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BACHELOR OF ARCHITECTURE  
**SELECTED WORKS**  
RENSSELAER POLYTECHNIC INSTITUTE

In my work as a student and aspiring architect, I have found a consistent conceptual driver in the importance of designing the human experience of space. The question of how to curate that experience—both in terms of what it is required to provide and what it has the potential to do—is one I hope to address through the practice of architecture. I see this discipline as a powerful means of interacting with the world, on scales ranging from the individual to the urban, and I have focused my academic career on building an expansive breadth of skills and experience in both the theoretical and practical aspects of the field, in the hope of contributing to a practice equally interested in shaping the world we inhabit. These collected projects have been the vehicle through which I have formulated these skills and interests, and I present them here as record of both my capabilities and potential as an aspiring architect.

BREAKING GROUND

LUMINOUS MULTIPLICITIES

INSTRUMENTS OF PASSION

DESCENT

AN ARCHITECTURAL METANARRATIVE

**CURRICULUM VITAE**



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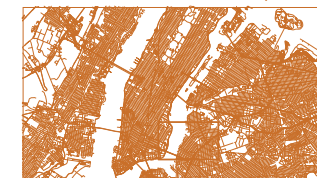
## Breaking Ground

This design for a 150 000 sqft performing arts center was primarily driven by its site in the middle of a waterfront park in Brooklyn, NY. Given the rarity of such park space in the thoroughly urbanized Greenpoint-Bushwick neighborhoods, preserving as much of it as possible was seen as a primary goal, which—using the adjacent community center as both formal and programmatic inspiration—led to the design of a performance-based extension of the community center, cantilevering over the park to maximize publicly accessible space while grounding the performing arts center as part of the community.

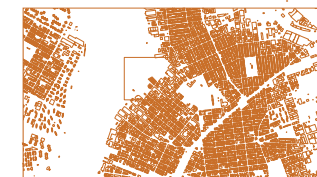
## Brooklyn | NY

Further emphasizing the importance of public accessibility, the performing arts center's enclosure is drawn back from the site boundary, creating a large semi-enclosed courtyard that visitors can either walk straight through (allowing the center to act as a gateway connecting the city and the park beyond) or ascend either of the large exterior stairs to a panoramic view of the East River and the New York skyline, thereby acting as a connection between Brooklyn and Manhattan as well. This project took place over two semesters: the first, schematic design, was an individual undertaking; the second, design development, was a two-person effort.

▼ Urban site: New York City

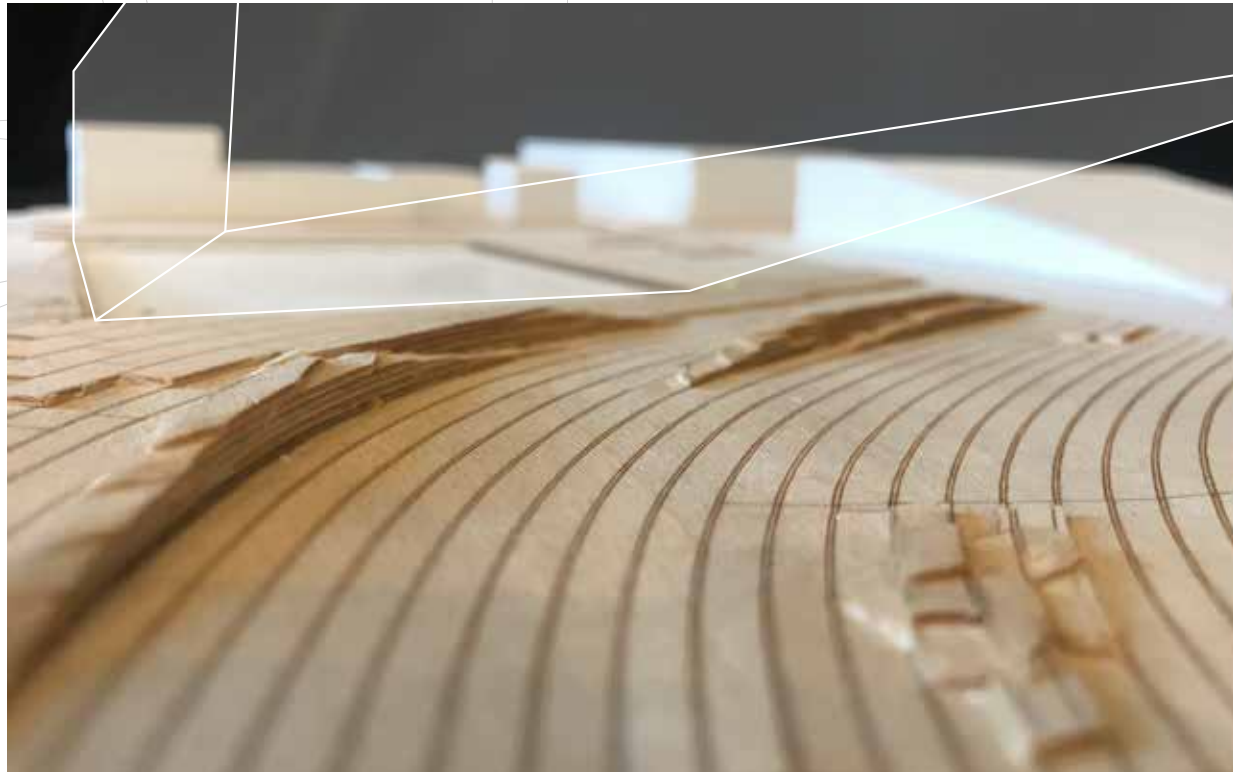


▼ Local site: Bushwick-Greenpoint

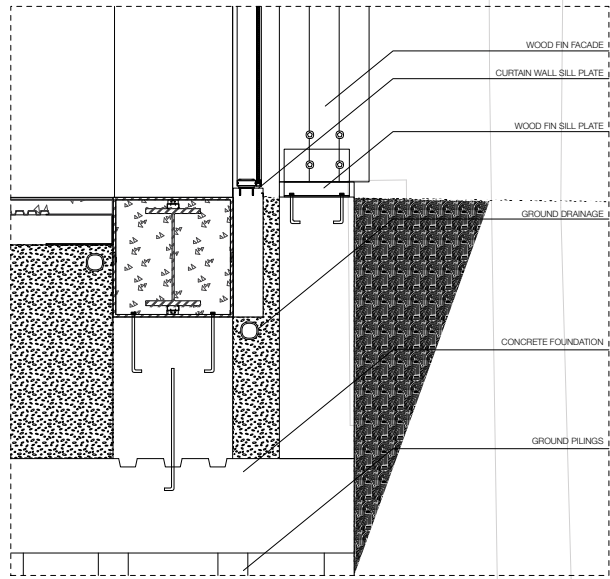


Courtyard entrance perspective ▲



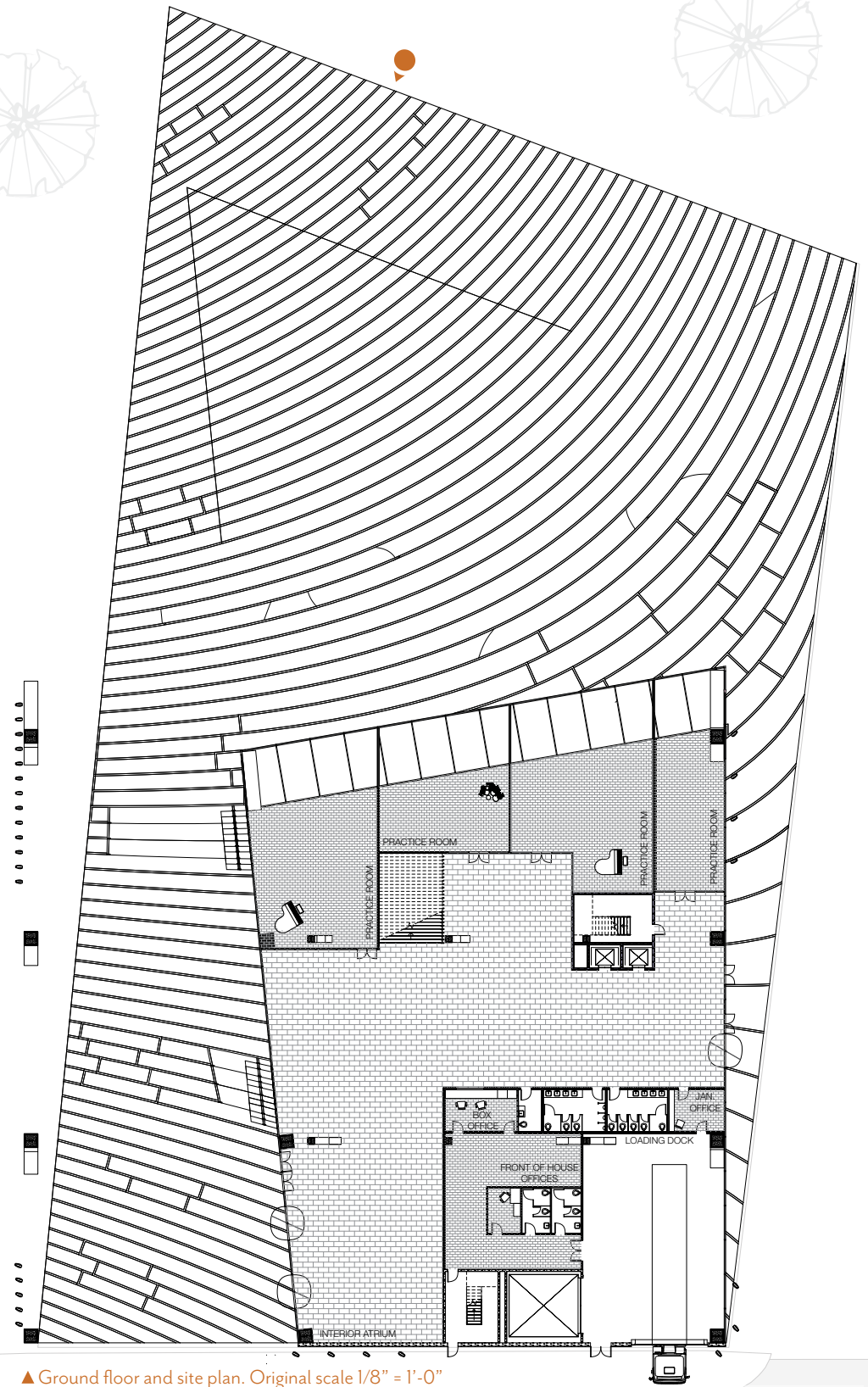


▲ 1/32" = 1'-0" site model, massing superimposed



▲ Detail of facade-ground connection. Original scale 1" = 1'-0"

The site condition originates from a projection of the contoured roof plan, from which point it is then releveled and further subdivided to create a variety of conditions (and thereby a variety of uses). There are hardscaped and landscaped areas, planters and seating areas mixed with the makings of skateparks, essentially creating a blank slate for the public to fill.

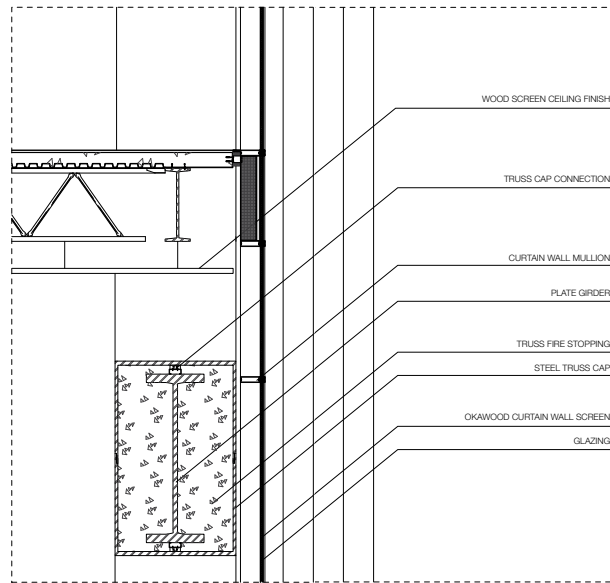


▲ Ground floor and site plan. Original scale 1/8" = 1'-0"



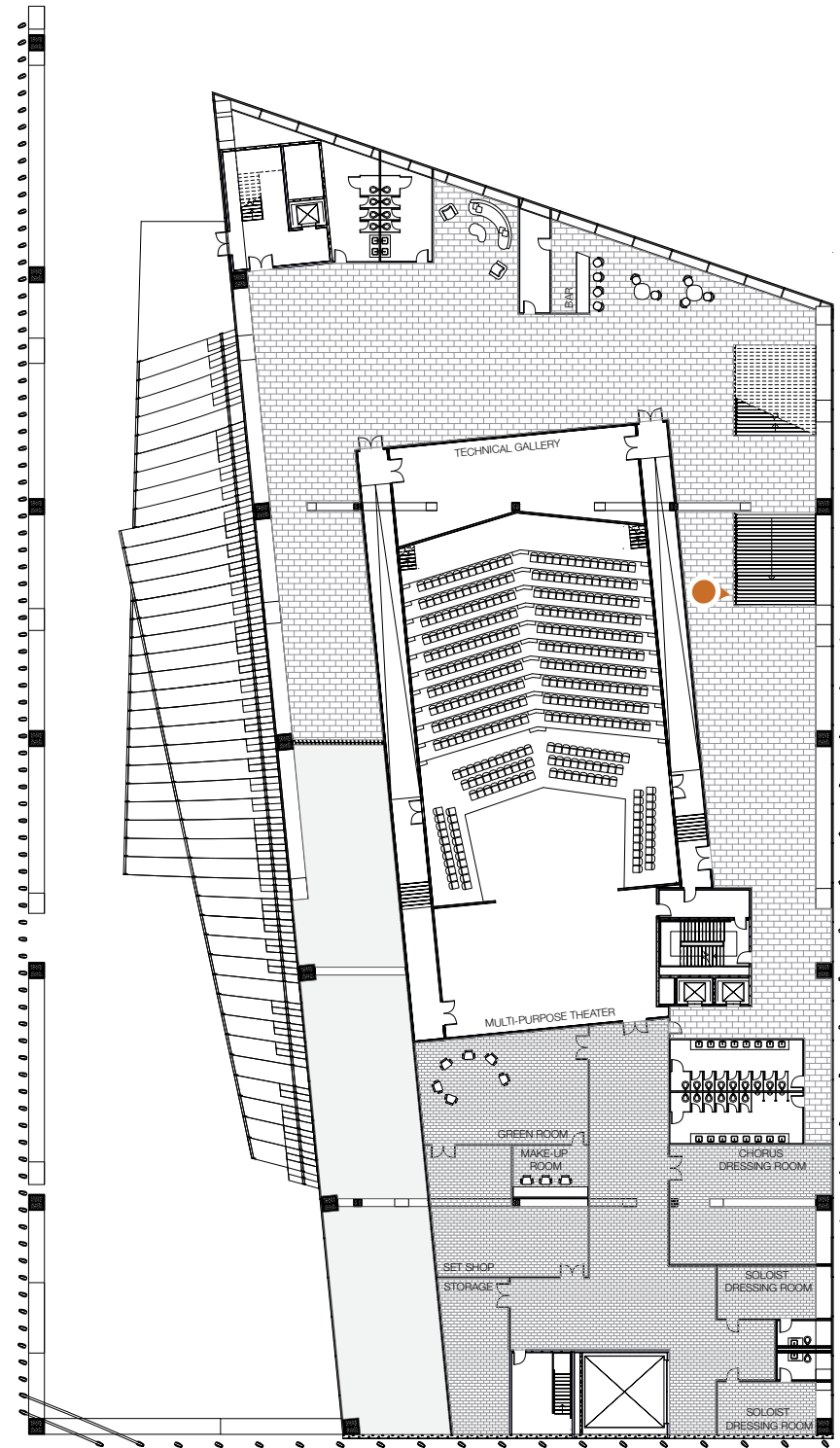
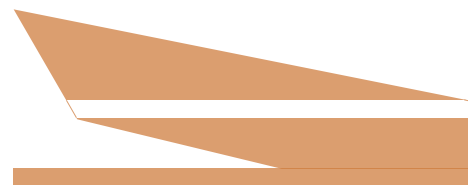
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▲ 3/16" = 1'-0" presentation model, atrium detail



▲ Detail of facade-floor connection. Original scale 1" = 1'-0"

To create as much utility as possible, much of the building consists of multipurpose spaces of varying sizes, from small group practice rooms to a 1200-seat theater, allowing for a wide range of performances and displays completely available for the public to create and participate in. This will gather disparate groups currently scattered around the neighborhood allowing the center to act as a cultural hub, fostering connections and collaborations that otherwise could never have happened.

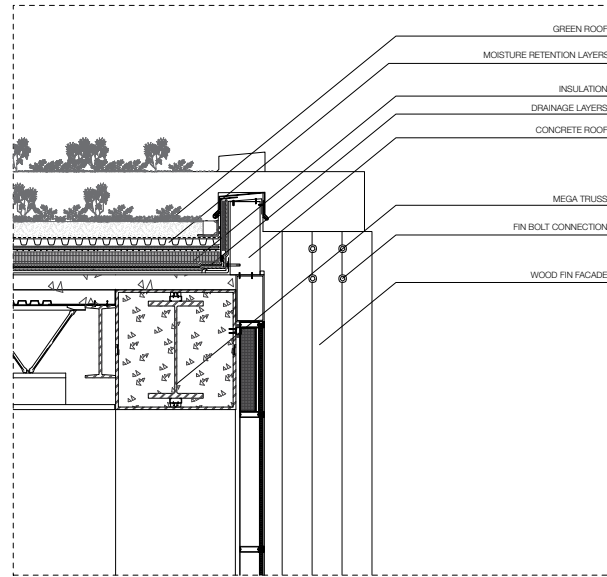


▲ Fourth floor plan. Original scale 1/8" = 1'-0"

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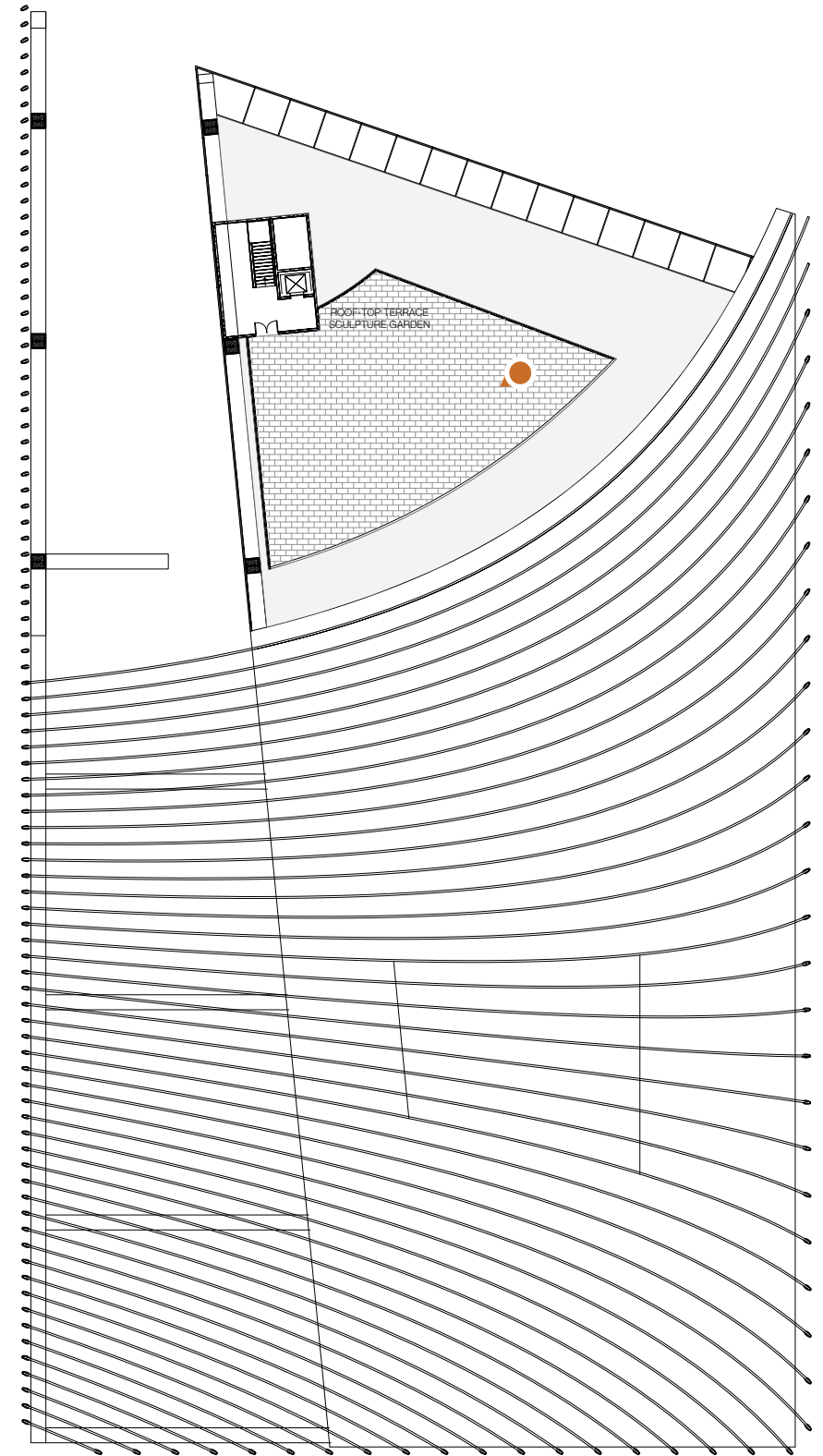
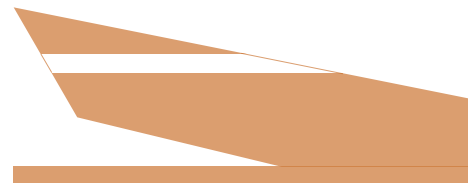


▲ Rendering of seventh floor roof terrace

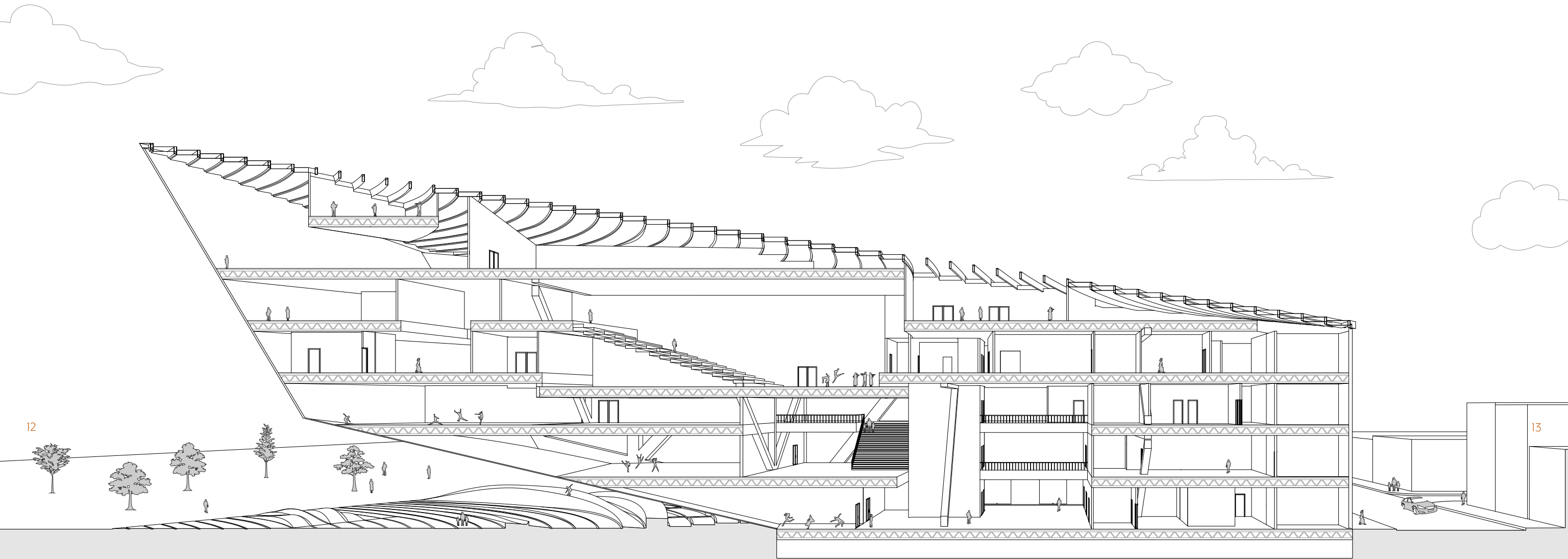


▲ Detail of facade-roof connection. Original scale 1" = 1'-0"

To offset the greenspace lost in the building's footprint, the performing arts center culminates in a contoured greenroof only visible from the Brooklyn side of the site—a special gift for the community it serves. While the contours remain uniform, in certain areas the roof falls away beneath them, creating open-air terraces allowing performances, exterior art displays, and a view back towards the Bushwick-Greenpoint community.



▲ Seventh floor and roof plan. Original scale 1/8" = 1'-0"

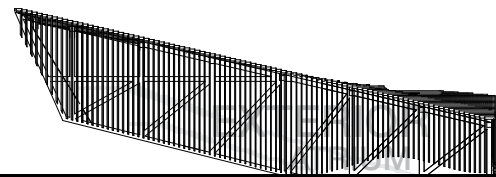


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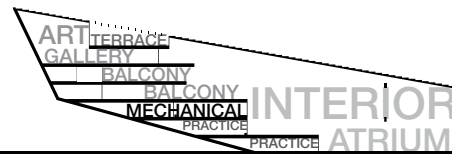
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▼ Diagrammatic series of longitudinal sections

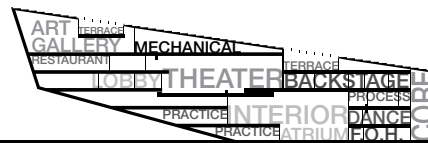
Longitudinal perspective section, showing concert hall, atria, practice rooms, and administration space ▲



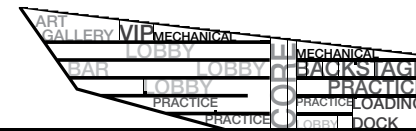
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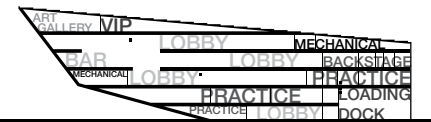
SECTION 2



SECTION 3



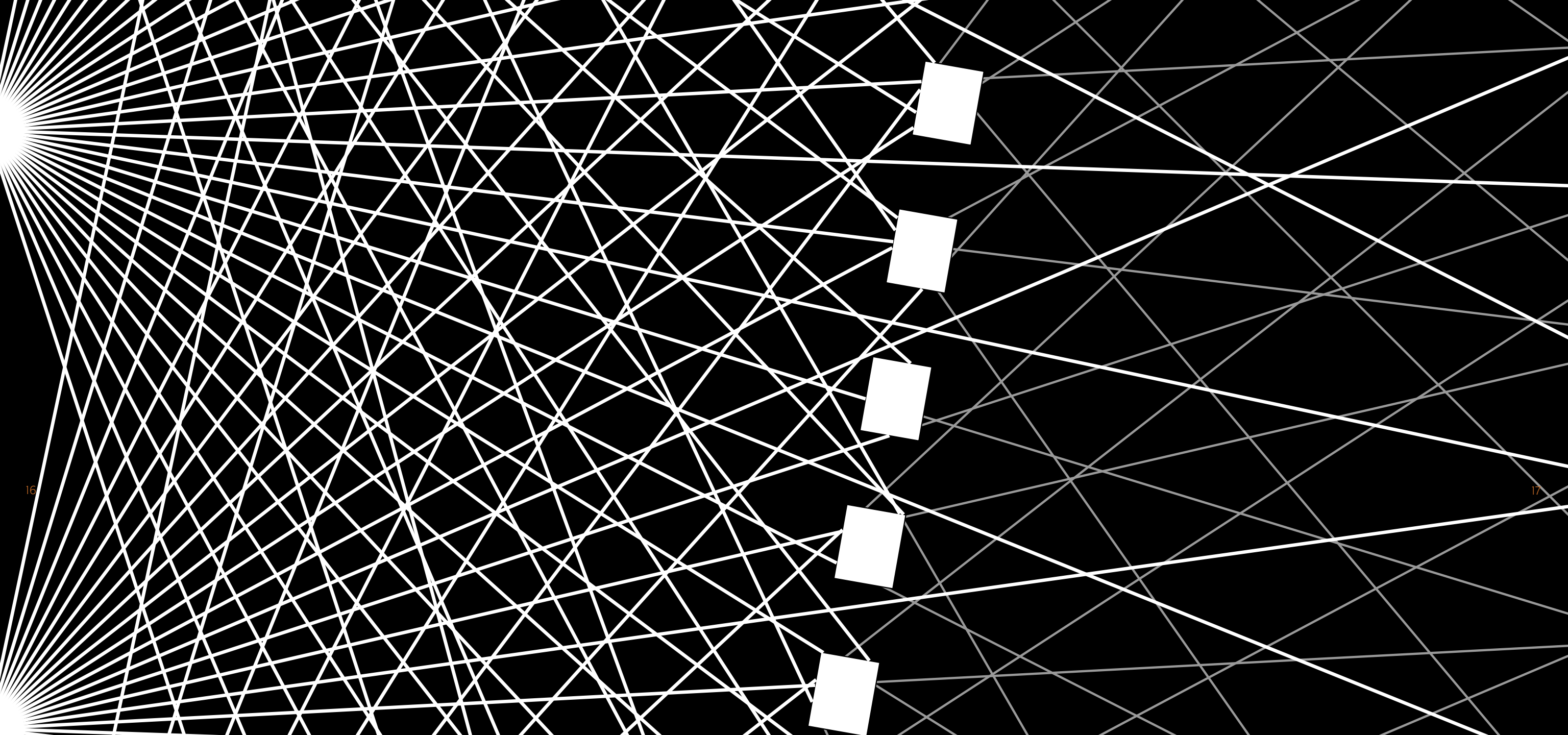
SECTION 4



SECTION 5







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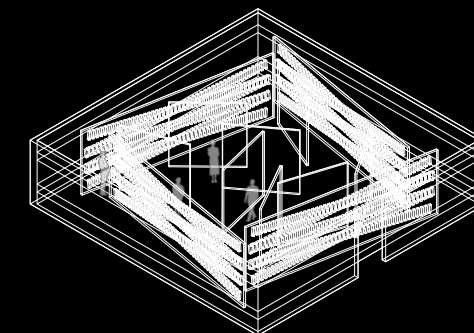
## Luminous Multiplicities

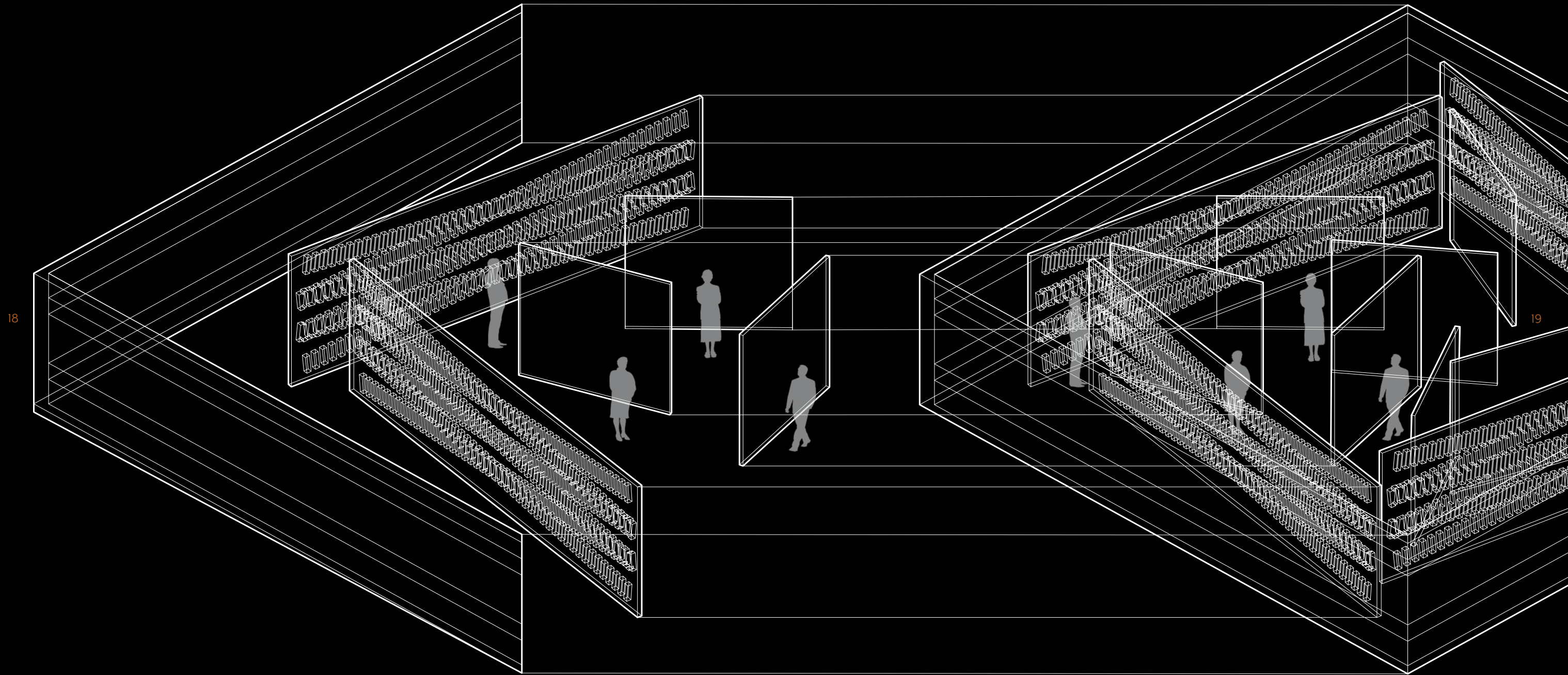
This conceptual project consists of an architectural space where light and shadow are constantly and seamlessly shifting into each other, where a multiplicity of the two phenomena makes it difficult to comprehend where one ends and the other begins. This space, and the lighting condition within, is meant to explore the inescapable duality of light and shadow; demonstrating their identity as two ends of a single, shifting gradient rather than two separate but related concepts.

This was accomplished using three main interventions into the space: a series of point lights distributed evenly around the perimeter of the room, a layer of translucent material (cut with a repetitive figure-ground pattern) which describes a smaller, interior perimeter of space, and a number of smaller translucent screens upon which the repetitive (and now distorted) figures from the previous layer are now projected. Even before the space becomes inhabited, these projections create a complex, interweaving lighting and shadow condition on the screens and floors, but upon habitation this condition becomes dynamic, light and shadow moving into and out of each other to create a mesmerizing, even disorienting architecture of illumination.

Diagram of light vector travel ▲

Axonometric of designed installation (exploded view overleaf) ▼



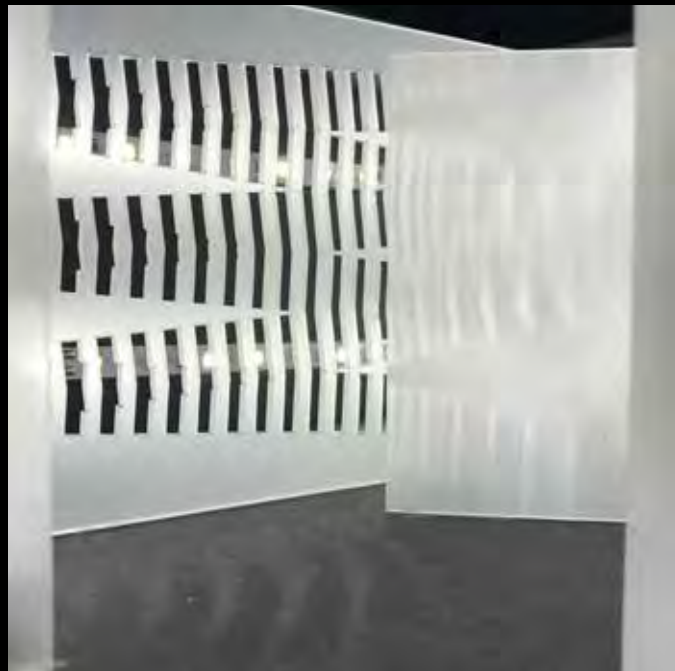


**Exploded axonometric of installation space**

Layer 1: exterior wall with light sources

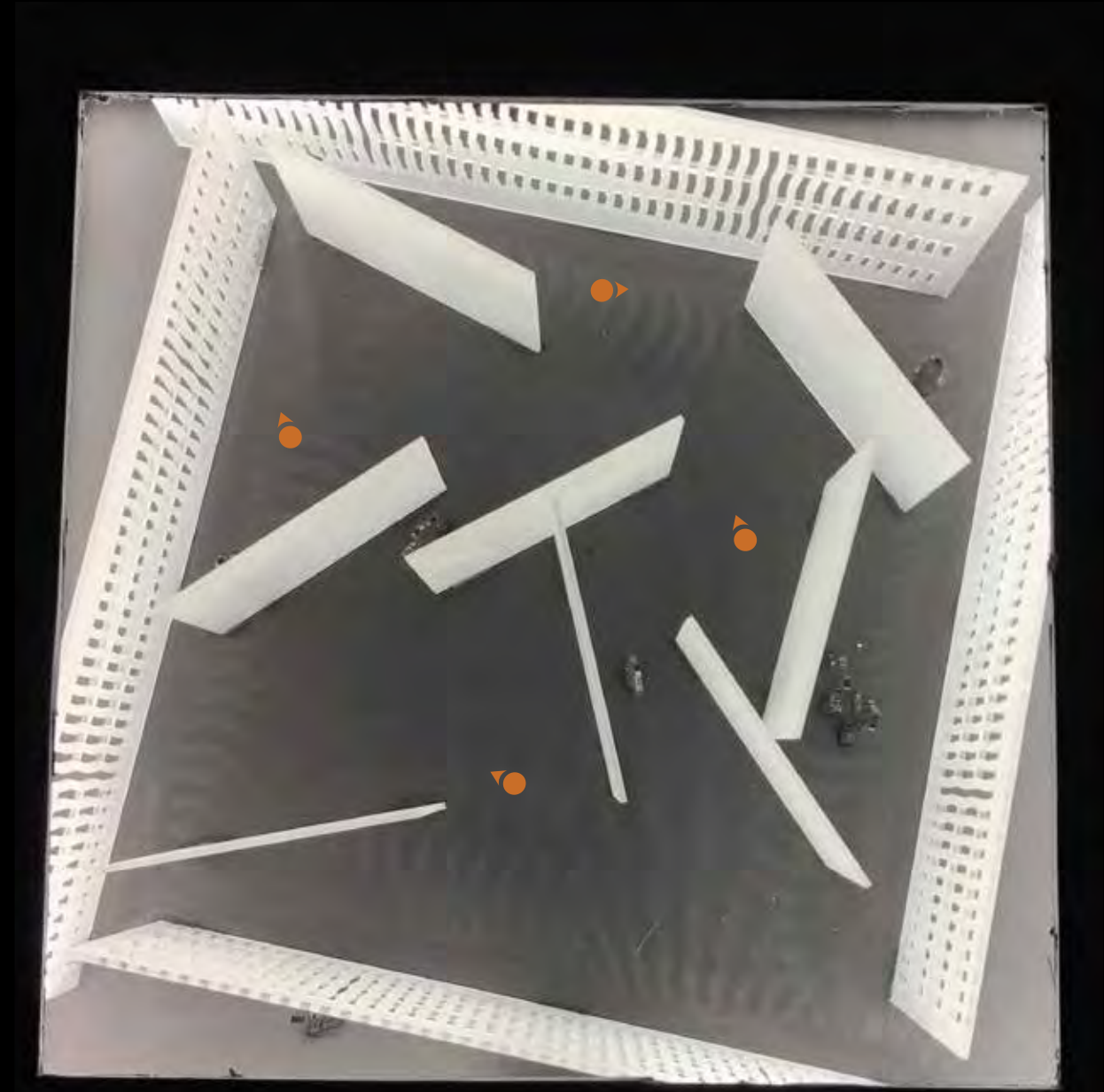
Layer 2: interior wall with excised figure-ground pattern

Layer 3: spatial partition / projection display



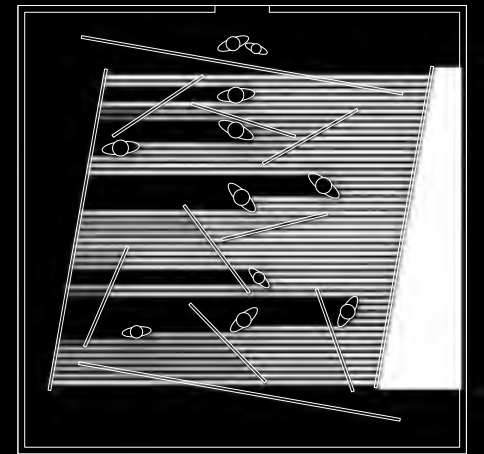
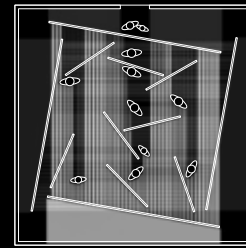
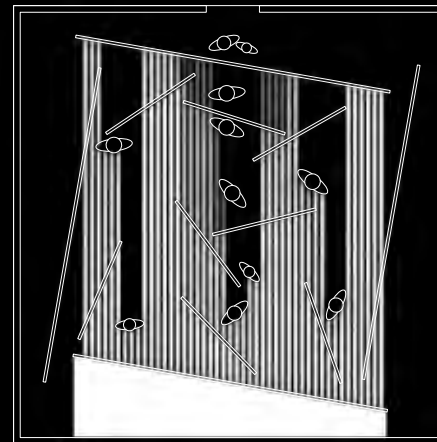
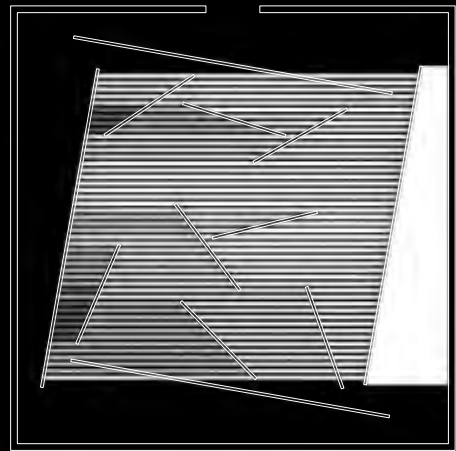
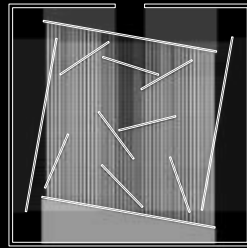
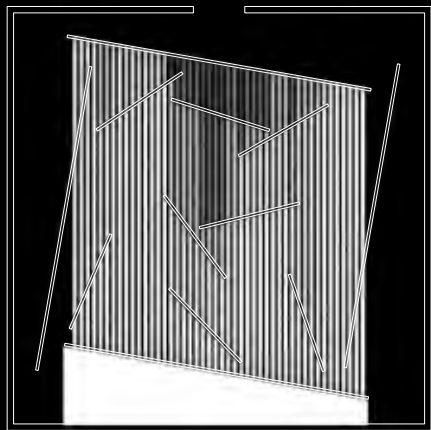
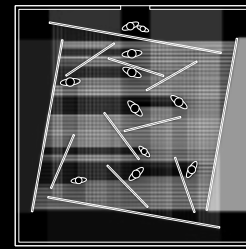
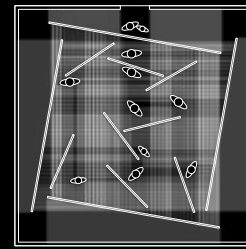
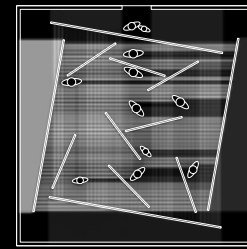
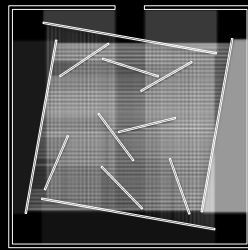
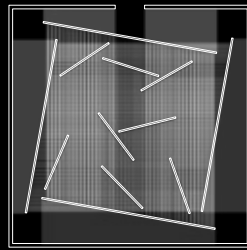
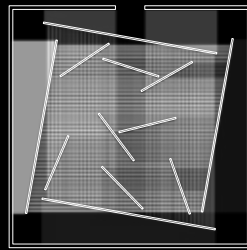
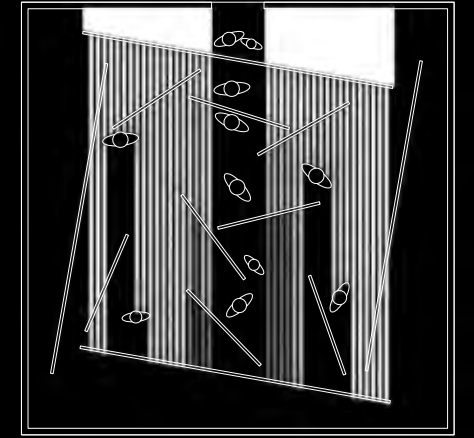
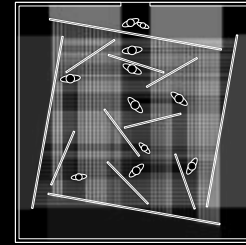
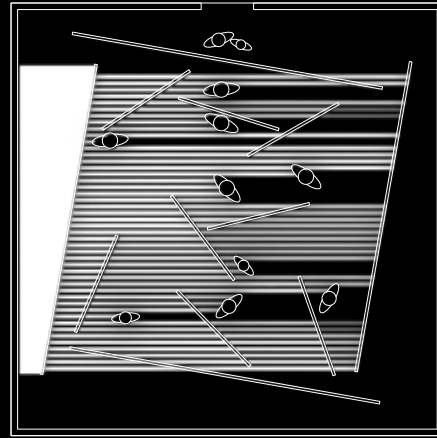
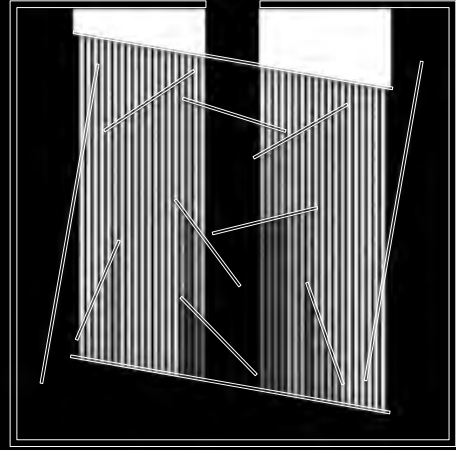
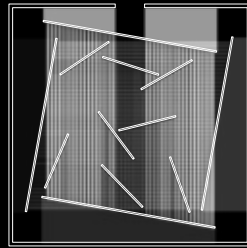
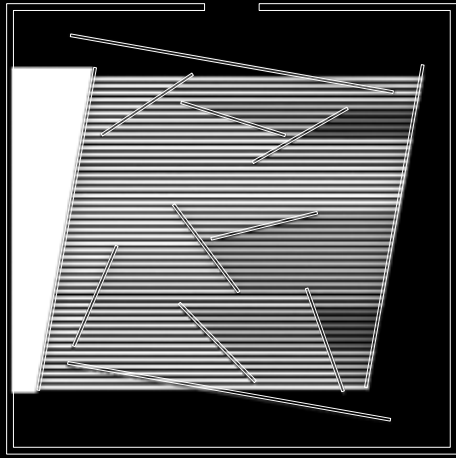
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▲ 1/4" = 1'-0" scale model detail views



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1/4" = 1'-0" scale model overhead view ▲



Series of lighting condition studies focusing on projections from each of the four sides of the space and their combinations, both uninhabited (left) and inhabited (right)



## Instruments of Passion

The work presented here was done during an intensive analysis studio completed on site in Rome, Italy. Through an in-depth study of a piece of the architectural canon (in this case, Francesco Borromini's 1646 San Carlo alle Quattro Fontane) as well as the greater urban context of the city, students were meant to fully immerse themselves in the genealogy of architecture that forms the foundation of the contemporary discourse, so as to better understand how to shape it into the future. This culminated in a proposal for an evolution of the existent piece of Roman architecture—an evolution in the sense of an alternate, unrealized version of the work, rather than a potential future construction.

## Rome | Italy

San Carlo alle Quattro Fontane is a masterpiece of the Italian Baroque; perhaps the purest example of the sheer emotion, complexity, and ambiguity introduced into architecture in counter to the stoic perfectionism of the Renaissance that preceded the period. Analysis of the church began from the ground up, beginning with the construction of the wildly complex plan and working up through the interior elevations (the scope of the project having been constrained to the church interior), and leading to the ethereal dome above, the complex coffering of which is the vehicle for the proposed evolution of the space. Also presented are sketches from exploration of the urban fabric of the city.

▼ Urban site: Rome, Italy



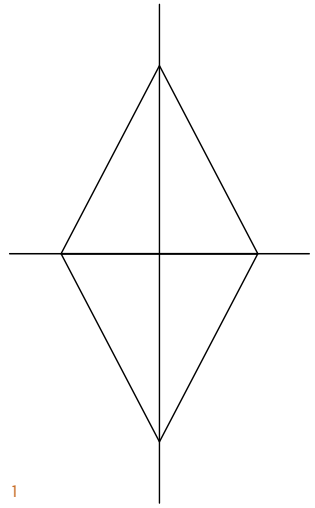
▼ Local site: Quirinal Hill



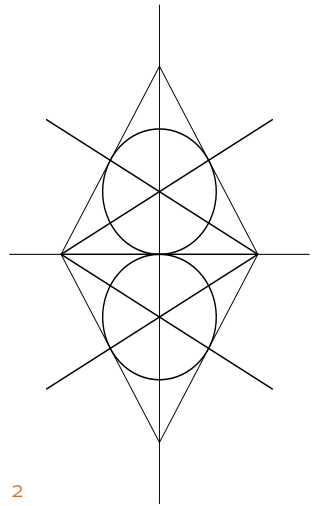
Superimposition of actual church and digital recreation ▲



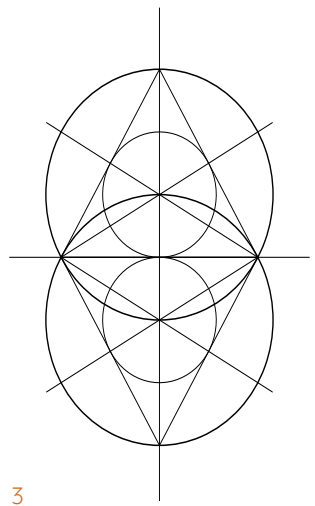
Detail of Pianta Grande di Roma, Giambattista Nolli ▲



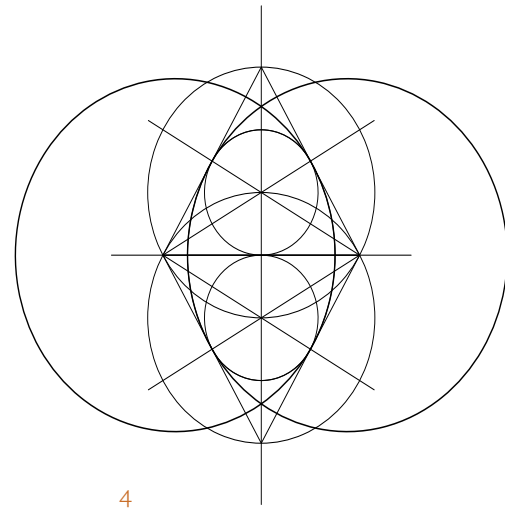
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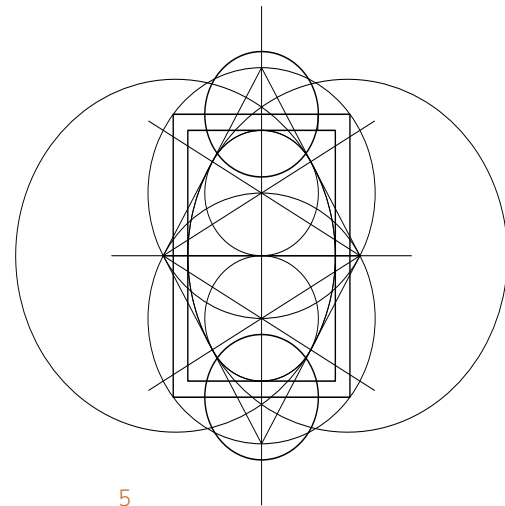
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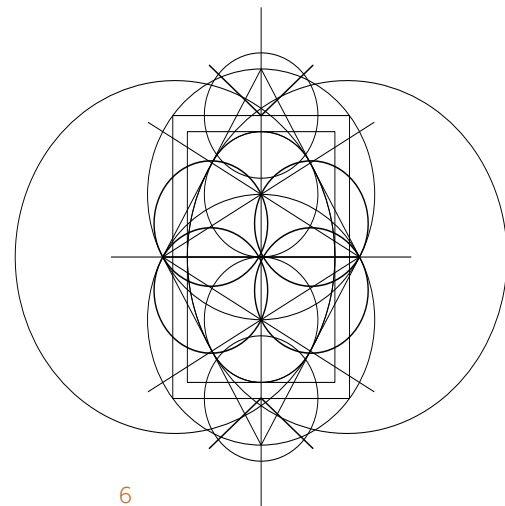
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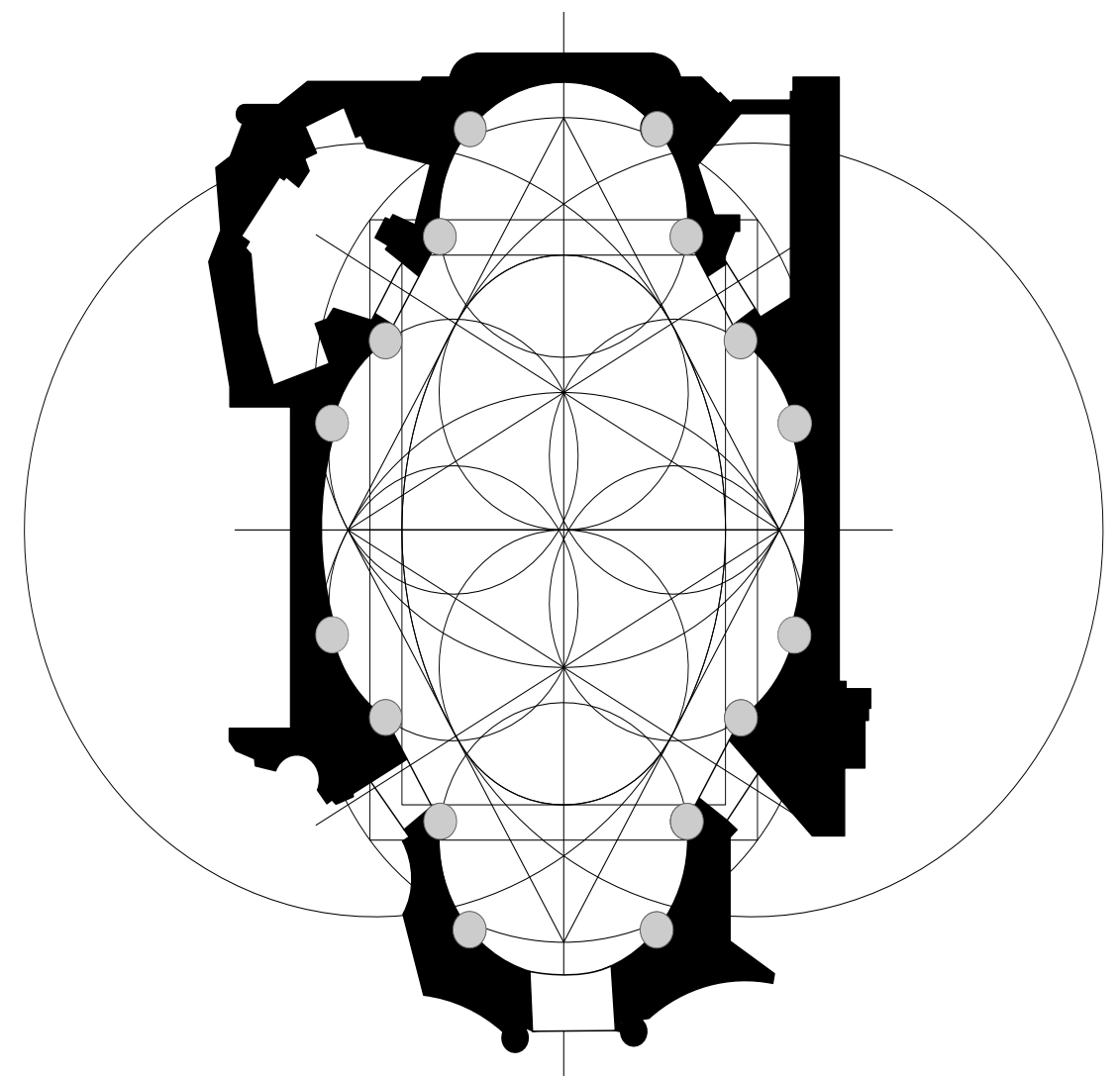
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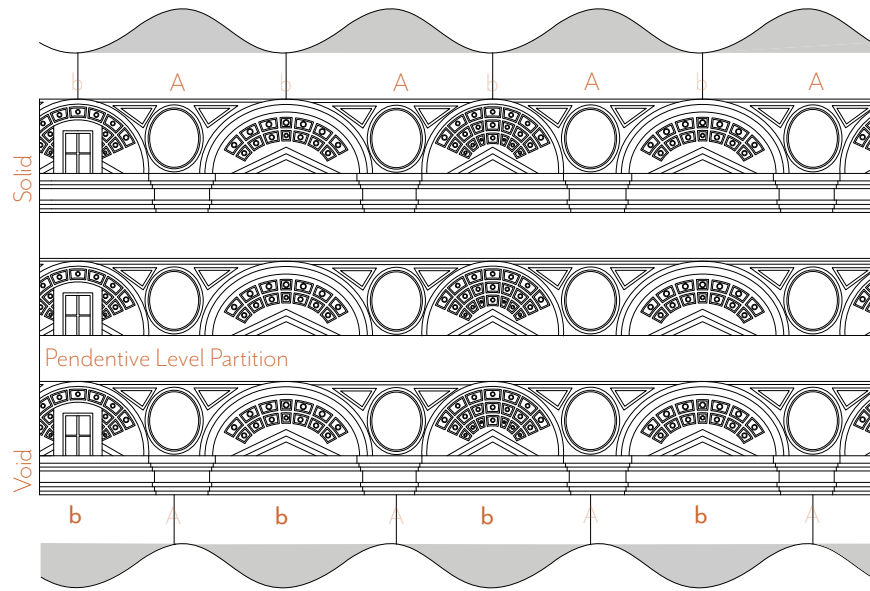
### On Construction

The plan of San Carlo alle Quattro Fontane is one of the most complex in the city, defying any simple explanation of its origins. It is an ellipse, but constricted; a greek cross, but extended. It is convex, yet simultaneously concave; there is no one word that can describe it beyond: ambiguous. As complex as the design is, though, it can be constructed using nothing but the tools of architecture immemorial: the compass and straightedge, as depicted at left.

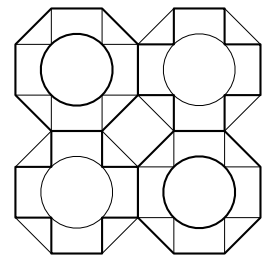
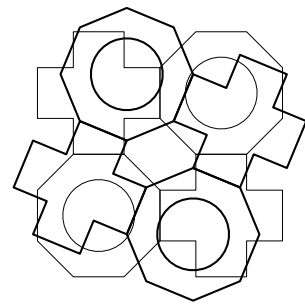
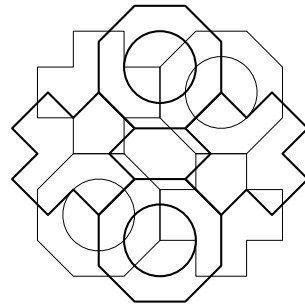
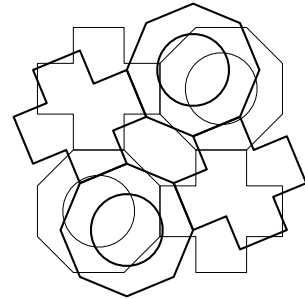
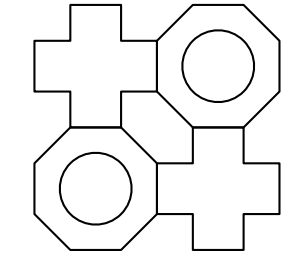
Beginning the plan with a rhombus formed from two equilateral triangles (1), these triangles can be bisected, inscribed (2) and circumscribed (3) to closer approach the final form of the plan, at which point an ellipse constructed around the previously inscribed circles (4) forms the inner boundary for an offset rectangle and the centers of two more circles (5) that serve as framework for the final

quartet of circles (6) which complete the construction of the plan. From this conglomerate of geometric figures, 16 points can be culled which serve as the site for the 16 engaged columns that define the interior limits of the church. Books have been written on the further complexities therein (this analysis doesn't even begin to touch on the inherent symbolologies) but it will suffice to say that there is always more to unpack.

▲ Sequence of geometric construction of plan, San Carlo alle Quattro Fontane



▲ Analysis of pendentive-level spatial segmentation



Analysis of dome coffering symmetry ▲

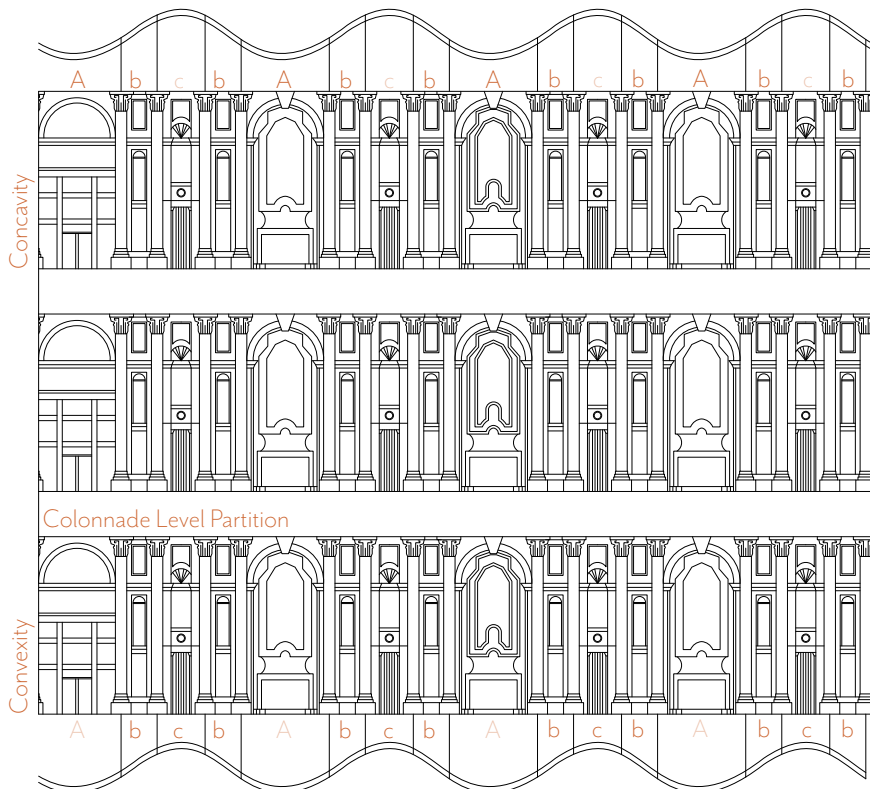


▲ Colonnade level (3D print)

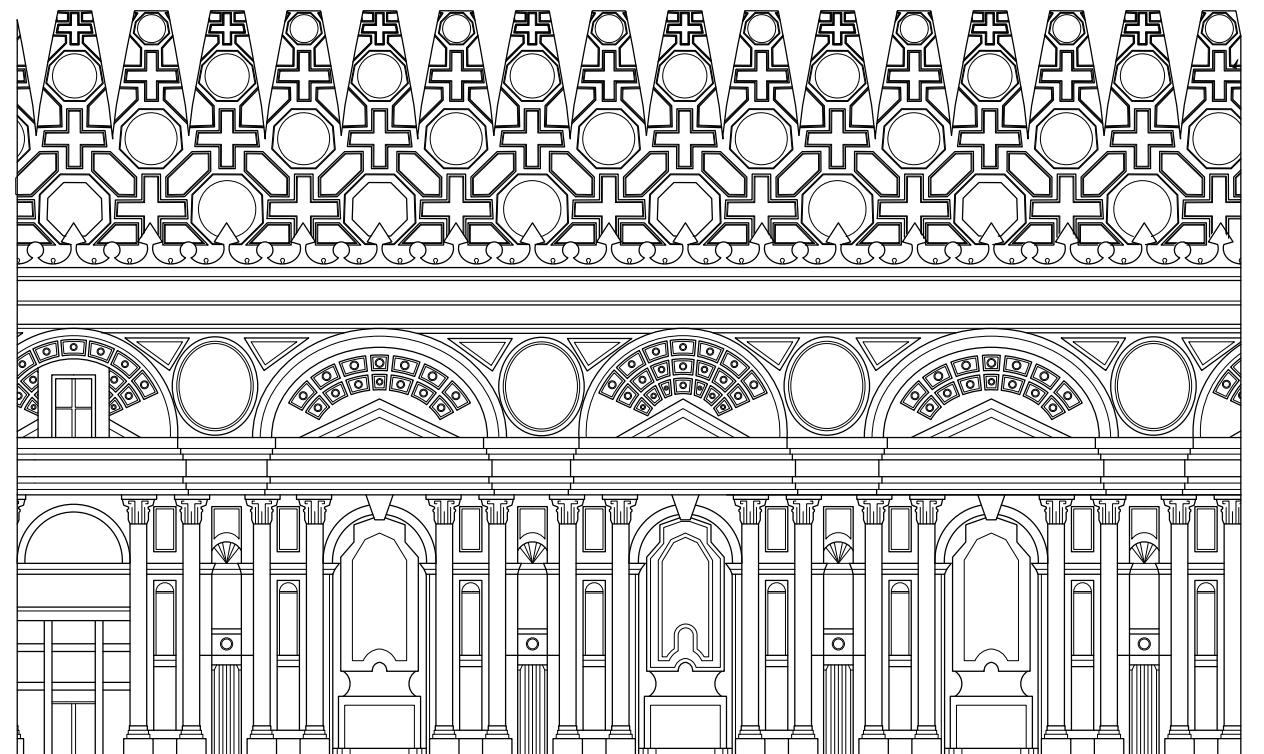
Translating this ambiguity into the third dimension results in an architecture of even greater complexity. The church is divided in a tripartite structure, beginning with a colonnade of engaged columns that encircle the space, undulating in an overlapping concave/convex pattern that continuously circles the room, framing the three altars and the entrance to the space at the cardinal focal points. Above the colonnade is the pendentive level, which simplifies this undulation into a figure-ground pattern, with pendentives bursting out of the convex points of the colonnade and coffered half-domes filling the spaces between while simultaneously capping the concave altar niches. Above this lies the dome, the culmination of the space.



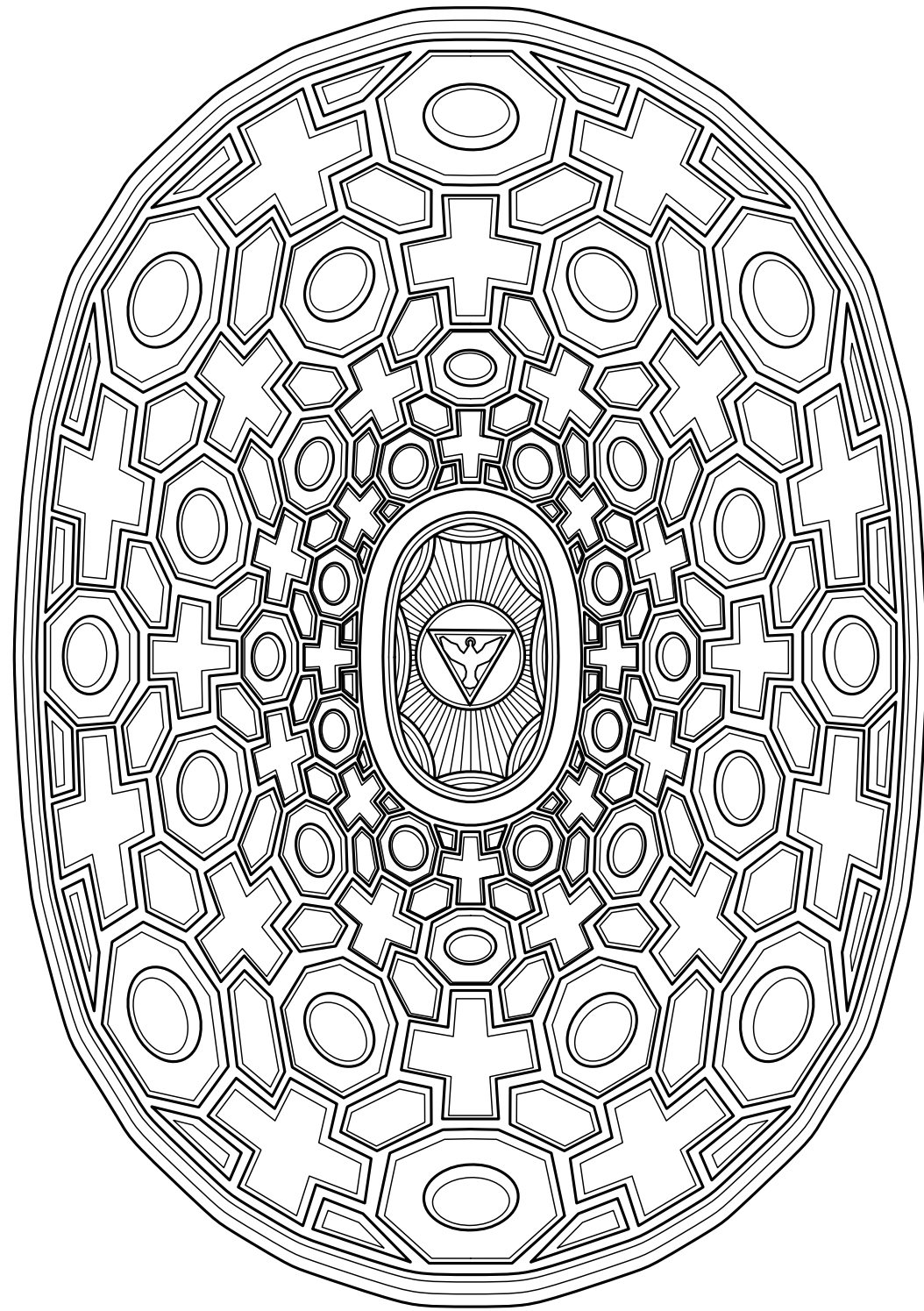
Pendentive & dome level (render) ▲



▲ Analysis of colonnade-level spatial undulation

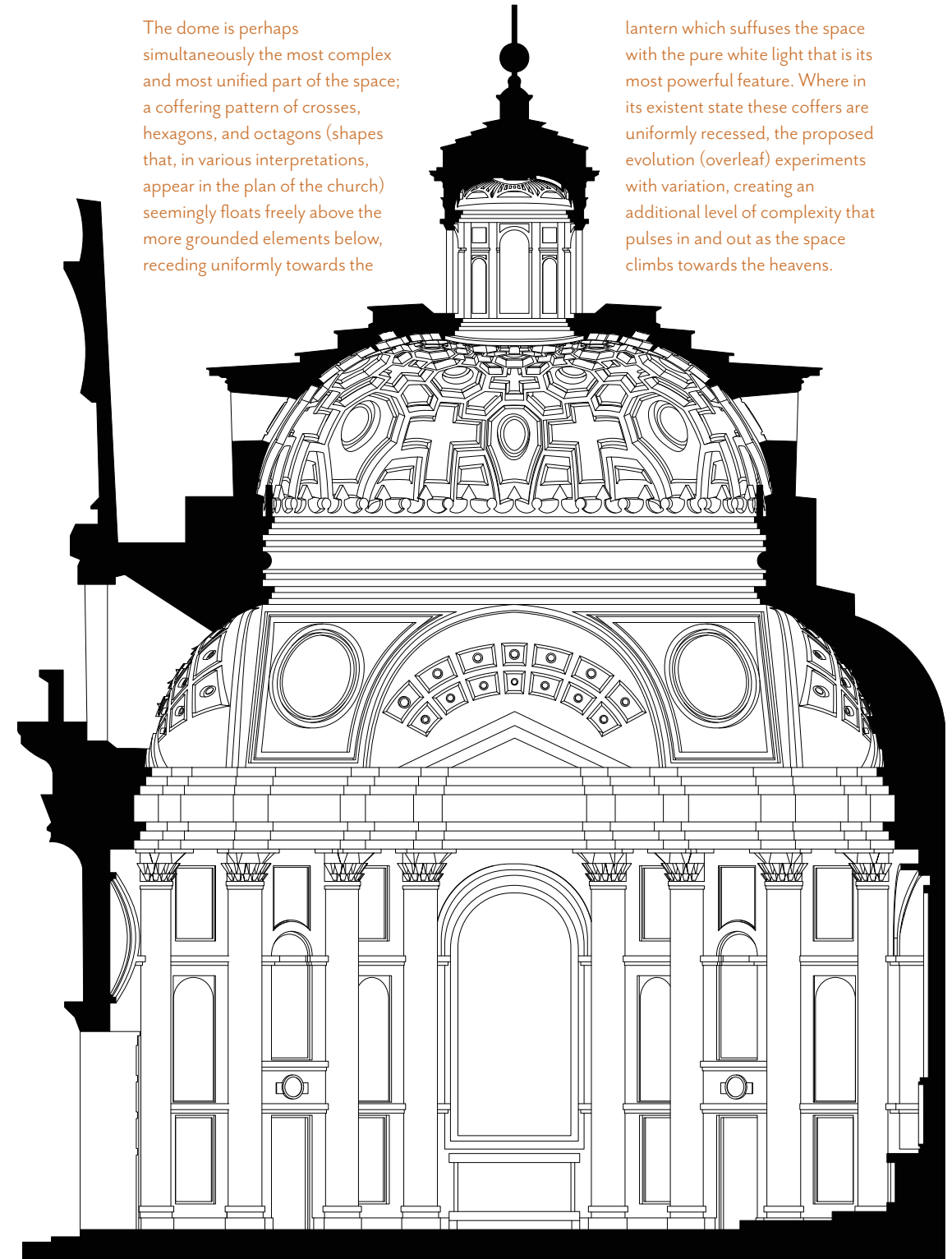


Unrolled interior elevation ▲



▲ Coffering plan of dome, San Carlo alle Quattro Fontane

The dome is perhaps simultaneously the most complex and most unified part of the space; a coffering pattern of crosses, hexagons, and octagons (shapes that, in various interpretations, appear in the plan of the church) seemingly floats freely above the more grounded elements below, receding uniformly towards the



lantern which suffuses the space with the pure white light that is its most powerful feature. Where in its existent state these coffers are uniformly recessed, the proposed evolution (overleaf) experiments with variation, creating an additional level of complexity that pulses in and out as the space climbs towards the heavens.

Longitudinal section, San Carlo alle Quattro Fontane. Original scale 1/4" = 1'-0" ▲







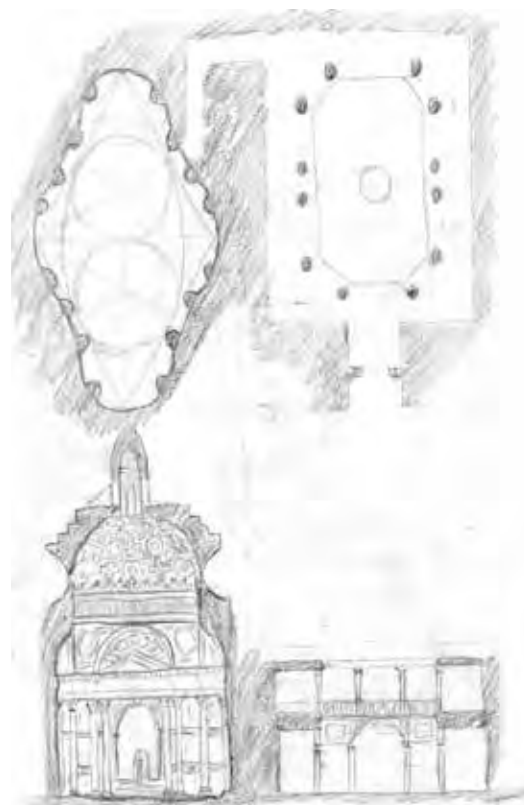
▲ San Giovanni in Laterano

A selection of sketchbook pages drawn from observation in and around Rome, focusing on spatial and surface analysis from detail to urban scale. Graphite on paper.



▲ Piazza Barberini

Palazzo Barberini ▲



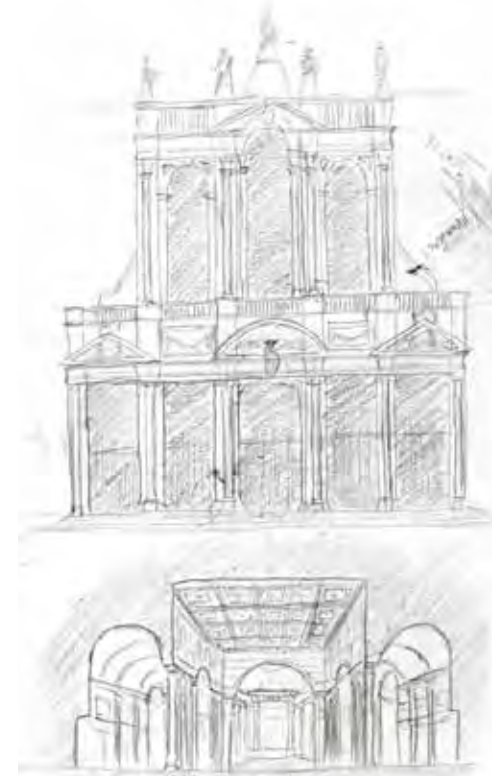
▲ San Carlo alle Quattro Fontane



Villa Adriana ▲



Mercati di Traiano ▲



▲ Santa Maria Maggiore



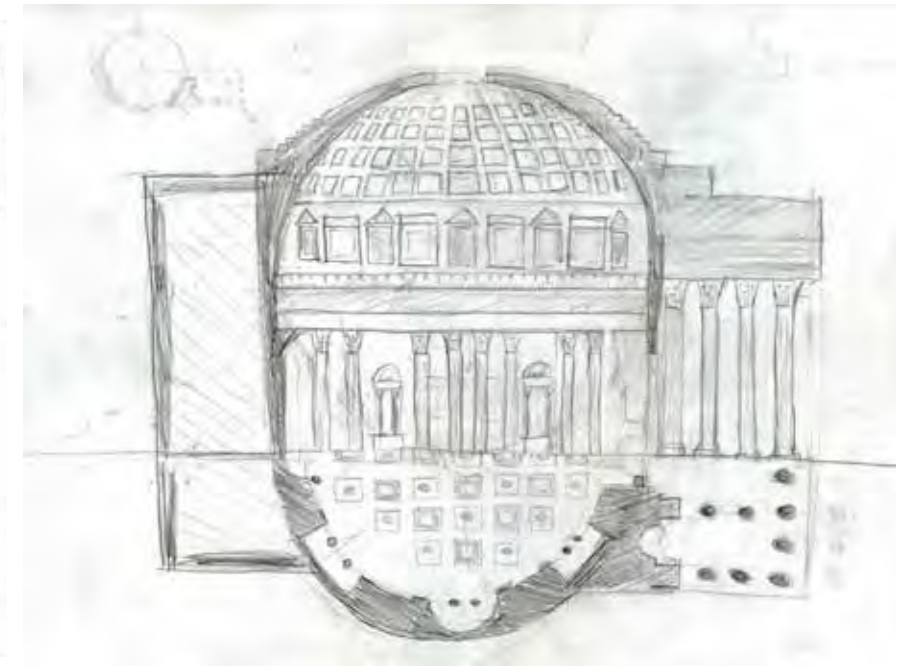
Santa Croce in Gerusalemme ▲



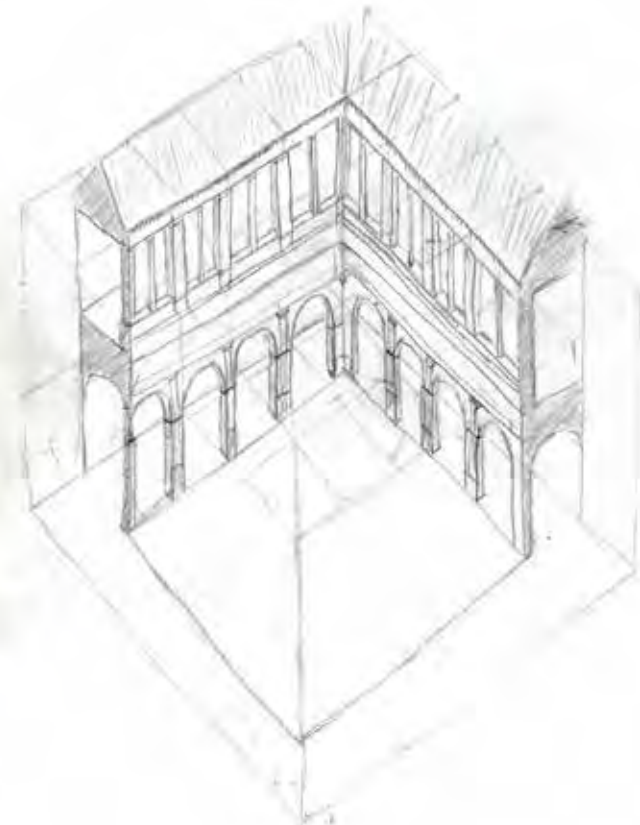
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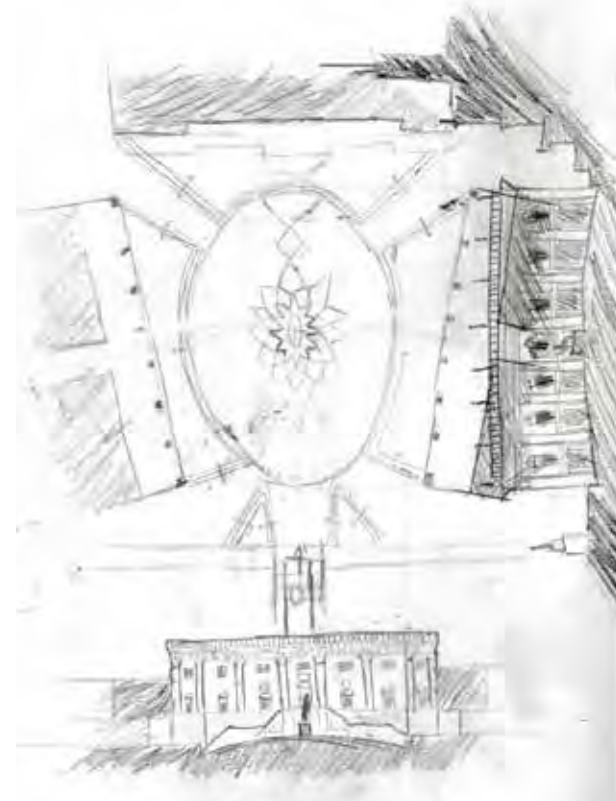
▲ Piazza del Gesù



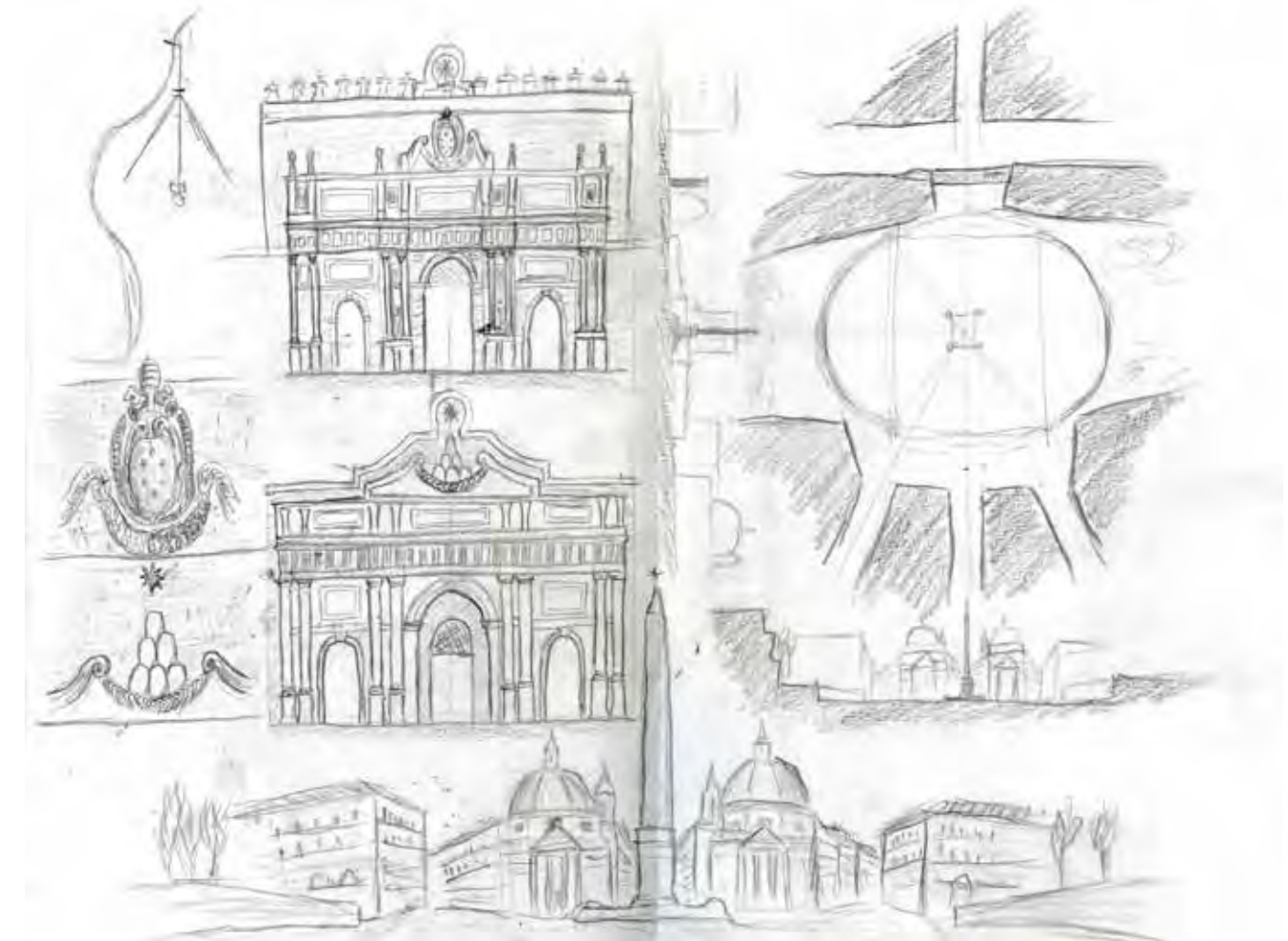
Pantheon ▲



▲ Chostro del Bramante



Piazza del Campidoglio ▲



▲ Piazza del Popolo

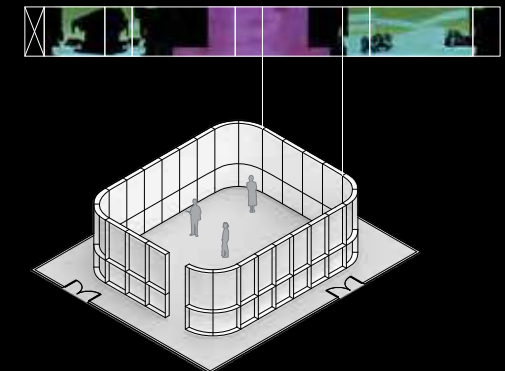


## Descent

This conceptual studio, sited in an experimental 360° projection room on Rensselaer's campus, began with the prompt to design an immersive game allowing players to inhabit and experience spatial conditions that would be difficult or impossible to achieve in physical three-dimensional space. The resulting project began through experimentation with the relationship between solid and void and, more specifically, what a space might look like if that relationship began to break down. This manifested as a labyrinthine series of alternating spaces and interstitial passages between said spaces, with the goal of the game to descend through the structure and escape it.

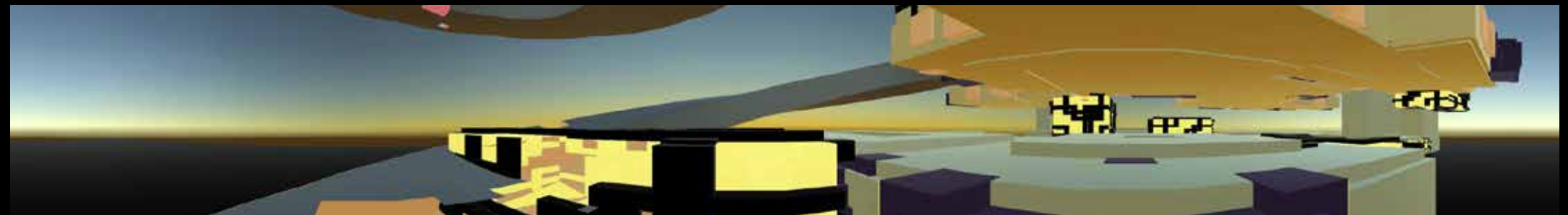
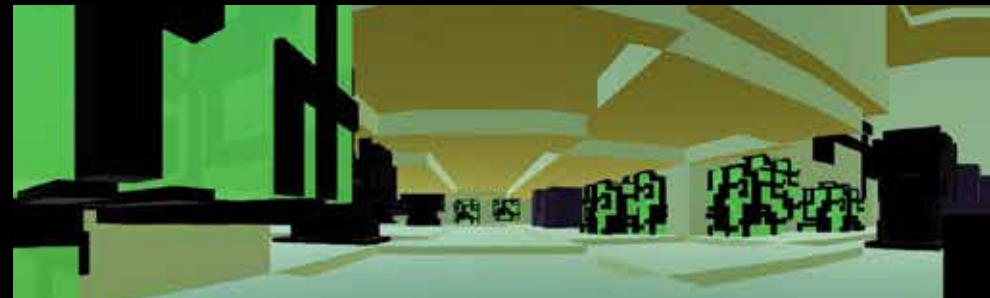
This journey through the voids of the spaces is facilitated by the solid objects interspersed throughout, which the player is able to phase into and enter. Once inside the solid, the player is able to view the game world through different eyes, with color cues either giving clues towards the player's progression or allowing that progression to occur. As the player descends through the interstitial spaces, strategic translucency and cuts in the passages allow glimpses of the exterior of the structure, which eventually culminate in the escape, in which the player is rewarded with an unshuttered view of the labyrinth that has just been successfully navigated. This project was a two-person effort.

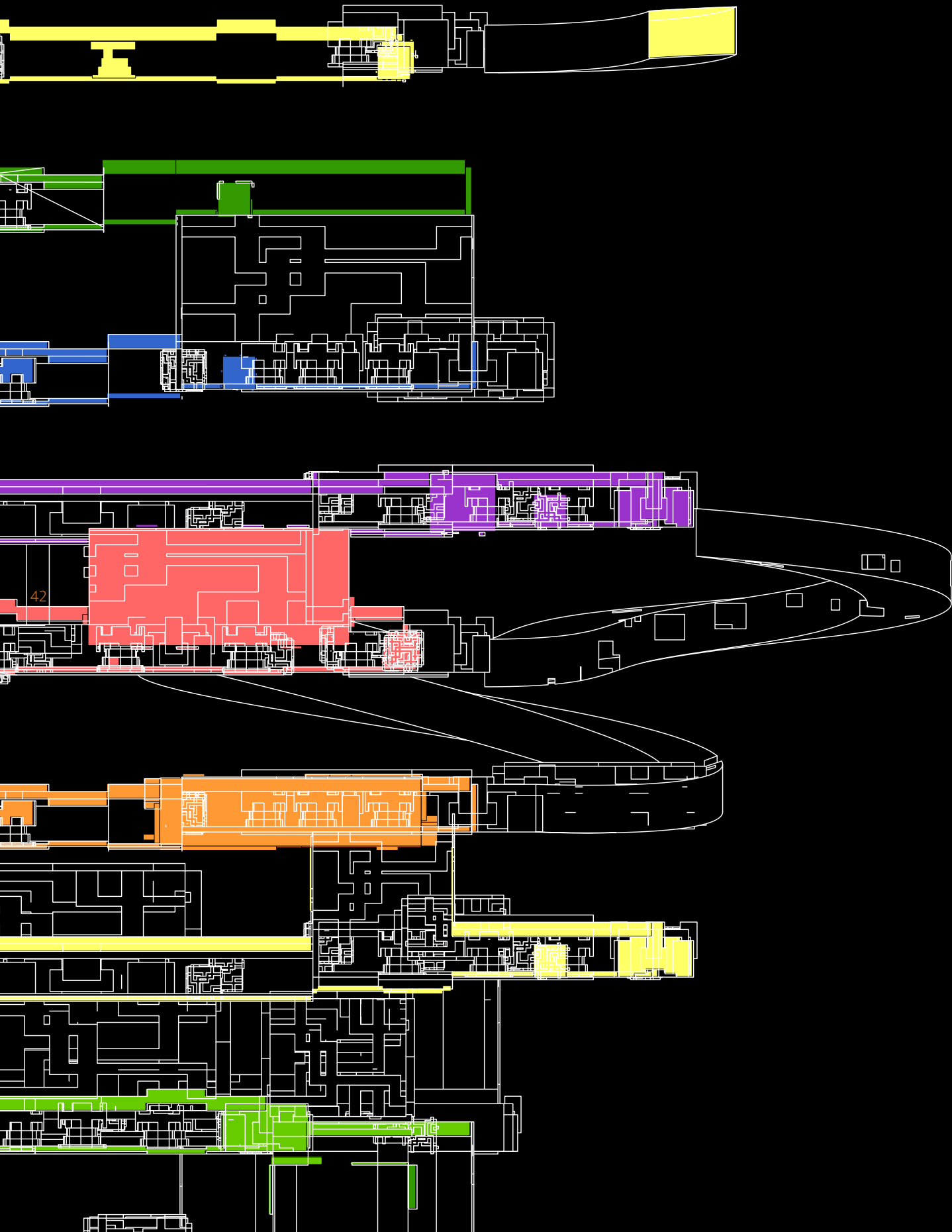
Panoramic view of game as played, showing entrance into a solid space ▲  
Diagram of installation space, depicting game as originally exhibited ▼



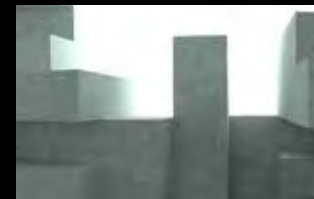
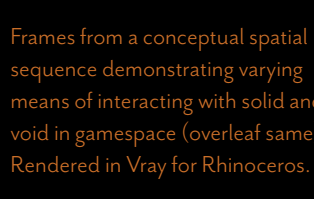
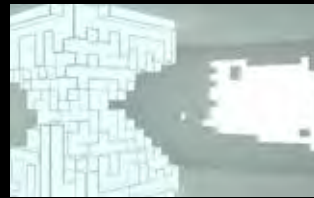
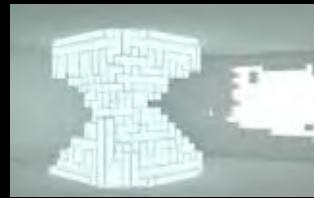
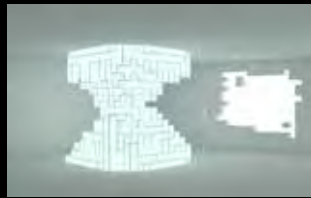


Screenshots of game in panoramic view along with images of game in use





Diagrammatic sections of gamespace labyrinth.



Frames from a conceptual spatial sequence demonstrating varying means of interacting with solid and void in gamespace (overleaf same). Rendered in Vray for Rhinoceros.



Frame called out from previous animation; depicting potential of mirrored surface as wayfinding device.





## Thesis [In Progress]: An Architectural Metanarrative

Architecture and literature share much in character, from their metaphoric natures to the subjectivity of the meaning therein, but perhaps most significant is their shared power to create new worlds, an endeavor often undertaken as critique of the one currently in existence. A work of architecture is built, at its most fundamental level, because of the desire of an individual to effect on the world something that does not yet exist. And a work of literature, similarly, comes into existence because an author had an idea that they felt was important enough to share with the world. In manifesting these goals, it becomes evident that the two disciplines share a deeper structure: that of the linear narrative as framework for the individual experience of a work. However unconventional the structure of a building or book is, our conception of time as linear mandates an equally linear experience of the work in question—however unique to the individual that experience may be. Having established this common language of design, the question then becomes how to leverage this into a design concept that takes advantage of this opportunity for disciplinary cross-pollination. Using the New York Public Library’s planned renovation of its Midtown campus as vehicle, this thesis will explore the power of spatial narrative to encourage public engagement with the library and with the questions and issues raised by the works therein. By distilling an architectonic language from the fantastical imaginings of Jorge Luis Borges, this new library will both make his works available to a new “readership” and reimagine the concept of library as repository of information. Rather than serving as a neutral archive of physical media, the experience of the library will become an active one, a story in its own right that intertwines with those it houses to the point where it may become difficult to tell where one ends and the other begins.

This thesis by nature is a work in progress, and can be seen in its current state at [www.alexanderschneiderman.com](http://www.alexanderschneiderman.com), along with more work from these and other projects.

# ANCILLARY INFORMATION

Quotes indicate copy drawn from respective publications.

## Firm Profiles

### Stephen Tilly, Architect

“Stephen Tilly, Architect[’s]...core mission is to design, rehabilitate and preserve environments that bring delight, and will continue to do so for generations.”

### SEI Design Group

“SEI Design Group specializes in design, planning and consulting; established on the principle of providing superior quality and exceptional client support.”

### H2M Architects + Engineers

“H2M is a multi-disciplined professional consulting and design firm. With a long history of client service, we consistently meet tough architectural, engineering, and environmental challenges head on.”

## Extracurricular Profiles

### Rensselaer Dancesport Team Captain

Main coordinator for 40-person competitive collegiate ballroom dance team.

### Marketing and Strategy Committee Chairman

Chair of marketing for one of only student-run unions in the country.

### Alpha Delta Phi Society

Founding member of an affiliate of national gender-inclusive literary society.

### Rensselaer School of Architecture Dean’s Council

Acted as representative of student body in communication with school faculty.

### AIAS Co-President

Coordinated freshman mentorship program, among other duties.

### Orientation Advisor

Member of 25-person staff running 3000-person freshman orientation.

## Rensselaer Polytechnic Institute School of Architecture

### Bachelor of Architecture Program

“The five-year undergraduate program seeks applicants curious about the acquisition of knowledge, the creative and scientific aspects of buildings, the importance of ecological design, the power of learning, the value of hard work, and the transformative opportunities afforded the next generation of architects committed to changing the world.”

### Italian Studies Program

“By studying urban and architectural spaces at different scales, the students are encouraged to use their analytical work as a tool to understand the existing relationships between urban and architectural forms, and as a means to address the public realm of architecture and its role in expressing epistemological values within a given society.”

### Selected Faculty

Evan Douglass [Dean]  
Michael Oatman  
Lonn Combs  
Gaby Brainard  
Eric Churchill  
Christianna Bennett  
Yael Erel  
Gustavo Crembil  
Adam Dayem

### Selected Coursework

Integrated Design Development  
Integrated Design Schematic  
Materials and Enclosures  
Construction Systems  
Building Systems and Environment  
Contemporary Design Approaches  
Level Design  
Typography  
Introduction to Visual Communication

For more work



# ALEXANDER SCHNEIDERMAN

BACHELOR OF ARCHITECTURE

## CURRICULUM VITAE

RENSSELAER POLYTECHNIC INSTITUTE

## Experience

### 2018 June-August - Architectural Intern - Stephen Tilly, Architect

Intern for Stephen Tilly Dobbs Ferry Office. Edited redlines, drew and revised interior elevations, and created marketing material for the studio, both for general use and specific RFPs.

### 2017 June-August - Architectural Intern - SEI Design Group

Intern for SEI Albany Office. Edited redlines, drew up plan/section details and interior elevations, and traced preexisting drawings into Revit to lay groundwork for future projects.

### 2016 June-August - Architectural Intern - H2M Architects + Engineers

Intern for H2M White Plains Office. Traced preexisting drawings for renovation work, conducted field reports on ongoing construction work, and assisted in general administrative office work.

### 2018 August-Present - Resident Director - Rensselaer Residence Life

Resident Director for freshman residence hall (two years prior experience as Resident Assistant), entailing direct supervision of staff of 8 and indirect supervision of population of 300. Duties include team management, crisis management, and facilitation of a positive living and working environment.

### 2015 January-Present - Student Ambassador - Rensselaer School of Architecture

Student Ambassador for Rensselaer School of Architecture. At various times this has entailed serving as a teaching assistant, coordinating exhibitions, representing the student body, giving tours, speaking on panels, and generally acting as a spokesperson for the school.

## Extracurricular

### Rensselaer Dancesport Team

► Captain

► Current

### Rensselaer Union Executive Board

► Chairman, Marketing and Strategy Committee

### Alpha Delta Phi Society, Rensselaer Affiliate

► Sergeant-At-Arms

Vice President

Secretary

### Rensselaer School of Architecture

► Dean’s Council

► Teaching Assistant

### American Institute of Architecture Students

Co-President

### Rensselaer First-Year Experience

Orientation Advisor

## Awards & Honors

2018 - Rensselaer Founders Award of Excellence

2018 - 3rd Place, SELEF Literary Competition Photography Division

2018 - Norman Waxman Award for Service to the School

2018 - Inducted to Phalanx Honor Society

2018 - Inducted to National Residence Hall Honorary

2018 - 1st Place, Rensselaer Union Rebranding Competition

## Contact

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## Objective

B.Arch Candidate at Rensselaer Polytechnic Institute seeking full-time entry-level position in the field of Architecture. Looking for an opportunity to work in collaboration with designers, clients, and community to benefit the development of the firm, its projects, and my own professional skills.

## Education

Rensselaer Polytechnic Institute 2014 - 2019

Bachelor of Architecture [Candidate]

Minor in Communication

GPA 3.72 | 4.00

Dean’s Honor List

Thesis: An Architectural Metanarrative

Italian Studies Program Participant 2017

## NCARB Record

Practice Management 160 | 160

Project Management 31 | 360

Programming & Analysis 260 | 260

Project Planning & Design 167 | 1080

Project Dev. & Documentation 197 | 1520

Construction & Evaluation 22 | 360

## Skills & Software

3D Modeling and Design

2D Graphic Design and Postprocessing

Physical Modeling and Representation

Interactive Gamespace Development

Analytical Research and Writing

Public Presentation and Communication

