MICHAEL D.
LUTCHENKOV

WORK SAMPLE
WASHU
2022–2025

Projects

Class Houses, Forest Park
Swiss Army House, Barcelona
The Spare Room, NYC
Beet Shed, Hokkaido
Accumulative Design, St. Louis

Projects

Class Houses, Forest Park
Public Educational Greenhouse
Swiss Army House, Barcelona
Affordable Housing
The Spare Room, NYC
Public Library/ Library of Things
Beet Shed, Hokkaido
Agricultural Education Center
Accumulative Design, St. Louis
Experimental Design Business Incubator

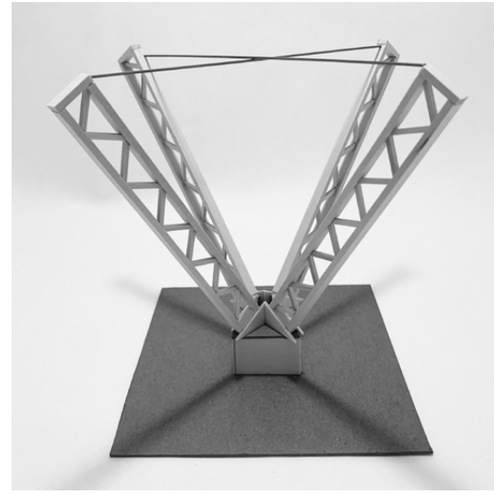
CLASS HOUSES

This proposal for an addition to the historic Jewel Box in Forest Park, St. Louis, MO, envisions a dedicated space for food education. Located on a vacant corner lot just south of the main structure, between the greenhouse complex and the park's administrative building, the new pavilion integrates seamlessly with its surroundings while expanding the site's educational potential.

Beginning my education by designing a simple program like a greenhouse allowed me to focus on developing a working process, rather than struggling to integrate multiple programmatic elements into a single composition. I carried many of these early process-based lessons through all of my later work at WashU.

I began by drawing from the surrounding urban environment. Searching for compelling aspects of "existing conditions" has remained my preferred strategy for overcoming the blank page at the start of any new project. For this assignment, I looked to St. Louis for structural precedents to inform the design. I studied the Gateway Arch, Union Station, and the Jewel Box greenhouse itself. From these precedents, I created a series of study models to keep on my desk and critique.

I have continued using physical modeling as a method for advancing design through abstraction and reflection, gradually developing a more iterative and synthetic approach. For this first project, however, the process felt more like a multiple-choice question. I ultimately chose the structural system of the Jewel Box, as it offered the most flexible foundation for meeting the climatic needs of a greenhouse.



Class Houses, Forest Park

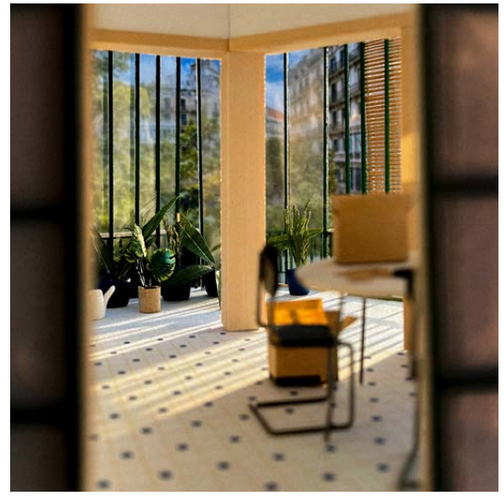
SWISS ARMY HOUSE

In Barcelona's Barceloneta neighborhood, issues such as climate change, rising rent prices, and population growth have led to resident displacement. A new housing development on the site of the old maritime college aims to counter these trends by reconnecting the community with the waterfront and addressing local housing needs.

The process for the international housing studio can best be described as one of constant iteration. I began, once again, by looking at "existing conditions" to build a kit of parts. Rather than adopting elements from the city wholesale, I started asking: What? Why? How? What part of an existing structure or typology interested me? Why should it be used in my design? How can I apply it? This framework of inquiry would go on to define all of my future iterative processes. At every level of design, from detailing to massing, I asked: "What? Why? How?"

From this borrowed kit of parts, I began working with programming. Housing naturally lends itself to an additive process. I started by developing a single unit that could be aggregated. By focusing on one unit type, each element of my kit of parts could exist at every scale of the building, and each had to function aggregately.

This was my first experimentation with modular design, and I found that spending time to make a single module work as independently as possible became a foundational strategy in my designs moving forward. This project presents an opportunity to experiment further with how modular design could shape the building's exterior expression.



Swiss Army House, Barcelona

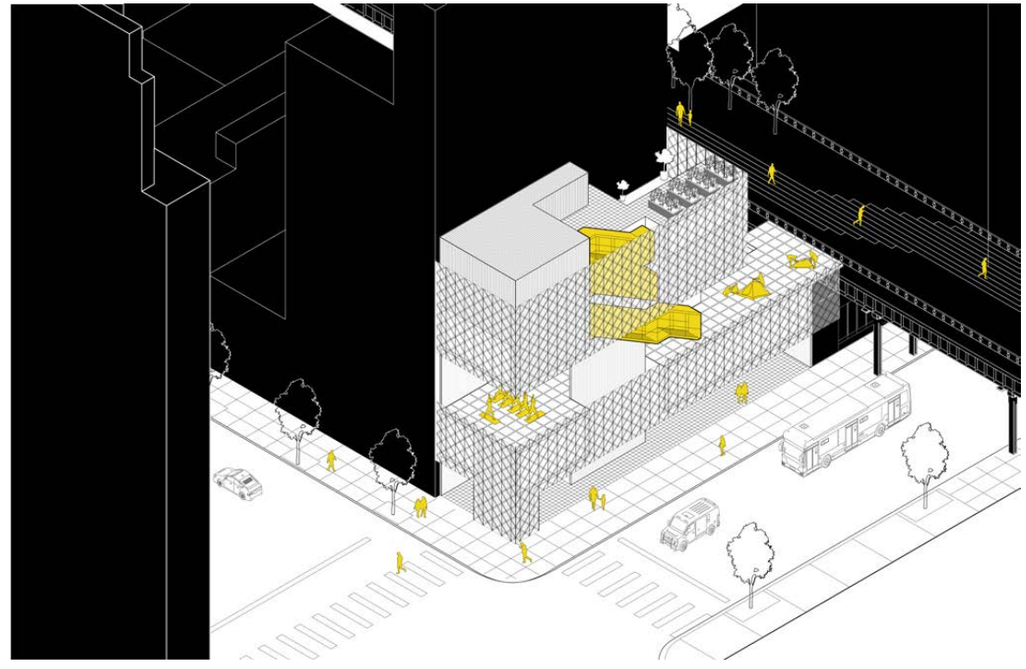
THE SPARE ROOM

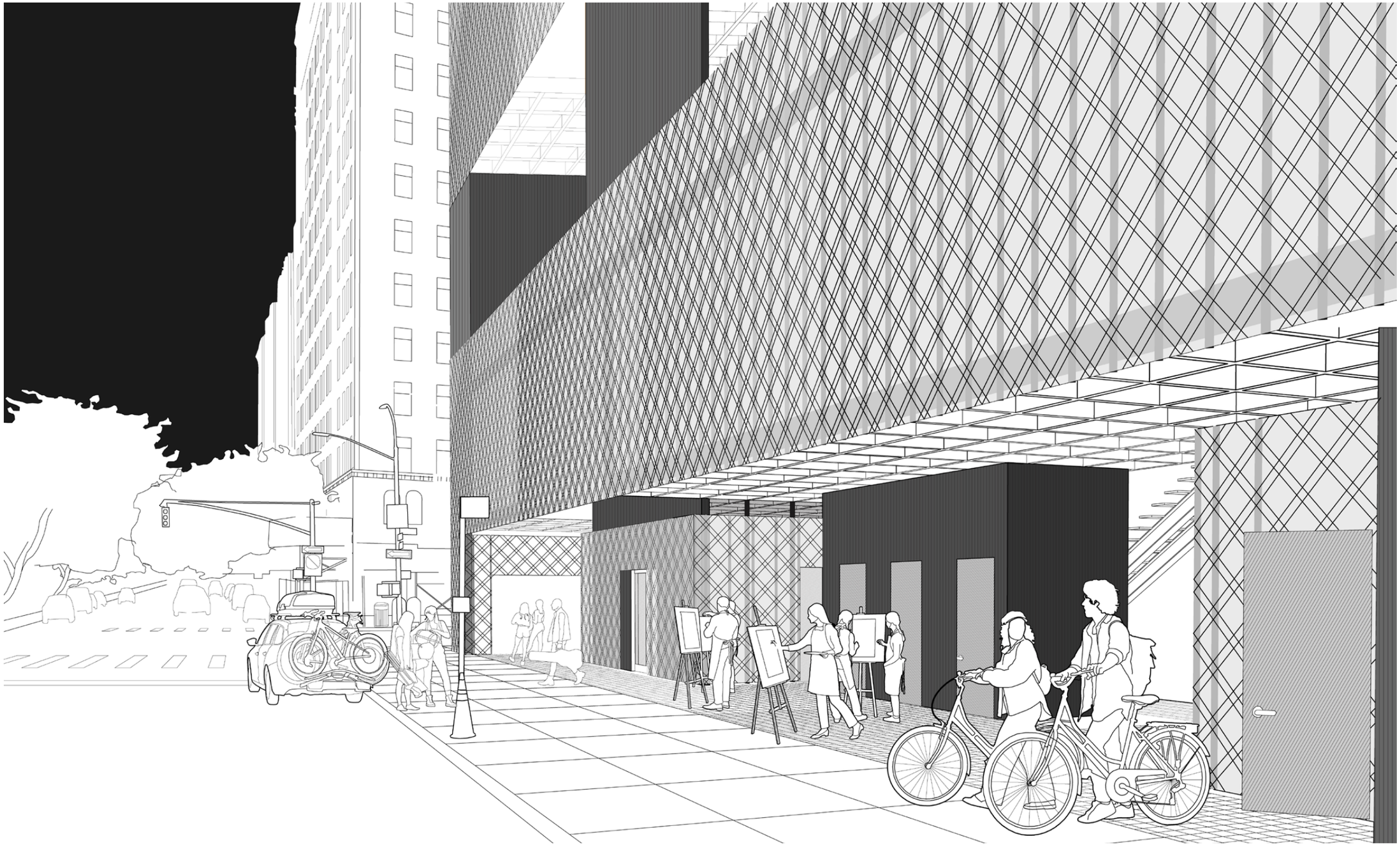
Located in Chelsea, NYC, this project responds to rising housing costs and the growing mismatch between apartment sizes and residents' needs for recreational and hobby spaces. The inclusion of shared spaces aims to address the increasing rental prices in Chelsea, which continue to outpace wage growth. By promoting a sharing economy, the project enables residents to access resources and spaces they might not otherwise afford, fostering community resilience and collaboration.

Development of the "Library of Things" began with an experiment: creating a design language without consideration for the site. Working in a conceptual void allowed me to focus on refining my design process. I applied my "What? Why? How?" method to a series of quick physical models. The small scale of these studies encouraged abstraction, which proved especially productive. Each iteration introduced new considerations, while the physical limitations of the models imposed useful constraints on the geometry.

Applying this language to a real site posed a greater challenge. Responding to the site conditions often clashed with the constraints of the established design language. Additionally, the building had to be developed holistically and volumetrically, as each component relied on two-dimensional planes that only gained structure through three-dimensional folding.

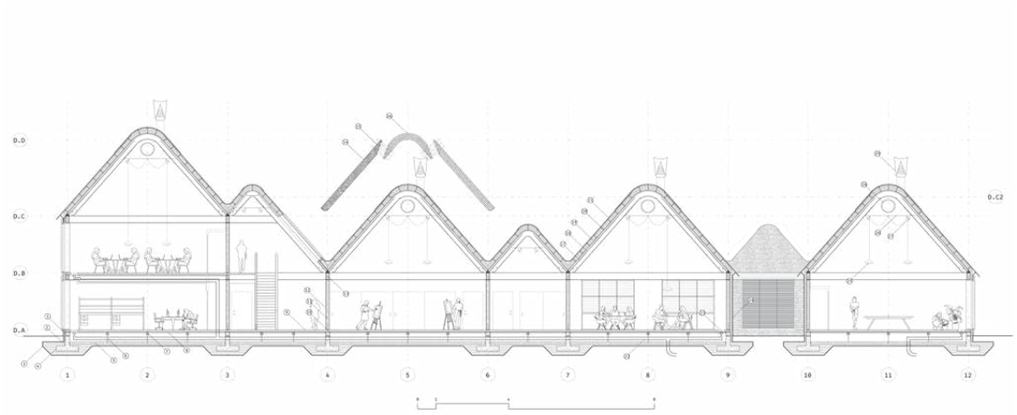
The experimental nature of the project gave me the freedom to explore the intersection of site specificity, form, and conceptual intent, without the immediate need to address the more pragmatic aspects of architecture, such as accessibility.

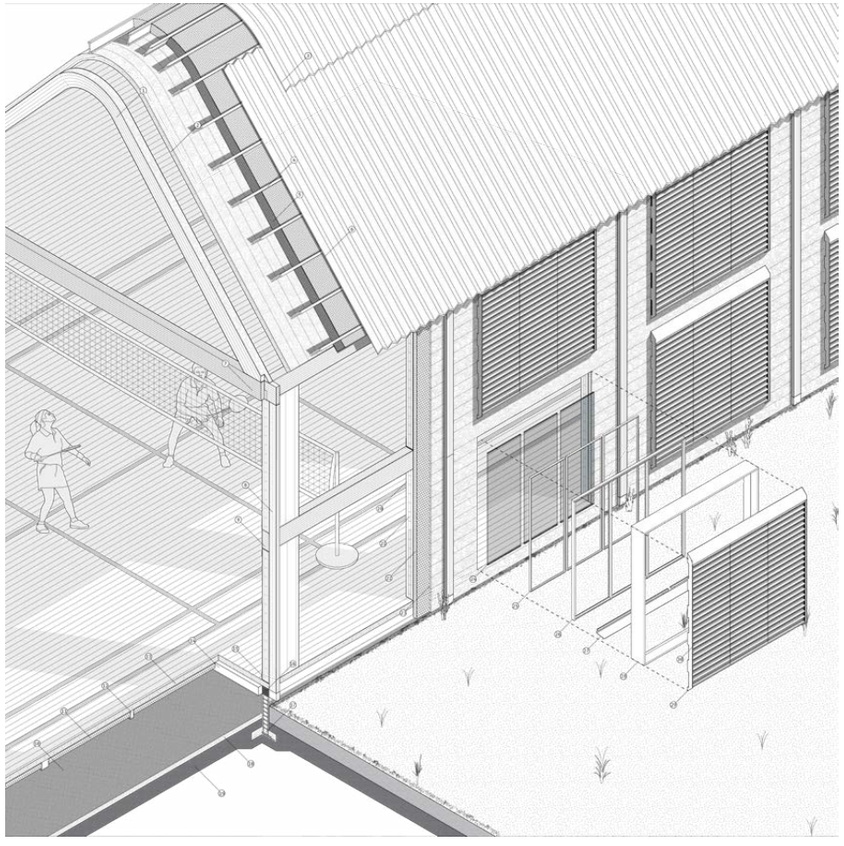




The Spare Room, NYC

BEET SHED





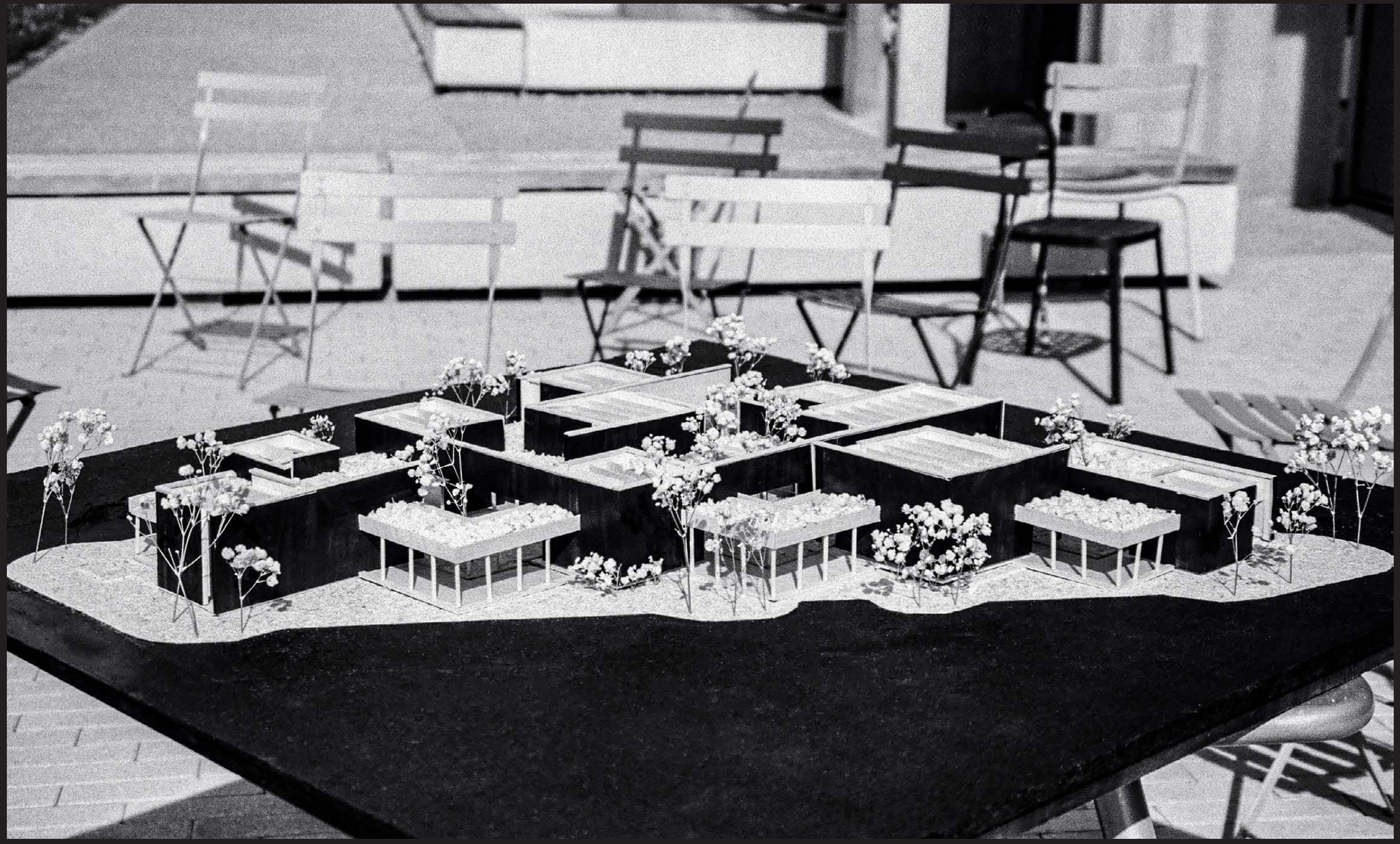
An agricultural research center and school was proposed to combat the effects of urbanization by training a new generation of agricultural professionals. The facility would also provide essential senior care and community resources for the surrounding aging population.

Following feedback from my work on the Library of Things, I wanted to “play” more without being constrained by practical design elements. I took this idea of play seriously, using play as a method to develop the earliest elements of the design: programming. I created a physical game board that I used to generate spatial arrangements of programmatic elements. From the previous semester, I had learned that using abstract physical tools allowed me to engage more deeply with core concepts without becoming bogged down by details too early on.

This approach naturally lent itself to an additive design process, which I extended into three dimensions by creating simple wooden blocks to represent individual units. This allowed me to develop both the basic programmatic layout and the volumetric expression of the building before addressing the technical aspects of the design. Using a “gamified" technique for the early phases of design heavily informed my process as I began my thesis work.

I also returned to referencing vernacular conditions as the foundation for my design. The site had a dual character—facing open farmland on one side and a suburban village on the other. I used the scale of these existing contexts to define my design module and inform the expression of the facade. From the farmland, the center appears as a series of long, low agricultural sheds; from the village side, it reflects the dispersed arrangement of peaked-roof houses along suburban streets.

Beet Shed, Hokkaido



Accumulative Design Center, St. Louis

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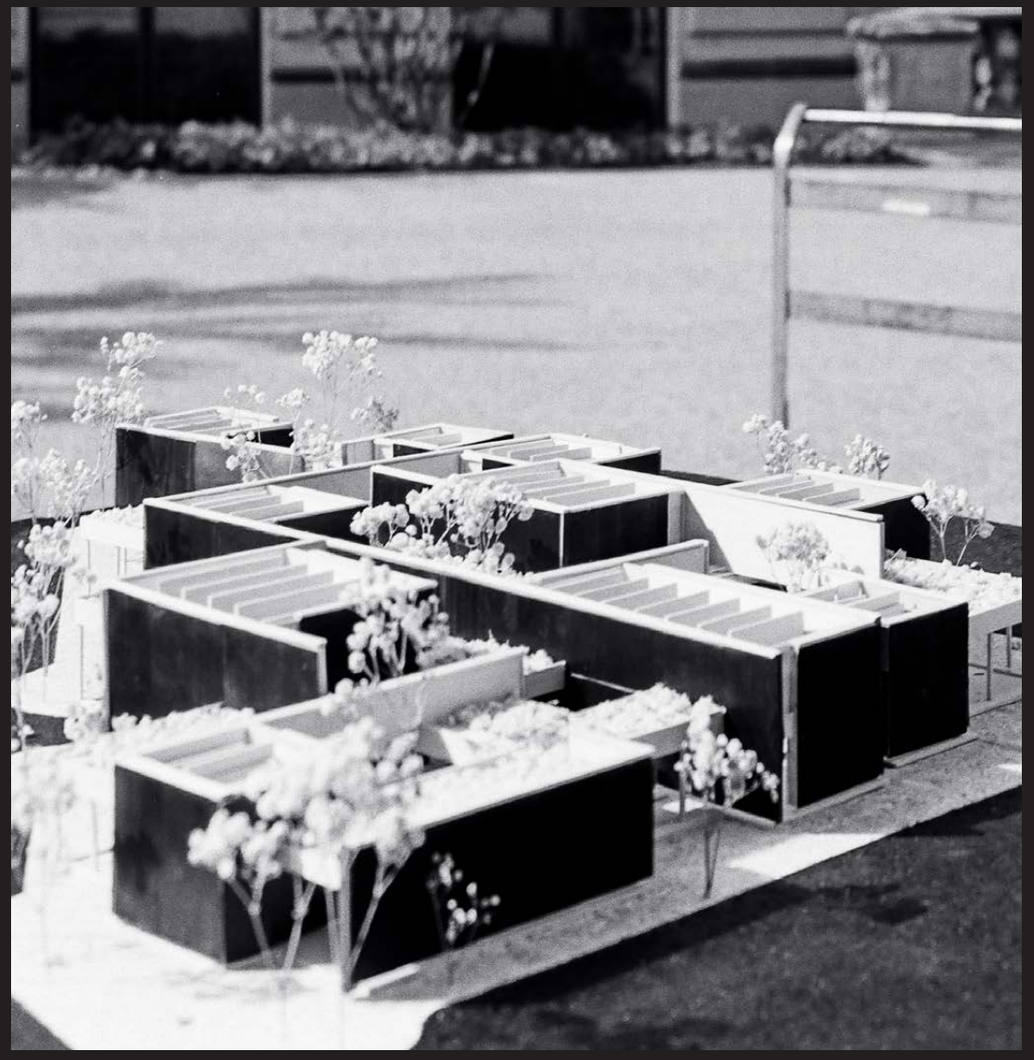


Accumulative Design Center, St. Louis

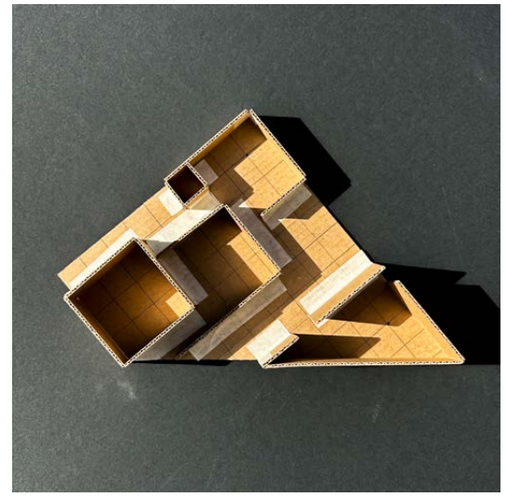
ACCUMU-LATIVE DESIGN

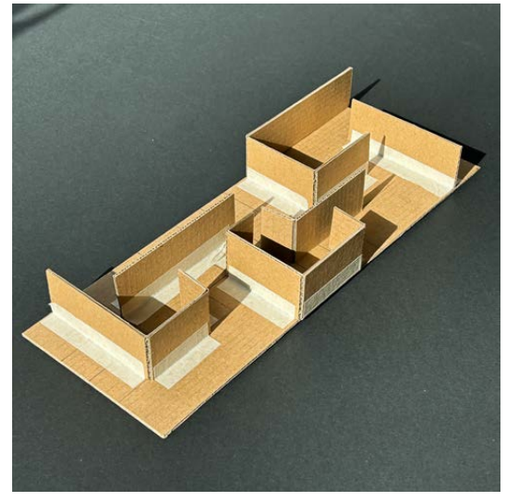
The Center for Creative Businesses represents the culmination of the techniques I developed throughout my architectural education: experimentation through iteration and play; referencing existing conditions as the foundation for materiality and spatial scale; and the application of a rules-based design language through additive design and collective form.

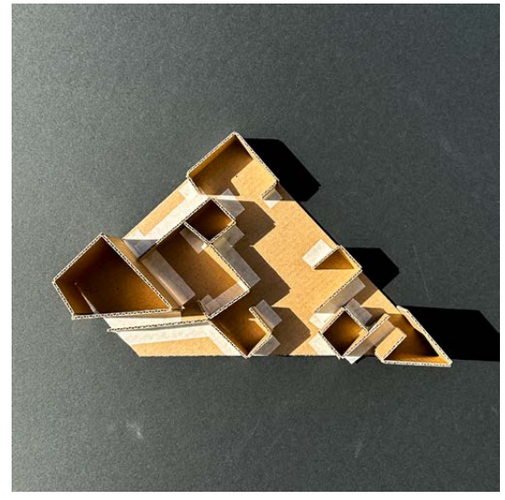
I began by developing a series of cardboard language studies to explore an initial concept: no doors, but defined spaces. This idea centered on the tension between the need for clearly defined studios and programmable zones, and the desire for fluid transitions between workspaces that reflect the dynamic nature of an individual's creative process.

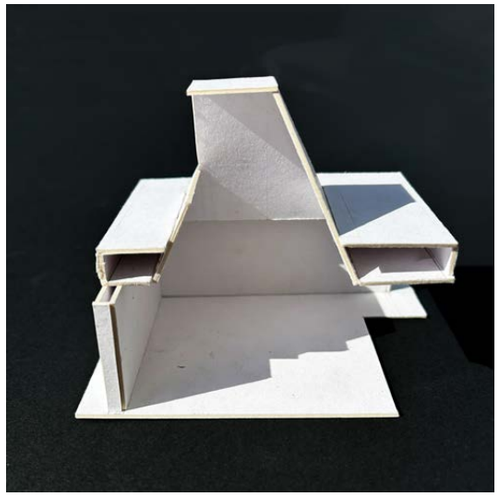
"Play" guided the arrangement of the program. I created a second version of the programming game board that I had used in the previous semester to quickly generate and refine programmatic adjacencies. These studies ultimately led to a spatial language composed of interior rooms framed by oversized engawa, threshold zones that could expand and contract to create flexible groupings of spaces. Courtyards served multiple purposes: defining zones within the building, drawing light deeper into the floorplate, providing large outdoor workspaces, and offering visual transparency to connect the community with the work happening inside.

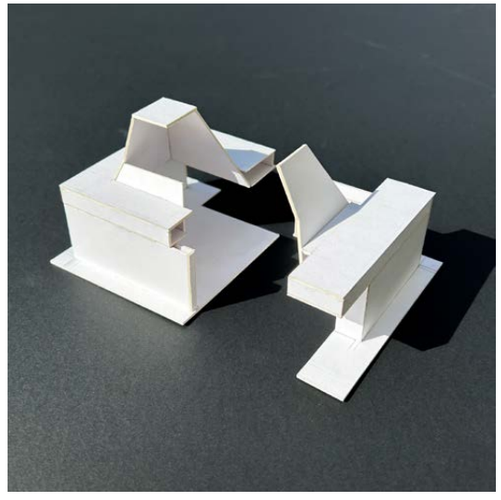
Developing this flexible, rule-based system allowed the building to evolve with the project's growing network of design drivers. At each phase, the composition of spaces could shift in response to new considerations, while the underlying language remained consistent, allowing each iteration to refine, rather than replace, what came before.



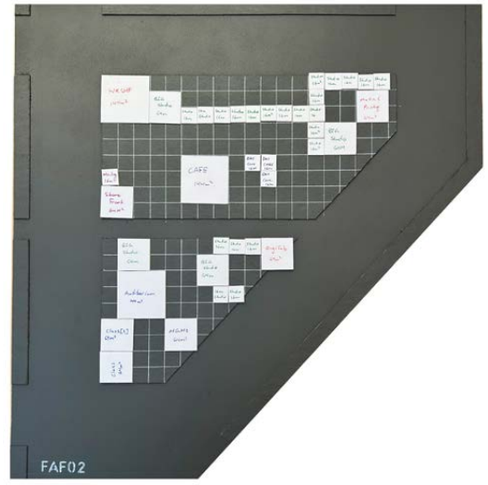


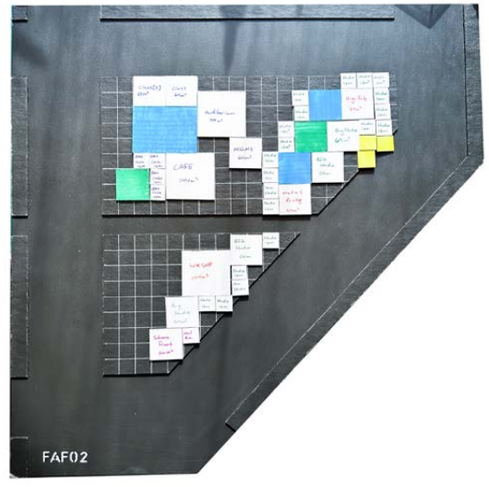






Design Language Exploration Models

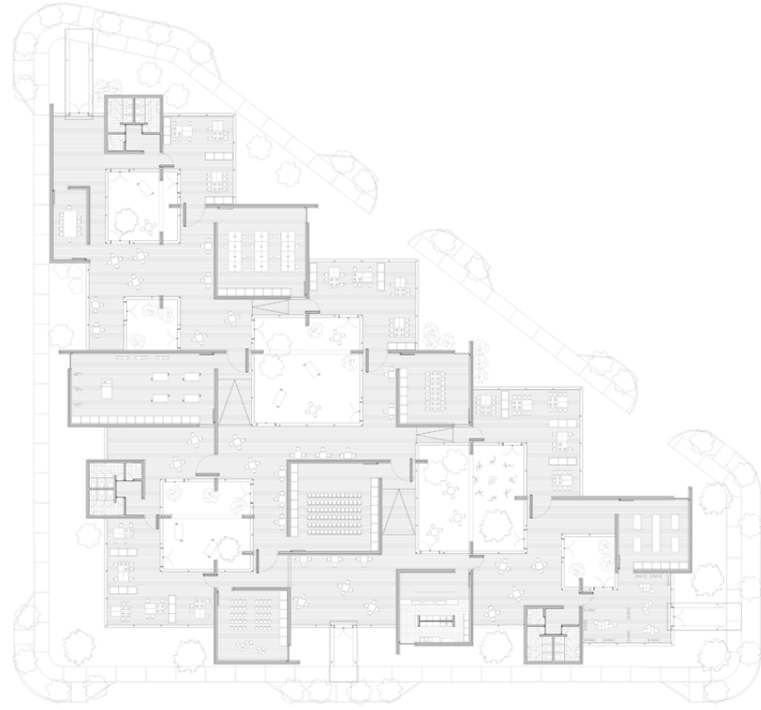




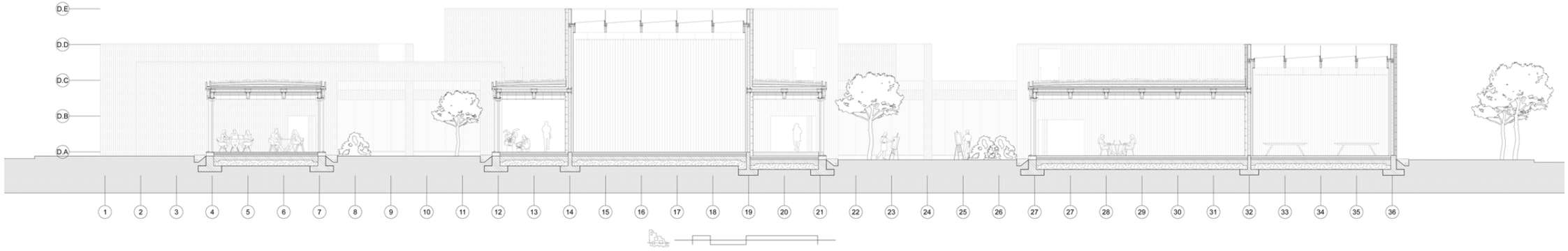
Programming Model

Exterior Collage Render

Site Plan



Plans and Elevations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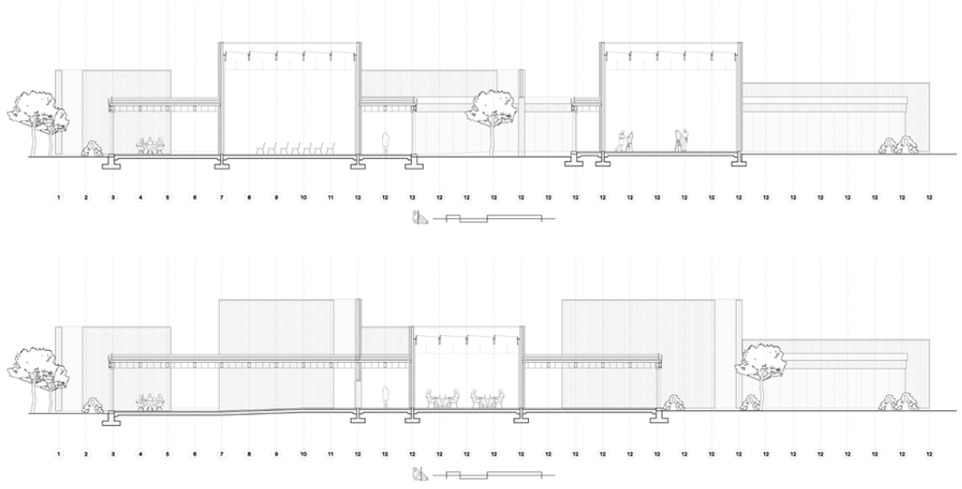
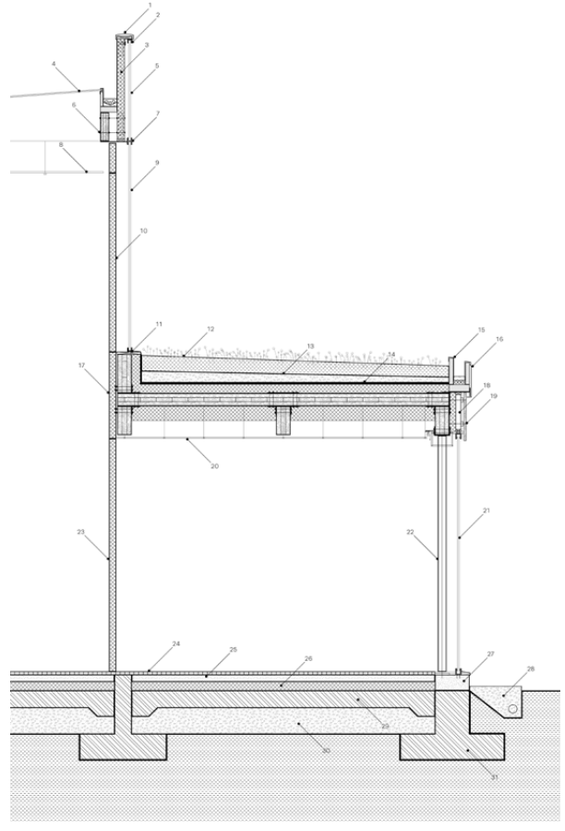
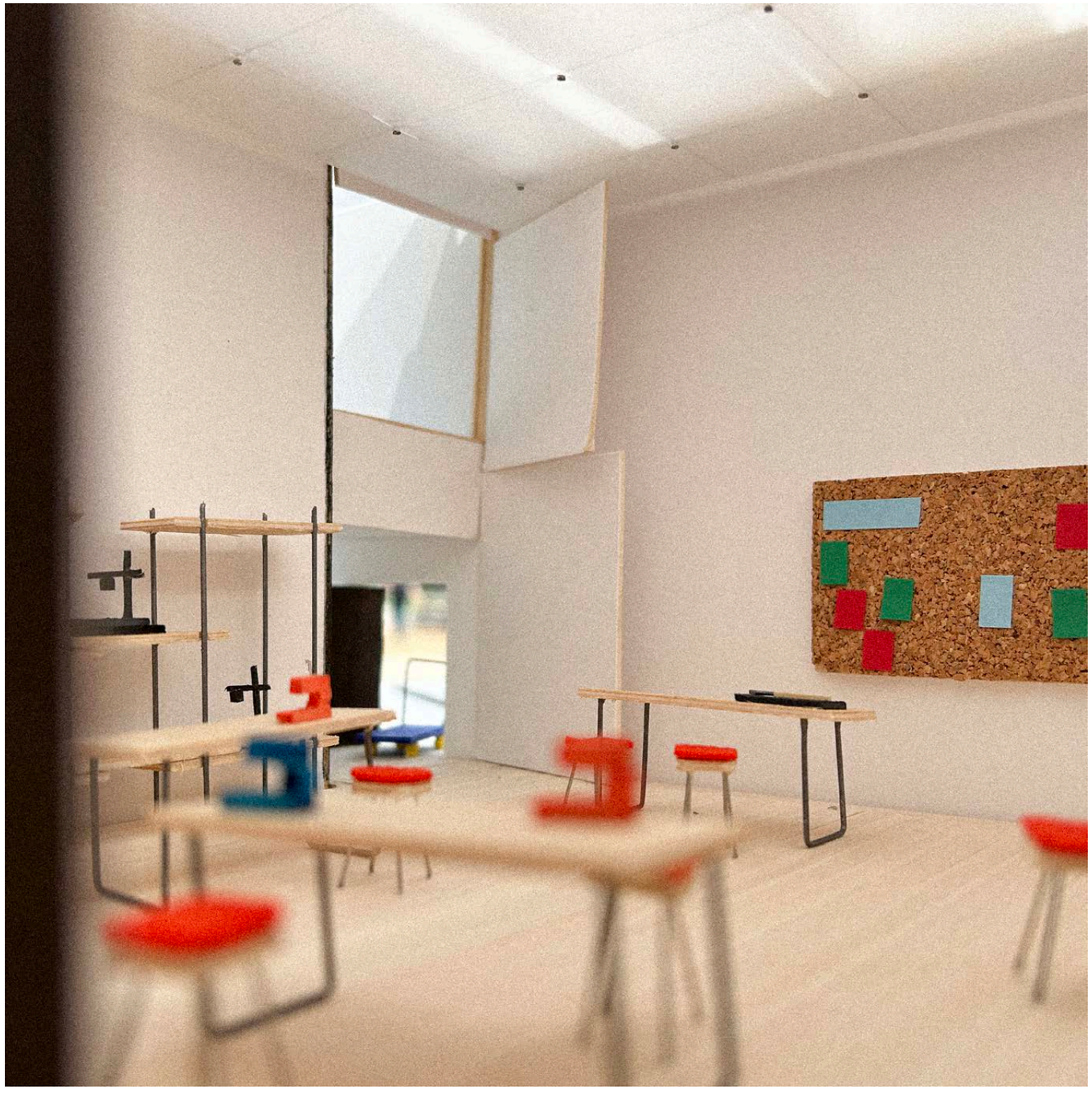




Sections



Atmospheric Studies, Interior (left) Exterior (right)