Architecture
at Chicago

Featured Graduate Student Work 2019–20

UIC

Arch 551

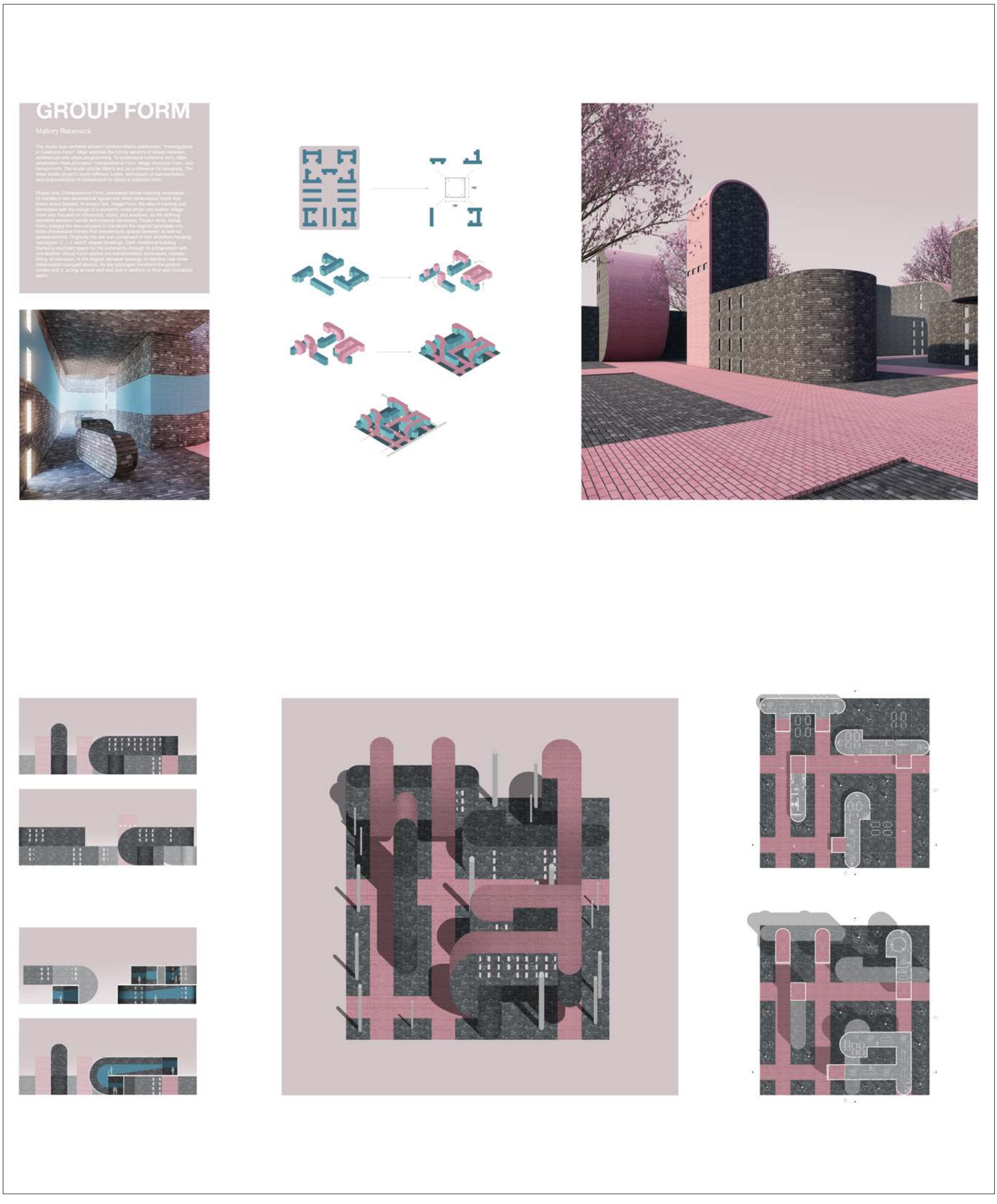
The “F” Word(s): Architectural Form + Format

First-year graduate fall studio

Faculty: Kelly Bair

This studio focused on forms of architecture and their production through the lenses of geometry (lines) and image (pixels). Historically, architecture as both a disciplinary and professional pursuit has been heavily invested in the spatial and descriptive principles of geometry. In “The Projective Cast,” Robin Evans ties the advancement of the discipline directly to representational techniques of the time. Today, architecture finds itself buried within a grab bag of techniques, as it has moved beyond the novelty of the digital into the postdigital. This means that perhaps the geometry has given way to image, the practices of orthography to those of pixel processing.

This studio situated itself at the intersection of the two. To coax out the aesthetic of this coexistence, students worked through design problems rooted in both projective geometry (drawing) and advanced computation (imaging). Fumihiko Maki’s *Investigations in Collective Form* served as a loose guide in the design of an addition to the National Public Housing Museum in Chicago.



Mallory Rabeneck
“Group Form”

Arch 551

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First-year graduate fall studio

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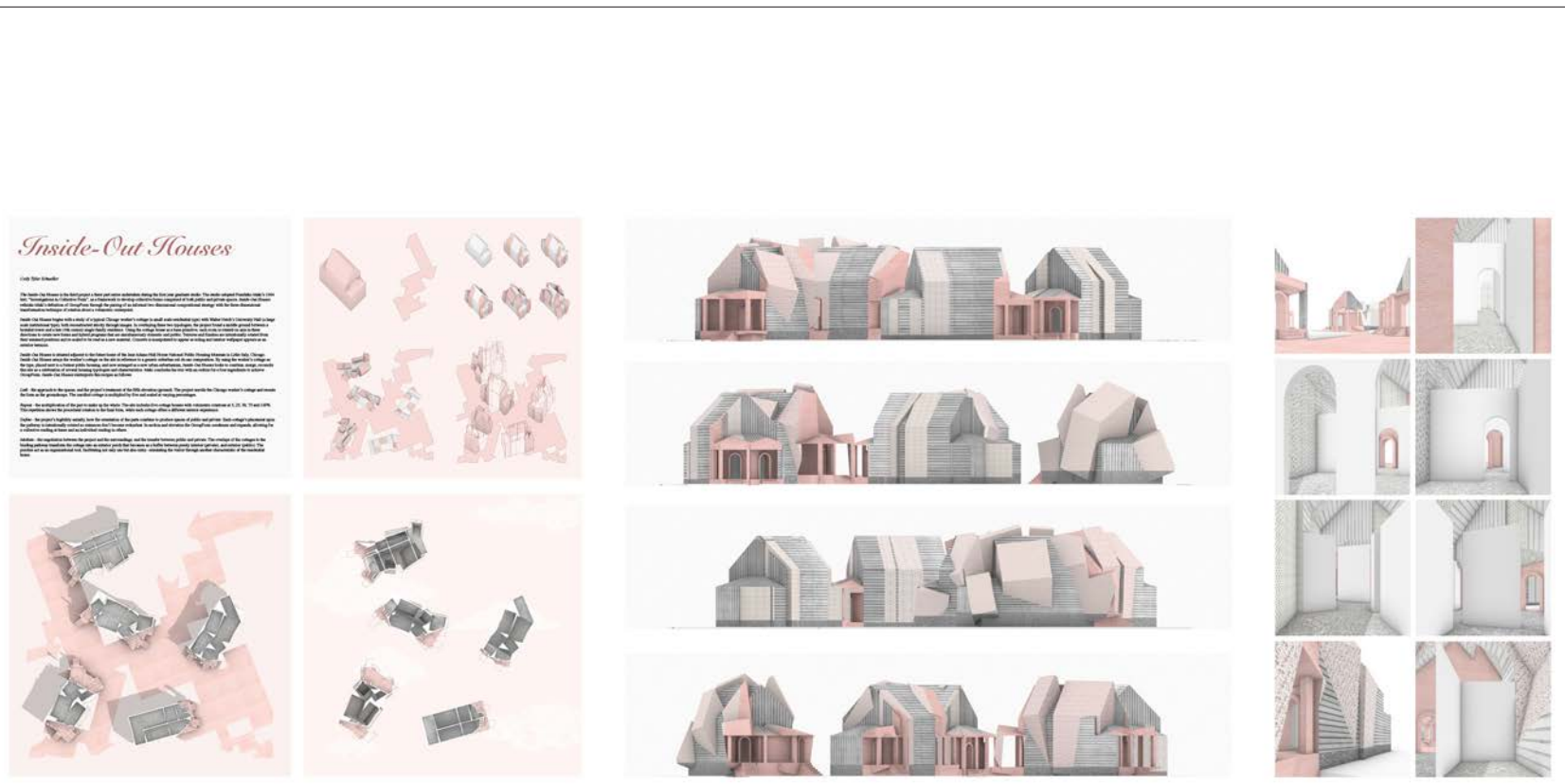
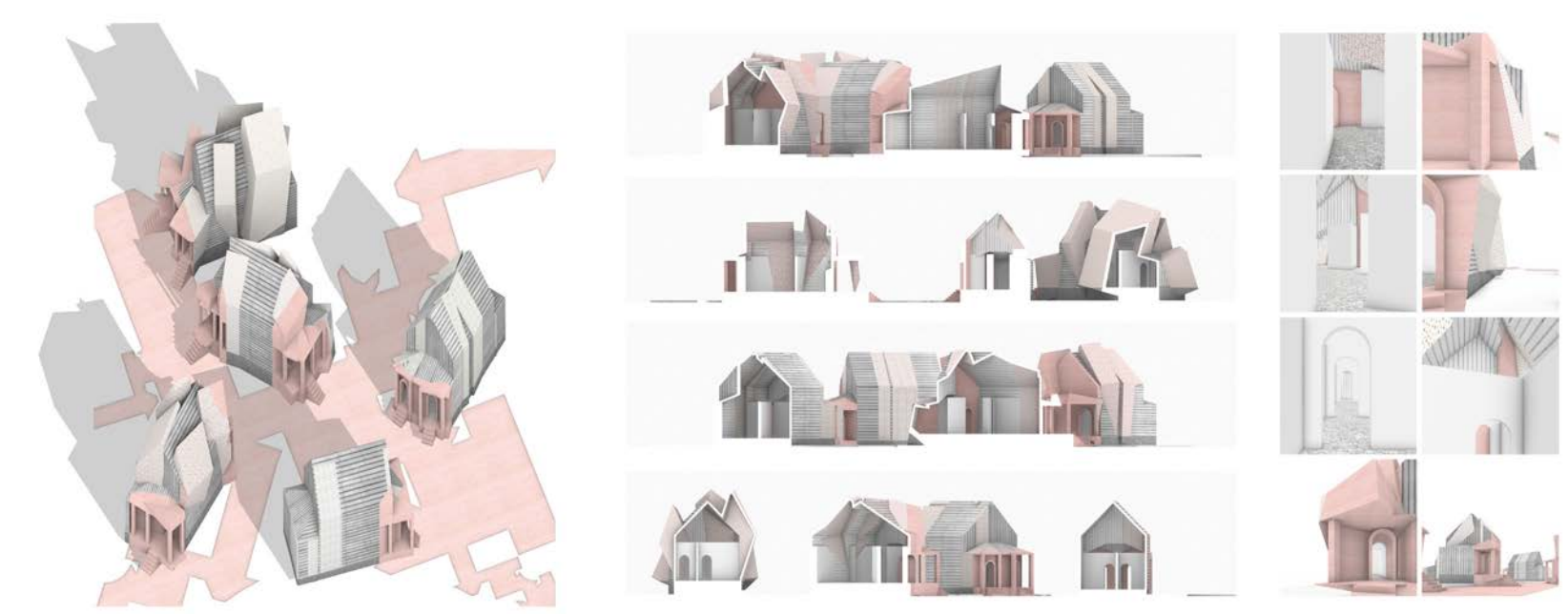




Cody Schueller
“Inside-Out Houses”

Arch 552

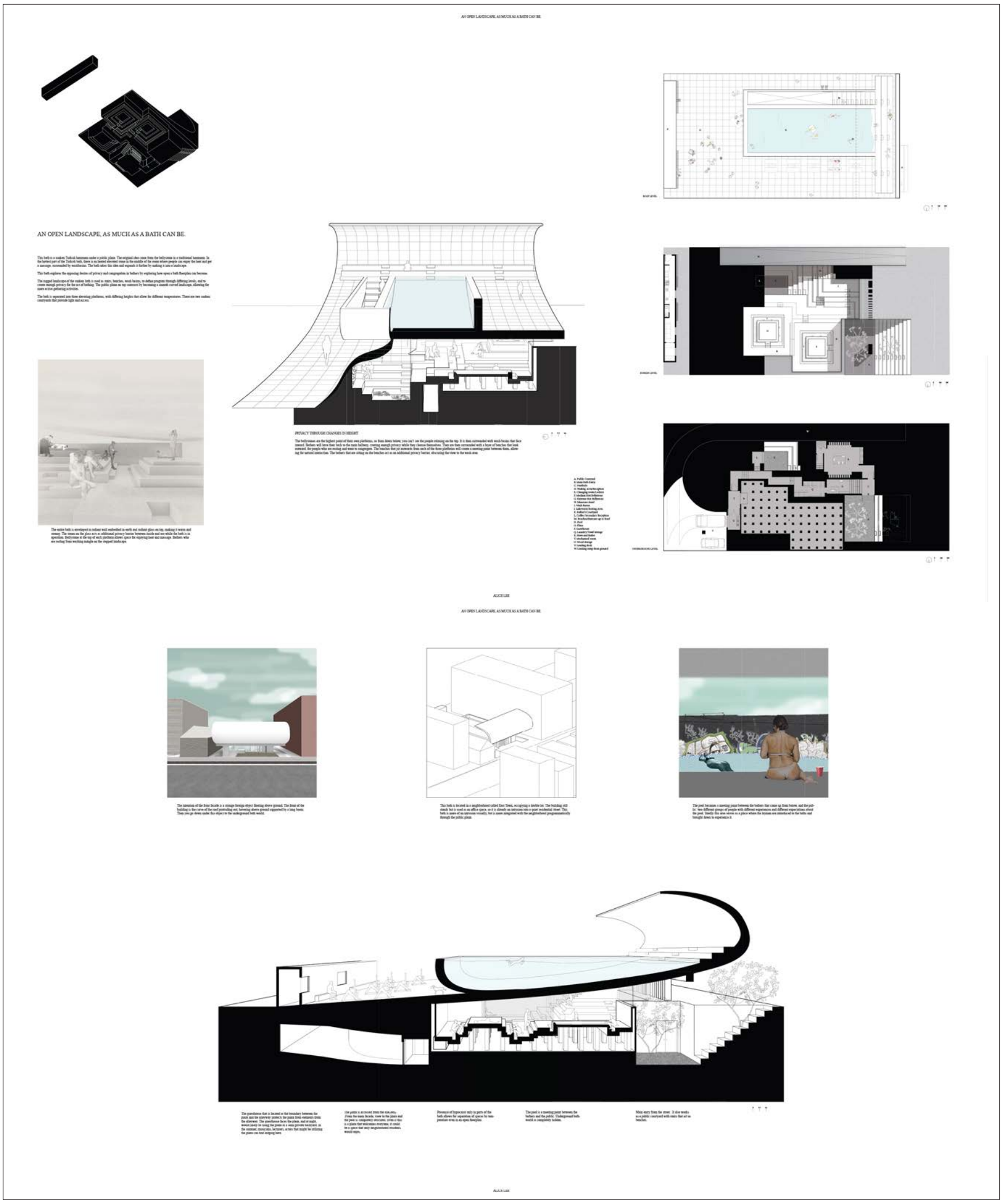
The Baths

First-year graduate spring studio

Faculty: Francesco Marullo

The baths are places where people get together to cleanse, relax, and take care of themselves. Life gets easier once liberated of clothes, identities, and legal statues, leaving nothing more than bodies in space, soaked in water or wandering through heat, cold, steam, and light. The baths' inherent architectural beauty converges in the void they contain: a climatically controlled concave space to be accessed, occupied, and experienced collectively, which has stimulated the imagination of architects for centuries.

The studio explored the spatial and programmatic complexity of the baths through the construction of the void. To design a hollow space is to reverse the traditional design process, thinking emptiness as a solid mass and the building as a formwork that contains it. Locally, the studio looked to the Chicago Bathhouses, simple facilities built between 1894 and 1918, as material for rediscovery and reinvention as active public institutions.



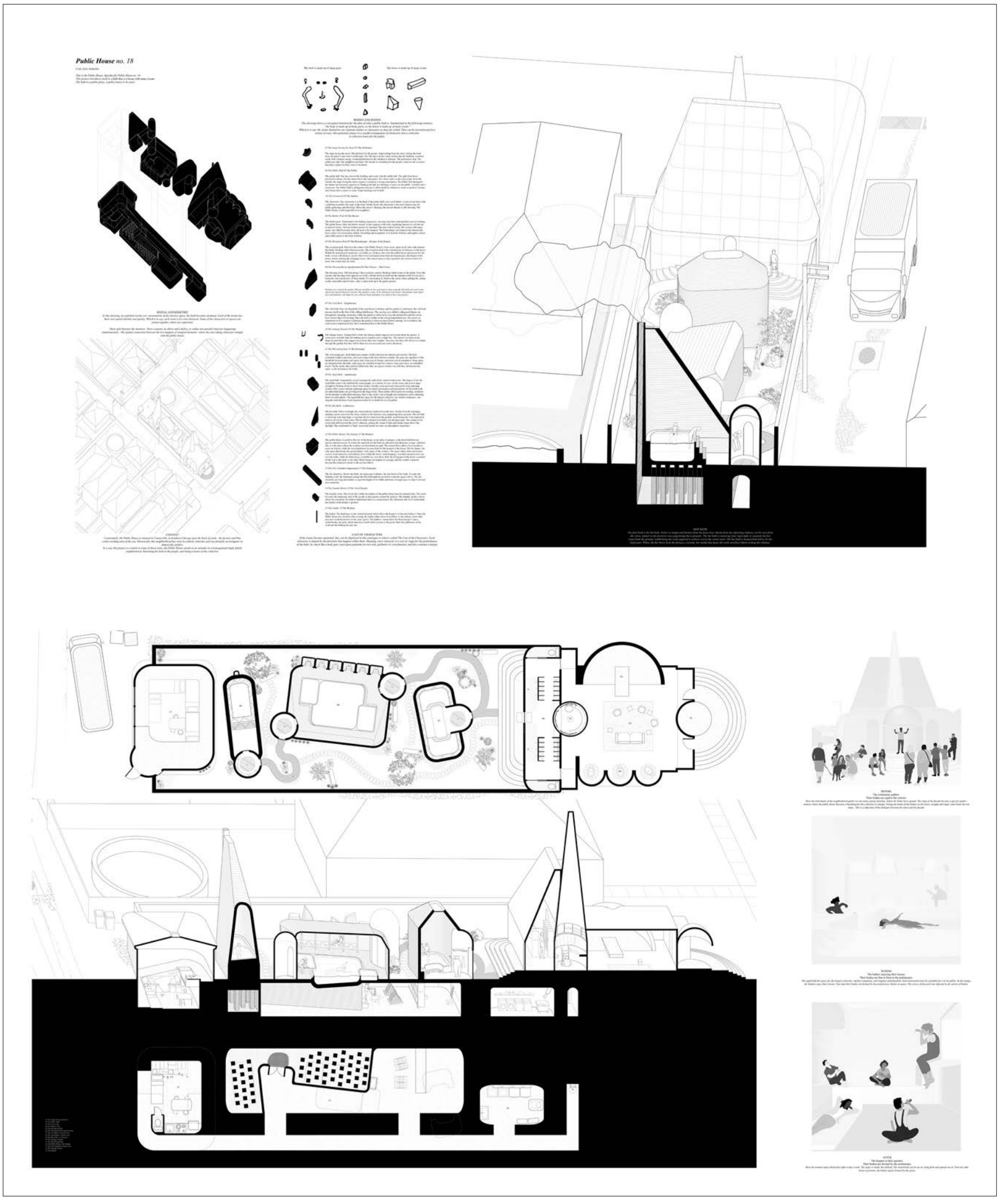
Alice Lee
"An Open Landscape, as Much as a Bath Can Be"

Arch 552

The Baths

First-year graduate spring studio

Faculty: Francesco Marullo



Cody Schueller
"Public House no. 18"

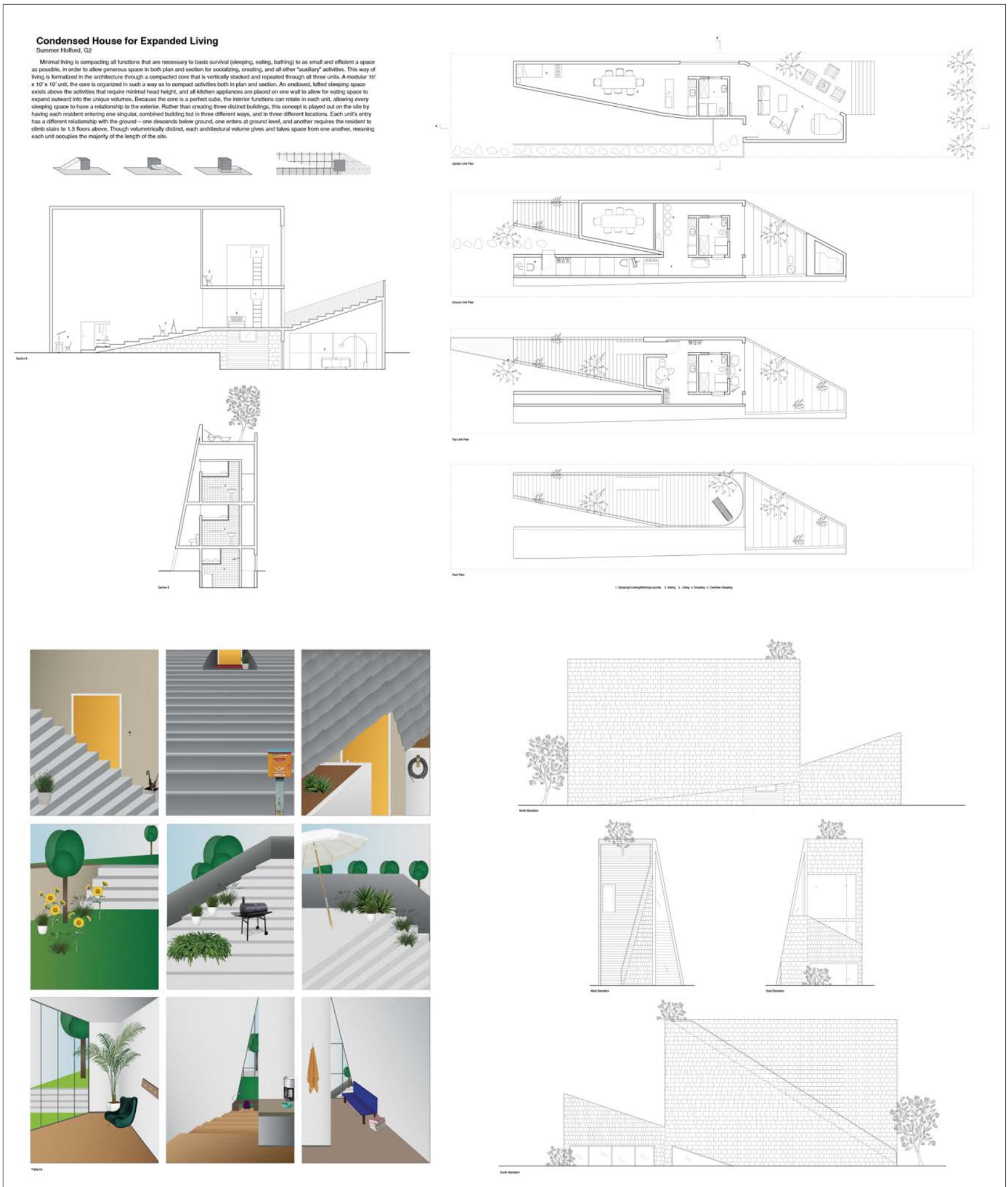
Arch 553

Three Houses in One

Second-year graduate fall studio

Faculty: Penelope Dean, Grant Gibson

In this comprehensive housing studio, we reframed the concept of minimalism as a question of liveability: that is, a *livable minimum* over *existenzminimum*. We asked how a tiny home (less than 1,000 square feet) might offer dignified and comfortable modes of inhabitation in excess of providing for mere "existence." Putting the rituals and possessions of inhabitants at the center, we explored minimum in all its multitudes—minimum possessions, minimum space, minimum materials, minimum structures, minimum gardens—an excess minimum. We analyzed twenty-two contemporary Japanese precedents, each selected for their tinyness and compactness, with the understanding that minimalism is generalizable. We collectively reimagined Chicago's "three-flat" typology as "Three Houses in One" on vacant, city-owned Chicago lots.



Summer Hofford
"Condensed House for Expanded Living"

Arch 553

Three Houses in One

Second-year graduate fall studio

Faculty: Penelope Dean, Grant Gibson

Shamsedin Mokhber
"3 + 1 Houses in One"

Arch 554

The Market

Second-year graduate fall studio

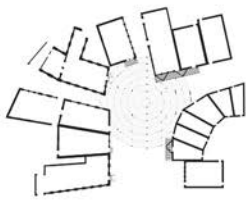
Faculty: Paul Preissner

In thirteenth-century Bruges, a gathering of commodity traders supposedly took place in the house of a man called Van der Beurze. In 1409, the meeting was formalized as the "Brugse Beurse"; in 1531, this market relocated to the Bourse of Antwerp, the first public building used exclusively for financial and commodity trading. As markets metaphorically run the world, architecture provides material reality to the fluctuations of commercial speculation.

This studio focused on the origin and organization of the market (in the physical sense), but the real project it investigated was two genealogies that form the critical basis of architectural dialogue: Abstraction and Thingness. Abstraction refers to all aspects of the architectural project that exist within opinion, while Thingness is the reality that enables the architectural meaning. These terms were investigated in their ability to organize the ephemeral and concrete, and created a product of marginal structural framing and volatile programmatic habits.

Structured Chaos: A Permanent Maxwell Street Market with Temporary Construction Methods
Jeffri Jacobe

Huis Ter Breuze - First Stock Market in 1453



Permanent Nation Buildings Surround Market

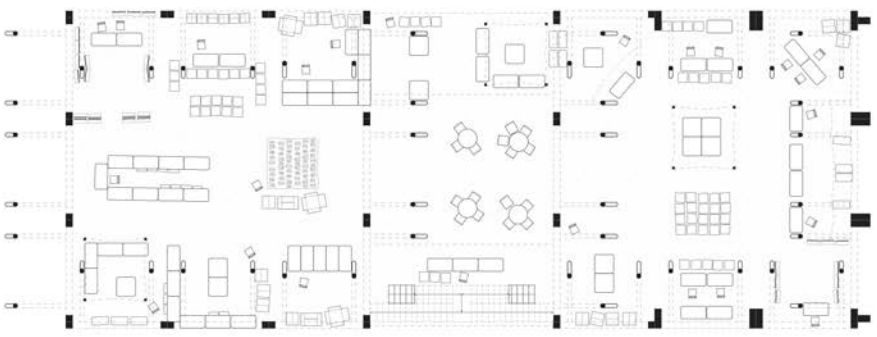
Maxwell Street Market is deeply engrained in Chicago's culture yet today it is only a weekly meeting during the warmer seasons. What was once a permanent cultural hub for diverse goods is now a temporary event in a parking lot. When looking to house Maxwell Street Market, one mustn't change its chaotic nature where one can buy batteries next to a pair of socks while eating a Polish sausage. While the market will always be there, its vendors are forever changing. Materially speaking, if tilt-up concrete is Chicago - strong, monolithic, and permanent - then steel bracing is its people - temporary, in-and-out, yet crucial. What if material properties and its method of construction and all it entails is left intact as a new means to organize a disorderly event? The steel bracings suggest vendor lots yet keep the spontaneous market life alive. Softwood bracing in a residential unit implies domestic living barriers. And heavy timber framing arranges the market goods in a clean storage environment. Three distinct materials come together to create one market, a diverse structure like that of Maxwell Street Market.

Softwood Lumber Bracing

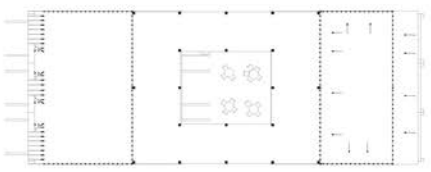
Heavy Timber Framing

Tilt-Up Concrete Bracing

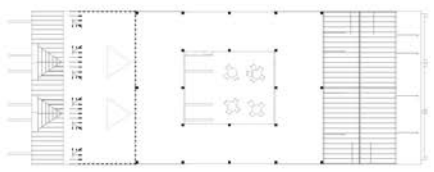
Material Exploration Model at Half Scale



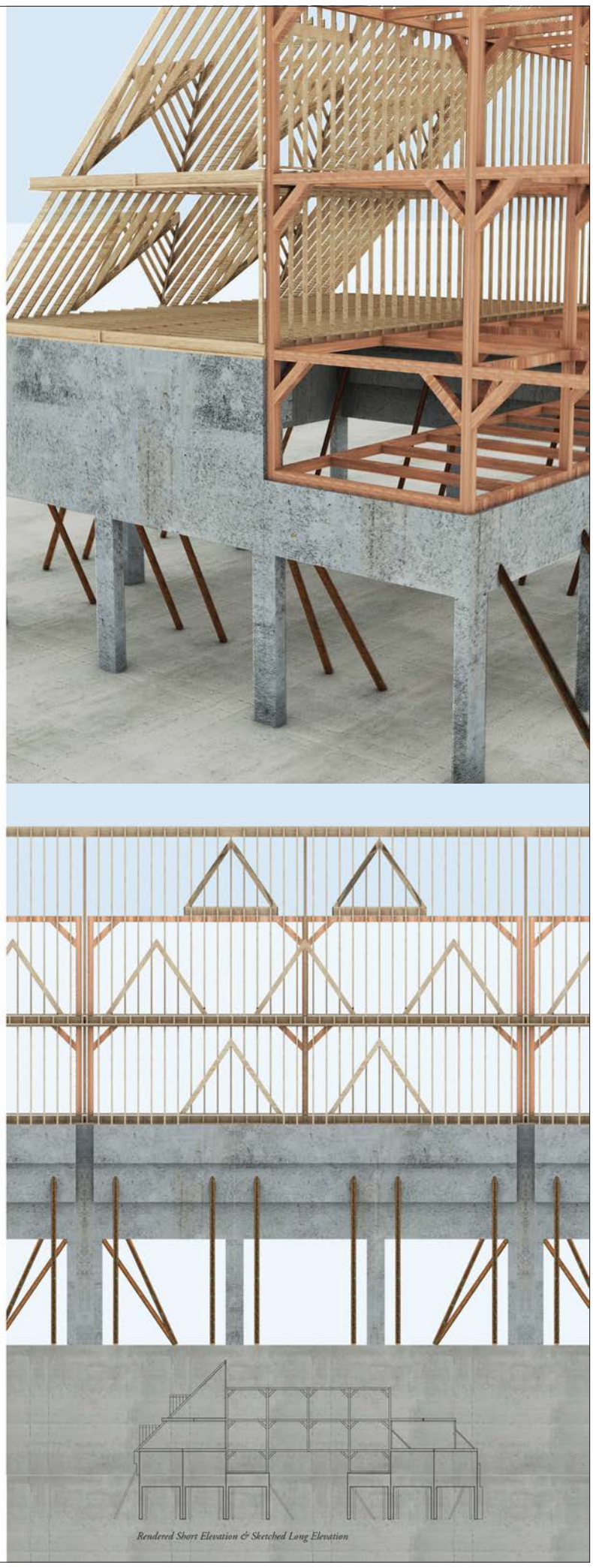
First Floor - Steel bracing suggests oranization, chaotic market environment stays intact



Second Floor Framing - Two softwood residences at both ends



Third Floor Framing - Heavy timber stores market goods around center



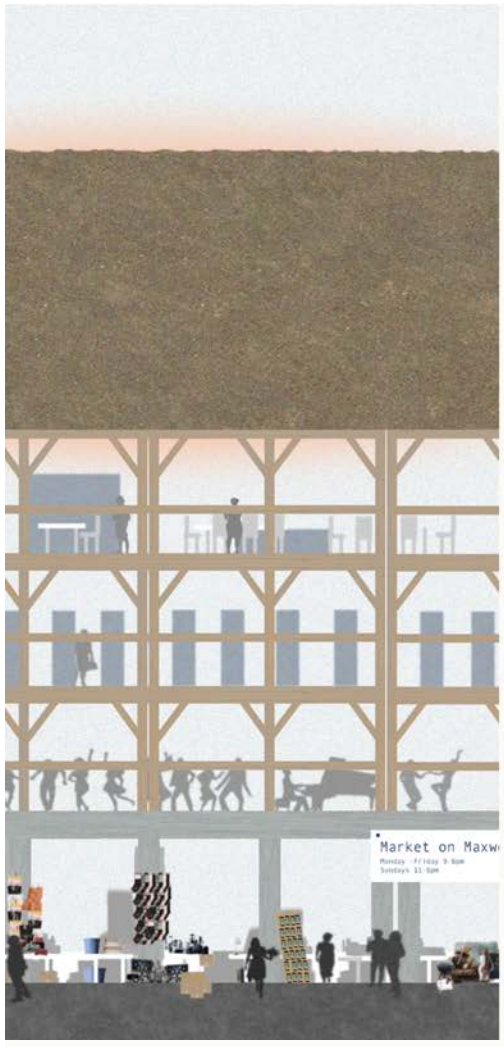
Jeffri Jacobe
"Structured Chaos"

Arch 554

The Market

Second-year graduate fall studio

Faculty: Paul Preissner



Maxwell Street Market
800 S Desplaines St, Chicago

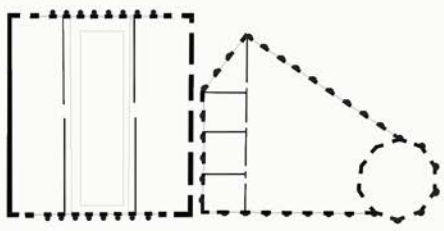
Alexandra Madsen
Market Studio
Arch 554 with Paul Preissner

The market studio consisted of two parts: research and the project. We began by researching and redrawing market places from all over the world. We then moved to research and create a catalogue for different building materials (concrete, rammed earth, softwood framing..) which we compiled together as a class.

Using the research we had done we began a project for a new building to house the Maxwell street Market. The market, which presently existing on Desplaines st., sells items like batteries, socks, tamales, and other misselaineous.

3 photos of the Tokyo Stock Exchange

Tokyo Stock Exchange



In September 1871, the land surrounding the present Tokyo Stock Exchange was given as rewards of the Meiji Restoration following the Edo era. The new government introduced the system of establishing stock companies as a measure to encourage the growth of industry. As trading of these public bonds became gradually active, there was rising momentum to establish trading institutions. On May 4, 1878, the government enacted a Stock Exchange Ordinance. On May 10, Eiichi Shibusawa, Younosuke Mitsui (the modern father of capitalism in Japan) and other influential tycoons in the business circle of Tokyo applied for the establishment of stock exchanges under the ordinance before receiving a license from Finance Minister Shigenobu Ookuma (who was a large proponent of this) on May 15. This was the birth of Tokyo Stock Exchange, Inc. Its operations were launched on June 1, 1878.

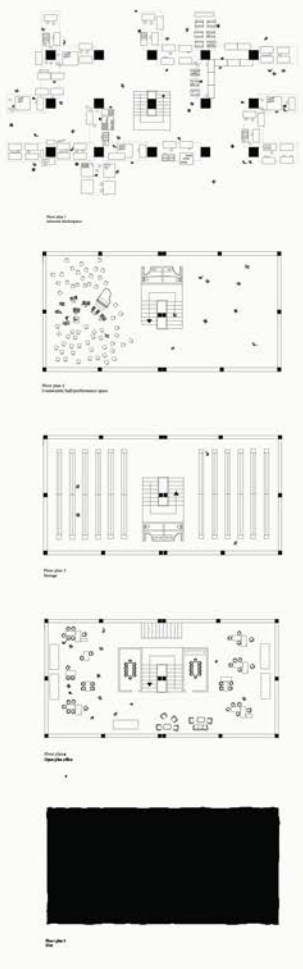
During the Meiji period in Japan there was an emphasis placed both of the inclusion of western culture and technology especially within higher institutions such as banks, education facilities. Architects were being invited to teach in Japanese institutions and teach predomi- nantly western styles. This was also heightened by the influence of the industrial revolution. The first Tokyo Stock Exchange was originally designed in brick rather than wood for both cultural and aesthetic reasons and well as the influence of technology of stone that would prevent fires.

In 1943, 11 exchanges across the country were merged into the Japan Securities Exchange with the former Tokyo Stock Exchange's stock incorporated into the controlled economy during wartime.

Concrete Research

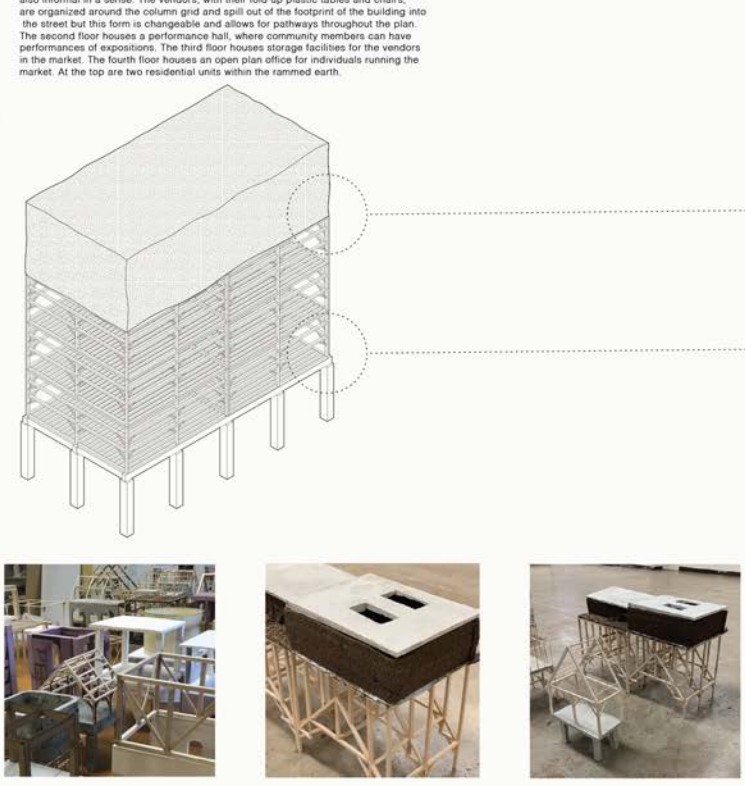
Before concrete building technology consisted of things mostly from the earth like mud bricks, stones, or bamboo. With the advent of early concrete, things were able to be stored in a watertight and weathertight manner, it was also used for the floors in early homes. Concrete came back into prominent use with the Romans. The Romans are known for having some of the strongest concrete ever created. For the most part concrete was used in brick form and it still lived in the context of being water and weather resistant. Concrete could also dry underwater so it was more versatile than other materials at the time. It was once again seen being used in reference to water with the Roman Bathhouses as well as the Aqueducts. Concrete allowed the Romans to create an intricate infrastructural system that brought freshwater into the city. The Colosseum was even able to stage boat battles within the large space due to these concrete waterways as well as the concrete structure of the Colosseum. Concrete advanced a lot more when, English mason, Joseph Aspdin created Portland Cement.

Concrete typically consists of water, cement, sand, and gravel. The cement is very important because it was what binds and allows concrete to harden. Joseph Aspdin new Portland Cement now allowed the ability to make concrete on site. With Portland Cement, concrete was able to be readily made easily along with its strength. It's low cost also made it the material to look at first when building, it also was easy to manufacture and made mass production of concrete projects prevalent.



This project for the Maxwell street market stacks three materials one on top of the other. Concrete columns, girders, and beams sit at the bottom of the project, followed by three rounds of timber framing. At the top of the project sits a mound of rammed earth that houses two residential units. While rammed earth is mostly found sitting on the ground, in this project it is lifted in the air testing its normal function and allowing for residential units privacy. Though its weight seems to put the building in a precarious position, the structural systems beneath it hold it while still allowing for less opacity on the floors below (midterm model images below).

The building is organized through its different floors, which act both as visual as well as organizational. The first level houses the Maxwell Street market—a market that sells objects like socks and batteries and phone cases. While the market is formal, it is also informal in a sense. The vendors, with their fold up plastic tables and chairs, are organized around the column grid and spill out of the footprint of the building into the street but this form is changeable and allows for pathways throughout the plan. The second floor houses a performance hall, where community members can have performances of expositions. The third floor houses storage facilities for the vendors in the market. The fourth floor houses an open plan office for individuals running the market. At the top are two residential units within the rammed earth.



Alexandra Madsen
"Maxwell Street Market"

Arch 565

The Federal Center

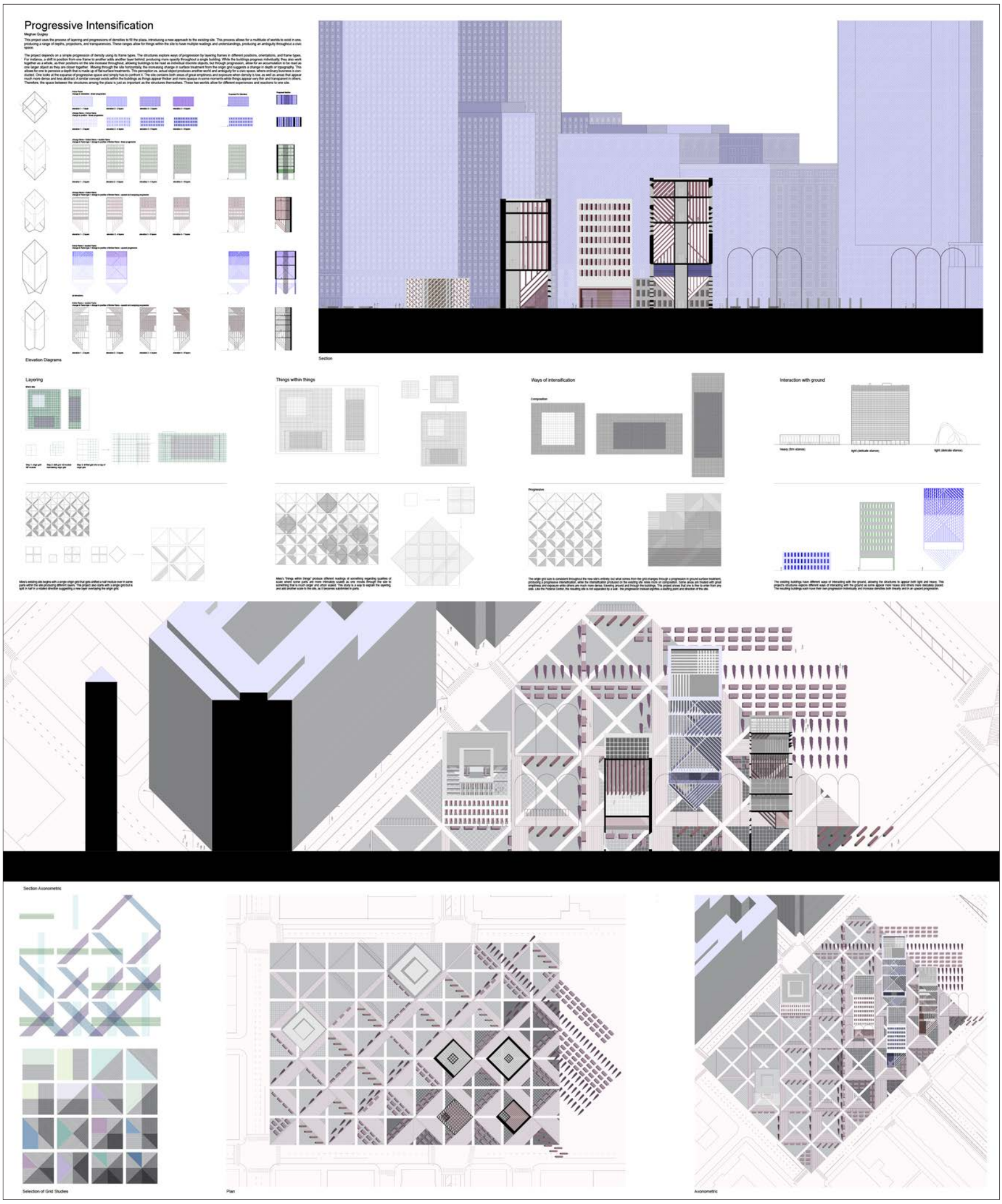
Third-year graduate fall topic studio

Faculty: Paul Andersen, Sam Jacob

Chicago's Federal Center is one of Mies's least acclaimed buildings. He had little input into the design and left all but the highest level decisions to Gene Summers. Two of its buildings were built five years after Mies died. But it has some qualities that stand out. It is a microcosm of earlier project types, combining two towers, a long-span building, and a plaza—a self-contained summary of Mies's oeuvre tied together by a clear and extensive use of the grid.

While the grid unifies the project internally, it also suggests connections beyond. Horizontally, the grid structures landscapes from city to farm. Vertically, the Chicago frame links the Federal Center not only with its immediate neighbors, but with framed buildings of different types throughout the Midwest.

The studio used new sources and combinations of grids, landscapes, and frames to propose alternative designs for the Federal Center.



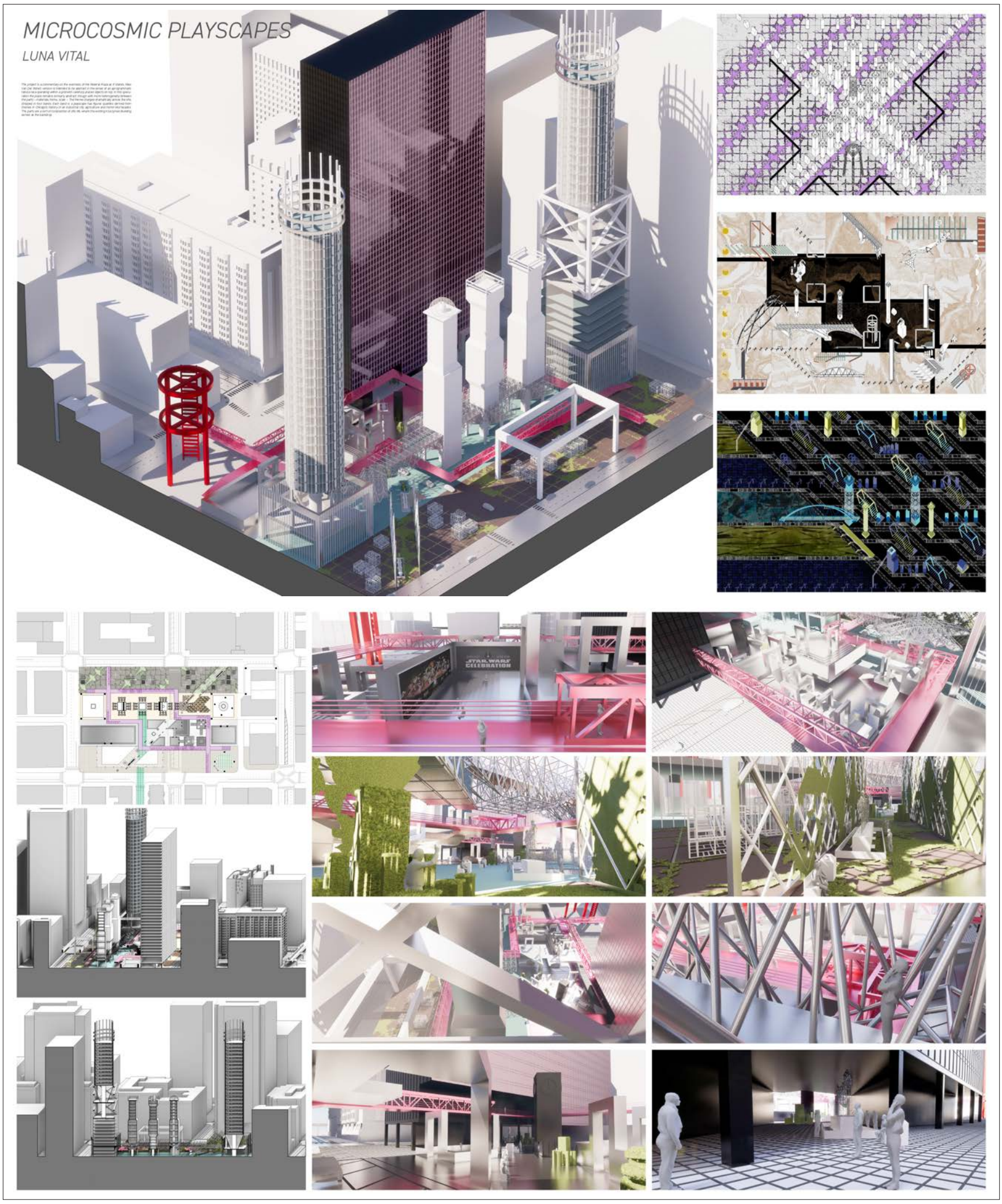
Meghan Quigley
"Progressive Intensification"

Arch 565

The Federal Center

Third-year graduate fall topic studio

Faculty: Paul Andersen, Sam Jacob



Luna Vital Gallego
“Microcosmic Playscapes”

Arch 567

what if...? then...

Third-year graduate spring research studio

Faculty: Sarah Dunn

In an effort to engage the city productively, this seminar and studio sequence explored the formal and programmatic possibilities of invented large-scale metropolitan architecture. In a back-and-forth process with key historic projects, we developed a series of design-based scenarios that leverage specific qualities of the city, and mined them for their formal possibilities. Formal and spatial invention was our goal.

With the addition of program, we imagined new forms of collective associations as promised by modernism—but where modernism proposed rationality and singularities to deal with the problems and potentials of the city, we played with irrationality and multiplicities. We began from the hypothesis that globalization reinforces differences in patterns of localized urban behavior, formal uniqueness, and infrastructural specificity.

With the addition of infrastructure, we posited that architecture can be both/and—about both growth and the environment, through the manipulation of form and the tactical deployment of social and ecological systems.

Jacob Patnode
"The Big, Easy Greenway"

Arch 567

what if...? then...

Third-year graduate spring research studio

Faculty: Sarah Dunn

Meghan Quigley
"New Coasts"

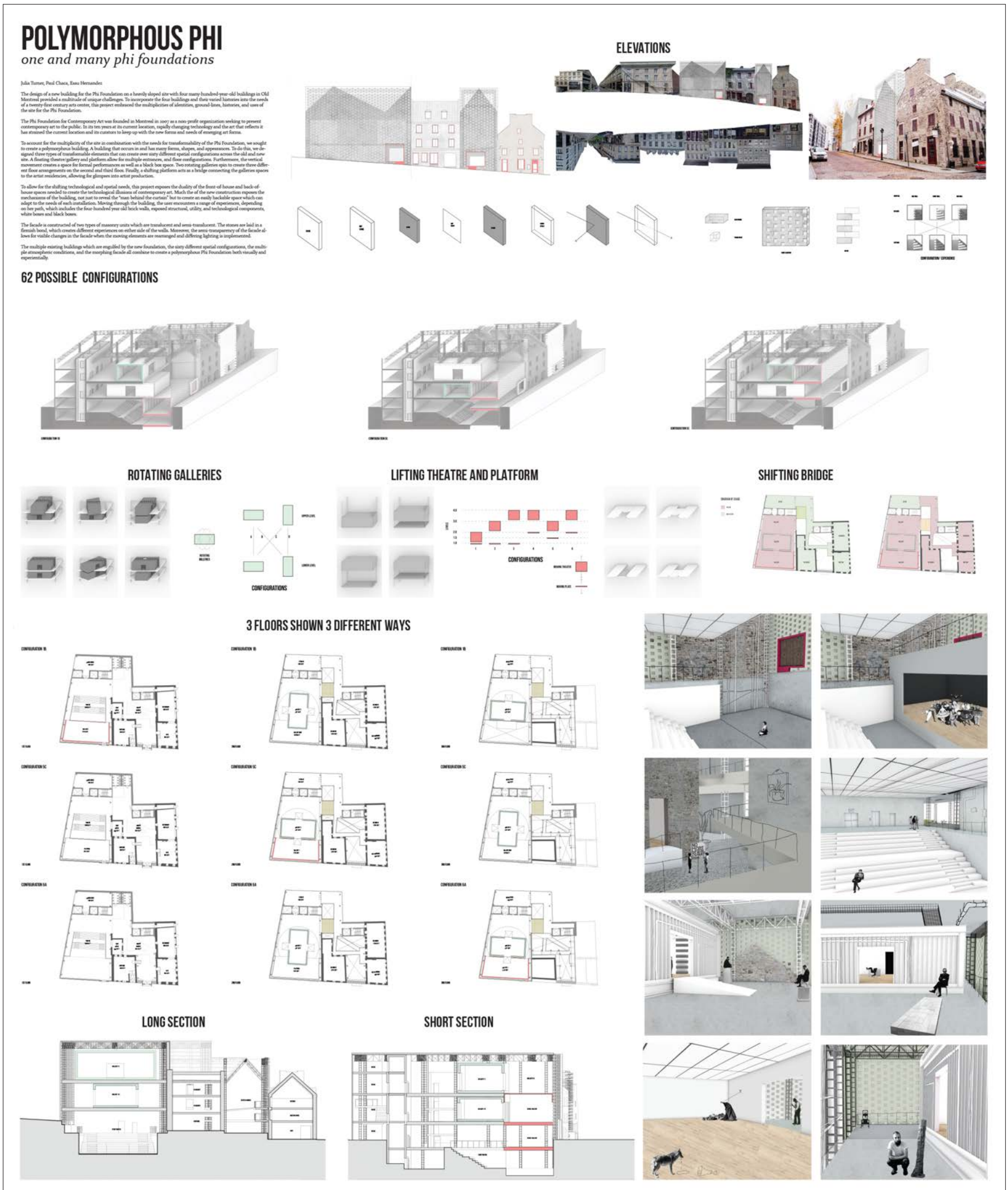
Arch 567

Phi Bonsecours

Third-year graduate spring research studio

Faculty: Andrew Zago

This studio presented an opportunity to work with Phi, a major emerging arts organization in Montreal, in their development of a new arts center. In order to expand their operations and public presence, Phi has acquired a significant group of buildings and open space in the center of Old Montreal, which—with buildings dating to the seventeenth century—is one of the oldest urban areas in North America. In the near future, they will be undertaking a significant architectural intervention on this site. In preparation for that, and by way of expanding their range of imagined possibilities, Phi invited several architecture schools in Canada and internationally to conduct design studios on this topic. This was one of the studios.



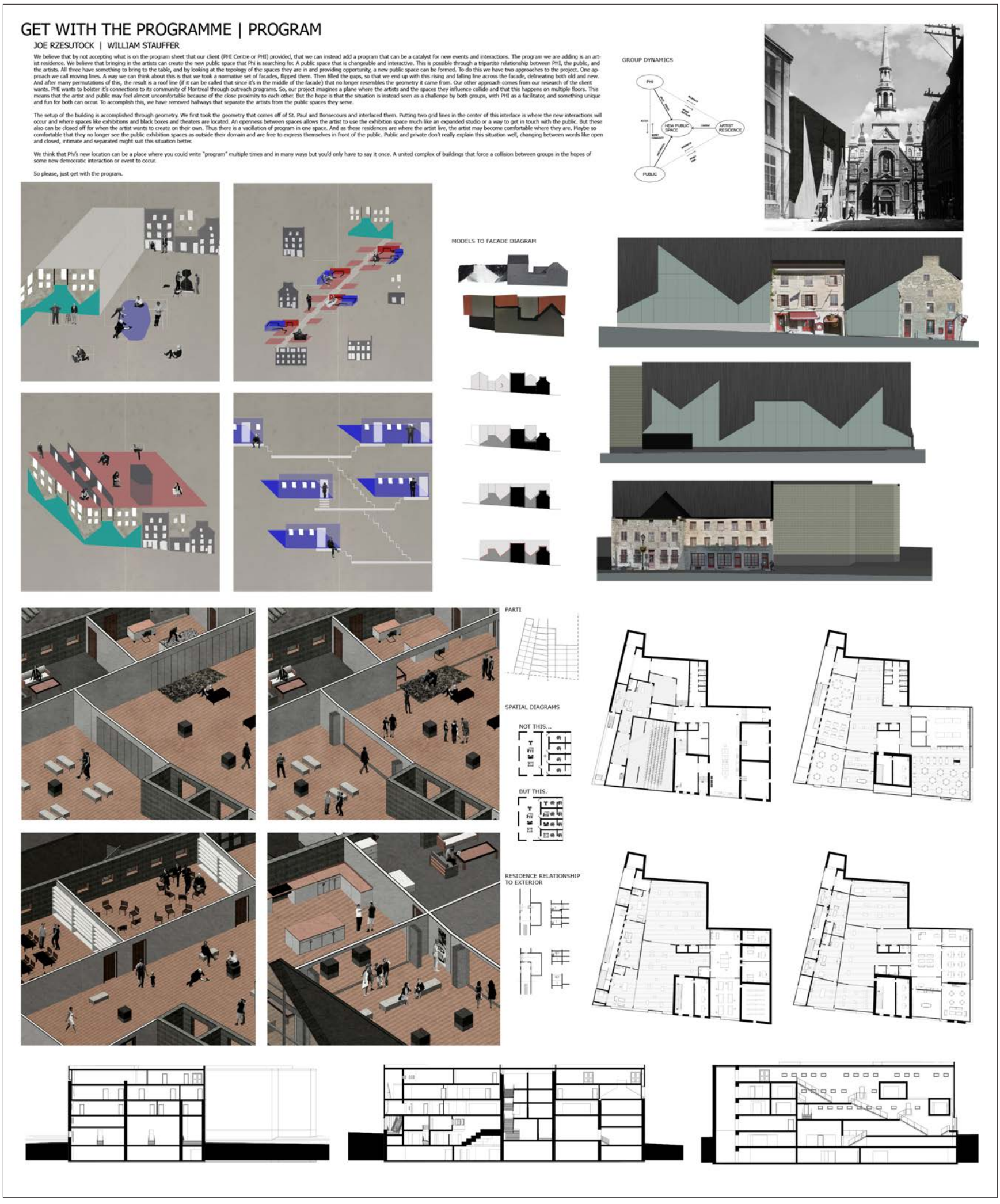
Paul Chaca, Esaú Hernandez, and Julia Turner
"Polymorphous Phi"

Arch 567

Phi Bonsecours

Third-year graduate spring research studio

Faculty: Andrew Zago



Joe Rzesutock and William Stauffer
"Get with the Programme | Program"