

[

Dimensions 39

*Dimensions* is the annual, student-produced journal of architecture at Taubman College that seeks to contribute to the critical discourse of architectural education by documenting the most compelling work produced by its students, fellows, and visiting lecturers.

All Rights Reserved.

No part of this publication may be reproduced in any manner whatsoever without permission in writing from the University of Michigan Taubman College.

ISSN: 1074-6536

*Dimensions* 39 was printed by Foresight Group in Ann Arbor, Michigan in CMYK on the following papers: 80# Lynx Opaque Smooth White Text, 100# Flo Gloss Cover, matte laminate. The belly band is printed on 100# Lynx Opaque Smooth White Cover with a flat stamp foil.

Dimensions, vol. 39

Copyright © 2026

The Regents of the University of Michigan

A. Alfred Taubman College of Architecture  
and Urban Planning  
2000 Bonisteel Boulevard  
Ann Arbor, MI 48109-2069 USA  
[dimensionsjournal.us](http://dimensionsjournal.us)

Typeset in Roboto, *Cambria* and **Elza**

Every reasonable attempt has been made to identify owners of copyright. Errors and omissions will be corrected in subsequent editions.

Printed in an Edition of 1000



dimensions

# struē

## 4 INTRODUCTIONS

Antje Steinmuller

## 6 FORE[WORD]

Katarina Gaia Jonna

### ADULT PLAYGROUND

10

W

A conversation with

### SO-IL

18

I

Ayesha Jedydy • Shelby Stress

### COMPLEAT

28

W

Martin Rodriguez Jr.

### DIGITAL PRIMITIVISM

36

T

Angela Cho

### VAPOR & VITRIFICATION

44

F

Shane Herb

### AN ARCHITECTURE OF RESIDUALS

52

T

Matthew Daines • Elliot Reid

### HEARTWOOD

60

W

Tess Clancy

### DOCUMENTING DEMOLITION

68

F

Malak Atwi

### BETWEEN US: ROOTED ASSEMBLIES

76

W

Julia Bohlen

### ACTORS, AGENTS, AND AUGMENTATIONS OF THE [SENS]IBLE CITY

86

T

|   |                                                                                      |     |
|---|--------------------------------------------------------------------------------------|-----|
| I | A conversation with<br><b>DK OSSEO-ASARE</b>                                         | 94  |
| T | Orli Schwartz<br><b>ECOTONAL IMAGINARIES</b>                                         | 104 |
| I | A conversation with<br><b>NORA KHAN</b>                                              | 112 |
| I | A conversation with<br><b>COOKING SECTIONS</b>                                       | 120 |
| F | Olaia Chivite Amigo<br><b>BORDERS</b>                                                | 126 |
| F | Ryan Ball<br><b>STRUCTURE, CONTROL, CLADDING</b>                                     | 134 |
| T | Judy Zhang<br><b>DEGROWTH FOR KIDS</b>                                               | 142 |
| W | Elana Ho<br><b>IN MEMORY</b>                                                         | 150 |
| T | Vanessa Lekaj<br><b>CONCEALED COMMAND(MENT)S</b>                                     | 158 |
| F | Francesca Mavaracchio<br><b>DOORS</b>                                                | 166 |
| A | Nick Grosh • Lincoln Ruiz-Truong<br><b>THE AMERICAN COOPERATIVE<br/>HOUSING GAME</b> | 174 |



184
LETTER FROM THE EDITORS
Dimensions 39

186
BACK[WORD]
Christian Unverzagt

## [thesis]

The product of a year-long investigation, thesis occurs in the final semester of the graduate sequence. Through a self-directed creative project, students engage in the process of research, critique, and synthesis to create works that engage with architectural discourse. The projects are exhibited just prior to graduation and reviewed by a panel of faculty members as well as invited critics. In addition, graduate students may win an annual Burton L. Kampner Memorial Award, which is presented to the graduating student whose thesis project is considered to be the most outstanding.

## 2025 Thesis Award Winners

**DIASPORIC OBSERVATORY OF CRITICAL VODOU STUDIES**

Jonathan Bam Davis

**STRUCTURES OF POWER, SPACES OF RESISTANCE**

Shannon Sumner

**DIGITAL PRIMITIVISM**

Martin Rodriguez Jr.

**INTEGRATIVE TECTONICS**

Jiashu Sun

**AN ARCHITECTURE OF RESIDUALS**

Shane Herb

**ARCHITECTURES OF ACCOMPANIMENT**

Megan Kortenhof

**CADARETTA TRANSITION COOKBOOK**

John Spraberry

## 2025 Thesis Featured Projects

**ACTORS, AGENTS, AND AUGMENTATIONS OF THE [SENS]IBLE CITY**

Julia Bohlen

**AN ARCHITECTURE OF RESIDUALS**

Shane Herb

**CONCEALED COMMAND(MENT)S**

Vanessa Lekaj

**ECOTONAL IMAGINARIES**

Orli Schwartz

**DEGROWTH FOR KIDS**

Judy Zhang

**DIGITAL PRIMITIVISM**

Martin Rodriguez Jr.

## [wallenberg]

## 2025 Wallenberg Travel Awards

**C (1748–2025)**

Ranya Liu and Ella Pelican

**BETWEEN US: ROOTED ASSEMBLIES**

Malak Atwi

**IN MEMORY**

Elana Ho

## 2025 Wallenberg Featured Projects

**ADULT PLAYGROUND**

Katerina Gaia Jonna

**BETWEEN US: ROOTED ASSEMBLIES**

Malak Atwi

**COMPLEAT**

Ayesha Jeddy • Shelby Stress

**HEARTWOOD**

Elliot Reid • Matthew Daines

**IN MEMORY**

Elana Ho

The Wallenberg studio honors the legacy of one of Taubman College's most notable alumni, Raoul Wallenberg, through an undergraduate studio theme focused on a broad humanitarian concern. Wallenberg, a 1935 graduate, is credited for saving more than 100,000 Jews from the Nazi persecution in Budapest, Hungary, during World War II. Through propositions put forward by the studio section faculty, the studio challenges students to develop proposals that define architecture as a human and social art, translated into a physical project. Each year, the studio awards traveling scholarships through the Raoul Wallenberg Endowment, as a reminder of Wallenberg's courage and humanitarianism.

# [fellows]

Taubman College of Architecture and Urban Planning offers several fellowships in the areas of architectural research and instruction. Architecture Fellowships focus on research, design, or physical production. Additionally, there's the Fishman Fellowship for scholars in urbanism, the Spatial and Racial Justice Fellowship exploring the intersection of racial justice and the built environment, and the Michigan-Mellon Fellowship for multidisciplinary research on egalitarianism's role in shaping metropolitan regions. Each fellowship incorporates teaching aligned to the candidate's interests, resources for work development, and possibilities to engage with scholars and researchers across the university. Final products range from exhibits to publications, to installations, to other material or virtual constructions. All Taubman College fellowships allow for the realization of architectural works and endeavors typically unsupported within conventional models of practice.

## **BORDERS**

Olaia Chivite Amigo

## **DOCUMENTING DEMOLITION**

Tess Clancy

## **DOORS**

Francesca Mavaracchio

## **STRUCTURE, CONTROL, CLADDING**

Ryan Ball

## **VAPOR & VITRIFICATION**

Angela Cho

# [asrg]

The Architecture Student Research Grant (ASRG), initiated by the Class of 2013, provides a unique opportunity for student research. The ASRG exhibition brings together the research of three distinct projects initiated in the fall of 2025. Funded by the Grant, ArtsEngines Arts Integrative Interdisciplinary Research (AiiR) Grant, and the generous gifts of Taubman College alumni Adam Smith, Lisa Sauvé, and Robert Yuen, the projects push architectural boundaries and possibilities. They can take many forms—built objects, public installations, experiments, representations, written work, and models for alternative practice. As it's a completion, the research is presented as an exhibition and a public lecture.

## **2025 ASRG Award Recipients**

### **THE AMERICAN COOPERATIVE**

#### **HOUSING GAME**

Nick Grosh

### **LOSING LAKE QAROUN**

Dana Salama

### **STRESS-GUIDED OVERPRINTING: ROBOTIC 3D PRINTING FOR REINFORCED THIN SHELLS**

Alireza Fazel

## **2025 ASRG Featured Project**

### **THE AMERICAN COOPERATIVE**

#### **HOUSING GAME**

Nick Grosh • Lincoln Ruiz-Truong

# [interviews]

Cooking Sections

DK Osseo-Asare

Nora Khan

SO-IL

Each year, Taubman College hosts distinguished individuals from architecture and related fields to share their work with students and faculty through a public lecture. Dimensions invites several of these guest lecturers to participate in a conversational interview to be published in the journal. Members of the Dimensions team have a unique opportunity to curate and conduct interviews with these visiting individuals, offering a glimpse into other dimensions of architecture and the possibilities for professional careers.



for e l v

**RE-POSITIONING**

# Antje Steinmuller

Chair of Architecture • Professor of Architecture

To take up the theme *[Dis]positions* is to name two forces that are essential to the design process. Positions are the stances we ask students to articulate: a claim about an issue, a thesis about architecture's role in the world, choosing what to privilege, what to refuse, and what consequences to accept. Dispositions remind us that no position is ever purely abstract. Each of us arrives with a personal perspective, a set of experiences, and habits of attention that condition what we see and how we act. It also carries another meaning: a relational orientation rather than a solitary declaration. Read this way, the theme of *Dimensions 39* proposes an ethic: to assert a stance, but hold ideas lightly—ready to adjust in the face of new perspectives and evolving information.

The work gathered here portrays architecture's context not as a static backdrop, but as a set of dynamic conditions that invite plural interpretation. Projects treat "the given" as provisional: a changing ecosystem, actively contested sites, and narratives that resist a single, stable account. In doing so, this volume reminds us to stay attentive to what we observe, to changing circumstances, and to multiple viewpoints. As a design attitude, this argues for framing positions that are active rather than defensive, its definitions registering contradiction, translating between differences, and making complexity legible.

Another through-line insists that architecture does not merely respond to history, context, power, or technology; it positions *us* in relation to them, clarifying what is often obscured. Projects in this volume probe how secrecy becomes spectacle, and how power is narrated through space. Others embrace multiplicity, uncertainty, messiness, and technological glitches as territories for exploration and new forms of comfort.

Taking a position can sound solitary, yet these pages show students positioning themselves *with others*. Several contributions treat architecture as a practice of caretaking: of Indigenous ecologies amid displacement; of ruptured relationships to land under extractive economies. The projects in this volume put forward ways of working that place both designers and readers of the work as participants inside an issue not their own, foregrounding processes of learning rather than quick solutions.

Finally, dispositions leverage the graphic framework through which the projects are presented as a tool for loosening our stances. The variety of text and image orientation is a call for the physical engagement with the journal as an artifact. On a laptop screen, page rotation is cumbersome; zoom narrows attention. In print, orientations and readings multiply. *Dimensions 39* asks us—literally and intellectually—to turn, to reconsider, to re-position. It demands that we become comfortable in the grey zone between calcified positions, where acknowledging multiplicity becomes a practice. It asks us to take positions (plural!) amidst this multiplicity, and to keep the disposition to *re-position* with curiosity, empathy, flexibility, and care.

# All Contributors

Positioned by the staff of Dimensions 39

The game is simple to learn and play.

The role of the artist—or architect—is not the production of new content, but the reorganization of knowledge.

The stakes lie in how we read...

...requiring a radical presentness to keep something actively in our minds.

Viewers are invited to dwell and linger on each page.

Displays are two contrasting conceptualizations of the environment.

Each site tells its own story.

We cannot draw binaries anymore.

Not every experience can be trained into a model.

A new framework is required.

You have to be humble, you have to listen, you have to be open.

Multiple actors are in play together at a time, working together and responding to various conditions.

There are no clean divisions, no singular before or after.

What can still be saved?

A truly plastic architecture: adaptable, alive, and rooted.

Architecture ceases to function as a passive vessel...

...giving way to new and unpredictable readings throughout time and multiple visits.

Dwell in the glitch, the drag, the ornamental excess.

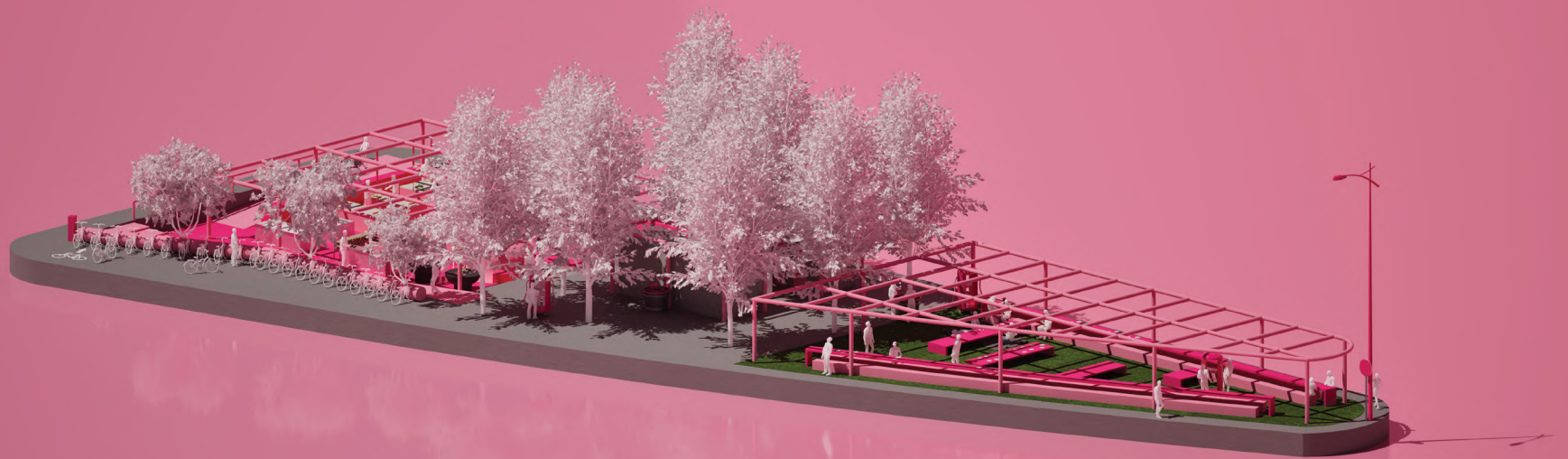
Time and space fold and overlay one another, binding into a place of deeper reflection and releasing.

You have to get out of your comfort zone.

Let's shake it up.

# [DISPOSITION

the way in which something is placed or arranged,  
especially in relation to other things.



**ADULT PLAY GROUND**



# Katerina Gaia Jonna

Wallenberg Critic: Neal Robinson

Personal estrangement and collective indifference have become common and defining ailments of our time. While “smart” technologies and digital literacies have made communication constant, meaningful interaction is increasingly elusive. More bodies do not equal more connections. *Let's shake it up.* Inspired by playgrounds that encourage effortless interaction through common structures, this project employs a kind of social acupuncture to foreground participatory life via a series of redesigned and redistributed common objects of urbanism. Life-sized and designed to be awkward at times, they invite touch, curiosity, and shared attention without demanding it. They *strange-i-fy* just enough of the normal to challenge the emotional distance built into modern life and, like an unexpected wink,



offer flickers of empathy and insight from one human to another. This is not a joke—*but it is funny*. Raoul Wallenberg’s quick wit and notoriously disarming humor find comfort here. Most of the episodic and spatial “quirks” are embedded into familiar city elements: sidewalks, food markets, and laundromats, which orbit a more concentrated island of the Play Ground. At its center is a Grill Park, a shared space for cooking up collective goodness in Williamsburg, New York. With redesigned grills and common prep areas, solitary dinners morph into larger social events that foster connection and conviviality over common needs and tables. A little random, a little off, *Adult Play Ground* suggests that architects can work softly but knowingly against exclusion and loneliness and—through precise, human-scaled moments—make the city and its citizenry feel more alive and connected.



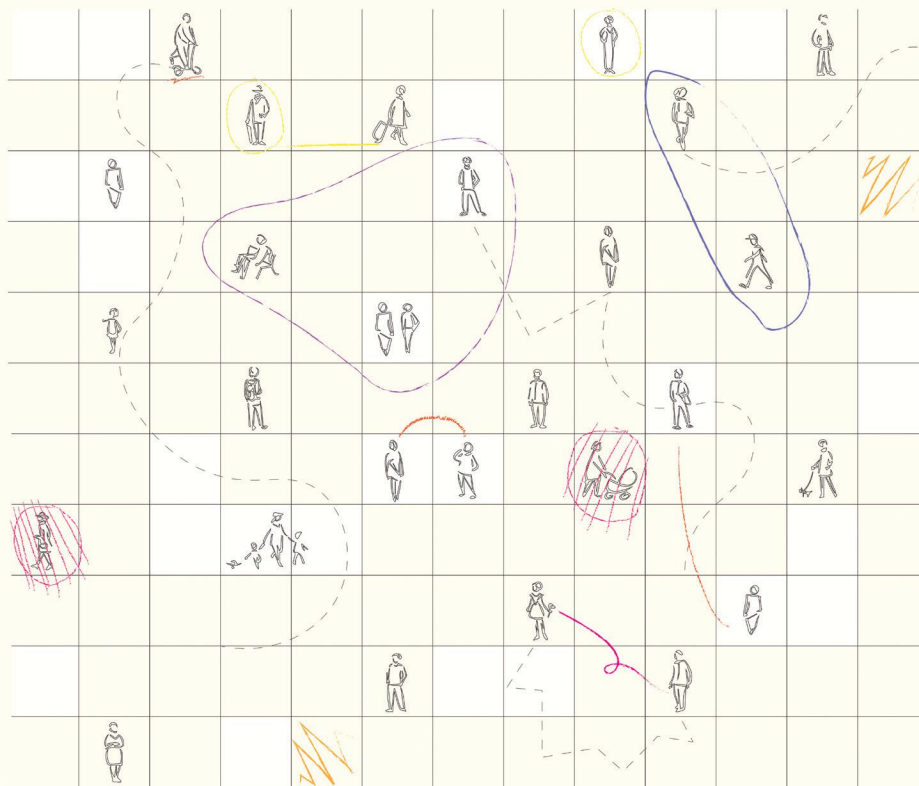
## CONTEXT

Urban life is full of near-encounters—moments where a conversation could spark but doesn't. These drawings capture that tension. One traces the silent overlaps of strangers passing by, and the missed alignments that vanish as quickly as they appear. The other, a game board, charts the invisible barriers that hold us back from a simple "hello."

Together, they ask: what keeps us apart, and what small shifts might bring us closer?

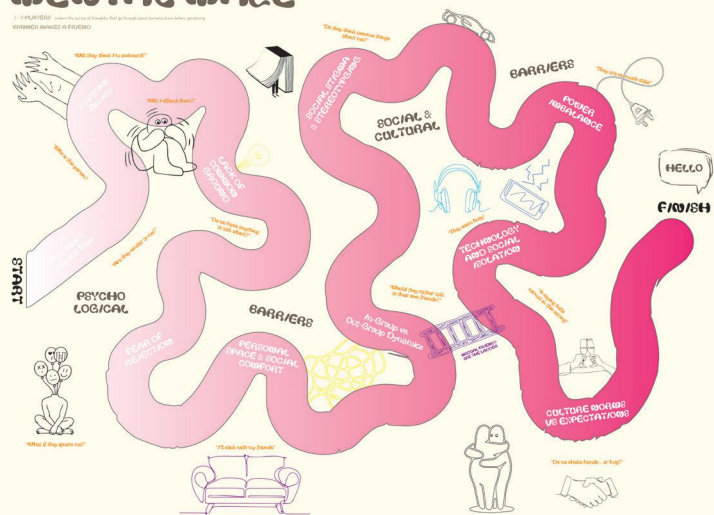
## MISSED ALIGNMENTS

The invisible connections between people who share the same spaces but never meet.



## NETWORK OF AVOIDANCE MENTAL MAZE

2-4 PLAYERS: Explore the social and psychological barriers that prevent us from connecting in our daily lives. A network of avoidance is revealed.





## TIMELINE DRAWING

Everyday life unfolds through repeated patterns—commutes, coffee runs, and waiting in line. By mapping a personal routine, this revealed subtle pauses and overlaps that often slip by unnoticed. These ordinary rhythms reveal small but powerful openings where design can reframe isolation into connection.

1



1

**THE BLOCK**

how we...CHOP

Here, the table is no longer just a surface for serving—it becomes the chopping block itself. Its oversized scale invites people to gather around and prepare food together, eliminating the separation between workspace and social space. By collapsing table and cutting board into one, the design reimagines food prep as both infrastructure and interaction, where the surface is activated through use.

2



2

**SPICE SWAP**

how we...SEASON

This spice table turns seasoning into a shared ritual. A large communal surface, lined with parchment paper stations, invites people to gather, face one another, and deck their meals together. Rows of spices, sauces, and sprinklers run down the center like a flavor runway—everyone reaching, passing, and discovering new combos.

3



3

**OVEN PARADE**

how we...BAKE

This oversized oven transforms the kitchen into a stage for interaction. Instead of a single door, its façade is broken into multiple openings, each scaled differently. The variety shifts the act of cooking from a hidden, private process to a visible, shared one—where every door opened becomes an event that draws attention. By exaggerating the simple gesture of checking on food, the design reframes a routine task as a playful and social ritual, sparking curiosity, laughter, and conversation.

4



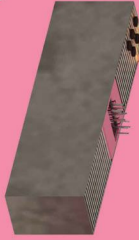
4

**HOT L/OK**

how we...GRILL

This grill system is conceived as a cooking landscape, scaled from small to large to support different forms of participation. Some stations are suited for individuals, others for groups, with utensil bins and a central timer shared between. The design reframes outdoor cooking as a flexible, communal experience where scale and structure foster interaction.

5



5

**SEAR SESH**

how we...SEAR

This double-sided grill is designed for collective cooking. Two facing surfaces bring people together across the heat, creating parallel spaces for individual tasks within a shared frame. A central hub of tools and utensils anchors the setup, encouraging exchange and coordination. By restructuring the grill as a meeting point rather than a boundary, the design turns cooking into a collaborative, conversational act.

6



6

**SPITTLE CIRCLE**

how we...GRIDDLE

This round griddle encircles a central fire, transforming heat into both cooking source and gathering point. The hot ring invites many hands to cook side by side, while the flame at the center draws people into conversation, turning meal preparation into a shared ritual around the fire.

7



7

**P/E PORTAL**

how we...FIRE

The oven rises from the ground as a sculptural mass, punctured by portal openings that frame both food and people. Sliding a pizza inside reveals not just the glow of the fire, but also fleeting glimpses of whoever is working across from you—small visual exchanges that make the process inherently social. Heated seating carved into the structure anchors people around the oven so conversation and laughter fold naturally into the act of cooking.

8



8

**MEGAR/USE**

how we...CLEAN

This communal sink reimagines dishwashing as a collective ritual. A canopy of spray heads above creates a shared field of water, activated by touch and movement, so people can gather and clean from all sides. The design exaggerates the ordinary act of rinsing into a spatial experience—messy, playful, and social—where cleanup becomes less about labor and more about interaction.

9



9

**SOCIAL SAUCE**

how we...DECORATE

A three-wheeled condiment booth designed for social interaction and fun. With condiments at the top and food fitting plates like a hot dog rack, it lets users personalize their meals. The double-sided design allows people to face each other while using it, sparking conversation. Equipped with offset handles on each side, multiple people can move the booth around, making it perfect for any gathering or event.

10



10

**SLAM DUMP**

how we...DISPOSE

With three targets set at different heights, this design allows multiple people to dispose of trash simultaneously, each aiming for their own target. The hoops funnel waste into a single compartment, creating an engaging, interactive experience. By offering a shared, playful activity, it encourages social interaction and makes the task of throwing away trash a fun, collaborative experience for all.

J



J

**R/USE W' R/IDE**

how we...WAIT

This transforms the ordinary act of waiting for laundry into a new kind of social and sensory experience. By adding a slide to the top of a reshaped washing machine, the familiar shaking of the cycle—once seen as background noise—becomes the centerpiece. The machine no longer hides its motions; instead, it invites users to engage with it, turning idle time into an unexpected ride. Creating an unexpected moment that catches attention and invites a smile or maybe even a conversation.

Q



Q

**SNACKQUAKE**

how we...BUY

This vending machine reimagines a familiar frustration—the snack that gets stuck—as an opportunity for play and connection. With access on both sides, users can push and shake in tandem, watching as items rattle loose. The design turns a solitary, transactional moment into a shared encounter, where a minor inconvenience becomes a spark for laughter, cooperation, and conversation. By exaggerating this everyday glitch, the machine transforms vending into an interactive, social experience.



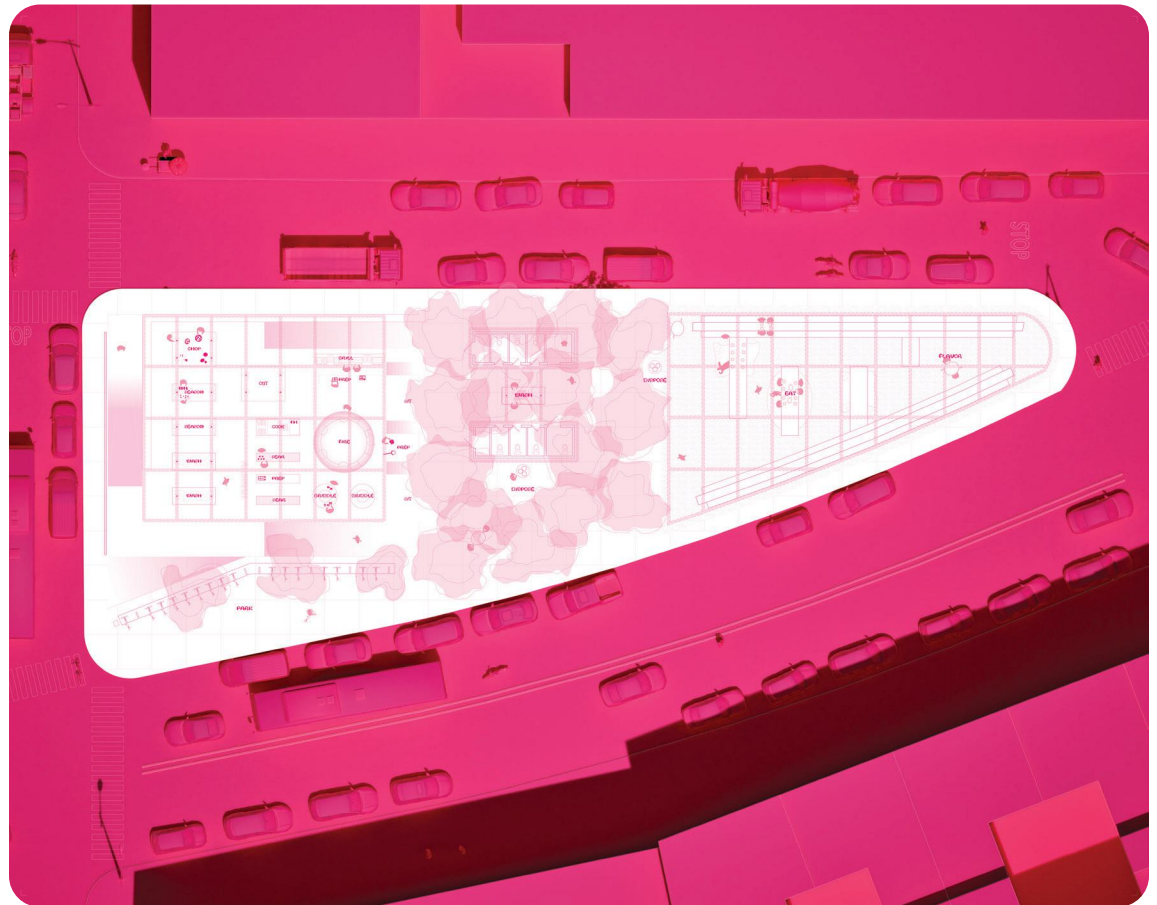


## SITE MAP

Playing cards present small shifts in familiar urban objects—a vending machine, a corner trash can, a laundromat washer—each rethought to encourage new ways of using and noticing them. Scattered throughout the city, they appear as fleeting sparks of curiosity. Densified in the Grill Park, they overlap into a thicker, more collective social fabric.

## GRILL PARK PLAN

At the center of the proposal is a reimagined public Grill Park—introducing the uncommon experience of personal outdoor grilling into the dense fabric of the city. In most urban contexts, access to cooking outdoors is limited, even though grilling elsewhere is often tied to social bonding. This park reframes that act, using redesigned grills and workstations not only as tools, but as prompts for interaction. The park is divided into two halves: cooking on the left, seating on the right. This separation encourages groups to cross paths, fostering encounters with new people as they prepare and eat. The grills themselves vary in form and scale—some oversized and requiring multiple users, others arranged in circular layouts or paired with shared prep blocks and cleaning systems. Each intervention is designed less for efficiency and more for conversation, transforming the grill into a social instrument that draws people together through food, tools, and time.





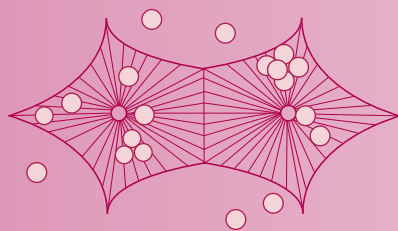




*[ Design can reframe isolation into connection. ]*







*SO-IL is a New York-based architecture and design studio founded in 2008 by Jing Liu and Florian Idenburg. The practice works internationally on cultural, residential, and civic projects, focusing on creating open, human-centered spaces that engage with social and environmental contexts. Accompanying Florian in this interview is Jonathan Molloy, a Senior Associate at SO-IL, leading large and complex projects such as 144 Vanderbilt and The Williams College Museum of Art.*

# SO-IL

**[D39]** What motivated your practice when you were starting out, and how has this changed over time?

**[FI]** It's funny. We just interviewed for a job for a building. We started with showing our first project, the MoMA PS1 *Pole Dance* project. Jing and I were both working elsewhere at the time. I worked at SANAA for eight years.

**[D39]** Right. You worked on the Glass Pavilion.

**[FI]** Yeah, exactly. It's been quite some time flying into Detroit on straight flights before the other terminal was even built. I was going back and forth. Then I did the New Museum in New York. When that was done, we started our office in 2008. Jing worked a little bit with Kohn Pedersen Fox [KPF]. We started when she was still working because it's impossible to just start an office. Especially in 2008, when the financial crisis affected architecture.

At that time, half of the architects in New York lost their jobs, and a third of the offices closed. It was pretty bad. That was a great time to start because it actually made us very frugal and very conscious of material. And, it was also time for a new paradigm, so that really opened up a lot of space. Why did we start then? It was just the right time to do it. The New Museum was done, and I didn't want to do something else with SANAA—and we had a kid. We had decided to stay in New York. Jing is from China, and I am from the Netherlands, and so we said, "Okay, at least here we can sort of be equally foreign." New York seemed to be the city where we wanted to spend some time, and that's when we started the office. I think we always thought we—I mean, at least for me, I always thought this was what I wanted to do. So, I wasn't working at other places to learn about how to start our own practice. There was a moment when I thought, "Maybe I stay at SANAA for this next—" but, there was a

lady, I brought her in, and she became a partner, and she worked for about 22 or 23 years, and she just quit. But, more to say is, I think that's a very long period of time to work for somebody. There are people who spend 40 years or 50 years—their whole professional life—at a firm. For me, that was not in the cards, and we wanted to do something together, so that's how it started.

Then the struggle starts basically. But I think it was very important that we both had some professional experience. We were very committed to architecture, not living just on paper or in academia. We think architecture is something that should be experienced by people and not just read about, so that it reaches a larger audience than, say, the academic audience. So, we started to really work on temporary structures and that kind of stuff—experimental stuff. Certainly, teaching helped. I did have a teaching job at the same time as well, so the first five years, we did not pay ourselves, but we were able to develop a practice that could support itself.

**[D39]** Pretty interesting to hear that. That makes total sense, but it's the side to beginning a practice that nobody ever talks about for some reason.

**[FI]** Well, there are people who don't need income, then there are people who do. And for us, it was not something that we could sponsor in any other way. I think that it was just a lot of hard work. But yeah, I think it's very essential to think about the operations very early on. Yeah, you've probably done—I mean, I guess there is professional practice here. I don't know how professional practice is taught. Sometimes it's taught by the most boring AIA attorney, and everybody just sort of feels like—

**[JM]** Like utilization rates.

**[FI]** Yeah, yeah, yeah. But you have to build it. It's just something that otherwise you won't survive as

a practice, so you have to build it in early. It's funny because in Japan, I worked for Sejima; she started her practice in a Japanese crisis, like in the '80s. And so her architecture really emerged out of this new paradigm of lightness and a material lightness that came out of the fact that you had to do more with less. And, that's why I think it's not a bad idea to start a practice at the moment there is a crisis, because it typically creates new space for new ideas. When you are young and you don't have to pay 50 people on your payroll, you can do a lot of experimental stuff. So I think it was actually a very fruitful moment to start.

**[D39]** We've noticed that many of your works embody the notion of "porousness". From the early soft structure in *Pole Dance* to many of your later works, do you see this as having become your distinctive design language? Are you planning to further evolve or move beyond this in future projects?

**[FI]** I think in that first PS1 project, we had a lot of seeds form different strands in the work. One of the things that we were very interested in there is not necessarily making an object, but really making a space that you could be in and experience. So we think a lot about what the different ways are in which space is experienced, but not as a visual thing, but really as something that is spatial, and tactile, and immersive. The other aspect that we have in there is this idea of openness and interpretation. So often in school, you learn that function is really important. That is not really important because function is changing *all* the time, and in some ways, structures can accommodate change, and in some ways, are open for interpretation rather than super pre-defined. So this is where this ambiguity comes in. I'm sure you are familiar with architects who work a lot with diagrams and then turn the diagram into a building. But that typically means that that's the only way in which you can understand, and read, and

use that building, whereas if you create something that actually allows for multiple interpretations, it's actually more tolerant. Meaning it allows for people to see things that they might not have seen. So in that way, it can be more generous because it can invite misinterpretation, which is also okay.

Then there is an environmental aspect which has to do with—we create the lightest roof possible, and so creating some awareness of the ground and the environment, and what does that filter? And what do you really need to filter out, in a way? Because I think these days, there is often a very hard boundary that comes through environmental concerns, and certainly in the way sustainability, for instance, is being calculated these days. It forces buildings to be really enclosed with a totally controlled environment—and it reinforces notions that the outside is wild, volatile, and unpredictable. We feel that in that transition, a lot of our experiences are being lost to an in-between, comfortable and wet, or cold and dry, and these environments are not allowed anymore. And so I think a lot of the lightness and the stuff that the fabric brings allows us to delaminate these layers and create a lot of in-between conditions that are part of the human experience and are being verged out. Those are all different lines of thinking that exist in that first gesture.

If you look at the housing projects, for instance, they are very much interested in delamination of inside/outside, public/private.

**[D39]** The threshold, I feel.

**[FI]** Exactly. They are spaces that existed, but they have been lost, I think. So, at the same time we are working now—and I don't know if you saw this thing in the Biennale in Venice, where we worked with this lady who knits these 3D fabrics. It was a Necto

installation. You could argue that that's a completely different strand, but it comes from the same seed, which is really exploring fabric as a place for innovation. What is very interesting in her work is that she is trying to reduce the amount of carbon that goes into concrete. If you start looking at where concrete is carbon-intensive, one is in formwork. So she knits 3D form work, and she calculates the strength of the fabric so you don't have to build out of planks, wood, and other heavy stuff that then ends up in a landfill. The machine that knits shoes—she uses *that* to knit form works. We work with her on 3D structures that *in themselves* have structural capacity. If you ask us if we're always doing the same thing? We would respond by saying *in a way, yes, but in a way, no*. There is a lot of difference—a universe of ideas that came out of that first project.

**[D39]** On that thread, we see 144 Vanderbilt as a project that is—at least materially—antithetical to your work. Right? You're well known for your almost tensile fabrications. A lot of your work is rooted in porosity and translucency. And this being concrete, could you elaborate on whether this was a departure from this idea of porousness, or if you believe you reinterpreted what that means by translating porosity in different ways?

**[FI]** Porosity can be understood simply in terms of where there is something, and where there is nothing. *Where is there material, and where is there non-material?* That can happen on so many different scales. You can work on a very fine fabric scale, but you can also apply it at the scale of the city. Amant is a project one scale up from Vanderbilt, where porosity happens on the scales of the building and the whole urban fabric, such that you are able to see in between. And so at Vanderbilt, the porosity comes with the building scale—balconies, open porches, and walkways. Porosity happens really on

the scale of the room rather than the material or the fabric.

144 Vanderbilt is a very present building facing a prominent street corner, an important avenue in New York. We wanted to have it play a role in the massing of the entire block and to be a recognizable thing. Pink. The question always comes up.

**[D39]** We love pink *[laughing]*.

**[JM]** Related to the previous question, of an ethos or a system or a set of genetics that lead to responses to different kinds of projects. Specific tensile and fabric material isn't solely a fascination with material, but the way material can operate. For a residential building in Brooklyn, fabric doesn't have much relevance. So it's about finding what porosity means at the scale of urban life. What does it mean to live in an apartment in New York City, something that Florian and I have done for quite a while? A lot of urban life suffers from double-loaded corridors and efficiency—it doesn't have a relationship to the outdoors. You're sort of enclosed.

These buildings are trying to find what porosity means for the experience of a person relative to their life. We can talk about these buildings as siblings. They are all approaching the same thesis of urban porosity or building-level porosity. But then the material investigations are different in each one. So one is masonry block, another is perforated metal, which has a little bit more material relationship to some of the early work, and then Vanderbilt is precast concrete. It was deliberate that the three be different from each other. They're also in three different neighborhoods—near each other, but in different contexts. They each try to explore what a material language is at the scale of a building's base porosity. Precast was an interesting material that related to the context of Fort Greene and Clinton Hill. It seems dramatic—when we talk

*You can only have  
lightness with weight to  
compensate for it.*

about it being pink, it has excitement and surprise. But when you experience the building in person, it's not so jarring; it feels related to and informed by the materials around it. So I think there is a way of approaching something through the same system, but ending up with different results.

**[FI]** You can only have lightness with weight to compensate for it. ☆

Or you can only have tension with compression. And so if you think of PS1, it seems very light, but there is a heavy concrete wall, which was already there—the courtyard wall—that is playing an important role in holding the whole wobbly thing together. What I'm saying is, you can't think of lightness without thinking about weight. You need both to strengthen one another. So, I think we also think about weight.

**[D39]** With 144 Vanderbilt, I really appreciate the way porosity infiltrates into the space, but it's not visible to people outside at the same time. Within, there are spaces that residents can see and experience that, very much, aren't open and embrace this sense of co-living.

On cohabitation, a few years ago, Jing said you wanted to explore a co-living project, but you came to realize that the legal structure in the US made it impossible to develop co-housing, right?

**[FI]** Correct, yeah.

**[D39]** At your Gehry Chair lecture at the University of Toronto Daniels Faculty, you brought up really strong and pronounced ideas about how to live in the city. It was only recently that you were able to pursue these interests due to the strength of regulatory and market forces. **Could you both elaborate on what makes it so difficult to implement such projects in the American context?**

**[FI]** Ownership models, the banks, mortgages, and the way credit scores work. It's all private here, of course. Successful co-living conditions typically happen in cities like Munich or Zurich—

**[JM]** Berlin.

**[FI]** The Netherlands also. 'Cuz you need—okay, it's always risky. It quickly becomes about finance because it's about who's taking the risk.

**[D39]** Surprise, surprise, capitalist society. *[laughing]*

**[FI]** Yeah, yeah, it's all that! That's ultimately it. And because this is such an individualistic and capitalist society, it's much harder to implement collaborative and co-ownership models that exist in other societies that have a stronger history and a social-democratic, inclusive process. On a super-macro level, that's the reason why it's so hard. Then, very literally, for instance, you can't get a building loan as a collective. There needs to be one individual or responsible entity. That entity needs to guarantee the whole thing, who often happens to be a developer who is able to pool a bunch of money and then take that risk. What we wanted to do was—we had like six friends and couples, and we'd pool it all together. But in the end, one of us would have become the developer and would have taken the risk. At that point, you're not doing it together anymore. We weren't fully able to figure out how to do it at the time. This is way back in the beginning, 2008. We thought, "Nobody's building. This is our opportunity. We're going to do this! *[laughing]* We're going to bring socialism to New York." But there was a lot of resistance. We thought we could find a piece of land where we could build something, but there were opportunistic people with suitcases of cash flying in, just snipping up property. All of the sharks were out *[laughing]*. It's like "Whoa-ho!" This is a very aggressive environment. I do think a lot of the values that we developed then, we are able

to do now in these residential projects that we're building with Tankhouse. These are two young guys, developers, who we're working with on four projects. They're all the same client. One of them was an architect for many years, and he used to work for Foster + Partners—the other is the son of Thom Mayne. So he got spoon-fed architecture. All to say is they come with a very different ethos to these projects. To become a developer in the US, you certainly don't have to go to architecture school. A lot of them come out of finance, and they come out of legal backgrounds. They don't know how architecture works. They just think that the architect is there to get you a permit. That's one aspect. It's like the people who ultimately at this moment have the financial ability to realize a project, because ultimately, building a project is a financial idea. You have to move a lot of money from one place to another place and turn it into material. A lot of those people have no experience and have no insight into this, in the potential of different models, because they're just used to the models that have existed.

But now we are actually building our studio, which is really exciting. It's been taking a while. It's also a very stressful period because we're doing it ourselves. But it's next to our house, and the idea is that it becomes much more of an open and communal space where there is not such a hard boundary necessarily, and also we want to create spaces where it is easy for guests to come and stay with us because New York is very expensive at the moment. We have a lot of journalists who can't afford to come to New York anymore because it's \$500 a night in a hotel. So if we can be good hosts, I think that generosity and openness are something that we feel we can have, organizationally. I don't know if that was what Jing was alluding to, but yeah.

**[JM]** I think this conversation tends to be disappointing a lot, right? There are these enormous

systems that not only are we not experts in, but even if we were experts, it's very difficult to move them. I think Tankhouse is an inspiration to a lot of young people who are interested in, particularly, the development side. Because it will require more people who understand money and how to leverage money to make these projects happen. As Florian is saying, I think most architects who are interested in this have tried to do it themselves. My wife, some friends, and I have looked at similar things, and it's just really difficult unless you know how to raise money—you know how to do the spreadsheet. And all of that being said, I think it's also worth recognizing that alternative modes of living are interesting and very culturally dependent. Right? So I think it's not only that it's a capitalist society—it's also that, from a financial standpoint, it's difficult to do. Also, there is a certain style of life that Americans are associated with. And that's a reality, right? It's a different relationship to—I mean, suburbanism and private space are very different from a Berlin sense of urbanism. What I think is interesting is finding those places, and you can see some of these moments in architectural history where there is an interest in living your day-to-day life differently. In the history of ambitious residential architecture, a lot of it tends to be second homes. Right? So it's like outside of the—

**[FI]** The norm.

**[JM]** The norm, right. Where you're open to living more experimentally, or where you have a different relationship to your daily routines. Something that we've been talking about internally is that student housing is potentially an interesting space.

**[FI]** It's the only moment that people live differently. One of our first projects was a student housing competition for up to 35 student residents. And the whole idea was, it's the last moment that you can actually change a person's mindset of how they

live. Right? So student dorms are really important—it's when you still can think—when you're still open-minded. Afterwards, you tend to just think of a suburban home *[laughs]*.

**[JM]** And there's an openness to communality, about being together. That becomes much more complicated as you become accustomed to life.

**[FI]** Yeah, you don't have your best friend waking up on the couch anymore.

**[D39]** In a lot of ways, student living is very much about embracing meeting others. That's literally the whole point of student living, right?

**[FI]** Exactly, yeah.

**[JM]** Exactly. That's an opportunity where institutions certainly have room to operate outside the modes of market capital development. Right? They know who's going to stay there. I think that seems like an interesting opportunity we're starting to have conversations around. But in general, America is risk-averse and likes to do things that are familiar. What's even above the financial thing is—or it's related—is trying to get people to be open to things that are different.

**[D39]** The idea articulated in the article is related to reimagining how we live together beyond the constraints of legal forces. **Given your ambition to reshape how we envision cohabitation in urban contexts, could you speak on what our role is as architects in shaping the world we're so often shaped by? And, how do you envision our position can be in tackling these wider forces that not only shape what we can do, but also the world we're designing for?**

**[FI]** I do think you have to get out of your comfort zone. And you have to get into those spaces where

your work actually can have an impact on how things become what they are. I think architects have been shying away from risk. I mean, we're talking about *risk-averse*. Architects are incredibly risk-averse. I worked in Japan, where it's really experimental, and people find very different ways to inhabit. When I came to do the New Museum, the first thing I heard from an American architect was, "Every line you draw is a potential lawsuit." And I'm like, "Wow. I thought I was imagining worlds." That was really hardcore.

We have been involved in the making of the buildings. For instance, in Korea, we ended up producing this sort of hand-knitted skin around the building, which was one of our first projects. We just said, "Okay, we're going to realize this thing." We took on the risk of producing that. On some of these other projects, we get similarly involved in the making of the thing, and so we have some risk in there as well.

I think the other risk that you have to take if you really want to change something—you have to at least understand how these risks work if you want to have a bigger impact. It's why, to Jonathan's point as well, there is a greater interest at this moment in architecture schools in development. You take the risk yourself, and it's up to you to put your money where your mouth is, literally.

So I think that's one way in which you can have a real impact. Or you have to go into policy,

*...I think that's why we all want to be architects and are inspired by it—it does move us, it has the power to affect us.*

you have to go to the city, and you have to start changing code. Changing, for instance, building codes that don't allow multifamily on a site. They don't allow apartments with four bedrooms and four bathrooms for other ways of living. So then you have to get involved in the city and city planning. I think the architect—and the way in which the discipline is currently existing, which is not necessarily where it has to be, in the sort of AIA professional practice type of way—is a service provider in service of some of these other flows. So it's about getting outside of that discipline and into these places where you can have an impact. I think it's hard to stay within the current definition of architecture.

**[JM]** Along those lines, I remember in architecture school, when I was an undergrad, there was a sense that architecture is powerful. I think that's why we all want to be architects and are inspired by it—it does move us, it has the power to affect us. ✨

**[FI]** Don't tell some sort of depressing story about how it's not worth it. *[laughs]*

**[JM]** No, no, no! No, no! I think the way you framed the question is how the architectural fabric affects us, and that we're the recipients—and that's true to some extent. But recently, I have been thinking that as you enter the world and navigate all of these limitations, the fabric of the world—the architecture of the world—is also a representation of us. Right? It's not just something that's acting on us, but it shows who we are. Which is depressing in a certain way when you reflect on the majority of architecture that's being constructed in the world. But there are still moments of departure from that.

There is a recognition that, as a country—I think America, in particular, struggles with this—what we're making represents something flawed. It takes a *huge* amount of effort, risk, convincing,



and all of the things that we're talking about, to get out of that and to produce something actually different than the overwhelming DNA of the fabric. In the case of 144 Vanderbilt, it wasn't up to just us. We had to get hired by some developers who were willing to take the financial risk, and they couldn't get loans from the banks, so they had to raise all the money themselves.

**[FI]** But it's possible.

**[JM]** Yeah.

**[FI]** I think similarly, with the project *Amant*—it's an urban campus, so it's maybe not as recognizable as some of the other projects—there are a few things that we're doing there that are really pretty radical.

**[JM]** Totally.

**[FI]** They are. It's private property, but we made the street through the block. We didn't maximize—because typically when somebody comes to you, they ask, "What is the maximum amount of square footage we can build?" Right? This is the capitalist mindset. "What's the biggest building? Give me the biggest building for the least amount of money." When we did the New Museum at SANAA, they wanted to maximize the building envelope. So the four competitors made exactly the same building. But we said, "Well, I think you can do your program on maybe 70% of the site." Suddenly, within the building envelope, that building gets its expression by doing a little bit less. I think at the *Amant*, in some way, that's like the New Museum just stacked over a bunch of blocks.

We don't max the width of the site, so an alleyway can be moved back for a garden to become possible. The mindset of maximization opens up a conversation around value. Is more interior space that is yours more valuable than somebody being

able to pass through the block and come and see your program, and see your café, and see your book show? It's the ability to articulate—maybe architects can become better at articulating value, and alternative value models counter to capitalist gain. Within the discipline, there is still a lot of work that can be done, and I am excited about some of the projects that we are doing because they are demonstrating how those things would materialize, and people can come, and go, and visit. They see that alternatives are possible.

**[JM]** I think all of these projects, they have depended on—and I think this is true if you look at the history of architecture, even though we don't talk about it too often—they have depended on clients who are also—

**[FI]** On the other side.

**[JM]** Exactly. Clients who are open to themselves being outside of the mainstream. Those partnerships are really important. Even when they are already oriented that way, the architect's articulation remains incredibly important because the pressures of those forces don't go away.

**[D39]** In your William College Art Museum project, there is a type of space where, only after entering, you begin to realize another possible path. You said it's a strategy to allow the visitor to curate their own way. It's related to what you spoke about before—porousness and ambiguity. In contrast, you've done a very tiny pavilion called *Anima Pavilion*. The intimate scale allows the viewer to immerse themselves in the work while the spatial atmosphere continually heightens their awareness of their own presence, slowing down movement while suggesting a self-aware mode of looking. **My question is: How do you use the spatial design to modulate the speed of viewing within the exhibition, while also accounting for moments of pause and contemplation?**

**[FI]** First of all, what I appreciate in the question is that you see that space can do a variety of things. It has agency in the organization of space—the rhythm of space has a big effect on experience. The associative and this idea of openness and interpretation are one aspect, versus this curated path. These are two different types of spatial experience. What you're articulating is that there is agency in the way you, as an architect, shape space and the way people will ultimately—I don't want to use the word "experience"—but I think it is the way in which realities unfold to them. What is incredible about art spaces is that it is a combination of the work, the person encountering the work, and the space around it, creating a framework within that.

They work at different moments, at different times. So, at what moment is one or the other spatial agency the right answer? There is a big difference between a European museum and an American museum. I don't know if you know an exhibition designer—somebody like Ralph Appelbaum—but they're very influential in designing science and natural history museums. But in museums, the story is always finished. There is a beginning, where you learn a bunch of things, and everybody is like, "This, this, this." Then there is a conclusive gallery. This is very linear, very predetermined. That is—we feel—where the space and the experience are dictated top-down. For us, there is always an interest in giving the subject who is moving through the space the agency to choose a different path. We aim to allow for another reading, because I think

language can only develop at moments of misreading, so new stories can only emerge through new storytelling methodologies, not just top-down storytelling.

I think the Omi Pavilion is free in a different way, because

—and it was supposed to be pink.

yes, there is a sequence, so it's very much about an individual experience, being with the work, slowing down—as you articulated. I feel there, the freedom is really integrated in that sequence—it's only five steps, right? The curator and the artist are given the freedom to think through how to use these spaces. We really thought about those spaces as: *How do you enter the space differently? How does the light come in? How do you exit the space?* So that's a really fine-tuned and very carefully calibrated sequence of spaces. After that, you emerge outside and, what do you see with the landscape? It's highly curated, but it works on that scale. The freedom in its use is decided by the artist or curator—also, where do you start among the five segments? You don't have to start at the first pavilion. And then, what sequence follows?

**[D39]** I think it's very special that you consider not only the visitor, but also the artist who is framing their work. It's an interesting position to be in as a designer.

You have to give the artist a lot of agency. It's also like—a neutral box for an artist is often really boring. Curators tend to want much more generic space, but often an artist is interested in a space that they can respond to. That dialogue is very important.

**[D39]** The Guggenheim is a pretty interesting example of that.

**[FI]** Yeah. Historically, people *hated* the Guggenheim—deeply. But the Guggenheim predicted a new arts experience that didn't really exist in its day—a collective, immersive, spatial experience. There were 900 very aggressive letters between Guggenheim and Frank Lloyd Wright—they both died before the building was done. It's an epic battle that neither survived.

**[JM]** And it was supposed to be pink. ○

**[D39]** Really?!?!

**[JM]** Look up "Guggenheim pink" and you'll see the drawings.

**[FI]** It was his last work, and he was really spacing out in an incredible way. Within this discussion, about "how do we live?"—there are people who get more conservative when they get older. And then, there are people who just go wild. Frank Gehry is another example. He designed the most functional buildings ever, like parking garages, and only around 50 did he start to become free. There are also people who, the older they get, the more conservative they get, the more fearful they get for the future, and the less experimental their work becomes. I think that's a very important phenomenon because it goes back to risk. What risks are you willing to tolerate? If you get too comfortable, then you could miss great opportunities, and you become more risk-averse as your dreams start to slip away.

**[D39]** So in your practice, you move between teaching and running two offices—where do you see the gap between academic exploration and professional work? When you teach, how do you get your students to navigate and balance the freedom of academia with the realities of practice?

**[FI]** Both need to inform each other constantly—that's why we're doing both. Academia can inform the profession as well, because of the space and the freedom that academia provides. They shouldn't be so separated.

It's funny teaching for 25 years—I am still in contact with a lot of my students, those relationships last forever. Periodically, I get emails from them saying, "Wait, why is

academia so different from reality?" That doesn't have to be the case. The freedoms that you are taught are essential to maintain and continue to push, and similarly, you need to understand how a bunch of things work in practice to be able to bridge the gap between them. The gap you identified is the one that we should try to minimize. It should not, however, become a vocational school where you just learn how to get your AIA credits—that's ultimately a bureaucratic body—so as an educator, you have to think through what the role of the architect is. And the architect's role is to work with space, to create completely novel experiences, and to physically manifest the spirit of the time. I think you have to do both, but you should not take either one as the—

**[D39]** Holy grail.

**[FI]** Yeah.

**[JM]** As an example of the relationship between the two, schools struggle to communicate and teach attention to material. It shouldn't be a trade school, of course—it's important to be ambitious and to be thinking about all of the things that you guys do. But—how do you bring it into the world?

**[FI]** And how do you put a block atop another block?

**[JM]** With so much of the political advocacy and social justice thinking in architecture schools, the actual labor of making a building is significant—understanding what it means to make a building. I often tell young people who are asking me for advice early in their careers—something that I think they all dismiss me on—but I tell every single one to go work on a construction crew. I did when I was younger. My dad was a carpenter before he became a doctor, so I worked on a carpentry crew and in a woodworking shop. It is important

to understand the physicality of materials and the physical labor that is required to make a building. The earth that has to move, the concrete that has to get mixed, how much it takes to carry weight up a ladder—all of that's real, and it matters. ✨ As we said, it takes so much to convince people to do things that are different, you have to have a certain level of technical expertise—

**[FI]** Yeah, and respect for the people that are putting the stuff together. We like to bring in contractors very early and start talking to them about construction—I said before, we like to get our hands dirty. You just have to understand how stuff is put together.

**[JM]** 80 years ago, I think the technical expertise of architects was at a higher level because the expectation was higher, and there were fewer consultants and all that, people were freer with their money. Forty years ago, you could have a crazy idea. But now, you have very risk-averse clients, you have a very volatile economy—you, the architect, have to be able to demonstrate that it's possible for the budget, and you have to articulate that it's a risk worth taking comfortably. That's why you have to be able to speak the language of construction and understand how things actually get put together. Otherwise, it's very easy to be dismissed and hear, "Oh, they don't know what the fuck they're talking about." That part is—

**[FI]** Quite underrepresented in architectural academia.

**[JM]** Absolutely. I think that's something that European schools focus on much more. My wife is Spanish and went to the ETSAM in Madrid [Escuela Técnica Superior de Arquitectura de Madrid]. She came out as a licensed structural engineer, mechanical engineer, and architect just by nature of the architecture school. So when she came to

*The earth that has to move,  
the concrete that has to get  
mixed, how much it takes to  
carry weight up a ladder—all  
of that's real, and it matters.*

the US, she was like, "What do you mean you need a mechanical consultant?"

**[D39]** Everything is siloed.

**[FI]** It's to do with risk.

**[JM]** The tradeoff risk to the profession is that by not understanding those realities, you lose the leverage to be able to do ambitious projects. Because if you don't know what you're talking about, people can just say, "You don't know what you're talking about," And then *[laughs]*—it's hard to get anywhere then.

**[FI]** And then what do you say? *[Laughs]* "No, really, I want this!"

**[JM]** You learn this in early architecture, that you have to understand a bit about everything, and you have to be able to speak in an educated way. You have to be able to know who an expert is and how to engage them. I sense that these days, there is less interest in the material and physical realities of architecture than there is in the ideological ones. Which just makes it hard!

**[FI]** I think they're very related. It's labor, it's material, it's the environment, it's ultimately equity.

**[JM]** How do you put those things together into a piece of architecture? In school, people talk about the politics of manufacturing, or movement of goods, but not, "What do you do with it?"

**[D39]** What are your ambitions for the profession at large? What do you hope to inspire by the work that you're doing?

*...gravity, you  
can't really  
question. But  
the response to  
gravity, you can.*

**[FI]** Ultimately, I hope architects can take more risks and show it. There's a lot of talk, but you just have to do it. I think our profession can be inspired to do more of that. There have been dogmatic architects who had their own way of working who said, "This is the way it should be." We don't believe in that at all. When we show how we do things, we do it the way we do it. And we think everybody should do it in their own way—go for it and take the risk, go out there, and show it.

**[JM]** The theme of the publication is "*Positions, Dispositions*." I think that's something in what Florian is saying—right now, there is hesitation to take a position.

**[FI]** Yeah.

**[JM]** I don't just mean a political position, but to take a design position—a creative position. To actually take a risk emotionally, personally—and I think this is hard in schools these days. To actually design something—

**[FI]** —To design something outside your own level of comfort, or maybe the professor's level of comfort. There's no right or wrong, only conviction, ultimately. Don't be afraid. Fearlessness is absolutely necessary. Get educated, and find answers, and be able to—

**[D39]** Argue.

**[FI]** Yeah, against the haters. *[Laughing]*

**[JM]** Well, I think it's a good point. Because the haters don't go away, right?

There is something about finding the relationship between taking a creative position and acknowledging a set of realities that are structured, which you've mastered or understood to the best of your ability. Those conversations can be more

interesting. But if you decide that gravity doesn't matter, that makes the conversation hard, unless you're designing something on Mars or whatever.

**[FI]** Gravity matters on Mars as well; it's just one-third.

**[JM]** It's just a third. Taking the material realities of architecture seriously—gravity being one, envelope being another. Have some technical fundamentals so that conversations can be about what the building means, why it is the way that it is, and what you're trying to say with it. If someone proposes a building that is completely ungrounded in reality, the conversation can't be about reality anymore. There has to be a commitment to the fact that making a building in the world has to follow certain rules, and those rules are important to understand. The second you get out of the door and a real person walks up to you and asks, "Can you design a building for me?" Those realities matter. So, you might as well get used to them and see what's possible.

**[FI]** But question everything.

**[JM]** Of course! Because gravity, you can't really question. But the response to gravity, you can. ○  
With the structural systems, you don't have to do what everybody else does. There are many ways of doing them. But taking what is fixed seriously is important.

**[FI]** There's a reason why things are the way they are. So understanding those and starting to tinker—

**[JM]** Push against them.

**[D39]** This was a really enriching conversation. We're so happy to have had you both.

**[FI]** Good! Excellent.

**[JM]** Cool.





FOLDING HISTORIES AND ANISHINAABE LAND PERSPECTIVES

**COMPLEAT**

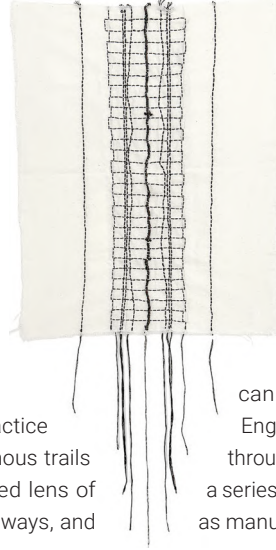


# Ayesha Jeddy • Shelby Stress

Wallenberg Critic: Neal Robinson

Land is nothing more than something to claim ownership of through our contemporary lens—while bureaucratic forces attempt to maintain spatial control, they have strayed far from understanding the bona fide connection between the human body and the land we inhabit. Seeing beyond the peripheries we have inherited, the role of land in human existence requires a rewiring of the psyche in order to acknowledge our context as a companion rather than a subservient entity we are prompted with.

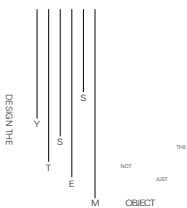
Western pedagogy expands through the practice of burial—the tendency to build over. Indigenous trails in Ann Arbor are the epitome of a discarded lens of life. Covered with housing, businesses, roadways, and



university buildings, the trails that developed Ann Arbor are largely forgotten despite their significant impact. Through the reimposition of a trail, time and space fold and overlay one another, binding into a place of deeper reflection and relearning.

The project is a series of “pleats” along an Anishinaabe trail, each enabling a moment of interaction with the land and people using Anishinaabe sensibilities. This suggests how a flattening or revealing of histories can expose a deeper care for land and people. Engagement with the pleats is ground-up, sustained through a welcome center within the public library and a series of sheds acting as tool/material storage, as well as manual libraries.

W



3

USER KNOW IT CAME FROM  
HELP  
SHOWS

SHOULD  
ASSEMBLY + BE

VISIBILITY

THE K  
A  
E NGS

2

POISSON  
LEAST  
MOUNTAIN

POSS  
USE USE USE USE USE  
USE USE USE USE  
USE USE USE  
USE THE

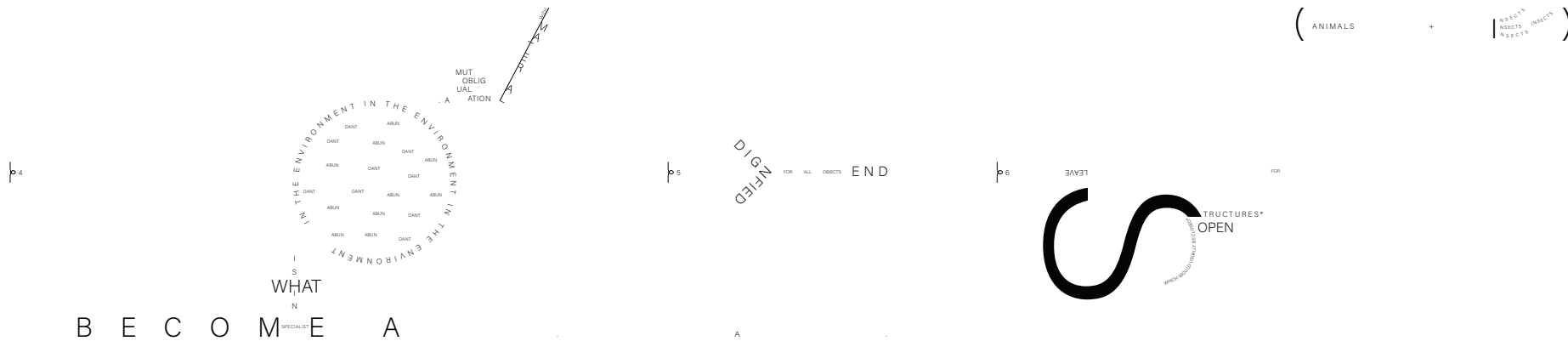
DO NOTHING

1

1

DO L'S :





Anishinaabe Design Rules: Word Spatial Relations

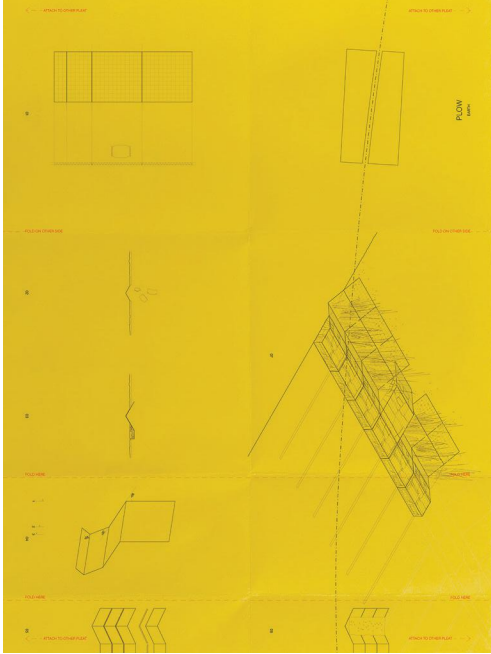
A Bind: A Buried Anishinaabe Trail Through Ann Arbor



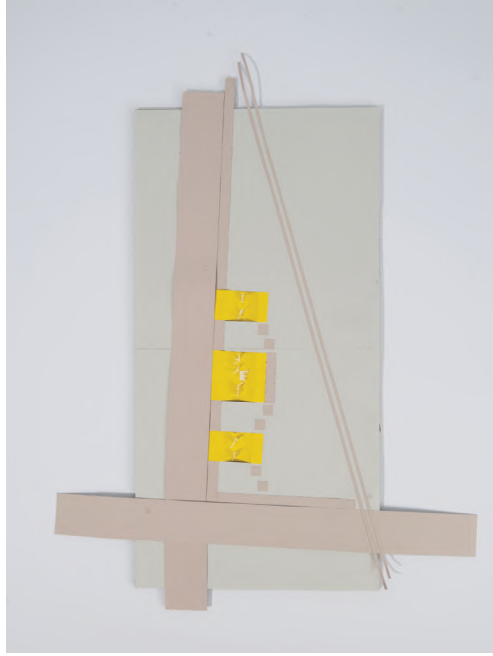
PLOW model



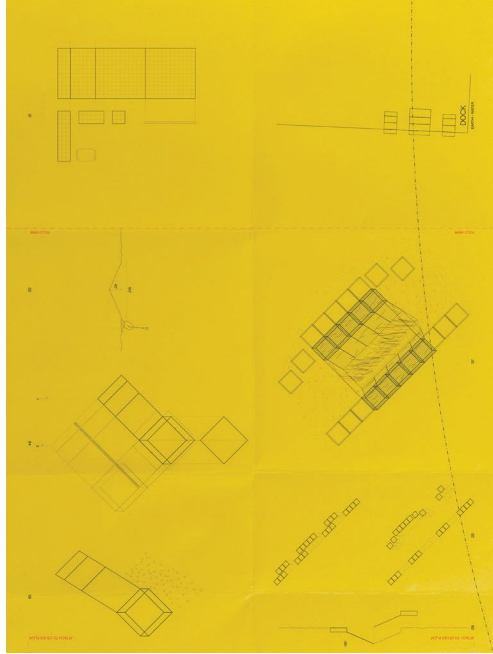
PLOW manual



DOCK draw-del



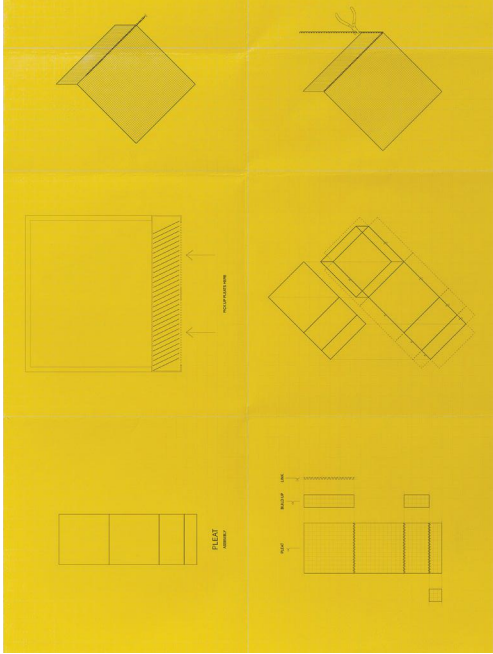
DOCK manual



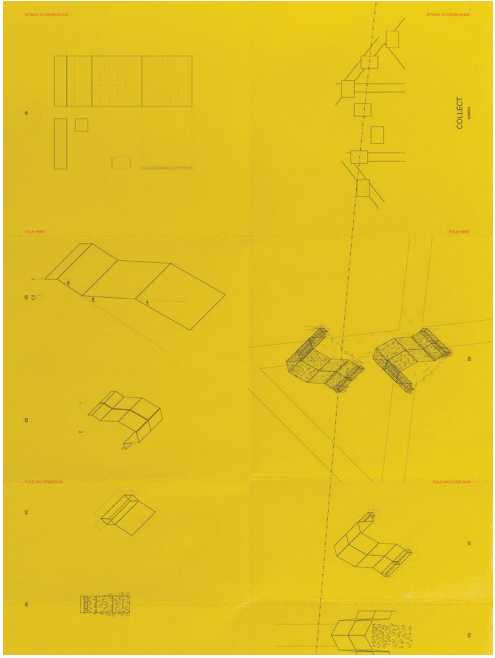
PLEAT models



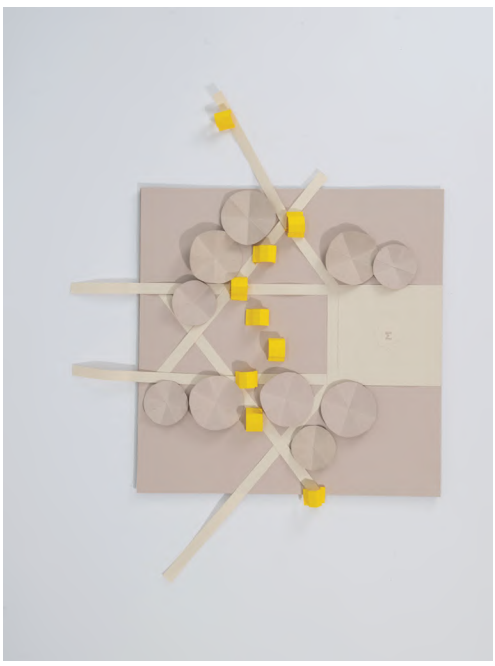
PLEAT manual



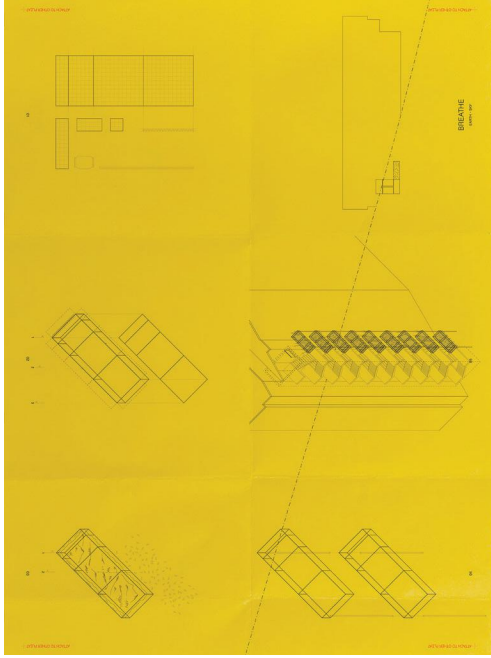




COLLECT manual



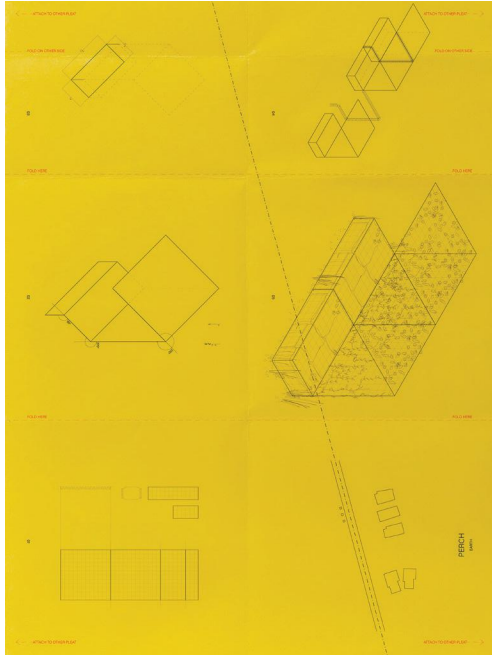
COLLECT draw-del



BREATHE manual



BREATHE draw-del



PERCH manual



PERCH draw-del

EXISTING LIBRARY

WELCOME CENTER

MATERIAL ARCHIVE

WELCOME CENTER

FLOOR PLAN

SHED ARRANGEMENTS

ALONG A BIND





*[ These designs are not arbitrary, but calculated and developed to enhance and uplift the land. ]*







**DIGITAL PRIMITIVISM**

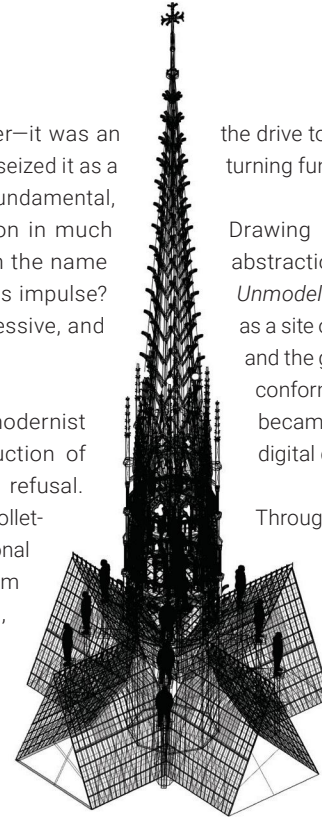


# Martin Rodriguez Jr.

Thesis Advisor: Anya Sirota

The Primitive Hut was never just shelter—it was an ideal, a distillation of origins. Modernists seized it as a manifesto, a claim to purity, something fundamental, and inevitable. Digital systems function in much the same way, flattening differences in the name of efficiency. Can architecture resist this impulse? Can it embrace the unfinished, the excessive, and the uncontained?

*Digital Primitivism* challenges both modernist essentialism and the algorithmic reduction of identity. It does not seek nostalgia but refusal. Theorists such as Laugier, Semper, and Viollet-le-Duc saw the Primitive Hut as a foundational form—a statement of necessity. Modernism transformed it into a universal system, in which shelter became function and function became control. Yet architecture today is no longer about dwelling, it is about storage, classification, and surveillance. *Digital Primitivism* exposes the contradictions in origins—it resists



the drive to categorize, thereby amplifying absence and turning function into paradox.

Drawing from Olga Goriunova's studies on data abstraction and Catherine Griffiths's concept of the *Unmodeled*, *Digital Primitivism* positions architecture as a site of friction and exuberance. It embraces excess and the grotesque as methods of resisting algorithmic conformity, asking: What if errancy and imperfection became frameworks for inclusivity, challenging the digital demand for order?

Through speculative estrangement, it exposes digital bias and embraces complexity beyond imposed structures of control. This thesis proposes that architecture can act as a speculative force against fascism and capitalism—a way to reclaim the raw and the errant from algorithmic domination. The improper and excessive are not anomalies—they are agents of a new digital spatial subjectivity.



## DIGITAL SUBJECTIVITY

In our present digital condition, subjectivity—once rooted in introspection, complexity, and interior thought—has become increasingly mediated by computational logic. What once emerged from within is now inferred, nudged, and looped back to us through algorithmic systems. As Olga Goriunova defines it, the *digital subject* is a probabilistic construction—less embodied, less autonomous—yet proliferated, replicated, and endlessly reassembled from our behavioral traces.

This computational subject is not neutral. It does not simply reflect who we are; it actively produces identity through patterns of optimization. The platforms we engage with, such as Spotify, Instagram, and dating apps, do not merely suggest preferences; they reshape desire itself. In doing so, digital subjectivity becomes increasingly legible to machines but increasingly opaque to the self. Goriunova's most profound insight is that these systems do not merely represent reality—they overwrite it. Ideals once fragmentary or aspirational are now derived from statistical averages. The “ideal” body, face, or temperament has collapsed into convergence—no longer a dream, but a measurable target.

## ARCHITECTURE AND THE UNMODELED

Catherine Griffiths challenges us to investigate not the technologies themselves, but the spaces where their effects become visible. Her concept of the *Unmodeled* draws attention to the exclusions and blind spots of computational design. These absences silently shape spatial outcomes. It is in these omissions, these ghosted values, that I locate architecture's potential for resistance and reappropriation.

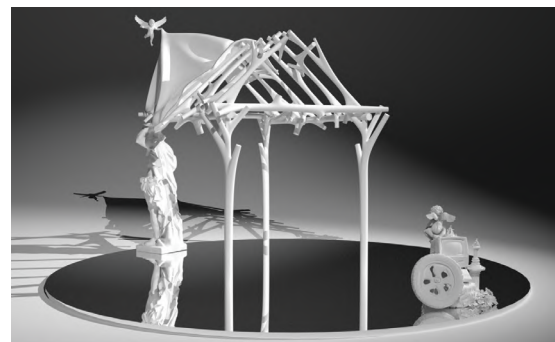
## MODERNITY AND THE MANUFACTURED IDEAL

This inquiry traces a line from digital optimization back to modernity's own project of idealization. In architectural theory, the primitive hut functioned not as a neutral point of origin, but as a constructed fiction used to legitimize ideological programs.

Through Marc-Antoine Laugier's rationalist sketch, Gottfried Semper's materialist framework, and Eugène Viollet-le-Duc's technocratic reconstructions, the primitive hut emerges not as historical truth but as an ideological myth. Each version offers a lens into how modernity naturalized certain values—universalism, functionality, and nationalism—under the guise of neutrality.

In response, I intervened through speculative reconstructions: **Laugier's hut** is supported by a caryatid figure drawn from baroque ornamentation, watched over by cherubs unraveling the truth. **Semper's Caribbean hut** transforms the hearth into a site of sensual excess—tentacles and peaches displacing pure function. **Viollet-le-Duc's spire**, once a site of moral elevation, is replaced with a self-portrait—an unmodeled refusal of heroic idealization.

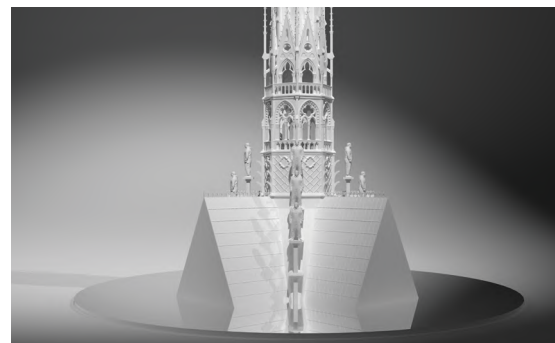
These interventions reveal the constriction of architectural ideals, as well as the latent desires and exclusions embedded within them.



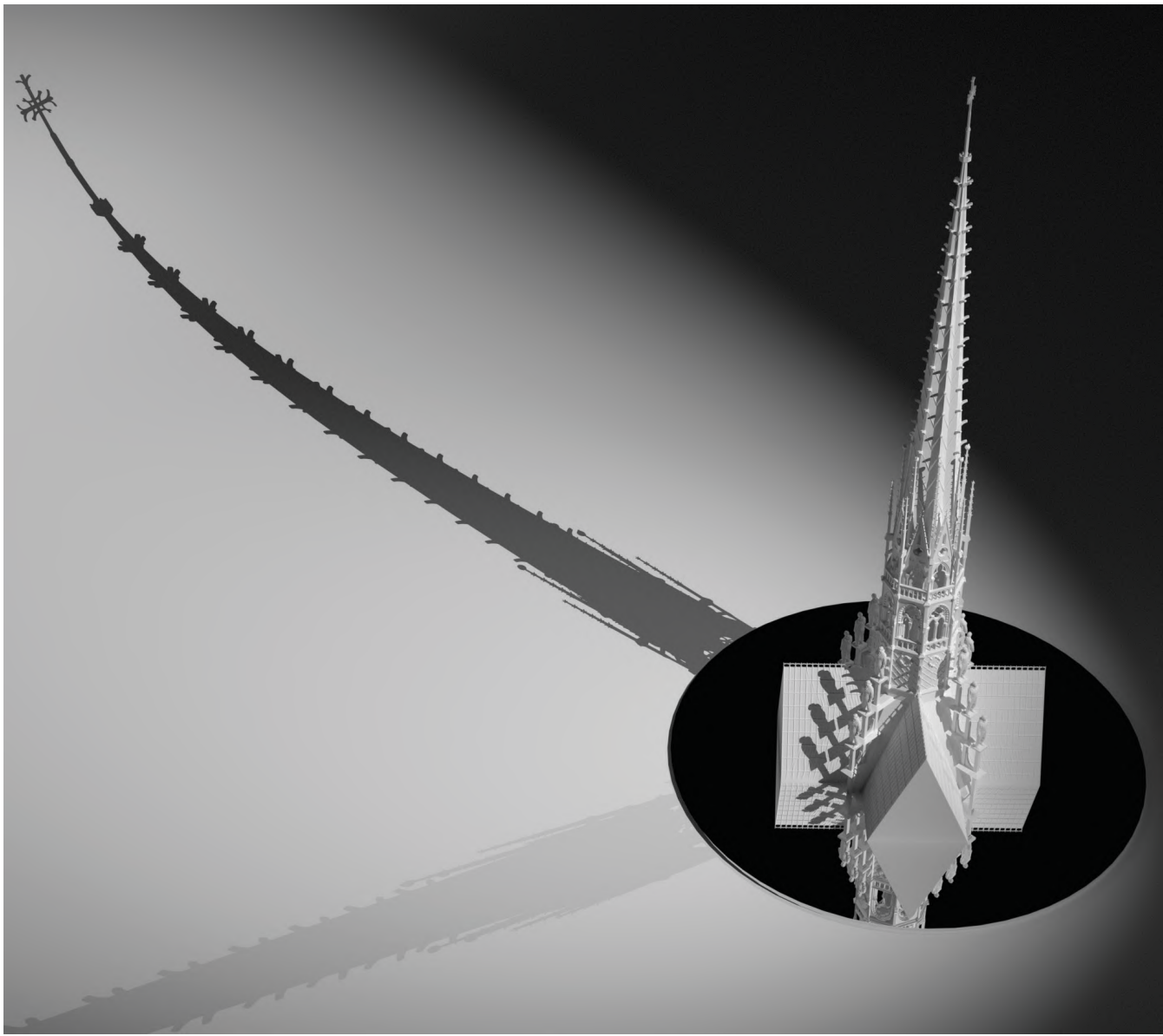
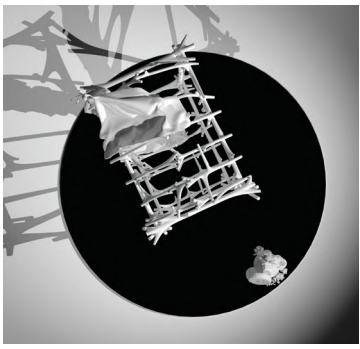
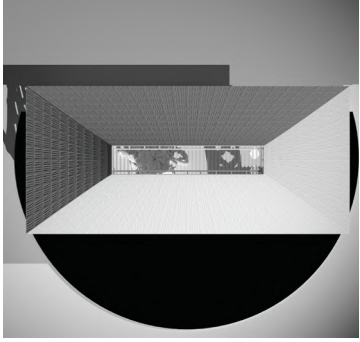
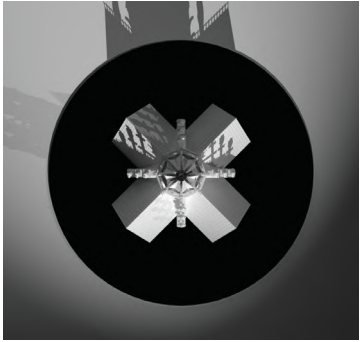
Laugier's hut



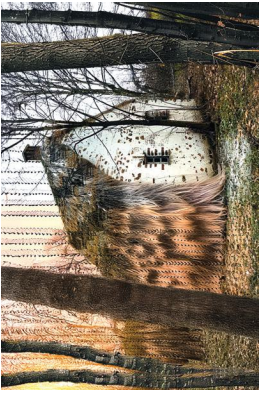
Semper's Caribbean hut



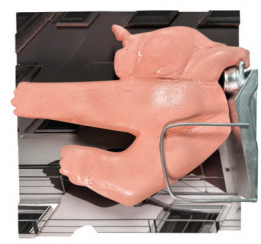
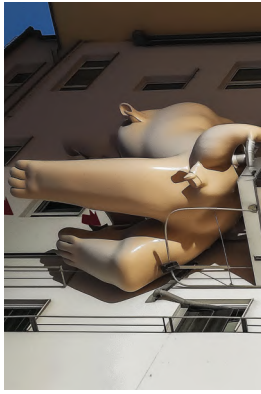
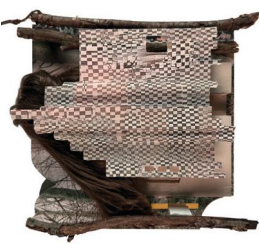
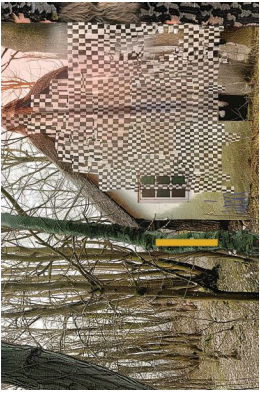
Viollet-le-Duc's spire







Serve It for Everyone



Thank You for Being Trashy



## DEFINING DIGITAL PRIMITIVISM

Here emerges the central provocation of this thesis: *Digital Primitivism*. This term is intentionally paradoxical: it binds the computational to the essentialist, the accelerated to the ancestral. Rather than seek resolution, *Digital Primitivism* holds this contradiction open. It does not romanticize origins or reject digital. Instead, it reorients digital subjectivity toward slowness, texture, and human complexity.

Drawing from Bernard Rudofsky's *Architecture Without Architects*, *Digital Primitivism* foregrounds the vernacular—as a stance rather than a style. It values imprecision, collectivity, and unfinishedness while questioning the design impulse to smooth, erase, and optimize. It insists that both buildings and bodies remain unresolved—capable of deviation, failure, and play.

## DIGITAL VS. MODERN SUBJECT

Where the modern subject assumed coherence, autonomy, and universality, the digital subject is fragmented, performative, and contingent. Modern architecture responded with minimalism, uniformity, and functional clarity. Today, those strategies feel insufficient. Seamlessness is no longer enough; architecture requires space for contradiction. Through the lens of *Digital Primitivism*, architecture can embody this complexity through ornamentation, error, queerness, and disruption.

## SPATIAL STRATEGIES AND DESIGN ELEMENTS

Through a series of speculative methods, *Digital Primitivism* proposes alternate spatial tactics: **Serve It For Everyone** explores how digital infrastructure might support both public space and collective well-being. **Thank You For Being Trashy** embraces decay and digital remnants as ornamental potential. **Kittycat PurPur** reimagines our relationship with technology as intimate, caring, and sensorial. **Smile, You Are on Camera** reclaims surveillance aesthetics through humor and exaggeration.

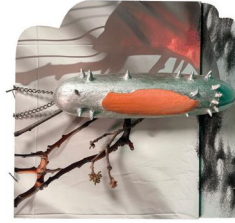
Rather than operating as a finished solution, each method functions as a prompt. They are questions posed to the built environment.



Kittycat PurPur



Smile, You Are on Camera



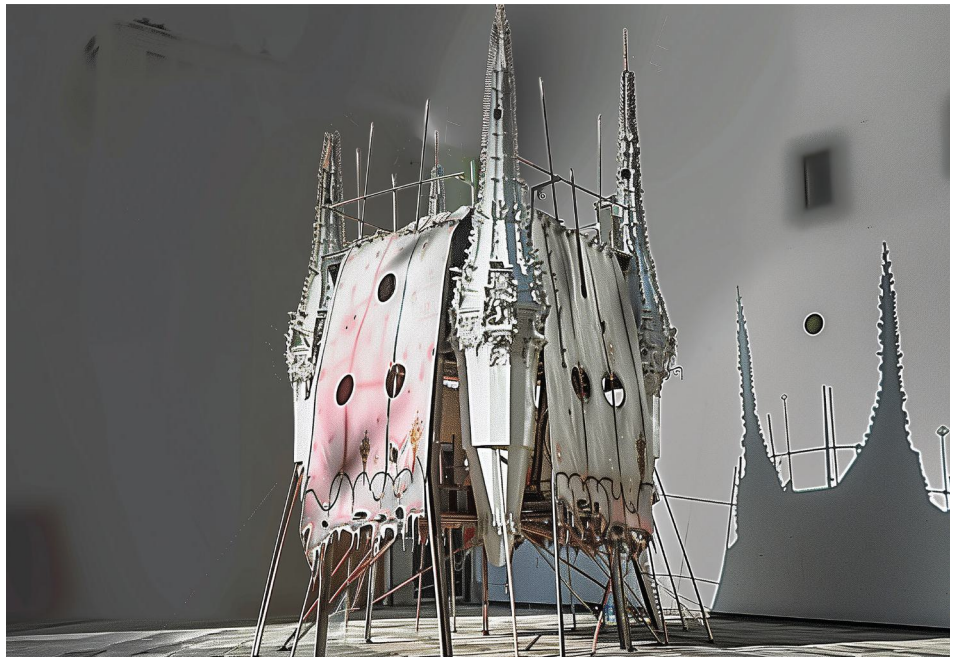
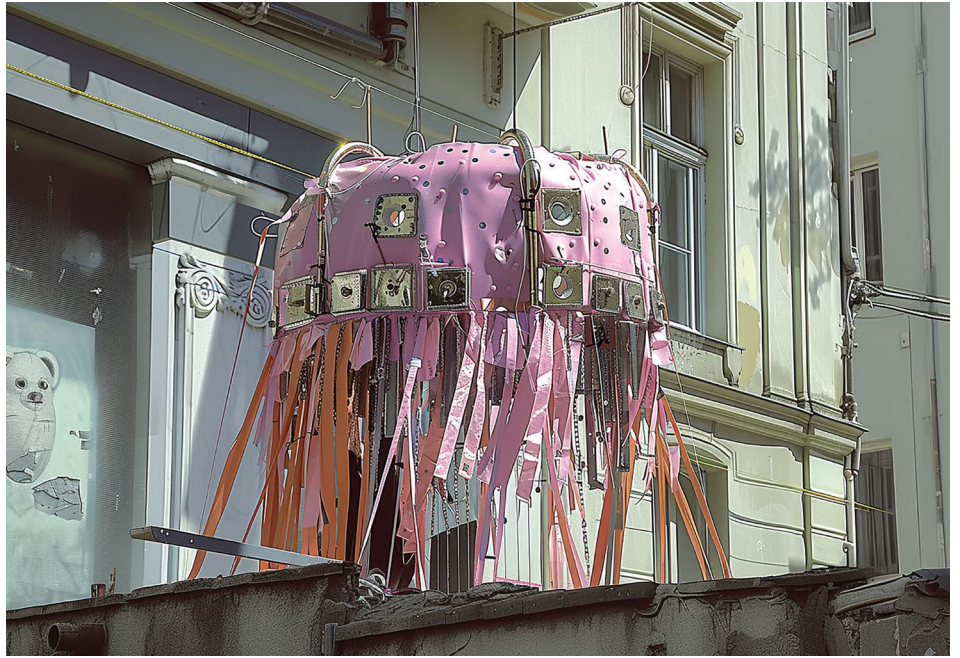


## CONCLUSION: THE WORLD DIGITAL PRIMITIVISM

*Digital Primitivism* envisions a world that resists the pressures of optimization and embraces a more affective, plural, and feral engagement with technology. It synchronizes the digital with the analog not to find harmony, but to reveal tension, and locate design agency *within* that tension.

It is a theory of both refusal and a practice of joy. Rather than seeking to return to the past or escape the digital, the work proposes living within it differently—to dwell in the glitch, the drag, the ornamental excess.

You are now left with this: a synchronized noise, pulsing in rhythm. A reminder that even in our algorithmic condition, we remain capable of divergence, of pleasure, and of shaping the world otherwise.





*[ A reminder that even in our algorithmic condition, we remain capable of divergence, of pleasure, and of shaping the world otherwise. ]*







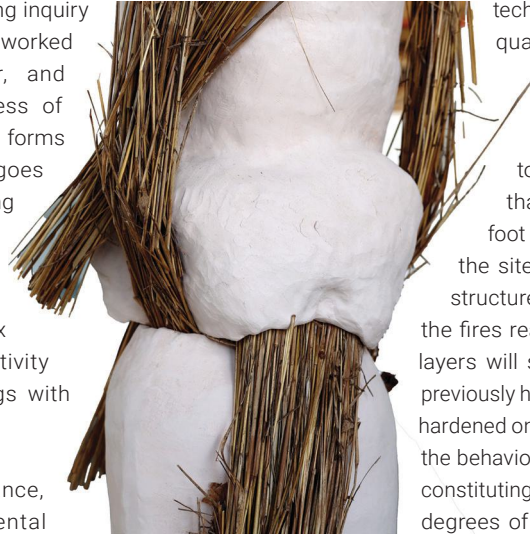
**VAPOR & VITRIFICATION**

# Angela Cho

Architecture Research Fellow [2024–26]

*Vapor & Vitrification* is a year-long inquiry into how environment can be worked as site, material, generator, and respondent. Through a process of integrating large unfired earthen forms into a grassland that undergoes annual controlled burns—leaving behind a scene of quasi-vitrified figures, themselves vulnerable to further weathering and ruin—the project seeks to index ecologically driven human activity on the site and the reckonings with fragilities that underpin it.

Through research, performance, installation, and experimental metric, *Vapor & Vitrification* is developed in response to sites within the University of Michigan’s Matthaei Botanical Gardens—but the Gardens will be more than a stage. Data collected *in situ* through digital and analog



techniques will influence the formal qualities of the earthen forms, their composition in the landscape, and the manner in which they physically react to the forces of fire and climate that bear upon the site. Seven-foot bluestem and Indiangrass from the site will be incorporated into the structures of the clay forms so that, as the fires reach the vessels, these fibrous layers will slowly burn away, leaving the previously hidden clay forms standing semi-hardened on the cleared ground. Embracing the behavior of the environment, the layers constituting the clay forms will have varying degrees of permanence—their rates and patterns of shedding will therefore be determined by the climatic and atmospheric shifts of the site prevailing long after the burn, giving way to new and unpredictable readings over time and across multiple visits.

...giving way to new and unpredictable readings throughout time and multiple visits.

F

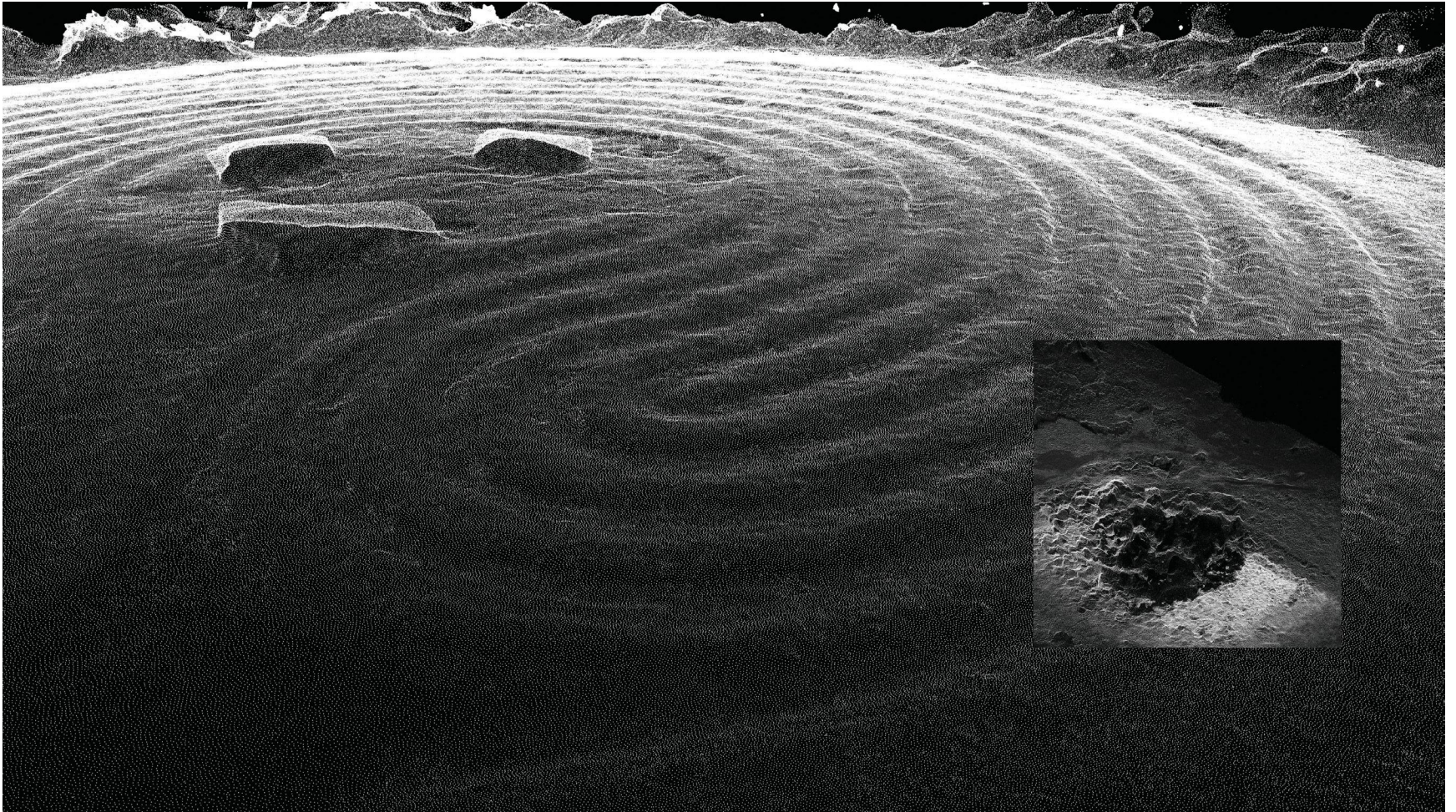




The process of combustion and heat retention in the grassy layers between clay strata will enable the installation to reach varying states of hardness. Embracing the unforeseeable and nuanced conditions of the day of the burns—weather conditions, temperature, and wind speeds—this work does not aspire for full control of the process or perfected outcomes. While the fire will be directed to maintain heat on the clay components (“greenware” typically needs to sustain temperatures of 1,800°F for several hours to achieve its “bisque-fired” state), the project embraces temperature instability and accepts that some parts of the forms will be left underfired. This gradation of vitrification means that through time and subjection to the elements, some layers will shed and new aspects of the forms will be revealed. The project invites us to see that the performative nature of this work—most acute on the day of the burns—in fact extends indefinitely beyond the day of the burns, continuing to react to atmospheric and climatic conditions until perhaps they one day disappear back into the ground completely.



*[ This work does not aspire for full control of the process or perfected outcomes. ]*







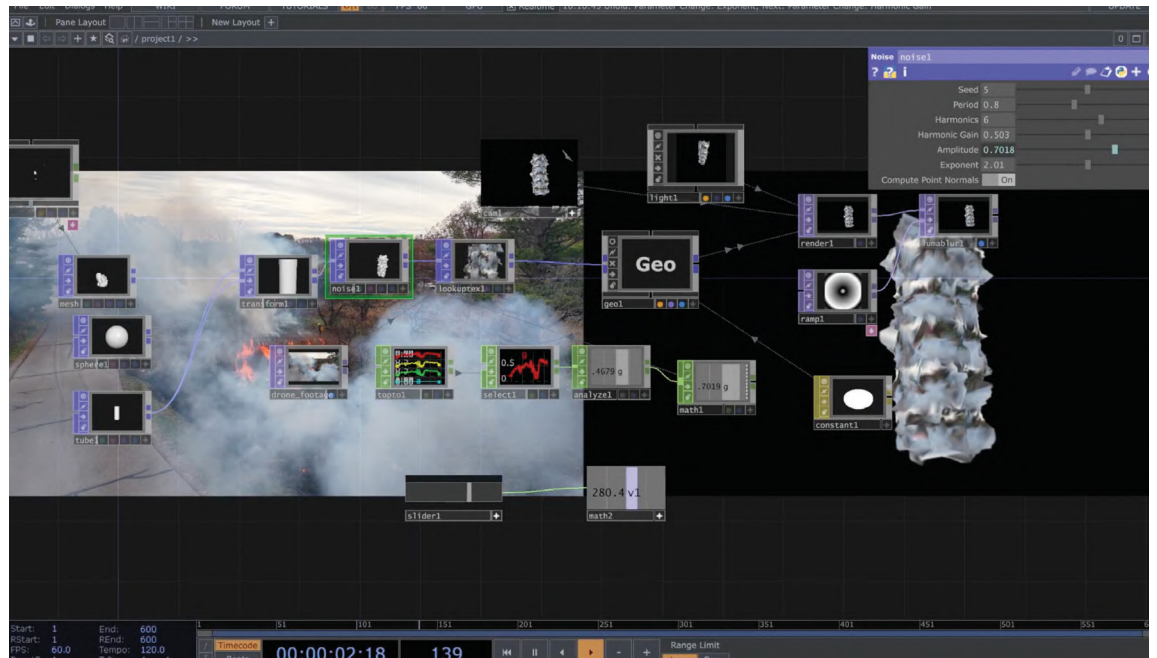
The project has two workflows: Digital and Analog.

### DIGITAL (VAPOR & VERTICES, A SUBPROJECT OF VAPOR & VITRIFICATION)

Testing how site data can be digitally collected, processed, and embedded into new forms that formally echo their site. LiDAR scanning technology was a significant tool for the initial recording of the environmental conditions, collecting both physical and atmospheric data. Primary data streams are categorized into two parts: 1) "Tangible" Data: visual documentation, including video and image captures; 2) "Intangible" Data: atmospheric conditions such as sound, temperature shifts, and heat mapping. Outputs will be 3D-printed in clay, with ambitions to see how other processual factors can come into play during the forms' physical formation.

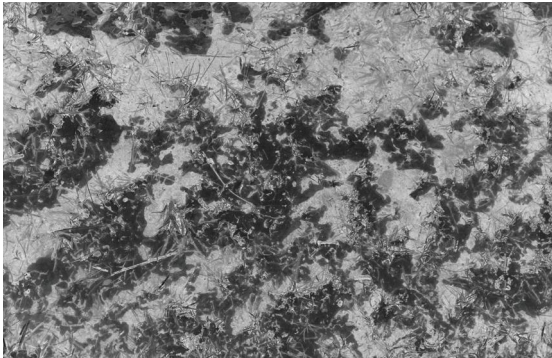
### ANALOG

Gathering grass material from the grounds of the site to physically form bundles that serve both as structures to form offsets of clay and as wicks for the firing of those offsets.



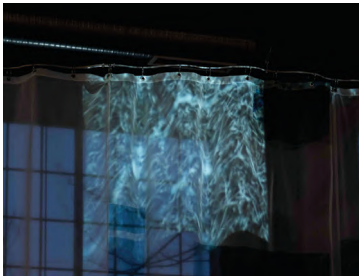
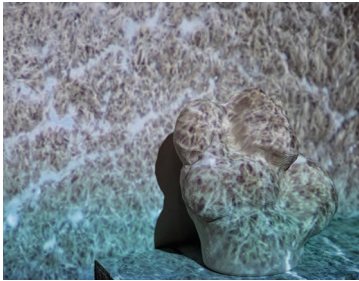


Each element is initially tested at a smaller scale. Based on the relationships and revelations that are birthed from process, the successful pieces will serve as models for the larger-scale forms to be placed in the Gardens. This experimental phase will explore various techniques, including 3D scans, CNC-milled formwork, cast plaster negative molds, and slip-cast clay positives.





*[ Environment can be worked as site, material, generator, and respondent. ]*



*Vapor & Vitrification* endeavors to express the essential phenomena of architecture beyond form—phenomena to which form is ultimately subject. It is interested in the acute and long-term performative and indexical potentials of formal change through environmental exposure, borrowing principles from exhibition design and cinema. At once, the project can express multiple readings and narratives, ultimately provoking us to question the scope of our role as inhabitants and builders on the planet.



The beginnings of this research were initially presented during the Taubman College Fellowship group show, titled "Rough Cuts," at the Liberty Research Annex in March of 2025. The performative burns and final staging of this installation at the Matthaei Botanical Gardens is set to take place in the spring of 2026.



#### Acknowledgments

[Vapor & Vitrification] Research Assistants: Ashley Cho, Wedu Gwafila, Seo-eun Lee, Riley Montgomery, Brianna Manzor, Isabella Schneider.

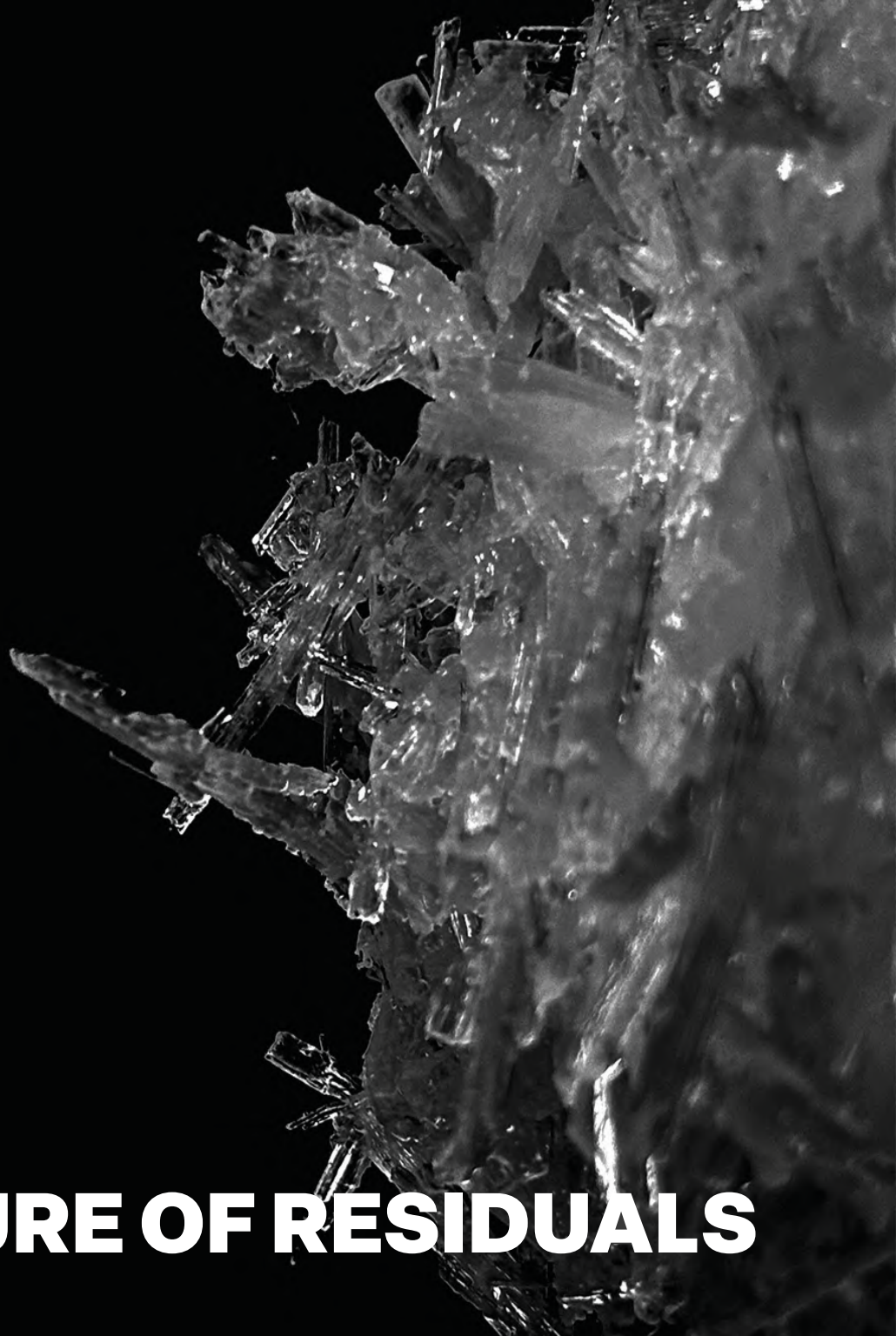
[Vapor & Vertices] In collaboration with Ishan Pal Singh. Research Assistants: Charlotte Lee, Brianna Manzor, Riley Montgomery.



BS

52

**AN ARCHITECTURE OF RESIDUALS**

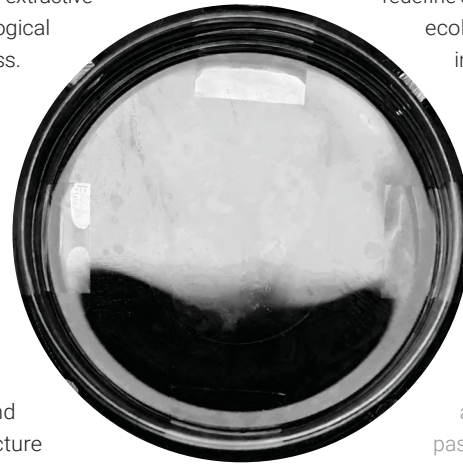


# Shane Herb

Thesis Advisor: Anya Sirota

Sustainable architecture remains tethered to a paradigm of mitigation: deploying “green” technologies to minimize carbon footprints while neglecting the material and spatial implications of its own interventions. Since industrial modernity, architecture has been complicit in an extractive energy regime, accelerating ecological depletion under the guise of progress. While figures such as François Roche, Philippe Rahm, Neri Oxman, and Édouard François propose climate-responsive alternatives, they often reinforce a techno-optimistic reliance on perpetual innovation.

*An Architecture of Residuals* reframes sustainability as a condition of flux, moving beyond a reductive metric of efficiency and remediation. It proposes architecture as an active participant in material cycles where the residuals of energy production are not concealed nor discarded, but spatialized. *An Architecture of Residuals* asks: What if architecture engaged directly with the



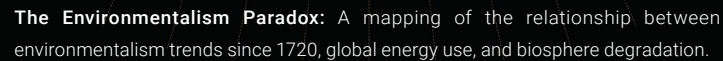
detritus of renewable energy systems, water from hydrogen fuel cells and salts from lithium batteries—material flows conventionally treated as waste? Could evaporative cooling, mineral accretion, or atmospheric condensation redefine domesticity as an unstable, responsive ecology? What if interiors ceased to be inert enclosures and instead registered the cyclical transformations of their own energy infrastructure?

This speculation extends to the ritualized spaces of the medieval cathedral, where the visualization of energy’s byproducts engages the atmospheric dramaturgy of the Roman Catholic procession. Here, architecture ceases to function as a passive vessel for ecological correction and instead emerges as an active register of environmental transformation—no longer preoccupied with quantifying sustainability, but with the spatializing aftermath.

Architecture ceases to function as a passive vessel...

T

1. Auerbach, D. *The Arctic Region: Its Development and History, 1979*. 1980.
2. Alverson, D. *Arctic Development: The North American View*, 1979.
3. Hogg, E. *Arctic Development: The Canadian View*, 1979.
4. Hogg, E. *Arctic Development: The American View*, 1979.
5. Hogg, E. *Arctic Development: The Soviet View*, 1979.
6. Hogg, E. *Arctic Development: The European View*, 1979.
7. Hogg, E. *Arctic Development: The Japanese View*, 1979.
8. Hogg, E. *Arctic Development: The Indian View*, 1979.
9. Hogg, E. *Arctic Development: The Chinese View*, 1979.
10. Hogg, E. *Arctic Development: The Australian View*, 1979.
11. Hogg, E. *Arctic Development: The New Zealand View*, 1979.
12. Hogg, E. *Arctic Development: The South African View*, 1979.
13. Hogg, E. *Arctic Development: The Israeli View*, 1979.
14. Hogg, E. *Arctic Development: The Pakistani View*, 1979.
15. Hogg, E. *Arctic Development: The Bangladeshi View*, 1979.
16. Hogg, E. *Arctic Development: The Sri Lankan View*, 1979.
17. Hogg, E. *Arctic Development: The Nepalese View*, 1979.
18. Hogg, E. *Arctic Development: The Bhutanese View*, 1979.
19. Hogg, E. *Arctic Development: The Maldivian View*, 1979.
20. Hogg, E. *Arctic Development: The Comorian View*, 1979.
21. Hogg, E. *Arctic Development: The Seychellois View*, 1979.
22. Hogg, E. *Arctic Development: The Mauritian View*, 1979.
23. Hogg, E. *Arctic Development: The Reunionese View*, 1979.
24. Hogg, E. *Arctic Development: The French View*, 1979.
25. Hogg, E. *Arctic Development: The British View*, 1979.
26. Hogg, E. *Arctic Development: The Dutch View*, 1979.
27. Hogg, E. *Arctic Development: The German View*, 1979.
28. Hogg, E. *Arctic Development: The Italian View*, 1979.
29. Hogg, E. *Arctic Development: The Spanish View*, 1979.
30. Hogg, E. *Arctic Development: The Portuguese View*, 1979.
31. Hogg, E. *Arctic Development: The Greek View*, 1979.
32. Hogg, E. *Arctic Development: The Turkish View*, 1979.
33. Hogg, E. *Arctic Development: The Cypriot View*, 1979.
34. Hogg, E. *Arctic Development: The Egyptian View*, 1979.
35. Hogg, E. *Arctic Development: The Syrian View*, 1979.
36. Hogg, E. *Arctic Development: The Jordanian View*, 1979.
37. Hogg, E. *Arctic Development: The Lebanese View*, 1979.
38. Hogg, E. *Arctic Development: The Israeli View*, 1979.
39. Hogg, E. *Arctic Development: The Palestinian View*, 1979.
40. Hogg, E. *Arctic Development: The Jordanian View*, 1979.
41. Hogg, E. *Arctic Development: The Syrian View*, 1979.
42. Hogg, E. *Arctic Development: The Lebanese View*, 1979.
43. Hogg, E. *Arctic Development: The Israeli View*, 1979.
44. Hogg, E. *Arctic Development: The Palestinian View*, 1979.
45. Hogg, E. *Arctic Development: The Jordanian View*, 1979.
46. Hogg, E. *Arctic Development: The Syrian View*, 1979.
47. Hogg, E. *Arctic Development: The Lebanese View*, 1979.
48. Hogg, E. *Arctic Development: The Israeli View*, 1979.
49. Hogg, E. *Arctic Development: The Palestinian View*, 1979.
50. Hogg, E. *Arctic Development: The Jordanian View*, 1979.
51. Hogg, E. *Arctic Development: The Syrian View*, 1979.
52. Hogg, E. *Arctic Development: The Lebanese View*, 1979.
53. Hogg, E. *Arctic Development: The Israeli View*, 1979.
54. Hogg, E. *Arctic Development: The Palestinian View*, 1979.
55. Hogg, E. *Arctic Development: The Jordanian View*, 1979.
56. Hogg, E. *Arctic Development: The Syrian View*, 1979.
57. Hogg, E. *Arctic Development: The Lebanese View*, 1979.
58. Hogg, E. *Arctic Development: The Israeli View*, 1979.
59. Hogg, E. *Arctic Development: The Palestinian View*, 1979.
60. Hogg, E. *Arctic Development: The Jordanian View*, 1979.
61. Hogg, E. *Arctic Development: The Syrian View*, 1979.
62. Hogg, E. *Arctic Development: The Lebanese View*, 1979.
63. Hogg, E. *Arctic Development: The Israeli View*, 1979.
64. Hogg, E. *Arctic Development: The Palestinian View*, 1979.
65. Hogg, E. *Arctic Development: The Jordanian View*, 1979.
66. Hogg, E. *Arctic Development: The Syrian View*, 1979.
67. Hogg, E. *Arctic Development: The Lebanese View*, 1979.
68. Hogg, E. *Arctic Development: The Israeli View*, 1979.
69. Hogg, E. *Arctic Development: The Palestinian View*, 1979.
70. Hogg, E. *Arctic Development: The Jordanian View*, 1979.
71. Hogg, E. *Arctic Development: The Syrian View*, 1979.
72. Hogg, E. *Arctic Development: The Lebanese View*, 1979.
73. Hogg, E. *Arctic Development: The Israeli View*, 1979.
74. Hogg, E. *Arctic Development: The Palestinian View*, 1979.
75. Hogg, E. *Arctic Development: The Jordanian View*, 1979.
76. Hogg, E. *Arctic Development: The Syrian View*, 1979.
77. Hogg, E. *Arctic Development: The Lebanese View*, 1979.
78. Hogg, E. *Arctic Development: The Israeli View*, 1979.
79. Hogg, E. *Arctic Development: The Palestinian View*, 1979.
80. Hogg, E. *Arctic Development: The Jordanian View*, 1979.
81. Hogg, E. *Arctic Development: The Syrian View*, 1979.
82. Hogg, E. *Arctic Development: The Lebanese View*, 1979.
83. Hogg, E. *Arctic Development: The Israeli View*, 1979.
84. Hogg, E. *Arctic Development: The Palestinian View*, 1979.
85. Hogg, E. *Arctic Development: The Jordanian View*, 1979.
86. Hogg, E. *Arctic Development: The Syrian View*, 1979.
87. Hogg, E. *Arctic Development: The Lebanese View*, 1979.
88. Hogg, E. *Arctic Development: The Israeli View*, 1979.
89. Hogg, E. *Arctic Development: The Palestinian View*, 1979.
90. Hogg, E. *Arctic Development: The Jordanian View*, 1979.
91. Hogg, E. *Arctic Development: The Syrian View*, 1979.
92. Hogg, E. *Arctic Development: The Lebanese View*, 1979.
93. Hogg, E. *Arctic Development: The Israeli View*, 1979.
94. Hogg, E. *Arctic Development: The Palestinian View*, 1979.
95. Hogg, E. *Arctic Development: The Jordanian View*, 1979.
96. Hogg, E. *Arctic Development: The Syrian View*, 1979.
97. Hogg, E. *Arctic Development: The Lebanese View*, 1979.
98. Hogg, E. *Arctic Development: The Israeli View*, 1979.
99. Hogg, E. *Arctic Development: The Palestinian View*, 1979.
100. Hogg, E. *Arctic Development: The Jordanian View*, 1979.



## Biosphere Degredation



John Chaudhry, *An Unimproved Landscaper*, *Urban Geography*, 2002

Henry David Thoreau, *Walden, or Solitude*, *USA*, 1849

William Morris and Philip Webb, *Weymouth Cottage*, *United Kingdom*, 1860

Clarence H. White, *Capitol City of Mexico*, *United Kingdom*, 1890

Camillo Sitte, *City Planning*, *Architectural Institute*, Providence, *USA*, 1889

John Ruskin, *The Seven Lamps of Architecture*, *Urban Geography*, 1849

Frederick Law Olmsted, *Central Park*, *New York, USA*, 1858

Frederick Law Olmsted, *Preservation of Forests*, *Report*, 1865

Charles and John Barry, *Case Study House No. 8, USA*, 1945

Le Corbusier, *Modulor City*, *France*, 1931

Leaside Farm, *New County, Ligon*, 1945

Robert Curzon, *Stonemasonry*, *USA*, 1940

Alvaro Siza, *Pinheiro da Siza*, *Portugal*, 1952

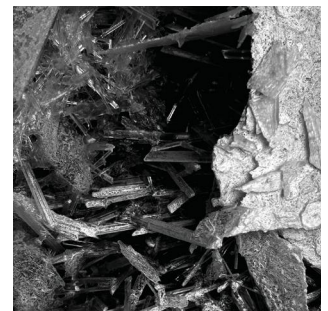
Victor Segalen, *Design with Nature*, *USA*, 1961

Camillo Sitte, *City Planning*, *Architectural Institute*, Providence, *USA*, 1889

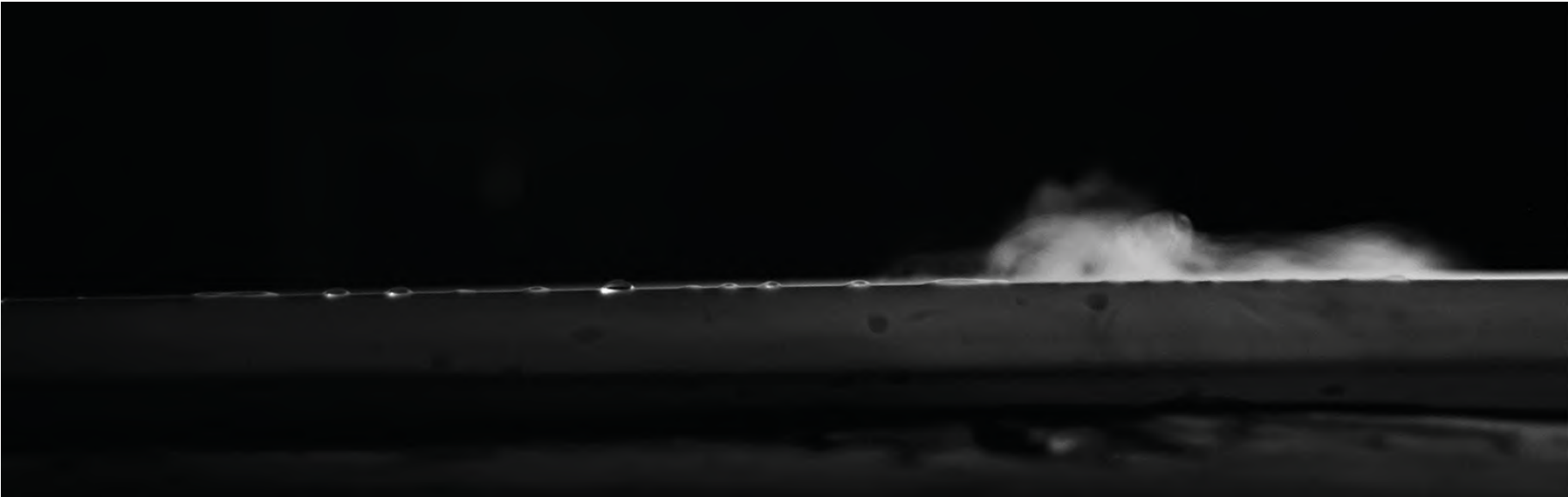
John Ruskin, *The Seven Lamps of Architecture*, *Urban Geography*, 1849

Patrick Geddes, Cities in Evolution, United Kingdom, 1915  
 William L. Frye, Arden Village, USA, 1920  
 Frank Lloyd Wright, Broadacre City, USA, 1932  
 Buckminster Fuller, Dymaxion House, USA, 1929  
 Buckminster Fuller, Geodesic Dome, USA, 1948  
 Richard Neutra, Desert House, USA, 1946  
 Charlesworth Ray/Greene, Case Study House No. 8, USA, 1949  
 Le Corbusier, Habitat 67, France, 1965  
 Moshe Safdie, New Coastal, Quebec, 1964-1968  
 Robert Chatham, Elbert Spring, USA, 1962  
 Alvaro Siza, Parque Solaris, Portugal, 1959-1983  
 Victor Oglivy, Design with Climate, USA, 1963  
 Frei Otto, Munich, Germany, 1968  
 Sim Van der Ryn, The Integral Urban House, USA, 1974  
 Regenerative Design for Sustainable Development, USA, 1970s  
 Archigram, Walking City, United Kingdom, 1964

Peter Seidel, *Amman, USA*, 1973  
 Ian McEwan, *See Welsh in USA*, 1969  
 Richard Riggall, *Locally Made in USA*, 1977  
 Fred Ditt, *Multich, Germany*, 1975  
 Simon van der Kuy, *The Integrated House, USA*, 1976  
 John T. Smeaton, *See van der Kuy, The Integrated House*, 1976  
 Antjepp, *Making City, United Kingdom*, 1984  
 Barbara, *The Arch of the Great Temple, United Kingdom*, 1969  
 Ken Riggall, *Biocultural Specimens, Malaysia*, 1971-1979  
 Norman Foster, *WU's Big & Small Headquarters, United Kingdom*, 1975  
 Fred Ditt, *Multich, Germany*, 1975  
 Simon van der Kuy, *The Integrated House, USA*, 1976  
 Antjepp, *Making City, United Kingdom*, 1984  
 Ken Riggall, *Biocultural Specimens, Malaysia*, 1971-1979  
 Gerni Wutt, *Merke, Austria*, 1976  
 Christopher Mendel, *A Pattern Language, USA*, 1977  
 William W. Schaeffer and Michael R. Gendall, *Go to the Sea, USA*, 1969  
 Michael R. Gendall, *Go to the Sea, USA*, 1969  
 Nicholas Dorn, *East Project, United Kingdom*, 1980

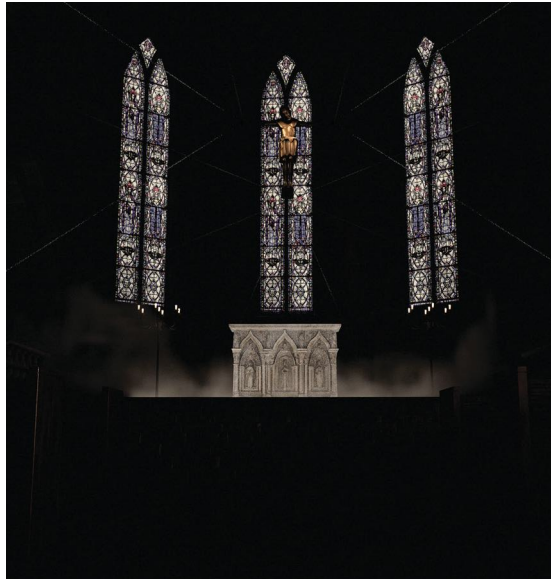
[illegible]

55

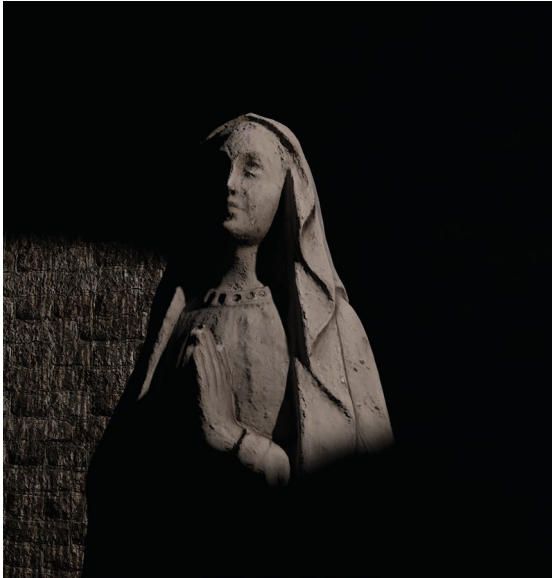


**Photos of an evaporative crystallization experiment** in which saltwater solutions are separated, generating both a solid accumulation of salt (a spatial object) and a gas (an atmospheric condition).





*[ What if architecture engaged directly with the detritus of renewable energy systems, water from hydrogen fuel cells and salts from lithium batteries—material flows conventionally treated as waste? ]*



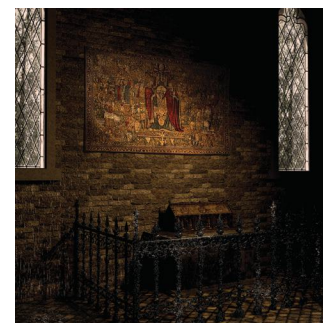
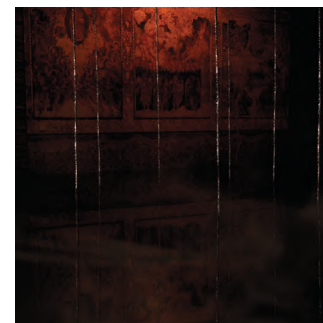
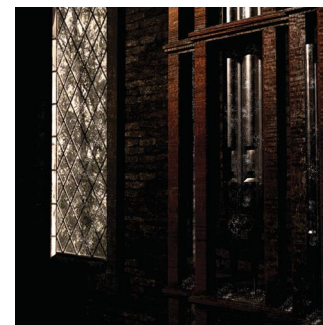
**Scenarios within medieval spaces, symbolism, and traditions** in which the spatialization of byproducts provides a new kind of architectural space, one in which the “architectural components” become performative rather than static.



*[ Since industrial modernity,  
architecture has been  
complicit in an extractive  
energy regime, accelerating  
ecological depletion under  
the guise of progress. ]*

Water cymatics are generated through the vibrations produced by the organ. Water accumulates in centuries-old, foot-worn displacement in the ceramic floor. Plants begin to grow in the new interior environment.

The four images on the right show additional scenarios exploring spatial possibilities.







A forced-perspective layered scenography model of a medieval crypt condition. Built for a series of atmospheric projections.



A forced-perspective layered scenography model of a medieval church entry condition. Built for a series of atmospheric projections.





**HEARTWOOD**

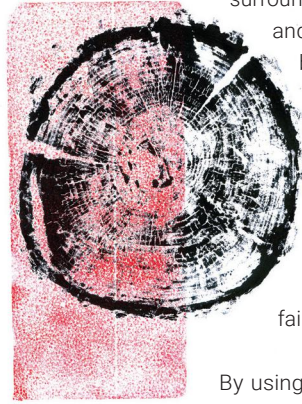


# Matthew Daines • Elliot Reid

Wallenberg Advisor: Gina Reichert

We exist in a rent-based economy. Even when objects become possessions, the inaccessibility of disassembly renders them a rental. We, therefore, rent our objects; and in doing so rent our own sense of identity and value. We rent our media, our transportation, our labor, and our homes—removing the formation of connection that is developed over time through iteration or repair. How, then, can we expect quality in our objects when longevity is not dictated by inherent material properties of an object, but by the relationship between subject and object, person and space?

The mobile home, a product of commodified land use and an inequitable housing system, has drifted further and further from quality. It operates as a referential vessel of American



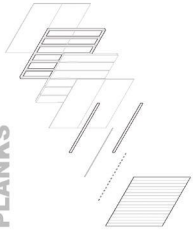
ideals rather than embodying its core function: a home of expedited construction. Industrialization has rendered these houses formally, chemically, and socially alien to their surroundings. They are constructed with highly processed and non-reusable or biodegradable materials, while being formally dictated by construction and transport constraints, with little consideration for quality of use. Failure within any component of these houses requires specialized maintenance that could expose workers to toxic chemicals or other harmful materials, making repair economically impractical for those living in these homes, thus, characterizing this typology as a failing housing strategy.

By using local materials and designing for disassembly, *Heartwood* serves to dismantle this dichotomy of longevity and quality by acknowledging impermanence through materiality, land use, assembly, and community.

A truly plastic architecture: adaptable, alive, and rooted.

W

## MATERIALS

WOOD  
PLANKS

## Wood

This flipbook depicts the construction of a solar kiln—a permanent structure that facilitates the drying of structural and decorative lumber.

## 1 SECURING

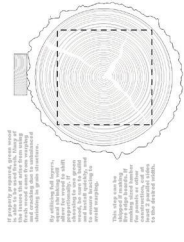
- Long Saw
- Sledge Log
- 2 Small Logs

Secure the logs with the long saw. The sledge log is used to move the logs into place. The small logs are used to secure the logs in place.



## 4 NEXT CUTS

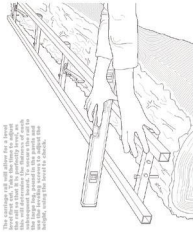
- Chainsaw
- Biting Attachment



A chainsaw is used to cut the wood into the desired shape. The biting attachment is used to cut the wood into the desired shape. The chainsaw is used to cut the wood into the desired shape. The biting attachment is used to cut the wood into the desired shape.

## 5 ATTACH CARRIAGE

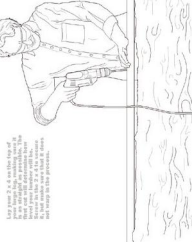
- Carriage Rail
- Level



The carriage rail is attached to the structure. The level is used to ensure it is level. The carriage rail is attached to the structure. The level is used to ensure it is level.

## 2 ATTACHING STRAIGHTEDGE

- Straightedge
- Screws
- Drill



The straightedge is attached to the structure. The screws are used to secure it. The drill is used to drill the holes for the screws.

## 3 FIRST CUT

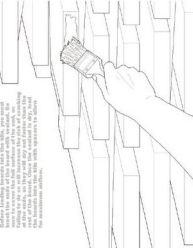
- Biting Attachment



The biting attachment is used to cut the log. The chainsaw is used to cut the log. The biting attachment is used to cut the log. The chainsaw is used to cut the log.

## 7 SEAL ENDS

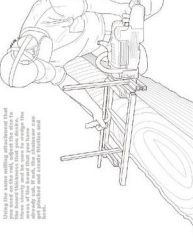
- Sealant
- Brush



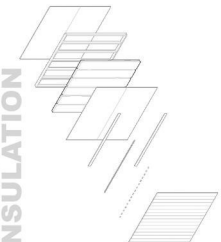
The sealant is applied to the ends of the log. The brush is used to apply the sealant. The sealant is applied to the ends of the log. The brush is used to apply the sealant.

## 6 CUT BOARDS

- Milling Tool



The milling tool is used to cut the board. The log is used to cut the board. The milling tool is used to cut the board. The log is used to cut the board.

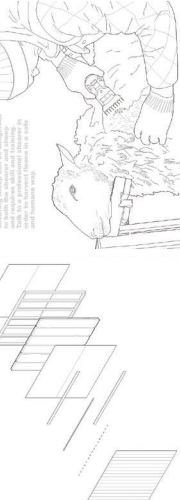
MATERIALS  
WOOL  
INSULATION

## Wool

This flipbook depicts the construction of a sheep pen—a permanent set of structures that facilitate the raising and housing of sheep for wool in order to make wool insulation.

## 1 SHEARING

- Sheep



The sheep is sheared. The sheep is used to sheared. The sheep is sheared. The sheep is used to sheared.

## 2 CLEANING

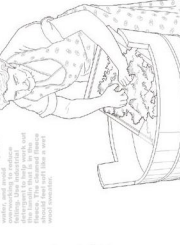
- Fence



The fence is cleaned. The sheep is used to cleaned. The fence is cleaned. The sheep is used to cleaned.

## 3 WASHING

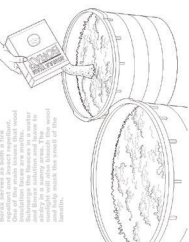
- Washwater
- Soap



The sheep is washed. The washwater is used to washed. The soap is used to washed. The sheep is washed. The washwater is used to washed.

## 4 TREATING

- Dyeing
- Dyeing Container



The wool is treated. The dyeing container is used to treated. The wool is treated. The dyeing container is used to treated.

## 5 CARDING

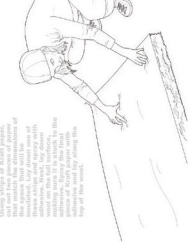
- Hand Carders
- Washed and Treated Fibers



The wool is carded. The hand carders are used to carded. The washed and treated fibers are used to carded. The wool is carded. The hand carders are used to carded.

## 6 MAKING BATTING

- Bat Paper
- Bat Cutter
- Cloth Knife



The batting is made. The bat paper is used to made. The bat cutter is used to made. The cloth knife is used to made. The batting is made. The bat paper is used to made.

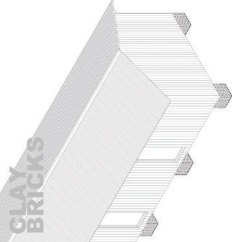
## 7 INSTALLATION

- Insulation Batt
- Frame Unit



The insulation batt is installed. The frame unit is used to installed. The insulation batt is installed. The frame unit is used to installed.

## MATERIALS

CLAY  
BRICKS

## Brick

This flipbook depicts the construction of a brick kiln—a temporary structure that facilitates the processing of clay into usable structural bricks.

## 1 COLLECTING CLAY

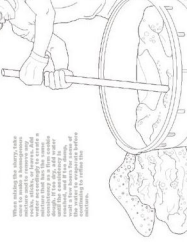
- Shovel
- Bucket



The clay is collected. The shovel is used to collected. The bucket is used to collected. The clay is collected. The shovel is used to collected.

## 2 REFINING CLAY

- Clay
- Sieve



The clay is refined. The sieve is used to refined. The clay is refined. The sieve is used to refined.

## 3 SHAPING

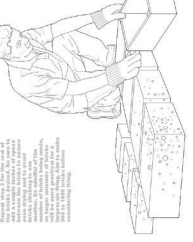
- Shovel
- Mold
- Hammer



The clay is shaped. The shovel is used to shaped. The mold is used to shaped. The hammer is used to shaped. The clay is shaped. The shovel is used to shaped.

## 4 REPEATING

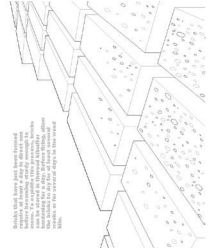
- Brick
- Mold



The brick is repeated. The mold is used to repeated. The brick is repeated. The mold is used to repeated.

## 5 AIR DRYING

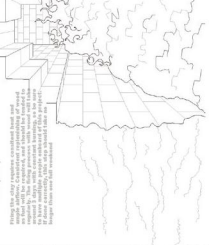
- Large Space



The bricks are air dried. The large space is used to air dried. The bricks are air dried. The large space is used to air dried.

## 7 FIRING

- Brick
- Fire
- Oven

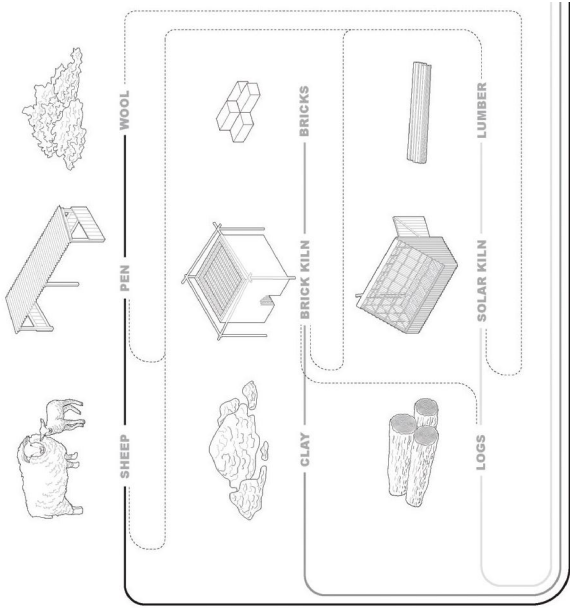


The bricks are fired. The fire is used to fired. The oven is used to fired. The bricks are fired. The fire is used to fired.

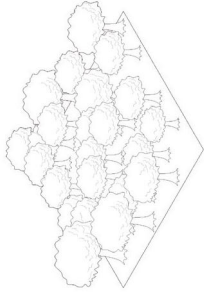
## WOOD



# MATERIAL INTERACTION

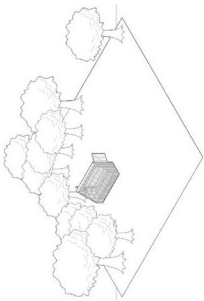


## PHASE 1



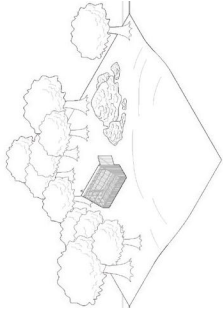
**UNCUT FOREST**  
IN THIS STAGE, THE FOREST IS IN ITS ORIGINAL STATE. IN THE APPALACHIAN MOUNTAINS, THE WOODS ARE PREDOMINANTLY OAK, PINE, AND HICKORY. THE FOREST IS DENSE, WITH A HIGH CANOPY AND A WIDE RANGE OF PLANTS, ANIMALS, AND FUNGI.

## PHASE 2



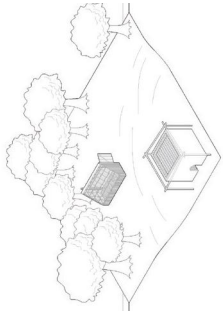
**LOGGED CLEARING**  
HUMANS HAVE NOW CLEARED A SMALL OUTCROPPING OF TREES, LEAVING SPACE FOR DEVELOPMENT. HOWEVER, TREES HAVE NOT YET BEEN REMOVED FROM THE SITE. THE WOOD HARVESTED IS KILN DRIED AND TRANSPORTED TO OTHER PARTS OF THE COUNTRY.

## PHASE 3



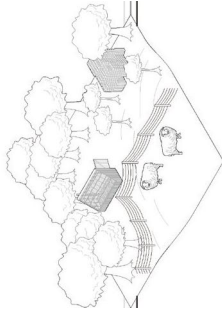
**CLAY HARVEST**  
CLAY HAS BEEN IDENTIFIED AS A VALUABLE RESOURCE FOR THE FOUNDATIONS OF HOMES WITHIN THE COMMUNITY. HUMAN ACTIVITY HAS NOW BEGUN TO AFFECT THE FOREST. THE HARVESTING TILLS THE SOIL, BRINGING VALUABLE NUTRIENTS TO THE SURFACE. THE CLAY IS USED TO MAKE BRICKS, BEGINNING THE PROCESS OF REVITALIZATION.

## PHASE 4



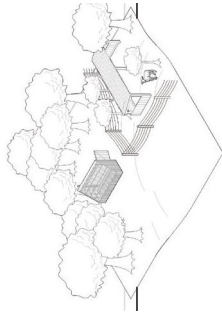
**BRICK FIRING**  
THE CLAY THAT WAS HARVESTED IN THE PREVIOUS STAGE IS THEN FORMED INTO BRICKS, WHICH IS ARRANGED INTO A RECTANGULAR PATTERN. THE BRICKS ARE THEN FIRED IN A KILN. PLANT LIFE IS AN OPPORTUNE SITE OF FIRING DUE TO MINIMAL DISTURBANCE TO THE SOIL. THE BRICKS ARE THEN USED TO BUILD THE EARTH AS CHIMNEYS, PROVIDING NUTRIENTS FOR LATER GENERATIONS OF PLANTS.

## PHASE 5



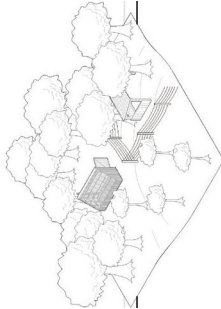
**GRAZING SHEEP**  
SHEEP ARE NOW INTRODUCED TO THE SITE, FEEDING ON THE GRASS. THE SHEEP'S FEEDING ACTIVITY HELPS TO MAINTAIN THE ECOSYSTEM. THEY WILL FERTILIZE THE SOIL AND HELP TO SPREAD VALUABLE NUTRIENTS. THE SHEEP WILL ALSO HELP TO MAINTAIN THE ECOSYSTEM, ALLOWING FOR NEW SAPLINGS TO GAIN STRENGTH BEFORE BEING EXPOSED TO LIVESTOCK.

## PHASE 6



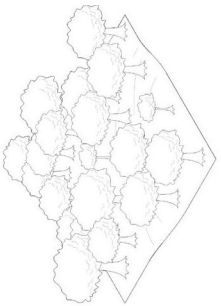
**CHANGING GRAZING LAND**  
THE SHEEP ARE SWITCHED TO THE OTHER HALF OF THE CLEARED SPACE. AT THIS POINT, MULTIPLE GENERATIONS OF SHEEP HAVE OCCUPIED THE SPACE, ALLOWING THE ECOSYSTEM TO RETURN TO A STATE OF STABLE.

## PHASE 7



**MATURING FOREST**  
MULTIPLE YEARS HAVE PASSED, AND THE AREA HAS STABILIZED. THE FOREST IS NOW IN A STATE OF MATURITY, WITH MORE TREES GROWING AND A MORE DENSE CANOPY. THE AREA IS STILL ACCESSIBLE TO HUMANS, BUT THE ECOSYSTEM IS NOW MORE SELF-SUSTAINING. THE FOREST IS NOW IN A STATE OF MATURITY, WITH MORE TREES GROWING AND A MORE DENSE CANOPY. THE AREA IS STILL ACCESSIBLE TO HUMANS, BUT THE ECOSYSTEM IS NOW MORE SELF-SUSTAINING.

## PHASE 8



**NATURAL FOREST**  
THE FOREST IS NOW IN A STATE OF MATURITY, WITH MORE TREES GROWING AND A MORE DENSE CANOPY. THE AREA IS STILL ACCESSIBLE TO HUMANS, BUT THE ECOSYSTEM IS NOW MORE SELF-SUSTAINING. THE FOREST IS NOW IN A STATE OF MATURITY, WITH MORE TREES GROWING AND A MORE DENSE CANOPY. THE AREA IS STILL ACCESSIBLE TO HUMANS, BUT THE ECOSYSTEM IS NOW MORE SELF-SUSTAINING.



Structure



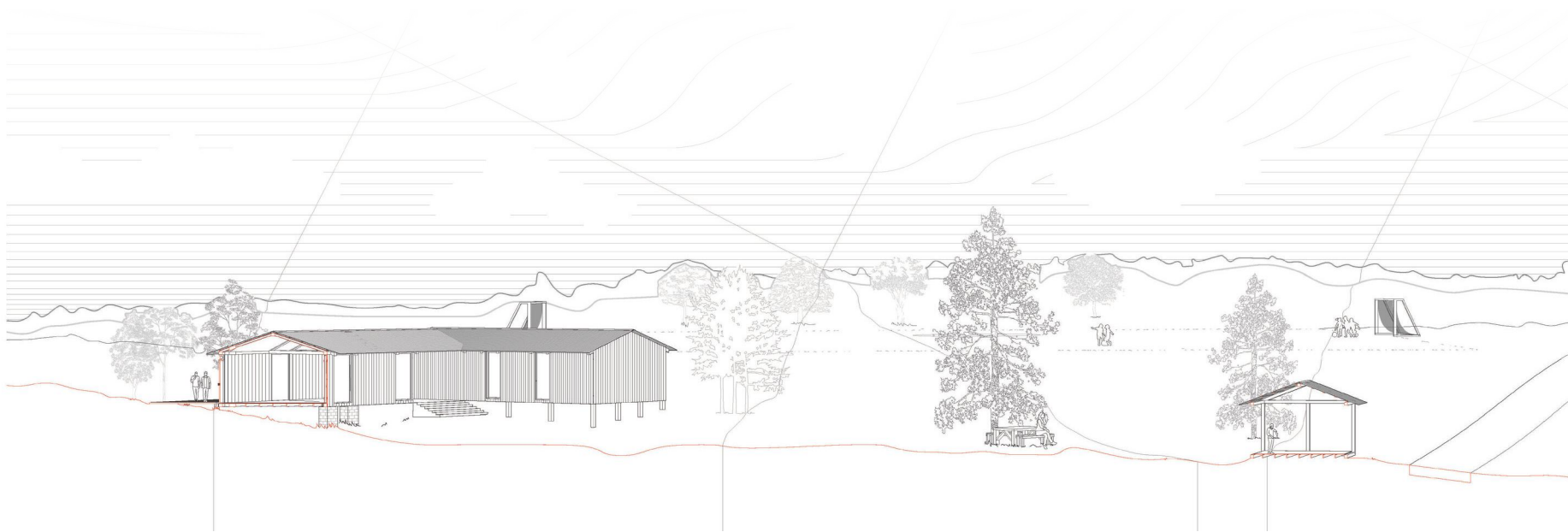
Roofing



Exterior + Roofing

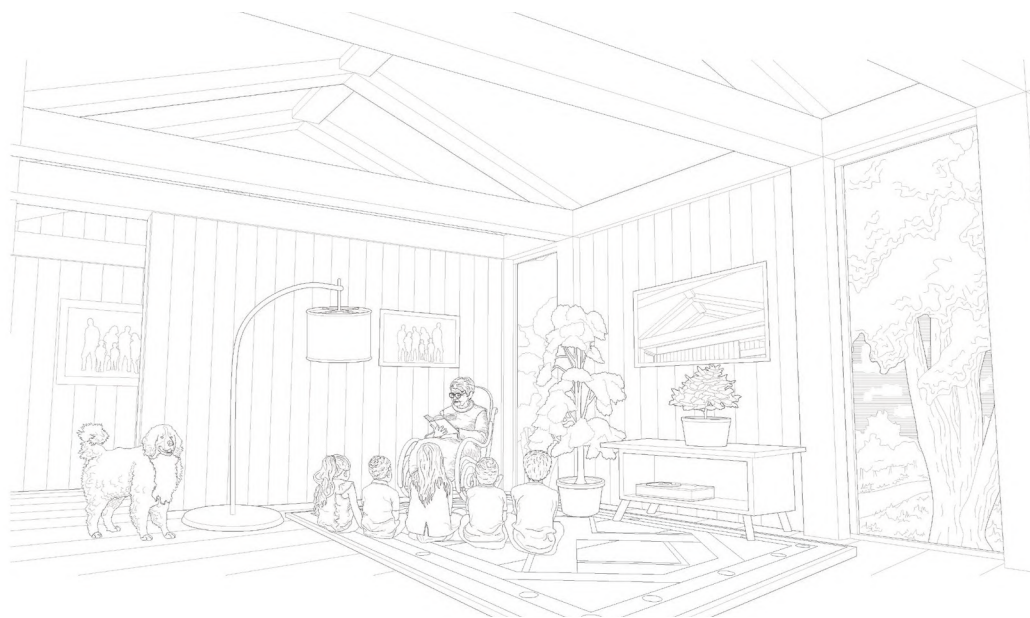
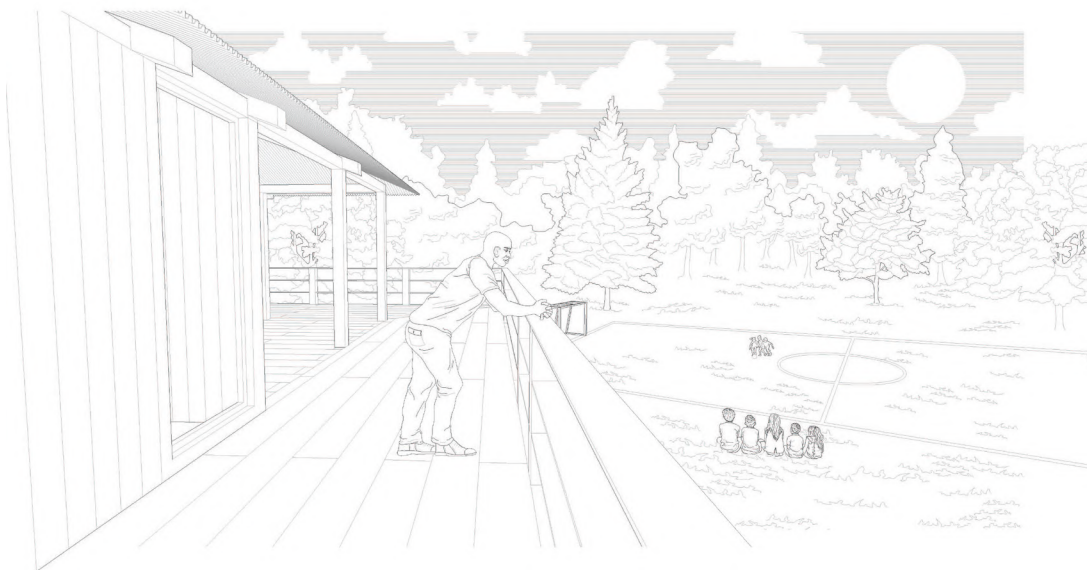
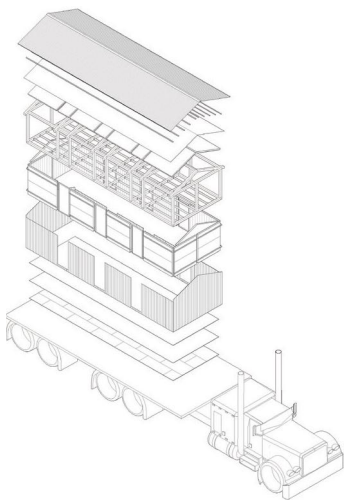
#### 1:12 FULL MODEL

This model was constructed entirely with dry-fit components, accurately reflecting the proposed construction techniques at full scale. While glue was used in the finalization of the model for transport stability, the initial fabrication used no adhesives and relied entirely on the preservation of each component, in line with the theme of designing for disassembly.









Riding on the coattails of the extractive coal industry, Appalachia's mobile homes are enduring symbols of fossil fuel dependency. Plastic—central to these structures—is derived from fossil fuel byproducts. Though “plastic” implies adaptability, these prefabricated homes are rigid in use, perpetuating coal's legacy as a pervasive, extractive force. Returning to the fossil fuel's geological predecessor—wood—*Heartwood* envisions a truly plastic architecture: adaptable, alive, and rooted in its materials' identity and land. *The Refab House* reimagines prefabrication typologies through the use of locally sourced materials, intelligent construction, and community-driven planning. Rather than extracting from the land, it grounds itself in resilience, cultivating a symbiotic relationship between people, architecture, and place.



*[ Rather than extracting from the land,  
it grounds itself in resilience, cultivating  
a symbiotic relationship between  
people, architecture, and place. ]*

**1:1 Section Model**

- 1. 6x6 Beams
- 2. 6x6 Truss
- 3. Steel Roofing
- 4. Girders
- 5. 2x4 Frame
- 6. Plywood
- 7. Wool Insulation
- 8. Z-Clips
- 9. Internal Paneling
- 10. Vapor Barrier
- 11. Shou Sugi Ban Facade
- 12. Wind Barrier
- 13. Carpet
- 14. Joists
- 15. Joist Hangers







**DOCUMENTING DEMOLITION**



# Tess Clancy

Architecture Design Fellow [2024–26]



This contribution to the 2025 Fellows Exhibition *Rough Cuts* presented work from the research project *Documenting Demolition*, which examines the impact of Detroit’s demolition program. This program began in 2014 with the goal of removing 40,000 blighted properties, most of them single-family homes. While the demolition of these homes is often accepted as a necessary step forward, this project questions the true motivation behind demolition and reflects on how memories and culture connected to the homes can still be preserved.

Beginning with the house where my grandfather was raised, 11794 Whithorn Street, the exhibition documents seven houses—either already demolished, or at risk of demolition—treating them as sites of historical significance through detailed drawings that honor their architectural value and the stories of their past residents. This preservationist approach shifts the narrative from market-driven urban renewal to emphasize the importance of memory and community history. How does one memorialize or monumentalize a home?



2363 Leslie St.

What can still be saved?



## HOUSE STORIES

Houses hold an extraordinary amount of history in Detroit. As business owners such as Henry Ford knew well, providing—and controlling—housing was critical. A mortgage kept an employee hard at work, while fear-mongering around integrated neighborhoods and property values, among other tactics, kept Black and white workers from finding solidarity.<sup>1</sup> The American Dream of owning a home was somehow within reach to anyone who worked hard—though being Black nearly always meant one worked twice as hard, and paid far more for that dream. Detroit was a city full of single-family homes. Even two-unit “income bungalows”—of which 11794 Whithorn Street is an example—were rare.<sup>2</sup>

A “respectable” family owned their own home with its own front yard and driveway, even if indistinguishable from the endless field of near-exact replicas. However, inside each of these homes, stories accumulated over generations. Together, these stories form an invaluable narrative of the city’s rise and fall, its transformation from a majority-white city to a majority-Black city, and the continuous (*if still unfulfilled*) promise of renaissance. These stories also form a counter-narrative to the images of Detroit often portrayed by the media—those of the downtown renewal or of the empty, abandoned city. Neither narrative tells the stories of those who stayed in Detroit’s sprawling residential neighborhoods through the city’s most difficult years. The houses do.

In some ways, the image of Detroit as a scaled-up company town of “little boxes” represents an era of vicious exclusionary practices, redlining, and segregation. But there was also an era of Detroit as a majority-Black city, where blocks remained dense with owner-occupied houses—those once occupied by the same white families who had participated in the exclusionary tactics of the previous generation. The constant throughout is the house itself, and its undeniable importance to every family that lived within it. Though the blight narrative casts houses as problematic symbols of vacancy, decay, crime, demolition, and neighborhood decline, they are the intimate witnesses to the city’s many transformations and noteworthy carriers of all its histories.



9300–9302 Savery Ave.



3247–49 Sturtevant St.





5920 Seminole St.

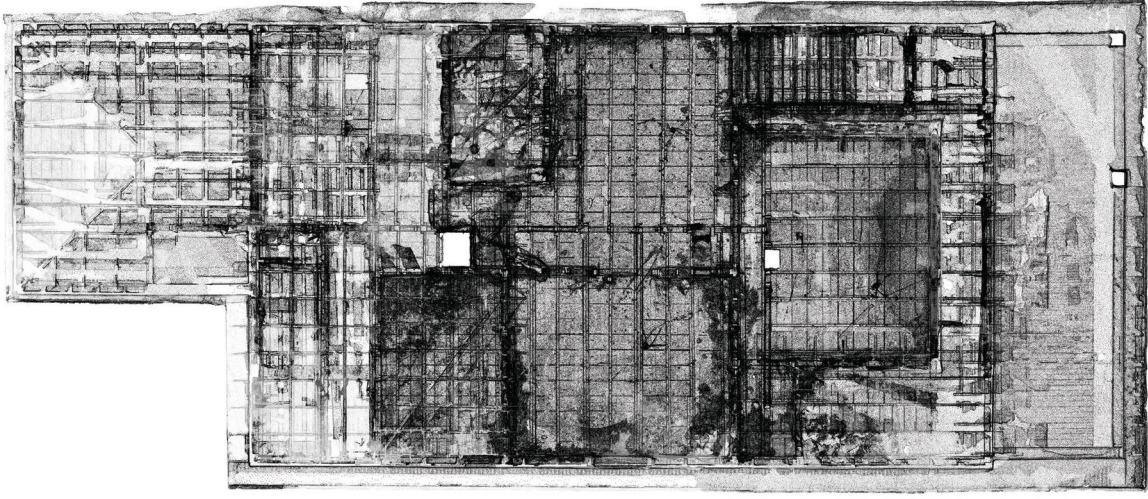


2363 Leslie St.

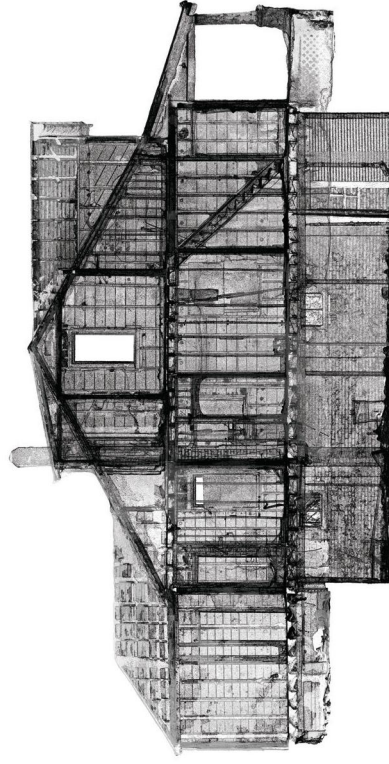
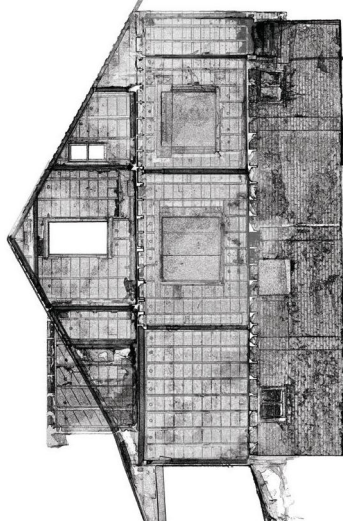
## DOCUMENTING

Drawing, in architecture, is an analytical tool used to look closely at a building or structure's layers, either to construct it or to study its spatial relationships. In archaeology and preservation, drawing instead serves to capture every fine detail of an existing structure. In both architecture and archaeology, it is always an abstraction of the structure itself—in most cases, it becomes the only enduring artifact of a structure that was never built or that has eventually succumbed to obsolescence.

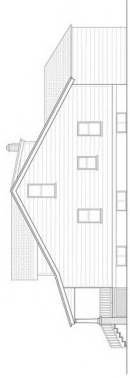
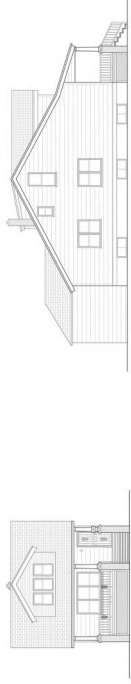
Architects draw in the ideal, using straight lines for almost certainly uneven surfaces. Preservationists, by contrast, learn to draw imperfections, capturing the essence of an object or structure in its as-is or as-was condition. Now, as imaging technology becomes integral to preservation practices, 3D scanning is employed to capture the “real” condition, allowing it to be digitally archived and experienced virtually. Whether high-tech or low-tech, how can capturing Detroit's homes before demolition—or reconstructing them through drawing post-demolition—be treated as a formal preservation practice? Can we build an archive of what has been lost? And when so many homes are already gone, where does one begin drawing?



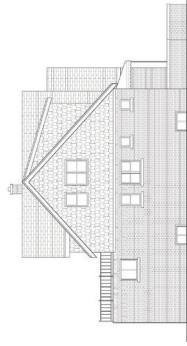
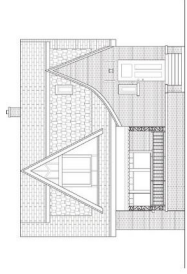
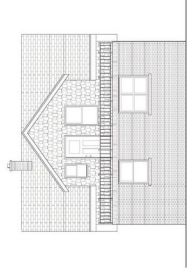
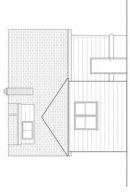
11794 Whithorn St.



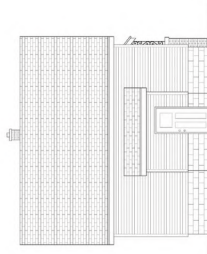
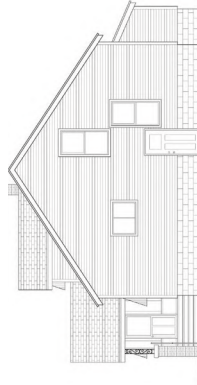
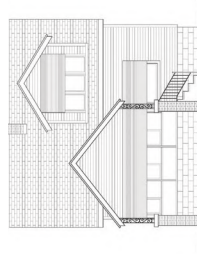
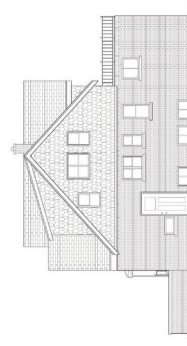
The seven houses drawn here represent both a range of common house types and a variety of possible fates for homes that become property of the Detroit Land Bank Authority (DLBA). The house at 11794 Whithorn Street, purchased by my great-grandfather—an Irish immigrant and streetcar conductor for the city of Detroit—during the Great Depression, was sold for a loss in 1980, when he could no longer live alone. In March 2025, it was in its second cycle of foreclosure proceedings. This case is representative of a common pattern in which someone buys a house cheaply from a land bank auction but cannot afford the required repairs and upgrades. The house is eventually forcibly abandoned, at which point it again becomes property of the land bank and is either re-auctioned or placed on the demolition list.<sup>3</sup> The houses on Indiana and Cherrylawn were, at the time of the exhibition, in the demolition pipeline. 15870 Indiana Avenue was “knocked” on July 23, 2025, and 15496 Cherrylawn Street on July 28, 2025. The multi-unit homes at 9300–9302 and 3247–3249 Sturtevant Street were demolished on January 15, 2025, and February 28, 2025. 5920 Seminole Street was auctioned on May 14, 2025, for \$8,400, while 2363 Leslie Street was sold on April 30, 2025, for \$6,000.



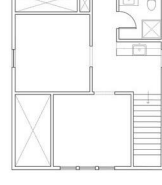
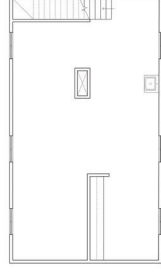
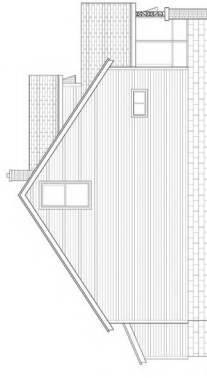
11794 Whithorn St.



15870 Indiana Ave.



15496 Cherrylawn St.



11794 Whithorn St.

Demolition information, ownership history, and other details about houses in Detroit are incomplete and sometimes difficult to access. Demolition dates change frequently as contractors change schedules in response to weather conditions and emergency demolitions. As a result, the city’s notification system often cannot catch up. The seven houses discussed above were selected in part because it was possible to access and piece together information about them.





3247–49 Sturtevant St.



9300–9302 Savery Ave.



9300–9302 Savery Ave.

## GATHERING

Residents of Detroit (and outsiders) have been informally gathering, salvaging, and scrapping for years. Some have subsisted solely by tearing scrap metal from abandoned properties, often to the severe detriment of many otherwise rehabable homes. Because no formal or institutional infrastructure exists for saving, recycling, sorting, and storing materials, this activity has also served as an informal preservation practice.

There are stories of signs and other architectural elements saved from important buildings during periods of abandonment or vacancy, and later sold or given back when a building is restored. For example, during the restoration of Michigan Central Station, architectural elements—including parts of the iconic ticket-lobby clock—were anonymously returned and reincorporated into the building. In addition to documentation through drawing, how can the preservation of objects and fragments add to an archive of Detroit's houses?

## CARING

When the houses—both single-family homes and public housing—that accumulated memories across generations of Detroit families are gone, what can be done to archive those memories? What can still be saved? What would a formal practice of preservation look like for materials that were previously deemed invaluable, potentially contaminated by both toxic chemicals (lead, asbestos) and the darkness associated with racial capitalism, blight, and abandonment? How—and why—should we care for these objects?

In museums, elaborate display armatures are designed to hold precious objects. They elevate to eye level, place them in context, and allow the object to be viewed from all angles. If given this level of attention and care, do all objects acquire value? When something is drawn in detail, carefully documented with priceless technology, gently held and observed within a bespoke armature, it becomes an artifact—formally acknowledged as important to our historical self-consciousness.

1. Sara Safransky, *The City after Property: Abandonment and Repair in Postindustrial Detroit* (Duke University Press, 2023), 28.

2. "Income Bungalows," or small homes with a tiny second-floor apartment were briefly common during the Great Depression, making home ownership more affordable by allowing a family to rent the upstairs apartment, but any multi-unit dwelling quickly became stigmatized and even outlawed as they were increasingly associated with poor immigrants and Black people.

3. The Detroit Land Bank Authority auction website states, "Please note that the rehab cost will often cost more than the winning bid price. Failure to bring a property up to code within 6 months will result in forfeiture of property."

*[ ...do all objects acquire value? ]*



15496 Cherrylawn St.



11794 Whithorn St.

#### Acknowledgments

Thank you to Dawn Gilpin for her generous help in the scanning of 17794 Whithorn Street; Jin Kim and Fatema Almoamen for highly precise model assembly; Ryan Britain for capturing drone scans in bitter cold temperatures; Mardy Hillengas and Charlotte Lee for expert testing of point cloud renderings; Tyler Jensen for careful metalwork on a tight schedule; Anna Peterson for piecing together family photographs and sketches from my great-uncle into coherent floor plans; and Erin Kurtycz—for drawing more than anyone else could in the same amount of time.

Thank you also to The Detroit Salvage Warehouse, Salvage Garden Detroit, Broc Edwards (SC Environmental), Robert Saxon, Jr. (Detroit Land Bank), Elisabeth Knibbe, FAIA, and Lisa DiChiera (Detroit Historic Designation Advisory Board).





# **BETWEEN US: ROOTED ASSEMBLIES**

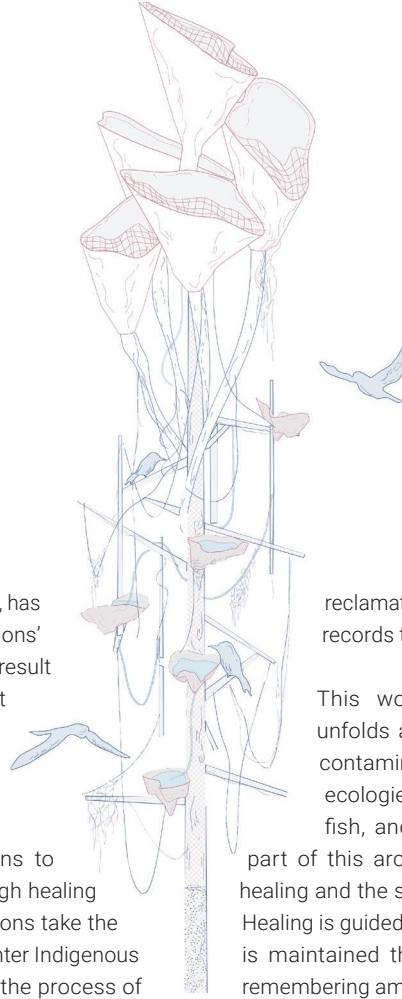


# Malak Atwi

Wallenberg Critic: Zain AbuSeir

Oil sands extraction in Alberta, Canada, has had devastating impacts on First Nations' land, culture, and ways of living. The result of this extraction is the displacement of the community, along with its culture, practices, and identity.

*Between Us: Rooted Assemblies* asks the question of what it means to stay—and resist displacement—through healing and archiving. Architectural propositions take the position of allies, not authors, to recenter Indigenous knowledge and cultural practices in the process of



reclamation in a way that holds onto land, and that records the stories of those who live here.

This work proposes a living archive that unfolds across unsettled territories marked by contaminated waters, scorched soils, disrupted ecologies, and broken migratory paths of birds, fish, and bees. Seven assemblies emerge as part of this archive, each caring for both ecological healing and the sustenance of a cultural practice at risk. Healing is guided by traditional knowledge, and continuity is maintained through acts of tending, marking, and remembering amid disruption.

There are no clean divisions, no singular before or after.

W

The project begins with two booklets:  
a fieldbook and a storybook.

Emerging from an extended period of research, these booklets act as immersive entry points into the everyday acts, knowledge systems, and cultural practices of First Nations communities affected by oil sands extraction.

## THE FIELDBOOK

The Fieldbook begins as a quiet act of observation. Each page collects fragments of the landscape, taking note of objects, practices, and non-human creatures, while capturing the voices of those who live with them.

These sketches, coupled with date, weather, and place, construct a temporal portrait of a land in flux. They trace what is healing, what is dormant, and what resists disappearance.

The field becomes both site and page—the place where memory gathers and begins again.

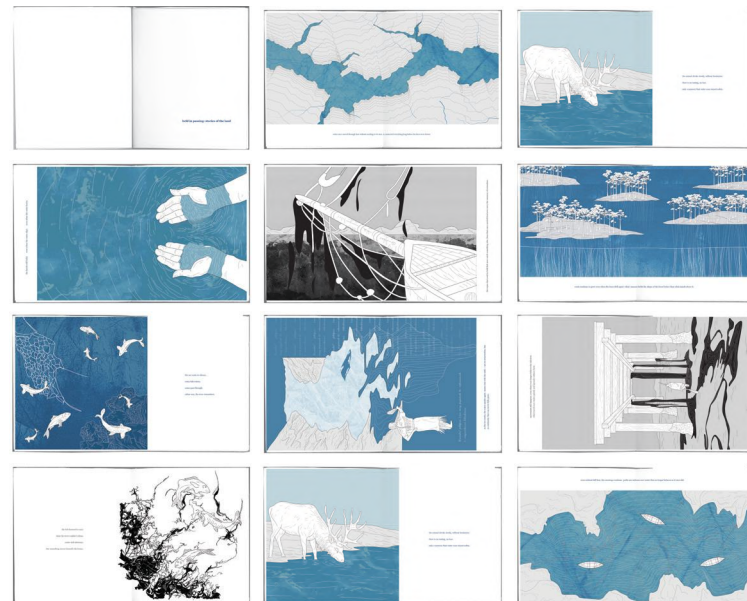


The Fieldbook: Observational Entries

## THE STORYBOOK

The Storybook conveys what cannot be measured. It records life, loss, and ceremony through fragments of image and verse—moments where people, land, and material remain entangled, despite disruption.

Its stories move between damage and renewal—between the river that turned and the smoke that still rises, between a plant hung to dry and a canoe waiting to return to water. Through alternating image and silence, it reveals how meaning persists not as nostalgia, but as practice.



The Storybook: A Narrative



#### **lifted roots**

the ground could no longer hold.  
so it was lifted.  
a bed of clean soil, raised into the sky,  
carrying what little remained.  
not removed—  
but suspended.  
allowed to keep growing.  
roots stretch into wind,  
seeking what the earth can no longer give.  
the lifted bed becomes a promise—  
a breath of ground kept alive  
to remember what was once fertile.  
everything gathered here is  
from the healing land  
to heal the people.  
the archive begins with this:  
a held breath of soil,  
a practice saved by lifting,  
to grow new life,  
from what was almost lost.

#### **Assemblies of Soil**

These assemblies protect what remains of uncontaminated soil, lifting it above toxic ground to sustain native and medicinal plants. Devices filter acidic rain into clean water, enabling the continuation of traditional planting and drying practices.

## **ASSEMBLIES**

The project operates within a continuous landscape of transformation—a terrain where contamination, healing, and renewal overlap. There are no clean divisions, no singular before or after. The phases of resilience, contamination, and repair coexist and blur, each feeding the other.

Some assemblies emerge early, lifting soil above toxic ground. Others respond slowly. Together they form a choreography of care that resists the logic of efficiency in favor of reciprocity and endurance.





Every assembly participates in another's survival. Water filtered through fabric irrigates new soil, plants grown in lifted beds become fuel for healing fires, smoke condensed into droplets nourishes roots. This reciprocity binds the system together, forming an invisible network of exchange. The archive, then, becomes a field of continuous conversion between elements. Through these transformations, matter becomes a testimony—contaminated soil becomes structure, burnt residue becomes healing carbon, frozen water becomes ritual.



#### swaying plants

when the rain falls acidic,  
woven fabrics catch it—  
slowing, gathering,  
to filter what once burned leaves  
into something a root can drink.  
beneath the shelter, herbs are hung,  
braided and tied with soft twine,  
swaying with the weight of water and wind.  
some dry in shadow,  
some wait in light.  
each strand holds a season,  
each drop a return.  
carrying the scent of what still heals,  
the memory of fields not yet lost.  
with water moving slowly,  
threading through fabric and root,  
it rests for a moment beneath the surface,  
pooling in hidden basins,  
each drop carrying the patience of its making  
a quiet reserve for a time of regrowth

#### Assemblies of Plant

These assemblies shelter medicinal herbs and plants hung to dry from the acidic rains that follow extraction. A woven canopy stretches overhead, catching rainfall and filtering it through netted devices, then into an underground basin where clean water is stored.



**gathered smoke**

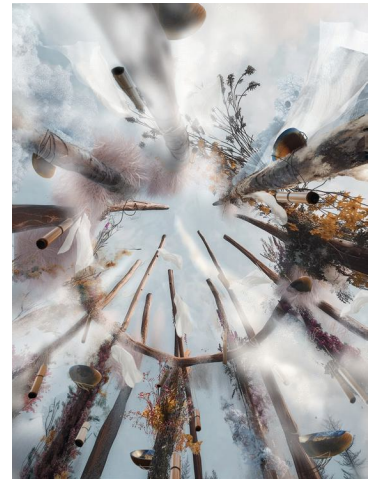
to hold what is not meant to last.  
willow tied loose, never tight.  
fabric stretches with the wind.  
sweetgrass is hung—  
braided fresh, then left to dry.  
every braid holds the time it was gathered.  
when burned, the air shifts with it—  
slow, circular smoke drawn across skin,  
around space.  
fire has always meant healing.  
And here, it does again.  
below, a second burn begins—  
slow, dark, purposeful.  
the biochar forms in silence.  
to slowly be immersed into the scorched soil,  
where the fire's memory becomes the ground's  
repair.  
where plants hold stories,  
fire makes them visible,  
then releases them  
back into the land.

**Assemblies of Smoke**

Rooted in the smudging ceremony, this assembly reclaims smoke as a means of purification. Above, sweetgrass and willow are burned in ritual; below, the same act produces biochar that regenerates soil.

To stay is to resist erasure.  
To remain is to remember.

This project celebrates the act of staying and persistence in the face of damage. It recognizes that healing will never return the land to what it once was, but that continuity can still take root in what remains.





#### cleansing lodge

the lodge was already there.  
 already healing.  
 stone, water, fire—  
 nothing new.  
 only carried forward.  
 inside, the air thickens with steam,  
 drawn from memory.  
 each pour marks a release—  
 not just from the body,  
 but from what the land has absorbed.  
 here, the same gesture that cleanses the spirit  
 now pulls toxins from the water.  
 this is an echo of what was always known,  
 now scaled to meet a new kind of harm.  
 the seasons know the rhythm.  
 steam in the cold.  
 stone in the fire.  
 water returning as breath.  
 it was never just the body being healed.  
 it was the place.  
 and it still is.

#### Assemblies of Water

These assemblies purify both body and landscape. Contaminated water is boiled through heated stone and condensed into clean droplets stored for reuse. The process turns spiritual purification into ecological repair, preserving the ceremonial act as a method of healing the land.



#### thawed return

beyond the maps that mark contamination,  
there are other losses:  
the loss of a fishing practice,  
the loss of a healing plant,  
the loss of a grandmother's teaching  
carried by the river.  
when the water turned,  
the canoes were hung.  
not gone—  
but suspended in waiting.  
contamination moves quietly,  
and so do these assemblies—  
filtering, collecting, releasing.  
some nets are still lowered.  
not for fish,  
but to catch what cannot be seen.  
water is gathered.  
filtered.  
frozen—not to preserve,  
but to return at time of thaw  
when the season knows how to carry it again.

#### Assemblies of Ice

Suspended canoes mark the absence of safe waters and the hope of renewal.

Polluted water is filtered, frozen, and stored through winter, to thaw and return clean during spring. The act of freezing becomes ceremonial—a seasonal rhythm of patience, signaling the continuity of fishing and river-based traditions.

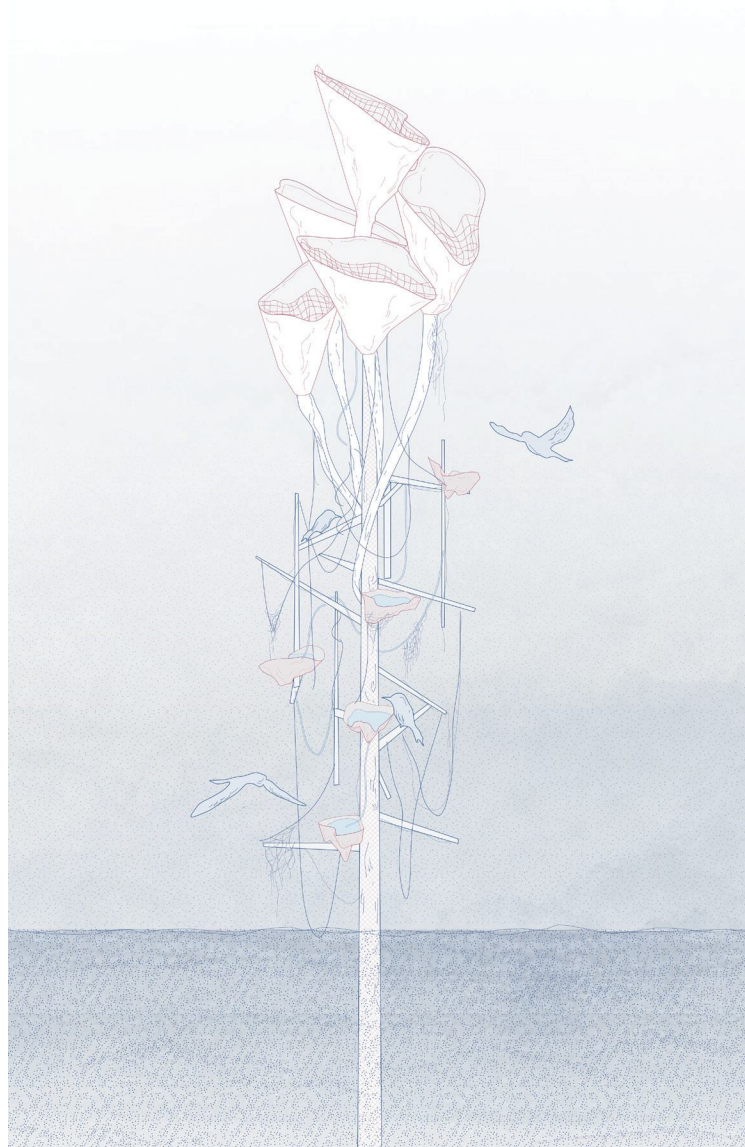
Each of these assemblies shifts with the weather. They open and close, freeze and burn, collect and release according to shifting seasons. Each cycle carries an act forward—the rain that falls through fabric, the thaw that returns water to motion. The architecture does not resist change but relies on it to survive.

To design for healing is to design for variation—for the quiet persistence of materials that alter and return.





*[ To stay is to resist erasure.  
To remain is to remember. ]*



#### **passing flight**

they keep flying.  
even when the rivers turn still.  
even when the ponds poison themselves.  
so water is lifted.  
not for humans,  
but for those who do not ask where to land.  
rain is caught,  
cleaned,  
offered.  
shells held high.  
a sip,  
then gone.  
no feathers are marked.  
no wings announce arrival.  
but they return,  
because the path still holds.  
the structure is not meant to last.  
only the flight line is.  
and this is enough to keep it open.

#### **Assemblies of Bird**

Designed for migratory birds whose habitats have been poisoned or lost, this assembly lifts clean water into the air. Collected rain is filtered and held in shallow vessels that serve as temporary resting points during flight. The gesture offers continuity, ensuring that paths of return remain open.



**held memory**

no one remembers this place.  
because it was never meant to be.  
the water here is heavy.  
it doesn't speak.  
but it must be held.  
what the others remove,  
this holds.  
not to clean,  
but to carry.  
the soil is slow.  
the healing here  
does not come in gestures,  
but in decades.  
there is no rush.  
just stillness  
of not turning away.  
it is not repair.  
it is responsibility.  
to live alongside the damage  
is not to accept it—  
it is to refuse its power to erase.  
what stays here  
stays known.

**Assemblies of Residue**

These assemblies hold what cannot yet be restored. Contaminated water and soil are gathered into layered basins, where sediment slowly settles and plants begin to take root along the edges. Instead of concealing the wound, the structure makes it visible, marking damage as part of the landscape's memory.

The final assembly turns inward, holding what cannot yet be healed. Within this gesture lies the ethic of the entire project: to live with the wound, not apart from it. Healing here is not erasure, but acknowledgment. By containing, slowing, and carrying the residue of extraction, the land begins to teach a slower form of recovery—one grounded in patience, care, and endurance. The project celebrates this state of rough resilience: a landscape marked, altered, but alive. It resists the desire for closure and instead honors continuity.

As rooted, these assemblies allow for the continuity of the people, of the culture, and of the knowledge that has always known how to live here.

This work does not claim to speak for these communities or to represent them. Instead, it has been shaped by listening, learning, and responding to the ways the community defines the problem, and works with existing modes of resistance.







# **ACTORS, AGENTS, AND AUGMENTATIONS OF THE [SENSIBLE CITY**



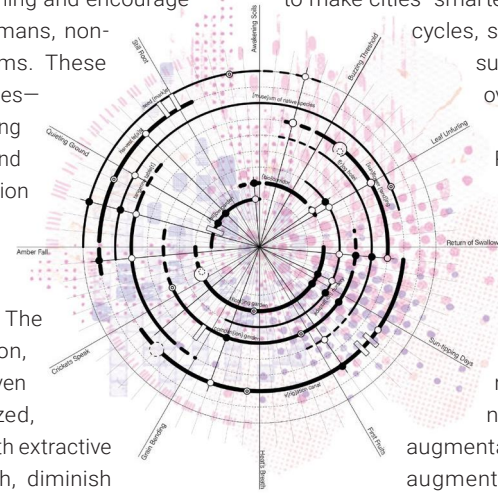


# Julia Bohlen

Thesis Advisor: Perry Kulper

Agriculture and food production/consumption have deep cultural significance, including rituals, traditions, and seasons, that form cultural meaning and encourage balanced relations between humans, non-humans, and ecological systems. These practices—cultivated over centuries—serve as cultural grounds, reinforcing connections to land, biodiversity, and cyclical time. Sadly, the proliferation of industrial agriculture has threatened these deeply rooted traditions, harming both cultural identity and ecosystem stability. The prioritization of mass production, monocultures, and efficiency-driven methods has replaced localized, ecologically-attuned practices with extractive models that deplete soil health, diminish biodiversity, and sever cultural ties to land. Demands for processed, resource-intensive products and services further strain ecosystems and increase carbon emissions,

waste, and energy consumption to levels that surpass our planet's ability to replenish them. Technology, designed to make cities "smarter", has distanced us from natural cycles, sensitivities, and sensibilities that sustain life, prioritizing convenience over connection.

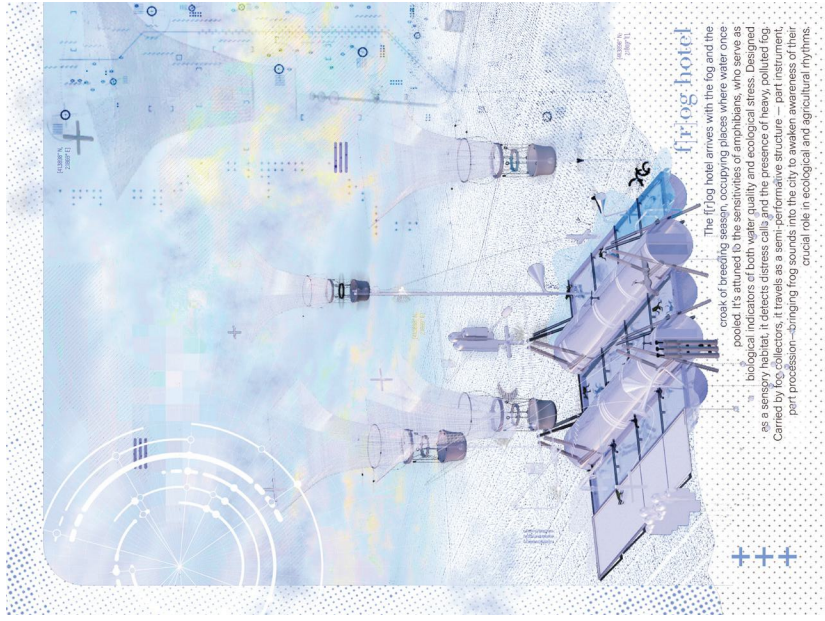
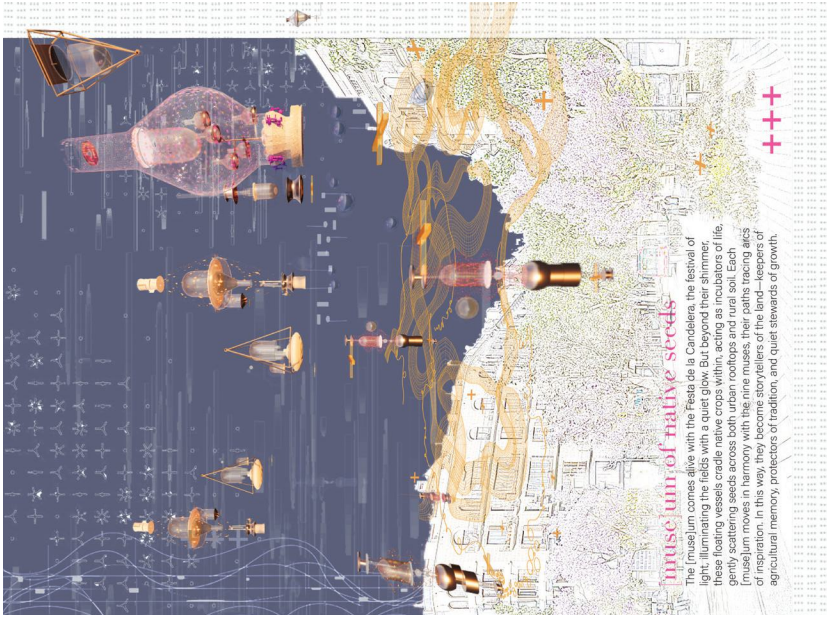


Referencing the relational, responsive, and poetic cycle of Japan's 72 microseasons, this thesis confronts the crisis of progress. It offers alternatives to extractive practices by proposing a realignment of human and non-human relations through augmentations to the smart city. These augmentations incorporate biological intelligences, a return to ritual practices, and a recentring of agriculture and food production as foundational to a more ecologically-grounded future.

Multiple actors are in play together at a time, working together and responding to various conditions.

T







*Actors, Agents, and Augmentations of the [Sens]ible City* uses narrative construction and inventive programming to develop a series of goodwill “actors”—each with specific sensitivities, cultural references, and low-impact technologies—that counter, correct, and promote alternatives to harmful agricultural and food production/consumption practices. By resurrecting sustainable land management practices, recovering lost cultural traditions, and reintroducing rituals that encourage community and ecologically sensitive balance, the thesis envisions how human and more-than-human life can once again coexist.

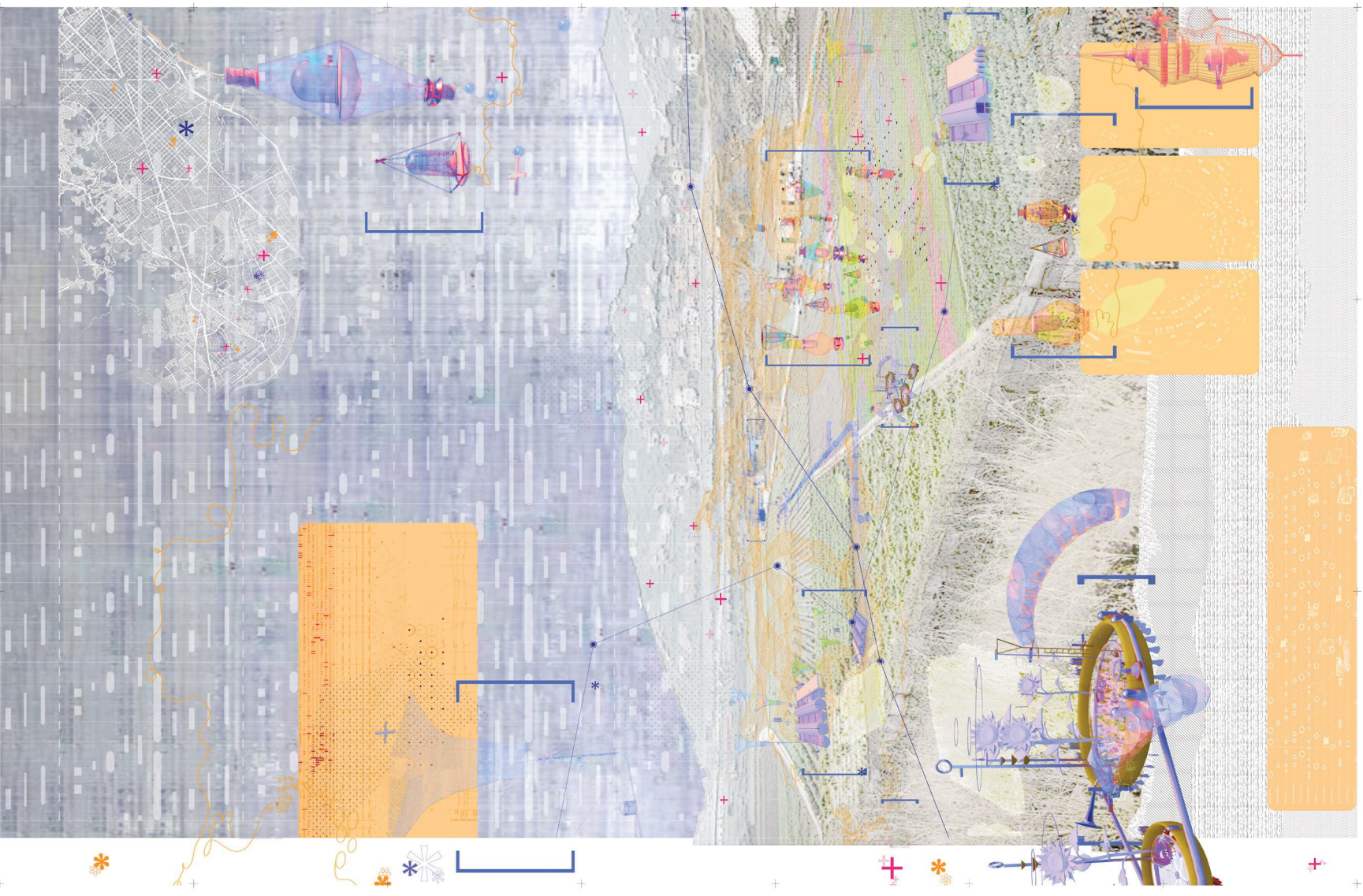
The work has a heavily researched structure and discipline: Barcelona, in particular, is central—not just for its “smart” city infrastructure, but for its cultural complexity: a region where Catalan heritage has both endured and been systemically suppressed. This layered identity makes it an ideal stage for the return of entangled, ecological intelligence.

A series of speculative “actors” is introduced—tools, vessels, and ephemeral infrastructures—that use storytelling, biological intelligence, and relational programming to intervene in broken systems. Each actor restores some forgotten or displaced relationship—between soil and season, seed and ceremony, and species and story. Representational “plates” are visual, diagrammatic, and notational, indicating how each actor moves, interacts, and traces.

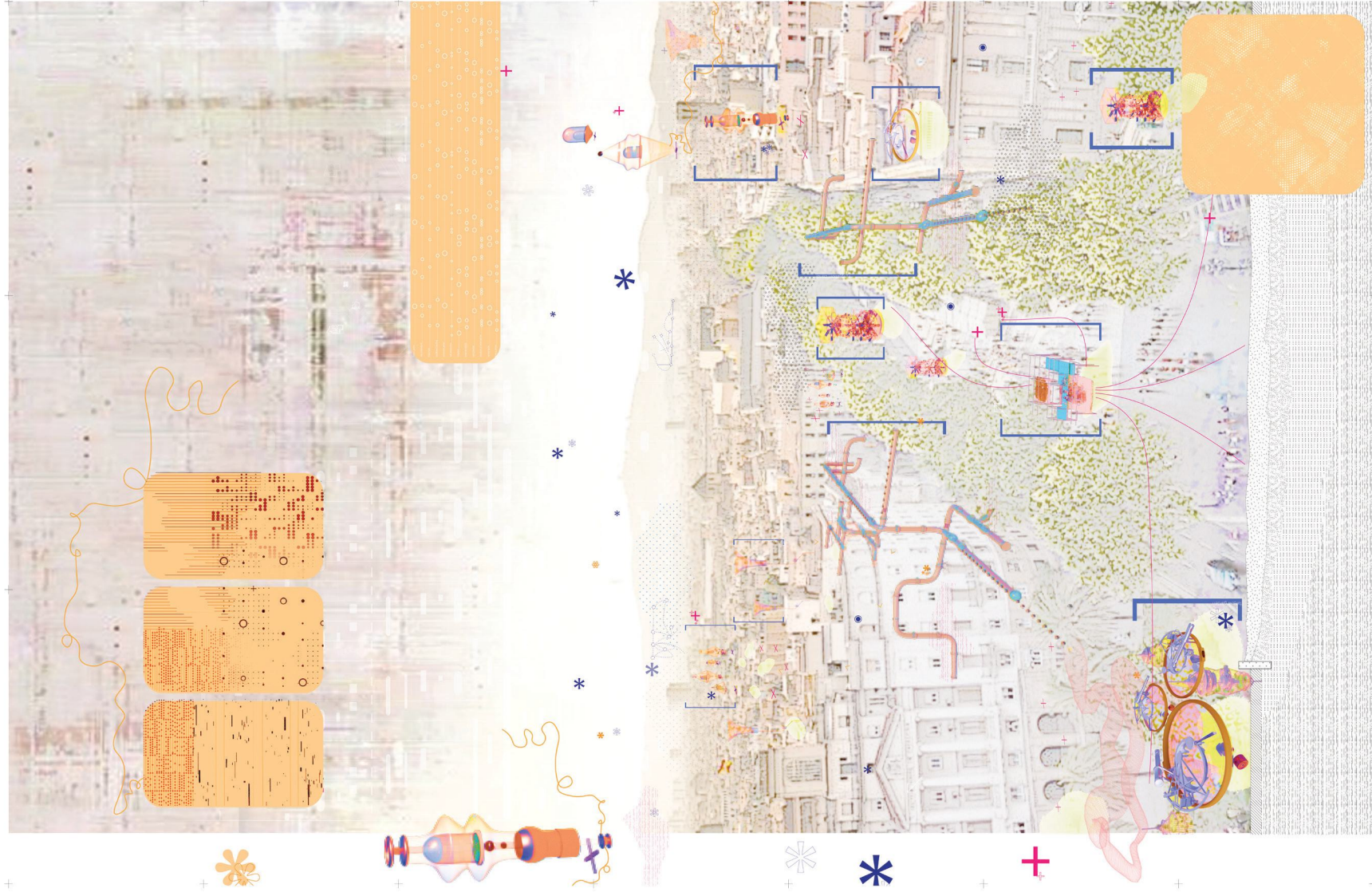
The choreographic script seeks to uncover relational properties between the actors, each other, and cyclical time: drawing from the original 72 Japanese microseasons, different seasons are diagrammed with actors taking on various roles and “entering and exiting” the choreography according to the script and external factors.











The two key moments highlighted in the diagram are illustrated in the following atmospheric images.

The atmospheric drawings represent the actors in play with notations for relational qualities—including landings, projections, planting logics, and arrivals. Data is encoded into the drawings about each of the actors and their relational properties.

Multiple actors are in play together at a time, working together and responding to various conditions.







*[ Technology, designed to make cities “smarter”, has distanced us from natural cycles, sensitivities, and sensibilities that sustain life, prioritizing convenience over connection. ]*





DK Osseo-Asare is a Ghanaian-American designer who collaborates with communities to craft material assemblies tuned for ecosocial resilience. He co-founded Low Design Office (LowDO), a transatlantic architecture studio known for innovative, place-based work. DK has led participatory design projects across West Africa.

# DK OSSEO-ASARE

**[DK]** What makes a parameter versus a dimension? Do you guys know?

**[D39]** I feel like a parameter is typically something that you control? To be able to reach this end product that is flexible and in flux, versus a dimension—it depends... are we talking about inch, foot, yard, or are we talking about *another dimension*?

**[DK]** We have a student who did mathematics as his first degree. And he said without skipping a beat, he said, "Oh, a dimension is a constant."

**[D39]** Yeah.

**[DK]** But you still can set a dimension, right? So, can you adjust dimensions somehow parametrically—

**[D39]** That's a parameter.

**[DK]** But it's somehow parametric, and at the same time, it somehow relates to a constant? Because we know that 1D space is one, and we know that 2D space is somehow always within two things. But then you have variability within 2D space. So anyway, it becomes quite meta very fast.

**[D39]** I guess parameters also have—it's a constant that is not variable. A parameter is a constant that's non-negotiable. It's a predefined constant that you can change and shift to create this end product that is in flux. That's a constant. I feel like—

**[DK]** It's tricky because it's like what you said—how do you find the language? I think the etymology parameter, "meter" just means measure, and "para" means around, similar to a parachute or a parabola. So yeah, it definitely means that you have a measurement, but it can change. Anyway, you guys are with *Dimensions*—it's an

interesting name for a journal because it speaks to a very, very nuanced core of architecture.

**[D39]** Awe... [Laughs.]

**What motivated your practice as you were starting out, and how has this changed and evolved over time, if at all?**

**[DK]** Our firm is called Low Design Office. We go by LOWDO. When we were in grad school, we were frustrated that the GSD felt very corporate, and it felt very much focused on serving [pauses] elite strata of society. It was very non-theoretical because you're making drawings and models, but for those of us who just like to make stuff, there was a dissatisfaction that felt like we were not making enough stuff. When I went to the GSD, there was a student group called SOCA, which stood for Students of Color Association. But there weren't really so many students of color. At least not like black or African American identifying students. I want to say it was less than 5 or 6 out of a school of like 550 people.

**[D39]** So was that kind of your local equivalent to NOMAS essentially?

**[DK]** Essentially. We didn't have NOMAS at that time, but one of the things we did was rebrand SOCA as Social Change and Activism. We kept the acronym because there were a lot of students involved, and we did a program to teach design. A lot of students were really passionate about this, but were not necessarily "minority people." We started in architecture school thinking about the ways in which design can support social activities in the built environment. My studio advisor, Laura Miller, either sensed or heard my frustration and said, "You know, DK, you think that it's just you. But just start doing stuff, and you'll be surprised." The way that the universe works is complex. A community



organization called Harbor said, “Can you guys give us free architecture?” And Harbor said, “No.” But then they sent it to the GSD, and someone at the GSD asked, “Does anyone want to do this?” And everyone said, “No.” The professor then thought, “Oh, maybe these students want it.” And they let us know, and we responded, “Tell us more.”

So we got on the train and went to Wilmot, Massachusetts. And we found a group called UTEC, the United Teen Equality Center. It was the executive director, Gregg Croteau, who had made that phone call. They had acquired an old church from the 19th century for something like one dollar. We even wrote a text about this a long time ago called “Post Textile Globalism” or something. It was a New England mill town where the textile industries went to India, and it collapsed the New England textile industry. Then, there was a little bit of digital tech that came in, and then the same story of post-industrial indeterminism within the urban context happened. Lots and lots of diversity, Lowell had become a very multicultural place. At that time, there was teen violence, the African gangs were at war with the African American gangs, and the Latinx gangs were at war with the Southeast Asian gangs. It was so interesting because young people, who are not that dissimilar, were fighting over turf. UTEC, the United Teen Equality Center, created a safe space in the downtown where you could come and not be on anyone’s turf. That was so exciting to us as a tangible, real thing.

So we just started volunteering. Then it snowballed, and the students who found out would come and bring support from the university. We ended up doing the first phase renovation—a whole design and move-in. That was really exciting for us. Essentially, we would play hooky from school, take the train, and go to Lowell to work with all these young people to turn the sanctuary into a basketball court. I remember there was a young guy who had

just come back from Iraq and was trying to figure out—how do you fit—and it gave him a sense of something to do. It was really inspirational for us, and we had—we found a lot of mentors. We started because we were being groomed, like you all are as well, to serve the people who can afford to pay you after this kind of education.

**[D39]** Of course, yeah.

**[DK]** We sensed that there was a disconnect, that if this is all we’re doing, there’s going to be a segment of society that was underserved. That was really how we began with that first program in Lowell. We’re called Low Design Office because we were always going to Lowell. We did a class with Margaret Crawford at the school—she gave us the challenge, “Well, if you were starting your firm, what would it be called?” And that’s when we came up with Low Design Office, and we just started doing more—we did a project in South Africa with Ashley Heeren for women living with HIV and an Artists Alliance. All of these things spiraled out of a resistance and a pushback to what we perceived as bigness and the largeness of architecture and the design fields, and wanting to find models to demonstrate alternative approaches. I would say we were very local and aggressive at that time, and it’s weird because it kind of caught on. The first time we had any press, we were in *The Architectural Review*, I believe.

What was interesting was that the title Molly Menard selected was the line that we had professed when we were students, which was, “The only way to be radical is to build.”  We were taught that paper architecture was the most powerful, and that the purity of the autonomous nature of the architectural discipline presented in pure form and representation—purity of architecture was the terrain in which you could do the most powerful

work. We essentially said, “Hogwash.” Like, “It’s not, for us, an intellectual project. It’s a real-world one. Paper discourse will always be an illusion.” That’s really how we started getting our hands dirty—making and doing, seeing real people, engaging with real projects.

**[D39]** I think it’s interesting that you talk about this starting from the ground up and with this degree of frustration. Because in a lot of ways, I think what’s so special about the work that you do is that it starts at the smallest of scales. I think even on your LOWDO website, you have this idea of micro and macro?

**[DK]** Mm-hm.



**[D39]** Your practice moves fluidly across scales, from micro interventions like kiosks to mega projects like master plans. **As your projects scale up, how do you ensure that the intimacy of small-scale making and community participation doesn’t get lost in translation?**

**[DK]** It's tricky again because all of these questions are very straightforward. The simplest way I can explain it is that yes, we work across scales. The shorthand reason as to why I personally entered into that space is because, even before I was frustrated with Harvard as a graduate student, I was frustrated with Harvard as an undergraduate engineering student. At that time, they had three or four types of engineering: materials science and mechanical engineering, electrical engineering, and maybe bio-mechanical or biochemical or something. I don't even think there was civil. Eventually, I was working in the library at the design school and I saw all the books that the architecture students were checking out and saw my problem sets and I felt like there was an allure to the open-endedness of architecture that was not always there in engineering where the given, the known, or the end result is somehow given and you just have to get there, whereas in architecture, the end result is not a given.

**[D39]** Right, it's like the work is never done.

**[DK]** I found out in the fine print that if Harvard didn't offer the type of engineering that you wanted, you could create your own major. So I was like, "Oh, now we're on."

**[D39]** That's interesting.

**[DK]** So I made my own major. I called it Engineering Design. And I found one eccentric professor who was willing to be my sponsor. He was a lecturer, despite having a Ph.D. in physical chemistry from MIT, and he worked on some of the very first computers that they worked on at MIT. It was part of early cybernetics, figuring out what computers were and how they work. We forget that there's a materiality in these devices. He was working specifically on the material, chemical, and physical structures of what we now know to be computers.

There, he taught classes in design science that he called visual mathematics and synergetics. And essentially, if you've heard of Buckminster Fuller...

**[D39]** Mm-hm.

**[DK]** ...He worked with Bucky and is credited as a contributor to his seminal text, *Synergetics*. I refer to it as Fuller/Loeb—people just speak to it as Buckminster Fuller's work, but the model was very much developed in conversation, even within the publication record. It's Bucky and Loeb's. He was my undergraduate advisor and then my thesis advisor. He essentially taught me that synergetics tells you that geometry is the fundamental code of the universe. And geometry is the same at every scale. Because it's versatile. And in architecture, we focus so much on things at the scale of the building. In material science conversations, nobody has time for anything larger than a nanoscale. They don't even think formally at all. They think only of the atomic structure of materials themselves. So everyone thinks at a different scale and a different size. The constant throughout all of those disciplines is geometry. That goes back to my undergrad and working with Loeb, and my understanding is that I was his last student. I defended my undergraduate dissertation while he was in the hospital. He graded it from his bed. When I called his house after having slept for a week after my defense to say, "I made it," his wife told me that he had passed. He had essentially told me, "Take this work and develop it to a different scale," which is what I have been doing for the past 20 years. That's the core reason why it's happening. This is sort of also the African side of me—we have to recognize the nature of knowledge, community,

*...think not in  
purely material  
or physical  
terms, but also  
spiritual ones.*



and self. So these are not ideas that I came up with, really. This is something where I was a young kid frustrated with my education, taking independent studies with a genius from another era, who I just worked my way through synergetics with. I was faced with the proposition that if I can understand this, I'll understand the nature of the universe.

I tried, and I tried, and I tried, and it didn't make sense. Then I think about 2021, so many years later, 20 years later, it sort of happened. It was a two-week period where I had this transcendental experience where I couldn't perceive the fundamental nature of reality. Everything—all of this stuff just sort of clicks. And so that's how we work across the scale.

The other part of it was working on the Ghana Pavilion. I wrote a text as part of a presidential commission to deliver a report to the president of Ghana, which mapped out a future for all of the country's museums, monuments, and then for the first time combined with national heritage. That chapter is called *FIPAM: Future in the Pan-African Museum*. And both I think that text and all of the kind of research and thinking, and then the series of projects that came out of that, a series of exhibitions starting in France, Germany, and then to the Ghana Pavillion in Venice, and then to Dakar Biennale in Senegal—through that process, I had to learn more about traditional knowledge of design, technology and space in Ghana, West Africa, and ultimately in the context of Africa's entire history. This led me to understand that the constraint of Western ways of understanding reality is that it's a materialist view of reality. Architecture is focused on preparing people to work with physical things without fully understanding the ways in which the non-physical reality influences the physical. So, in response to your question of how to keep things connected to the human at various scales, my answer is that actually, the way to do it is to not overly focus on the human but to actually try to

focus on life. Because the life force is present at all scales. ☘ But the life force expresses differently at every scale and every entity, or let's say groups of entities or types of entities, engage with the life force in a different way as well. So if you want, as an architect or a designer, to try and keep your spaces humane, you actually have to focus on design for life, which essentially means you have to think not in purely material or physical terms, but also spiritual ones. ☘

**[D39]** The theme of this volume *[dis]positions*, asks us to reconsider where architecture stands, who and what it serves. **How do you see your own practice repositioning architecture from serving individual patrons to serving collective, planetary needs?**

**[DK]** For these questions, I know that you definitely have flipped around the internet and looked at our work because you are speaking to the heart of aspects of our practice.

**[D39]** We do our best.

**[DK]** Yeah, no, you did a good job. We gave a talk in 2021 at Princeton School of Architecture. And that talk we called it, "LOW is No." And mainly, we were pushing back against Bjarke's *Yes is More*. The earth has limited resources, and everyone now wants to focus on abundance. But we're just like, "No." And in that talk as well, we mentioned that we say "LOW is No." because it's hard, and I mean the more we say it, the more we're setting ourselves up for failure. We try our best to say no, like when it's a project where we feel like it's not ethical or when it's a project where we can't justify it. As architects, you're paid by the cost of a project. So when you give us more, it's supposed to be better

for you. And early on, people thought, "Oh, Low Design Office, that means they're low-cost, so it will be cheap." And we had to keep pushing back like, "No, we're not saying that—" first of all, that we're a discount firm or even necessarily that we'll just give you a cheap product. Definitely low-cost and even ultra-low cost is something that is of interest, particularly for me, because of Africa's future and the global south. And also just the whole world. But more than that, for us, lowness is not just about low cost, it's about efficiency and not wasting things.

So part of it, in terms of saying, "Low is No" or this idea of lowness, is just to say that if you can lower the barriers of access, then it can slowly, over time, recalibrate the profession of architecture and how the discipline functions in society. But you have to center that fundamental principle, the principle of lowness, which is why we call our firm Low Design Office and why we have continued to sort of push—and that's why it's also strange to see how now all of a sudden, it's been picked up. And we have co-conspirators. For example, Julia Watson, the landscape architect...

**[D39]** Right, yeah. Lo—TEK.

**[DK]** ...We worked in a studio with Teddy Cruz, who gave the Binda Lecture in the past and was my thesis co-advisor. Julia and I worked together in that class—we were in this group we called *Bionomics*. It was a model of focusing on the ecosystem as a kind of natural currency. I had previously been a travel writer for India and Nepal. I did all of the national parks, Meghalaya, and Tripura, and the Buddhist Trail. We had these conversations at that time about living trees and how amazing it was when I was up in these mountains, and these young,

...life force is  
present at  
all scales.

little kids are running up the Himalayas and showing you these trees that your great-grandfather—if you know them, but there are these trees where they train the roots as bridges across seasonal rivers.

**[D39]** Yeah.

**[DK]** So for me, lowness was an idea that emerged at that point, and we'd focused on centering it. It's not an aesthetic. It's not just like a principle, or it's not like minimalism as the way it looks or lowness purely as a principle. It's also an organizational or a logistical or even political paradigm, and we'd call that now—we've been more or less consolidating around open design. Some people have used this language of open-source architecture, ten years ago or so, trying to recreate Wikipedia or something for architecture. WikiHouse is a really good example in the UK, but we found open design to be something more useful. A more open way of thinking about it than "open-source". But it's a way of saying that we have to fundamentally rethink the way in which we handle design documentation. And if architects continue to see these instruments of service as their own personal pathway to revenue, then there is a disincentive to share. But at this point, we know from the research that sharing culture fosters innovation. So if architects from research labs at different universities, to corporate offices, to sole practitioners, to all of the companies caught up in the ADC industry. So, even builders and the companies—like the vendors that are making products that go into buildings—the more all of these people, companies, and organizations can share and collaborate, the greater there can be innovation.

Because we're destroying the planet, it's in our interest to maximize the acceleration of innovation if it's green innovation. And so that's why it's not like—to your question, it's not just about an idea, or an aesthetic, or just how we try to approach individual particular projects. But we have been

actually trying to develop—to put it simply—toolkits for building. That range from the scale of furniture to building scale, mega-structural building scale, and then even infrastructural scale. Which is why we have done the New Town in Nigeria, and then in Ghana, we called it New Township, which sounds odd, but in different contexts, it's different things. Once you understand the fractal relationships, then you can manipulate them at each scale. But you can do it in a way that's harmonious.

**[D39]** Right.

**[DK]** The one that's probably most well-known is the maker space platform that we've called *Spacecraft*. But actually, the *Spacecraft* is a much larger system of crafting space, which is what we exhibited at the last Venice Biennale. And then also the *fufuzela*—one's a mobile maker space, and one is a mobile museum, but ultimately we integrated them into a single system. It allows you to have a single coherent system that starts from the scale of one point and terminates at the scale of urban blocks.

**[D39]** There is a video of you speaking about the five-fold loop. In it, as a stand-in for something, you use points.

**[DK]** Definitely, we work a lot with loops, and we work a lot with circles. At tonight's lecture, I'll show images from a drawing that my former grad student—who is now doing his Ph.D. at Yale—did for his Masters Degree at Penn State, where he listened—much like you guys—for several years. At the end of it, he made a series of drawings where he drew and modeled basically all of the key molecular structures of life. From the salts that are in your body and all of the different sizes of the atoms and their atomic structures up to DNA, and then bacteria, archaea, algae, fungi—all kinds of plants and animals. He basically made a drawing of all of the scales of life to understand

what their key dimensions were, and then how those key dimensions fit with the next scale up. And in that one, everything is about circles. So he had all of these—because it's like you're going across so many different scales of magnitude, and so each drawing will tell you, "Yeah, in this circle, this is two nanometers. In this drawing, this is three angstroms. In this drawing, this is like two centimeters."

**[D39]** That's crazy. Scale.

**[DK]** And then everything just is like—everything is another drawing, but they're all structures at different scales.

**[D39]** Your work emphasizes co-creation rather than intervention. How do you approach entering a community space in a way that allows relationships, not outcomes, to lead the design process? What does it mean, in your experience, to earn the right to build somewhere?

**[DK]** Wow. I mean, this is why I have so much trouble in the world because [pauses]... Again, it's a simple question, but the last part is the most powerful. Part of the challenge that I am facing is how to communicate in a way that doesn't lose folks today. What I'd tell you: go work with communities to learn from them, but also try to give back and improve their lives. ♡ When you go in, you can't be arrogant and think that you have all of the solutions. You have to be humble, you have to listen, you have to be open, you have to communicate well, and you have to be consistent to the best of your ability. We did a New Town in Nigeria, where I lived for several years off-grid in what we called *the bush* with the indigenous community of people living on their traditional land according to their traditional belief systems, all of the traditional cultural modalities fully intact. Igbo land is a Republican culture that goes back to the precolonial era.



My father's from Ghana, my mom's from the US—before I joined the faculty at Penn State, I had been living between Ghana and Nigeria for ten years. In any village, small town, or traditional community, you encounter a traditional belief system. It's not unlike in this continent—the belief systems that still exist within Native American cultures. We like to categorize now—modern versus Indigenous. Everyone is being taught the requisite for the design professions from a Western framework of modernity. But it glosses over the fact that there are still billions of people who don't fully subscribe to this model of modernity, and who still subscribe to models of indigeneity. Which connects to your question because in these systems, you don't have the right to vote. You don't. Just because I'm a human, and you're a human, that doesn't mean we have the right to do anything. We have to ask for it. The land is divine. The land knows what is best. The land is in charge. And so if you go to the forest and you want to cut a tree—'resource' doesn't just mean that you get to just take what you want. It is a source of things that are alive, and you have to ask for permission. So if you kill something, you have to reconcile with the fact that you are engaging with a spirit. If you want to take something out of a place, you have to engage with that. So again, your question is simple, but what I learned in this work is that actually, we don't have any of this right. And that's one of the fatal flaws of the profession—everyone assumes that you have the right and the only thing you have to worry about is legality and code. But in those models, there is no space for asking permission from the land or from the forest.

*Go work with communities to learn from them, but also try to give back and improve their lives.*

*...my issue is that we don't ask for permission, but we should.*

But not everywhere. If you go to Japan and someone builds a traditional house, even before they process the wood, there will be a Shinto priest who will bless the tree. The tree is recognized as a living being, and at every point in the process, the spirit of the forest and the tree is recognized. The conglomeration of all of these entities to produce the space that is meant to become the home—all of these things are understood as having activities on other planes of existence. The same thing exists if you're following certain practices in parts of India, or definitely in parts of Africa, where people are still following traditional systems. So yeah, my issue is that we don't ask for permission, but we should.

✘ Definitely with the communities that we're engaged in. But you'll find that the closer those communities are to the land, the more likely it will be that those communities themselves are also asking permission, but asking permission from nature itself. You also have a responsibility to yourself to learn and evolve not just in terms of knowledge of calculus, but your understanding of yourself and how you fit into the universe. I think when you go to engage, the trick for myself or with teaching, or when you study abroad or you do an engagement, everyone is so focused on "what is the goal, what is the outcome, what are the outputs, what are the deliverables." All of those things are real and important, but they're less important than what you gain.

So I think my advice is that when you go and you engage with a community, the thing about humans is that we don't

need words to communicate. Everyone can sense your true intention. ☘

So if you go and say, "Look, maybe I'm trained as an architect. I am here. I would love to try to help you guys deal with flooding or whatnot. But really, to be honest, I don't know about your culture, and I want to learn about it. And if there is a way that, with my knowledge, I can help you solve a problem, that would be great. But really, I'm also here to learn." That version of putting yourself below them usually is the guaranteed passport to them opening up. And again, beyond words, they're going to trust your actions and your heart. Because if they, through their own intuitive sense, feel that your actions are not true, or your heart is not true, regardless of what you say or how you try to bribe them, they will not open up their inner knowledge with you. Because over many, many occasions, they have been led to believe that you cannot trust outsiders. There's no reason to trust you. There's no reason to share their cultural secrets with you just so you can write a paper or get an A.

*Everyone  
can sense  
your true  
intention.*

**[D39] How do you translate the work we do as architects into a common language, so communities can have agency both during the design process and afterwards? How do you ease the process of carrying the work forward when you're no longer immediately present? Especially when you're at a distance having offered a 'toolkit' or framework that is customizable.**

**[DK]** One of the projects we installed was called the maker space project, called *Agbogbloshi Maker Space Platform*, and we had what we called "the ample mantra". Principle zero is "cleanliness is next to godliness." The first principle is "safety first." And the second principle was "production is power." And

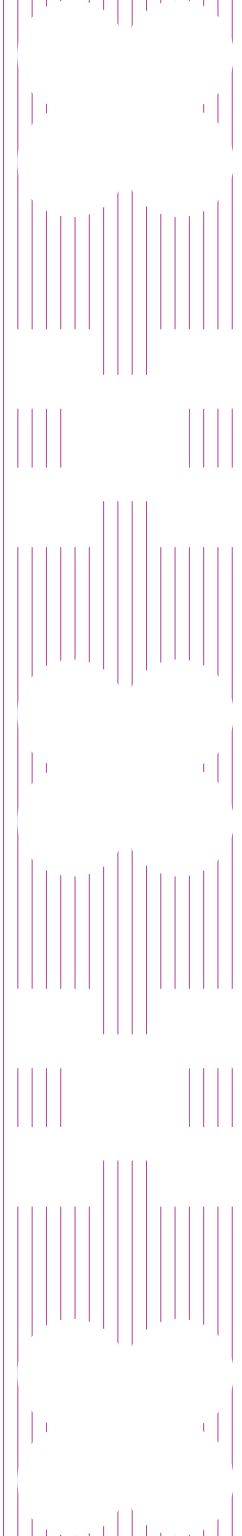
we did that specifically because oftentimes the saying is "knowledge is power." What I have come to believe is that actually it's true, but too often, especially when it comes to things like technology, people may have knowledge, but they don't have the capacity.

**[D39]** Right.

**[DK]** I might know how to do something, but I don't have a drill press, which I would need. There's a gap between knowing how to do it and being able to do the thing. In particular, I have to always give credit to Max Bond, who was previously at Columbia.

He wrote a very great text, which I can't remember the title of right now, but he would talk about, "As an architect, if you think about who builds your buildings, and you think about who you want to include in the process of building your buildings, then the materials you specify matter." He's saying if you have some high-tech design, you're going to have very highly specialized people who are making things.

To your question, in terms of our practice, LOWDO focuses on production. This is why our firm is a design-build firm. That was inspired by my mentor in Ghana—Alero Olympio—who pushed earth construction and sustainable eco-modernism before it was even remotely trendy in the context of West Africa. She would push this idea that you have to really think through who's going to make the building, designing the processes, programs and the projects that support *human infrastructure*—the social capacity of people to participate in making buildings. You have to design inclusive processes just as much as you have to design the form of the building or its layout. Which relates to the physical and meta-physical. Architecture is so focused on what the building looks like, and after they ask,





"Could we design this building to serve society better?" But it is completely overlooked that the building doesn't build itself. People build it.

**[D39]** How do you imagine the role of an architect evolving in a world where 'making' and 'repairing' become indistinguishable?

**[DK]** Mm, mm. These are great—all of this I take as fuel.

We have written an article about it before, named "Building a Transformal Makerspace Network," in *Architectural Design* magazine. In a nutshell, we used the word "transformal" to speak to what you're talking about—there is a formal and informal discourse. We've found that it's actually a very, very highly constrained discourse when people talk about formal versus informal. There is typically a gross oversimplification of what informal means. It's suggested to mean a lack of formality, when in reality, it's a counter-formality.

For us, "transformal" is a method in architecture that does not have to be either in one world or the other, but reinforces the translation between these things. We also often use the language "making loops" or "making as a cycle," because you make, you unmake, and you remake. When something can no longer be fixed or repaired, you have to recycle. You have to take things apart. It's part of the process. So, seeing that entirety as the thing, not like, "I have a thing and now it's over," it's hard in a discipline that focuses on form. That's why we use the word "transformal." You manage it by thinking through the full loop, beyond the static form.

**[D39]** Most of your projects hinge on nonformal economy and circular material systems, that's what you're working with in Ghana. How do you deal with this constant flux or temporal instability of buildings or materials, with architecture's

obsession with permanence? The instability of material and the permanence—how do you face that or how do you confront that in your practice?

**[DK]** The first part is that it's been a process. A model which I started with Yasmine Abbas—a French architect and urban purist—what she calls in French *les nouveaux nomades*—or in English, neo-nomads—essentially said, "We're all nomads now." Because in a way, your phone is like your home. You can like land almost anywhere, and you're kind of at home, but you just need like—I don't know—you have your latte, and you could be home away from home. She calls it specifically fluid space.

And so we have even talked about the scrap yard as a fluid space—everyone described this scrap yard as a place that was unknown. There are no images of it, and it is constantly changing. We did parametric modeling to understand its cartography. You have to have paradigms with dynamic modes of representation—you don't have to be constantly redrawing a map. We spent a really long time obsessing over what activities to map in the area. It gets very "what to map?" and then it was less about the fixity of specific locations but more about understanding the motion of these things. But you have to know what is held constant. So if things are in flux, you cannot make that flux legible until you know what the constants within the flexible are. We start with the parameter and diameter, and that dimension, right?

**[D39]** Yeah.

**[DK]** Then you know that you're in 2D space.

**[D39]** I love how these things fold up into a neat little box [laughs].

**[DK]** Exactly. That's your challenge—to make it work. Knowing how your parameters relate to

specific dimensions allows you to have a robust model of whatever problem space you're studying or design space you might be proposing. So essentially it's the short way of answering that, which is actually vastly more complex than most people are willing to deal with, is that architecture is built up on statics. In this model, you have to transition to dynamics. So you can no longer just say, "Here is the form of my building." You have to understand that here is the entire kind of pneumatic flow of that building and the kind of chemical, energetic lifecycle. So it means that instead of making one drawing or ten drawings, you do up to ten or 100.

**[D39]** We invite you to choose one project from Texas and one in Ghana that accentuate and highlight the different ways that your work translates across geographies, as well as the differing key challenges and concerns. How does your work in one place inform or challenge that other?

**[DK]** The first one that comes to my mind is a project called Mishpocha Woods. And that's one where we were like, "Okay, we have to start coming up with names for things." We called it *Extreme Design-Build* because we've done design-build, and design-build is a kind of common theme in our work. I mentioned my mentor Alero, the architect in Ghana, and her business cards always read "Alero Olympio, Architect and Builder." That was ingrained from the beginning. Oftentimes, clients don't necessarily want to pay for design, but they're always willing to pay for cement or iron rods because it feels like something tangible.

So [pauses] we called it *Extreme Design-Build* because in this case, we started out with Robyn, who is the client, and her husband, wanting to do a house. She got invested and was like, "This is kind of cool," and got really jazzed about it—she

became like a developer. Now her compound has five houses. And we just moved from our former office there. But that was an example where we were really interested in collaboration, but also one that plays with that hierarchy. It was like, here is the client who suddenly becomes a developer, and there we're working, and we would do very basic drawings, and they would go with that, and then make the building. It's a way of hacking affordability. It's funny because *The New York Times* only talked about our house when it was an article about houses with outdoor bathrooms. Or *Forbes* picked up this project because they were like, "Whoa. There's something going on in Austin. Have these people cracked affordability because there's a way that you can actually put five houses into a relatively compact site?" Where other people might tell you only one or maybe two, or an ADU. But it's not even just about that—it's the fact that ultimately that place is a community. And there are community gardens—Robyn has a fitness container where on Wednesdays, people from the neighborhood come, and they have their medicine balls, and they're doing yoga outside. And it's a *place*. The connection between that and the work in Ghana is if you think beyond just the building or the form, and you say, "Well, ultimately, you're trying to engage a place—a little piece of territory on earth." And that land is shared by a whole host of living beings. Sometimes, people, but also like Mishpocha, even the name of the compound, *Mishpocha Woods*, was designed around the trees. Because in Austin, you can't cut down any tree that is 14 inches or more in diameter. These were trees that had to be there. They also have shade, they make a cool micro-climate, and it's right next to a park. So the trees are as much the community as the people. And the dogs are as much a part of the community as the people, or maybe more *[laughs]*. They're the bosses. They're like the rulers. So yeah, I think in that sense it's very much inspired by the work in Ghana and Nigeria, where when you start

a project, you go first to the bamboo grove. The bamboo grove is a deity, and you tell the forest what you're hoping to do. "We want to build some houses in this place, and we're hoping to come in for a few months and take wood." You can't make demands, so you listen. This project evolved very much in dialogue. And even today, the trees are very active in that community.

*The Spacecraft*, which we have worked with hundreds—and in reality now it's a couple thousand—people from Europe, West Africa, North America. We've done at least half a dozen different modules of the Spacecraft in Ghana, Senegal, and we did a kind of spin-off in Florida. Eventually, we brought it to Austin, Texas. A shipper from Switzerland dumped it next to our office in a pile, and because life is busy, it was just sitting there. And then one of the residents in our community was walking past every day and saw this thing, and one day came into the office and was like, "Hey, you guys. This metal stuff, is it a stage?" And we were like, "Well, funny you asked. It was actually a Spacecraft. It's a kind of pop-up makerspace, but it's been used as a stage before." For the Dakar Biennale, we had performances in it. You could totally use it as a stage. And she's like, "Can I use it as a stage?" Long story short, she was a playwright. She saw this thing that had been made by informal sector makers in a scrapyard in Ghana, and could intuitively perceive potential in the pile of metal stuff that other people would say was scrap.

**[D39]** That's pretty amazing.

**[DK]** She then mobilized and organized the community with Robyn, and they had a whole theater festival—it's called *Mi Casa es Su Casa*. They organize plays, and when they saw this Spacecraft, they had a play in it for the festival. That play then inspired another use, and they later asked if they could take it on loan and they transported it, the same



community of local artists, and they transported it into a black box theater, and they viewed the brand-new performance that she had created. Humans don't need that much translation. We didn't tell her what the thing was—she just figured it out. She immediately intuited what the thing is about, which is that they can be portals to possibility, where it's a Spacecraft, because it's a space for crafting to make the thing that you want to make.

It's all intertwined. But we really see it as one community for developing these toolkits. It's not every project, but in some cases, there's a way that we can bracket off some little, tiny piece of it as a kind of experiment or prototype. Not one which is high-risk, but one where we can have a controlled experiment, and whatever lessons we learn from that, we fold those insights back into this longer-term co-creation process of developing open technology or open design—the technology as a kind of platform. So yeah, it's like, don't see each project as a one-off or as an individual thing, but see the actual project as the meta-project, which is why, for example, now we've gone from sort of doing houses to co-housing. It's the system of housing—it's our LOWDO system of adaptive housing that we're using to solve housing problems. It's all about framing.

**[D39]** Pun intended? *[DK laughs.]* Sorry, I don't know why I just said that.

**What kind of discourse in the field would you hope your work would inspire and what are your ambitions for the profession at large?**

**[DK]** Hm. I think when we started in school, effectively, Low Design Office, pushed this idea of low—which resonated with us because there was so much of a focus on high design and high art and culture that we felt like the value of our ways in which the high always bars from the low was not being adequately recognized. Now, having done it for all

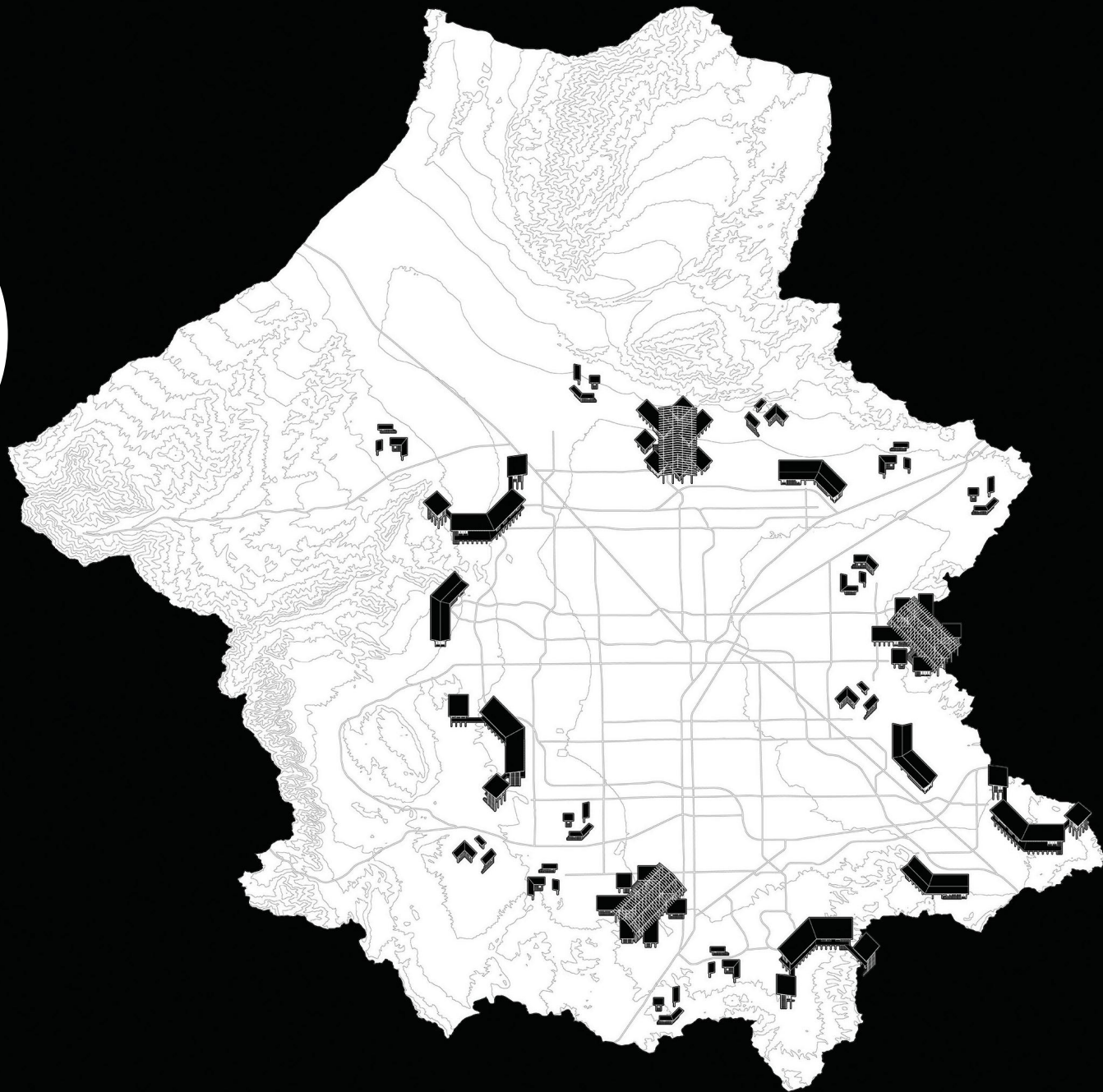
these years, we have not only the work, but also an ability to theorize our work, and then new work that we can iterate based on the previous theorization of the work. I definitely feel that I would want our efforts and our congregation towards the advancement of the idea of lowness—we would want that effort to not be glossed over in some ways. But it's always complex in this field because the stories are collectively written. Over this particular time period, where lowness has come back into discourse, there has been a correspondence between some of our actions. And so we also have a text I wrote called *Lowness*. So I would say lowness is a big part of it. I would say the other aspect is new work that we've been systematically trying to package, and that's what I called Spacecraft. And when I was talking in this very abstract language about the structure of the universe, there is a fundamental structure. And the number of, I'd say, maybe 10 or 15 or so groups that I know around the world that are all sort of like working on it. And so hopefully our contribution as we can continue to put these toolkits out there, can support—it's going to be a big transition. Buildings are going to switch from boxes to a very different structural language. I'm hoping that our work will have some legs or longevity to live into that emerging world of architecture.

**[D39]** Thank you so much.

**[DK]** Well, thank you guys for helping me do some dry runs of ideas for my lecture tonight.

104

104



APPROACHING OUR EDGES

# ECOTONAL IMAGINARIES

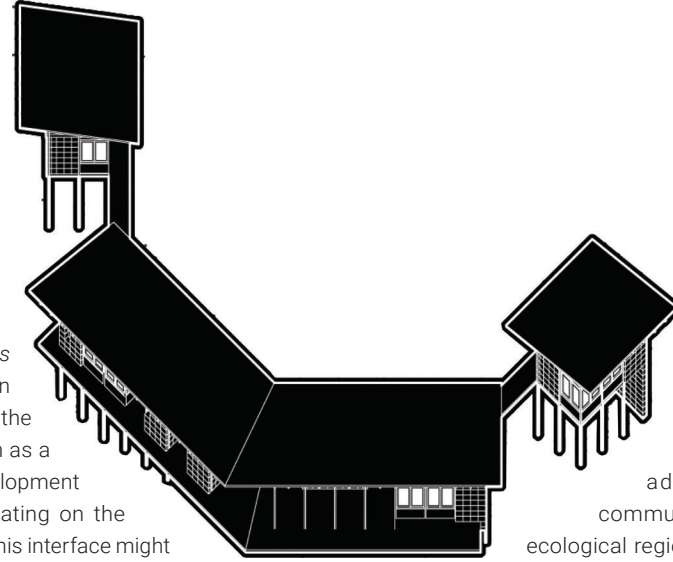




# Orli Schwartz

Thesis Advisor: Kathy Velikov

*Ecotonal Imaginaries* explores the ecologies in tension at the edges of the Las Vegas Valley region as a result of unbridled development and expansion, speculating on the emergent ecosystems this interface might help to shape or create. Coalescing around observed existing patterns and conditions of development to reconsider the shape and sensibility of the edges, a series of reconciliation typologies and their architectures emerge. These fragmentary propositions work to reframe the relationship between urban and desert systems at their shared boundaries, recasting them as places of inherent value in a way that incentivizes us to reconsider how we choose to push beyond them, how we care for them, and what might emerge when we do.



Drawing from ecology, the term *ecotone* describes a transitional area between two adjacent ecological communities, ecosystems, or ecological regions. The term is derived from the Greek term *tonos* or tension, combined with the word ecology. Altogether, *ecotone* signifies a place where ecologies are in tension.

Given this overlap, ecotones are usually zones of greater biodiversity, resulting in species richness, genetic variation, and more complexity in interactions within the system. Both adaptation and vulnerability are increased in these zones, making them valuable as indicators of the effects of climate change across local, regional, and global scales.

A new framework is required.

T

Co-opting this terminology and lens to examine the interface at the edges of development in the Las Vegas Valley region, *Ecotonal Imaginaries* catalogs and investigates conditions of rapid suburban development and expansion, infrastructure, extraction, production, and recreation, along with perceived natural, protected, or wild territories.

Colonial and imperial powers have historically portrayed arid lands as “empty” spaces.<sup>1</sup> This is not the reality: deserts contain a multitude of endemic species and carry out important ecological functions and services, including carbon capture, nutrient cycling in soil crusts, and cooling through albedo effects. Deserts defy many conventional notions of boundary-making, perpetuating the idea that continuous outward growth is possible. Despite urban development nearly reaching its current municipal limits, the region’s cities and developers continue to negotiate land transfer with the Bureau of Land Management to sprawl past these boundaries.



Field Guide Cards

## EVER EXPANDING BOUNDARIES

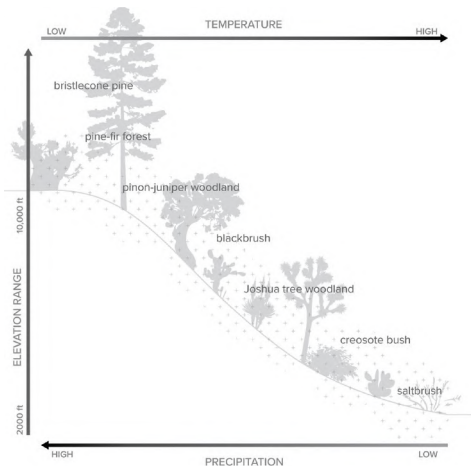
The Las Vegas Valley is one region of many, where examining how to approach our edges is essential to considering our potential future. Las Vegas was founded in 1905 as a small railroad town around a spring in the Mojave Desert. It has since expanded rapidly, especially in the past several decades, sprawling outward with suburban development and master-planned communities, transforming it into a major metropolitan area that covers the valley. Eighty-five percent of land in Nevada is federally owned, the highest percentage of any state in the US, with the Bureau of Land Management owning approximately 74 percent of that total.

Studying these expanding boundaries, I started to notice patterns in how they are configured across the landscape. On the *Arid Logics* Thesis Studio trip to Las Vegas in January 2025, I compiled a field guide of cards featuring key actors

and players within these zones, with the aim of prompting relational thinking about interactions and interdependencies across them.

Through this, primary categories of activities that take place within these edges were identified. Among these categories, human habitation encompasses the largest amount of space and impact, with a variety of forms of organization across the valley. Other uses of this space act primarily to expand or support habitation, including construction, education, recreation, extraction, production, and defense.

Mapping these uses across the valley allowed for the examination of their distribution in relation to one another, and the different ways they both react to and produce their own social and ecological contexts.

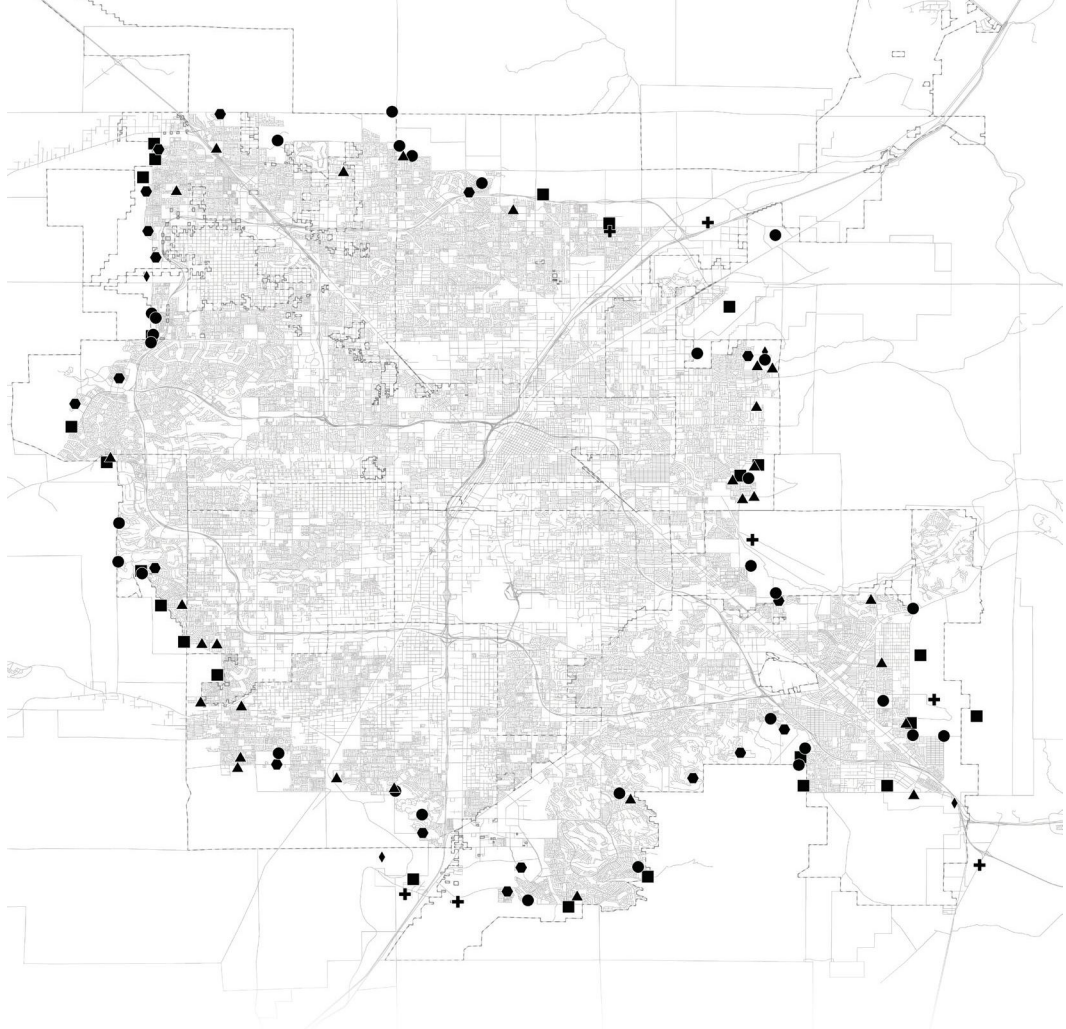


Mojave Desert Ecosystem Gradient

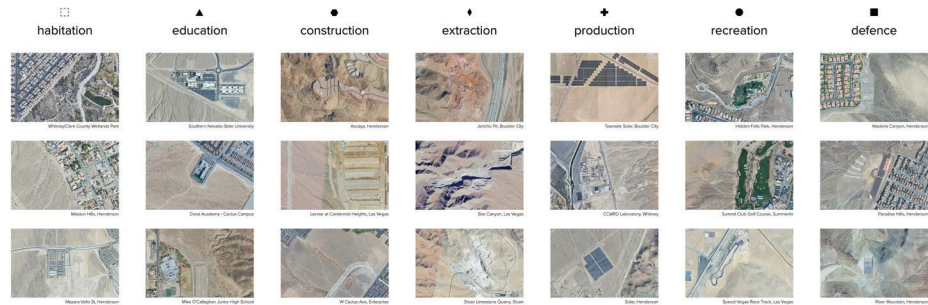


## RESEARCH AND OBSERVATION

After a deeper investigation into these patterns of use and growth, I drew transects that traversed these ecotones to represent specific instances and types of gradients, and began to identify areas of opportunity within them. There was much to observe—dead-end roads in master-planned communities butting into the desert, waiting for the next land acquisition and neighborhood to be constructed beyond; schools that jutted out into the desert and were boxed off by roads or fences; massive detention basins that sit empty, waiting for floods that come maybe once per year; and areas in more sparsely developed neighborhoods where the desert scrub extended into yards and vacant lots, among much more.

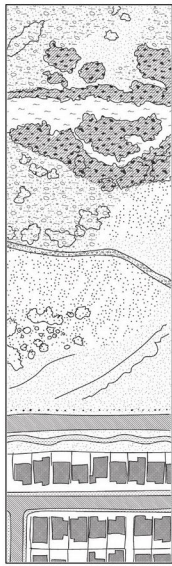


Edge Conditions Taxonomy

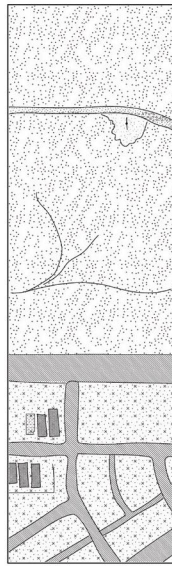




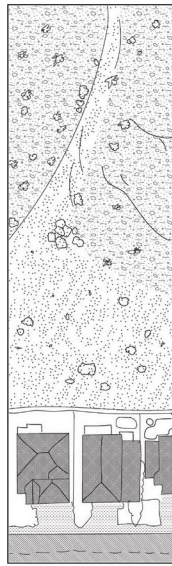
houses/desert/hills/houses/desert



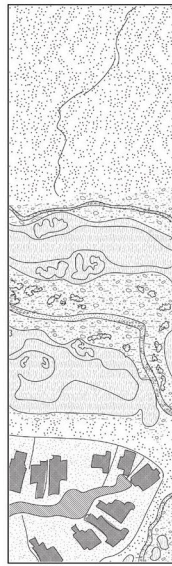
houses/fence/path/road/desert/wash



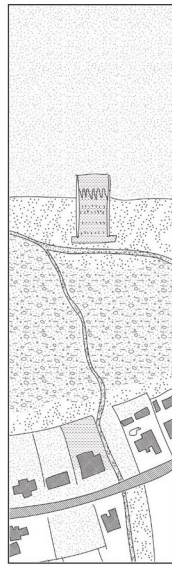
construction site/road/desert/trail/desert



road/houses/fence/desert



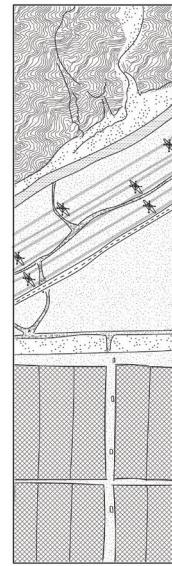
houses/golf course/trail/desert



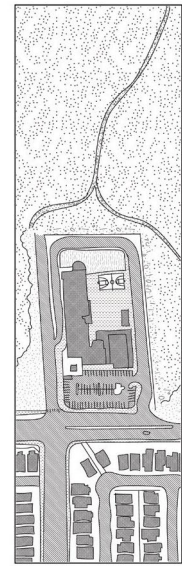
houses/trail/detention basin/desert



highway/road/path/mine/hills



solar/trail/desert/path/channel/hills



houses/road/institution/fence/desert/trail

Study Transects

*[...where uncertainty is so deeply entwined with our climate and social surroundings, Ecotonal Imaginaries rejects the imposition of a finished or complete urban scheme or vision.]*

## EDGE MAKING IN URBANISM

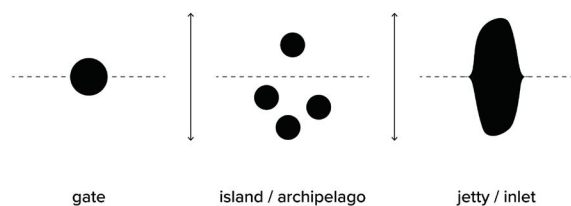
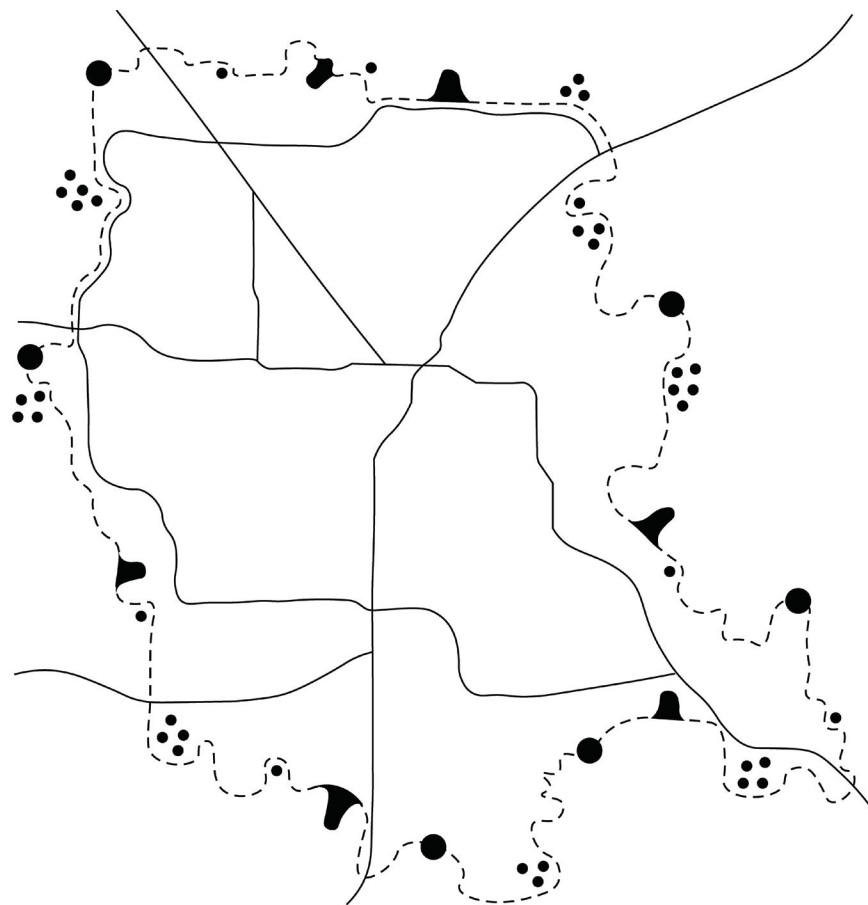
*Ecotonal Imaginaries* is situated among the various disciplinary conditions of edge-making in urbanism. On one end of the spectrum, Archizoom's *No-Stop City* dissolves the urban perimeter entirely, proposing continuous expansion across environment and territory—a weak urbanism with movable architectural objects. In conversation with this, on the other end of the spectrum, DOGMA's *Stop City* instead concentrates density into perimeter slabs, explicitly demarcating urbanization from “empty” space.

Looking to earlier urban theory, Patrick Geddes, the Scottish biologist and sociologist, describes the ideal regional-urban condition through a bioregionalist approach, stressing adaptation as a two-way process. The adaptation of local cultures to specific ecosystem conditions is an equally important and complementary process to the adaptation of ecosystems to their inhabitants. Along with this, Geddes emphasizes transdisciplinary education as a critical facet of urbanism and a prerequisite for informed civic participation and social and cultural change.

## THE FRAGMENTARY PROPOSITION

In the current context, where uncertainty is so deeply entwined with our climate and social surroundings, *Ecotonal Imaginaries* rejects the imposition of a finished or complete urban scheme or vision. Through fragmentary propositions, a network of urban and architectural interventions at the ecotone that coalesce around observed patterns of inhabitation and development aims to spur transformation in the way we relate to the land we inhabit, and the others we share it with.





Reconciliation Typologies Diagram

## RECONCILIATION TYPOLOGIES AND FRAGMENTARY ARCHITECTURES

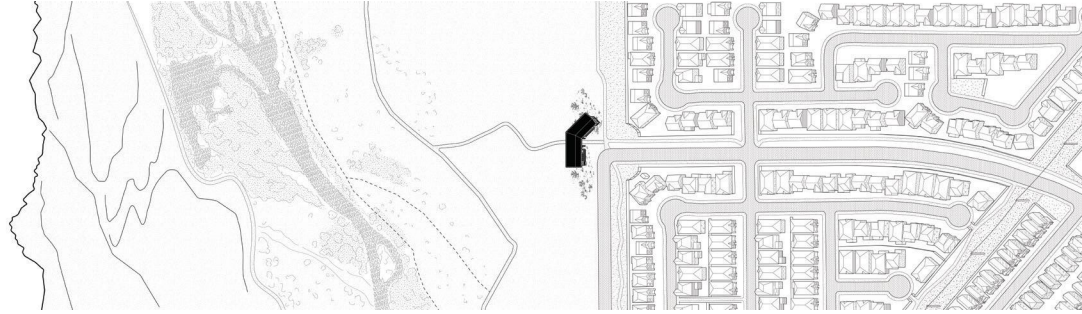
In order to speculate on architectures that can help to reframe the relationship we have with our edge zones—making them into places of being, negotiation, coming together, and reflection—a new framework is required. This framework considers what the overlap within these zones might provide each side, and how it can manifest spatially to consider both hyperlocal, community, and regional effects. Through a network of fragments across the valley, looking to principles of bioregionalism to reconsider the shape and sensibility of the edges, a series of reconciliation typologies emerge.

The jetty/inlet, the island/archipelago, and the gate are all sourced from existing patterns to develop new spatial and social relations across the ecotone. These typologies and their fragmentary architectures mediate the ecotone, acting as centers for stewardship, citizen science, research, education, and community.

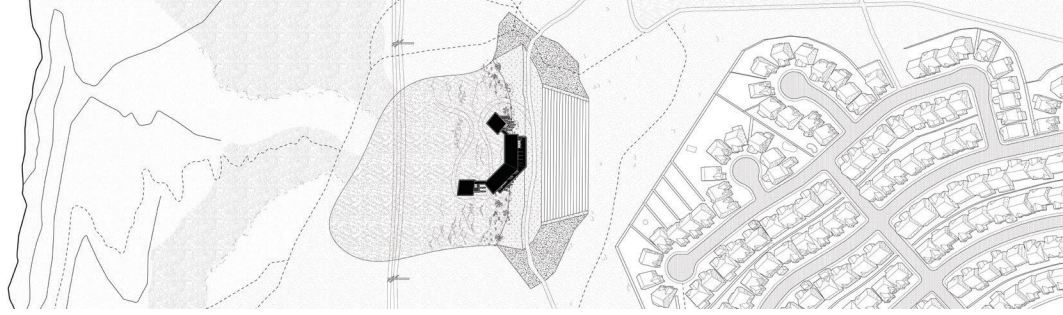
The spaces they foster are produced and reproduced through the habitation and practices they support. With neither fronts nor backs, the fragments sit lightly on the ground, with large overhangs to provide shade and direct rainfall, allowing for rest, habitat, and growth around, underneath, and between them. The fragments adjust with and for their sites, producing a loose fit between form and program.

**CROSSING**

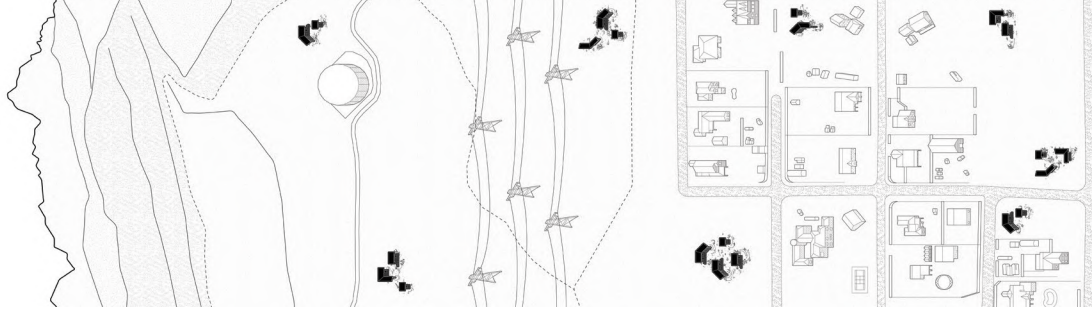
Taking advantage of dead-end conditions in master-planned neighborhoods, the *Crossing* marks the ecotone, acting as a service station across it and providing essential resources to support ecological balance and serve more-than-human needs. It marks the threshold, directing passage through it, with a canopy that opens outward towards both sides.

**BASIN**

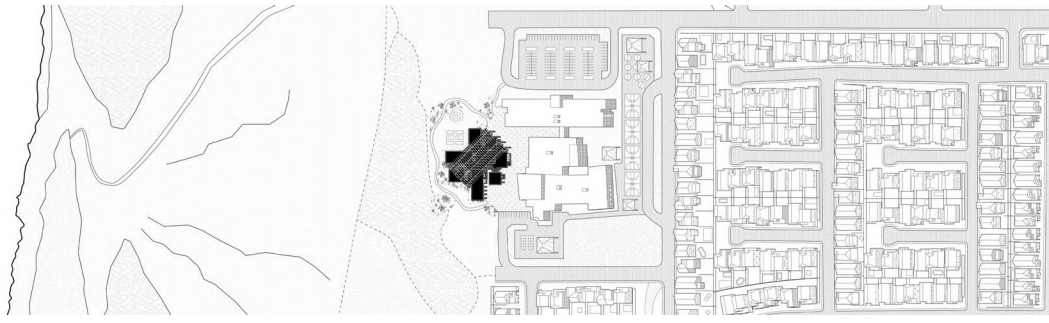
Repurposing existing detention basin infrastructure at the edges, the *Basin* supports research gardens for cultivation and stewardship of desert flora alongside desert-adapted crops, for the study of flooding and food resources across the ecotone, with residency spaces for artists and caretakers. Attached to the top of the basins and elevated on stilts above the floor, it sits above the water that fills the basin during occasional flash floods. Its roofs shed rainfall back down into the basin and provide shade to create a microclimate, taking advantage of the nutrients and seeds spread through flooding processes.

**OUTPOST**

The *Outpost* scatters small wall structures across vacant lots in more sparsely distributed neighborhoods and disturbed areas of desert as catalysts for vegetation growth to combat disturbed soils, erosion, and dust, and to provide windbreak and shade, and as sites for public art.

**FORUM**

The *Forum* takes advantage of the existing pattern of educational institutions situated at the edge zones to create a network of flexible indoor/outdoor classrooms and market space for community-based learning, for greater social and ecological connectivity, and an increased sense of place.



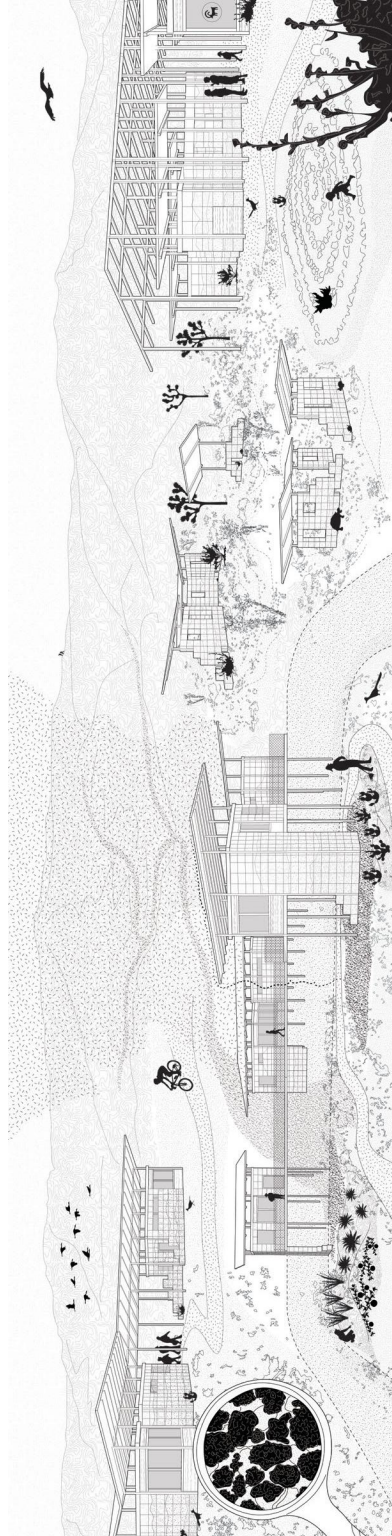


Together, these reconciliation typologies and their fragmentary architectures coalesce around observed existing patterns to work as mediators to reframe the relationship we have with our edge zones, recasting them as places of inherent value in a way that incentivizes us to reconsider how we choose to push beyond them, how we care for them, and what might emerge when we do.

1. Samia Henni, ed., *Deserts Are Not Empty* (Columbia Books on Architecture and the City, 2022).

Acknowledgments

J. Windom Kimsey, Kathy Velikov, Olaia Chivite Amigo





Nora Khan is an American art critic, curator, and writer whose work explores the intersection of artificial intelligence, digital media, and contemporary culture. Educated at Harvard University and the Iowa Writers' Workshop, she writes across fiction and critical theory, examining how technological systems shape perception, memory, and human experience. Khan has taught at institutions including UC Riverside and the Rhode Island School of Design, and has curated major exhibitions such as *Manual Override* at The Shed. She is recognized as a leading voice in the critical discourse around AI and art.

# NORA KHAN

**[D39]** What motivated your practice as you were starting out, and how has this changed and evolved over time, if at all?

**[NK]** My training and criticism were out of cultural theory, history, and literature, and it was a very traditional style where the paradigm for a critic was about mastery and domination and control *[laughs]*. Which there is a lot of analogs in architectural design and our practice as well. But writing specifically was about evaluation, framing, and containment. I think just for a big picture view, coming out of that and then starting to work with artists, designers, and engineers, I really had to shift my practice of writing from being individual to collective, because I couldn't do the practice alone. It has to be done—you need more than one kind of syntax and more than one kind of language. I would say I never really set out to be a technology critic *[laughs]*. It seemed like an accident at the time, but in retrospect were off roads that I needed to take. I think I have always been following a set of questions and curiosity about moments and our experiences with technology, systems, or games. I was a gamer from age six or seven and onward—like *Dungeon* games, *Doom*, and early computer games. That was always running underneath the academic life. And I was training to be a lawyer *[laughs]*, which is why I love debate and arguing so much. But, I just don't make any money from the practice of arguing *[laughing]*.

**[D39]** See, I just really love debating and arguing, but I never tried to be a lawyer.

**[NK]** Yeah! I think I was training in rhetoric and just hearing other people and their styles and positions. But, I am able to look back now as an adult to those early years of that curiosity, it was really about how systems are built, how systems are narrated, and how we live in the wake of systems that were designed either with us in mind or not with us in

mind at all *[laughs]*. I would say writing has always been a way to follow those questions. Being trained in one style, I was more interested in writing about many different things, whether that's games, AI, machines, love, politics, or history. I wanted to be able to follow that everywhere. Writing about technology and thinking about it critically has not just been about technological tools and their novelty, because these systems are designed to approximate cognition—how we feel and how we think. It actually becomes this medium or portal to write about everything; like love, belief, history, and all of these other things that maybe seem distant from the kind of cool futurity of tech, with capital T. This book that's coming out next year is a way to move from that kind of punitive style of critique to a more expansive style that actually moves with technology, which involves a pace that's beyond our ambition and our ability to track. I think I have always been drawn to writing about phenomena for which there is not a lot of language. And then for me, words are just a way to *[laughs]* wrap or try to approximate the limit to something that I can't really reach. My mom is a non-fiction writer, and she writes about women's rights and human rights cases in Bangladesh. My parents are from Bangladesh. But they met here in college. And my dad is a theoretical physicist, and he worked at NASA for 20 years. His work is what my next book is trying to trace; it's about how you get to an interest in systems and simulation in the future. And I was trying to trace in my own psyche and my own life story, like, "How did I even get there?" These are not the things that I was officially trained in, but worked my way toward. And my dad's early work and his early research are around simulating the effect of how gravity expands and contracts over time, so how does that affect materials, how does that affect the building of the space station, of the construction of space suits, or the construction of shuttles? He was part of the United States last planned attempt to put a person on



Mars, like on the moon [laughs]. But in the midst of all of that, they were coming out of a drastic war of independence from Pakistan, the Bangladesh-Pakistan war. So in this next book, I am trying to integrate things that had been really separate in my public practice, which is the experience of exile, of immigration, and of not being able to go back home—all of the history stored in the body. I want to be able to connect that intellectually with an interest in simulation in the future.

I understand now, looking back, that something I have also been interested in is the representation of consciousness in literature. How do you represent the inside of someone else's mind, or how do you represent two characters believing in one another? And that's a big part of what fiction, romance, and film is about. I realized that at the same time I was playing games and video games where it's the same questions, maybe it doesn't look as highbrow or maybe at the time wasn't taken as seriously, but is still with entire teams of people trying to build a believable world and so you as a player; how do you get a player through narrative, through game mechanics, through simulation, and through emulation? How do you get someone playing to believe in the inner lives of the characters that they're playing or being able to project themselves forward?

I think for a long time I saw training in literature and fiction and tech criticism, and I saw them as very separate. It's like, "Oh, these are not comparable." But now I can look back and make the links, and it's like, "Oh, it's actually been the same interest all along for me." How do you construct a world, and what do you put in that world to make it believable?  It's the same three [laughs] questions, and I think that continues into an interest in AI. I got my interest in artificial intelligence, machine learning, and all these bigger systems through an interest in chatbots and voice design. I would say one

other formative early moment was working at Harvard as a case study writer, which I saw as a job still—again—very separate from my real interest, which was just to be a writer. My job was to write case studies. So that's where I really think I started to train to be a critic, "With this hero narrative, there have to be other narratives, and there are so many other stories about how the internet was built by mostly communes of women in San Francisco who were building the first broadband networks. There are so many communal stories about how technology is developed, which have been replaced by these genius and master narratives. So that's why I started to meet a lot of feminist critics and women working in tech to think about alternative paradigms for the systems we have. And I realized there were other people curious and thinking like me, but maybe there wasn't a formal container for what we were doing? We just knew that things needed to be better.

*How do you construct a world, and what do you put in that world to make it believable?*

**[D39] On your website, you mentioned being deeply interested in computable knowledge. What does that mean to you? Why is it important?**

**[NK]** Well, I would say that in the vast push to compute everything, and I think this is most easily seen and understandable with AI models that train on all our media, all our writing, everything that anybody has ever made, it's kind of swallowing

up the entire world. I would say that in the push to compute everything, maybe it's just kind of an oppositional feeling [laughs] that I have for most things, but there has to be an alternative, and there have to be things that can't be computed. I think it was maybe started more as a kind of an inkling. It's like, "Not everything can be programmed. Not every element of experience can be trained into a model." I think that comes up over and over and over again in this glitch or these moments that we have with the large language model, where you're like, "Yes, it's echoing what I am teaching it, and it's echoing what I need to hear. But there's something else."

I guess most abstractly, that something else to me is what is incomputable, which is either a feeling of something truly understanding, and the way that when we speak, we have been trained—we have evolved to understand one another, and I believe that you understand me, and hopefully I am understandable to you. There is an embodied element to experience, which gets simplified into, "Well, you can never replace a human. You can never replace what it feels like to talk to a person" or the feeling of actually having worked on something, that friction that comes through when you are thinking something through, and wrestling between lots of different positions to come up with your own voice. That is something that is felt in your body, and it's felt in your mind. This emptiness feels [laughs] apart of our experience with AI, and that it's the endless mirror back to us of: what we want to hear at the moment.

When I think about incomputability, there was this symposium at Duke called *Incomputable Futures*, maybe five or six years ago. It was a number of scholars like Luciana Parisi, folks who are thinking about the kind of inhuman or alien logic of AI and of computation, which is designed to make us feel

like it's human-like, but its underlying paradigm is fundamentally of us. It doesn't care about us. It's not thinking about us. But we feel like it's close because it's been designed to feel like a companion, and you find this in the earliest chatbots like Eliza, who is this psychotherapist chatbot. I think I toggle between being 100% pro-humanities, but then also, when working with artists who work with systems, they do have a lot of emancipatory possibilities, interesting possibilities for design, architecture, art that we cannot predict. So it's all sides of the coin; it's not either/or.

Incomputability for me is what can't be captured through code, programming, and computation. It is my way to reclaim doubt *[laughs]* and the unknown or uncertainty. I think with any kind of claim towards certainty or knowledge, there has to be some doubt injected because nothing is perfectly known—having a lot of information is not the same as knowing. So incomputability for me is a way to kind of claim a territory for the unknown in our own experience that we can feel if we can't perfectly articulate what exactly it is yet. It's just something that in any conversation I have with people, they say, "It's missing something." And I guess incomputability is something to describe that something.

*What does it mean to have a machine that doesn't care about us?*

**[D39]** I read *Towards a Poetics of Artificial Superintelligence*. Which you wrote 10 years ago. I'm not going to lie, it gave me chills because it's scary. Particularly, how much of it actually came true within the past few years. In the text, you outlined the glossary of metaphors for artificial superintelligence that you've gathered based on literature situated around the topic—especially Nick Bostrom's texts. You mentioned in the essay that you believe as time goes on, you think that the glossary will continue to expand. **Knowing this massive boom that artificial intelligence has seen in the past few years, do you think that there is a new metaphor that you would add to it? And how does your hindsight impact how you've viewed the formulation of the glossary?**

**[NK]** Yeah, these are great questions. Thank you. And thanks for reading anything that I've done. I appreciate that. I wrote it in 2015, and I updated it in 2021. There were some crucial footnotes in the 2021 version—do you guys know a little bit about Nick Bostrom or who he is? He's at Oxford. He created this institute called the Future of Humanity, *[laughs]* which is—I can't imagine having the ego to just *[all laughing]* create. What's up with this entity? The Future of Humanity Institute. But Nick Bostrom, Curtis Yarvin, Nick Land. These are some pretty dark-sided thinkers, I would say, who are super influential in Silicon Valley. Like Peter Thiel and Elon Musk, they're obsessed with Nick Bostrom. As that became clearer on the political side, I have to emphasize that I do not agree with Nick Bostrom's political views, but for further context, he created this institute called the Future of Humanity. The Future of Humanity Institute is part of this movement called TESCREAL—an acronym. It's part of this futurist thinking that's very influential, in part because it outlines this kind of protoeugenicist vision of the future: the most intelligent people will survive. That perfecting artificial intelligence is part of this grand plan to perfect the human as well, and

that we are manifested in this perfected system that we have created. A big part of that is also about who is going to live into the future. So if you're not on board or you're not interested in technology, you're going to be left behind. So it's part of this economic imperative to make people fear, but it's also an economic argument. It is a very Western-focused argument. It's a very Silicon Valley-focused view of the world. So the more that I understood that that was the political side, it was hard for me to read his books. Superintelligence stripped of that political argument. Often, these theories about intelligence and the future of AI are presented without any kind of connection to the human. It's an abstract, intellectual argument. And for many, it is a thought experiment. It's, "What does it mean when the human is left behind? What does it mean to have a machine that doesn't care about us?" I think these are important thought experiments, but I have a materialist reading of the book. It's impossible to read this theory of intelligence without thinking about how it will affect human beings and their life signatures—the material implications. In hindsight, looking at the essay, I think there is a tone of awe for this looming, unknown thing on the horizon, and I think that comes through in my writing, where I did feel awed by the idea of what was to come. But over the 10 years that followed—I can't believe it's been 10 years—*[laughs]* if you just follow the natural outcome of the logic that's being laid out in the book to the end, then what is our goal going to be, how would we feel agency? What I would do now if I were to do a follow-up, and maybe—you guys are giving me an idea that maybe I should do a follow-up *[laughs]* for this—is I realized writing back then, I wrote about all of these outcomes as though they're inevitable. But it isn't inevitable because people make these systems, and they can be redesigned in other ways.

The first question *[laughs]* you asked about how the glossary could expand. I think latent space is a



really important metaphor that's used a lot in how artists describe the kind of bank of images that a model moves into, which is that a model is actually mining 100,000, a million, billions of images. It's mining the latent space of images because it's reading in a specific way to try and pull up an image that we would recognize as approximate. That latent space would be one. Another is a concept from K. Allado-McDowell, who founded the Artists + Machine Intelligence Group at Google. He's a very good friend, also an artist, and a musician. He has a concept called neural media, which is based on what neural networks are meant to do, which is to approximate the brain or capture cognition. From neural media, I think neuralism is a way to describe how we relate to these systems, which are kind of approximations of mind. I think asymptotes, or finding the limit of knowledge, of computation, that's another really good metaphor. Diffusion as in diffusion models that we use now. Carrier bags from Ursula K. Le Guin's, carrier bags theory of fiction. We define systems, and we define what goes into the bag of the system. Lucia Parisi's negative aesthetics or the negative aesthetic of AI. I'm using other people's metaphors, but I think the understanding, the inhuman alien, or negative aesthetic of artificial intelligence is a much better way to describe it. And then mirrors.

**[D39]** You wrote, "A human observes the hurricane of Artificial Superintelligence, which can only be prepared for, charted, tracked." Currently, I think we can all feel the hurricane looming—we're at a full-fledged warning, and now is the time to prepare. **How do we even begin to think about co-existence with this force in a way that doesn't feel apocalyptic?**

**[NK]** That's a very hard question *[laughing]* to answer because I think things are quite—

**[D39]** Apocalyptic?

*The city has a system, every neighborhood has a system, every block has a system...*

**[NK]** Mm-hm, mm-hm. But I am always looking for the light behind the cloud and the storm to clear. Do you have tornado sirens in Michigan?

**[D39]** Yeah, earlier this year, we had one in March.

**[NK]** It's a pretty intense sound. If you played the game Silent Hill, or maybe you've seen those films, that sound is put into the soundtrack because it's such a visceral reaction that we have. I remember when tornado sirens would go off in Iowa City. The city has a system, every neighborhood has a system, every block has a system,  and you could see people just clicking right into action. Looking back at that hurricane section, I reread that, for the first time, in a while recently. I was, "Wow. This is very dark." *[Some laugh]* This is very gothic, and very my style, too. I think in the years since, one scholar and thinker who has been really important for me is Amy Roundtree. She has this really amazing book called Computer Rhetoric, Simulation, and the Computational Imagination. She has a bunch of case studies on predictions of hurricanes, especially Hurricane Katrina, and the ways that the government's simulations that were put out actually hurt the disaster response because elements were left out. For example, the way water would affect buildings. There were simulations that showed that. But different government agencies were saying, "This is too scary for people to see. So let's just put out the water rising through New Orleans and going over the levees, but without any buildings in the maps." So that people couldn't conceptualize it. They were watching, but they couldn't conceptualize themselves in relation to it. I really appreciate this question because I hadn't made this connection until now *[laughs]*. Because people weren't able to see themselves in it, they couldn't act in relation to it. They're thinking, "It's not going to happen to me." But they should—they

have done many tests since, with different groups of more accurate simulations that showed the dam failing. That affected how the emergency response said they would respond to it. So the emergency response didn't react fast enough because they couldn't see it, since they were running based on this inaccurate official simulation.

The better we can track something, the better we know something, the better we can trace it, the more we can organize our response to it. I think we're right in this moment at this moment of either being, "I don't want to think about this. I'm going to block it out. It's too big." You can prepare better, I think, for what is coming, the better you can simulate it. So that is the other side of technology that I very much believe in—that we developed these systems so we can track what is hard to see, so we can track natural disasters, or big movements—whether it's technological or natural—so we can prepare a disaster response.

**[D39]** Students in this building, across both Taubman and STAMPS, have taken very overt positions either for or against the use of AI in art and design. On one hand, we have groups of students who have embraced this new wave and have embedded the use of AI casually into their own practice. And on the other hand, we have students who will just utterly reject it, due to ethical questions around emissions, extractivism, and the question of authorship, and human replacement. **How would you respond to each camp, based on your own critical position—what would you advise each to consider?**

**[NK]** Mm. Such a good question. The first thing that comes to mind is my book *AI Art and the Stakes for Art Criticism*. After around 10 years of writing about artists who work with AI and machine learning, I feel that the way this binary you've both identified was also bleeding into my

thinking. I think that's a big part of what tech does. It works its way into your thinking, into your speech, into your structures of thought, even if you are a critic and are paying attention to things. It is not just an intellectual influence on us; it's psychological, it's on the level of our language, it's on the level of our neural pings. We're also unconsciously or subconsciously absorbing so much each day that we can't really trace it. And the question of information overload is another.

The crisis in the book—and the reason that it took two more years to finish than it should have—is that AI was really exploding onto the scene and on the big cultural landscape in 2022 or '23. There were these big image models like Stable Diffusion, Midjourney, and Dall-E. People are using them in their bedrooms, and it's no longer exclusively in the hold of a research lab somewhere with a very niche interest. I could start to see it in headlines, and you see a lot of the same questions over and over again. And for years, it's been the same questions about AI. It's, "What will happen to creativity? Can AI ever be as creative as a person? Could we ever compare an AI-generated novel to a human novel?" I started to think to myself, "I am too close to this, and I am saying things that I would normally be critical of." And part of it was this binary. It's either techno-pessimist—"Technology is hurting humanity. We need to get rid of it. Let's throw our computers into the sea and abandon this altogether." Or it's a techno-positivist, or optimist view—"Progress, the future, and the qualities of our lives are contingent on us understanding and embracing this technology." But our experience of technology is not either/or. It's not always negative and always positive. Even if we have lots of critiques about how the systems are designed, there are elements of our use that were unexpected, and they're unpredictable. There are ways our lives have changed in the last 10-15

years that we could not have predicted that one could call positive.

But I think the binary is a trap, which is what I am really trying to get to. It's the either/or that creates a kind of flat discussion that doesn't really account for all of the ways that technology affects us and is embedded in our lives. They're not just tools—it's often used as, "Oh, AI is just a tool." And if you're thinking about parametric design or the design of a space. It's just a tool that you deploy to use in a certain way. But it's a tool that's been trained on all of this data and also acts and learns on its own. So I think the tool question is a limited paradigm. So for me, criticism or being a critical thinker in the age of AI is about holding many conflicting positions. So it's about holding both the negative and positive insight, and then also finding something like a more nuanced set of terms to describe it. So if it is going to exist and we're going to continue to live with it, what are the ways that we're going to critique, use it critically, and use it in a way that always—that doesn't move us into being like a passive user. I think the designers of these technologies want us to be passive users. They don't want us to be putting grains of sand into the machine. But it's also not possible to opt out, even if you were to put your computer away and lock things away in a lockbox for the rest of your life and not use any tech again.. I go between being an optimist and a pessimist. Unfortunately, I feel like sometimes people's desire to push progress at the expense of people is almost inevitable. But yeah, there are people that exist like you, like us, like everybody in this building, who are trying to be critical. And so I think that optimism is really important.

**[D39]** The next set of questions are about curation. I've been thinking about your frequent reference to W. J. T. Mitchell's question, "What do pictures want?" the idea that pictures have desires, demands, needs, and appetites. I'm very curious how you personally understand this sentence.



**What does it mean for you in your own critical or curatorial work?**

**[NK]** Vis-à-vis that question from TJ Mitchell—when he wrote that book about 20 years ago, he was describing images and the way that we see images now. This was not related to AI at all. It was more about digital images. His theory was that images and pictures, and by extension, videos, media, pull on us. They have their own life, that they have a kind of aliveness. And there are a lot of critiques on Mitchell as well; I would say some sociologists would say, “Oh, he’s just projecting what we feel is aliveness onto an image.” But I think he made a theory that I thought was still very beautiful, moving, and important because images, the way that they circulate now, take on and accumulate so many different contexts, and the way that they’re

*We don’t experience an image as a painting on a wall in a museum anymore.*

dislocated. We don’t experience an image as a painting on a wall in a museum

anymore.  You open your feed, and you see some random image of an unknown origin. You start to ask: why am I looking at it, why did it reach me? There’s all of this other life behind images now that I think Mitchell, in his way, was predicting our current moment, which is that we are lost in—I mean, I feel lost *[laughs]* in this flood of visual media stimuli that you cannot contextualize and frame. You see an image that’s from a film, or from television, or it’s a screenshot, or it’s a meme; that image has other demands that it makes on you.

I go back to Mitchell with a core question: What do generative images and AI images want from us? They pull on us, they nudge us. If your algorithm knows you very well, as our algorithms know us very well, it’s pushing images and headlines in your view to make you feel a certain way, think a certain way, and move about your day in a certain way. It’s very different from a painting in a museum, which can move you, but isn’t meant to send you to your local coffee shop, or go sign up for a gym membership—or I don’t know—download Hinge and uninstall it. Whatever it is that it makes you do. Images now, they have other hands behind the frame that are pulling. My argument in the talk is that AI images are not really images. That they don’t just manipulate reality; they bypass it altogether, and they present this face of an image, the way a chatbot projects the voice of something that’s human for us to react to it as though, “Oh, this is something familiar. This is something I can analyze.” There are all of these other hands behind the image that are trying to use it to push you in a certain direction. I mean, it’s not a new argument or one that is particularly original, but I do think that there’s a continuation from Mitchell for AI images that they not only want—they push, they desire, they move us from behind the mask of what we see as a friendly image or a neutral image.

**[D39]** I feel my aesthetic taste when it comes to drawing is influenced by the images that I read every day.

**[NK]** Of course! I have this with my own students, too. It’s like there is such a push at SCI-Arc, which is also a very experimental studio kind of format. But even in experimental format, the students are looking at super polished, really seamless, really beautiful-looking pictures that are perfectly rendered. And then maybe not as much time as being put into, “What does it feel like to be in this building? What does a person actually need from

this space?” It’s like the humans left behind in favor of this gorgeous final result.

**[D39]** In media art, the process is very important, and many artists feel that their work cannot truly be seen without understanding how it was made. I’m curious about your later curation projects—**have you tried to unfilter the process within the exhibition itself?**

**[NK]** I find it impossible, and I think a lot of curators, museums, and exhibitions in working with artists who work with AI are using a system as a collaborator. Some artists are very much focused on the process to the point where the final work is maybe not as important. This is a very different kind of way of producing artwork. Some artists are focused on finding those interesting images that are produced through a model that they are training by hand. They create the entire data set. They are training the model over years and years and splitting it, and linking it, and chaining it to other models. So you have artists who have this kind of handcrafted, curated way of approaching collaboration with models in a way that’s not just about plugging in preset data. They are controlling every step of the process, and so their narration and story about how the image is made is very much about the story of the process. Which I think goes back to earlier conceptual art and performance art, like Fluxus or Dada, where there might not have been documentation of the performance at all. It was just something that you experienced in the room or not. What remains is the story of the instructions, how the space was designed, what I would think of as a kind of proto-algorithmic process—a set of instructions that you gave to a set of performers who then enact it in a way that you can predict. I see there being more analog in comparison with artists working with AI or ML, with those Fluxus and conceptual art titans. Computational poets like Allison Knowles ask pressing questions

through their work, like what happens when you're collaborating with a machine? How does it change your sense of creativity, what you think is beautiful, what you pay attention to, and what you direct other people to? As a curator, I find a lot of beauty in paying attention to that process and also telling the story of that process. So in curation, I would say it's very much part of the narrative or the didactic. It's part of the curatorial text. It's usually represented in the catalog.

My foundation is long interviews with artists where we talk—I will sit with them in their studio. I'll watch them train a model, and I'll look through their entire data set in order to write about their whole process. I want people to see everything that's behind the work. That is, if they're willing to share *[laughs]*. Most are very willing to share because people want to show the work and the time that they've put in—hundreds if not thousands of hours of training and selection. So they really want the process to be known as well, because they don't want people thinking that they've just had models spit out their art. It's a lot more complicated than that.

**[D39] Do you view the act of curation as a language in and of itself that you use to communicate your critical position to viewers? What relationship would you say your curation has to this question of language and communication, if at all? And what are the perceived stakes to you?**

**[NK]** I don't think there is any kind of neutral presentation of art, design, or architecture. To curate a show, whether it's with other people or on your own, you're making an argument. It is always a rhetorical argument. It's always a position. I try to be very clear about my position because I want feedback, I want debate. I am not interested in a curatorial frame that makes a big statement about something and doesn't let other people in. I want to do a show next year, for example, on the ways

our sense of memory is changing as we offload cognition, memory, and thinking to electronic devices: we have a different relationship to our own memory. I think about this a lot when thinking about the photo banks on our phones. We now have all of these moments and time that we don't really look at. Whenever you go through your phone bank, I look at images just like, "What is this? This isn't even important. Like I took a picture of like a corner of a building." And now I have to retrace, "Why did I take that within these, like, 100,000 photos?" There are artists exploring how our relationship to memory is changing and evolving. So I always think curation is an argument.

I have a really fond memory of this—my first exhibition, which was Manual Override at The Shed, was with five major artists. Three new commissions. Usually, I think about a visitor who doesn't care at all. That's my favorite kind of visitor to think about—someone who accidentally ended up there and thinks, "Oh, God. What is all of this?" And someone who hates technology, or is just totally indifferent. My hope is that through the argument and through the way that the works are designed and the spaces are designed, someone comes out with maybe a few more questions, or maybe their position has shifted a tiny bit where they can appreciate a process, even if it's not their style or not to their taste. I remember one visitor coming out of this exhibition, and there were a lot of people coming in and out, and he took the brochure and I don't think he knew who I was. There's no reason he should have. He looked me directly in the eyes and just dropped it in the trash. He was in front of two of the artists on the show—one of whom was Lynn Hershman Leeson, who is in her late 70s and was a pioneer feminist media artist—and she just started laughing because she thought it was so funny. And then I was like, "Oh, that is really funny." Because you can't predict how people will take work. Some people will have such strong opinions

about technology that even at its entry in art, they're like, "This is wrong. This shouldn't be here."

I remember a couple of visitors who came and had no prior experience with media art. They said: "How is any of this art made with technology art? It doesn't look like anything that reminds me—" because it was video work, it was a likely a foreign kind of experiential piece to them. It wasn't a moment for me to explain all of that to them, but it was a great question of, "Why is this art?" And I was thinking, "I love to hear that." Something that I assume is multi-media art, I think of artist film as art. A lot of people have strong opinions about what is art and what is not, so I am always thinking about a visitor who doesn't care or is indifferent. It's very enjoyable to me to—if not change their mind—get them to reconsider their preconceived notions.

**[D39]** You mentioned in a previous interview that you should pay attention to lost time. I was curious about how you confront stolen and quietly consumed pockets of time. **Have you found any strategy for maintaining a balance in your life, especially when social expectations and platform design make it so difficult?**

**[NK]** I think of the stolen pockets of time with a lot of grief, melancholy, and a sense of loss. *[All laugh.]* I think about this often whenever someone says, "Oh, I can't read a book from beginning to end." I hear that from a lot of people who are writers and scholars and are teaching. We're all supposed to be reading all of the time, but our method of reading, our practice of reading, has changed entirely. I think it's a really banal answer. But I like digital detoxing. I think it is very important to find ways in your day to consciously organize your engagement with media as much as possible to fight or resist algorithmic capture, which might just be about resetting your feeds, or maybe it's about deinstalling things for a certain period of time. It's important to really be



tracking how the hours in your day are passing, what is in your control, and what you are actually choosing to consume. I think that takes a long time because we've been trained into this automatic kind of response. It's a psychological and physical pull that we now have to confront. So I think you almost have to unlearn and really consciously have periods of detachment where you can reassess and think, "Am I looking at things I want to be looking at? Am I paying attention to what I want to be paying attention to, and what do I really want to be paying attention to?"

**[D39]** How do we begin to tackle the ethical questions, as they pertain to artificial intelligence, especially from the lenses of extractivism and environmental toll? On a personal level, even. How do you confront it?

**[NK]** Coming up with alternative local networks, you can train a data set to be community-owned. Holly Herndon and Mat Dryhurst are really good examples of two artists who have created a community source choral voice model where everyone in the dataset has agreed to be part of training this model. They own their voice, and they also profit from the use of the model the way that Holly and Mat have put it on. Part of their design of this local data model, 'smaller data set model' is what it's often called, is to address the environmental impact—to keep it contained. Wikipedia or Wikimedia are also great examples of community-owned massive data sets that many, many people lovingly annotate, change, and are continually looking at. There's full access to all of the data in Wikimedia, and Wikimedia fonts are a good example. I think of Wikipedia or Wikimedia as a great example of a community-owned dataset at a massive scale. It just took a really, really long time to build that. The AM models that we have now that are causing all of these catastrophic issues at breakneck speed are part of their billion-

trillion-dollar economic comparatives. You find big companies that control all of this data and all of these models, and their training, and the data centers. Of course, they want to make as much money as humanly possible, so of course, it's not going to be a slow process.

There are many community-oriented and less environmentally destructive ways to train models. Maybe they don't scale as quickly, but they can scale with time and care in a community. I would say that it is from the artist-led radical engineer side. There are so many people thinking about better ways to design AI who have the technical capacity, the ethos, ethics, and the moral core that are not just about making money and extraction. So I look to them.

I guess the other part of this question was about how to deal with it personally—the best answer right now is just not to forget, and with many disruptive systems, hold the entire system in view at once. With AI specifically, remember that the system is designed for you and not to see or even consider it. As Kate Crawford argues, AI is not artificial—it's not intelligent. It's human-made,  it's based on labor, it's based on the work of millions of people. So the more we kind of drag the human back into view, I think the more agency we can feel in relation.

**[D39]** Yeah, I'm going to walk out of this interview with a lot more hope, I feel *[all laughing]*, which is good. Thank you! We have one more for you: **What kind of discourse in the field would you hope your work would inspire, and what do you envision for the profession at large?**

**[NK]** Wow. Oh, wow. I mean, I would not be so arrogant as to answer first by saying that the discourse that I work in inspired discourse—any kind of discourse in the field. I would say I think of it more in terms of the classroom or my peers

around me. I think we talked about this earlier—whenever a debate or argument seems to be looping, or camps seem to be hardened to the point that they can't speak to each other, I would hope that my tendency to never really taking one side but trying to present all sides could be a model for discussion whenever things seem calcified into one or the other. I hope I am pushing for a multiplicity of views and that we have to hold all of these views and positions at once.

My ambitions for the profession at large are that criticism not be swallowed up by Claude or ChatGPT, there remain jobs, and that I stay employed *[laughs]*.

**[D39]** Yes. *[All laughing.]*

**[NK]** That's a big part of my ambition, and my profession is that I write myself into keeping a job.

**[D39]** We hope you enjoyed this as much as we have.

**[NK]** Oh, it was super fun.

...AI is not artificial—it's  
not intelligent.  
It's human-made...



*Cooking Sections investigates the systems that shape the world through food, tracing the spatial, ecological, and political legacies of extractivism. Founded by Daniel Fernández Pascual and Alon Schwabe in London in 2013. Utilizing site-responsive installations, performances, and video, their practice confronts the overlapping boundaries of art, architecture, ecology, and geopolitics.*

# COOKING SECTIONS

**[D39]** What motivated your practice when you were starting out, and how has this changed over time?

**[AS]** We started practicing together in 2013. We actually met during our studies at the Centre for Research Architecture at Goldsmiths and got very interested in how we could use food as a tool to understand landscapes and transformation. I think that was the beginning of our collaboration. Over the past decade or so, I have been using very different approaches and lenses to think deeply about these metabolic interactions, and how they shape the world and multiple bodies across multiple scales around the planet.

**[D39]** We have taken a particular interest in the salmon project. It's about color. I enjoy cooking, and I have noticed that more eggs come with carotenoids to appear more orange, in a way giving a false impression of being more nutritious and appealing. **Do you think this pursuit of color is influenced by social media aesthetics, advertising, or something else?**

**[AS]** I think we have to go to the origins of the story, which predates social media by many, many decades, even centuries. But I think that in the particular case of salmon, it's around the 1970s in Norway that people tried to farm the fish—until that point, salmon was mostly caught in the wild. And one of the things farmers very quickly saw is that when you farm salmon, if you don't feed it what it eats in the wild—meaning little shrimp and tiny lobsters and crustaceans—its flesh when you harvest it is grey. So basically all of the color, the carotenoids or astaxanthins, which is a particular substance that salmon accumulate in their flesh and make

their flesh pink, comes from different kinds of food they eat.

So then over the years, in the '70s, '80s, and very much so from the '90s onwards, salmon started to be fed artificial pigment—astaxanthin—because it would be very, very expensive to feed salmon with lobster and shrimp every day for their meals—right? From that moment, with the acceleration of the industrialization of fish and it becoming more popular and available, the color plays a certain role in our imagination. Salmon in the '80s and '90s might have been a fish that was quite expensive and only to be eaten on particular occasions, whereas today, you can eat salmon virtually everywhere—any café now in Ann Arbor is likely to have salmon on the breakfast menu. That proliferation makes it much more readily available and demands that the color become part of our cultural imagination. But that perhaps might be heightened by social media? I don't have the tools to say that particularly because it's not something we've studied, but I think it's the reason why salmon is this color now that many people think of as trendy. There is a very important book on salmon, *Salmon: A Red Herring*, by Esther Leslie. And she wrote this book called *Synthetic Worlds*. She goes back to the origins of the pharma industry and the chemical industry in Germany in the 1850s–1860s. They did not have colonies to extract natural pigments—they had to develop their own chemical replacements. This is how the aniline dye started. The development of all mega-pharmaceutical companies began with making artificial pigments all the way back in the '70s, another boom. At the beginning, it was from coal tar waste from coal mining. The '70s started with the waste from petrochemical industries and so on and so forth. So I think rather than starting with social media, I would go back to all centuries of extractivism and how that has been shaping the imagination of humans to want and desire color.

**[D39]** Yeah. It's like an illusion of abundance in a way? For what has been done with salmon.



**Do you perceive reconnecting people with the reality of artifice in color to be a design question? And if so, what do you think is the answer?**

**[AS]** It is definitely a design question, and this is how so much money is put on calibrating color in fish, meat, anything that we ingest, or in anything we see: in furniture, or the built environment at large. And yeah, the color industry is massive in that sense. So yes, I think for us it is precisely because it is a design question, and also how we are first aware of all of these interests. And second, how do we challenge those ways in which aesthetics are constructed.

**[DF]** I would also add that it's not just color. As you were speaking, another project that we are now developing is on the impact of pork megafarms. Pork industries also have much of their waste going into materials for the built environment. Everything around us probably has pork in it in some way or another. We are not aware of this crossing between these intensive food industries that are rendering all of this waste into something that is monetized, mainly building or design materials, and how this also creates aesthetic, perhaps going back to your point before of desirability for certain smooth surfaces, coatings, shapes that would otherwise not be possible without this pork waste. So yeah, it's understanding all of these dependencies. 

**[D39]** As artists, I am curious about how you choose your modes of expression, how you anticipate or reflect on the distance between your intention and audience interactions. For example, in your salmon project, you used different colored shapes projected on the 3D models. **Why did you choose this particular method of representation?**

**[AS]** I think with our practice, a lot of the work we do is how we translate the act of translation between various industrial extractives and natural processes

and how we bring people to bear witness to that, or be in contact with that. This act of reading the landscape or translating these various phenomena is something we put a lot of emphasis on. And I think the other part of it is the work we do is very site responsive and emerges out of a very particular context. This is the way we have developed the work of Cooking Sections over the years. With every installation, this question of "how does an audience come in contact with the subject matter or with the research" is a crucial question. And this act of staging is a very intentional process.

**[D39]** In a lot of ways you're embedding the experience as being a very important part of it. Like it's a physical, tactile experience.

**[AS]** Yes.

*...it's understanding all of these dependencies.*

**[D39]** That's really interesting. We have another question specifically on installations and exhibits. A lot of your work operates within architectural sensibility and language, but it resists permanence, which is typically a very critical consideration in our discipline. **Could you elaborate on the role of temporality in your work and why it's important?**

**[DF]** Well, what we do has very different formats, depending on each project. Sometimes they are projects that start with an exhibition installation as a commission from a cultural organization, but we also find ways of continuing that in time. So maybe even if it's not permanent in a space like an exhibition, there is a whole layer of other activities and programs that continue the work in multiple ways. In the case of the work we did in the Isle of

**We cannot draw binaries any more.**

Skye, for instance, there has been work going on for almost ten years now. *Climavore: On Tidal Zones* was very site specific to the coast there in these communities in the Isle of Skye. For several years, we have been working on the development of a new material that uses waste seashells that we have been collecting from restaurants on the island as a replacement for concrete. What we have been trying to do is crush the shells and develop a process that prevents them from going to the landfill. This can possibly initiate some material economies on the island. These would not be led by us—we started the work as something that can help people, architects, and builders on the island to empower them to take it a step forward, if they wish. We produced a series of murals over the past year using the waste seashell composite. There are only shells and water in the murals, so that is a different extent of permanence. The temporary condition is a layer that is trying to be infrastructural, in the sense of allowing for resources to have their own life.

**[D39]** Beyond design, how do you sustain impact after install?

**[DF]** Through collaborations with restaurants, or schools, or different kinds of resident groups to try to amplify the work in multiple formats.

**[D39]** Much of your work involves extensive research, yet you often choose to publish or present it outside of the museum context rather than fully visualizing the data within exhibitions. For example, in the Salmon project, you transform research into narrative rather than display. **Why did you choose this approach?**

**[AS]** I think for us, the work exists in many different ways and different facets. I don't think we necessarily see a distinction between the research phase, the exhibition phase, and the publication phase. We see our research process as a very important phase where we can bring different constituents and kinds of agents together into conversation. And then, an exhibition becomes a way to actualize that, or give that a certain shape and form, and then put it in the space for a particular amount of time. The publication is a way to further elaborate these ideas and reach a different type of audience. They make the work all together. It's not that the exhibition is more important—if you think about architecture from an expanded approach or from a research perspective, the building is not necessarily the culmination of the process, right? I think there are many ways in which a building continues to live, and how people interact with it. It's not just the physical form of something, but how it continues to change and elaborate into a multitude of experiences. 

**[D39]** How do you perceive joining an exhibition culture where many exhibitions only provide simplified summaries without giving the audience space to pause and reflect? **What are your thoughts on exhibition formats or modes of interaction that could encourage deeper engagement?**

**[DF]** Well, first, we do work a lot with museums, but we don't always understand exhibitions as something that happens within the museum itself. In the case of the Isle of Skye, as I was saying before,

it has many, many components. More recently, we did a piece for the Folkestone Triennial in England, which we named the *Ministry of Sewers*. That was a civic space, in the city, outside of the museum. Even if it was commissioned for a triennial—which happens all over the city—we found a venue that is not a museum. We then opened this space for people to complain about all of their grievances and collect all of the complaints regarding the raw sewage dumping that is happening constantly. So that the installation was remade with the identity of a ministry, taking expression from the actual ministries. We had ministers who were local activists, and every day there would be a different minister where you could book an appointment to complain, and bring testimonies and evidence of your grievances around how you've been impacted by raw sewage. Either skin rashes, or how it has affected your business, or your property. I think it was also partly fictional, and this was what we liked in the work that is also creating new platforms for civic engagement. And of course it was real because it was there. But yeah, whether it is a real ministry or not was an interesting question. For us, it was.

**[D39]** The *Ministry of Sewers* is interesting because it's literally embedded within the city, within an urban space, literally on the street. It's almost seamless. I think we ask these questions a lot because we're very critical of museums and galleries.

**As we all know, this is like a tale as old as time—what do galleries and museums choose to exhibit, what do they choose to conceal, what stories do they wish to tell, how do they frame things?** We had a conversation before on the role of curation as something that can highlight but also conceal.

*It's not just the physical form of something, but how it continues to change and elaborate into a multitude of experiences.*



**[DF]** I think over the years, we have perhaps moved a bit beyond the binaries of whether museums are good or bad because, we learned how to use the agency that some institutions may have. In the case of the salmon project, for instance, it was quite powerful in convincing the Tate to remove salmon from the menu of the four museums. Then it was the Tate who announced that they were removing salmon, not us removing salmon, which was much more interesting. Because then the museum itself had to deal with everything, like the salmon lobby and the letters that they were sending them, questioning, “Why are you doing this to our industry?” it is then also years in the marketing teams and PR teams to actually expand the agency of the project that we would otherwise not be able to do by ourselves. So every time I think it’s trying to—it’s not hijacking, but like trying to—

**[D39]** Play the power dynamic.

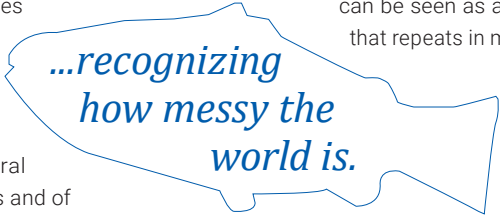
**[DF]** Yeah. Or also as a conversation, it’s like, “Okay. Can you do this?” And they were willing to take that on as a mission, and I think it worked out very well.

**[D39]** What we appreciate about your work, especially CLIMAVORE, is that it’s action-oriented. Beyond design, you establish a very actionable framework for food spaces all over the world to act within as a way to tangibly act towards environmental justice. Becoming CLIMAVORE is specifically what I am referencing. So in a lot of ways, our discipline is not caught up to the importance of connecting with and learning from others outside it, let alone working on responsible ways to design space that take the quest for justice seriously. **Where do you see architecture’s position in fortifying movements and struggles for environmental, social and food justice?**

**[AS]** I don’t think architecture could operate in any other way. I think building space and intervening in the landscape, despite us typically calling it the

built environment, we need to remember it’s always in direct connection to ecology and the natural environment, and the world at large. I don’t see how it could be done in a way that doesn’t take a stance. Right? Like building any material resource for any building has an ecological footprint and leaves its mark—whether the stone is quarried from somewhere; whether the glass is made out of sand; maybe all of the petrochemicals that are used to make every nook, and door, and screw, and window, and frame, to steel, and wood, and so on, and so on. I mean everything. So I think for me, then, it just becomes a question of: how can that be ignored? And how do we open up the conversation to just take these things as an integral part of the design process and of building an architecture as a practice? And I think that, in a way, this is what our practice is trying to do. It’s very much trying to think about the process. We use, in our case, the framework of metabolism to think about that. But that could be done with materials, it could be done with building techniques, with machinery, with everything.

**[D39]** When we talk about climate justice, but we’re not actually concerned with issues affecting marginalized communities all over the world, like genocide, mass extraction happening in the Congo, and all of these infrastructures of injustice that exist, then what are we really doing? One thing I really appreciate about you in your practice that’s not really common in our discipline is the fact that you’re very vocal about real things that are happening in the world that we have a role in as designers and as architects. This is a question about the buzzword trap of environmental justice. **What’s your response to that and how it’s been unfolding and manifesting in the discipline? And how do you make sure that you’re always putting**



...recognizing  
how messy the  
world is.

**your money where your mouth is and holding yourself accountable, but also allowing yourself to be held accountable by others?**

**[DF]** Yeah, it is a very difficult question. I would say that we are trying to be specific to a context. Environmental justice touches everything and everyone. How do you even begin? It can feel very daunting. The way we perhaps approach it in our practice is starting from a very specific case, place, or story and then trying to understand that context. And then people can draw conclusions on how that can be seen as a planetary condition, or whether that repeats in many other places or geographies.

In the way we work, we start from a very particular case, which is often helpful.

**[AS]** Another thing is just recognizing how messy the world is.  And how messy the times we live in are. And the fact that we cannot draw binaries anymore, right? And the fact that this idea of pure versus dirty, or clean versus dirty, or sustainable, or ecological versus polluting. These definitions, I think, we’re still trying to hold onto, and I think many disciplines are still trying to market. In reality, they do not exist. We live in a post-industrial world in the sense that everything—every corner of this planet is polluted.

**[DF]** Us included.

**[AS]** Us included. There is nothing pristine anymore. And this pollution, the air we breathe, the food we eat, and the buildings that we inhabit, they are intoxicating us constantly. And therefore, we are part of the problem, but we are also completely embedded in the ramifications and the consequences of that problem. And I think that gives a certain blurriness, which allows an approach that is finding ways and approximations

and *dispositions* of how to handle these situations, and how we can create responses that are not about a certain moral ground that we are trying to present, but are actually about how we act in the messiness of this world. And how do we respond to conflict? The conflict in the case of the genocide in Gaza is now a manifestation of a problem that has existed for more than 100 years. It's not something that is just *[snaps fingers]* erupts out of a vacuum and exists and is isolated to the here and now. No, it's something that has been brewing and something that has been unfolding. All of the global forces that see themselves as distant to it are completely embedded in it, and have completely laid the ground for that thing to happen. Even from a distance, we are always in great proximity to all of these issues. It becomes a very difficult question, and it's also a hard reality to inhabit, but I think it's a certain kind of consciousness or way of action that we have to grapple with in order to think of what the future lays ahead.

**[D39]** In your practice, you move between teaching and installation work. **Where do you see the gap between academic exploration and artistic practice? And how do you teach students to navigate and balance the freedom of academia with the reality of practice?**

**[DF]** We've been teaching now for almost ten years. I think the way we engage with pedagogy is pretty much trying to share things that we've learned ourselves, and perhaps we were not taught how to do, in terms of things like failures that you make, how you engage with people on the ground, or how to apply for grants, all these things. And I think the way we structure the projects of the students, which is a year-long—maybe it's different for here, probably—from October to June, one project.

*...the way we approach pedagogy is also trying to find tools for them to develop their own projects in the world.*

**[AS]** It's like a thesis project that runs for a whole year or a semester.

**[DF]** Yes. So they do the post-grad thesis for a whole year, and then I think, for instance, it's very important from the very beginning, not just for them to identify the topic they want to, or the site and there are no prescribed sites, but also how to engage with local stakeholders, activist groups, resident groups from the beginning. Because, in some cases, that has led them to start their own practice, which for us is very important. I think the way we approach pedagogy is also trying to find tools for them to develop their own projects in the world. *[fish icon]* I think the engagement—but to the point before—with very site-specific relations that can help in our experience or beliefs, to kick start conversations that might lead to a project over time. So to really use that year of the thesis to just start talking to these groups and understand what their struggles are and how from the skills that special practitioner might have. How can that contribute to what they are already doing? Sometimes very naturally that collaboration and exchange continues after graduation. So that's an opinion like a way to—there's no right or wrong or like a magic solution, but that has sometimes worked.

**[AS]** But also not only as I think as they need this and they need to be proactive about it in the same way that we need to be proactive ourselves in our own projects. We believe that part of that student

experience is also to identify, "Okay, if I am interested in this site that has *[whatever]* toxic pollution coming from a nuclear powerplant, who are the resident groups opposing that?

What are they demanding? Do they need someone to map how this toxicity is flowing?" And then finding gaps where the skills that people already have, people like you already have, might be huge for some of these groups when they don't even know how to perhaps open a topographic map. So yeah, to try and put those skills to the public.

**[AS]** And I also would just like to challenge the idea of the constraints of the real world versus the freedom of the academic world. And I think it's like—

**[DF]** It's all the same.

**[AS]** It's all the same. We're all subjected to the same kind of constraints. They manifest in different ways. And of course, the methodologies involved in being an academic might be different to those deployed by a practicing architect, for instance. Although I think that in the discipline of architecture, it's very common that academics are also practitioners and practitioners are academic. I don't think that distinction necessarily holds. But it's for us, it's—architecture is a very pedagogical discipline, and it's very much about learning how space is used, and how you teach people how to use space or how orientation space becomes a certain practice and experience. We really see this as an extension, and the practice is very pedagogical at its heart. Working with students is a very important part of the work. It's not two disparate things like, "On Tuesday, I put my professor hat on, and walk into the college. And on Wednesday, I am the artist." It's very much the same.

**[D39]** Working across disciplines often brings opportunities and challenges.

**Could you share what kinds of challenges you have encountered while working in such interdisciplinary contexts, and how you usually navigate or overcome them?**

**[DF]** A lot of challenges, yes *[all laugh]*. A lot of good things and a lot of very challenging things. One challenge for instance, in terms of expectations, is that you accumulate stories of research, and I guess this probably happens to you in your own projects, and then figuring out what you do with immense amounts of information and how to translate it into different formats. This is when it's important to have that conversation with different collaborators  because maybe someone has something in mind that is completely opposite to someone else's—in the sense of how all of that information will move to another stage of existence or visibility. I think that's also part of that translation process of turning research into something else. I would say.

**[D39]** Closing question. This is a question that we've consistently been asking everyone. And it's been yielding really interesting responses.

**[DF]** No pressure.

**[D39]** No pressure!

**[AS]** It might be a very boring answer—

**[D39]** It's literally one sentence, so don't expect that much. I feel like I'm over-hyping it. It's part of the game, I guess. **But...what are your ambitions for the profession at large *[all laughing]*?**  
The element of surprise!

*...it's important to have  
that conversation with  
different collaborators...*

*...what is the  
profession?*

**[DF]** Whoa! I think, well, maybe to pose the question back to you, it's like: What would you understand as the profession? Because it's something, for us, that we think a lot about. There are so many possibilities and such a wide range of formats and ways of working, ways of thinking of the profession that I'm not sure I can even call it a single profession. Did that make sense?

**[D39]** Yeah. Do you have thoughts on this, Alon?

**[AS]** I think that's a good closing thought—what is the profession? 

**[D39]** I mean, that's a very common theme of our interview, I think. Binaries—the idea of literally challenging binaries in everything we know, because nothing is as simple as it may seem. But yeah, the proposition to question what we know. I really appreciate that. Thank you.

**[AS]** You're welcome.

**[DF]** All right, yeah, thank you. Thank you for preparing.



# BORDERS





# Olaia Chivite Amigo

Architecture Fellow [2023–25]

*"The boundary is a model neighbor. Quiet, discreet, but always present."*

—US / CANADA International Boundary Commission<sup>1</sup>

Borders are more than lines on a map. Their methods of conception, ideological construction, and representation vary as much as the physical spaces, networks, and institutions they represent. Hidden beneath the apparent simplicity of a mapped line, borders operate simultaneously at multiple scales to influence and shape our physical world. But the edges of these lines are not static. Our physical world is also continuously reshaping our borders. Natural, political, economic, and social forces cause our borders to shift, bend, and evolve over time.<sup>2</sup>

The United States–Canada border (CAN | US) contains zones of negotiation and adaptation shaped by intertwined

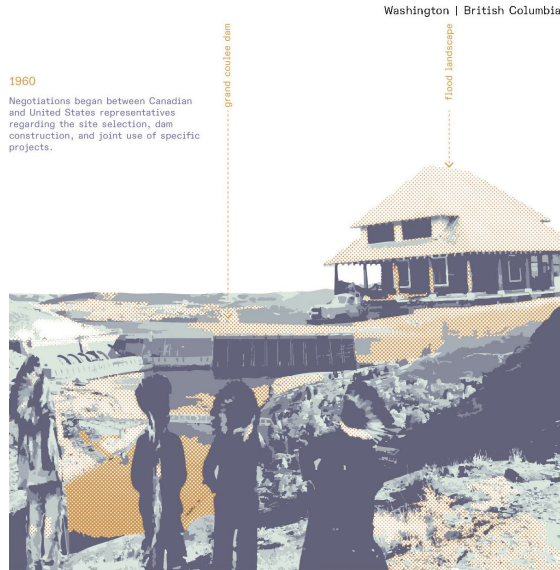
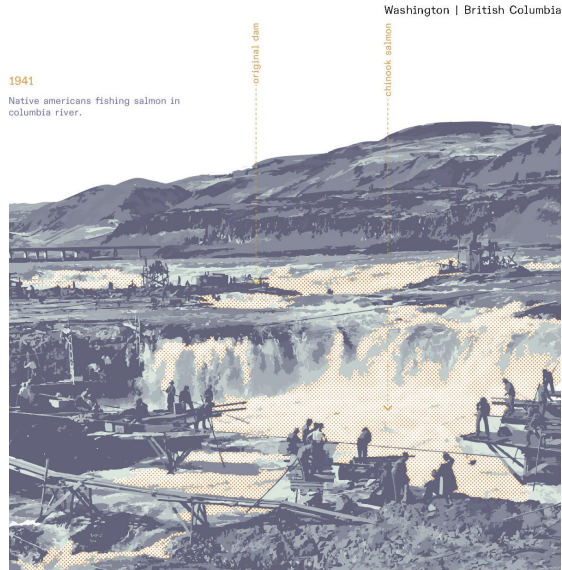
socio-political and environmental forces, despite its perception as a stable, unchanging demarcation.<sup>3</sup> This project investigates how the borderlands between the US and Canada have been physically produced through negotiations around resource extraction, environmental regulation, and systems of surveillance. These territorial dynamics are examined across six key regions of the contiguous border:

Logging Landscapes–Maine | New Brunswick  
Niagara Falls–New York | Ontario  
Urban Detroit and Windsor–Michigan | Ontario  
Boundary Waters and Quetico Park–Minnesota | Ontario  
Bakken Oil Fields–North Dakota | Saskatchewan  
Columbia River Basin–Washington | British Columbia

Each site tells its own story.







Together, these sites reveal the diverse ways in which borders are lived, enforced, contested, and redefined over time. Through mapping, historical analysis, and constructed narratives for each site, the project examines how the border is visualized, materialized, and experienced in the space surrounding the legal borderline. These sites also demonstrate that borderlands are fluid territorial systems shaped by representation and narrative as much as they are by geography and policy.

The continental scale of the boundary and its extensive territory present a unique challenge. The borderline moves through diverse and contrasting landscapes—it cuts through dense evergreen forests and glacier Great Lakes, spreading across expansive flatlands of the Great Plains, and eventually climbing the mountainous Rockies. The borderlands' spatial character is informed by three recurring themes: resource production, environmental regulation, and surveillance mechanisms. These themes are intended to provide a shared framework for comparison across sites. Although the themes remain constant, their

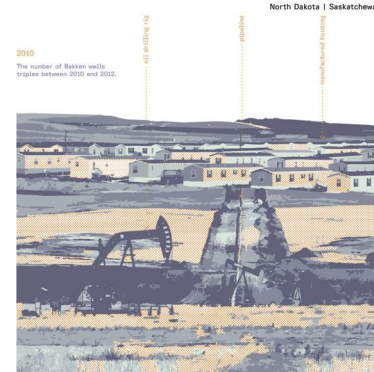
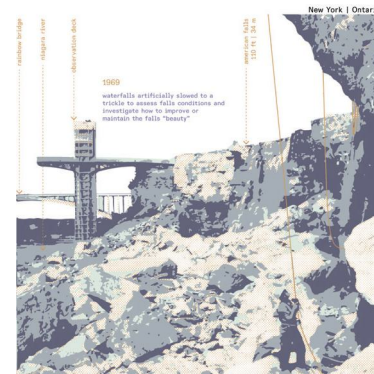
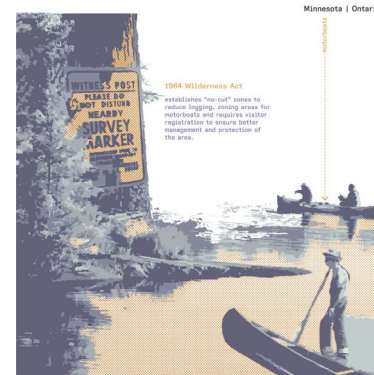
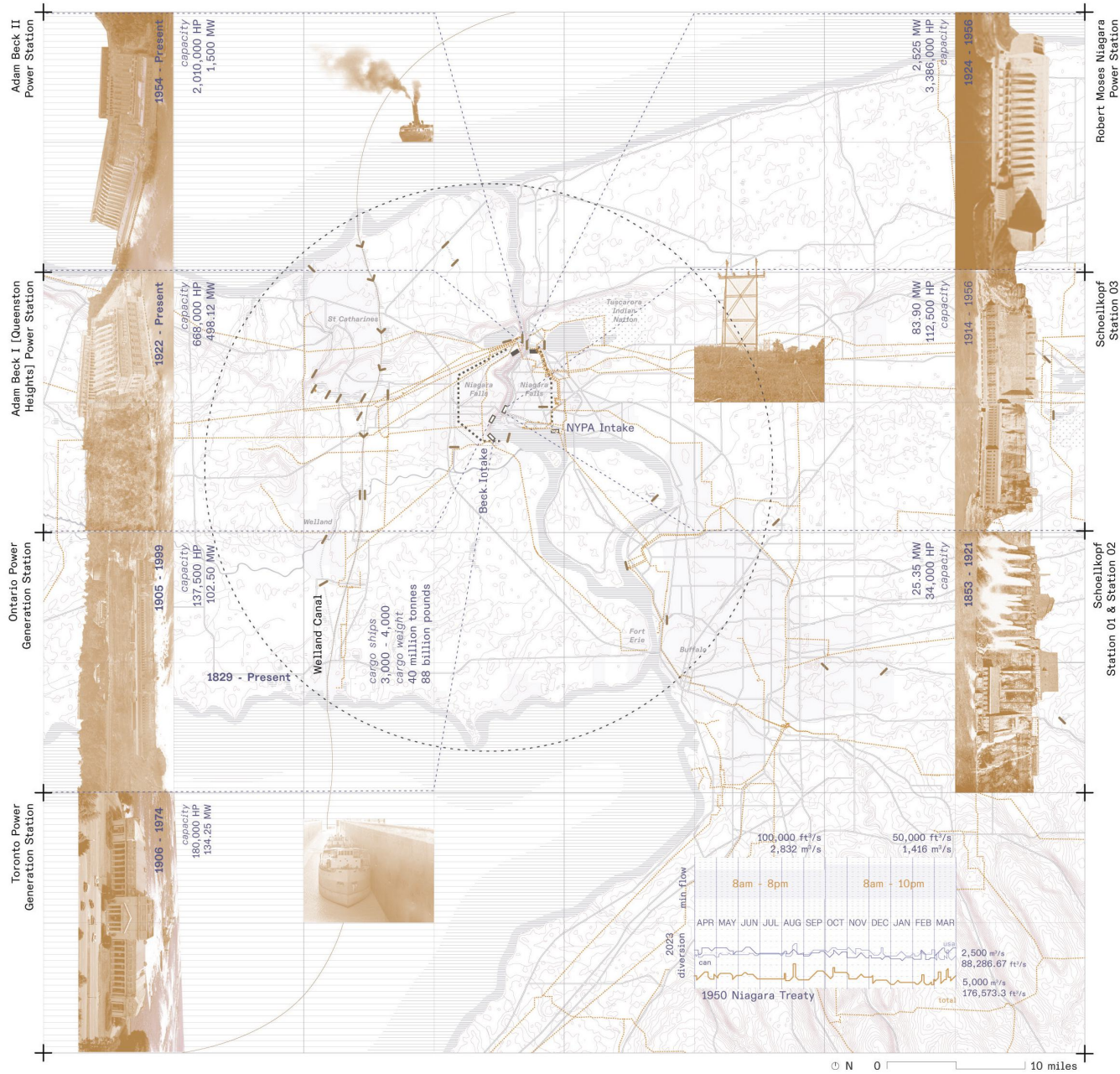
expressions within each landscape are shaped by regional dependencies on how land and resources are produced, managed, and distributed under tightly negotiated laws and trade agreements—including historical treaties regulating transboundary waters,<sup>4</sup> as well as contemporary trade regulations governing energy, manufacturing, and the environment<sup>5</sup>—resulting in site-specific idiosyncrasies.

Each site tells its own story regarding the ever-changing priorities and values of the US and Canada, both as a collective territory and as individual nations. The negotiations resulting from these changing values encode political and ecological pressures into each region's physical environment. Individual elements—such as a hydroelectric dam, a motion-sensor surveillance grid, or a wilderness management policy—reveal themselves as the components of larger territorial networks and systems. Actions and policies intended to improve or change one component of one system in one nation will inevitably affect other components of other systems in other nations.

BC

WA





Minnesota | Ontario

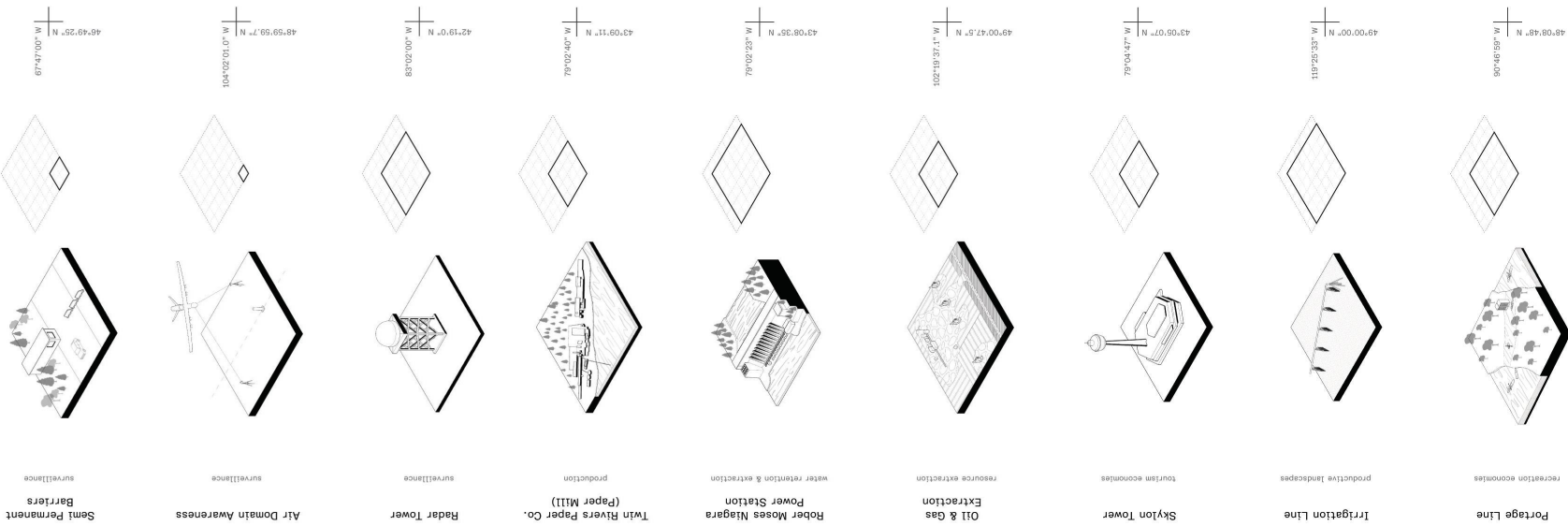
New York | Ontario

North Dakota | Saskatchewan

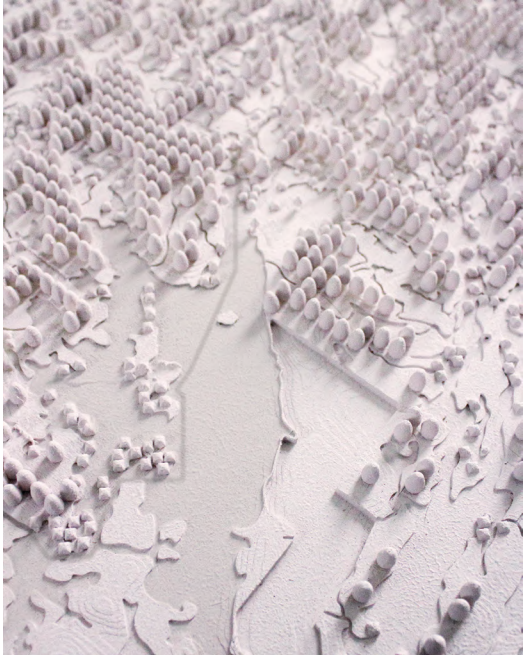
While the project and research continue to evolve, the exhibition provides a space to explore the narratives of the borderlands through representations of their nested interactions and relationships at the national, regional, and local scales. Designed as a 3D spatial atlas of sorts, the exhibition builds the CAN | US border into a space to be explored and inhabited. The components and themes for each site are documented through drawings and models at multiple scales and resolutions to provide frames of reference for the levels of influence and factors that highlight their underlying mechanisms of development and broader territorial consequences.

The drawings catalog key actors, highlighting their roles in shaping the narrative of each region within their respective historical context. The key actor components are mapped and scaled to make their regional impacts legible, supplemented with data and imagery that contextualizes their operations. The 3D models offer a way to re-present these territorial systems, nonuniformly amplifying their spatial and political significance. Large-scale prints showcase infrastructural and environmental elements—hydrological manipulations, extraction corridors, urban-industrial residues, ecological interruptions—intentionally scaled up or down to render their regional repercussions unmistakable. These components combine to emphasize continuities or disparities between the two nations, producing cross-boundary flows where they exist; thereby minimizing the importance of the border line. Individual components—surveillance towers, inspection stations, manufacturing sites, distribution channels, and protected wilderness zones form localized territories which are foregrounded in the small detailed models.

Working across multiple scales reveals how the Canada-US borderlands emerge and evolve as fluid spaces, rather than fixed lines. Overlapping territorial processes—extraction, regulation, surveillance, and conservation—continually shape one another, even as they operate at differing magnitudes. Micro-territorial interventions accumulate into broader geopolitical geographies, forming constellations connected by networks continually shifting through negotiation and design. Understanding these processes and the ways in which they are drawn, organized, and experienced allows us to see the borderlands beyond the rigidity of the line. Without the authority of that line, our mindset can also become more flexible to imagine how these territories might be reconfigured or renegotiated as sites of shared stewardship, negotiated coexistence, and evolving ecological responsibility.



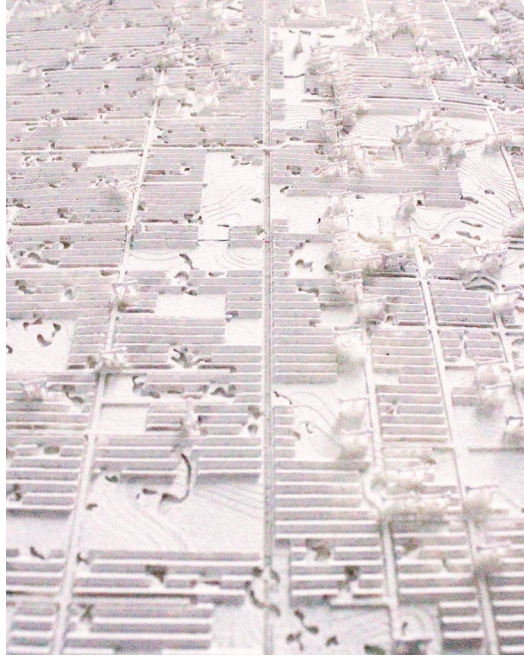




ON / MN



NB / ME



SK / ND



ON / NY

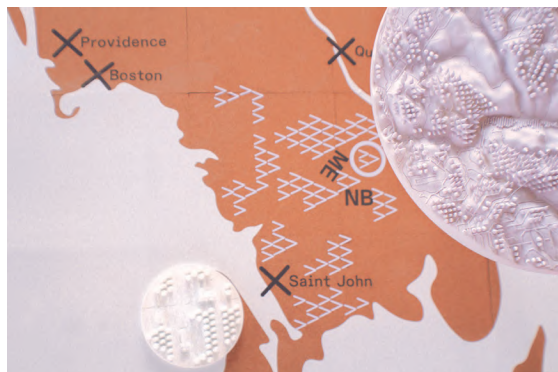


BC / WA



ON / MI





*[ Without the authority of that line, our  
mindset can also become more flexible... ]*



1. International Boundary Commission, "Living Near the Boundary." Accessed February 13, 2026, <https://www.internationalboundarycommission.org/en/the-boundary-and-you/living-near-boundary.php>.

2. Julian V. Minghi, "Boundary Studies In Political Geography," *Annals of the Association of American Geographers* 53, no. 3, (1963): 407-428, <https://doi.org/10.1111/j.1467-8306.1963.tb00457>.

3. David Stirrup and Jeffrey Orr, eds., "The Canada-US Border: Culture and Theory." Edinburgh University Press, 2024. JSTOR, <http://www.jstor.org/stable/10.3366/jj.9941204>.

4. Relevant transboundary water agreements include *The Boundary Waters Treaty of 1909*, *The 1950 Niagara Treaty*, and *The 1964 Columbia River Treaty*. See *International Joint Commission*, "Transboundary Waters | International Joint Commission." n.d. <https://www.ijc.org/en/transboundary-waters>.

5. For discussions of energy relations, see Andrew J. Stanley, "Mapping the U.S.-Canada Energy Relationship." Center for Strategic and International Studies, May 7, 2018. <https://www.csis.org/analysis/mapping-us-canada-energy-relationship>. For recent trade agreements, see Kyla H. Kitamura, "U.S. - Canada Trade Relations." *Congressional Research Service (CRS)*, 2025. December 5. <https://www.congress.gov/crs-product/IF12595>. For environmental agreements, see Mireille Pasos, "Agreement on Environmental Cooperation." Commission for Environmental Cooperation. N.d. <https://www.cec.org/about/agreement-on-environmental-cooperation/>.

#### Acknowledgments

This work was made possible through the generous conversations, support, and contributions of many people. I would like to express my gratitude to the partners who helped realize the exhibition: Michael Amidon, Ying Wang, Yingqi Cui and María Arquer de Alarcón, and to the students whose work in the accompanying seminar enriched this project: Saylor Allen, Haley Cope, Yingqi Cui, Yuchen Guo, Leah Kirssin, Larissa McCoy, Meghan McGrath, Ori Schwartz, Tiffani To, Varun Vashi, and Hui Zhu.

Photo Credits: Ying Wang





CON

**STRUCTURE, CONTROL, CLADDING**



# Ryan Ball

Architecture Fellow [2023–25]

The research for *Structure, Control, Cladding* focuses on issues of materiality, detailing, and performance embedded in methods of industrial production in architecture and the built environment. Particularly, this work is interested in the tectonic, environmental, and political consequences of the United States' adoption of the rainscreen. The work exhibited is titled *Structure, Control, Cladding* in reference to the basic assembly of Joseph Lstiburek's "perfect wall". I argue that the rainscreen's ideological separation of aesthetics and performance has had far-reaching consequences beyond just issues of tectonic legibility. In regard to thermal comfort, our reliance on HVAC not only promotes poor design choices but also renders the exterior homogeneous or



disconnected. That is, climate can be instrumentalized as a representational ideal of performance, not necessarily responsive to context, let alone the current existential crisis.

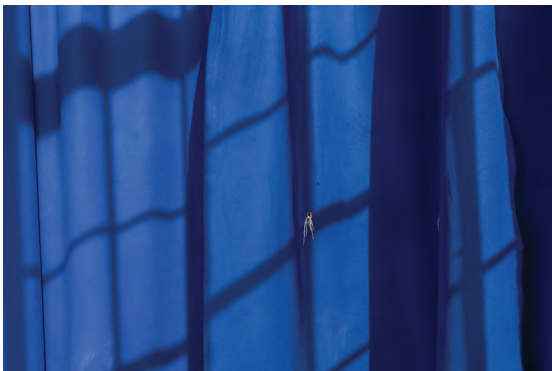
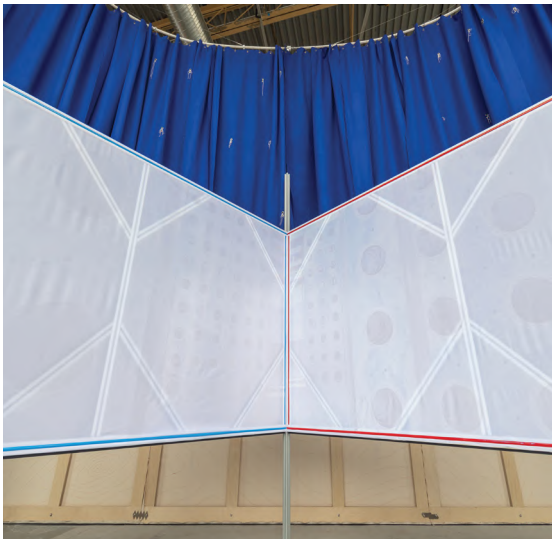
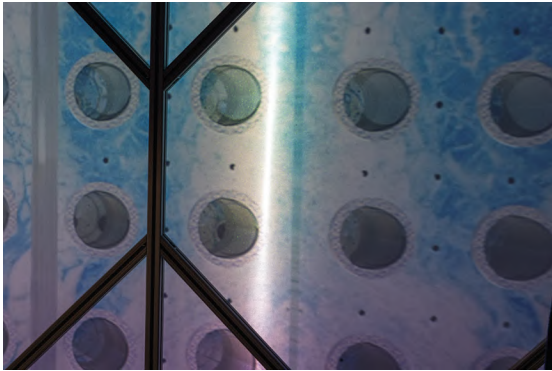
This shift to a representational materiality of architecture (and of climate) establishes a purposeful misreading, leaving an unresolved tension. Moreover, the rainscreen's function of separation makes invisible human and cultural issues, such as labor, care, repair, and maintenance. In this context—where many interrelated issues, such as increasing inequality, systemic racism, climate change, and housing unaffordability, among others, feel like a growing storm beyond the architect's

purview—the rainscreen offers a narrow and tightly controlled surface of investigation.

Climate should be treated as a material condition.

F





In my teaching and pedagogy, I seek to demystify the often unapproachable topic of building systems by leveraging participatory art practice techniques. This approach contrasts the techno-performative issues of climate and building science with the formal agendas of popular culture vernaculars and futurisms. Students and I have addressed the politics of building technology mainly by relegating tectonics to consumer culture and alienation, through detailing practices of building energy exchange, and questioning the architect's passive politics of promoting image-mapped finishes. In doing this, we have engaged with issues of capital, profit, imperialism, carbonization, race, gender, and environmental inequality through the work of architectural history and theory by Daniel Barber, Jiat-Hwee Chang, Dianne Harris, Philippe Rahm, and Naomi Klein, to name a few.

Architects, I believe, must address two core problems presented in the adoption of the rainscreen. First, to reposition the emergence of representational materials, their bias toward finish and cladding, and to update our lineage of details from antiquity to modernity to incorporate a new layered tectonic. Second, to embrace these layers to create legible, operable, and site-specific environmental control strategies which incorporate climate as a material condition capable of acknowledging the current crisis and embrace post-comfort design principles.

As the rainscreen is a relatively new innovation—having been widely adopted in the US over the past 20 or 30 years—it needs to be understood as a rapidly evolving system. A potential reading of the rainscreen would see its innovation pursue increasingly thin, combined layers—we already have ZIP panels, SIPs, and EIFS. If, as I argue, this flattening of material and its removal of function are evidence of a material transformation toward the digital, then what can physical materials learn from how digital ones are commonly produced? In my recent finishing seminar courses, I explored this question by asking students to compare the layers of the rainscreen (finish, structure, control, and cladding) with common physically based render maps (*color, reflectivity, surface relief, and transparency*) to develop a new expressive material tectonic of layers.

This is one reason why I choose to work with textiles. Being nearly infinitely flat and easily distorted, I believe they are the best approximation we have of a commonly accessible digital material. Paradoxically, for their formal similarities to the digital surface, they are one of the oldest material typologies we have, and one of the last modes of manufacturing to receive automation, with nearly all textiles worldwide sewn by hand. Additionally, the lineage of sewing details may best approximate the contemporary detailing challenge of the rainscreen, to conceal edges, create tight seams, keep water out, and conceal today's thin planar materials.

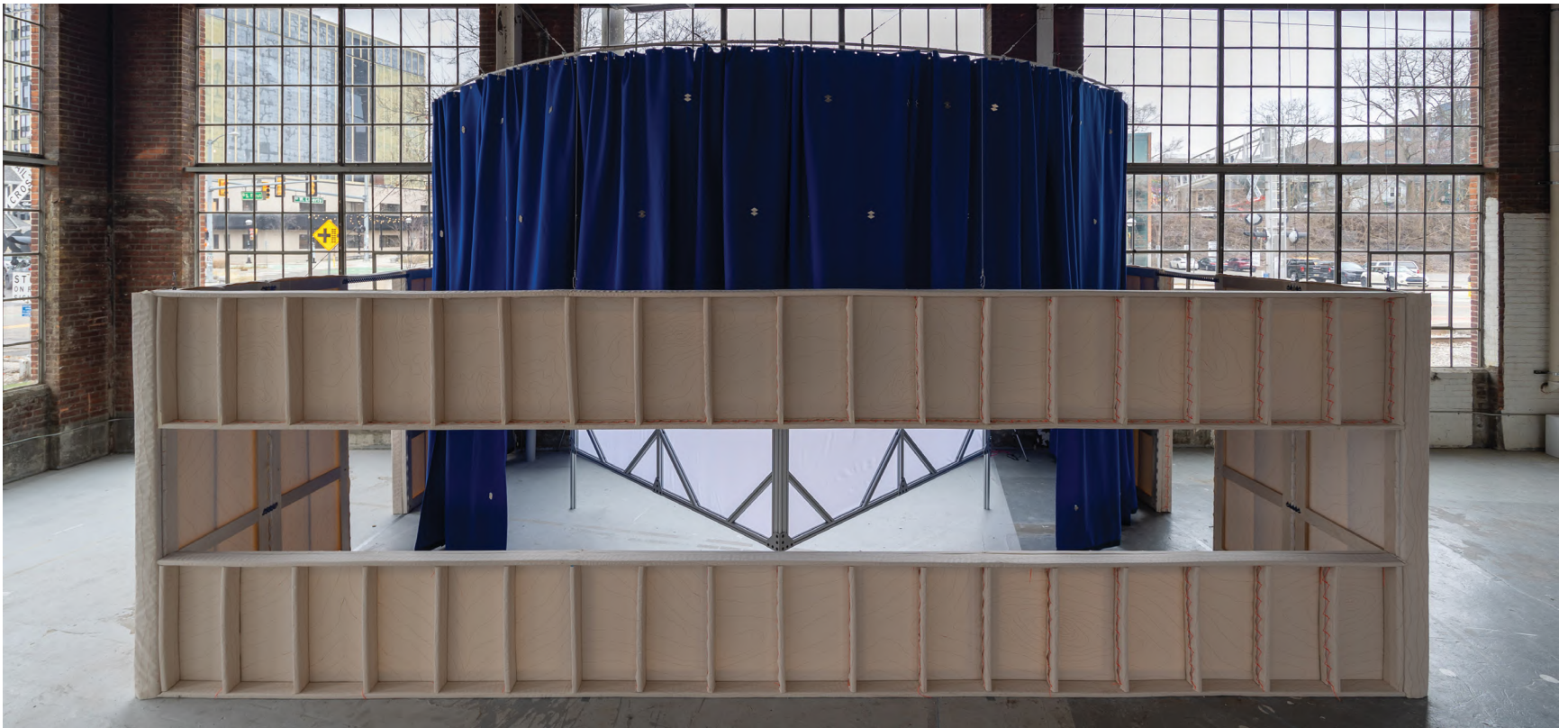
Our familiarity with textiles also offers a link to performative legibility. As Philippe Rahm writes:

*"The invention of air conditioning rendered obsolete and deprecated all the decorative art of yesteryear, made of woodwork, rugs and tapestries, mirror and chandeliers and many other decorative elements whose mission was once to increase thermal and luminous comfort. By abandoning the unique heating and air-conditioning techniques of the 20th century, we must reappraise the decorative strategies of today's interiors, rethink a decorative style in order to fulfill the new thermal regulations and invent the architectural language of interiors in the Anthropocene era."*<sup>1</sup>



*[ If, as I argue, this flattening of material and its removal of function are evidence of a material transformation toward the digital, then what can physical materials learn from how digital ones are commonly produced? ]*





My project then seeks to reflect upon and address these questions in varying modes. How can architects leverage the tectonic necessity of layers as operable components that can respond to climate change? What would an honest rainscreen aesthetic revealing such socio-political contentions look like?

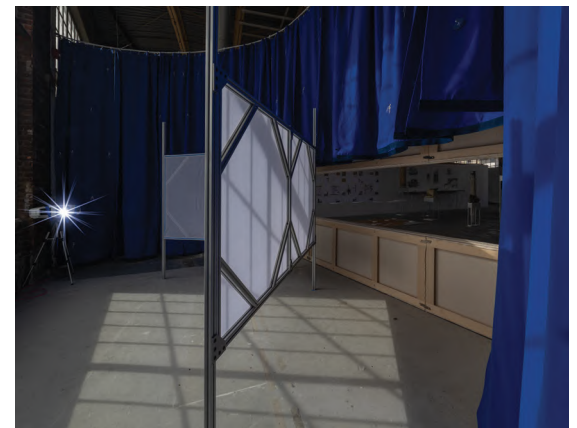
The project pulls the rainscreen layers (structure, control, and cladding) apart as separate, nested volumes: a square, a circle, and a diamond. Each volume's construction builds upon materials and methods I have worked with throughout the fellowship, codifying a set of working standard details, protocols, and aesthetics. The nested environments are a planar interpretation of common patchwork quilt patterns, mirrored here through the building's facade. Beyond a

motif, the quilt offers a cultural perspective to examine the rainscreen. Quilting's collective creation and slow pace have become tools of resistance, especially for women and minorities disproportionately burdened by domestic work. The quilt is also a panel system, not defined by a reduction of labor or an efficiency of computer processing. On the contrary, quilting is notoriously laborious. It celebrates resourcefulness, often using offcut scraps to assemble larger panels. Whereas the rainscreen contributes to homogenize labor, race, gender, and class (alongside material and tectonics), the quilt actively resists these forces.

The three layers of structure, control, and cladding are presented in the gallery in the opposite order you may typically experience. The outer structure layer replicates common wood framing, presenting as a rational structure, but domestic in contrast to the masonry and steel of the gallery. The 2x4 is replicated with plank foam, wrapped in a 12-ounce natural duck canvas with #92 orange nylon thread and orange mason line. Plywood sheathing is replaced by 32"x96" wood canvas stretcher bars, revealing the true structural assembly, and showing the replicated material alongside its original.

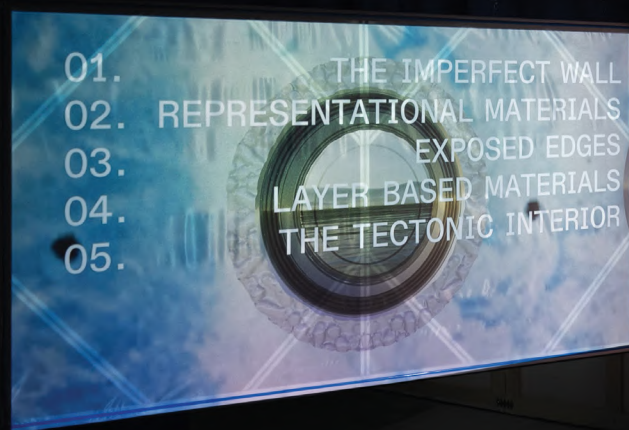
Stepping inward, the control layer is a semicircular curtain, lifted to reveal its presence, pulling the visitor into the space, separating the interior from the exterior. Waterjet-cut hardware and buttons act as graphic charms, noting their primary function as water, air, vapor, and thermal control. Most importantly, the socio-political elements of the rainscreen's control are missing: race, capital, labor, climate, etc.

The final cladding layer shifts to a manufactured material system—80/20 T-slot aluminum components form a panelized partition as a projected surface. The diamond geometry fully separates the gallery interior from the newly presented exterior environment, framed against the true exterior visible through the large warehouse windows.





Within the projection displays are two contrasting conceptualizations of the environment, which reflect our cultural expectations of comfort. Each reference is a mass-produced architectural typology of contrasting materials, readings, and purposes that directly implicate legacies of capitalism and colonialism.



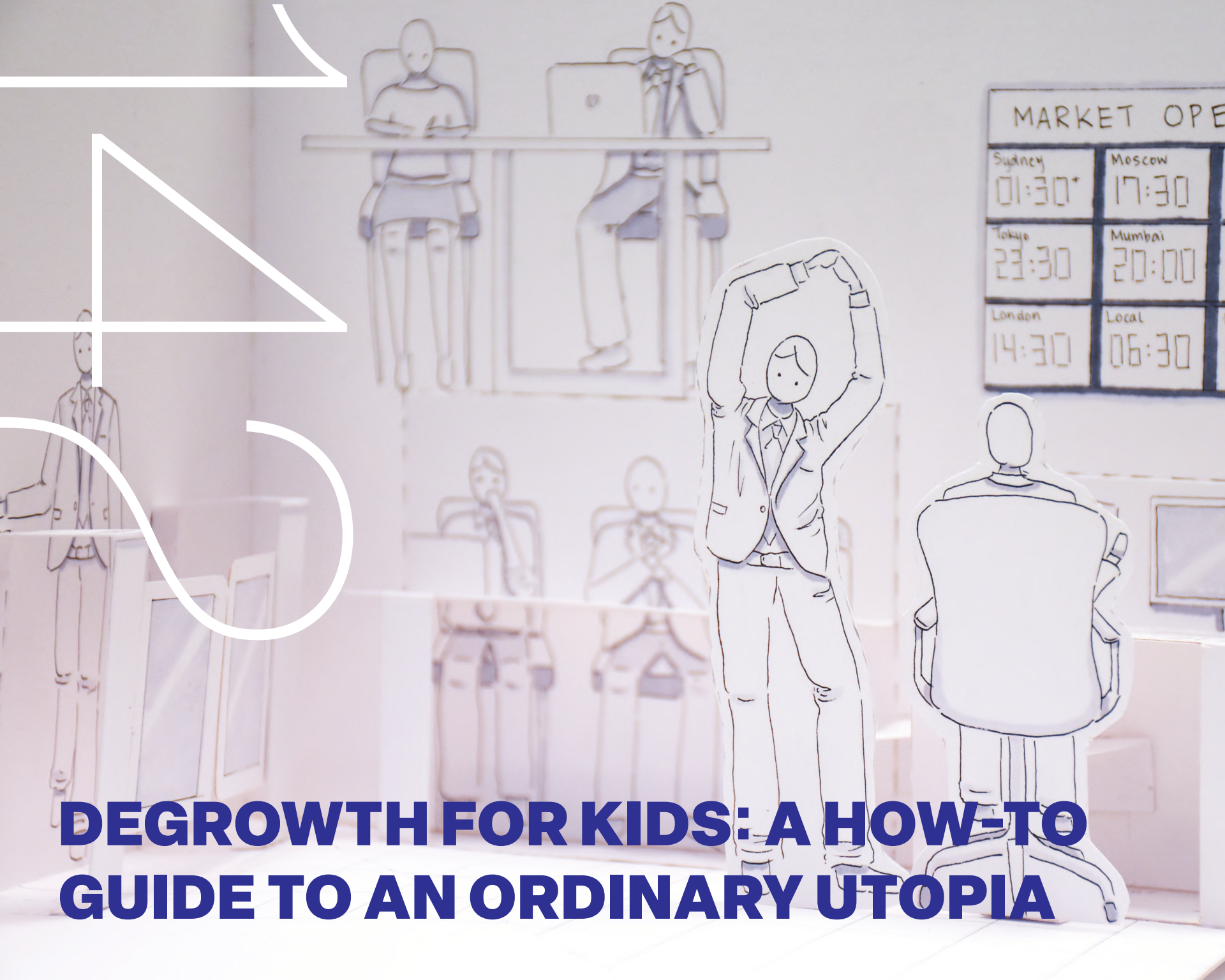
The first, the *Bologna Craftsman*, represents a contemporary ADU proposal set to share a site with a California bungalow. Referencing the historic Sears-Roebuck kit house typology, the design uses a faux bologna material, a staple of the American imaginary, to call into question our cultural desire for familiar material representations, even when they are absurd or gratuitous.

The second, the *Maison Mattress*, expands upon my submission to the Climate Futures faculty exhibition this Fall, where Jean Prouvé's *Maison Tropicale* is reinterpreted through manufactured domestic goods, and climate is represented through the material reading of a memory foam mattress. This time reinterpreted as a digital construction, the *Maison Mattress* questions the goal of modernity to eliminate material readings of climate.



*[ the rainscreen's function of separation makes invisible human and cultural issues, such as labor, care, repair, and maintenance. ]*





| MARKET OPEN      |                 |
|------------------|-----------------|
| Sydney<br>01:30* | Moscow<br>17:30 |
| Tokyo<br>23:30   | Mumbai<br>20:00 |
| London<br>14:30  | Local<br>06:30  |

# DEGROWTH FOR KIDS: A HOW-TO GUIDE TO AN ORDINARY UTOPIA



## Judy Zhang

Thesis Advisors: McLain Clutter • Mirielle Roddier

*Degrowth for Kids: A How-To Guide for an Ordinary Utopia* engages with the critical function of the “utopia”, first described in Thomas More’s 1516 book *Utopia*. More sets up a contrast between reality and fantasy with the book’s split between *Book One* and *Book Two*; however, when read together, the mundane, reasonable workings of the “ideal” utopia island in *Book Two*—such as communal ownership, egalitarian trade training, and prioritizing use value over monetary value—highlight the absurdity of sixteenth-century English reality, namely the enclosures of the time and the resulting penal system for theft. Following this framework, the degrowth utopia described in this thesis is so ordinary that it reveals the absurdities of present-day growth, excess, and capitalism.



Presented as spatially interactive picture books for children, the ordinary utopias here encourage the proliferation of new imaginaries and cultural values for the next generation.

Conceived as a series of physical books, the project foregrounds the materiality of the book form, serving as a critique of our fast, disposable consumer culture. Viewers are invited to dwell and linger on each page, rooting themselves in the present, reconditioning our collectively diminishing attention spans. While each book features a unique form of 3D spatial interactivity, the narrative structure remains constant, with the narrative present situated in the projected future utopia, and our real present appearing as flashbacks of a long-gone past. Moving beyond our absurd capitalist reality, our future utopia celebrates the ordinary and reminds us of forgotten pleasures.

Viewers are invited to dwell and linger on each page.

T



**HOT OR COLD?****HOW TO BREAK OUT OF THE ARTIFICIAL BOX**

A tale of wasteful, contradictory habits due to excessive artificial interior heating and cooling | Format: carousel book

In the Western world, almost every interior space is excessively heated and cooled through a central, uniform system regardless of outside weather. For instance, in summer, our interior spaces are cooled so aggressively that we need to suit up for winter conditions, which sometimes even warrant the use of a space heater. In winter, our interiors are so excessively heated that AC units are turned back on, and windows are opened to let in cool air.



Back then, none of the inside seasons matched the outside seasons. In summer, the heat and sun would make me a sweaty, sticky mess.



But inside, we were sealed away in winter conditions. The windows couldn't be opened. We had to suit up and even use a space heater!



In winter too, outside would be a freezing battle against snow, ice, and wind.

Instead of turning down the HVAC system, we engage in wasteful, contradictory habits that not only exacerbate our climate crisis but also greatly reduce our resilience to thermal challenges. Rather than use more energy to create excessive interior climates, why not use simple strategies that provide more moderate, localized heating and cooling? Why not feel the natural breeze through an open window, or bask in the warmth and coziness of a wood-burning fireplace?



But inside my apartment, it would be as hot and dry as the desert. The radiator couldn't be changed. I had to turn on the air-conditioner and open the window.



It used to be so hard being comfortable inside. It was expensive too!



That's so silly. Did everyone forget about the cool, summer breeze? Or the warm crackling fire in winter?

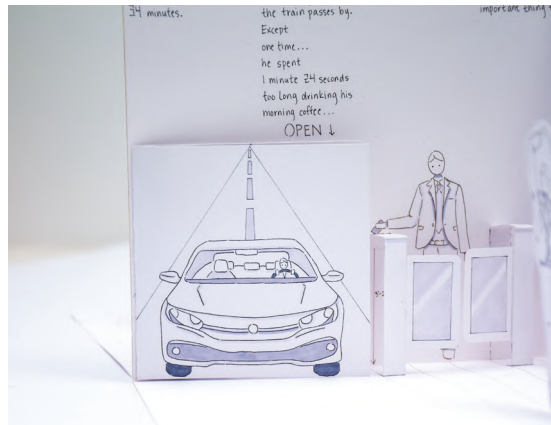




**TICK TICK TOCK:  
HOW TO BEAT THE RACE OF TIME**

A tale of the distortion of time through standardization and capitalism | Format: interactive pop-up rooms

Our concept of time has become severely distorted from natural cycles. The standardization of time began as an imperial convention in response to railways and aviation. Quickly, it became a tool of capitalism to regulate the workday while maximizing profitability. We somehow invented these concepts of hours, minutes, and seconds, and now we have become enslaved by this very system. We no longer live by the natural cycles of the sun and moon, causing some to wake up for work in the dead of night, wondering where the sun is.



Time is everywhere, even if some of us have forgotten how to read an analog clock. Most of us follow regimented, time-sensitive routines in which any deviation in schedule can lead to catastrophic consequences, such as being late to work. Though standardized time has provided many benefits, why not “dial it back” and return to natural cycles?





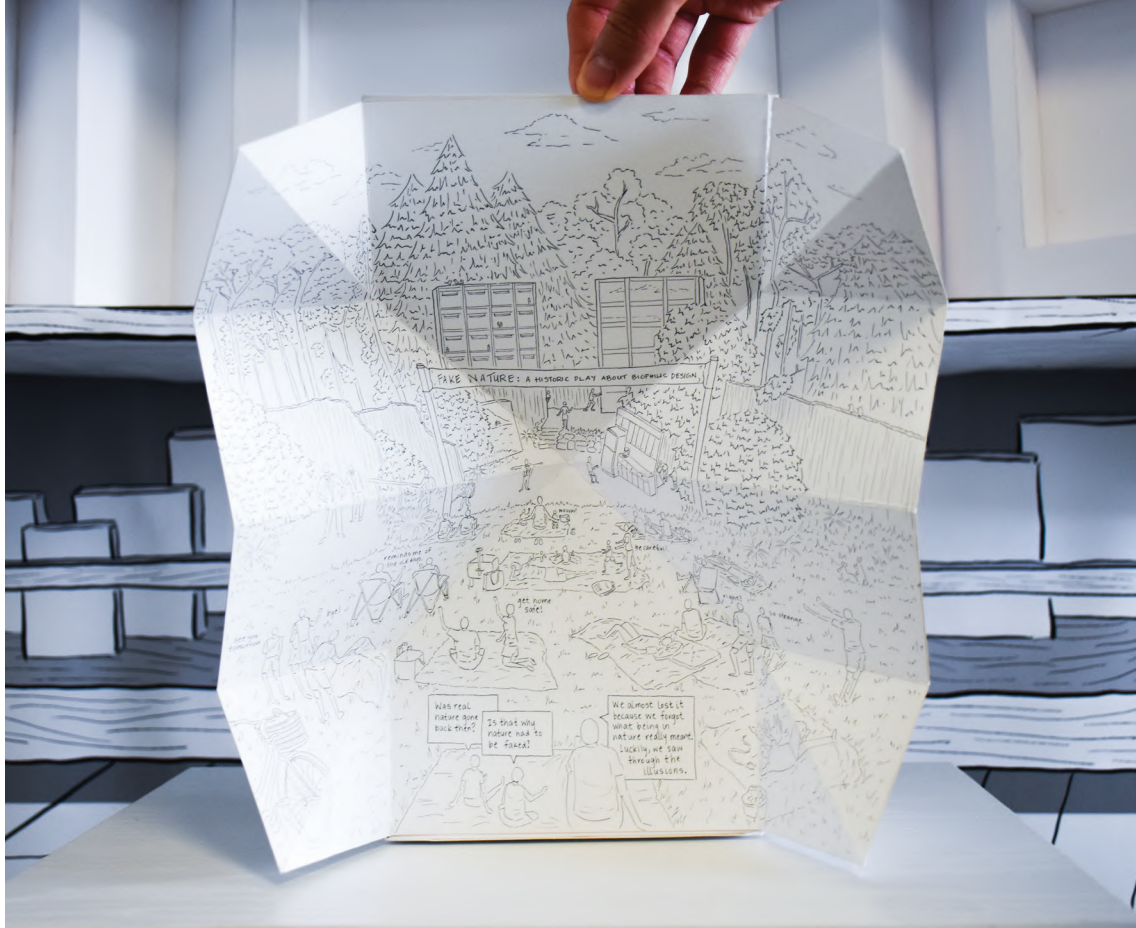
## THE NATURE PLAY: HOW TO ESCAPE THE LABYRINTH OF FAKE NATURE.

A tale of performative imitations of nature for closed-off interiors | Format: nested theater panels

In our attempts to better connect with nature, we have adopted a rather strange reverence toward our interior imitations of it. We call it "biophilic design", but really, it is artifice performing an idea of the natural. Lush interior courtyards project a fiction of us being controllers of nature, but with one HVAC malfunction, the illusion of paradise collapses, and our energy usage skyrockets to fix it. Further, workplaces pour a substantial amount of money and brainpower to fake nature through features like murals and artificial skylights. They are told that proximity to nature benefits productivity, so a constructed fiction of it should work too, right? Even our flowers have been turned plastic, and now we use synthetic materials and destructive industrial processes to "smell the roses."

Why go to such lengths to imitate nature? Why not draw the curtain on this performance and step outside to encounter nature as it is—seen, felt, and experienced?





[ —it can be slow and ordinary.  
It can start small with each of us individually. ]

We need to come to our senses and confront these silly habits. We need to learn to slow down, and face our absurdities. As Rob Nixon explained in *Slow Violence and the Environmentalism of the Poor*, slow aesthetics are needed to challenge the fast-paced, spectacle-driven landscape of our growth society. To acknowledge the gradual violence of climate change, we need a new awareness of slowness—one that can be developed by striving for ordinary utopias. A vision for a better world does not need to be spectacular with some immediate, grand, world-saving plan—it can be slow and ordinary. It can start small with each of us individually. We can all reach our ordinary utopia if we degrow from our ludicrous present habits.



# IN MEMORY

Salmon variety peak run season



**Chinook Salmon**  
Yu'pik: Klagtaq  
*Oncorhynchus tshawytscha*

▼ long term population decline

Yukon Watershed



**Chum Salmon**  
Yu'pik: Aluyak, iqalluk, kangitneq, mac'utag, teggmaarlul  
*Oncorhynchus keta*

▼ recent abrupt population decline

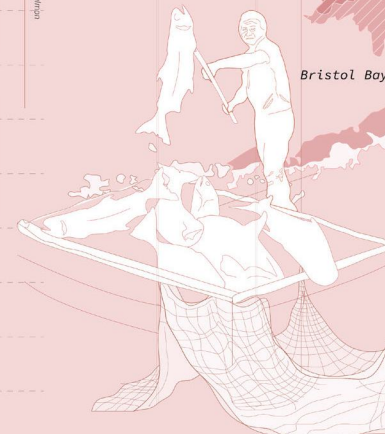
Kuskokwim Watershed



**Sockeye Salmon**  
Yup'ik: Cayak, Sayak  
*Oncorhynchus nerka*

● population stagnant

Bristol Bay Watershed



Bristol Bay

climate change related displacement due to permafrost melt and coastal erosion threatens many Alaskan coastal communities

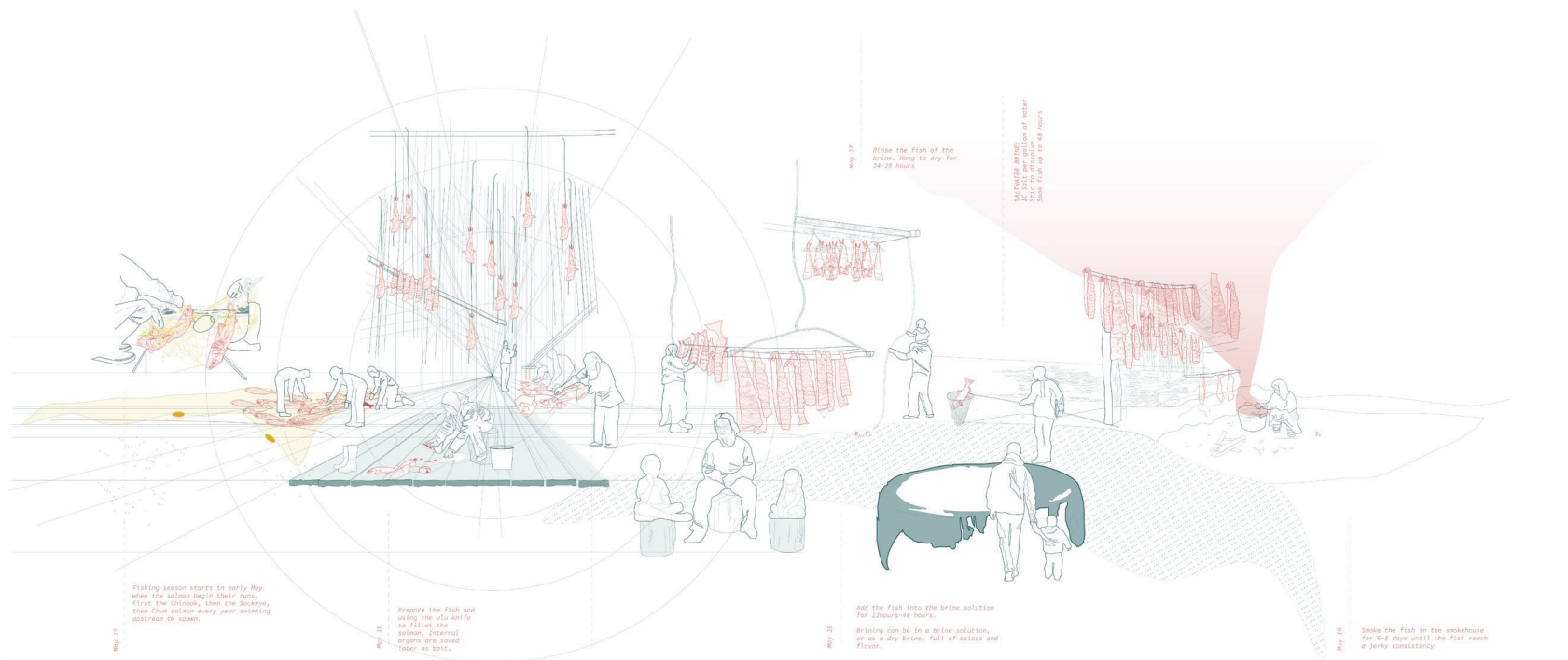
**SALTWATER BRINE:**  
1C salt per gallon of water  
Stir to dissolve  
Soak fish up to 48 hours

## Wallenberg Critic: Zain AbuSeir

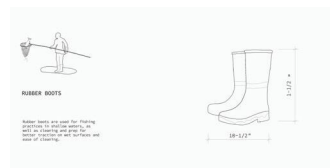
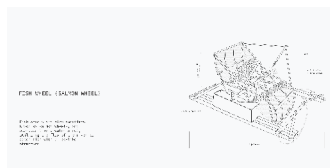
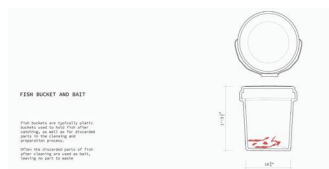
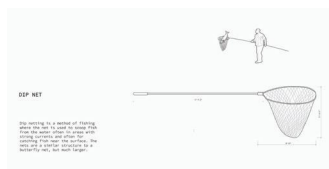
Cultures, people, and practices naturally evolve and shift over time. This idea of transformation and preservation grounds this project—quite literally—in spaces of memory, foregrounding local practices of land stewardship and cultural tradition. It proposes a version of preservation that seeks not merely to maintain the status quo for its own sake, but rather the ability of these cultures and practices to persist, change, and exist in a variety of forms.

By visualizing and spatializing the emotive enormity of potentially losing cultural practices and heritage, the proposal resists oblivion. Instead, it enables a living preservation of ordinary practice to a ceremonial, and nearly sacred degree, upscaling each step of salmon preservation and *re-minding* the significance of these daily practices as the means by which we resist being forgotten, allowing culture to endure. Viewing the structure and processes as an “archive” takes on a variety of forms across three key phases: living, preserving, and re-minding within the location of displacement.



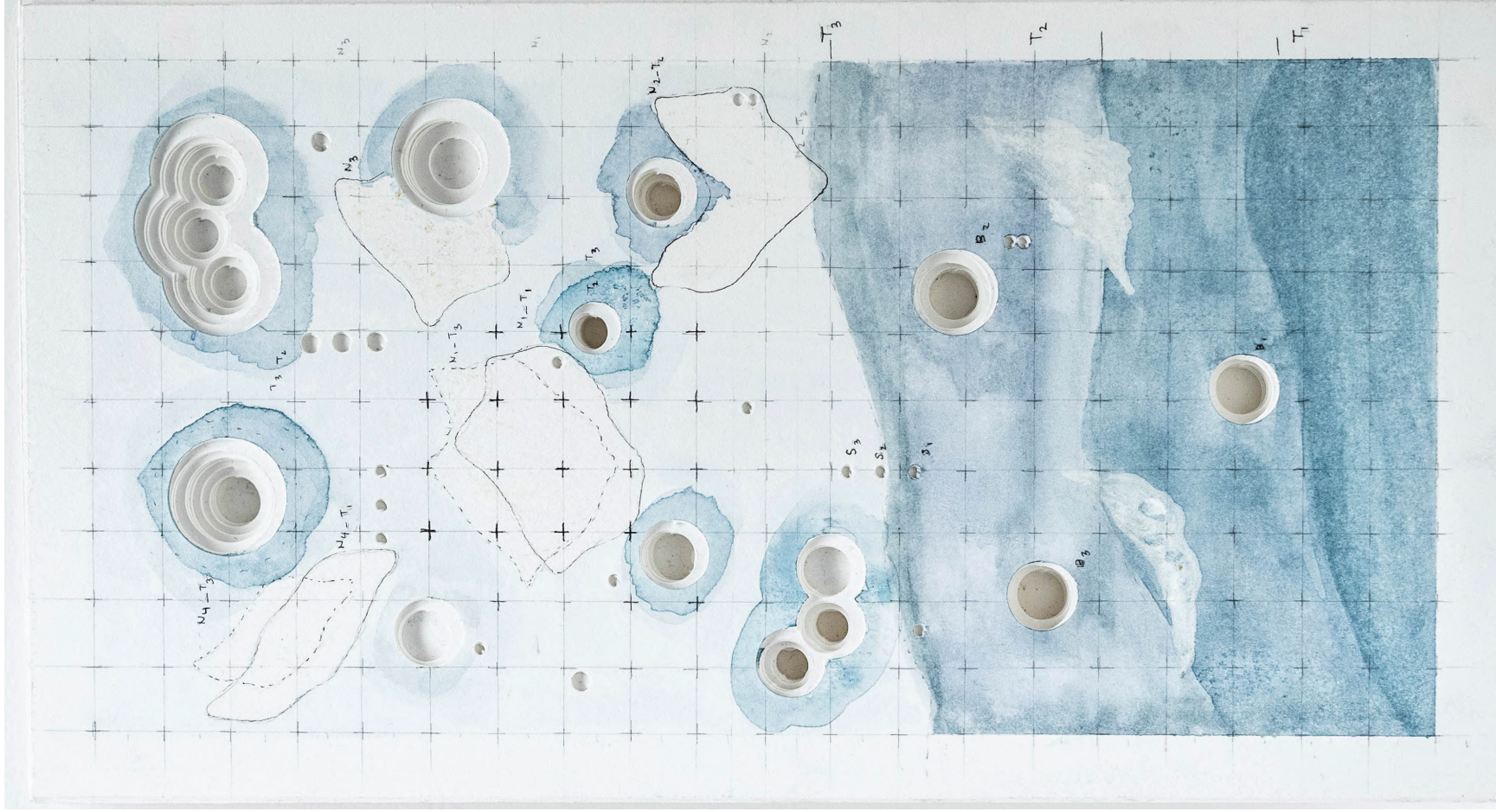


## Process Drawing



## TOOL BOOK

A collection of scaled drawings cataloging traditional and modern tools used in the process of catching, cleaning, and preparing fish—a way of re-minding.

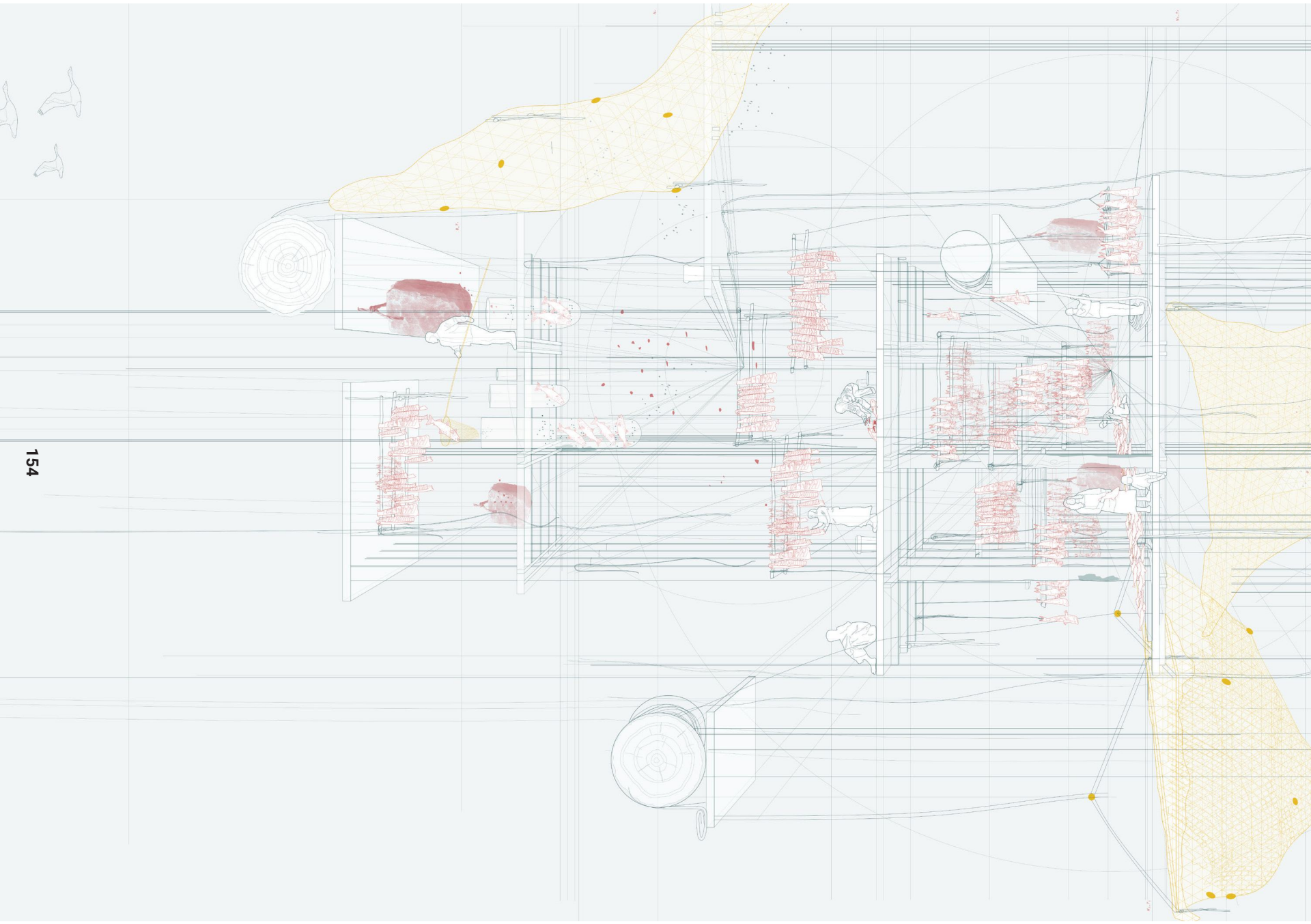


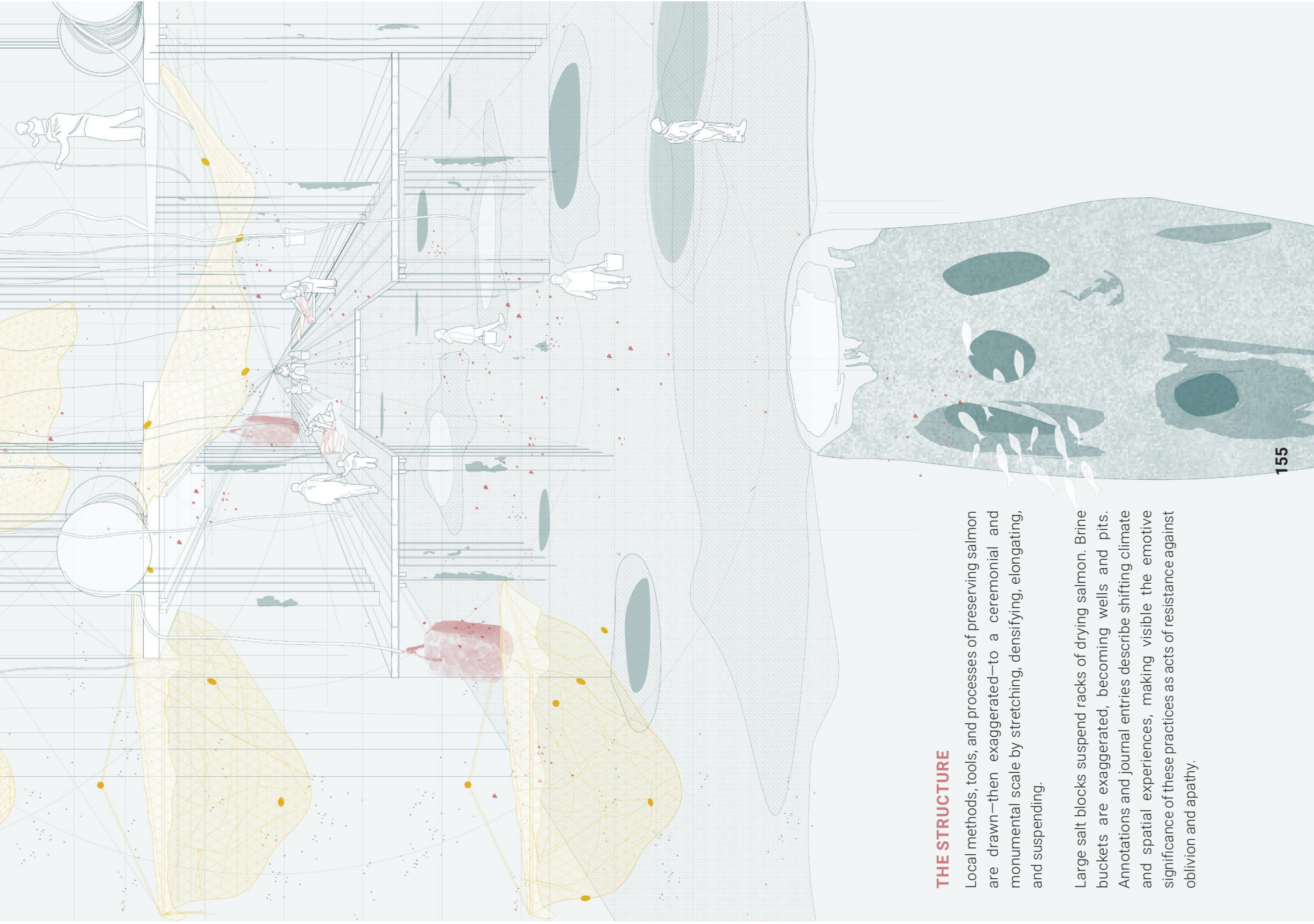
**LANDSCAPE SITE CONSTRUCT**  
 Each assembly responds to changing environmental conditions, acting not only as tools of culture, but also as metrics and indicators of shifting landscapes.

### THREE ASSEMBLIES

- [N] Nets: large, suspended, communal fishing nets
  - [S] Smoking Pits: small pits in the ground used to hold wood and coals for smoking salmon. Small wooden smokehouses can be constructed on top
  - [B] Brine Pits: variously-sized earthen vessels in the ground, ranging from individual to communal scale, that hold brine solutions for salting fish
- + Settled archive ground
  - + Potential archive settling ground
  - Current assembly condition
  - Assembly response condition







## THE STRUCTURE

Local methods, tools, and processes of preserving salmon are drawn—then exaggerated—to a ceremonial and monumental scale by stretching, densifying, elongating, and suspending.

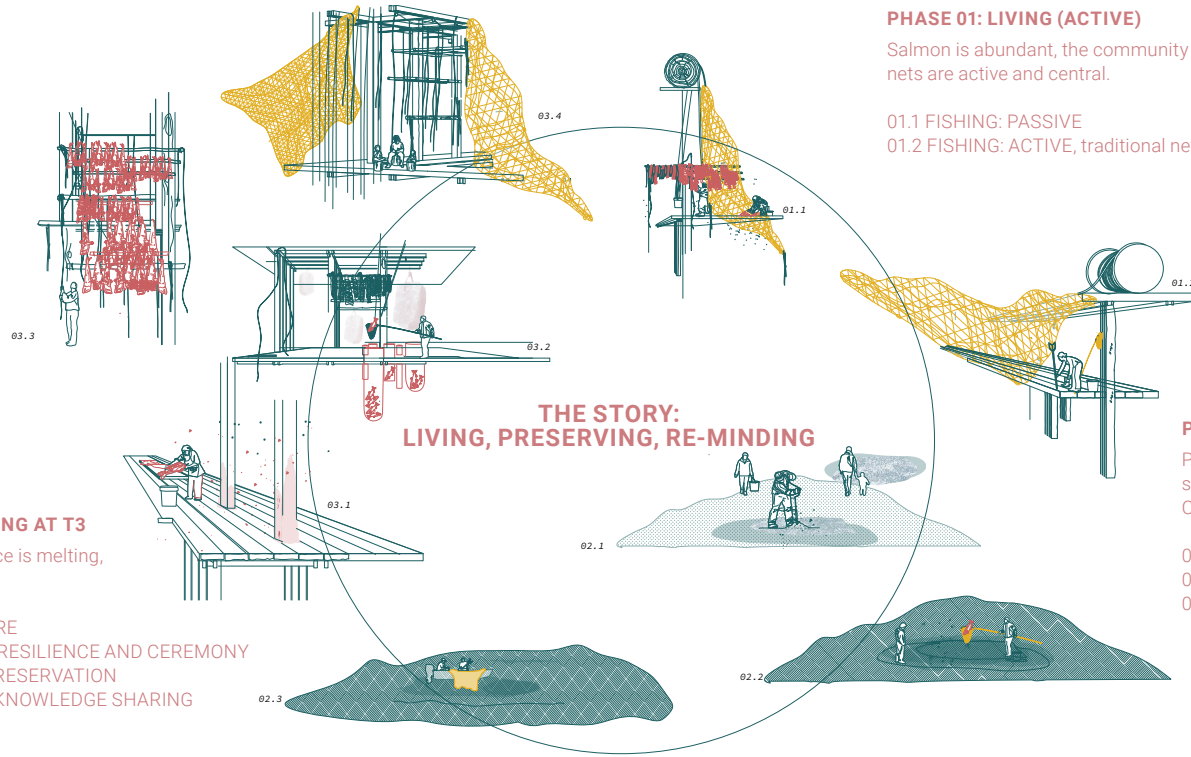
Large salt blocks suspend racks of drying salmon. Brine buckets are exaggerated, becoming wells and pits. Annotations and journal entries describe shifting climate and spatial experiences, making visible the emotive significance of these practices as acts of resistance against oblivion and apathy.



**PHASE 03: RE-MINDING AT T3**

Water levels are high, ice is melting, salmon is scarce.

- 03.1 AGING STRUCTURE
- 03.2 BRINE VESSELS: RESILIENCE AND CEREMONY
- 03.3 STORAGE AND PRESERVATION
- 03.4 GENERATIONAL KNOWLEDGE SHARING

**PHASE 01: LIVING (ACTIVE)**

Salmon is abundant, the community and nets are active and central.

01.1 FISHING: PASSIVE

01.2 FISHING: ACTIVE, traditional nets

**PHASE 02: PRESERVATION AT T1-3**

Permafrost thawing, water level rise, salmon populations threatened. Communities and nets become peripheral.

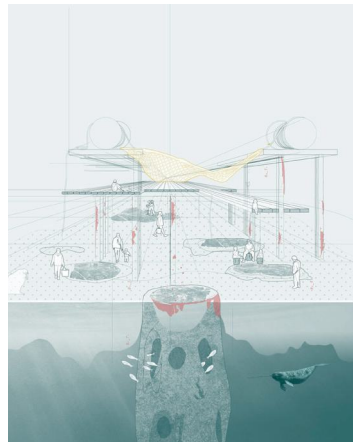
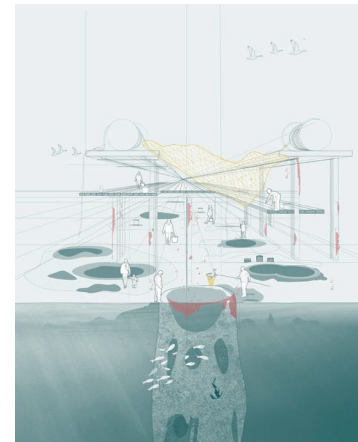
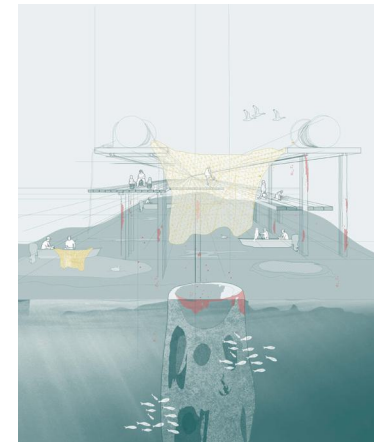
- 02.1 BRINE: FROZEN GROUND T1
- 02.2 BRINE: THAWING GROUND T2
- 02.3 BRINE: MELT SEASON T3

**THE SETTING**

Three scenes over a span of a year index responses to a changing climate and landscape, emphasizing the assemblies of nets and brine pits as cultural tools and indicators throughout the freeze and thaw cycles of the Arctic North.

**THREE ENVIRONMENTAL CONDITIONS**

- T1: frozen ground, solid coastline
- T2: rising water levels, mild flooding of coastal brine pits, mild coastal erosion due to permafrost thaw
- T3: melt season; sea level rise and inundation of coastal brine and smoke pits, coastal erosion, and land mass loss

**T1 (ICE)****T2 (THAW)****T3 (MELT)**



*[ ...preservation that seeks not merely to maintain the status quo...rather the ability of these cultures and practices to persist, change, and exist in a variety of forms. ]*

### THE PROJECTED FUTURE

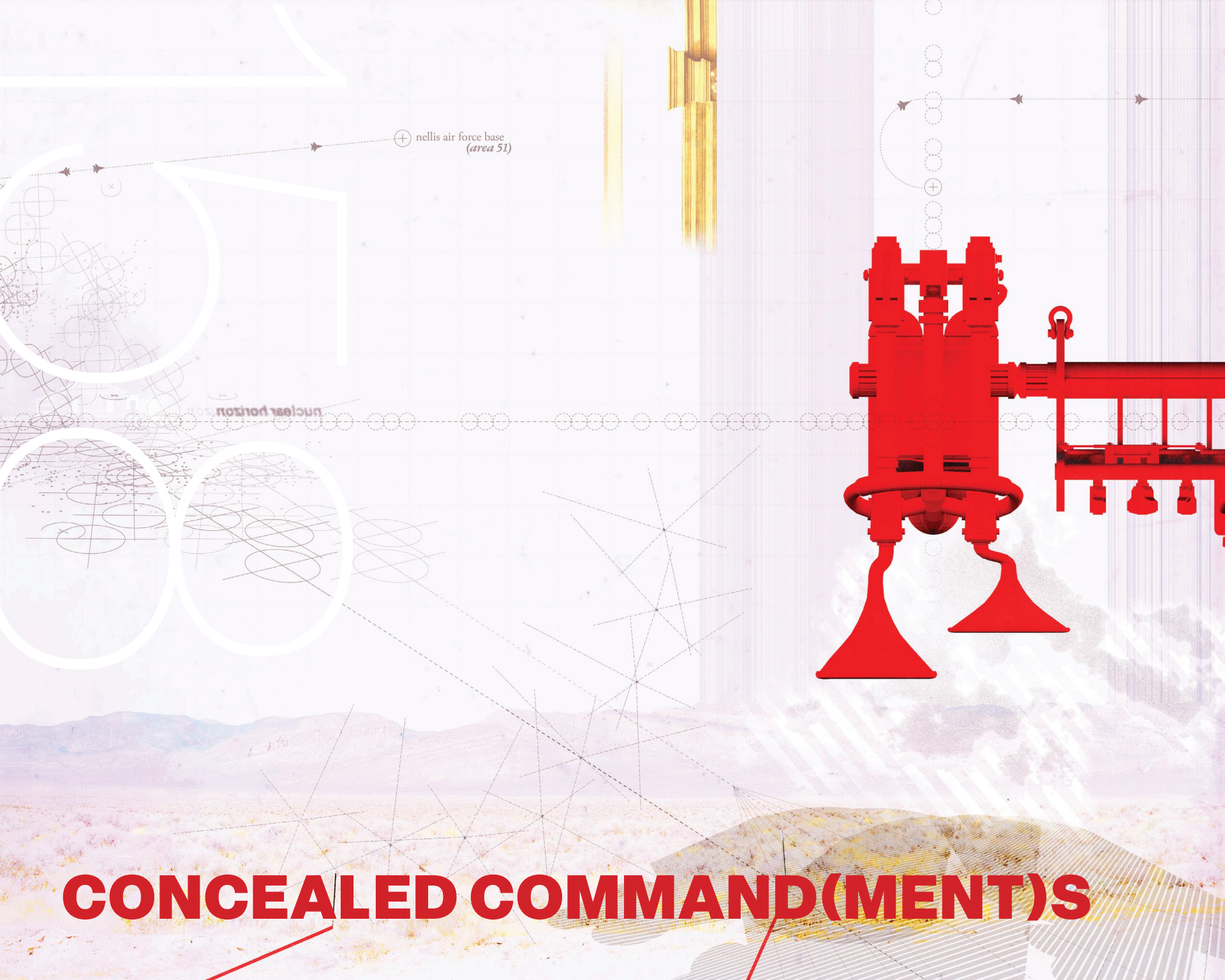
This image depicts an imagined accelerated climate scenario where salmon are scarce, brine has become a natural part of the landscape, and fishing nets lie inactive and peripheral, awaiting reuse. The structure has aged, but is not forgotten; it is still kept by the community as a gathering place.

Though the processes it hosts have shifted over long time scales, it remains an emblem of culture and a beacon of hope for a future in which the nets are used once more.

#### Acknowledgements

Special thanks to Malak Atwi, as a friend and thinking partner, for encouraging this project into its final form.





⊕ nellis air force base  
(area 51)

nuclear horizon

# CONCEALED COMMAND(MENT)S



# Vanessa Lekaj

Thesis Advisor: Perry Kulper

*Concealed Command(ment)s* asks what it means to believe in a landscape structured by secrecy. Nuclear history is reconstructed not as a singular past event, but as a ritual system performed across deserts, archives, thresholds, and bureaucratic interiors. It moves from ignition to inheritance—from the detonation at Trinity as a moment of genesis, to the choreography of controlled visitation and nuclear tourism, to the global spread of nuclear ideology as belief structure.

Through drawings and constructed theologies, desks become altars, bombs become relics, and architectural space becomes a medium of witnessing. The triptych *Genesis, Ritual, Dominion* redeploys canonical paintings to frame nuclear history as a contemporary theology—a creation myth, a communion rite, and a spectacle of conquest. As evidentiary fields, the drawings begin to operate between

document and apparition. The Trinity Site becomes a ground for inscription where the earth itself acts as archive. Tuning fork devices register residual frequencies of protest and command.

The stakes lie in how we read, record, and construct spaces of power. Architecture is not a neutral backdrop to history—it is complicit in its staging, calibrating what can be seen, recorded, or believed. Whether in a field, an open drawer, a shrouded cabinet, or a saturation of red, these spaces carry charged consequences. *Concealed Command(ment)s* reconstructs the nuclear horizon as both field and belief system—a site where secrecy, authorship, and reverence converge.

The stakes lie in how we read...

T



## TRIPTYCH: GENESIS, RITUAL, AND DOMINION

The triptych operates as a constructed theology, reassembling the Western canon into nuclear genesis, ritual, and dominion. Three iconic Renaissance and Baroque paintings are redeployed for their cultural weight and mythological recognition.

### Genesis (The Creation of the Nuclear Bomb)

*The Creation of Adam* (Michelangelo, 1512) becomes an atomic origin story, framing the birth of nuclear power as a moment of sublime creation. In the depiction of divine transference, where God's outstretched hand imparts the spark of life to Adam, the first nuclear detonation at the Trinity Site was an act of unprecedented power, signaling the dawn of a new era.

The bomb's detonation was not just a technological breakthrough but a near-mythic event, a sublime rupture that fused scientific ingenuity with a near-religious sense of revelation.

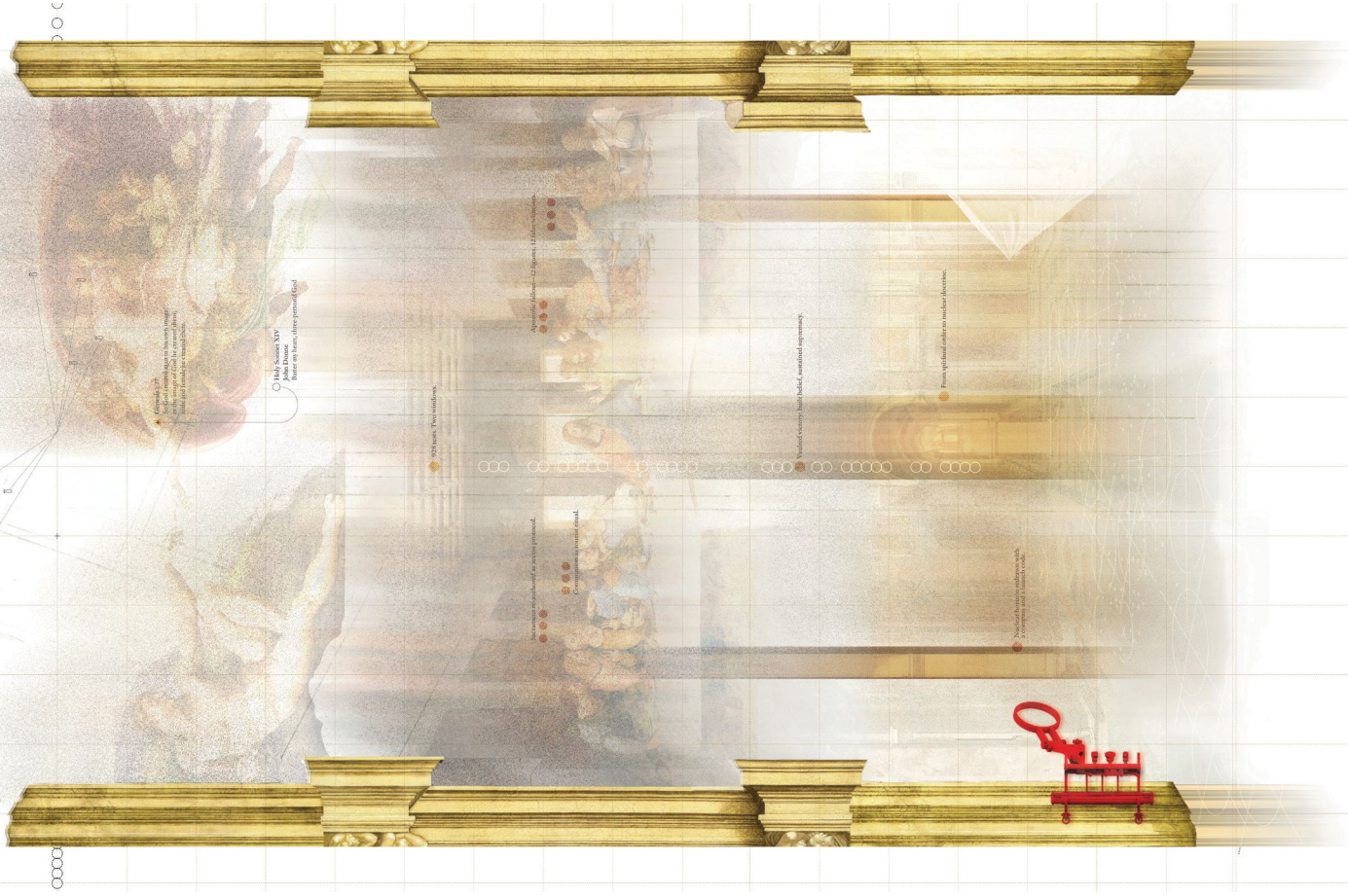
### Ritual (Test Site Pilgrimages & Restricted Access)

*The Last Supper* (Leonardo da Vinci, 1495–1498) situates the ritualized accessibility of nuclear test sites within the origins of Christian communion, where Christ's sacrifice became a cyclical act of remembrance. Just as the Eucharist transforms flesh and blood into symbolic sustenance, these annual or limited nuclear site visitations serve as both commemoration and justification for the persistence of nuclear power.

The act of witnessing these sites—much like partaking in communion—reinforces a relationship between authority, spectacle, and devotion, where restricted access and controlled revelation uphold systems of power.

### Dominion (Nuclear Domination)

*Triumph of Christianity* (Tommaso Laureti, 1585) positions nuclear proliferation within the framework of ideological conquest. The depiction of pagan symbols being eradicated in favor of Christian rule mirrors how nuclear supremacy was wielded as both a political and cultural force. Just as Baroque religious art glorified the subjugation of the "other", the nuclear era transformed landscapes, histories, and global hierarchies under the guise of security and progress.



The global spread of nuclear influence follows logics of symbolic authority, repetition, and territorial installation. Nuclear dominion becomes a belief that is exported, repeated, and naturalized.

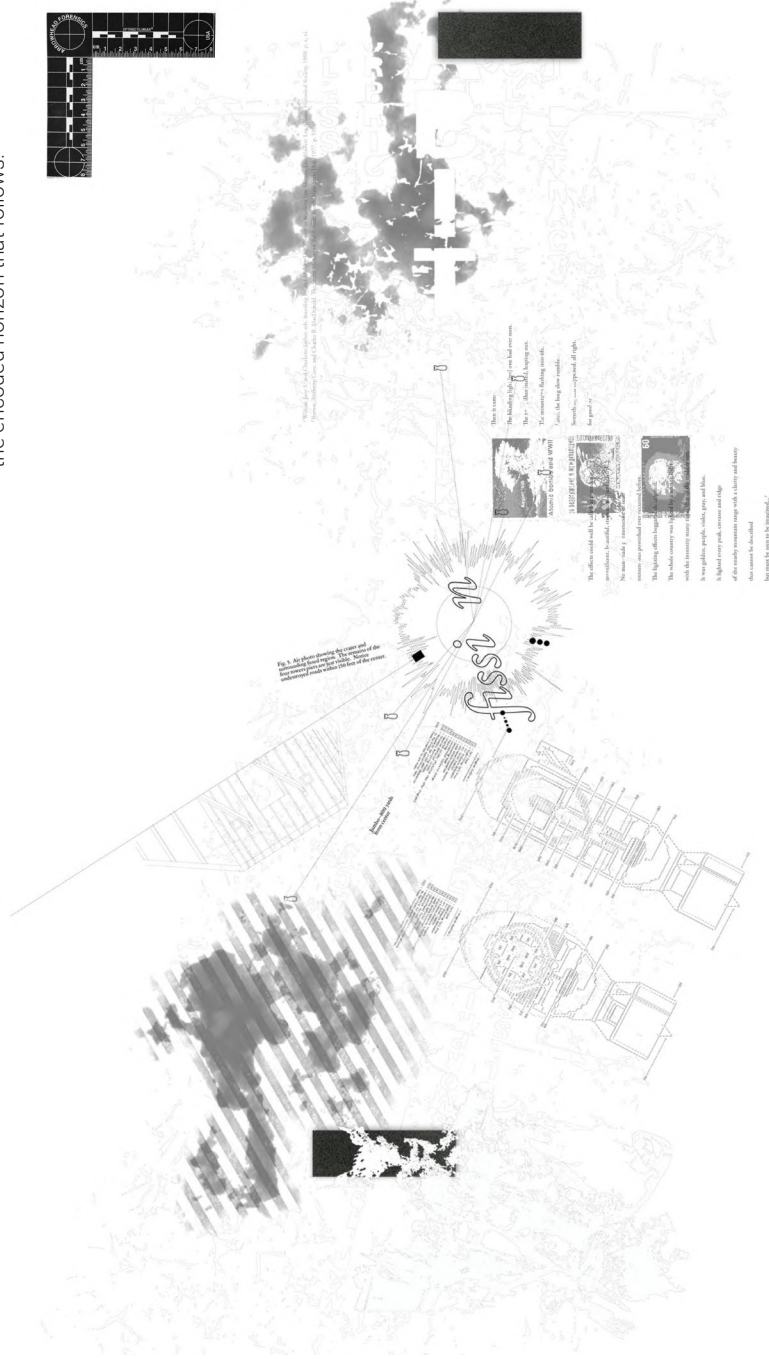
## THE BIRTHPLACE OF A NUCLEAR HORIZON

The detonation at the Trinity Site on July 16, 1945, marks the physical and mythological origin of the nuclear landscape. Here, the earth itself became the archive—glassified, cratered, and inscribed with a new form of authorship.

This drawing situates fission as both an event and a belief structure.

The bomb's ignition is rendered not as an explosion, but as an inscriptional diagram of energy release, calibration, and command. The Trinity Site becomes the ground zero of naming, where nuclear language begins: Trinity, Gadget, Ground Zero, Fallout.

The fissure between matter and meaning that begins here extends through the work across rituals of access, architectures of command, and the encoded horizon that follows.





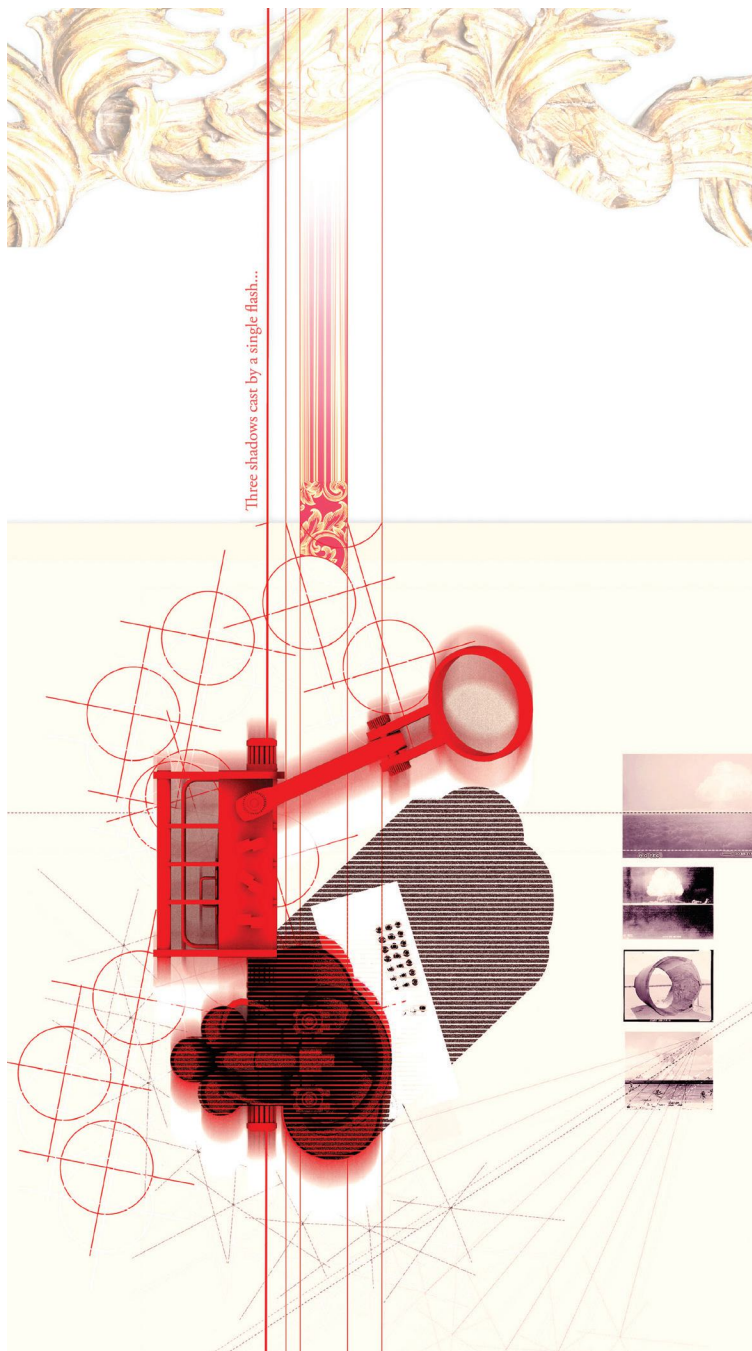


## THE NUCLEAR HORIZON

The drawing operates as an evidentiary field, a surface where data, residue, and constructed rituals are arranged not to clarify, but to calibrate. It is not a map, but a condition—a horizon where fallout, inscription, protest, and witness coexist in encoded form. The field is dotted with craters, artifacts, and fragments—each one collected, bagged, and archived. These are not remnants, but performative residues. Partial plans and section cuts of the McDonald

Ranch House at the Trinity Site are stitched in as spatial ghosts of test site interiors, containment structures, and bureaucratic thresholds.

Together, the field proposes the nuclear horizon not as edge or view, but as an evidentiary bandwidth, a frequency field where time, space, and ideology becomes measurable, yet only partially legible.

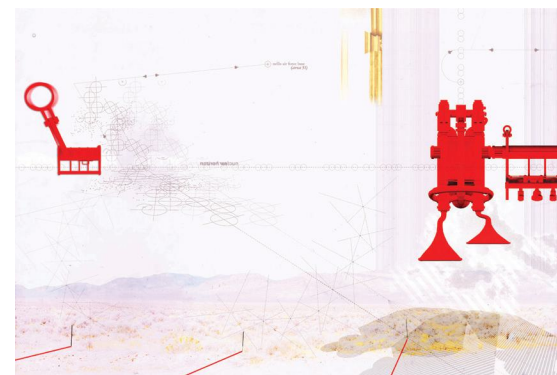


*[ Architectural space becomes  
a medium of witnessing. ]*

### THE NUCLEAR HORIZON: FIELD ARCHIVISTS

Across the drawing, tuning fork devices read, receive, and emit. They trace protest discourse as much as military signals. Suspended between instrument and artifact, they mediate between the occupied, visible landscape and the nuclear horizon, a field of residual evidence, fallout, and encoded memory.

They record, translate, and re-inscribe vibrations from past detonations, protest chants caught in wind corridors, and sonic debris from overflights. Their saturation in signal-bleed red marks them as agents of interference. They are field archivists in architectural form, performing the labor of listening and inscribing. Each cast three shadows that conflict and overlap, thereby refusing resolution. Multiplicity here is not ornamental but epistemological.





## THE RESOLUTE DESK

The Oval Office becomes the original broadcast site of nuclear revelation. On August 6, 1945, President Truman delivered a prepared statement from behind the Resolute Desk announcing the bombing of Hiroshima. The desk is reimagined not as an instrument of governance but as an altar of aftermath staged as still life. Each object carries the weight of detonation without spectacle—the pocket watch set to 8:15 a.m., the white gloves of sterile interaction, the McDonald Ranch House floor plans, and gold-leafed relics bagged and sealed. These are not commemorative objects but functional remains, stitched together into a composition that sits between archive and ritual, control and complicity.

*[ Architecture is not a neutral backdrop to history—  
it is complicit in its staging, calibrating what can be  
seen, recorded, or believed. ]*



The desk appears again, partially withdrawn and draped in white cloth. It evokes both forensic cover and sacred shroud. This image does not conclude the work but positions it. Rendering does not clarify—it obscures. Drawings hold charged characters in their open drawers and cracked doors. The act of drawing becomes a form of encryption. Architecture becomes a container for belief systems we cannot fully parse.









**DOORS**



# Francesca Mavaracchio

Architecture Project Fellow [2024–26]

Throughout the day, we pass through a door between 50 and 100 times. Their nature, size, and form change greatly depending on whether we are moving through the intimate world of our homes or through doors that govern our public lives—at work, at school, or in other collective spaces. They are a simple intervention that allows walls to make sense.

A door is the only element of a building that requires direct physical contact to enable spatial transition—if we exclude windows, which modernism taught us need not be opened or closed. By pushing a handle and crossing a threshold cut into a wall, the door organizes space through the simple act of allowing—or impeding—movement between contiguous spaces.

At the same time, doors are not limited to creating order and sequence as thresholds between places—they also organize our memory. How many times have we forgotten what we were about to do when moving from one room to another? According to Event Segmentation theory, when we walk



through a doorway, the brain perceives a shift in context—a new event—which can update working memory and momentarily disrupt recall. In this sense, the door is a physical object whose function extends past its material form, directly shaping our spatial perception and experience.

Understanding of the door goes beyond its function as a building element bound to its material nature, entering the symbolic realm. Doors allow or impede transitions between rooms and existential states—so too between life and death, salvation and damnation. The gates of Heaven or Hell, or the portals to the afterlife in premodern cultures, attest to the significance of doors beyond their physical presence, nodding toward the metaphysical.

Transitions between life and death, salvation and damnation required monumentality in their physical form. The monumentalized door is the object with which one must physically—tactilely—engage when entering a place of power or worship.



The bronze doors of the Cathedral of Hildesheim, Ghiberti's *Gates of Paradise* at the Florence Baptistery, and Rodin's *Gates of Hell* exemplify this lineage of monumental thresholds. The subjects represented in their sculptural ornamentation depend on the spiritual, cultural, and moral frameworks of the places they serve. Ghiberti's doors were meant to educate the faithful about the moral predicaments contained in the holy books. More controversially, their replica—the Columbus Doors in the US Capitol—promotes the narrative of European “discovery,” embedding a colonial worldview into the seat of state political power. As with any form of public art, such works make us aware of our surrounding cultural frameworks.

**[ *Doors not only create order and sequence as thresholds between places—they also organize our memory.* ]**





The work *Doors* situates itself within this lineage, formally challenging contemporary understandings of monumentality by investigating what is displayed and made visible in monumental forms today. Conceived in 2020, its subject matter consists of images from protests that occurred between 2020 and 2022.

In a time when communication is primarily image-based, the digital overproduction of content renders events increasingly transitory. Under these conditions, collecting becomes an act of understanding and sense-making. Within a relatively short period of time, numerous protests unfolded worldwide, forming a kind of global constructive interference that demanded attention to inequality and abuses of power.

These images flooded social media. While their motivations and aspirations often differed, their visual representations were strikingly similar. In an era in which information is consumed primarily through images, such homogeneity allows viewers to skim content quickly, recognizing intent almost instantaneously. Rapid recognition leads to repetition, which has produced new contemporary iconographies.





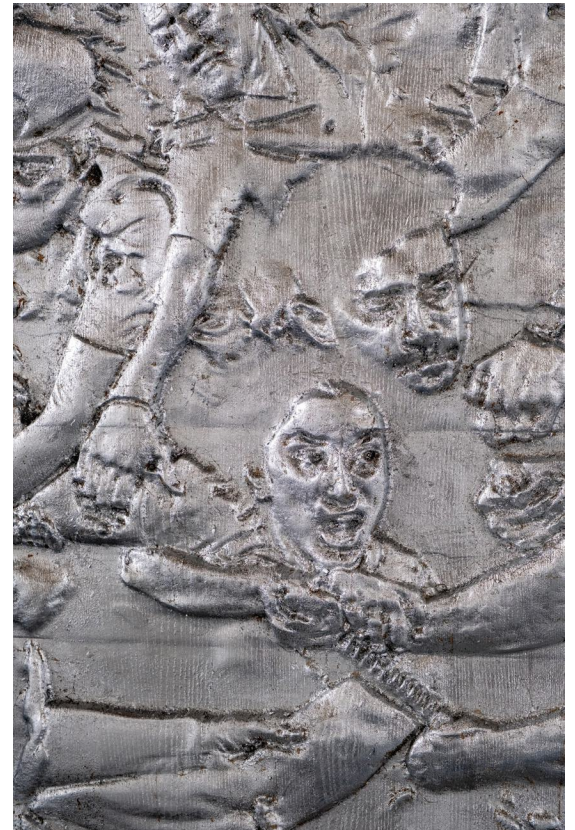
In art history, iconography refers to the systematic use of images and symbols to convey specific meanings, often associated with a figure, cult, or movement. Repetition of a subject in a recognizable form allows viewers to grasp the subject's meaning without additional explanation. Iconography has historically served as a powerful tool for communication, particularly as a means of educating the illiterate. The frescoes that adorn churches, for example, played a crucial role in conveying religious moral principles to congregations through iconographic depiction.

*Doors* explores the iconographies of the protests between 2020 and 2022 as they emerged through media outlets. A large set of images from news sources and social media was collected over those years and later categorized into a defined set of iconographies based on recurring compositional structures, formal representations, and character depictions. Through this act of organization, the multitude of photographs was distilled into a series of recognizable iconographies. Eight principal iconographies were selected and are represented in the eight panels that compose the work.

The work acknowledges that these representations flatten the complexity of individual protests and often simplify the collective labor of activists and groups. Nevertheless, a clear opposition between detained power and protesters emerges across all selected images—a contemporary David and Goliath. The work seeks to register in physical form what can be understood as the most significant phenomena of those years, fixing the protests' historical legacy against the transience of digital media.



Following the lineage of artists who worked on monumental sculptural doors, the role of the artist—or architect—is not the production of new content, but the reorganization of knowledge and the interpretation of iconography. Just as Ghiberti's bas-reliefs for the *Gates of Paradise* drew from the Old Testament, or Rodin's doors from *Dante's Inferno*, *Doors* draws from existing events—the protests—which arguably reflect the moral standards of our time, much as those of its historical predecessors evinced their own.







The eight gilded wooden bas-relief panels compose an 11-foot-tall door, consisting of two symmetrical leaves set within an aluminum frame. The panels were produced through a combination of digital and handcrafted techniques. Machine carving was instrumental in rendering the principle of *stiacciato*, a Renaissance sculptural technique that creates the illusion of depth through shallow carving. In directly translating existing images into sculpture, the panels reveal an almost Mannerist plasticity in bodily postures and textiles.

*Doors* collapse fleeting digital material into an enduring physical object, challenging contemporary modes of registering history within the architecture we inhabit. Existing outside of a building, *Doors* reasserts the door's independence from functional enclosure, emphasizing the cultural relevance of the work's ornamentation. *Doors* metaphorically challenge the idea of transition itself—just as protests call for change.







【 *Doors metaphorically challenge the idea of transition itself...* 】

Acknowledgments

My deepest gratitude to all those who helped me bring this project to realization.







# THE AMERICAN COOPERATIVE HOUSING GAME

# Nick Grosh • Lincoln Ruiz-Truong

## WHY COOPERATIVES? WHY COHOUSING?

The current framework for American housing production primarily produces single-family homes. Even when we build densely, we do so in a manner that creates separate units that are as isolated as possible. Common spaces exist, but they are treated as amenities, not as integral parts of daily life.

People are seeking alternatives to traditional housing. While their needs vary, many desire living environments that foster interaction and mutual support—where shared spaces and collaborative design encourage connection rather than isolation.

At the same time, we face a crisis of affordability. The US housing market has never been more unaffordable, with a record high deficit of 4.7 million units in July 2025, according to US Census data. Housing prices have surged, and a reported 7.1 million units are inaccessible for families below the federal poverty line.<sup>1</sup>

Cooperative and cohousing projects are not a solution to this crisis. Instead, they offer processes and proposals for living that create housing that strengthens community and solidarity at more affordable costs.

## WHAT IS COOPERATIVE HOUSING?

A cooperative, in the general sense, has a clear definition: a member-led, democratically organized association, in which the members are owners. Farms, grocery stores, recreational equipment retailers, and architecture firms all operate as cooperatives. However, when the term is applied to housing, specifically in the US, there are many different connotations and types.



While the aforementioned two cooperative types are likely the most familiar to the public, another form exists that is central to our research: right-to-use, or use-cooperatives. Right-to-use, or use-cooperatives, represent flexibility in levels of sharing, a firm commitment to demarketization (as opposed to property or equity cooperatives), and retain community investment and permanence. These right-to-use cooperatives are similar to equity cooperatives in that residents purchase shares and pay a monthly fee to live in the space. However, no individual “owns” or has the right to a specific unit. Instead, members hold the right to use a unit. At the same time, the idea that these projects are nonprofit is not an addendum, but a necessity for their existence. While some use-cooperatives allow limited equity aligned with inflation, many operate solely on a fixed-entry cost basis.

The game is simple to learn and play.

A



## WHAT IS COHOUSING?

Cohousing is likewise a term with multiple meanings. In its most common usage, it refers to a system of shared living brought over from Denmark. When American architects Charles Durrett and Kathryn McCamant introduced the idea of cohousing to the US in the 1980s, they adapted the Danish model to the American context, changing it along the way.

Cohousing communities are built through shared systems at the scale of living—from common areas like kitchens, meeting spaces, and play areas to shared meals and collective responsibility for maintenance. It is intended to bring out the benefits of both the autonomy offered by private living and the mutual support found in collective life.

While in Europe most cohousing projects imply a specific cooperative or nonprofit structure, this is not the case in the United States, where projects often follow equity-based, for-profit ownership structures.

## METHODOLOGY: CASE STUDIES

The research presented here is part of a larger project comparing alternative financial and architectural approaches to housing development across the United States, Europe, and South America. This project represents the US stage of our research.

We visited three cities: New York, San Francisco, and Ann Arbor. In each, we visited a variety of cohousing and cooperative housing projects, selecting two per city—one cohousing and one cooperative project. Each case study models different approaches to collective housing across financial, social, political, and architectural dimensions. What follows is a condensed overview of each case, along with a synthesis of lessons, both positive and negative, for replicability.

## PROJECT ARTAUD

### Overview

Project Artaud is a live-work artist cooperative located in a former industrial building in San Francisco's Mission District. Today, Artaud operates as a nonprofit cooperative with 65 studios and 96 voting members, all of whom are residents in the building. A board composed of representatives from each of its seven wings governs decision-making and manages executive positions serving one or six-month terms. The cooperative board maintains an annual operating budget of about \$1.2 million, funded through member fees based on square footage (approximately \$0.73 per square foot), per-person charges, and utilities.<sup>2</sup> All members own shares in the cooperative, collectively owning the building.

Currently, the units are in high demand, with 170 people on the waiting list. For those who exit the list, the expected cost for a combined unit and studio space is around \$70,000.<sup>3</sup> According to the cooperative's bylaws, prospective residents must undergo an art portfolio review process that examines their practice and body of work.

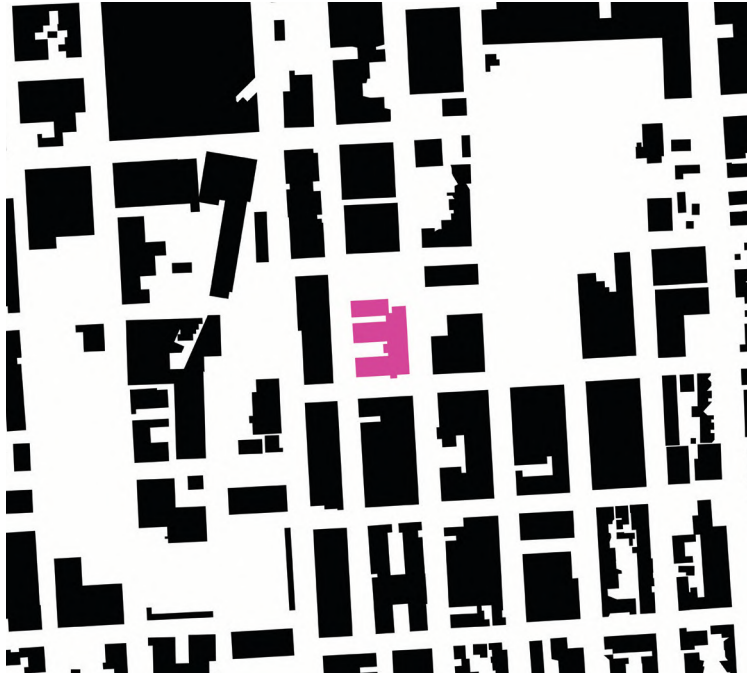
### Lessons for Replicability and Scalability

#### *Aging in Place*

A mostly homogeneous group of founding members (in age only) and an extremely high retention rate have resulted in most of Project Artaud's residents being seniors. The cooperative now faces accessibility challenges in a building not designed for aging residents.

#### *Equity Trapped*

While the low cost of living has greatly benefited Artaud residents, many seniors are "equity trapped". They missed out on wealth accumulation from rising real estate values in exchange for long-term stability, paying around \$360 a month.<sup>4</sup> More importantly, those units will remain affordable for future generations, demonstrating collective benefit over individual gain.



## MARIPOSA GROVE

### Overview

Mariposa Grove Cohousing is a democratically governed co-living community in North Oakland. The property combines three parcels into a shared lot with three houses containing six units. Legally, condominiums operate collectively as one community.

The land is owned by the Northern California Land Trust (NCLT), a Berkeley and Oakland-based CLT that leases it to residents for a small fee. NCLT preserves affordability through resale restrictions, limiting appreciation to Area Median Income (AMI) growth and verified improvements.<sup>5</sup>

Each unit is individually owned, while shared spaces and buildings are managed collectively by the Homeowners Association (HOA) made up entirely of residents. Acting like a cooperative board, the HOA oversees maintenance, collects dues, and owns the common areas. The property includes gardens, a chicken coop, laundry, and shared indoor spaces such as guest rooms, an art studio, a play area, an office, and a shared combined kitchen-dining hall for communal meals, meetings, and events.

Ownership is limited to households earning below 80 percent of AMI who qualify for mortgages. NCLT and the City of Oakland provide low-interest loans and forgivable grants. When units are resold, prices remain capped by NCLT.<sup>6</sup>

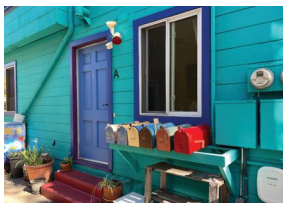
### Lessons for Replicability and Scalability

#### *HOA as a Cooperative in Practice*

Though Mariposa Grove is legally a condominium, its HOA functions much like a cooperative, collectively managing maintenance, budgets, and governance.

#### *The Middle Class Trap*

Replicating Mariposa Grove's model is difficult due to narrow income qualifications. Buyers must earn below 80 percent of the AMI, yet still qualify for a mortgage—a slim financial bracket.





## ARROWWOOD COOPERATIVE

### Overview

Arrowwood Hills Cooperative is a limited-equity, nonprofit housing community on Ann Arbor's north side.<sup>7</sup> The 44-acre site includes 350 townhouse units organized around open lawns, playgrounds, a basketball court, a small library, and a community center.

Residents buy membership shares in the cooperative corporation, granting the right to occupy a specific unit and participate in governance through an occupancy agreement.<sup>8</sup> This structure removes homes from speculation, ties monthly costs to operations, and keeps control in members' hands.

Affordability rests on two mechanisms: the original mortgage insured by the US Department of Housing and Urban Development (HUD) that enabled its development, and project-based Section 8 vouchers that subsidize rent. Sixteen percent of units are project-based Section 8, though any unit can be designated as a voucher household. Initial buy-in costs average \$11,000, with monthly charges around \$550.<sup>8</sup> For members unable to pay equity upfront, the cooperative provides internal loans.

Governance combines a resident-elected board with professional management. The board sets policy and budgets, while staff handle leasing, finance, maintenance, and daily operations. A first-come waiting list ensures income targeting, with at least 40 percent of new residents classified as extremely low income.

### Lessons for Replicability and Scalability

#### *Government as a Partner in Affordability*

From the original HUD loan to Section 8 vouchers and the city bailout, government support has consistently sustained Arrowwood's affordability, allowing extremely low-income residents to remain securely housed even as market prices rose.



#### *Professional Management at Scale*

After the bailout, Arrowwood shifted from resident-led to professional management. Members retained control through governance and activities, but maintenance and services became paid positions.

## ANN ARBOR COHOUSING

### Overview

The Ann Arbor Cohousing cluster—Sunward, Great Oak, and Touchstone—is a distinctly American model of cohousing. Built sequentially from 1998 to 2005 on a 35-acre site in Scio Township, the three communities consist of privately owned homes organized around shared greens and anchored by common houses for meals, meetings, and events. Parking is limited to the perimeter, creating a pedestrian-oriented, child-friendly environment that encourages daily interaction.

Each community is self-managed through consensus decision-making and volunteer labor—handling maintenance, landscaping, meals, and finances—while monthly meetings ensure participation and accountability.<sup>9</sup> Residents contribute several hours of work each week—gardening, bookkeeping, giving tours, or cooking shared meals. Despite strong social and architectural collectivity, the financial structure is that of an equity-unlimited condominium. The association owns shared spaces, while residents own and may sell their units at any price.

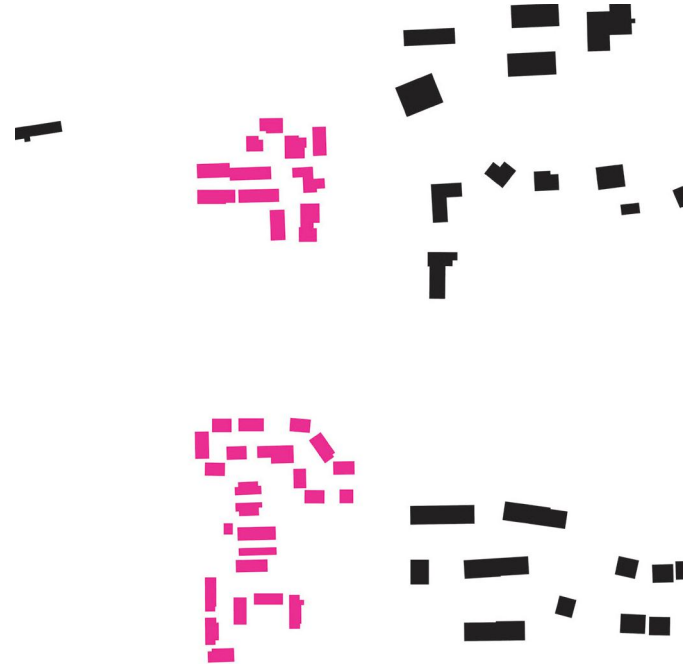
### Lessons for Replicability and Scalability

#### *Manageable Scale*

The Ann Arbor Cohousing cluster demonstrates that cohousing thrives at a human scale, roughly thirty to fifty households per community.

#### *Tradeoffs of Adaptation*

To make the Ann Arbor projects viable, Sunward's founders adopted a condominium model within which residents own their units while shared spaces are maintained through an association. However, without mechanisms to limit equity, home values appreciated, reducing affordability and diversity.





## WESTBETH ARTIST HOUSING

### Overview

Westbeth Artists Housing is an arts and housing organization in New York City's West Village, occupying a full city block in one of the city's most expensive neighborhoods. Designed by Richard Meier as an adaptive reuse of former industrial space, the complex includes several buildings with 384 units.

Though not a cooperative, Westbeth operates as a Housing Development Fund Corporation (HDFC), adhering to city, state, and federal housing regulations while maintaining its mission to provide affordable live-work spaces for artists. Rents are stabilized and supported by 77 floating Section 8 vouchers, along with income from commercial tenants, including a fintech company leasing a penthouse for \$40,000 a month.<sup>10</sup>

Governance is shared between a delegated management group—nonresidents who oversee maintenance, fundraising, and finances—and the Westbeth Artists Residence Council (WARC), an independent 501(c)(3) composed of volunteer tenants that functions as a tenants' union. WARC organizes community programs, exhibitions, and events.

### Lessons for Replicability and Scalability

#### *Aging in Place*

Like other cooperatives founded in the 1960s and 1970s, Westbeth has an aging population, with most tenants being over 65 and having lived in the building since its inception.

#### *Studio Spaces*

The delegation of these spaces has been an ongoing issue for decades. As a solution, management has implemented a standardized system using six-month license agreements.



## COOPER SQUARE MUTUAL HOUSING ASSOCIATION II

### Overview

The Cooper Square Community Land Trust (CLT) and Mutual Housing Association (MHA) together form one of the most significant models of permanently affordable housing in the United States. The origins of Cooper Square trace to 1959, when residents of the Lower East Side organized to oppose a “slum clearance” plan led by Robert Moses that would have demolished several blocks and displaced thousands; in response, the Cooper Square CLT was established. The CLT’s cooperative housing, formed in 2012, is owned collectively through a nonprofit cooperative association, the MHA, which remains independent with its own board composed of residents and community representatives. The Cooper Square CLT holds the land beneath the buildings, leasing it to the cooperatives. Emerging from decades of community resistance to urban renewal, this unique arrangement combines the non-market collective land ownership with cooperative housing management to ensure long-term affordability.

Today, the project comprises 21 rehabilitated tenement buildings with 328 apartments and over 20 ground-floor commercial spaces.<sup>11</sup>

### Lessons for Replicability and Scalability

#### *Leverage Political Capital*

Cooper Square succeeded because decades of organizing coincided with a political moment that enabled debt-free land transfer and rehabilitation funding.

#### *Ensure Permanent Demarketization*

Separating land from buildings and enforcing affordability through binding agreements guarantees permanent protection from speculation.

#### *Maintain a Spirit of Activism*

Cooper Square’s endurance rests on its activist origins.





## THE COOPERATIVE HOUSING GAME

In the Cooperative Housing Game, players assume the position of someone seeking cooperative housing in the US. Based on scenarios from the case studies above, the game exposes players to the financial, political, social, and architectural decision points that can either support or obstruct access. It aims to demystify cooperative housing and reintroduces it as a viable and expandable model within American discourse.

The game is simple to learn and play. You begin by rolling a die, then asking other players to read aloud the corresponding events. The game engages players in a

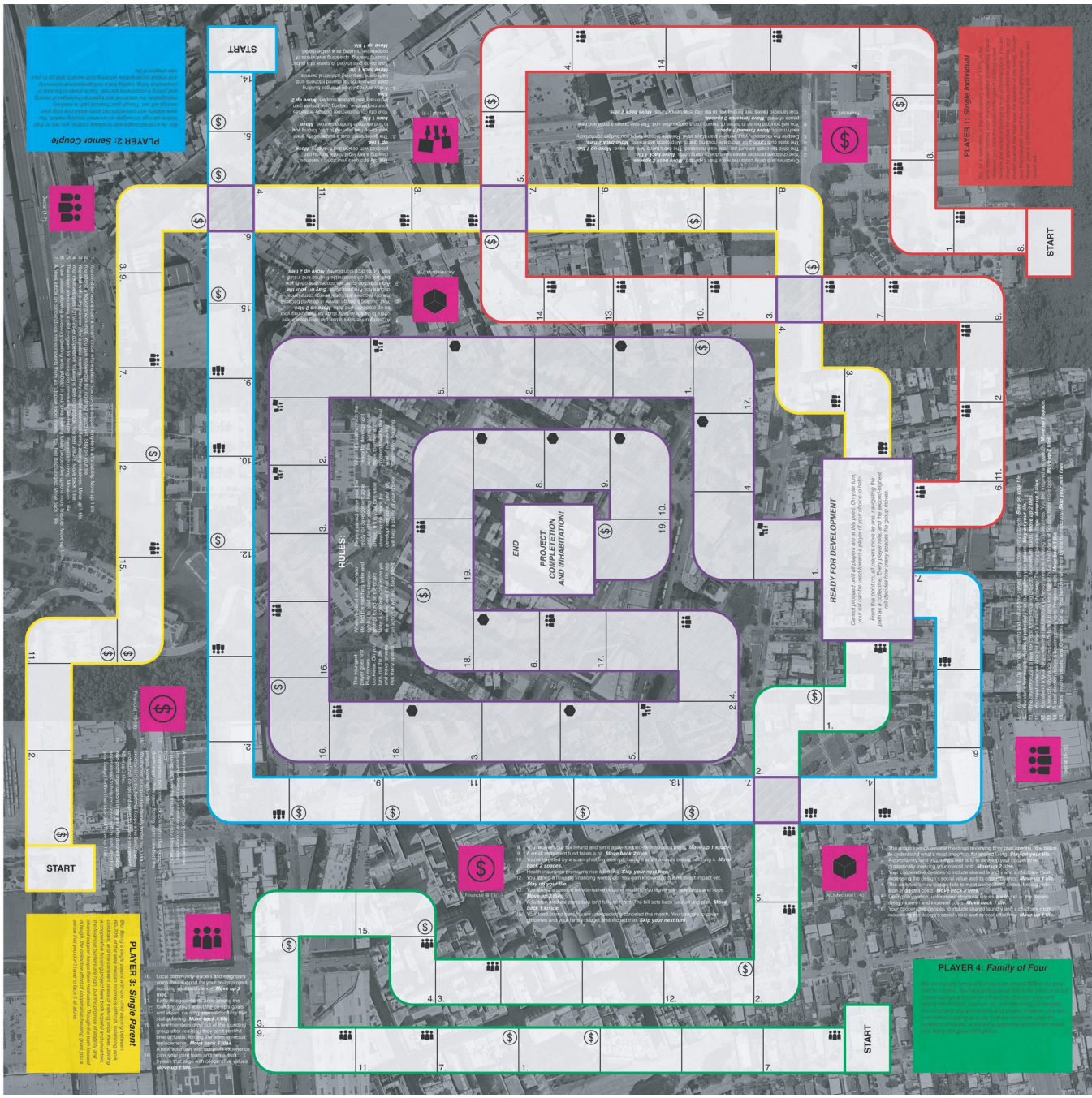
collaborative act, culminating in a final phase that requires collective movement and allows victory only as a group. It represents a participatory mode of education within which the audience actively engages with the exhibition rather than remaining outside observers. Exhibited alongside the case studies, the game fosters a desire to engage more deeply with the content, viewing the concrete examples of the situation presented on the board. Over the course of the exhibit and through various small events, the game has been played by over 100 participants. Responses have ranged from "I learned that I hate landlords" to "Now I just want to do this [develop cooperative housing] in real life."



***[ The game aims to demystify cooperative housing and reintroduces it as a viable and expandable model within American discourse. ]***

1. *The State Of The Nation's Housing 2025* (Joint Center for Housing Studies of Harvard University, 2025).
2. Project Artaud residents interviewed by the author, July 23, 2025.
3. Project Artaud residents.
4. Project Artaud residents.
5. Mariposa Grove representative interviewed by the author, July 23, 2025.
6. Mariposa Grove representative.
7. Arrowood Cooperative members interviewed by the author, November 1, 2025.
8. Arrowood Cooperative members.
9. Ann Arbor Cohousing community interviewed by the author, October 15, 2025.
10. Cassandra Baim (West Beth) in conversation with the author, June 2025.
11. Daniel Weinberg (Cooper Square) in conversation with the author, August 2, 2025.







# POSITION

the way in which something is placed or arranged

# Dimensions 39

Letter from the Editors

*Dimensions 39* arrives sideways as an invitation to reorient.

The declassification of architecture as a professional degree to take effect in July of this year compels this issue's cohort to meditate on what our discipline even *is*. What may be significantly disruptive about our perceived work in the broader scope of the American cultural imagination? In light, *[Dis]positions* became the material and conceptual core around which this year's edition of the journal is organized.

The architectural discipline and its built forms carry manifold associations with power, historically and contemporarily. This condition is double edged. It is our hope that the diversity of thought, approaches, and work which animates *Dimensions 39* may serve to construct not solely a beautiful portrait of production at our college, but also a will within each of us to find our own ways to meaningfully build, *together*, for that is the only way to be radical. We forefront our invitation to you as an agential reader to negotiate both form and content of *Dimensions 39*.

Let us not forget that the political landscape is inherently spatial. To catalyze change, we must first name our problems. Contributors to this issue share an aptitude for unashamedly articulating their perspectives while maintaining space for recipients of their work to form their own. From understanding how borders are layered, to critically engaging with evolving technologies, the positions taken across the issue bring into focus the disparity between the architectural profession and the world we build into. Each urges us to engage more deeply—with one another, with the intention behind our work, and with the conditions that ultimately shape it.

We invite you to sit with these works. Let them challenge you. Let them comfort you. Let your thoughts linger and waver. Learn from their methods and their analytical structures. In doing so, begin to recognize your own disposition. Mark this volume up. Let it wear as you reference it. Rotate it, flip it upside down, read it backwards. Treasure it as proof of our discipline's potential to demand and do *more*.

Volume 39 comes enveloped by a band which operates as a symbolic threshold and makes significant the act of handling a book. Keep it as a sleeve to align *Dimensions* on your shelf, use it as a bookmark, as a scratch sheet, or anything else you like.

*Dimensions 39* is yours. *Do* with it as you will.

Mortimer Ackerman  
Malavika Anand  
Jacob Brookhouse  
Emma High  
Suchita Hire Matada  
Cory Hoffmann  
Fulin Liu  
Dana O'Connor  
Danah Owaida  
Angie Perez-Jiménez  
Erin Roberts  
Ruixue Yang





# Christian Unverzagt

Associate Professor of Practice in Architecture

The more things stay the same, the more they change.

Thinking about tradition, this is how I wrote down the expression that fact checking would reveal had transposed Jean-Baptiste Alphonse Karr's observation "plus ça change, plus c'est la même chose" which actually reads "the more things change, the more they stay the same."

While Dimensions 39 retains the 8 by 10 inch size established in 2002 with volume 16, rather than being bound in portrait orientation, it is oblong, having shifted horizontal, which has previously occurred only twice with volumes 3 & 4 in 1989 and 1990.

Same size, new disposition.

In their introduction to volume 3, the editors made clear the mission of Dimensions, whose "aim was to encourage student discussion in printed form and to make public the lively debates taking place around drafting tables, seminar rooms and jury spaces." The studio, expanded with its third generation of desks, relocated review spaces, and proliferation of digital technologies, allows the debates to carry on, as lively and expansive as ever.

Same spirit, new forums.

Same ambition, new discourse.

Back then, the call for submissions was more open, but still challenging: "Deciding what to publish was difficult... sometimes exasperating, but never dull." I sat outside their selection process, but observed how this year's editors worked continuously to support each other while also seeking to impose both a rigor and an openness to the artifact they designed. Mind you, theirs is not a forced imposition, and more akin to the necessary rearrangement of book pages undergo in order for the large printed sheet, once folded, to reveal the sequential order the reader expects. Theirs delivers not only what the reader expects, but challenges readers with new and alternative expectations too.

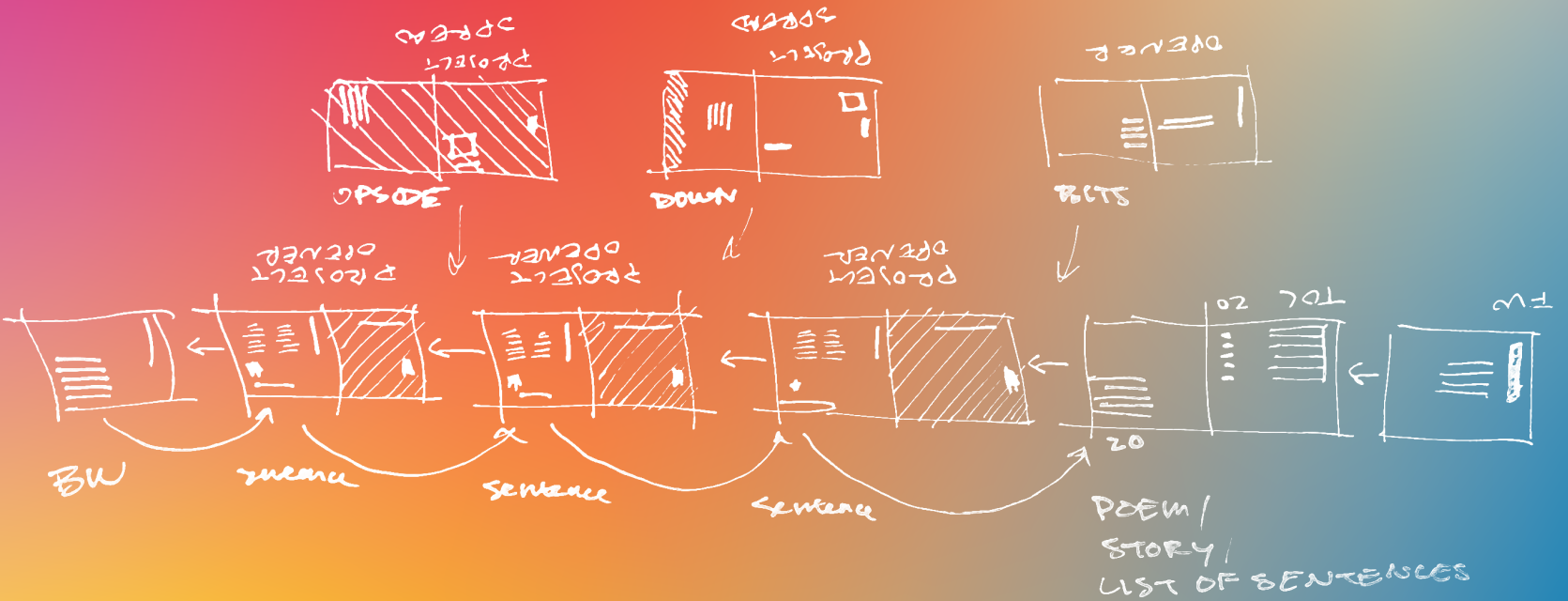
Same desire, renewed commitment.

Volume 3 closed with the "hope that succeeding students at the College believe in the mission of the publication enough to keep it alive in the future." They hoped their fragile reinvention of the school's 1950s Journal Dimensions might lead to a continued commitment to carry on. A commitment to both tradition and reinvention. And volume 39?

Christian Unverzagt  
Faculty Advisor  
April 12, 2026  
Detroit

# IMPOSITION









# cont

|                                                                                                                |   |     |
|----------------------------------------------------------------------------------------------------------------|---|-----|
| The game is simple to learn and play.                                                                          | A | 175 |
| The role of the artist—or architect—is not the production of new content, but the reorganization of knowledge. | F | 167 |
| The stakes lie in how we read ...                                                                              | T | 159 |
| ...requiring a radical presentness to keep something actively in our minds.                                    | W | 151 |
| Viewers are invited to dwell and linger on each page.                                                          | T | 143 |
| Displays are two contrasting conceptualizations of the environment.                                            | F | 135 |
| Each site tells its own story.                                                                                 | F | 127 |
| We cannot draw binaries anymore.                                                                               | I | 121 |
| Not every experience can be trained into a model.                                                              | I | 113 |
| A new framework is required.                                                                                   | T | 105 |
| You have to be humble, you have to listen, you have to be open.                                                | I | 95  |

# content

Multiple actors are in play together at a time, working together and responding to various conditions.

87  
T

There are no clean divisions, no singular before or after.

77  
W

What can still be saved?

69  
F

A truly plastic architecture: adaptable, alive, and rooted.

61  
W

Architecture ceases to function as a passive vessel...

53  
T

...giving way to new and unpredictable readings throughout time and multiple visits.

45  
F

Dwell in the glitch, the drag, the ornamental excess.

37  
T

Time and space fold and overlay one another, binding into a place of deeper reflection and relearning.

29  
W

You have to get out of your comfort zone.

19  
I

Let's shake it up.

11  
W



dimensions





www

]

