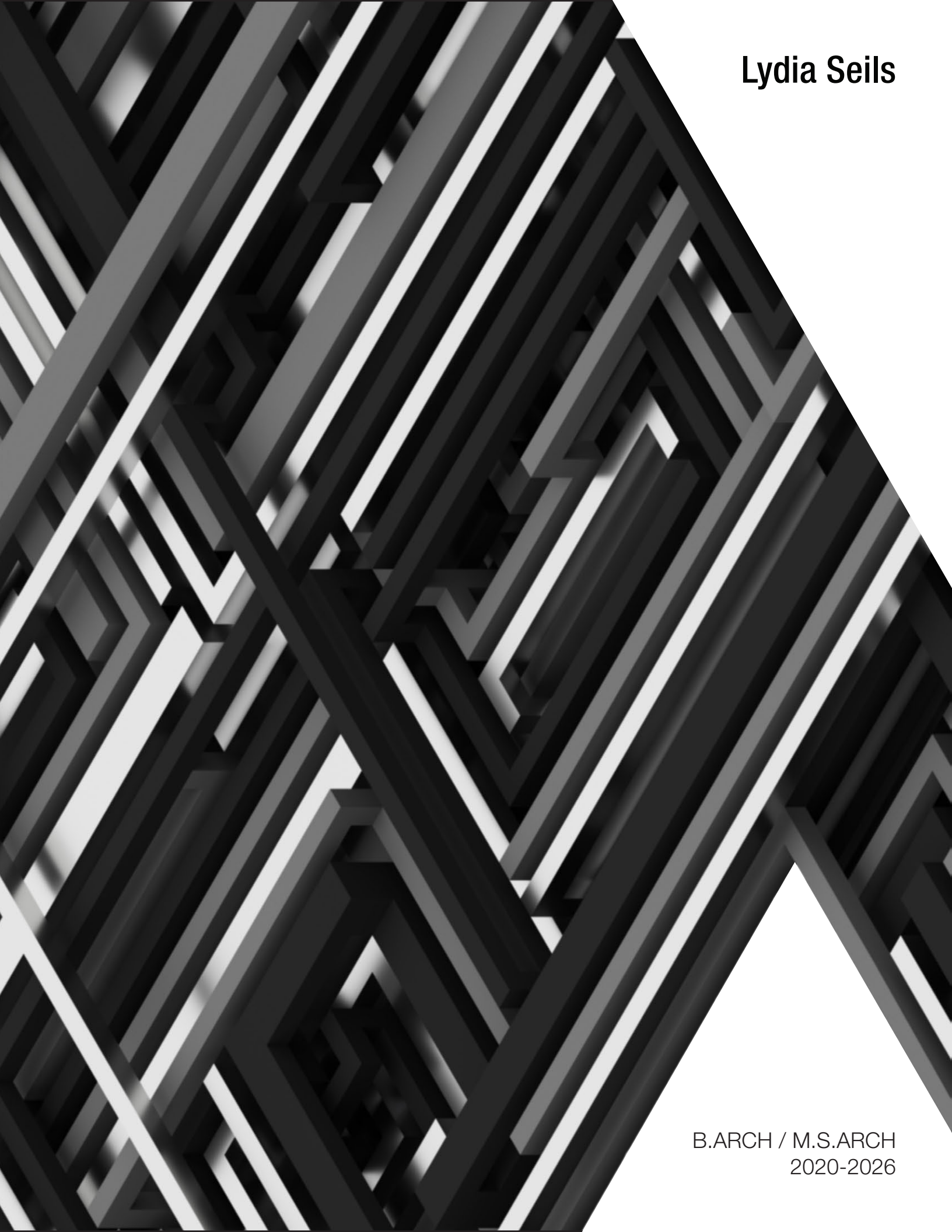

Lydia Seils

B.ARCH / M.S.ARCH
2020-2026

Lydia Seils

I am currently pursuing an M.S.Arch with a designation in Computation Design. I recently earned my B.Arch degree from a rigorous program where I developed a strong foundation in design theory, conceptual thinking, construction systems, sustainability methods, and technical representation.
While I have genuine passion for architecture, drawing, and graphics, I also have a strong interest in coding and computational tools. I am motivated by the intersection of architecture and computation, and I am eager to explore how these can manifest in research and architectural practice.

This portfolio contains the design work of Lydia Seils.

Lydia Seils Works/Portfolio @2026

Master of Architecture
Georgia Instituite of Technology
(ongoing)

Bachelor of Architecture
Rensselaer Polytechnic Institute

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CIVIC UNITY

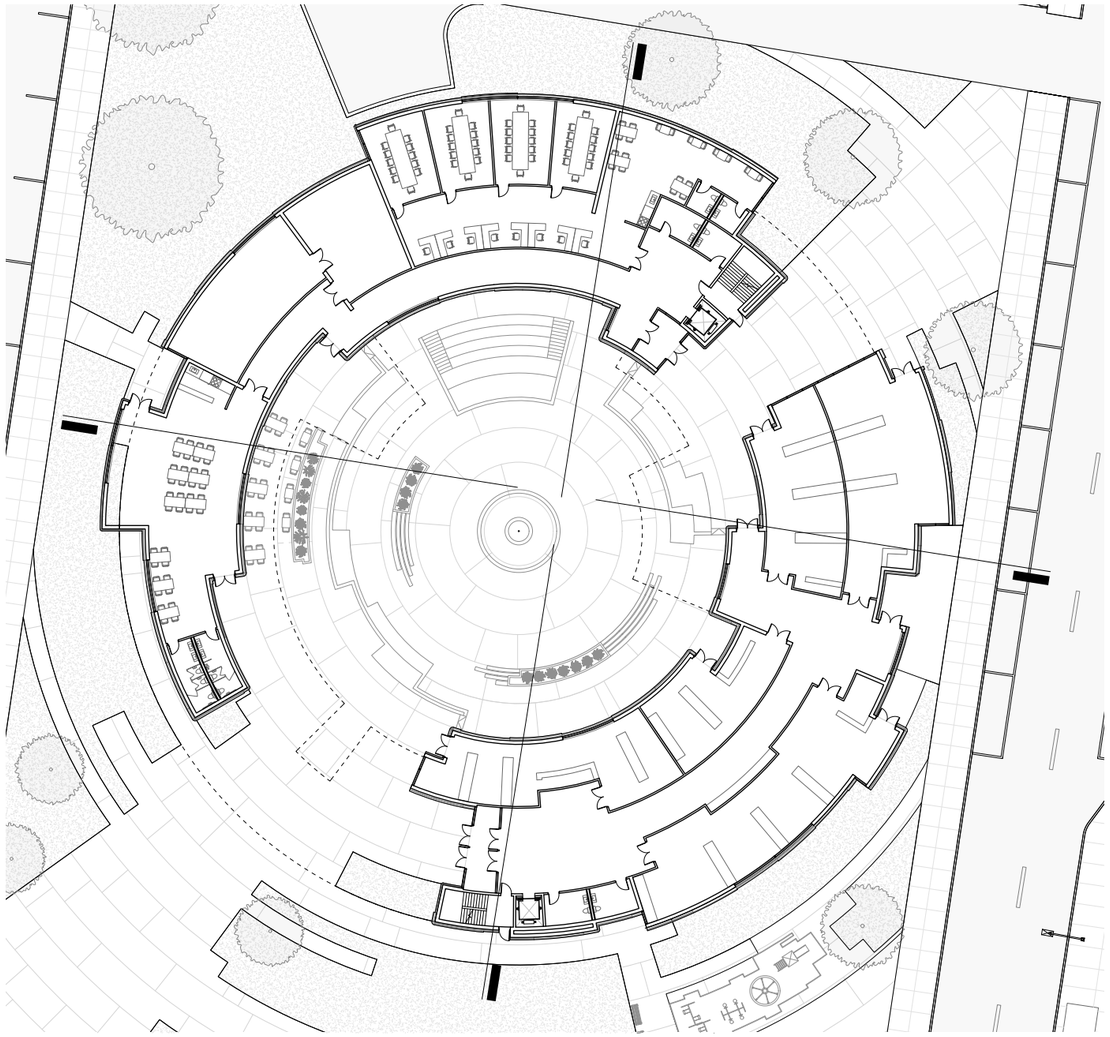
City Hall

Professor: Lopez, Matt
Location: Troy, NY
Team: Skye Nieves

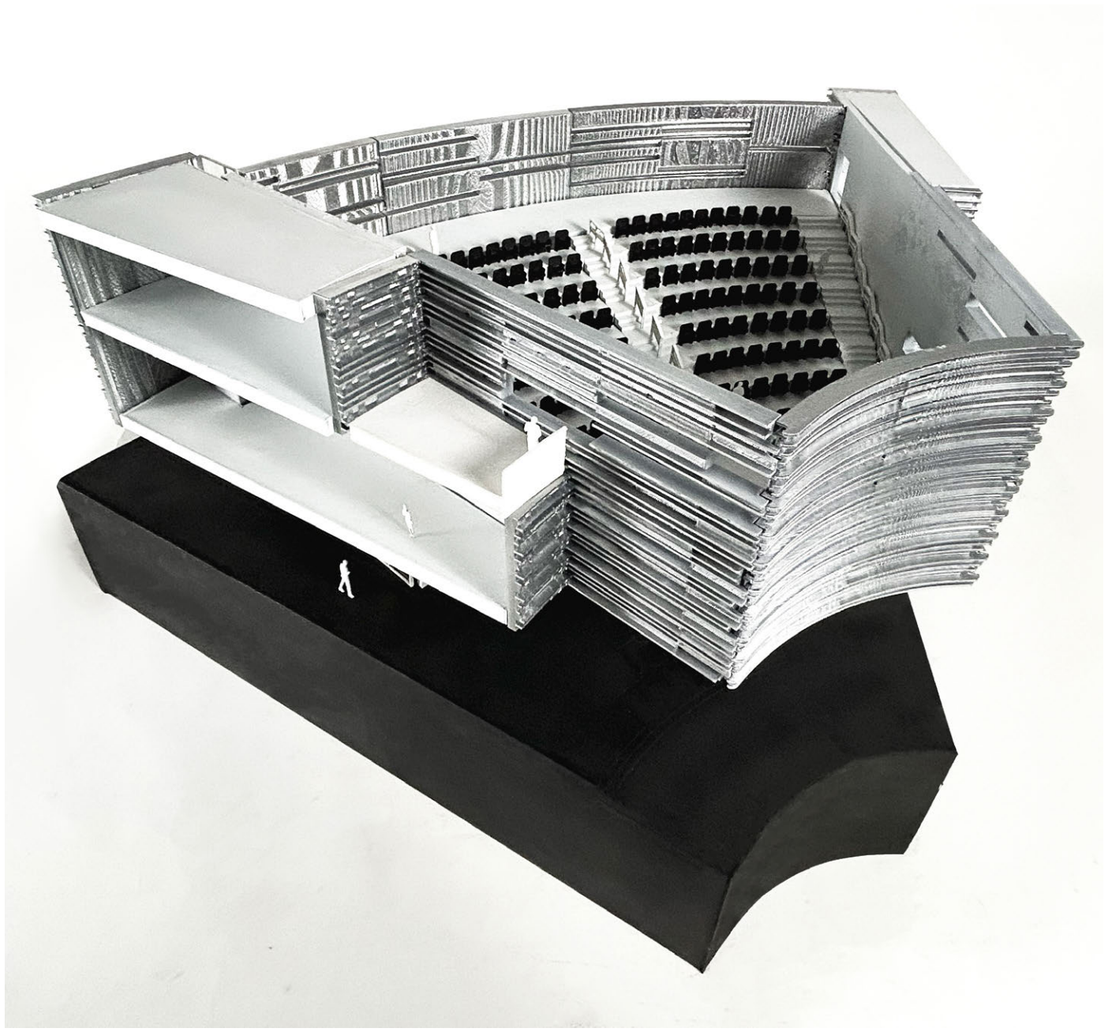
Troy, NY contains a rich history, from its early days as a settlement on the Hudson River to its emergence as the “Collar City” due to its pivotal role in the production of detachable shirt collars. Like many industrial cities, Troy faced decline during the 19th century as the U.S. entered a post-industrial era. Today, however, the city is experiencing a revival, and the development of a new city hall would significantly contribute to this revitalization effort.

Drawing inspiration from Troy’s existing context and local architectural features, the proposed design for the city hall aims to meld together the community. The building takes the form of a circle, symbolizing unity and wholeness, and is designed to integrate public and administrative functions. The circular layout fosters a sense of connection between the city’s government and its residents, with all programs linked by an inner circulation path.

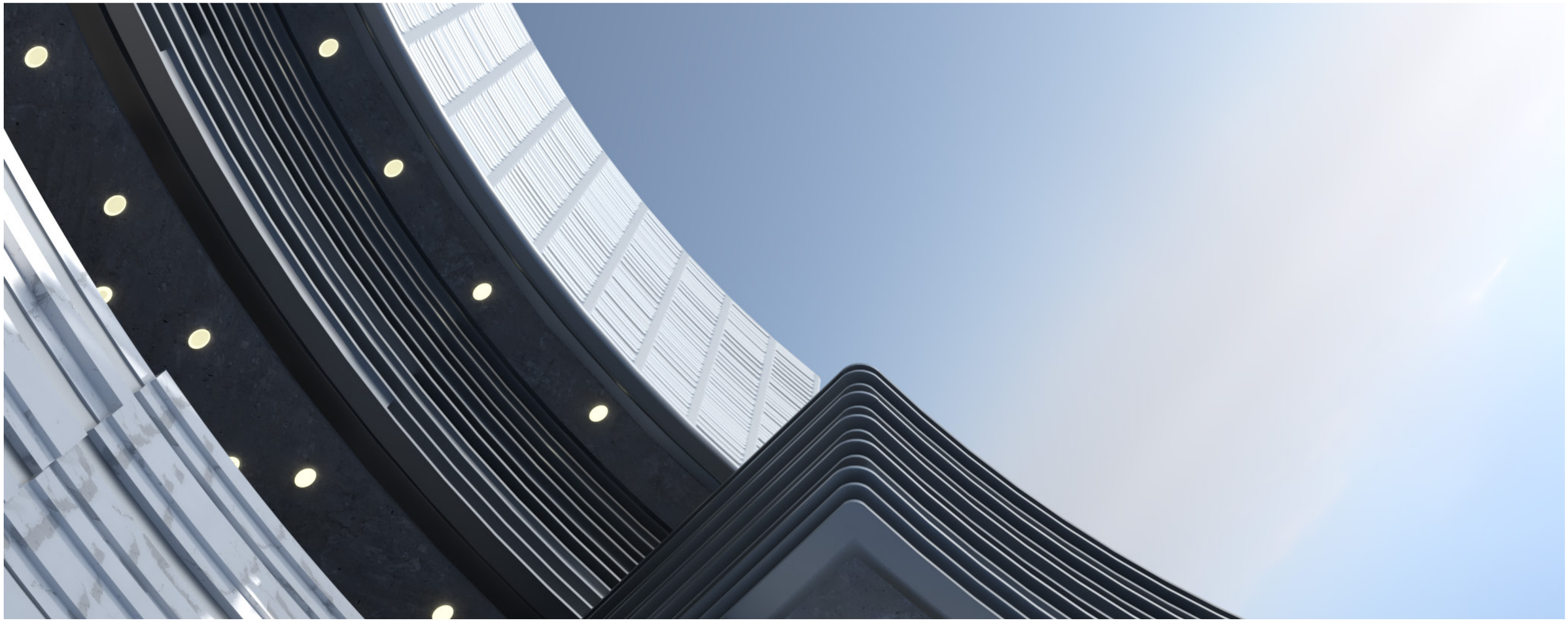
The use of glass and an open courtyard invites transparency and visibility, allowing the public to see and engage with the functions of city hall. The courtyard itself serves as a communal space, becoming the centerpoint of the design—an area where the people of Troy can gather and connect. Positioned near the waterfront and the popular farmers market, two essential parts of Troy’s fabric, the city hall creates pathways that connect to these features. The grand entrance, facing the Hudson River, offers a welcoming gesture to the city from the water, reinforcing Troy’s connection to its historic riverfront.



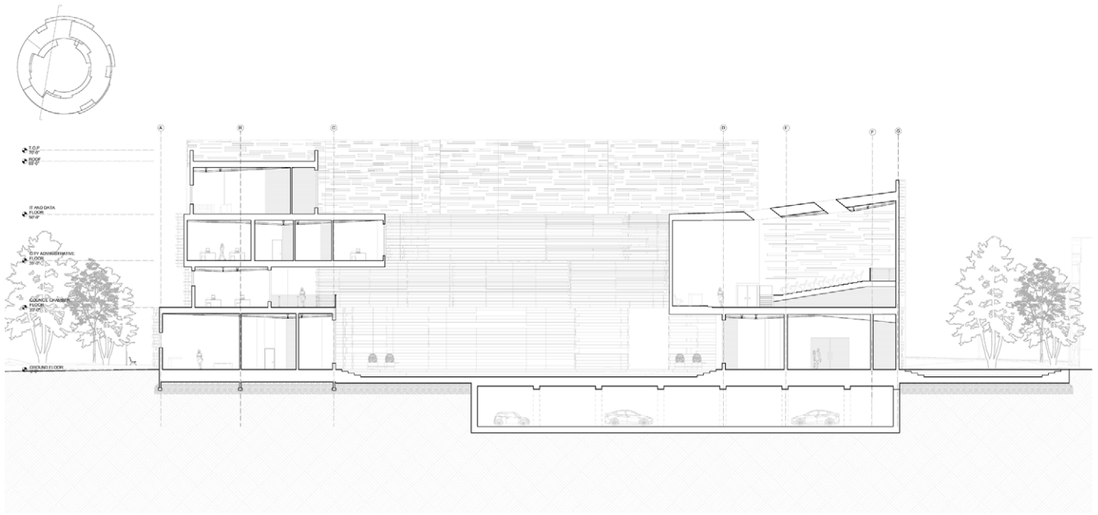
Ground Floor Plan



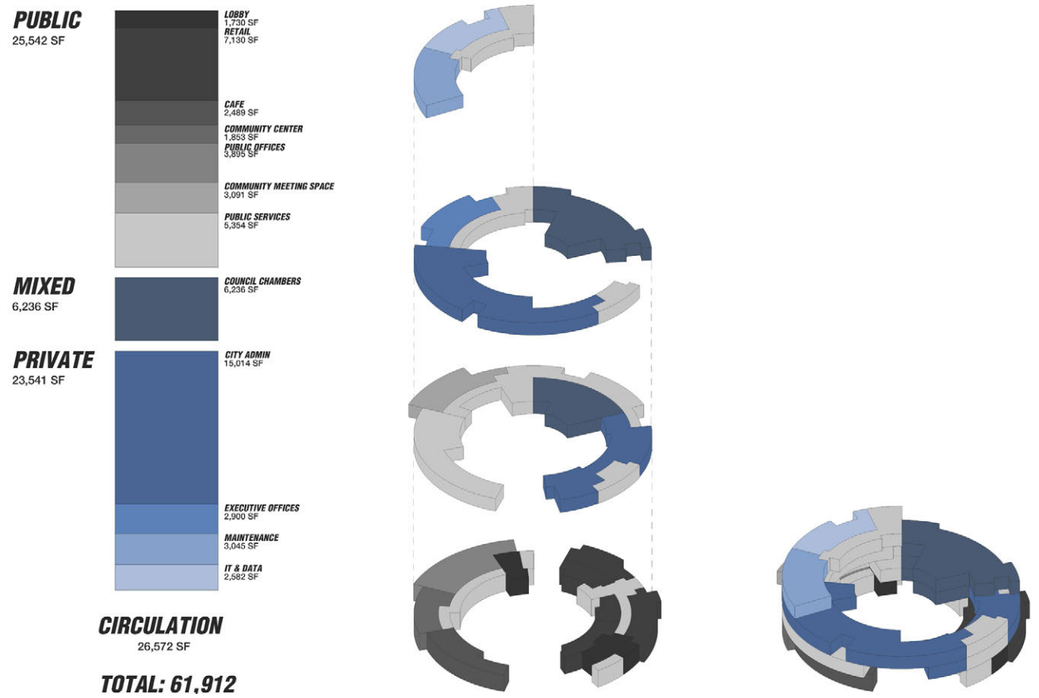
Physical Model Axon View



Facade View



Section



Program

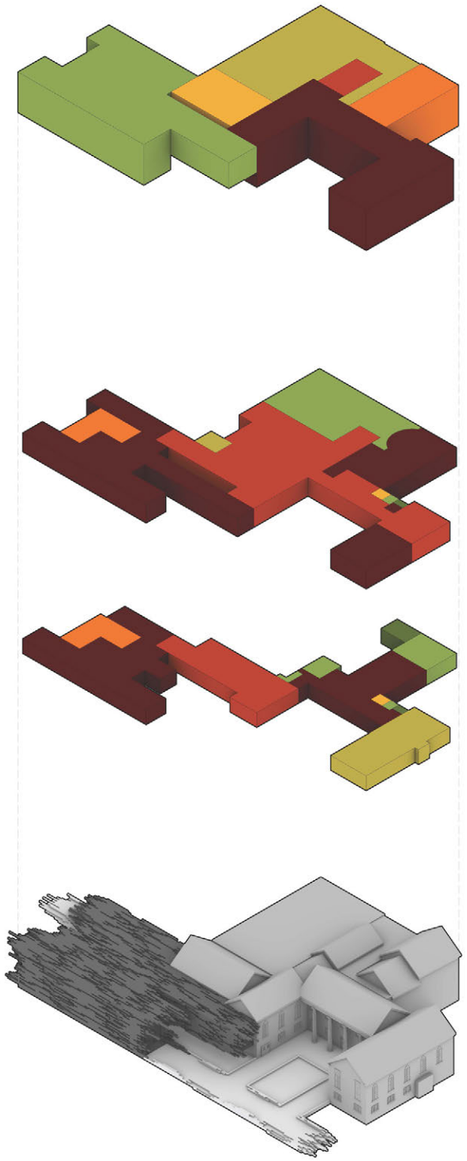
BENNINGTON MUSEUM

Historical Museum

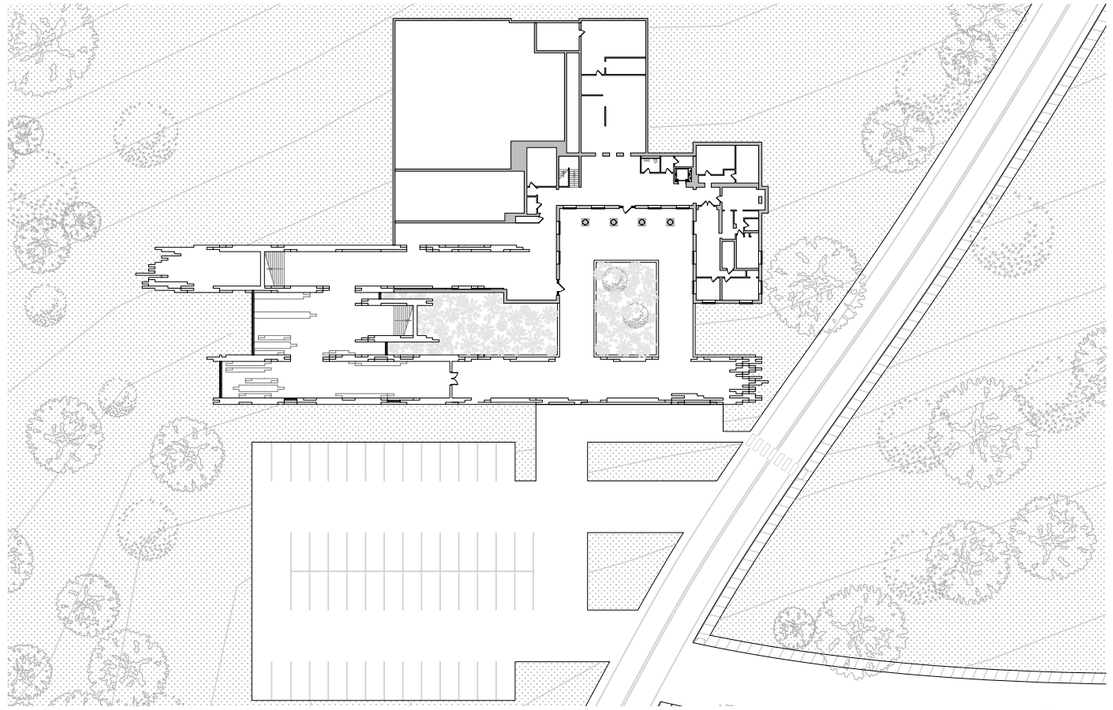
Professor: Erel, Yael
Location: Bennington, VT

The Bennington Museum is located in Vermont and it sits on a 10-acre site. The Bennington Museum connects the Town of Benningiton and Old Bennington. The muesum, founded in 1852, is essential to the local community, holding collections, and providing public spaces. The muesum holds a wide variety of collections, some being historic relics and interesting art. The museum has seen addition on top of addition. It is made up of many different kinds of exhibits that all have their own feel to them. There are a lot of inconsistencies that came along because of all of the additions.

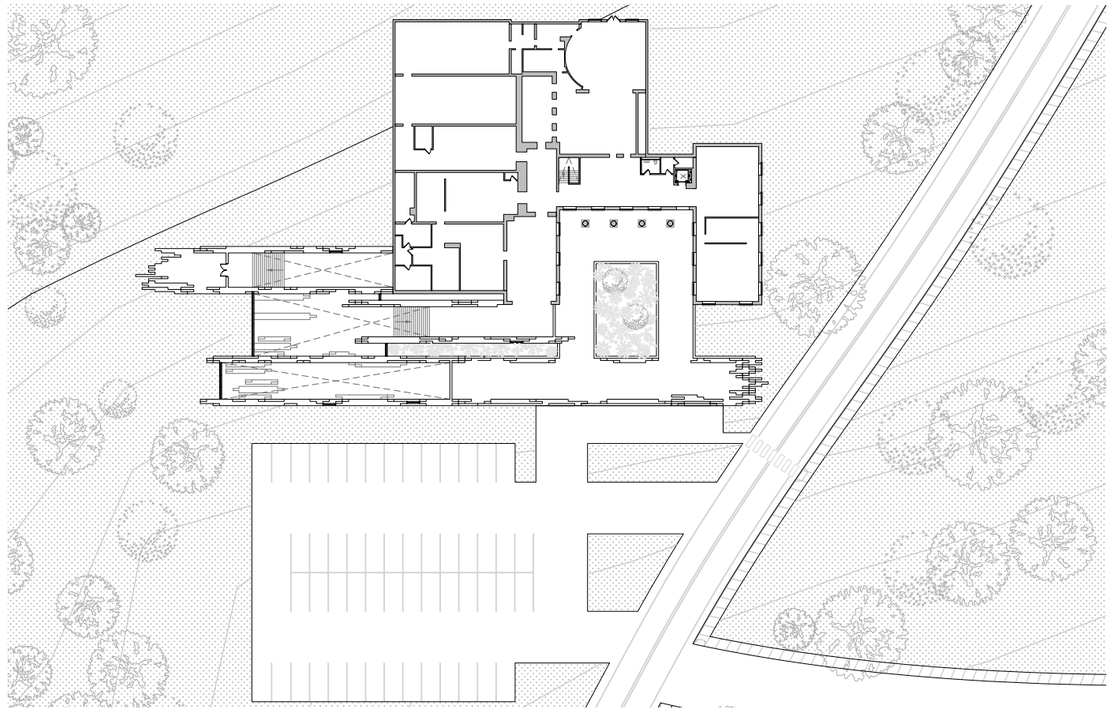
This new addition played off of the inconsistencies. The different shaped brick stones take inspiration from the original museum. The masonry is modernized but also exhibits the idea of the form inconsistencies of the existing musuem. There is also a play between view vs. lighting. The small windows in the eroded part of the addition can only act as lighting. However, the large end windows act as specific views. There is a cafe that is central to this addition. It is in a location that is accessible at the beginning or end of your tour.



Program



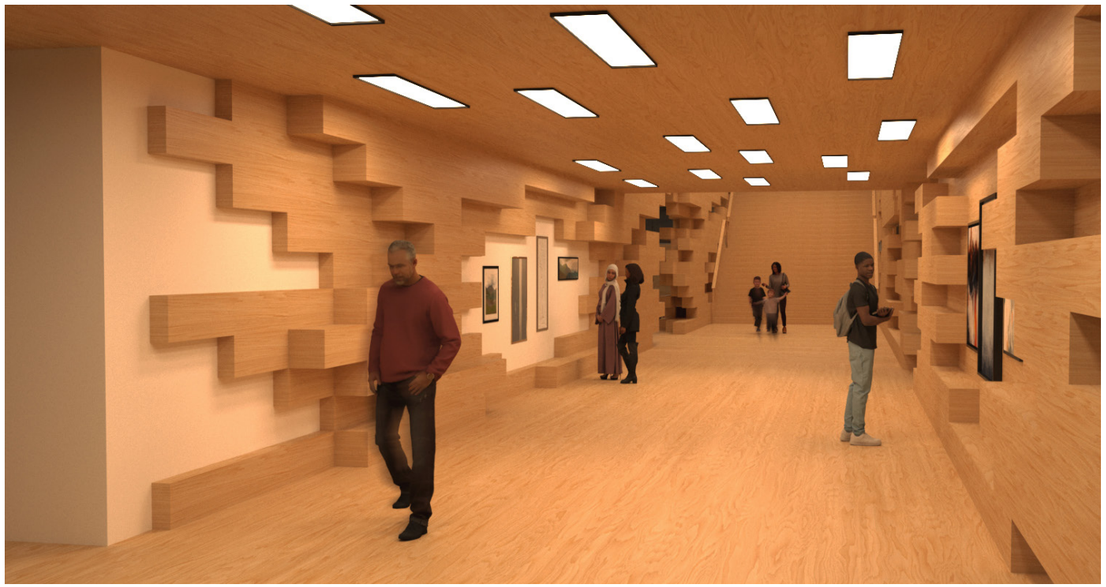
Second Floor



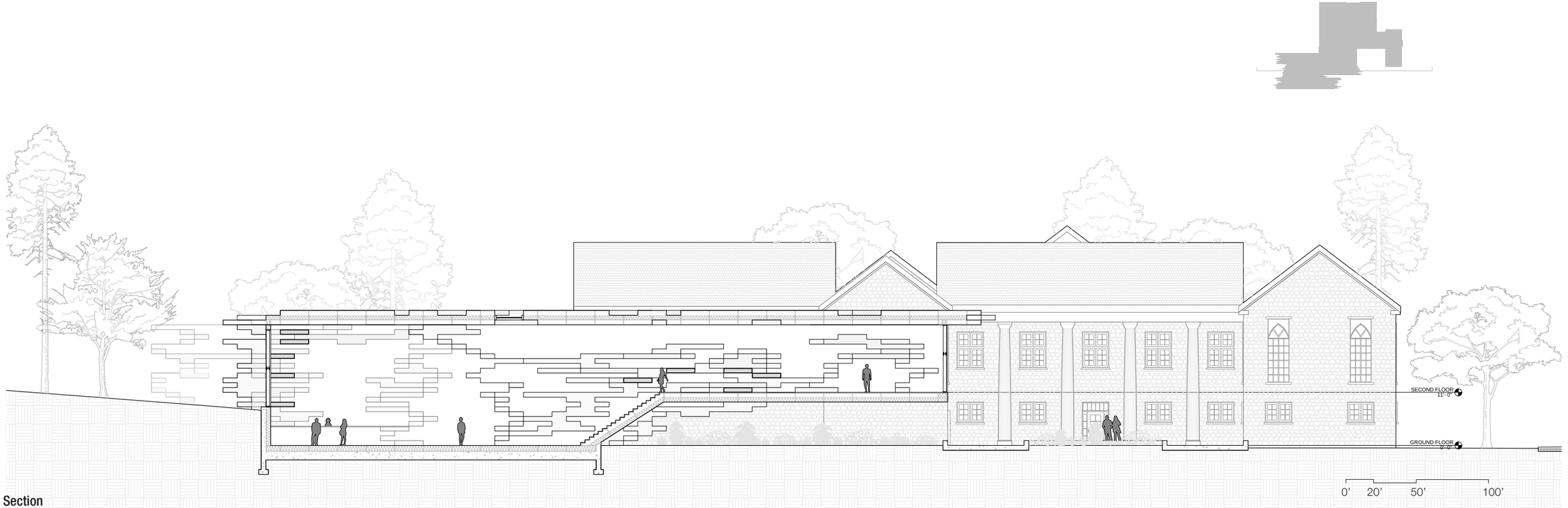
First Floor

Exterior View

Entrance Hall



Gallery



Section

CHELSEA LIBRARY

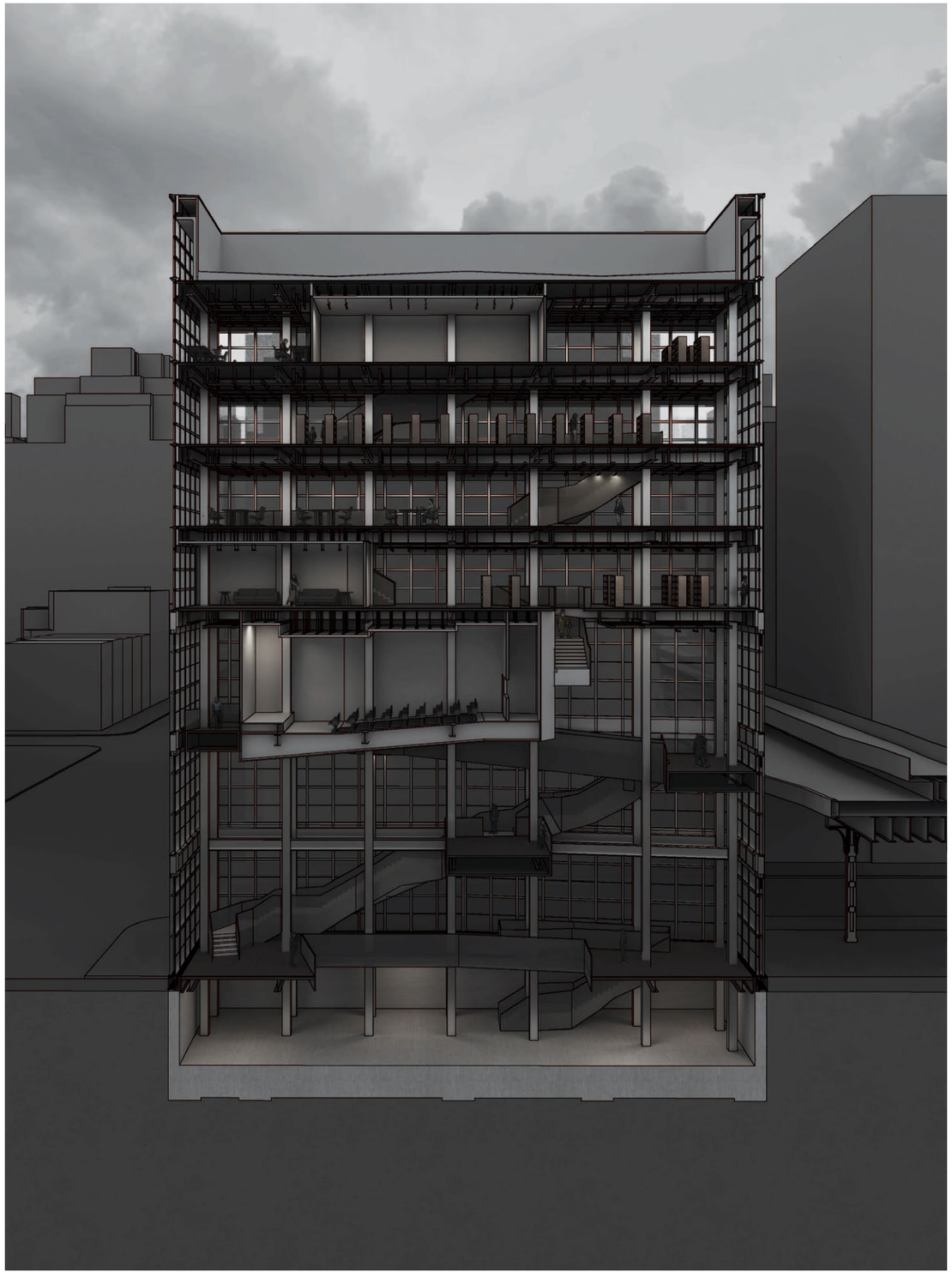
Public Library

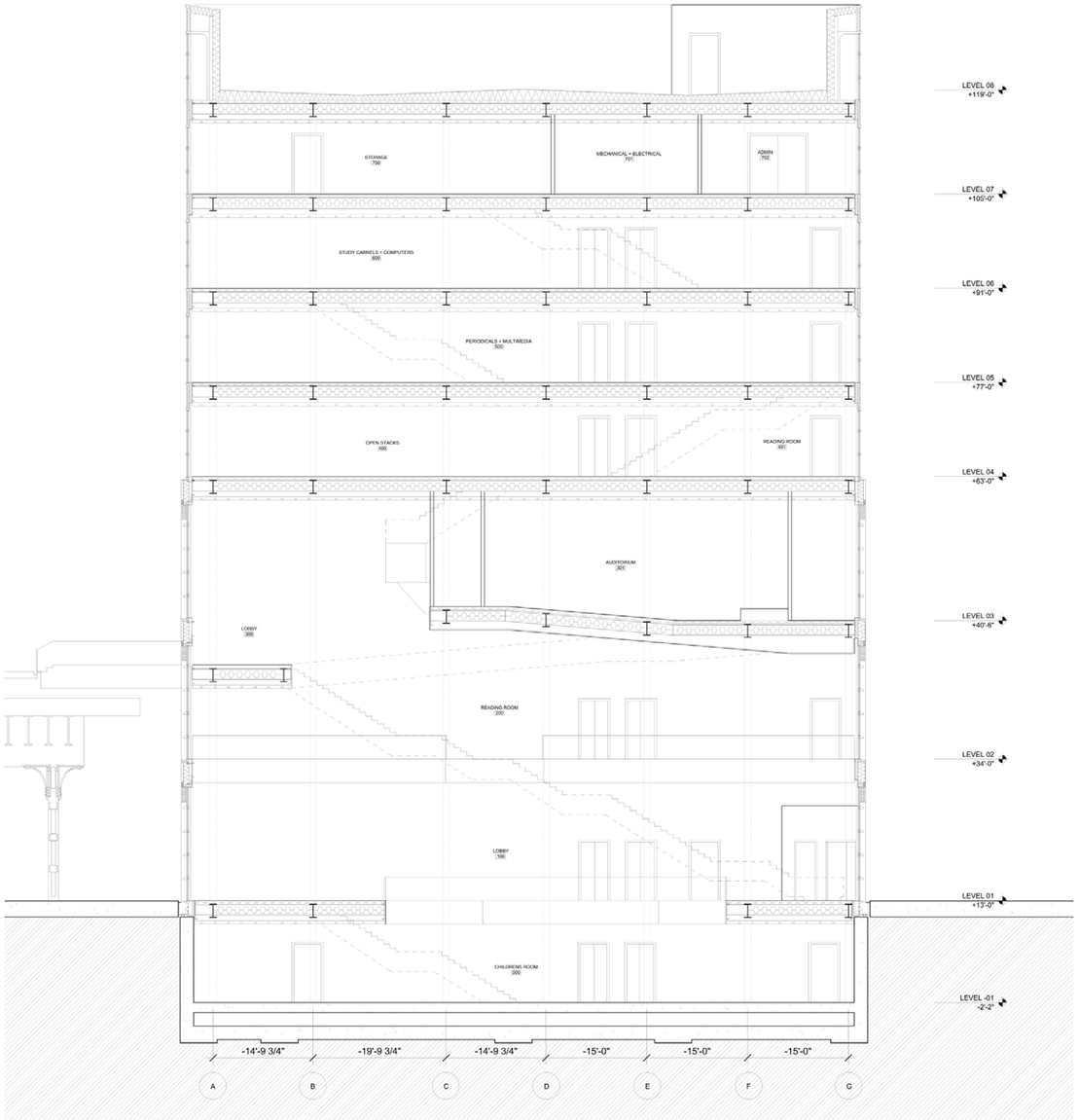
Professor: Combs, Lonn
Location: New York, NY

The site is located in the heart of Chelsea. Chelsea has a lot of art gallaries and is the home for The Highline, an elevated park that spans part of Manhatten. This library acts as a connection from the street to The Highline while being a community node.

The library is made up of two different sections. The lower half acts as a public area that is shown to be more open via the atrium and facade rythems. This free flowing space acts as a connection to the com nity where people can socialize. The upper half of the building is quieter and compact. This allows library goes to read or study in the library without being as distracted by the travelers in the lower part of the building. This library gets to serve all kinds of people and preferences of the community.

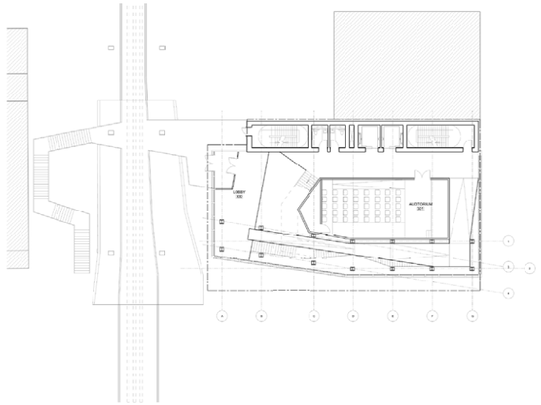
This library is a continuation and re-vamp of the library in Comprehensive Studio 1. It takes the original library but improves on the original ideas while going into more depth of the construction, materials, program, and enviornmental qualities.



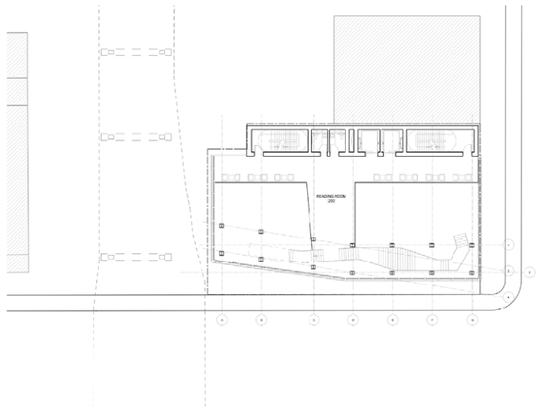


Long Section

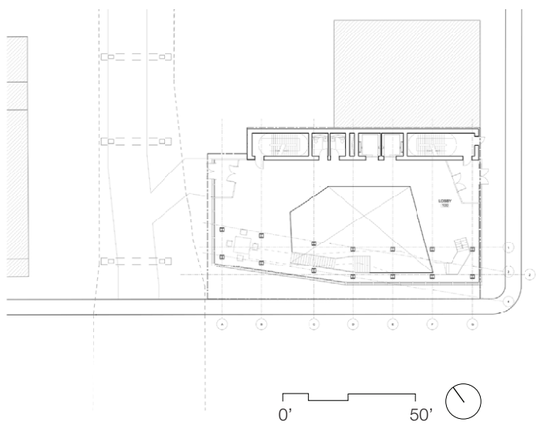
0' 50'



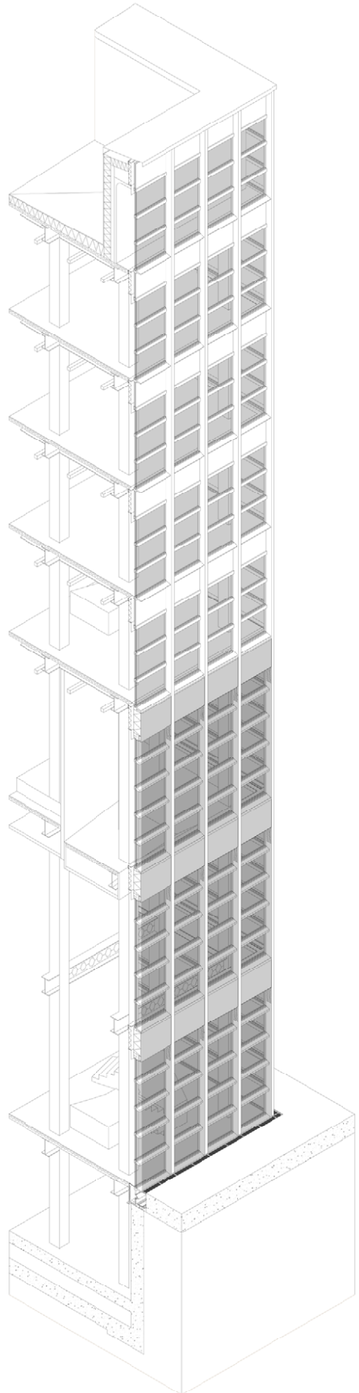
Third Floor



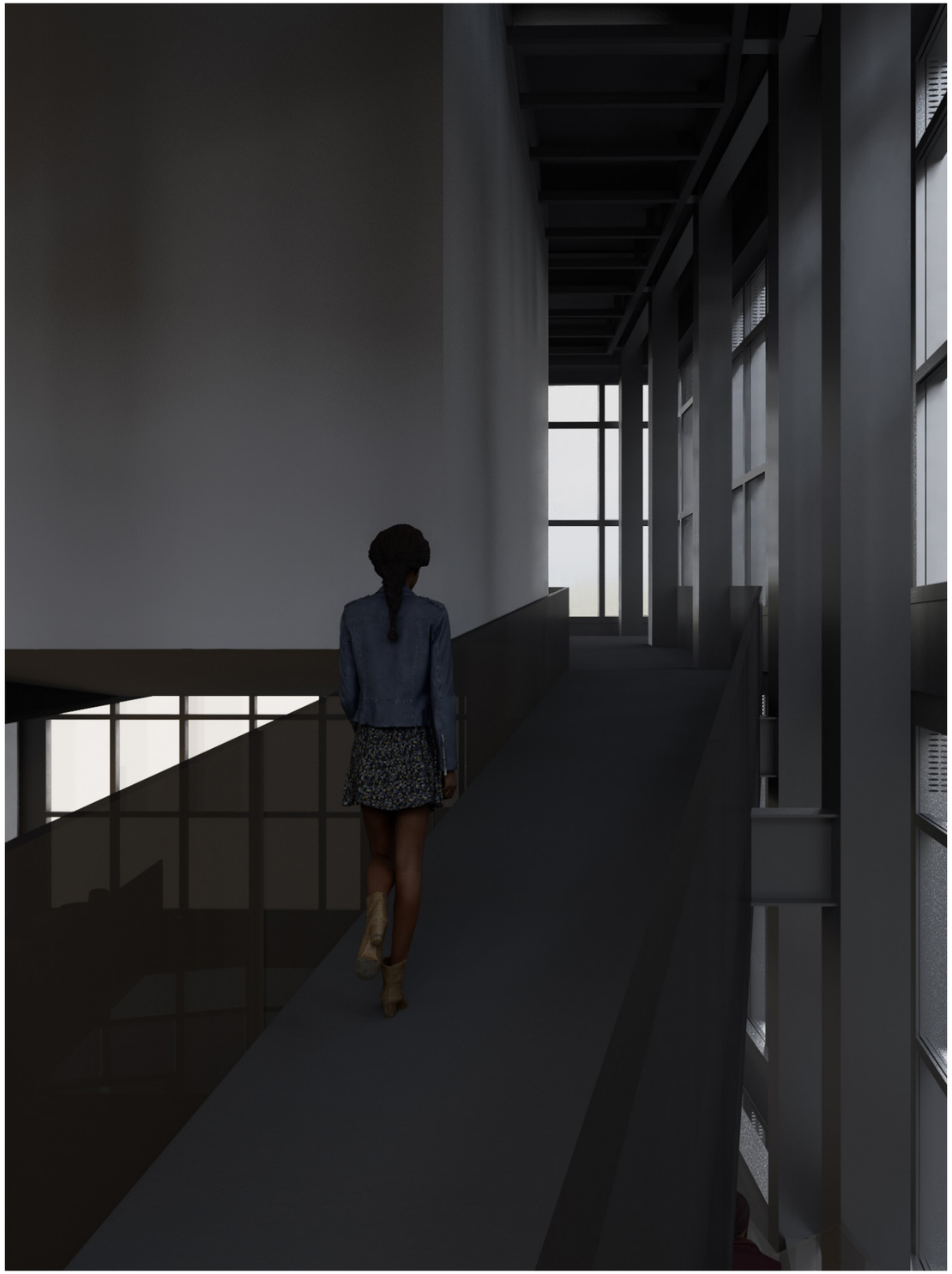
Second Floor



First Floor



Axon Detail



FOLDED NARRATIVES

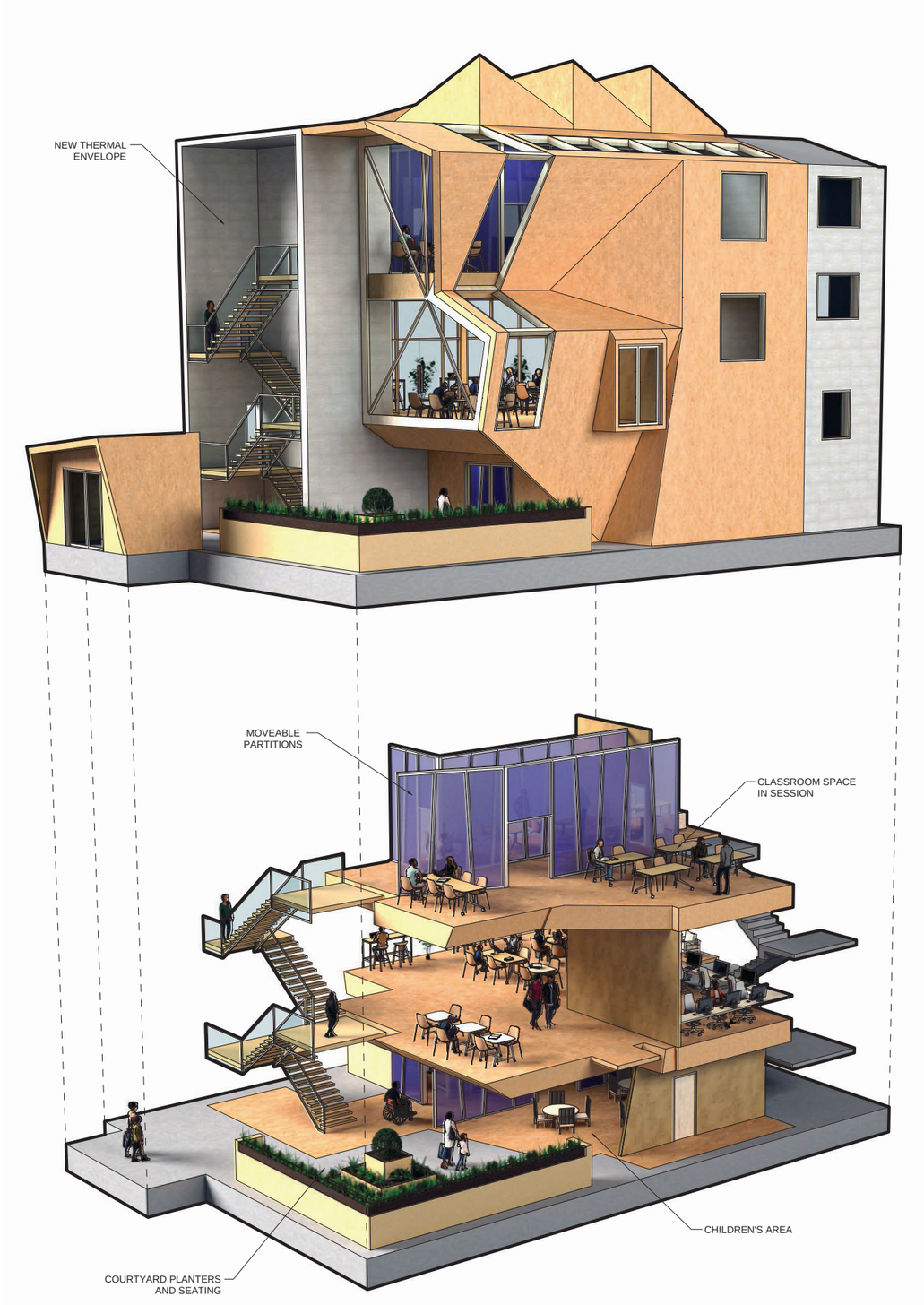
Community Center

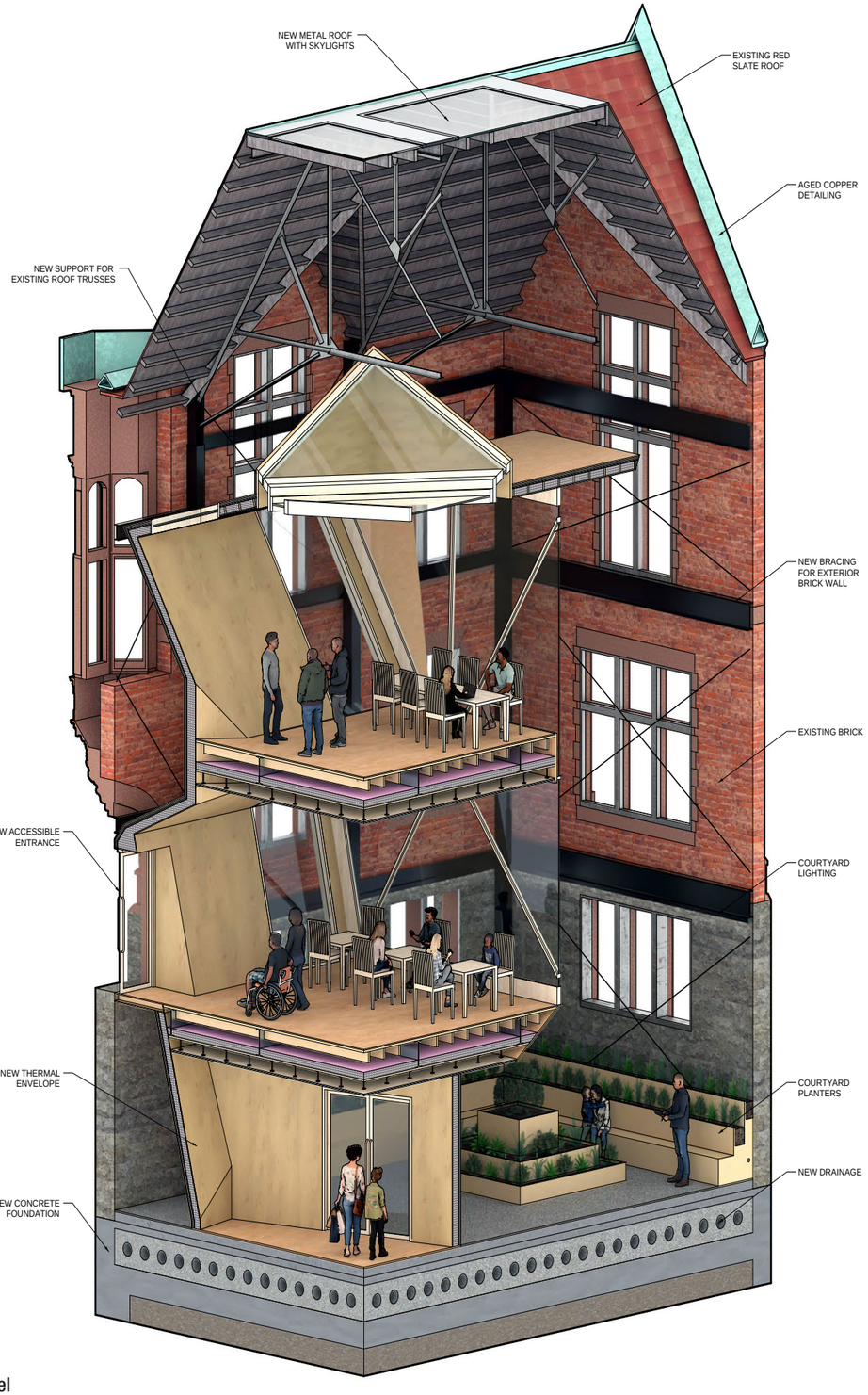
Professor: Fleet, Hower
Location: Albany, NY
Team: Cooper Meyers, Eileen Dong

The adaptive reuse of the Guild House at 62 South Swan St. seeks to reintroduce the original funtions of this historic site into the modernday landscape through the concept of folding. There are two dimensions to the folding. There is a physical folding of the facade and interior partitions, and a conceptual folding of the past into the present.

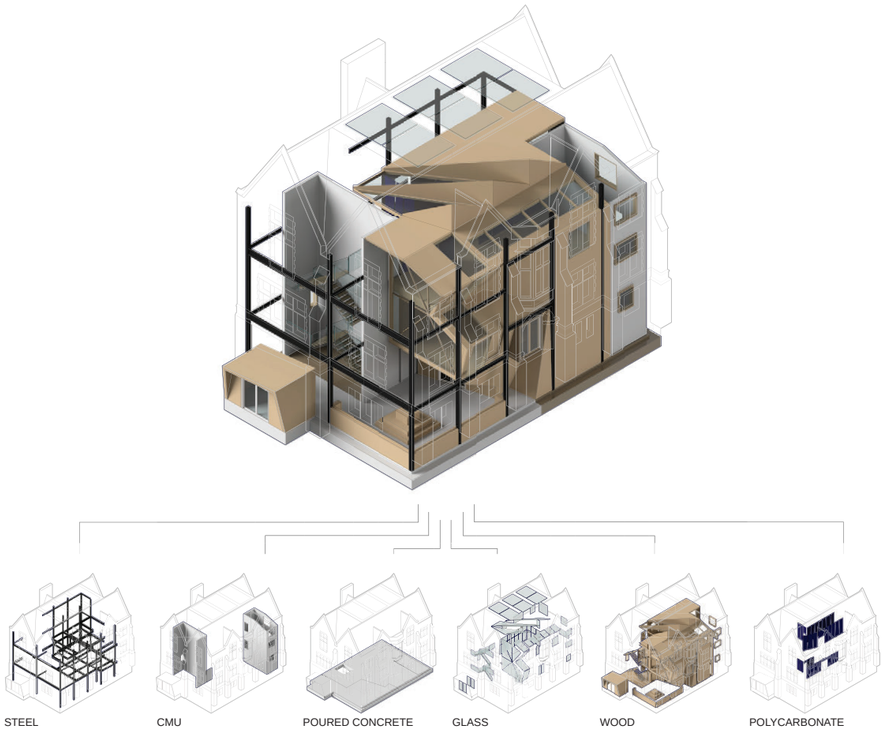
The main entrance has been moved from the west face of the building to the north face to provide an easy and accessible entrance to all. Upon entering the Guild House, one is greeted with an imagery of a building inside of a building. The Guild House as it currently sits, is a shell of what it has been. Our proposal will bring life into this shell by emphasizing the interstitialspaces between the old and new. This space allows both mental and physical acknowledgment of the gap that the decline of the Guild House has left in its community.

The large architectural bay window allows one to peer into the new future of the Guild House, a place to once again server the immigrants and children of its community. It will provide a variety of classes and services for immigrants to help them navigate life in the United States, child care for working class families, and after school programs to help students reach their full potential.

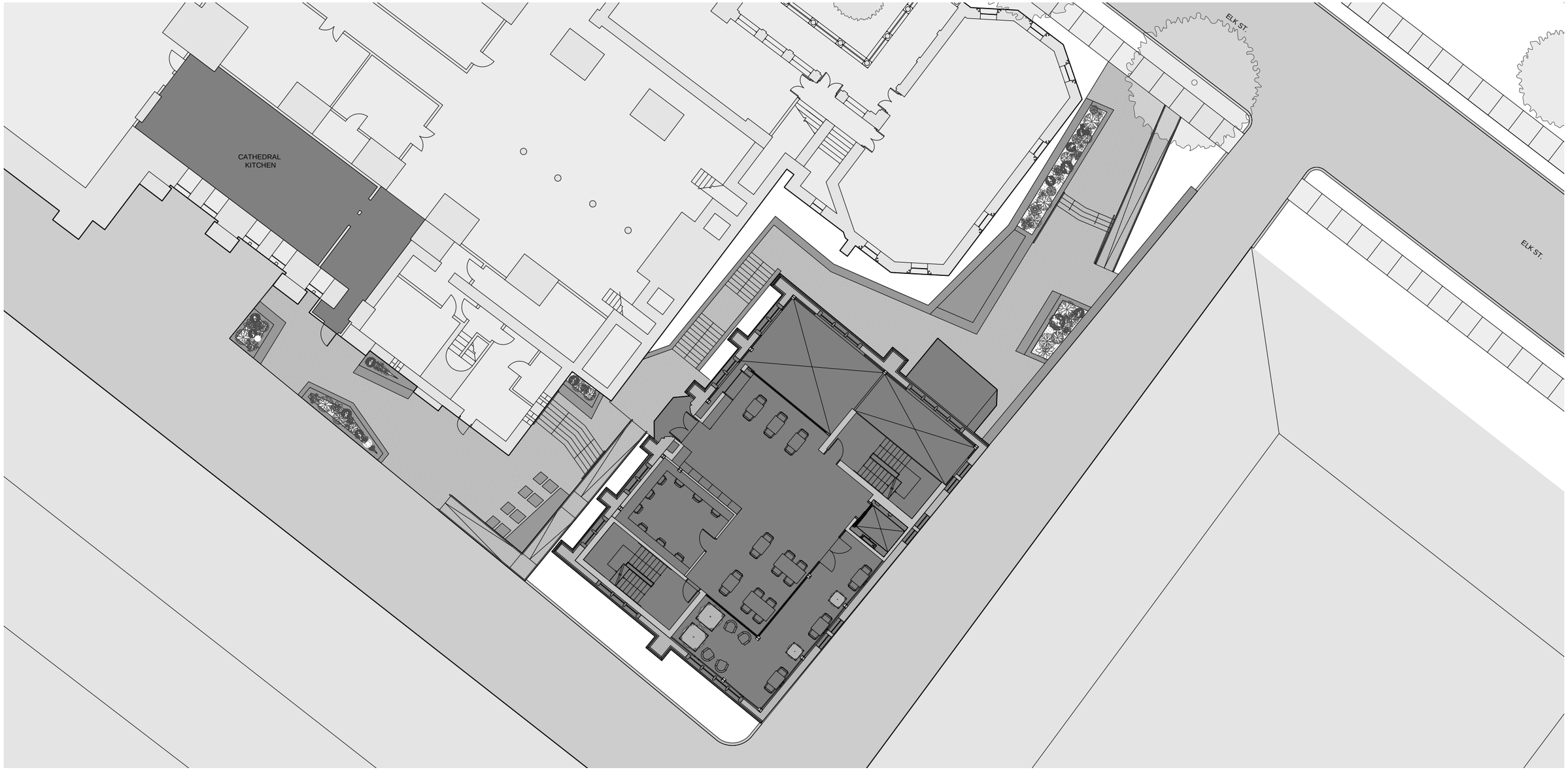




Chunk Model



New Materials

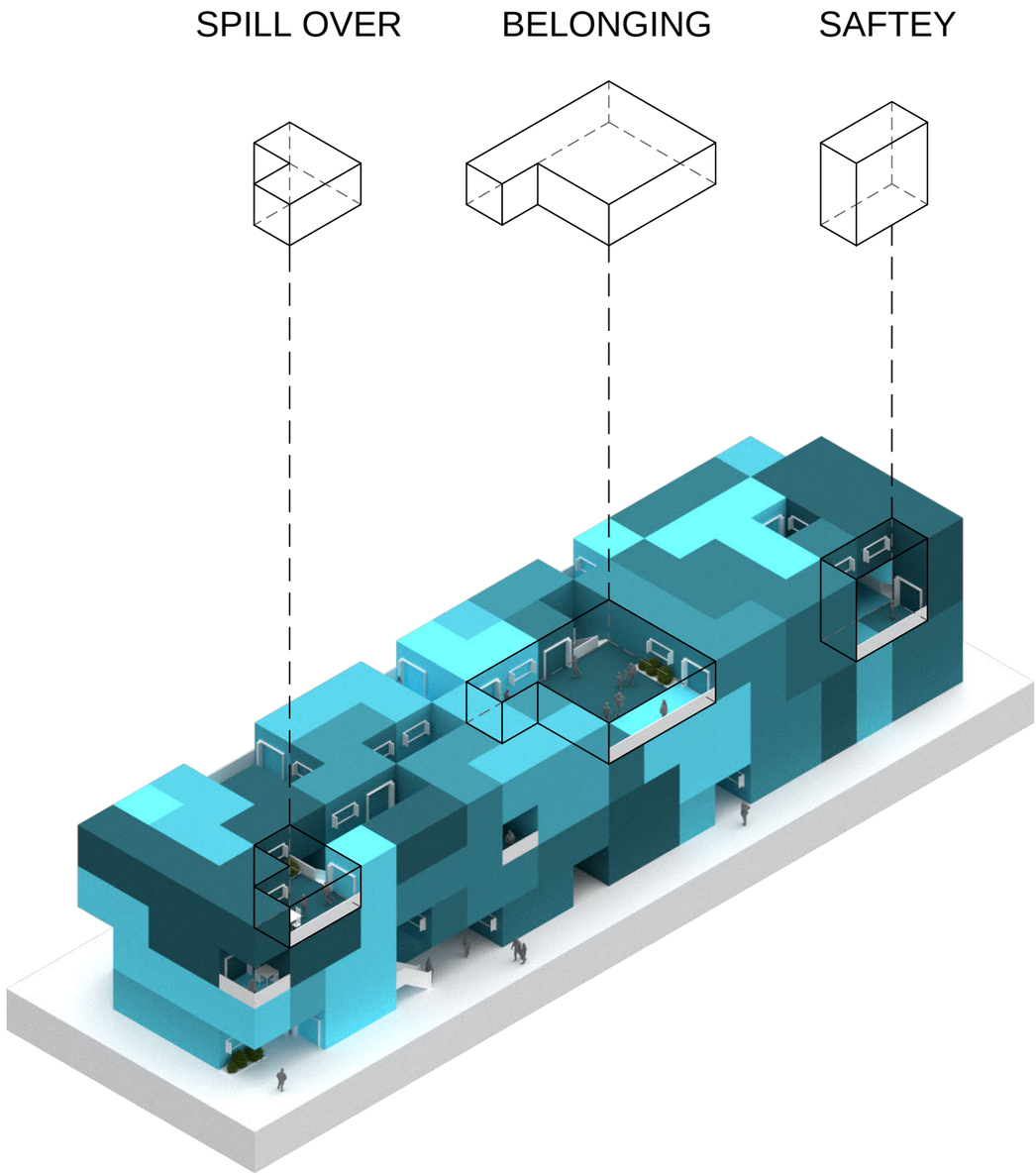


Guild House Within The Campus

SPATIAL CONFIGURATION

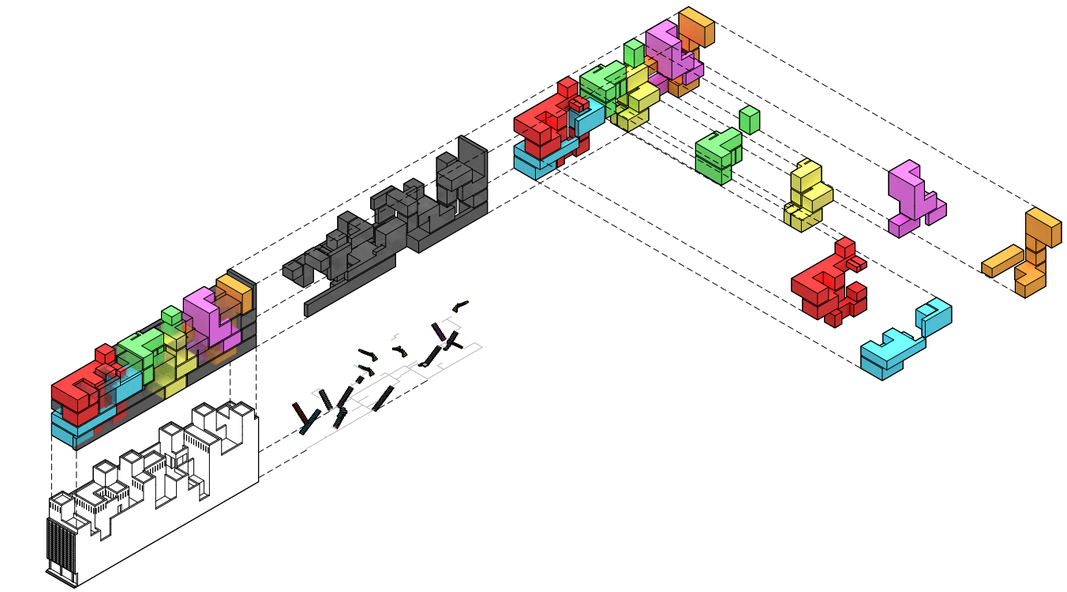
Professor: Carla Leita

Environments, cultures, and technologies are constantly changing. As designers, how do we deal and plan with ongoing changes in spatial conditions. Can a Space-Grammar tool be created that may help design collective housing layouts for different cultures of use of semi-public space within varying density demands? Applying Space-Grammar's processes of inquiry to collective housing layouts could help manage/mediate spatial relationships between public and private space between units, across different cultural and/or density contexts. This thesis aims to explore the different valuable shared spaces that could exist in collective housing, using basic geometry and orientations. Different organizations, densities, and access points can dramatically affect the residents how experience these spaces. Some of these spaces may bring the feeling of belonging, the creation of community connections via direct interaction, giving one a sense of belonging. Some of these spaces give the feeling of safety as there are others viewing the area. Other spaces feel as spill over or an extension of space, shared spaces reduce the need for excessive private infrastructure. A spatial configuration tool allows us to quickly test and analyze these spaces, allowing us to explore the values of shared space.



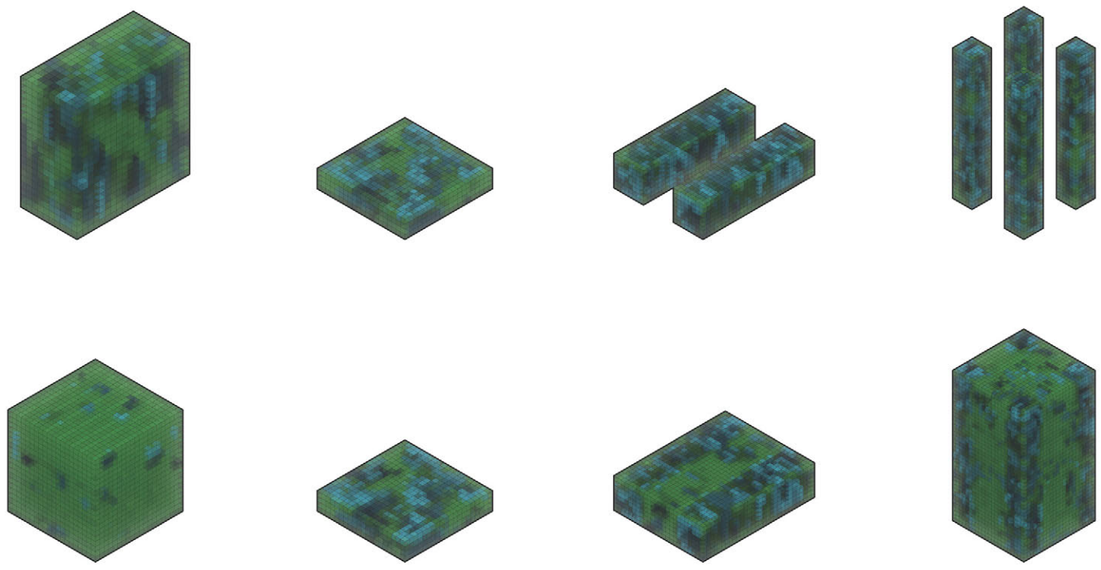
```
Define: Parameters
    (Total Volume, Size of Unit, Density, Apt Size)

Define: Class Cell
    (Attributes: (x,y,z), State, RhinoID)
    (Methods: isEmpty(), isShared(), reset(), cycle(), draw()...)

Define: Class ConstructApts
    (Attributes: Xdim, Ydim, Zdim, matrix, cells...)
    (Methods: isValidCell(), checkDir()...)

Run: ConstructApts()
    (Make Matrix from globals)

Run: construct_apartments()
    For Each Apartment:
        - Start at random unused cell
        Loop for size of apt:
            - Pick random direction (weighted to generate possible grammars)
            - Validate next cell
            - If valid, update State and draw
            - Else, cycle and try new direction

Run: Shared()
    For Each Apartment:
        Run: get_direct_apartment_cells()
            - Draw possible physical access to apartment
        Run: get_surrounding_apartent_cells
            - Draw possible visual access to apartment
        - Draw possible future apartment growth
```

Pseudo Code

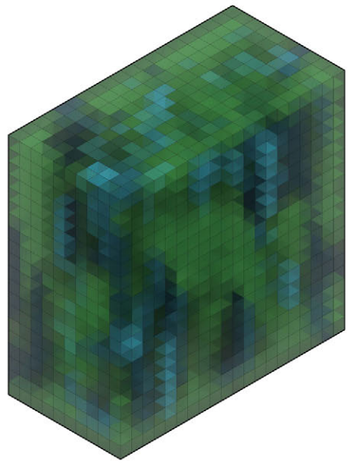


Space Blocks Hanoi Model Analysis

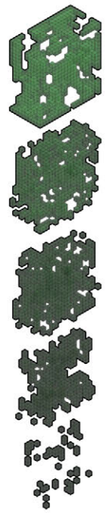
Space Blocks Hanoi Model Analysis



Generated Iterations



Units and Shared Space
200' x 100' x 200'
(1 Block = 10')

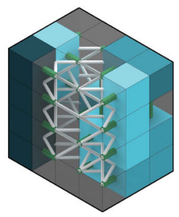


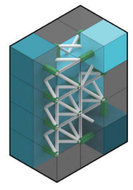
Open Shared Space

Pulled Out Chunk
Units and Shared Space

Unit Density: 37%
Number of Units: 250
Blocks per Unit: 6
Shape of Units: Favoring Verticality
Gap Chance: 0.32%

Vertical Visual Access Diagram





Vertical Visual Access Diagram

Vertical Visual Access Render

Contains:
Safety

Contains:
Safety

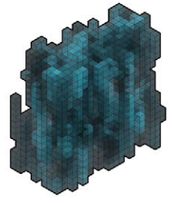
Vertical Visual Access Render

250 Apt. Units

3,717 Direct Access Instances

3,717 Direct Growth Possibilities

Below
Average for
Boundary
Size



Above
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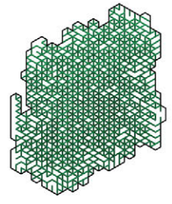

Above
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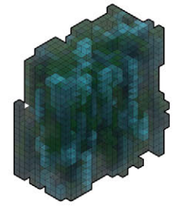
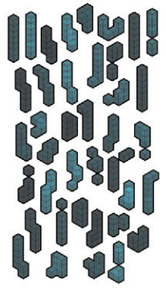
Size





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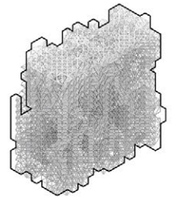

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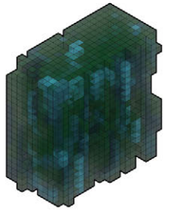
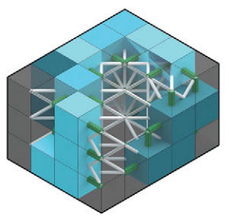


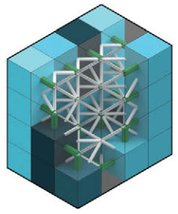
Vertical Shape Apt. Units

18,692 Visual Access Instances

2,865 Further Growth Possibilities

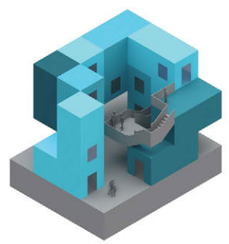
Horizontal Visual Access Diagram



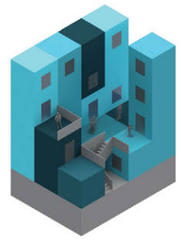


Horizontal Visual Access Diagram

Horizontal Visual Access Render



Contains:
Safety
Belonging



Contains:
Safety
Belonging

Horizontal Visual AccessRender

Results:
37% density = more/larger courtyards = more **belonging**
37% density = more visual access = more **safety**
Vertical apartment shape with little gaps = less **spill over**, less **belonging**, more **safety**