introduction advocates for a radical approach to pedagogy, it simultaneously positions education as inseparable from architectural practice, suggesting that reimagining one inherently transforms the other. By calling on students and educators to critique inherited conventions, the text frames educational institutions as sites of contestation and experimentation.

The authors' position on the relationship between architecture and architectural pedagogy is made explicit in their assertion that radical pedagogy "allows for the exploration of the breadth of architecture's multiple fields of operation while opening up space for unexpected forms of radicalism." This statement underscores their belief that pedagogy not only critiques architecture but also expands its boundaries, reinforcing the interconnectedness of the two. The introduction thus positions the book as an effort to multiply and magnify the possibilities of architecture while relying on the premise that pedagogy can directly influence the discipline it seeks to critique.

The introduction to *Radical Pedagogies* positions itself as a theoretical framework by articulating a transformative vision for architectural education. The authors assert that education should not merely reproduce existing norms but must actively challenge and dismantle entrenched power structures. The assertion that "the purpose of education, finally, is to create in a person the ability to look at the world for himself, to make his own decisions" underscores education's role in empowering individuals. While the authors do not explicitly offer the moral judgments of these experiments, their language



'FEMINIST PEDAGOGIES' INTRODUCES KEY MOMENTS IN WHICH FEMALE ACTIVISTS IN NORTH AMERICA ORGANIZED COLLECTIVELY AND TOOK DIRECT ACTION TO CLAIM ACCESS TO ARCHITECTURAL EDUCATION AND RESHAPE ITS STRUCTURES.

implies a positive evaluation of their impact. Phrases such as "drastically affecting" and "transforming the discipline for decades to come" suggest that these experiments are viewed as valuable and necessary. This framing positions them as pivotal to reshaping architectural education, even when the experiments themselves were short-lived or considered failures at the time.

The authors further contend that "radical pedagogies sought to break free from conventional definitions of institutions," emphasizing the necessity of redefining educational parameters to address the challenges posed by established systems of authority. They argue that "the emancipatory potential of institutions as recognized parts of society offered paths to recognize disenfranchised groups and communities." By framing architectural education as a site for critical reflection and

political engagement, the text identifies itself as a theory that articulates clear arguments about what architectural education should evolve into in order to effectively address pressing societal challenges.

The authors critique conventional pedagogy, highlighting its inability to effectively address the challenges mentioned above. They evoke this critique through the repeated use of the term 'conventional,' creating the impression that they aim to underscore the limitations of existing systems. This aligns with their reference to Hannah Arendt's observation that current education, by nature, relies on authority and tradition yet must function in a world increasingly detached from these frameworks. The authors further illustrate how conventional pedagogy has struggled to address these challenges. They highlight its exclusion of marginalized groups, as reflected in the 1968 student

protests, which demanded "greater access to higher education for all, regardless of race, class, disability, and gender." The text critiques how conventional approaches perpetuated colonial hierarchies and systemic inequities, particularly in postcolonial nations where educational frameworks often preserved rather than dismantled structures of domination. Furthermore, these pedagogies prioritized technical training over fostering critical thinking and political engagement, thereby limiting the potential for architecture to meaningfully address societal needs. By maintaining inequalities, sidelining nontraditional knowledge, and failing to adapt to evolving societal contexts, conventional pedagogy is framed as insufficient, necessitating the transformative approaches proposed by radical pedagogies.

The text's primary argument is that architectural education must

undergo a radical transformation to engage with and challenge societal structures effectively. The authors assert that educational practices must serve as catalysts for transformation, emphasizing that these teaching experiments actively disrupted disciplinary foundations and questioned established assumptions instead of merely reinforcing them. While this framing highlights the intersection of architecture with broader societal and political frameworks, it raises the question of whether engaging with societal structures is—or should be—the primary goal of architecture. By emphasizing the transformative role of pedagogy, the authors suggest a redefinition of architecture not only as a discipline concerned with the built environment but also as a medium for societal critique and reform. They support their arguments by first considering these experiments as “never isolated but connected and interactive like an extended, ever-shifting, but resilient

mycelium of fungi.” By examining their dissolution, absorption, death, and afterlives—rather than solely through their founding myths—they underscore the crucial understanding of the challenges these experiments faced, the threats they posed, and the long-term changes they instigated.

Furthermore, the authors present historical contexts and examples from the 1960s and 1970s, where architectural education was significantly influenced by political actions. They refer to what they describe as a “remarkable photograph” from May 1968, capturing Giancarlo De Carlo in a debate with protesting students, as an example of how “protest has become pedagogy.” This example convincingly illustrates the intertwining of education and activism, suggesting a radical way of thinking about architectural pedagogy. By positioning the educational experience as one that actively engages with societal issues, the photograph becomes emblematic

of how protest and debate not only reshape the boundaries of pedagogy but also challenge the political frameworks within which architecture operates. However, this example raises the question of whether a single instance can adequately represent this broader transformation.

The text also draws on key philosophical influences to reinforce its argument. Ivan Illich challenged authority with a project of ‘deschooling,’ focusing on the internal politics of the relations forged inside the classroom. He proposed “educational webs which heighten the opportunity for each one to transform each moment of his living into one of learning, sharing, and caring.” Similarly, the authors reference Paulo Freire’s belief that education should empower the oppressed, framing educational engagement as a form of liberation.

While the text articulates a compelling central argument, it simultaneously presumes familiarity

with certain foundational ideas, leaving some concepts open to interpretation. The text assumes familiarity with several ideas that underpin its arguments, such as a “rapidly changing world” shaped by evolving social and political landscapes and the concept of “dematerialization,” indicating shifts in architectural perception. The notion of a “multi-functional space” relies on prior reader knowledge for relevance, while the reference to canonical thinking addresses established norms in architectural theory but lacks in-depth exploration. These assumptions suggest the theory is structured to engage readers already embedded in architectural discourse, prompting them to critically examine its foundations while relying on their familiarity with key concepts.

The text also relies on an understanding of historical and theoretical contexts, which influences its theoretical framing. For example, archives are described as “fundamentally a matter of discrimination and selection,” raising questions about the broader meaning of the authors. Similarly, the “bright

Additionally, the text takes for granted that readers understand the idea that ‘bodies’ were historically understood within the Western humanist tradition as foundational to architectural proportion and harmony, requiring prior knowledge of figures such as Vitruvius. However, the omission of a precise definition for ‘bodies’ in the introduction appears intentional, inviting readers to critically engage with its meaning rather than accepting a singular, prescriptive interpretation. This deliberate ambiguity aligns with the authors’ broader critique of conventional education, which they argue has marginalized certain groups by narrowly defining concepts such as ‘bodies’ to reinforce exclusionary practices. By resisting this tendency, the authors encourage a more inclusive and dynamic understanding, provoking readers to reconsider how ‘bodies’ might function in radical educational practices.

Instead of limiting the meaning of ‘bodies,’ the authors leave the term open to interpretation, aligning with their rejection of prescriptive frameworks. The text

contexts, the text offers detailed explanations of radical pedagogies and their experimental practices. It elaborates on how the student revolts of 1968 influenced these experiments and their manifestation in architectural education. For example, it describes how techniques and materials were introduced to the architectural community and how education was often moved outside traditional school settings to various spaces. Furthermore, it discusses the expansion of radical practices into other disciplines, highlighting the integration of fields such as anthropology, sociology, and mathematics. It also details the new forms of student output, including “student publications, pamphlets, posters, and an array of new ‘teaching documents,’” which the text notes as essential components of this educational evolution.

This thorough examination of radical pedagogies is further reflected in the authors’ deliberate use of language, which underscores the transformative potential of these practices and reinforces their broader critique of architectural education. The language is marked by strong adjectives and descriptive phrasing that convey a sense of urgency and importance regarding shifts in architectural pedagogy. First, the term ‘radical’ acts as a thematic anchor for the introduction, with its repetition underlining the necessity of a paradigm shift and consistently reminding the reader of the revolutionary nature and magnitude of the pedagogical experiments being discussed. While the previous discussion traces its foundational meaning, this repetition emphasizes the term’s thematic significance. Each mention of ‘radical’ is contextualized within a specific historical or theoretical framework, ensuring it does not feel redundant. The authors use the term to highlight the heterogeneity of these experiments, their direct challenge to disciplinary norms, and transformative role in reshaping architectural education. Aligned with the chapter’s goal of promoting transformative educational practices,

The omission of a precise definition for ‘bodies’ in the introduction appears intentional, inviting readers to critically engage with its meaning.

(white) future” reflects the fragmentation of modern architecture’s vision, assuming readers are acquainted with its critiques without further clarification. The reference to the Civil Rights Movement in the U.S. exemplifies another instance where the authors rely on the audience’s existing knowledge. By focusing on its central arguments rather than contextual elaboration, the text shapes the mechanics of the theory, positioning the reader as an active participant in interpreting the broader historical and theoretical framework independently.

offers a detailed description of the role of ‘bodies’ in radical educational practices, such as “traveling around the countryside by car, plane, and bus; joined together by the physical exertion of climbing up mountains; coming together in solidarity in homes to self-organize and establish more inclusive learning institutions; gathering in public spaces to protest the gender conformity of domestic space.” By doing so, the authors reposition ‘bodies’ as dynamic, collective agents of change rather than static, idealized entities.

Unlike its reliance on readers’ familiarity with certain



POETIC ACT FOR THE "OPENING" OF THE SITE, OPEN CITY, RITOQUE, 1971.

‘radical’ repeatedly signals a decisive break from conventional norms, reinforcing the text’s commitment to advocating for pervasive reformation.

Secondly, phrases such as “veritable explosion” and “remarkable experiments” suggest the transformative potential of these educational practices, framing them as critical departures from established frameworks. Language choices, including descriptors such as “heterogeneous” and “shifting,” could be interpreted as emphasizing the adaptability and dynamic qualities associated with radical pedagogies, implying that these methods may be particularly suited to addressing the demands of a changing discipline.

Expanding on this, the authors’ rhetorical approach appears to critique established architectural and educational frameworks that emerged amid what they describe as the “discipline’s uncertainty.” By implying that no professional protocol could be taken for granted anymore, the authors highlight architecture’s need to reexamine its foundations. Phrases such as “monolithic illusion of progress” reflect skepticism toward the idealistic narratives and promises of modern architecture, positioning radical pedagogy as a corrective to what the authors view as a flawed legacy. Adjectives such as “complicit,” “standardized,” “hierarchical,” “selective,” and “bourgeois” suggest that earlier academic and architectural notions were overly uniform and rigid, contrasting with the diverse and flexible approaches that radical pedagogy embodies. Using contrast as a rhetorical device, the authors effectively underscore the transformative potential of radical pedagogy by juxtaposing it against the limitations of conventional frameworks.

Overall, the *Radical Pedagogies* introduction chapter embraces the inherently fluid and expansive nature of the experimental field it describes—“a body of work that constantly evolves, becoming sharper in focus without conforming to fixed boundaries.” This fluidity

is reinforced by the interplay of rhetorical and structural choices, which guide the reader through historical, thematic, and critical reflections that contextualize the urgency of systemic change. While this framing initially appears open, the text ultimately leads readers toward a specific conclusion: the necessity of adopting radical pedagogies as a means to transform architectural education, the practice of architecture itself, and their broader implications. By weaving together historical context, critiques of established norms, and explicit calls to action, the authors construct a focused narrative that powerfully underscores their argument for fundamental reconstruction.

The text functions as a mechanism for critical engagement, specifically designed to challenge and transform entrenched architectural and educational norms. By intertwining historical specificity, critical analysis, and structural clarity, it operates as a framework for rethinking the role of pedagogy in addressing both disciplinary and societal challenges. This mechanism is unique in its ability to simultaneously critique existing frameworks while providing a forward-looking strategy for comprehensive reform. The text actively positions radical pedagogy as a transformative tool for architectural education and practice, urging readers to view educational institutions as active agents in fostering environmental and societal transformation.



CLOUD

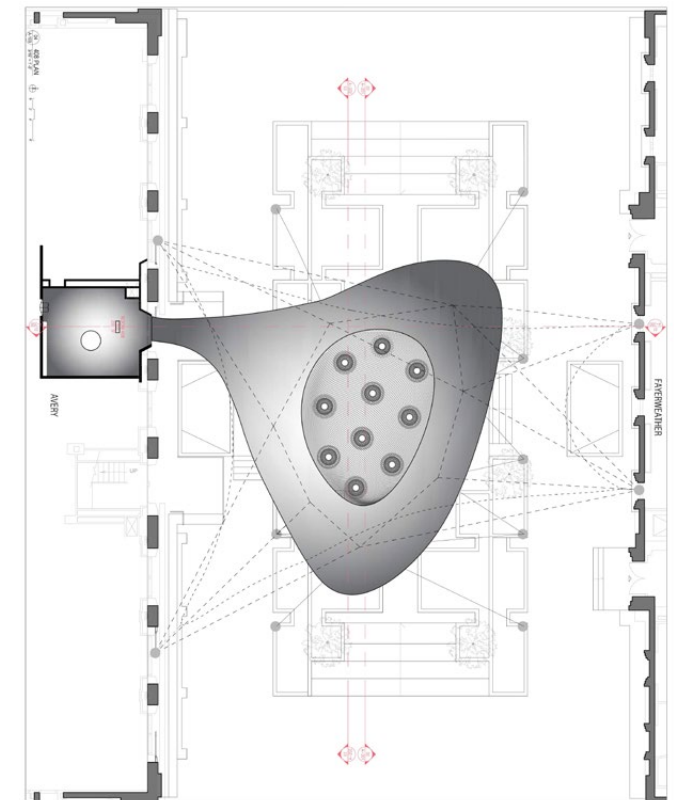
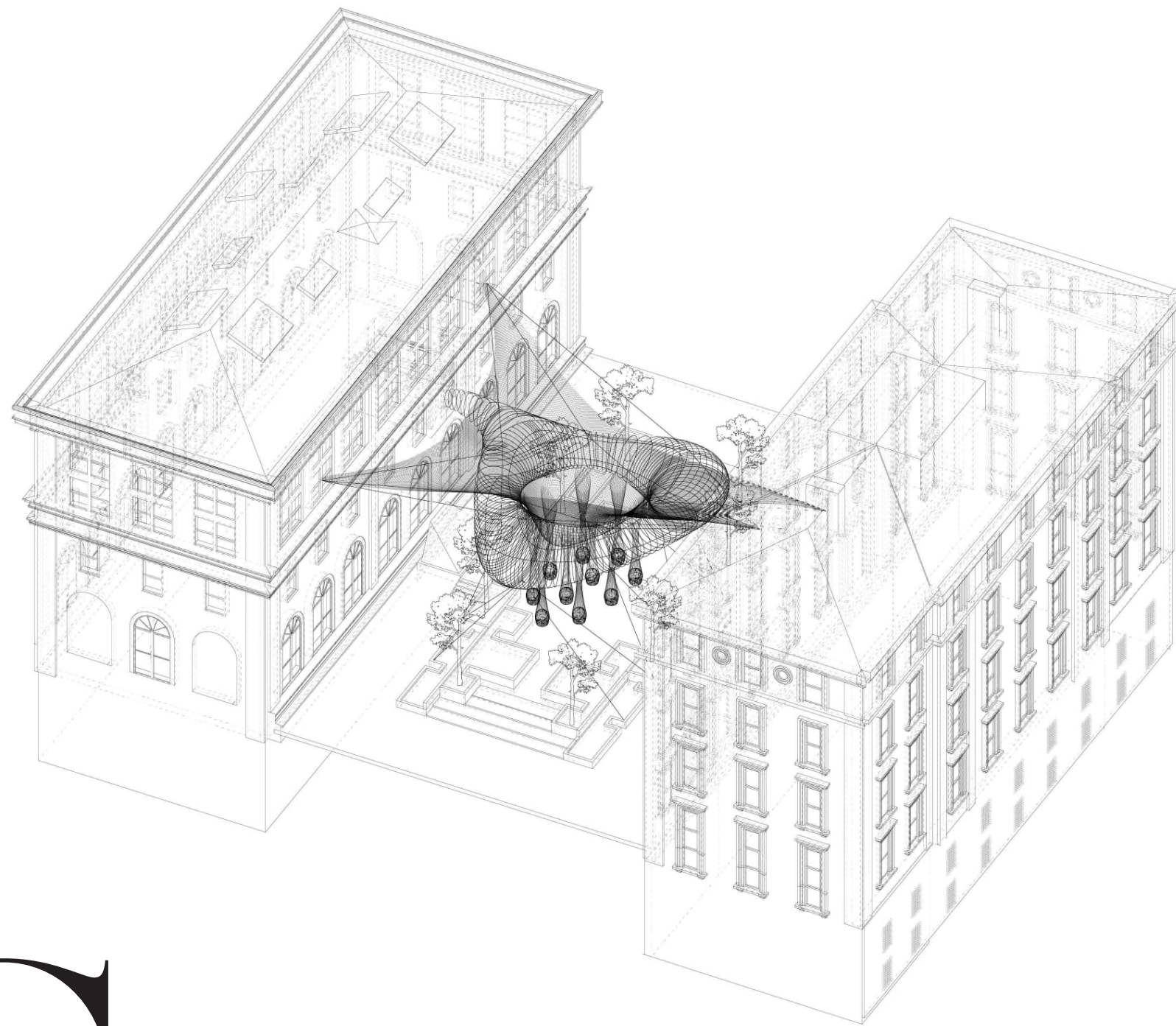
An intensive design-build experience that integrates theory and practice through the design and construction of a temporary campus installation.

PAVILION

LED BY GALIA SOLOMONOFF · LAURIE HAWKINSON

ARCH6687A THE OUTSIDE IN PROJECT II, FALL 24'

THE CLOUD PAVILION IS PART OF THE OUTSIDE IN PROJECT COURSE, A STUDENT-LED, COLLABORATIVE INFLATABLE PAVILION DESIGN INITIATED BY PROFESSORS LAURIE HAWKINSON AND GALIA SOLOMONOFF AS PART OF A DESIGN-BUILD COURSE. THE PROJECT WAS DEVELOPED WITH GUIDANCE FROM HUBERT CHANG AND SILMAN STRUCTURAL ENGINEERS, WITH INFLATABLE FABRICATION BY ÁREA CUBICA AND CONTRIBUTIONS FROM TEACHING ASSOCIATES TRISTAN SCHENDEL AND SYED HASEEB AMJAD.



C

loud envisions a participatory experience that emphasizes the interconnectedness of peoples' actions in shared spaces. Stretched above the inflatable is a large net that positions seating within, which descends into the Plaza through the center, creating a device for people to modify and curate the space. Measuring 20 meters (66 feet) wide and suspended by 25 cables, this floating inflatable reframes the relationship between Avery Hall and Avery

Plaza, questioning notions of connectivity between interior and exterior spaces. Powered by four electric blowers, the metallic form expands from the 400-level window and classroom, inviting visitors inside its contemplative interior and challenging boundaries of conditioned space.

The pavilion encourages playful interaction between people, their environment, and one another. The center-piece of GSAPP's 2024 Open House on October 21, Cloud remained open until October 30, hosting various events and creating a provocation to bring the broader Columbia community and GSAPP together.

The net hanging over the inflatable is connecting and manifesting the forces felt as the invisible glue joining

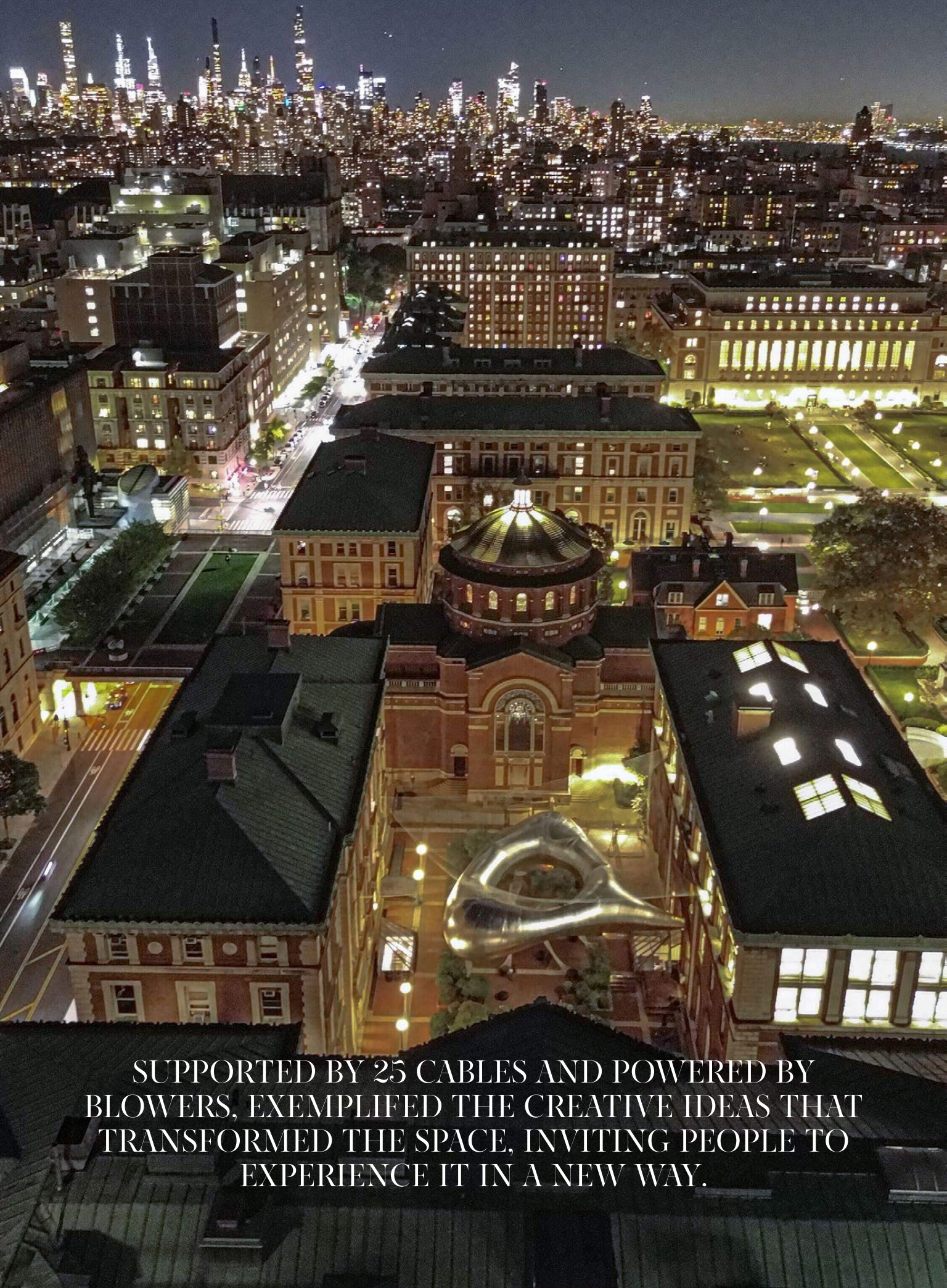
but also separating these differing but joined disciplines. This embodiment of a network in space is soft, adaptable and interactive to the users and visitors alike.

The completed installation creates an endemic climate, one that is combining physical and social aspects of Avery plaza and giving a certain form and a body to the intersected realities happening on and around it, ones that interconnect and create offspring ideas. It is enhancing and making tactile the very essence of what an area with this immense amount of knowledge around it can produce - the Campus.

Translation of the collective student design aspirations to an idea, from an idea to a sketch, from a sketch to a plan and finally to a constructed object has

created a platform. The platform that boasts a pedagogical force, teaching the process of design-build, management, coordination and communication. From the very initiation of the project throughout the whole process, redirection, risk control and intuition has been integral to decision making needed to see this artifact come to life.

ABOVE: AN ISOMETRIC AND PLAN DRAWING ILLUSTRATE THE CLOUD PAVILION IN RELATION TO AVERY AND FAYERWEATHER HALLS. HIGHLIGHTING BOTH THE INFLATABLE STRUCTURE AND ITS SUPPORTING SYSTEM. DEVELOPED UNDER THE GUIDANCE OF HUBERT CHANG AT SILMAN ENGINEERS. THE STRUCTURAL DESIGN ENSURES ADEQUATE LOAD DISTRIBUTION AND SECURE ANCHORING.



SUPPORTED BY 25 CABLES AND POWERED BY BLOWERS, EXEMPLIFIED THE CREATIVE IDEAS THAT TRANSFORMED THE SPACE, INVITING PEOPLE TO EXPERIENCE IT IN A NEW WAY.



THIS INTENSIVE DESIGN-BUILD EXPERIENCE FOSTERS TEAMWORK, STRATEGIC PROBLEM-SOLVING, AND PRACTICAL SKILLS IN A REAL-WORLD SETTING, UNDERSCORING THE SEMINAR'S COMMITMENT TO BRIDGING THEORETICAL CONCEPTS WITH PRACTICAL, HANDS-ON APPLICATION.

ARCHITECTS
LAURIE HAWKINSON, PROFESSOR
GALIA SOLOMONOFF, PROFESSOR
TRISTAN SCHENDEL, TA

STRUCTURAL
HUBERT CHANG, SILMAN ENGINEERS

INFLATABLE MANUFACTURING
NATALIA SERRA, AREA CUBICACOLUMBIA UNIVERSITY
GSAPP AND FACILITIES

SPRING 2024 SEMESTER
Syed Haseeb Anjad (TA), Zackary E. Bryson, Ken Hata Farris, Aishwarya Garg, Candelaria Gasabieyley, Eric Julian Hagerman, Conrad John Hiller, Inbal Himelblau-Denman, Kelsey Jewel Jackson, Mariam E. Jacob, Riika Li, Noah Hirsch Miller, Rena Okamoto, Jared Antonio Orellana, Shrey Bindeshkumar Patel, Carmen Chan, Jillian Kang, Andrea Jang, Preethi Ganesh, Yuen Chen, Xavier Zhapan, Harshini Aashok, Aashka Ajmera, Jahanci Hinge, Harshvardhan Jhaveri, Steven Gan, Kelvin Lee, Jason Li, Jinjian Chen, Han Qin, Yilin Huang, Xinyi Liu, Erisa Nakamura, Steven Gan, Jianyu Zheng, Haoran Wu, Yansong Wang, Ammar Rassai

FALL 2024 SEMESTER
 Devyanshi Arya, Qizhen Chen, Lula Chou,
 Daniel Hahn, Yun Jeong Han, Martina
 Hollmann, Laurent-Shixun Huang,
 Ka Heun Hyun, Lauren Jan, Adi Klein,
 Leslie Li, Lucy Li, Claire Nora Navin,
 Franco Daniel Nocioni, Rena Okamoto,
 Matija Pogorilic, Maria Paula Rico, Khushi
 Rakesh Saraiya, Anna Maria Schmitz,
 Longjui Sun, Nikolaetta Zakyntzinou Xanthi,
 HanYin Zhang, Joe Zhang, Yunhao Zhang,
 Manas Bhatia, Matilda Terolli

COLLABORATORS
Columbia University GSAPP and CU
Facilities

REVISIONS

[illegible]

PROJECT	MOST UPDATED VERSION	9/20/24
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PROJECT	01/2021
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OUTSIDE IN II

OUTSIDE IN II INFLATABLE PAVILION

AVERY PLAZA, COLUMBIA UNIVERSITY

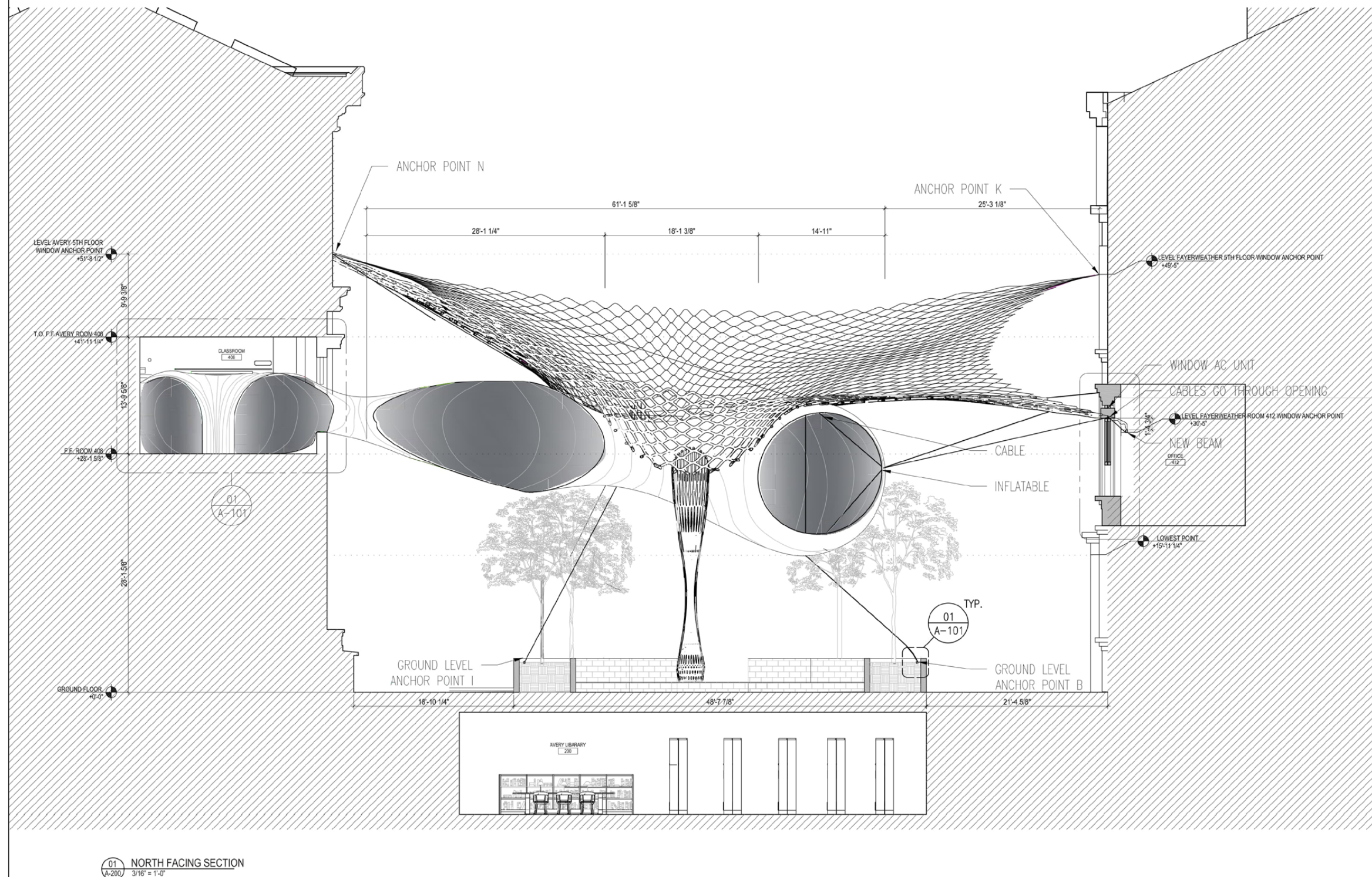
PROJECT

NORTH FACING SECTION

DRAWN BY: LESLIE LI & LUCY LI
CHECKED BY: LESLIE LI & LUCY LI

A-200.00

OUTSIDE IN II INFLATABLE PAVILION '24





Avery plaza, flanked by the Avery, Schermerhorn and Fayerweather buildings as well as St. Paul's Chapel holds an immense amount of knowledge at the intersection of individual realities on top of one of the largest architectural archives in the world.

The inflated body feels as if it bursts out of Avery Hall, which can't keep all the powerful ideas inside of it. The floating halo protruding from the fourth floor of Avery grows above the open space, breathes, shields, redirects and refracts light, creating a memory in the minds of people that experience it; a memory that exceeds the life span of the installation by a lot. It creates and localizes a space of special value.

Entering a familiarly alien object merges the feeling of outsidership and insidership, making one wonder when this border is actually crossed. Outside becomes in as much as inside becomes out, balancing between anthropomorphic and zoomorphic shapes created in a material that is expressively inorganic. The intrinsic sewing patterns further demonstrate the very fact that this thing is very much made by common materials and a structural logic that is readable and reinterpretable.

After its initial setup at Avery plaza, the inflatable installation poses a great opportunity to

showcase the knowledge accumulated at GSAPP outside of school grounds. In the same spirit as Rossi's Teatro del Mondo, it can make a tour around New York City as well as all over the world, bringing with itself an array of lectures, events and initiatives from the school it comes from.

Various afterlife scenarios have been examined, from interior ones such as the atrium of Ford Foundation building to outside locations like Domino Park in Brooklyn or in Central Park's Sheep meadows.

The fact that the Cloud can be put up fairly quickly (in a few days or less) means that it can inherently have pop-ups all over the world - the hardest part of the process remains getting permissions and shipping the whole system packed in boxes.

OVER THE COURSE OF NINE DAYS, THE CLOUD AT COLUMBIA GSAPP BECAME A VIBRANT HUB FOR A DIVERSE RANGE OF EVENTS, BRINGING TOGETHER STUDENTS, FACULTY, AND VISITORS ALIKE.

STUDENTS UNFOLDING CLOUD



RADICAL HISTORY / NIGHTCLUB AS A SOCIAL FACTORY

ARCHA4402 TRANSSCALARITIES, SUMMER 24'
INSTRUCTOR ALAN J. ALANIZ



¹ Alex Coles, ed., *The Italian Avant-Garde 1968-1976*, Vol. 1 (Berlin: Sternberg Press, 2013), 96-105.
² Paul Ginsborg, *A History of Contemporary Italy: Society and Politics 1943-1988* (London: Penguin Books, 1990), 200-220. ³ Coles, *The Italian Avant-Garde 1968-1976*, 96-105.
⁴ Ibid.
⁵ Ginsborg, *A History of Contemporary Italy*, 200-220.
⁶ Lia Piano, *San Francisco. California Academy of Sciences, Vol. 4* (Genova: Renzo Piano Foundation, 2010).
⁷ Sidney Tarrow, *Democracy and Disorder: Protest and Politics in Italy 1965-1975* (Oxford: Oxford University Press, 1989), 98-115.
⁸ Ibid.
⁹ Coles, *The Italian Avant-Garde 1968-1976*, 96-105.

Space Electronic, a revolutionary nightclub in Florence, Italy, transformed the cultural and political landscape from the late 1960s to the early 1970s.¹ Examining how Space Electronic, created by 9999 Group (Giorgio Birelli, Carlo Caldini, Fabrizio Fiumi, and Paolo Galli), interacted with broader environmental, social, and political contexts reveals its operations on the territorial scale, its construction details' impact, and its participation in political conflicts and alliances. This study argues that Space Electronic embodied innovative design as an 'ecological utopia,'

becoming a significant political and cultural landmark that fostered an inclusive environment for diverse social activities.²

The origins of Space Electronic trace back to the creators' experiences in the United States between 1967 and 1968, where Fiumi and Caldini conceived the idea. According to Caldini, "Our contact with youth movements in the US led to a series of environments designed by 9999 Group that celebrated the vibrant underground culture in the country's most important cities."³ Drawing inspiration from venues such as The Fillmore in San

Francisco, the Shrine Auditorium in Los Angeles, and the Electric Circus in New York, they aimed to design a new club in Florence. They envisioned the club as a multimedia environment where new media allowed the coexistence of a larger 'global' world, rapidly connecting various cultural activities.⁴

The construction of Space Electronic embodied the vision of an 'ecological utopia,' showcasing a pioneering experiment in innovative design that reflected broader environmental and economic contexts. The venue featured a vegetable garden, demonstrating an



early commitment to integrating natural elements into urban environments. 9999 Group utilized recycled materials such as glass and industrial metal, reducing waste and creating a distinctive aesthetic. Additionally, they sourced materials locally, minimizing transportation costs and environmental impact, in line with the economic priorities of post-war Italy.⁵ This approach influenced architects well beyond the club's closure to adopt similar sustainable practices in their designs, exemplified at Renzo Piano's California Academy of Sciences in San Francisco.⁶

Amid significant social upheaval in Italy, Space Electronic emerged as a hub for political activism. The venue hosted anti-

war rallies and feminist meetings which contributed to movements challenging societal norms.⁷ In 1968, students utilized Space Electronic as a strategic base to demand educational reforms and better labor conditions, connecting it to a global network of student movements. By fostering political discourse and action, Space Electronic became emblematic of countercultural resistance and a catalyst for social change. Marco Pannella, leader of the Italian Radical Party, leveraged the venue to advocate for civil liberties, human rights, and social reforms. He organized pivotal meetings and rallies there that were crucial to campaigns for divorce rights, the decriminalization of abortion, and the abolition of capital punishment

in Italy.⁸ Pannella's growing influence contributed to significant legislative changes in Italy.

Space Electronic transcended its role as a nightclub, becoming a blueprint for integrating design and activism. Influenced by American youth movements,⁹ this evolution can be seen in venues such as London's The Factory, Amsterdam's Red House, and São Paulo's Mundo Mix, which also merged cultural and political action. This transscalar effect demonstrates how Space Electronic's approach continues to shape spaces worldwide, using art and design to drive global social change and foster vibrant communities.

LEFT SPACE ELECTRONIC INTERIOR. MIDDLE VEGETABLE PATCH INSTALLED FOR THE S-SPACE EVENT AT SPACE ELECTRONIC. RIGHT THE ELECTRIC CIRCUS. NEW YORK CITY.

AFTERWORD

Care call

This portfolio is not a conclusion but a trace—a set of works shaped by ongoing questions and unfinished thoughts. In the context of climate and social crises, they explore ideas of ecological repair, interspecies alliances, and collective well-being, asking how architecture might respond not only through form, but through attention, reciprocity, and care. These projects do not aim to resolve, but to make visible. They explore the terrain where the political dimensions of design can be examined—considering architecture not merely as a space for societies to walk through, but as a compositional or cosmopolitical practice that connects and disconnects, creating a body of evidence that gives voice to controversies. Rather than offering answers, this is a call for our society to listen closely and stay with the questions—to consider what it means to work with what is already here, in a time of interdependence, vulnerability, and repair.

HANSALI VILLAGE, PUNJAB, INDIA. DOCUMENTED DURING THE KINNE TRIP.



Architecture can be a medium to strengthen cultural and individual confidence, to support local economies and to foster the ecological balance.