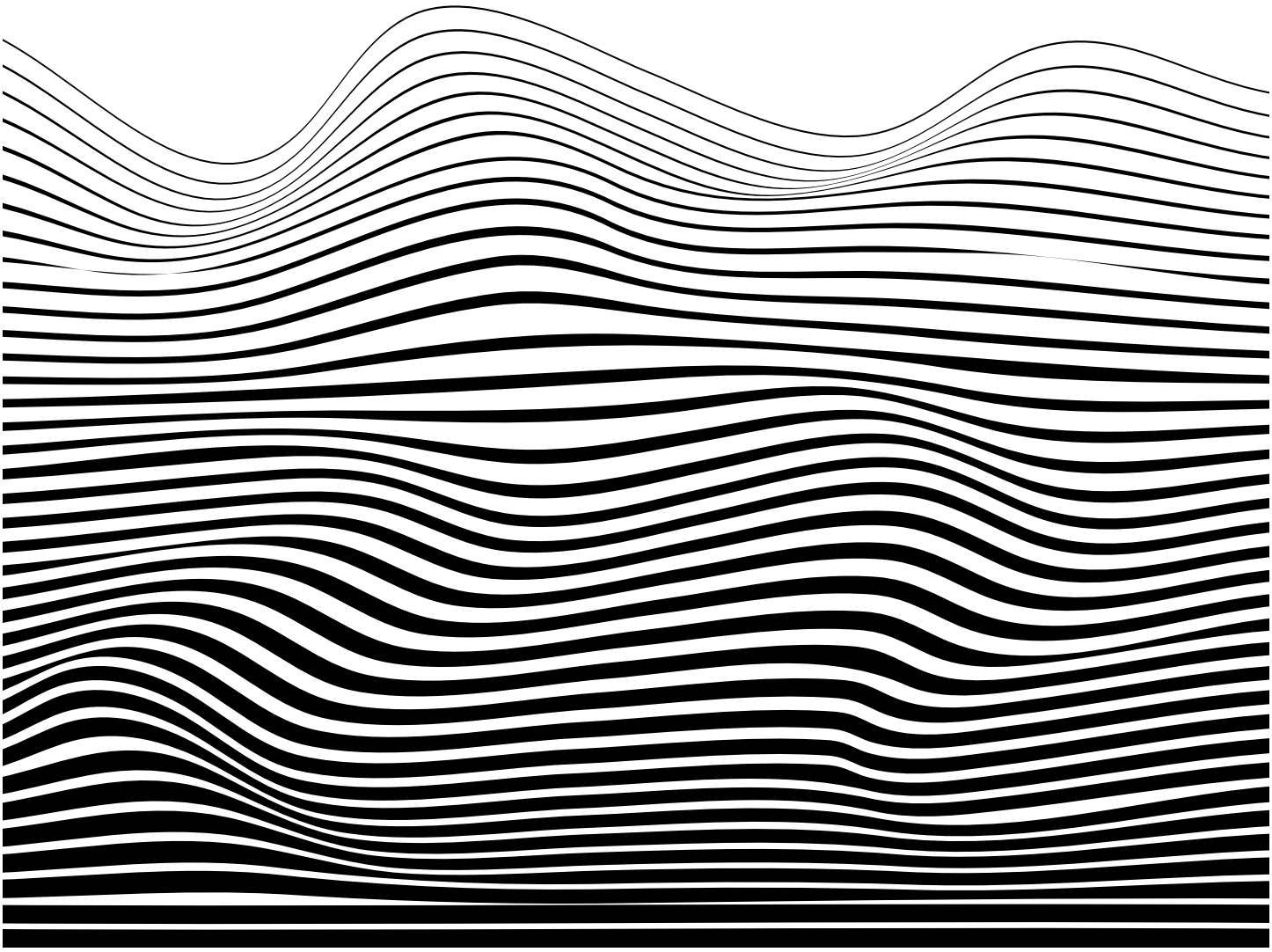
Peregrinating Narratives



Prologue

In the pursuit of architecture lies a journey—a voyage that transcends mere brick and mortar, drawings and design. It is a journey of the mind and the soul, a peregrination through ideas and ideals, challenges and triumphs. “Peregrinating Narratives” is more than a collection of graphics and models; it is a chronicle of this journey, a testament to the transformative power of architecture.

As an architecture student at Columbia GSAPP, my journey was not just about mastering the technicalities of design or understanding the principles of critical thinking. It was about discovering the essence of space, the poetry of form, and the soul of structure. Each studio project, each critique, each late night spent sketching and rendering, was a step forward in this quest for understanding.

This portfolio is a reflection of that journey. It is a narrative woven with threads of creativity and innovation, of challenges met and boundaries pushed. Each project tells a story—a story of inspiration, of exploration, of learning and growth. Together, they form a tapestry that not only showcases my work but also narrates the evolution of my thoughts, my skills, and my passion for architecture.

As you embark on this visual journey through “Peregrinating Narratives,” I invite you to see beyond the drawings and the models. Look for the stories hidden within the lines, the narratives that give life to these designs. It is my hope that this portfolio will not only inspire you but also remind you of the transformative power of architecture—to shape not just spaces, but lives and stories.

Welcome to my peregrination. Welcome to my narratives.

Structure

"Peregrinating Narratives" is structured as a journey through my architectural education at Columbia GSAPP, presented in the format of a narrative with distinct acts and interludes. Each act corresponds to a major design studio project from a specific semester, serving as a milestone in my academic and creative development. The interludes, placed between the acts, offer insights into my written work and elective projects, providing a comprehensive view of my skills and interests beyond the studio. This structure aims to not only showcase my design abilities but also to tell a cohesive story of my growth, challenges, and reflections throughout my time at GSAPP.

Prologue

Act I

Summer 2023 Design Studio - Architectures of Compression
Critics - Fieldstation Studio (Corneel Cannaerts & Michiel Helbig)

Interlude

writing works - Arguments, Transscalarities, History/theory

Act II

Fall 2023 Design Studio - Extreme Scale
Critic - Laurie Hawkinson

Interlude

electives - rethinking BIM, Footprint: Carbon & Design, Collective Assemblies

Act III

Spring 2024 Design Studio - Architectonics of Music
Critics - Steven Holl, Dimitra Tsachrelia

Epilogue

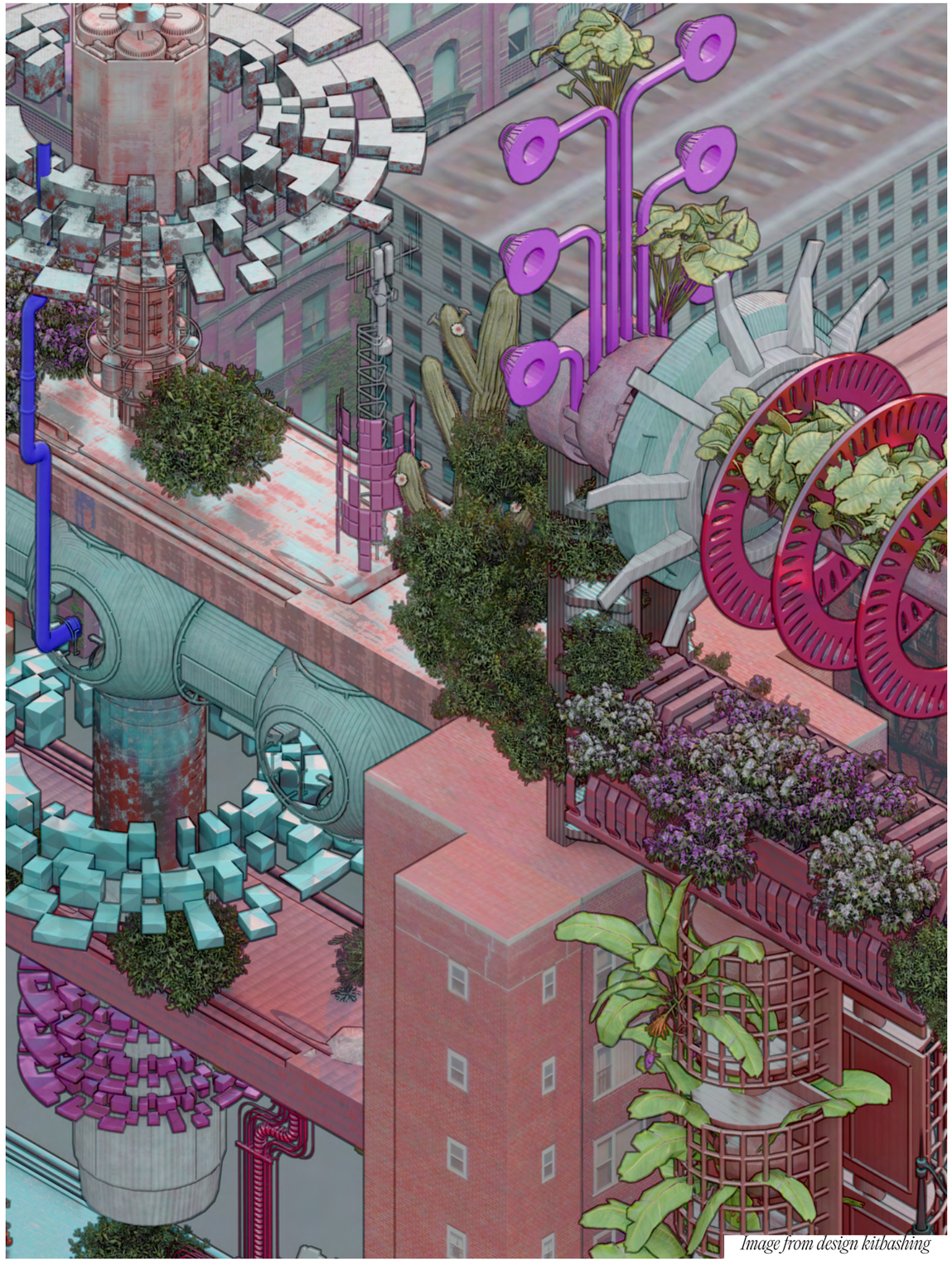
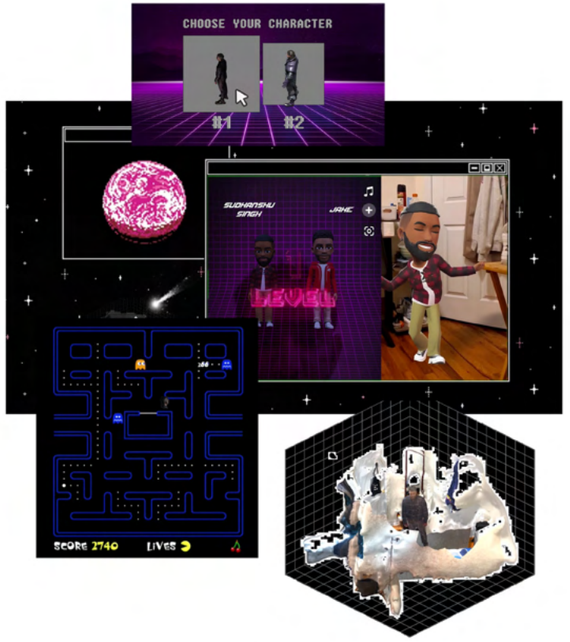


Image from design kitbashing

ACT I

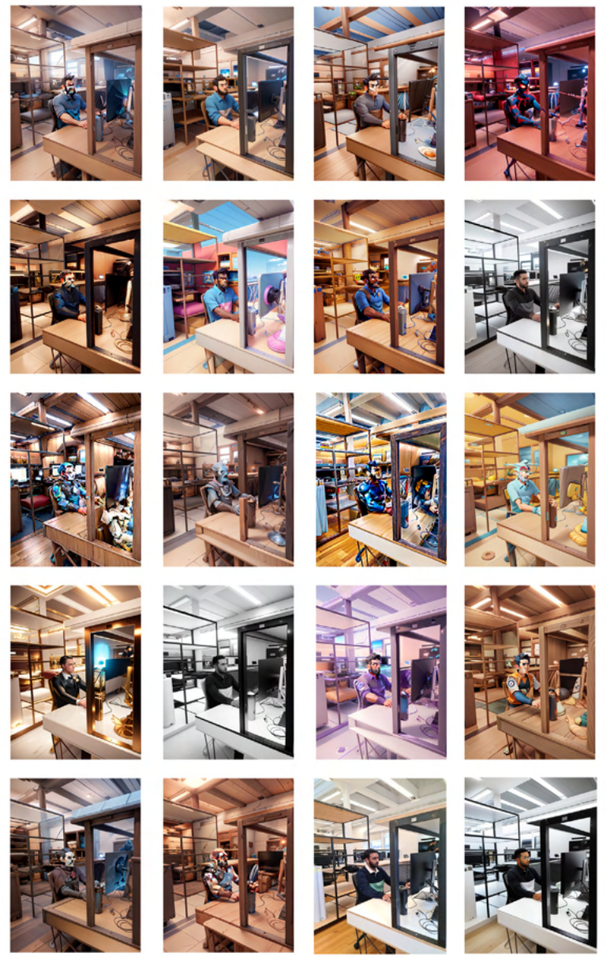
Summer 2023 Design Studio - ARCHITECTURES OF COMPRESSION
EXCURSIONS ON POST-DIGITAL MEDIA ECOLOGIES
Critics - Michiel Helbig & Corneel Cannaerts / Fieldstation Studio / www.fieldstationstudio.org

In the Fieldstation Studio, we delve into the intersection of architecture and urban design with the expanding realm of networked digital technologies and media in our surroundings. This AAD summer studio commences with an exploration of media ecologies, viewing compression as a focal point for understanding how digital technologies shape our spatial environments and the media ecosystems that emerge as a result. Through this lens, we engage in speculative architectural design, envisioning proactive responses to this digital proliferation. The concept of the post-digital serves as a dual framework: describing our current technologically immersive landscapes and offering a set of strategies for expanding our architectural practices and tools. This studio methodology combines collaborative research, hands-on experimentation, and individual architectural design projects, aiming to push the boundaries of architectural practice through interdisciplinary and artistic approaches.



Images from mediated space video

The first exercise challenges students to create their own mediated space, exploring how digital technologies transform our perception of reality. This exercise is a foundational exploration of how our interactions with digital devices reshape our understanding of space and place. It sets the stage for further exploration in the studio, encouraging students to think critically about the role of technology in shaping our environment.



Images from mediated space video

Fieldguide - group of 3
Collaborators - Jordan McNamara, Shaoyu Lu

In this group exercise, my team and I collaborated to create a booklet that delves into a specific area of interest within data and its compression. Working closely with two classmates, we explored the intricate relationship between data and compression, seeking to understand how these concepts intersect and influence various aspects of our digital world.

Through our collaboration, we gained valuable insights into the complexities of data compression and its implications. Focusing on a particular area of interest, such as data visualization or storage, allowed us to develop a deeper understanding of how data is compressed and its significance in modern society.

image from fieldguide

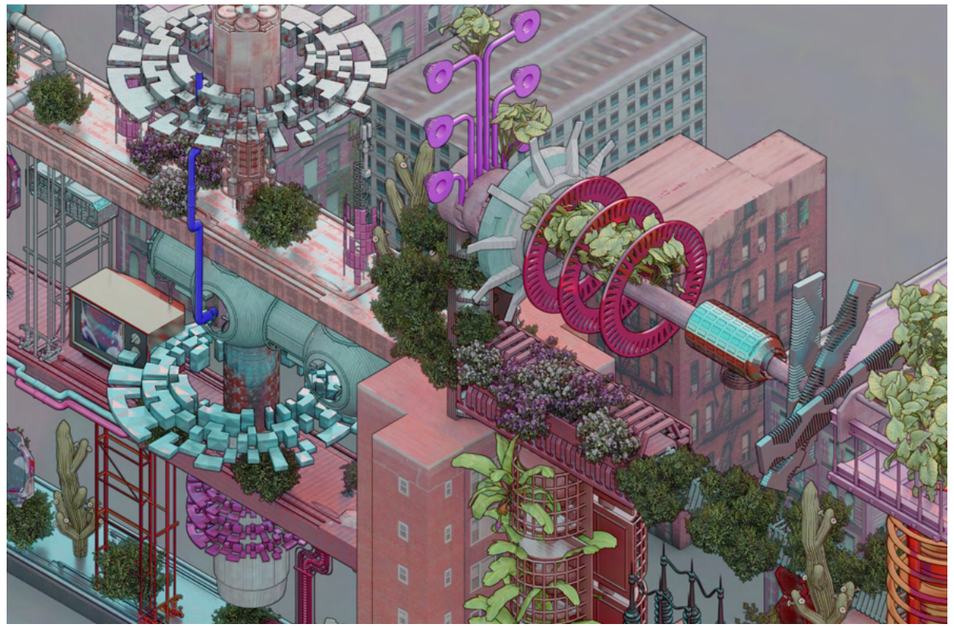
image from fieldguide

image from fieldguide

As our lack of concern for digital pollution and its effects on the environment continues to grow exponentially, our group proposes three different projects that question the impact of ubiquitous digital pollution on our society. By examining the connections amongst individuals and their environments, infrastructure to its context, and data and its significance, these three projects poke and prod our individual and collective relationships with digital technologies.

The three projects build further on the research from the fieldguide as presented during the midterm, each of the projects proposes an intervention that repurposes or rethinks the infrastructures that enable our digital lives. Whether it is dealing with data centres, cell towers or a data sanctuary, the resulting architectures approach digital technologies not as an abstract, invisible, perpetually new and apolitical, but as messy, inextricably interwoven in our society. The act of reclaiming, upcycling or rethinking these infrastructures, through speculating on alternative uses, aims to raise awareness on the impact of digital pollution.

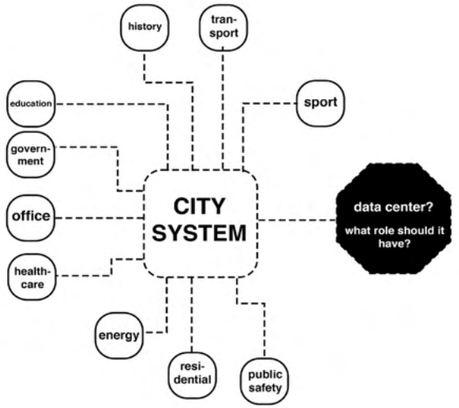
DATA FARM
– Plugin Data Center

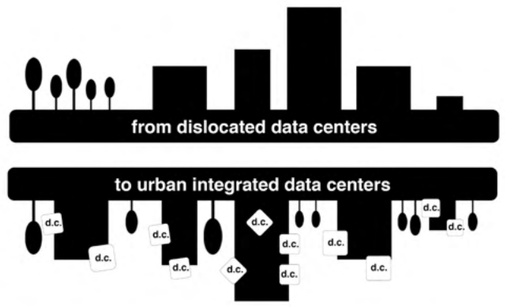


Project data_farm - plugin data center
Individual Project

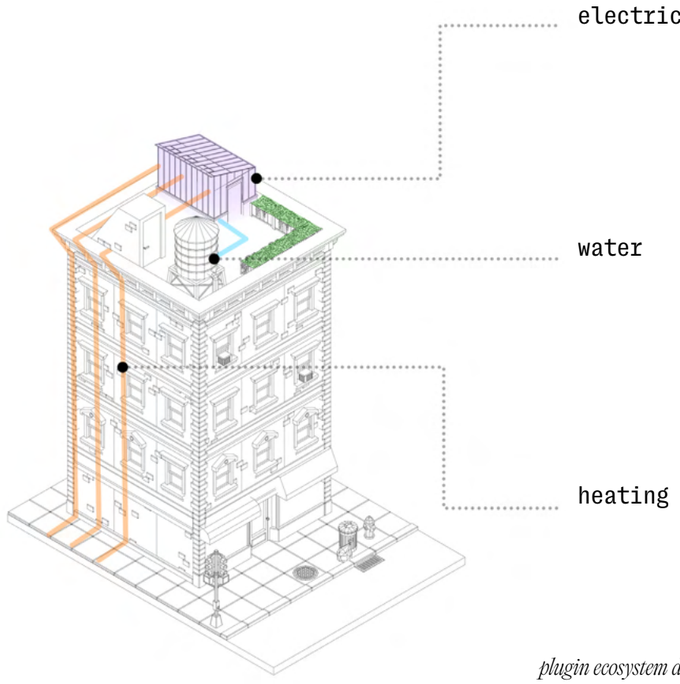
Data centers tend to be highly centralised and anonymous buildings, most are located in sites with cheap electricity, ample cooling and low real estate costs outside the city, others are constructed in proximity to existing and often obsolete infrastructural nodes, like under sea cables, telephone hubs or stock exchanges. While they are highly connected to the planetary flows of information, capital and energy, they require almost no human presence and are indifferent to their location and surrounding communities.

The project proposes a more fruitful and messy intertwining of data centers and the urban fabric of cities, where digital technology converges with food production and biotech. By upcycling the heat, water, and electricity generated by data centers, we create a symbiotic relationship that benefits both the community and the environment. The central focus lies on decentralising these large blocky data centers to smaller scale plugins that integrate with the cityscape. The catalogue of plugins demonstrates various spatial scenarios for upcycling data to optimize resource utilization and minimize waste. This community-driven initiative, funded by sustainable data storage start-ups, aims to revolutionize the way we perceive and integrate data infrastructure within our cities.

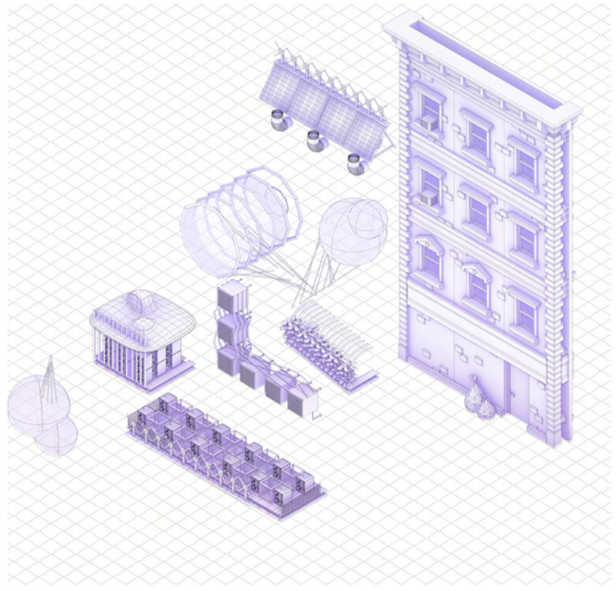




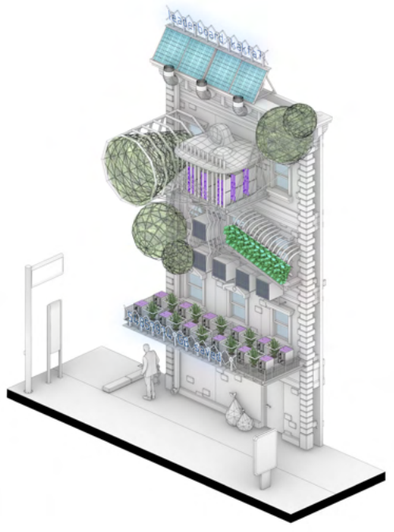
Plug-in : An accessory software or hardware package that is used in conjunction with an existing applicaton or device to extend its capabilites or provide additional functions.



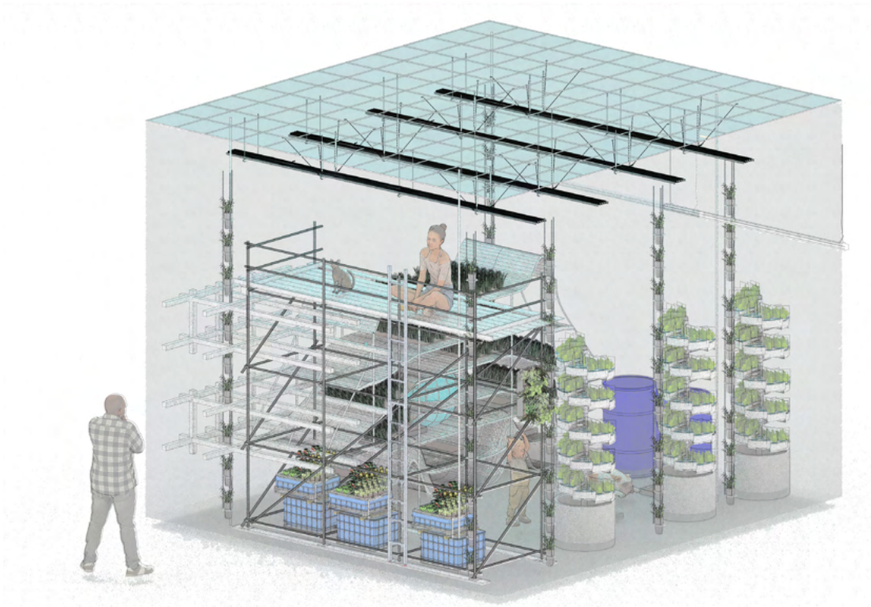
plugin ecosystem diagram



plug-ins catalog

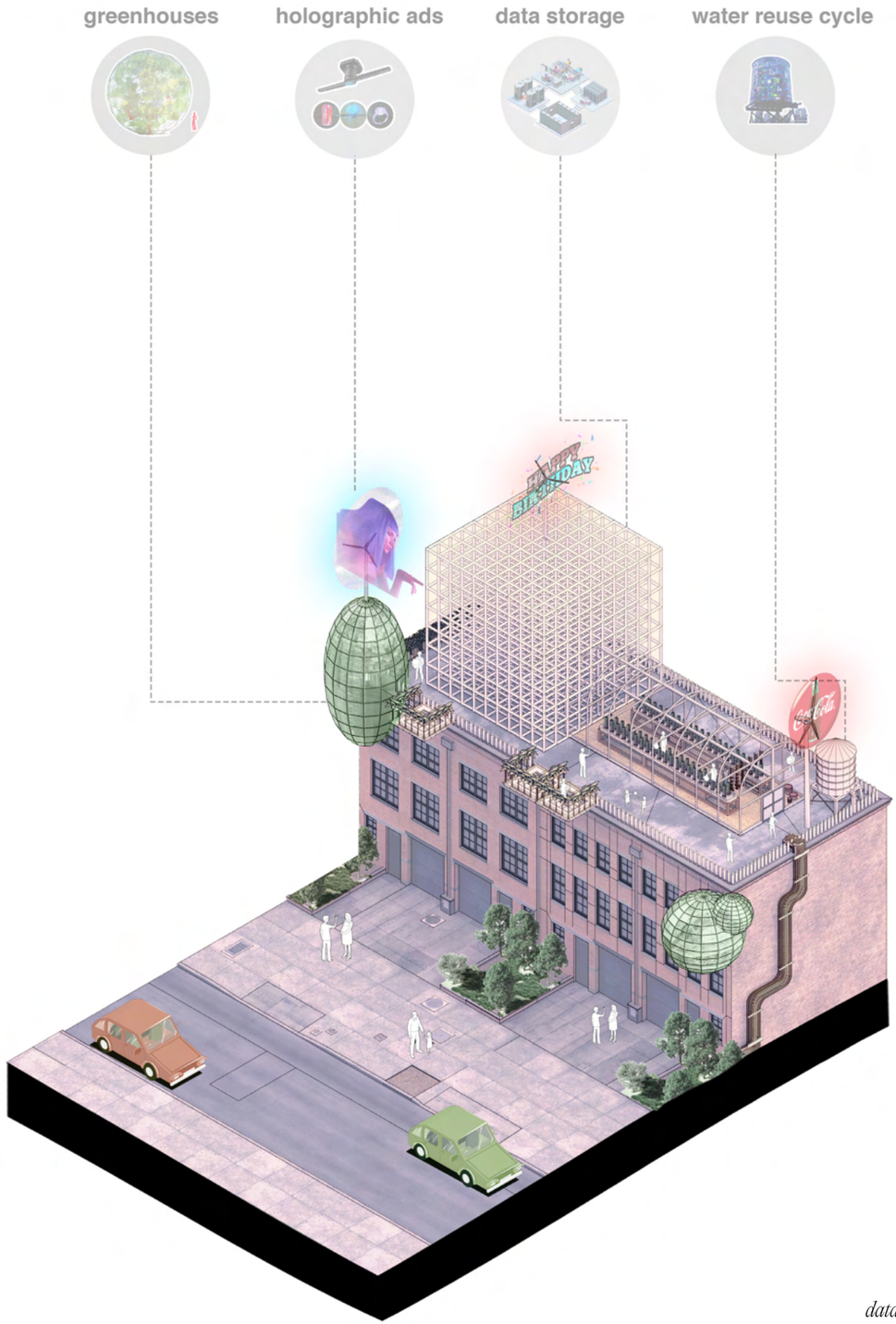


facade intervention

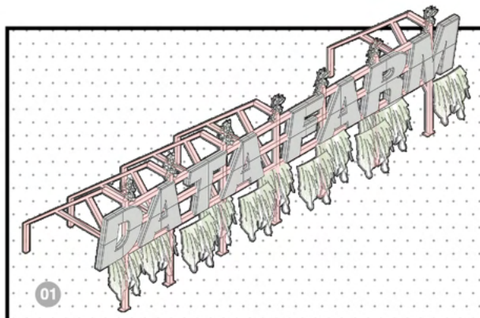


plug-in mockup

Through community-driven DIY approaches and support from sustainable data storage start-ups, the integrated data center serves as a blueprint for future urban development, exemplifying the harmony between technological advancements and responsible resource management. Together, we can forge a path toward a greener, smarter, and more resilient urban future.



data farm in action



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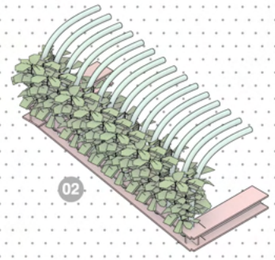

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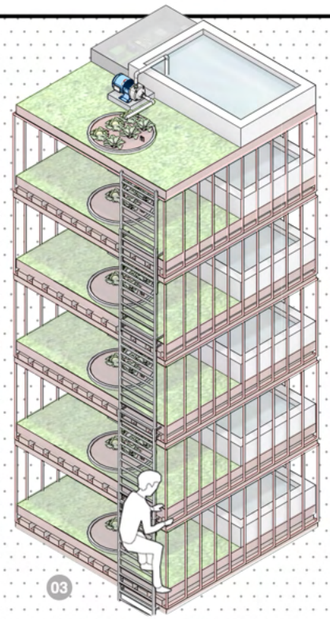

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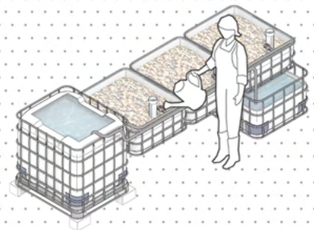

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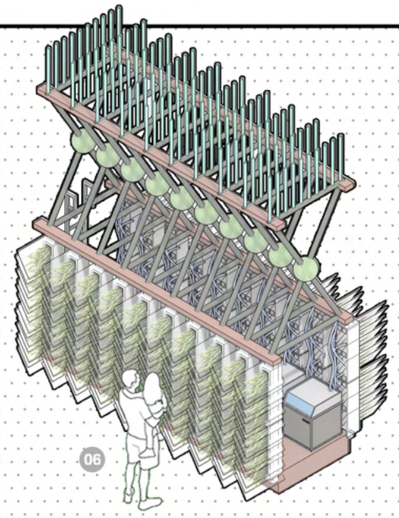

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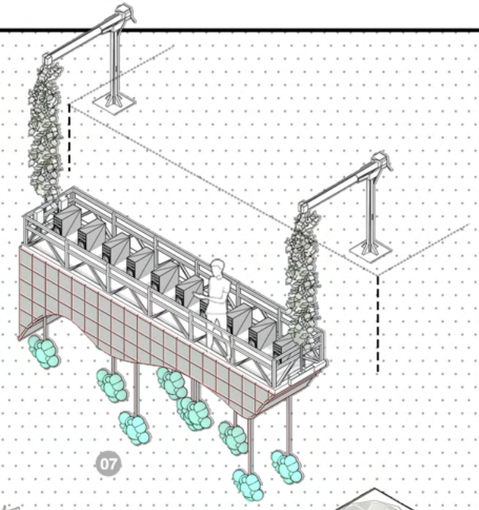

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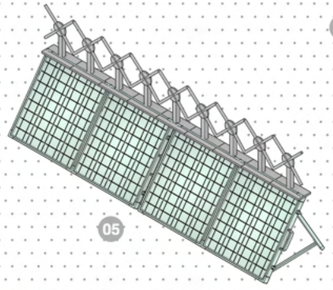

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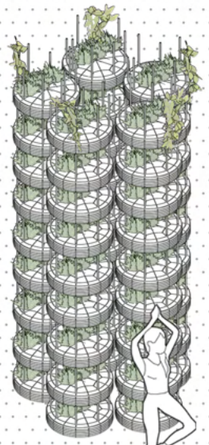

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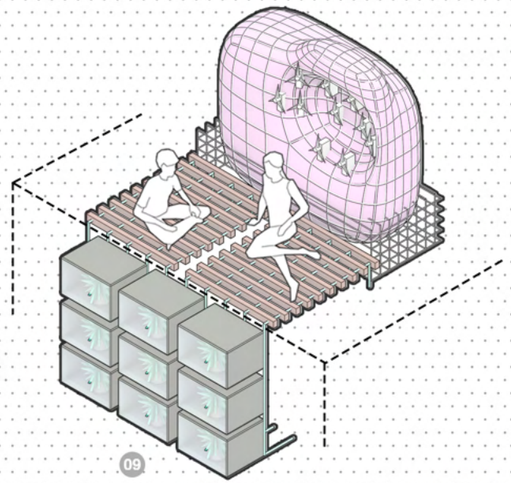

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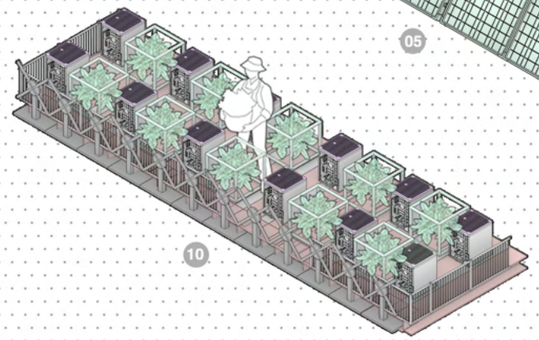

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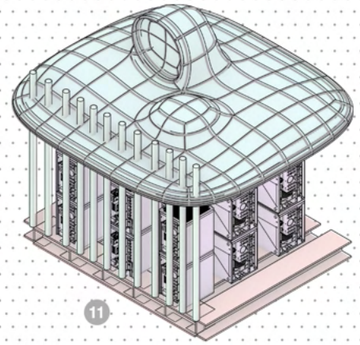

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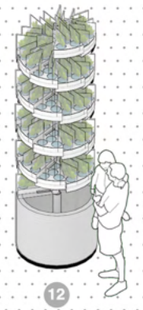

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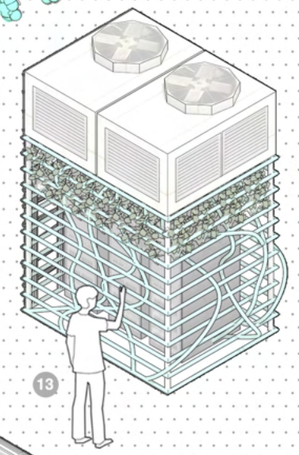

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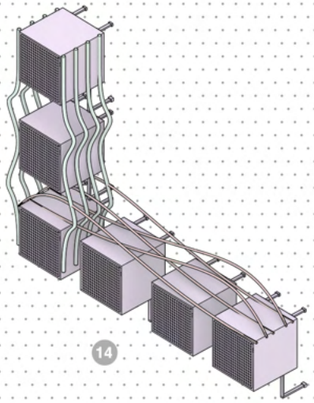

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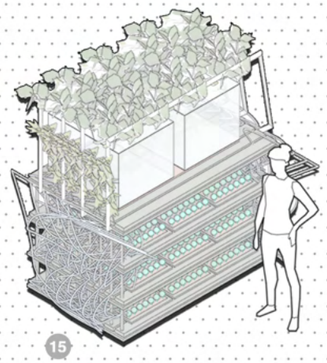

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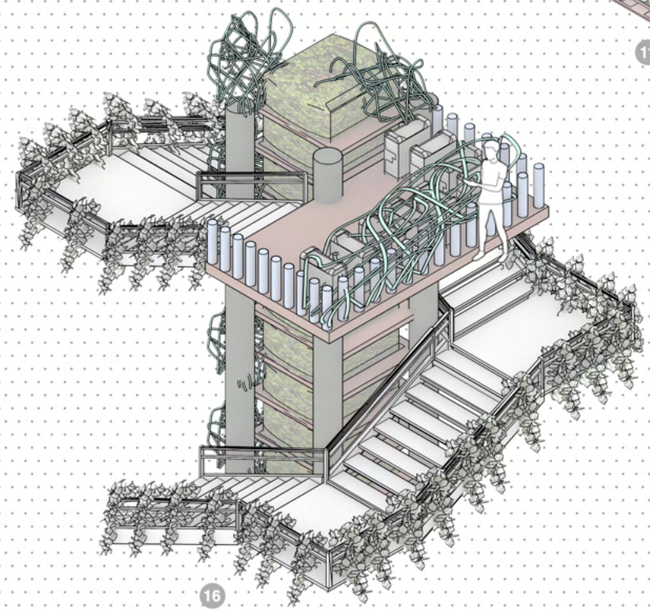

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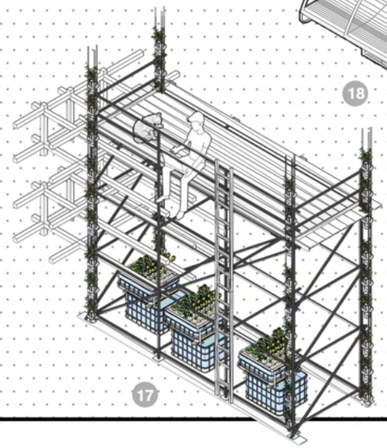

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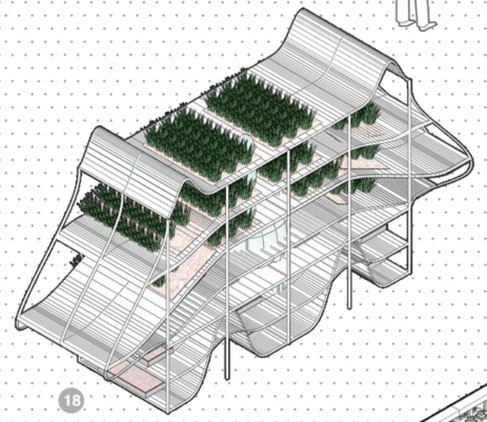

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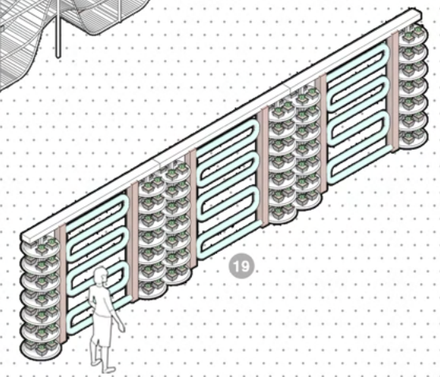


19

plug-in_catalog

Make sure that the structure is safe. Do not leave children unattended. The suggested examples are not official DATA_FARM user guides for DATA_FARM products. If you can't find instructions for assembly of the products different to the instructions, use similar ones.

WARNING: CHOKING HAZARD

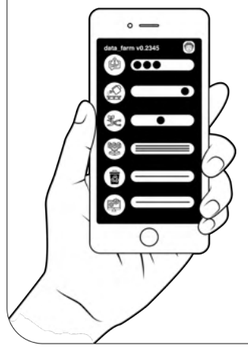
EACH SOLD SEPARATELY!

refer to detailed description sheet for more details.....duh!

designed by sudhanshu singh 2023

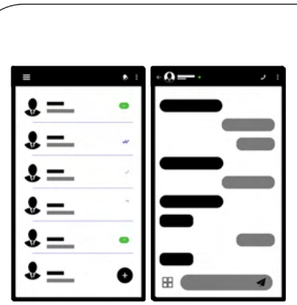
data_farm_v.01

plug-ins that fit into the urban fabric of a city, integrating with the buildings, forming a symbiotic and homogenous connection. The plug-ins include smart farming solutions that serve to provide vegetables and fruits with data storage servers that store the communities cloud data.

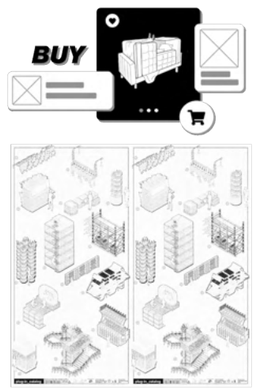


the app serves as a tool for the people to monitor thier plants and alert them when they are ready, as well as inform them of thier cloud storage. Acting as a real life farming simulator.

a leaderboard that shows all the carbon footprint saved by each user and the vegetables grown, inculcates a competitive spirit and engages people

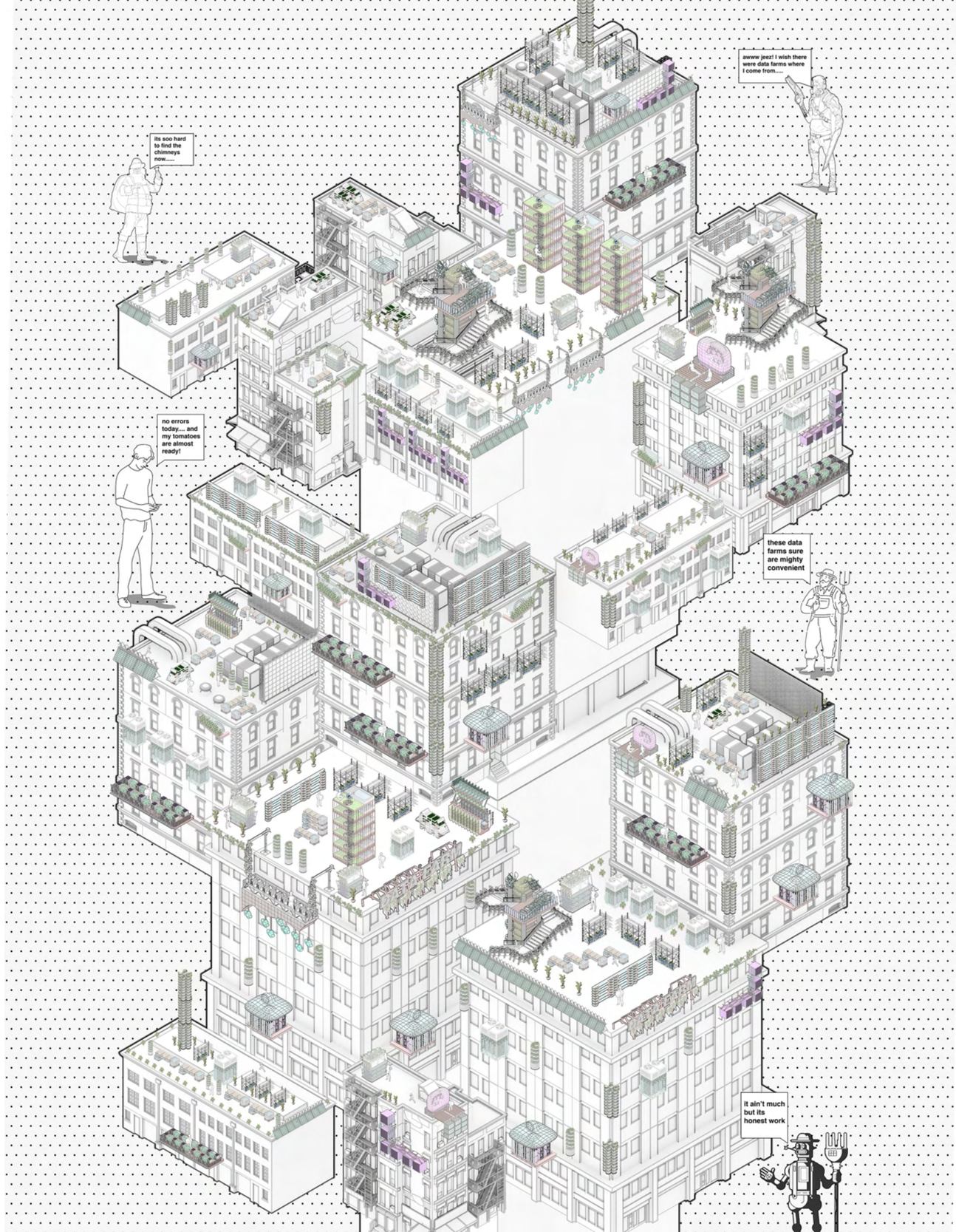


chatrooms that connect all the users to each other in thier locality, builds a asense of community and like-minded people work together to innovate.



the store allows users to buy parts they want and assemble thier own data farm!

diagrams explaining the working of the farm ecosystem, community integration and digital interactions



Interlude

Arguments

Summer 2023
Critic - Alireza Karbasioun

"Art is for everybody." - Keith Haring

The human mind has the tendency to create, to express itself, tell others of thoughts and emotions and leave a mark in the larger scheme of things. The easiest way to do that would be by creating art. Anyone can create art, one can draw a house, mountains, the sun, a kid with a kite and some birds and voila, art is created! However, art is subjective. Hence, we have the term "high-art", the art we stare at for hours while sipping expensive wine. The art that hangs on plain white walls, with ambient lighting in open galleries. Who owns this art? The artist of course, or the museum?, or the patron? A great example to understand the nuances of ownership of this thing called art would be the installation 'Cadillac Ranch' created by Ant Farm, commissioned by Stanley Marsh 3, and recreated by the million people that crossed Interstate 40 in the last fifty years. Ten Cadillacs, starting with a 1949 Club Sedan and ending with a 1963 Sedan de Ville were driven to one of Stanley Marsh 3's fields and placed nose-down, to show the evolution of the Cadillac tail fin. Well, that was the original purpose of the artists, but the art turned out to be much more.

Attending an assembly by 'Chip Lord' , an integral member of Ant Farm and Cadillac Ranch, allowed for great insight into the minds of ex-hippie artists/architects of the eighties. The question I posed during the assembly was "It is said that 'imitation is the best form of flattery'. How do you feel about these unauthorized replicas of "Cadillac Ranch"? Do you believe they dilute the original installation's originality and impact or just add to its legend while being beneficial? Should artists have control over the reproduction of their work in such cases? Do you have full control of the installation now?". Chip Lord's answer to this question was mostly covered in the presentation itself and he further clarified his thoughts later directly in the Q&A session.

The motivations of asking such a question lied in an artist's pursuit of ownership and copyright. Chip Lord himself is not the owner of Cadillac Ranch, Stanley Marsh is. Stanley Marsh 3 an eccentric millionaire from the state of Texas. He faced serious legal troubles when he was charged with 11 felony counts of molesting children, specifically two teenagers, in 2010. The accusations included engaging the teens in sexual acts and providing them with drugs, alcohol, cars, and money. Marsh's criminal attorneys denied the charges, suggesting the teens were aiming to profit from the situation.

The amount Marsh gave to Ant Farm of 3000 dollars makes it more his than theirs? Marsh seems to disagree. "The three members who conceived and executed the Cadillac Ranch deserve 100% of the credit, the only credit I deserve is being at the right place and the right time when they came along." (Stanley Marsh, Cadillac Ranch 1974-1994, Documentary). Lord joked during the assembly how people who just pass by the artwork think just some random rancher must have placed these cars there.

This marred his reputation in the state of Texas, and people wanted the removal of Cadillac Ranch. If the original artwork is removed because the patron turned out to be an evil man, does the art even belong to the artist? Should we remove the Mona Lisa from the Louvre because the Medici family was corrupt? The despairing part in this ordeal is people relate Cadillac ranch to Stanley Marsh more than Ant farm. The creative minds who would feel the most sorrow on its removal are not thought of when discussing art.

“Intellectual property has the shelf life of a banana.” - Bill Gates. General Motors came up with the Cadillac’s tailfin. The designers who worked on that tailfin may argue they deserve some credit or payments for the use of that car and its tailfin in the artwork. However, one may argue the artwork falls under fair use. Where an artist uses an item from another media and transforms it enough to make it different and then it becomes theirs. E.g. Andy Warhol. Campbell’s Soup Cans. 1962. Chip Lord in the Q&A mentioned multiple instances when they licensed the location for ad campaigns and photoshoots.

The name of the artwork is used in many songs, most famous of them being the one by Bruce Springsteen “I’m gonna pack my pa and I’m gonna pack my aunt I’m gonna take them down to the Cadillac Ranch.”(Cadillac Ranch, The River, 1980). Disney asked their permission before putting a Cadillac Ranch reference in their movie ‘Cars’. A dispute Lord spoke of was with the makers of the film ‘Cadillac Ranch’, they offered money to use the name as the title, Doug Michels co-creator of the artwork wanted more money for the use of imagery from the site. Lord states that they regretted it later, as it would have sparked new interest in the art. The group even sued Los Angeles Hard Rock Cafe for copyright infringement and unfair competition for using the tail end of a 1959 Cadillac in the restaurant’s facade. “We felt it was a bad precedent.” “Artists have enough difficulty coming up with images without being vulnerable to blatant commercial exploitation,” Michels said.

Cadillac Ranch is an American icon, it has become part of pop culture and it has transcended from copyrighted artwork to public domain without the artist’s approval. Many replicas and imitations can be found near Amarillo as well as in places far away. E.g., ‘the Other Ranch’, Munich where Mini Coopers are laid into the ground, the makers have credited their inspiration was the Cadillac Ranch, ‘the Airstream Ranch’, Florida where RV trailers are laid into the ground. Many other copies with similar cars can be seen around Route 66 and in the Amarillo region.

These copies in my opinion serve to the legend of Cadillac Ranch, Lord however, feels strongly about copyright, and believes that credit should always be given. Cadillac Ranch itself has had many variations of itself on the original site, it has been changed, modified, renovated and redone. It is not what it once was, becoming a ‘ship of theseus’ where everything has been changed to the extent we cannot tell if it is the same or something new. Lord suggests that for the 50th anniversary the cars should be repainted and replaced with modern parts and left to rust gracefully. If the public would let them rust is the bigger question

Transscalarities

Summer 2023 Arenas of design
Critic - Marie De Testa

Personal Response – Climavore by Cooking Sections

Humans have been consuming other animals for over a million years, that's just the way nature made us. Survival of the fittest, circle of life, and big fish eat small fish are all familiar phrases. However, nature works in a certain way, and when we try to change it, go against it, or even try to exploit it. It retaliates back. Among these issues is the consumption of sea and ocean life, which cooking sections try to address in their ongoing project 'Climavore'. Climavore is not a sole project but a collection of projects that take place in various cultural and geographical settings. They range from architectural installations to art performances, sculptures, and even articles and lectures. The pair try to start a cultural movement like the vegan movement to change the way people consume wildlife. They understand that to bring about change they need to address the issue and raise awareness in all scales, the global, local, and human.

Before reading about the topic, I was unaware of such problems, as in my home city of Mumbai the fishing industry is still very localized. Global warming has caused the number of fish caught to go down over the years. Still, people buy fish from local markets, and the demand is met without the need of increasing the scale and using harmful techniques to increase production. There may still be some sort of tampering with the fish or injection of chemicals that the public is not aware of. However, the people in a third-world country cannot be asked to care about such issues. As the majority of people are below the poverty line and they will eat what is available without thinking twice. Therefore, this movement of eating according to climate change is important in the West (Scotland, LA, New Orleans), but it does not hold the same weight in countries where people don't have the luxury to be selective about food. This argument does not invalidate the project but just shows how cultural and economic differences change the scale of the issue.

The politics of salmon is another interesting aspect that "cooking sections" highlight. They try to tackle a local issue that originates from Scotland to start a conversation to tackle the issue of pollutants in the fishing industry. The approach taken by them to contact local politicians, reporters, and restaurant owners to discuss and eat at their installation is a nice first step. The funniest aspect that emerges is that the local people who are aware of the pollutants in the salmon don't eat it and the tourists that come to the Isle of Man, come here for that very same salmon. Business owners who rely on tourism don't want to let go of this salmon identity, while the tourists are unaware and come here expecting the perfect-colored salmon. This local human scale emphasizes the need for such a project so that people outside Scotland are aware that the salmon they want is just a Norwegian version colored to suit their vision.

In conclusion, Climavore is a good first step, but the impact it has is still undecided. Since 2017, they have had 16 different projects and various talks and lectures and are even nominated for a 'Turner Award'. Yet, its appeal to a large audience is questionable. The question arises, will it remain only a niche movement known to art enthusiasts and hipsters or will it become mainstream and bring about real change not only in small cities in the west but on a global level?

History/Theory

Fall 2023 A4469-1: The History of Architectural Theory
Critic - Mark Wigley

Truth: A forensic analysis of "the truth of architecture by Colin Davies"

The undying pursuit of the truth. The truth is often understood to be the reality of things. Facts that we cannot ignore dictate the workings and existence of ideas and notions. From the tireless endeavors of visionaries and scholars to the profound ruminations of revered philosophers, all have been humbled by this conundrum. Mired in subjectivity, it is an ever-shifting, elusive, and paradoxical concept. All branches of human endeavors are subject to it. Architecture is no exception.

Colin Davies is another pursuer of truth. Currently a professor of architectural theory at the London Metropolitan University, he is known for his insights, accessibility, and clarity. Having written several books on the topic, such as Thinking About Architecture: An Introduction to Architectural Theory (2011), Key Houses of the Twentieth Century (2006), and High-Tech Architecture (2000), it is fair to say he is an expert on architectural theory. Davies's book Thinking About Architecture is the main setting of this paper. He argues that architects have a responsibility to design buildings that are honest and truthful, both in terms of their function and their impact on society and the environment. The book is meant to be a textbook that covers the theories of others, however, with Davies's take on them. What will follow is a thorough analysis of the text, focusing on chapter 5, "Truth.". (pg. 82-101)

While Colin Davies's doctrine of honesty in architecture and its truth provides valuable insights for achieving clarity and transparency in design, its restrictive definition of "honesty" overlooks the potential for architecture to transcend mere functionality and engage in symbolic and aesthetic expression, thereby limiting its ability to fully address the multifaceted nature of architectural experience.

Explanation: Davies's doctrine, as presented in Thinking about Architecture, emphasizes two key aspects of "honesty"(1) Honesty to materials and construction: Materials and methods should be visible and comprehensible to the viewer, promoting transparency and a connection to the building's essence. (2) Honesty to function: Form should be determined solely by function, advocating for practical and efficient design. While these principles undoubtedly contribute to clarity and understanding, they present a limited perspective on what constitutes "honesty" in architecture.

The book, according to the blurb at the back, "aims to explain current thinking about architecture in a clear and accessible way." (Davies, 2011) The tone is conversational, and complicated vocabulary is not used—a language that can be understood by non-architects—while insights that even architects would appreciate are presented gradually, leading up from the basics to the critical arguments that architecture poses. "Using a gradual step-by-step approach, focusing on the ideas rather than the theorists and philosophers behind them." (Davies, 2011) The theory takes the forefront, not the theorists. Davies uses works by various architects from varying periods to prove his point. The architects may be part of the bibliography, but they are not the focus of the book. "This book is an invaluable standard introduction to architectural theory for students, practicing architects, and interested general readers." (Davies, 2011) This statement tells us who Davies writes for. He is not catering to an audience that is well-versed in the politics and inter-complexities of architecture. He is writing for the average audience, which may or may not have a general understanding of the field. In doing so, the book becomes an easy read that can be a welcome mat for guests into architecture or a nostalgic relearning for veteran theorists. Even though the audience pool is large, Davies doesn't shy away from challenging notions such as form and space and tries to put them in a perspective that is simple and effective. The text proves highly valuable in its capacity to strike a delicate equilibrium between accessibility and scholarly rigor. The clarity with which it elucidates intricate concepts accommodates the interested layperson while maintaining a substantial and comprehensive approach that befits academic inquiry. The prose exhibits remarkable fluency and readability, a trait all too often absent in the sometimes-dense realm of textbooks. This book briefly references architectural theorists and philosophers, providing a bibliography for further exploration, but it primarily focuses on architecture itself. Its core objective is to provide readers with a comprehensive understanding of architecture, covering all its facets, rather than emphasizing the memorization of specific theorists' names. As he states, the objective is to demystify architecture theory.

The book is divided into an introduction and eight chapters. Each chapter is meant as an element of architectural theory. The chapters are as follows: "Representation, Language, Form, Space, Truth, Nature, History, and the City." They are meant to be bite-sized (10–15 pages) summaries of what Davies thinks is the crux of the respective elements. Davies doesn't create his theories per se; he provides his interpretation of them by looking at Western and global perspectives and justifying the form of pictures and examples.

Davies supports his arguments with a variety of evidence, including:

- Examples from architectural history
- Quotes from philosophers and architectural theorists
- His observations about the nature of architecture and the role of architects

Davies' writing is clear, concise, and engaging. He uses a variety of rhetorical devices to explain complex concepts in a way that is easy to understand. Eponymy: Reference to specific individuals such as Laugier, Soufflot, Ruskin, and Pugin lends credibility to the argument by associating it with well-known figures in architectural history, Analogy: The comparison of classical architecture to a primitive hut in Laugier's Essai sur l'Architecture serves as an analogy to emphasize the idea that the most important elements of a building are its fundamental components, The rhetorical question "is it not extraordinary that when the Greeks commenced building in stone, the properties of this material did not suggest to them some different and improved mode of construction?" is used to provoke thought and emphasize the point being made.

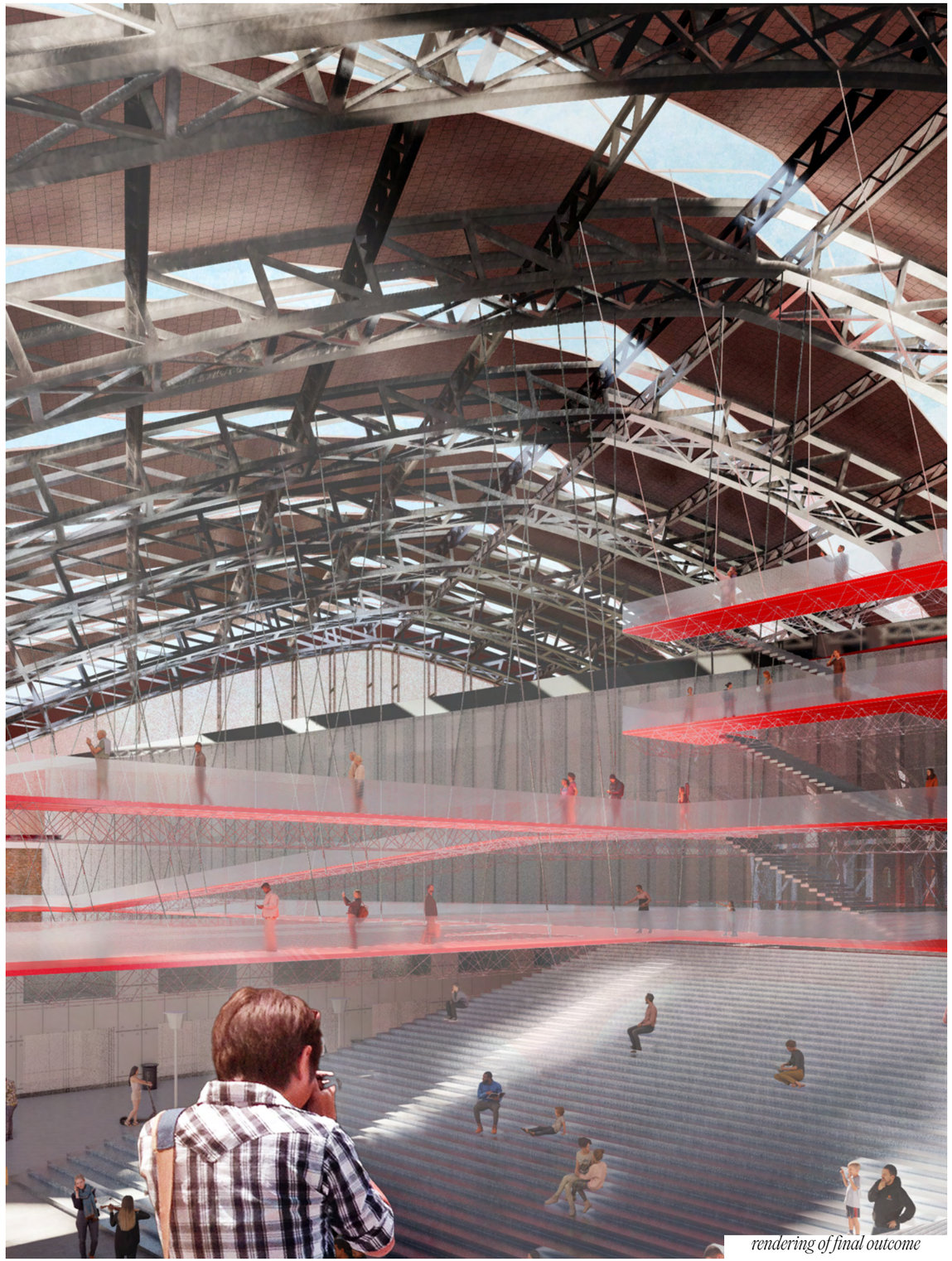
To illustrate his points, he utilizes images that work as evidence. E.g., an image of the statue with a horse to illustrate the point of hiding structural elements in aesthetics, and a picture of Villa Savoye is used to show how Corbusier saw his buildings as cars and machines. These images come with a detailed description as well, that repeats the argument the picture serves in the passage.

The most interesting and thought-provoking section is the chapter on truth. The gesture of having these one-word headings for each chapter intrigues the reader and invites them to dive in to learn more. Therefore, the title of the chapter, "Truth," is of great importance. Davies believes the truth is necessary; it cannot be ignored when talking about architecture. The truth that Davies is referring to here can very easily be narrowed down to the materials and the construction of buildings, as well as what is shown and what is hidden. This is the truth Davies tries to put forward by analyzing theories on the topic left before by other theorists and tries to provide a summary of his beliefs in this chapter.

Truth on its own means nothing; it requires context. The chapters that precede it are perhaps meant to do that. Starting with representation works well, as everyone considers architecture to be a visual medium. Language stems again from representation; visual language is created by every architect. The dos and don'ts they follow, the principles they believe in, and the decisions they make all reflect the language of the architect and how he wishes to convey his work. "Form" and "space" are the two next pillars that lead up to truth. They seek to flesh out the language through creations and their results; after "truth," the chapters that follow are "nature," "history," and "the city." It is clear to see that Davies orders these chapters from the most integral to secondary elements. The truth is the intermediary notion that transitions between them.

I opted for this book with the specific intent of understanding how a theory catering to the average person without a functional grasp of architectural theory operates. While Colin Davies's doctrine of honesty in architecture provides valuable insights for achieving clarity and transparency in design, its restrictive definition of "honesty" overlooks the potential for architecture to transcend mere functionality and engage in symbolic and aesthetic expression. Such a complex theme that can confuse even the greatest minds as to what is the correct way poses a challenge to be explained to the average person. Therefore, it makes it worth analyzing and deciphering the way Davies goes about it.

Davies' theory of truth in architecture has several implications for architectural practice. For example, it suggests that architects should consider the social and ethical implications of their work in addition to the aesthetic and functional considerations. It also suggests that architects should be open to different perspectives and that there is no single "correct" way to design a building.



rendering of final outcome

ACT II

Fall 2023 Design Studio - Extreme Scale
Critic - Laurie Hawkinson
Collaborators - Stephen Zimmerer

For the fall semester project, our focus is on the adaptive reuse of the historic Kingsbridge Armory in the Bronx, the largest armory in the country and possibly the world. This project is particularly significant due to the recent interest from political forces and the public in transforming the armory into an active community center for the Northwest Bronx. The scale of the building presents a complex design challenge, as it must meet the ambitious goal of functioning as a community hub while respecting the historic significance of the structure.

The project draws inspiration from the concept of 'bigness' as discussed by Rem Koolhaas, where the sheer size of a building becomes an ideological statement and design challenge in itself. The studio explores the idea of 'social condenser', a concept originating from Soviet Constructivism, which suggests that combining different architectural programs can facilitate social interactions and create more equitable spaces. Projects like the S.E.S.C. in Brazil, which successfully combine diverse programs such as sports, healthcare, and cultural activities, serve as key references for the studio's design approach.

Overall, the project aims to create a design proposal for the Kingsbridge Armory that not only respects its historic significance but also transforms it into a vibrant community center that embodies the principles of 'bigness' and 'social condenser'.

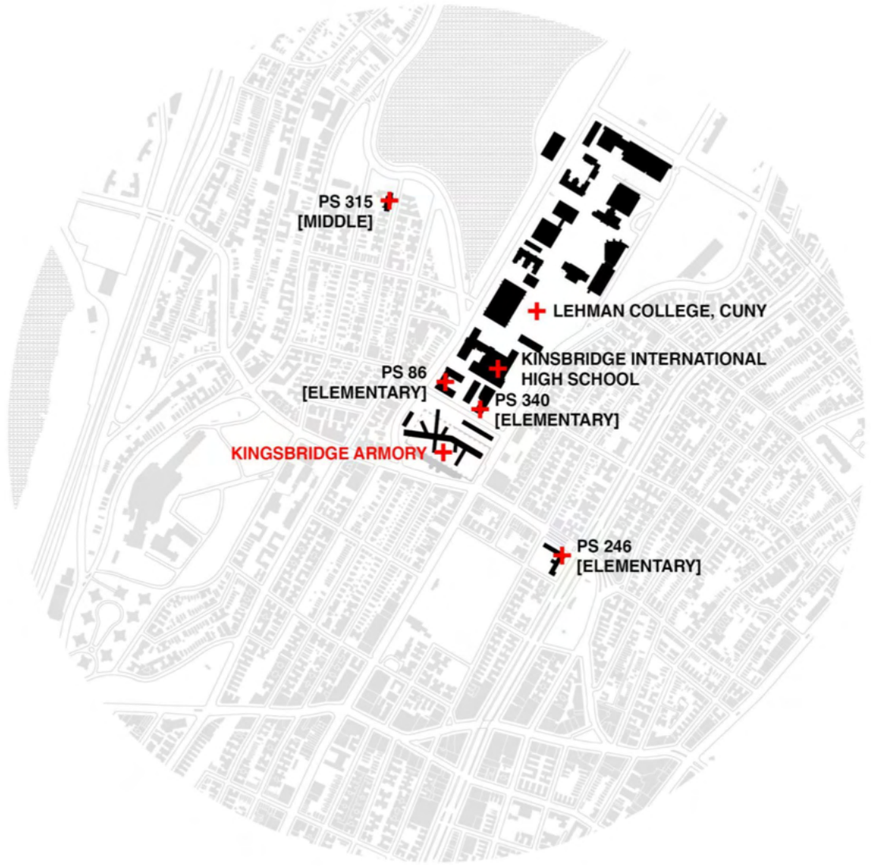
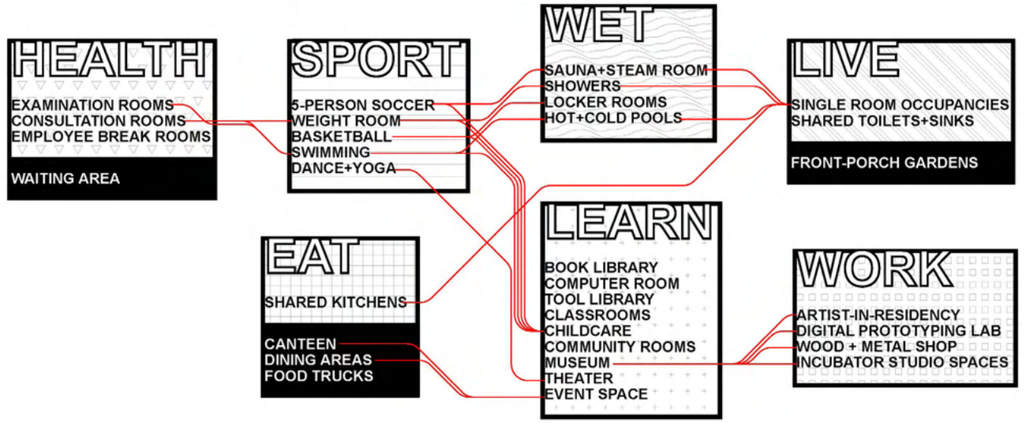
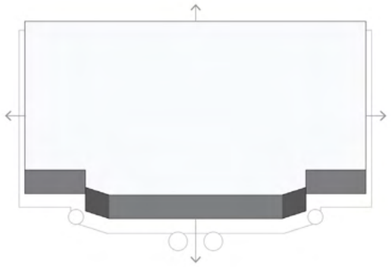


Figure-ground map with site

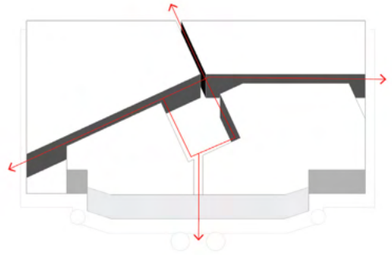


program breakdown

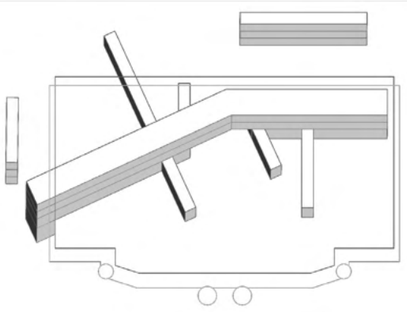
"What if... circulation and movement could transform our social and educational landscape? Picture a catwalk hanging boldly from the twenty-eight trusses of the Armory, defiantly chal lenging the overwhelming scale of the building. Blurring boundaries between inside and out side, old and new, the suspended viewing and circulatory apparatus becomes an innovative system of congregation and observation.



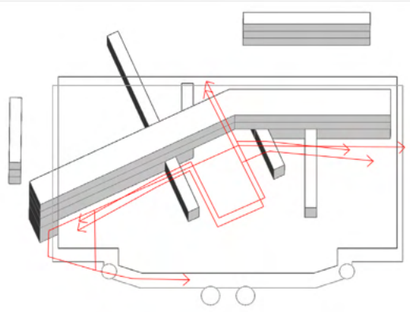
01_Condition
Fortress Armory



02_Cut
Create Axes

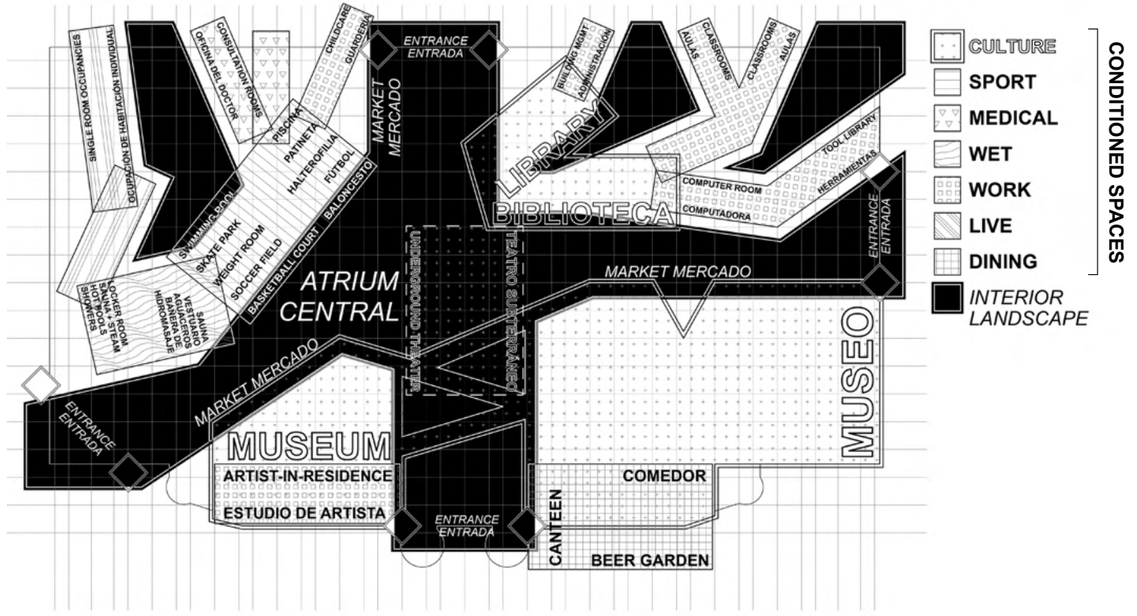


03_Subdivide
Create Architectural Figure

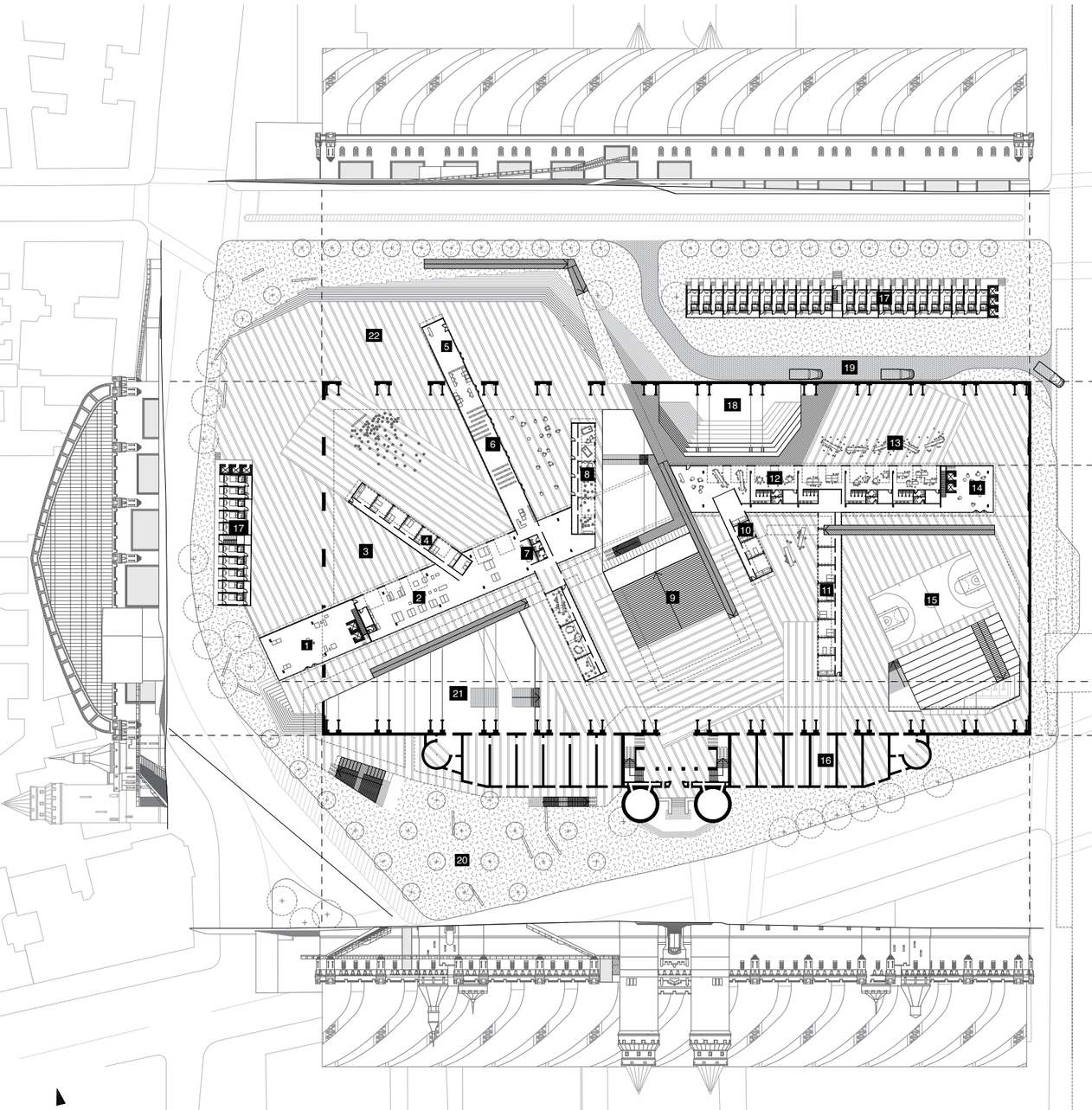


04_Insert
Circulation Viewing Apparatus

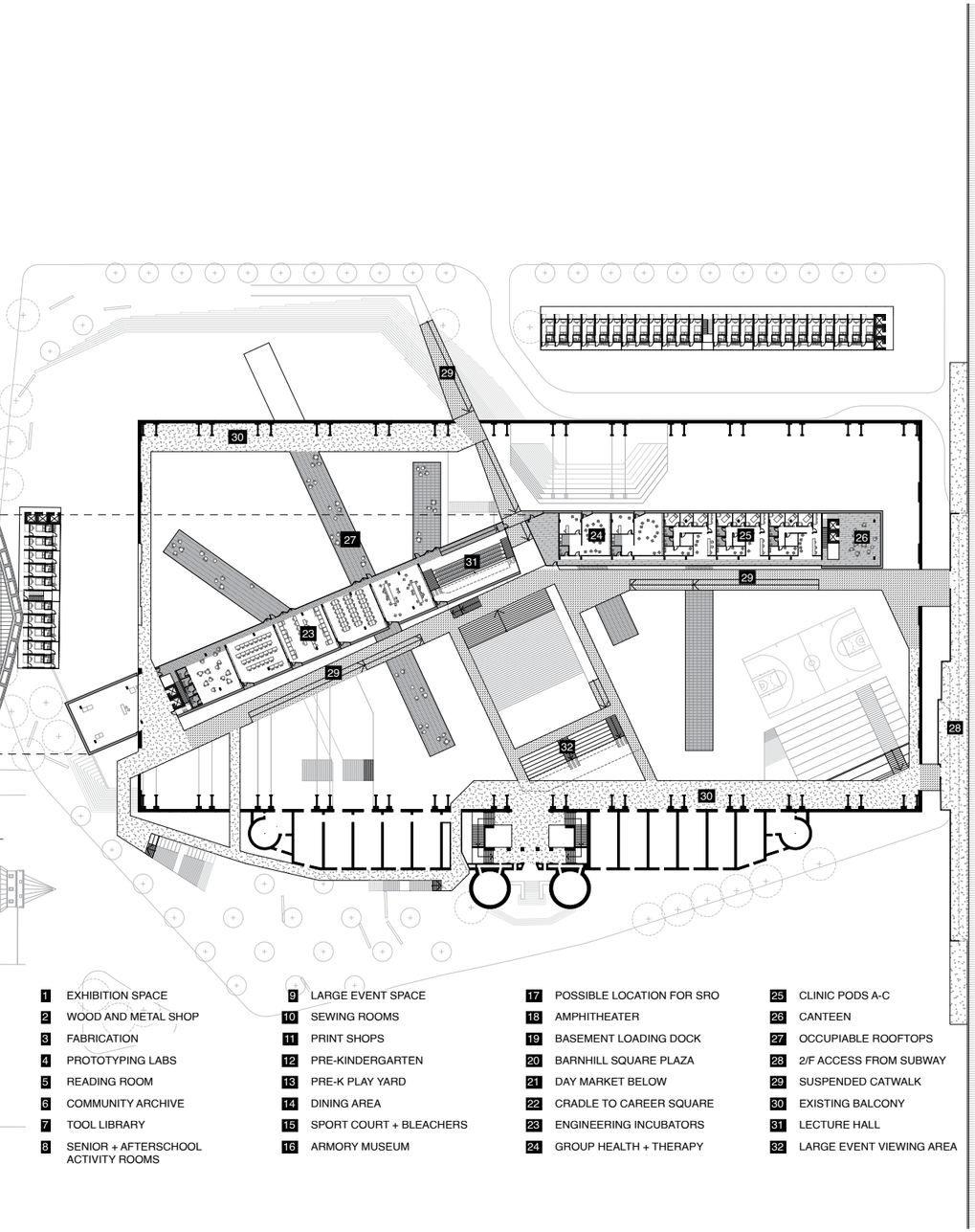
Grounf Floor Plan



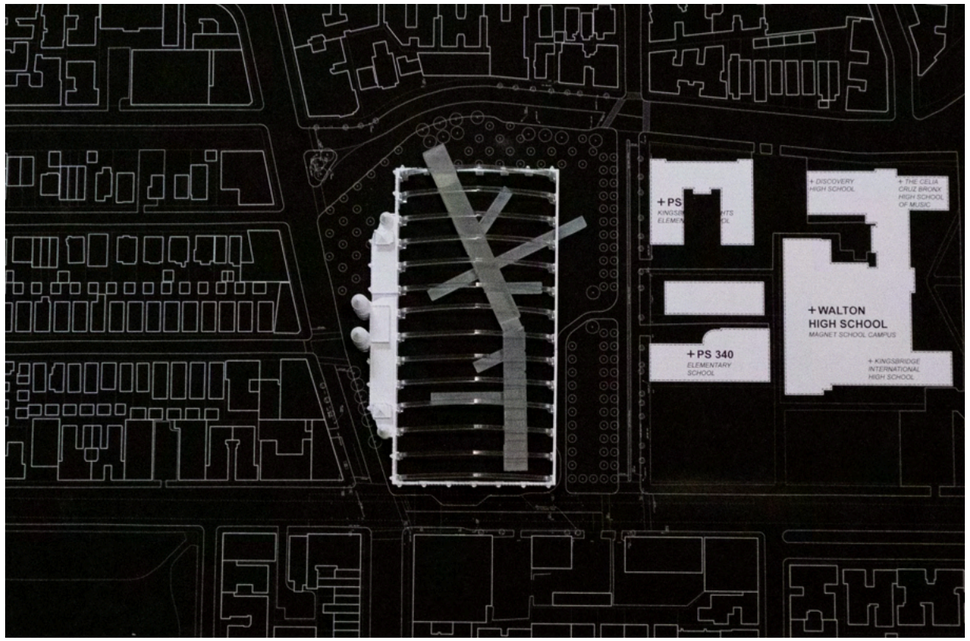
spatial diagram



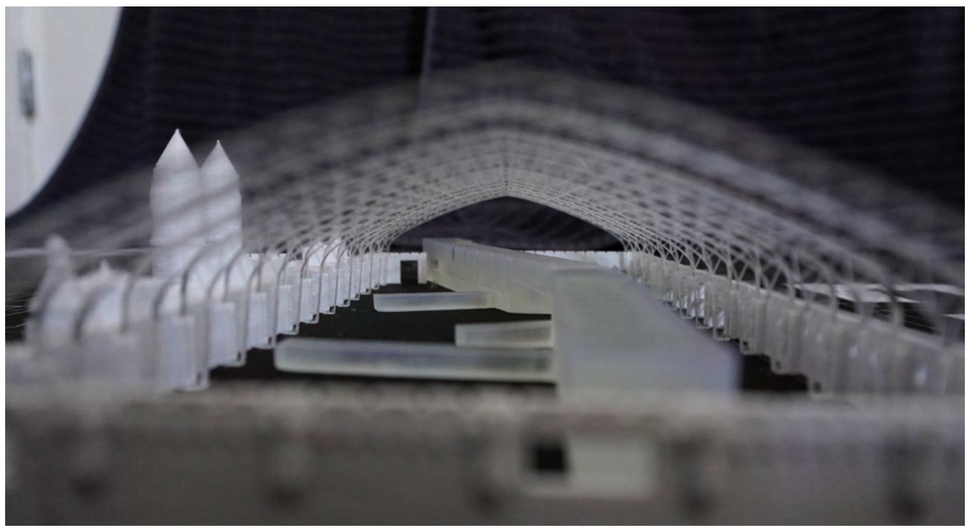
GROUNDFLOOR PLAN WITH NORTH SOUTH EAST WEST ELEVATIONS



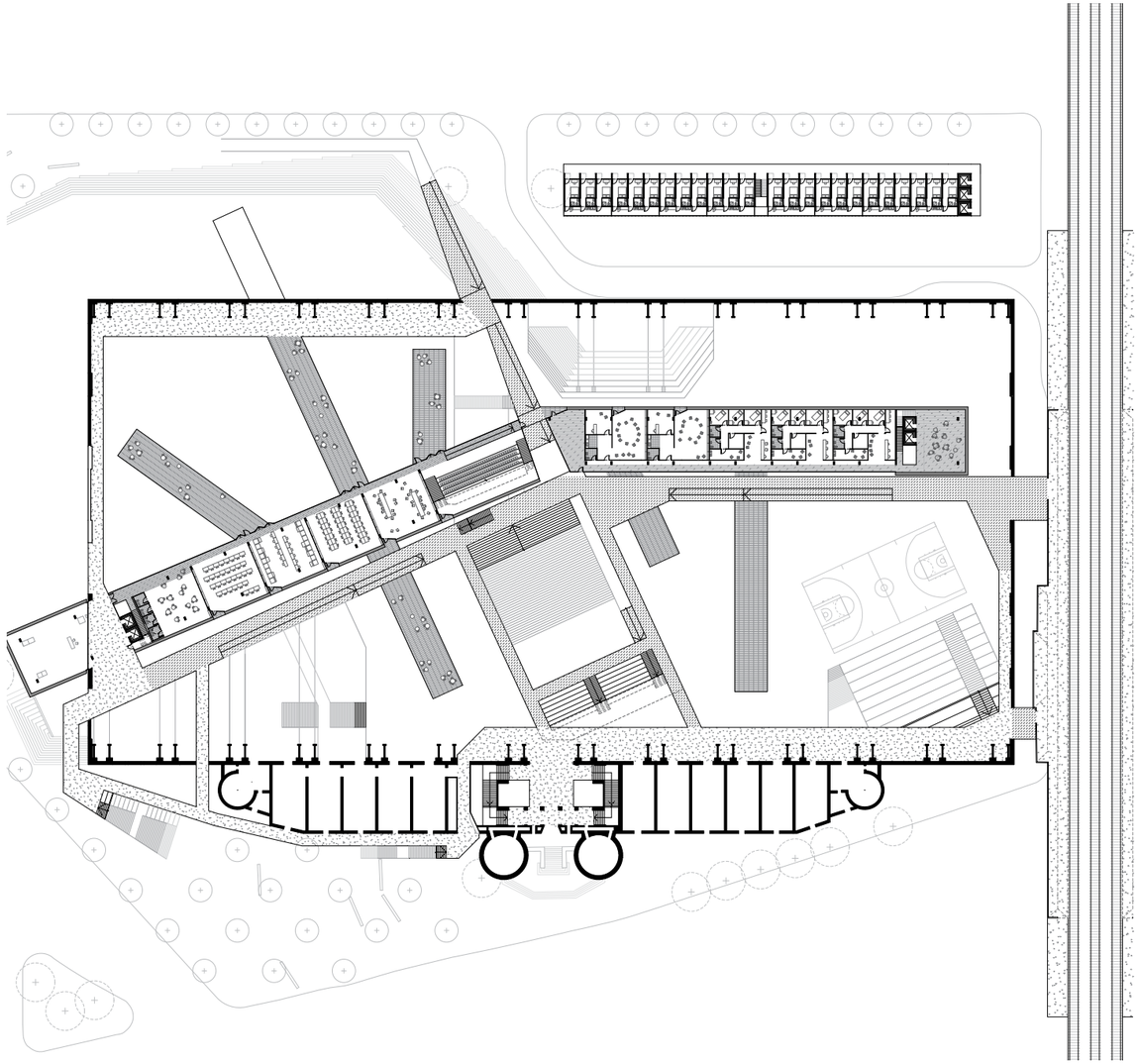
SECOND FLOOR PLAN



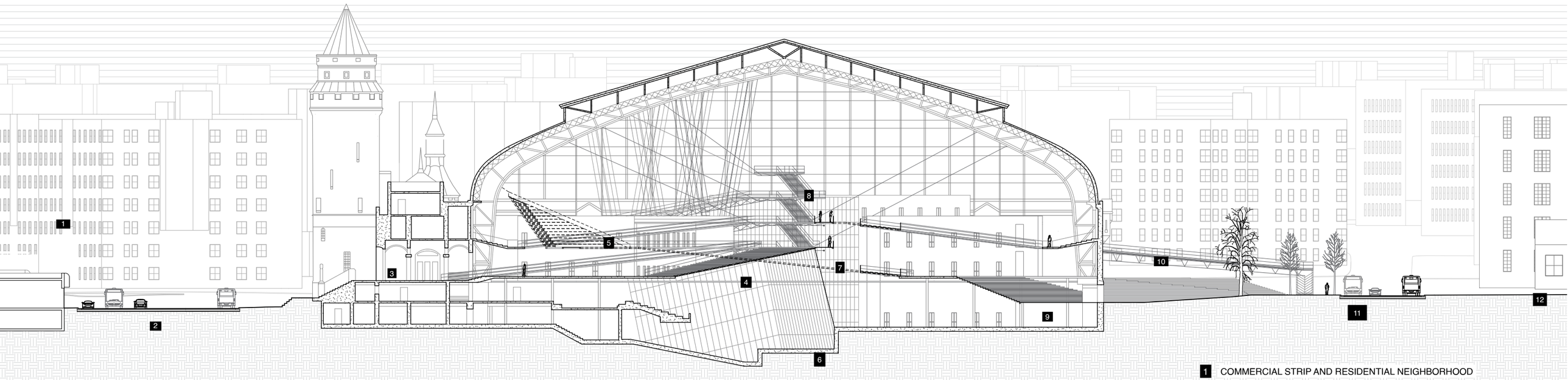
Physical Model - 1/64



Physical Model - 1/64

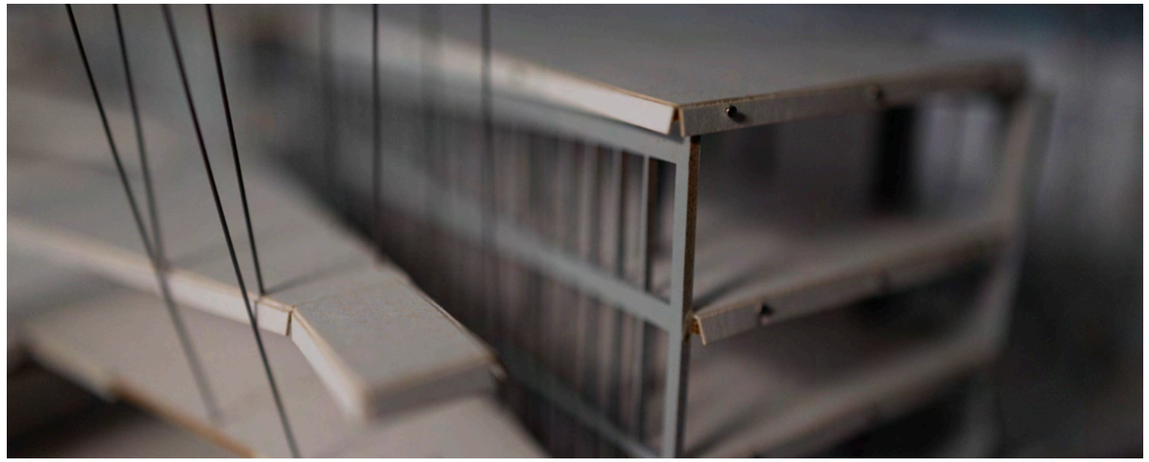


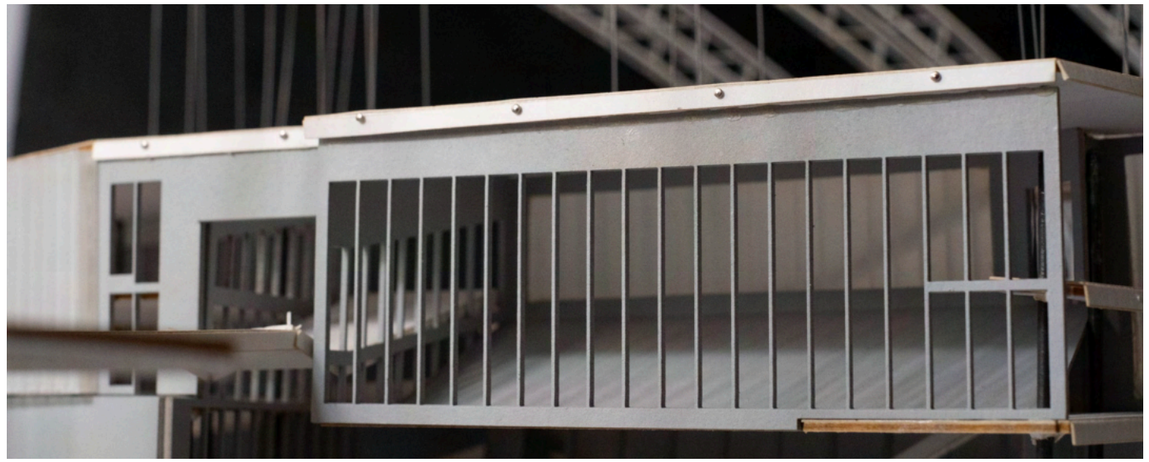
Upper Level Plan

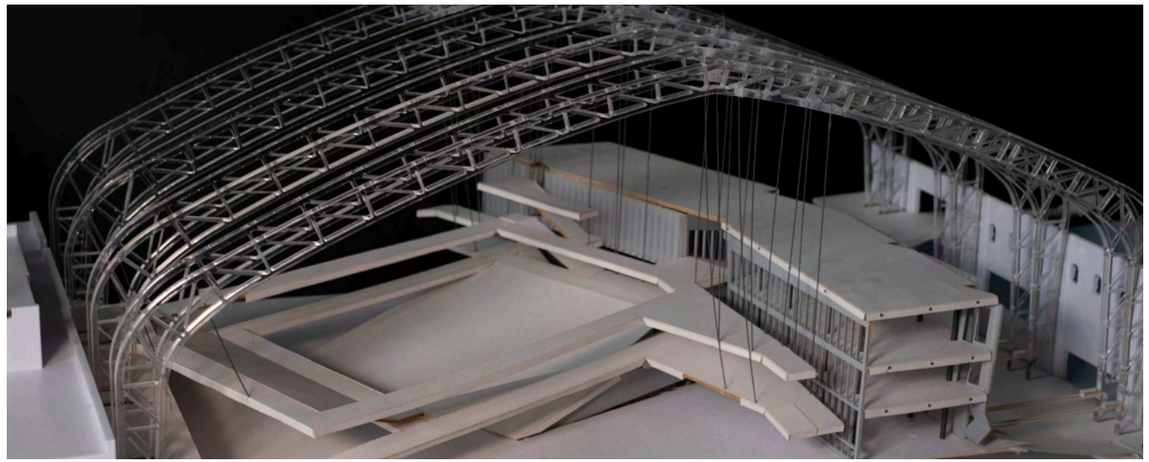


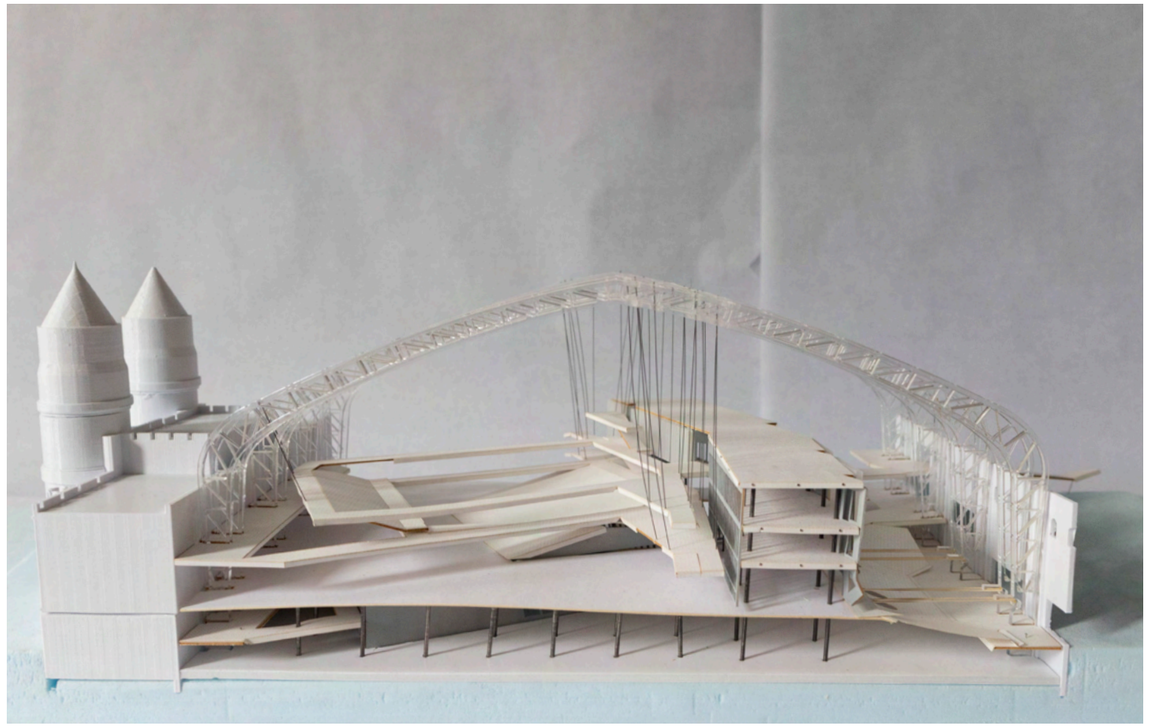
1 COMMERCIAL STRIP AND RESIDENTIAL NEIGHBORHOOD
2 KINGSBRIDGE ROAD
3 ARMORY MUSEUM ENTRANCE
4 LARGE EVENT SPACE
5 LARGE EVENT VIEWING AREA
6 UNDERGROUND THEATER
7 SUSPENDED CATWALK
8 SUSPENDED VIEWING PLATFORM
9 AMPHITHEATER
10 BRIDGE TO PUBLIC SQUARE
11 195TH STREET
12 ADJACENT PUBLIC ELEMENTARY AND HIGH SCHOOLS

NORTH-SOUTH SITE SECTION

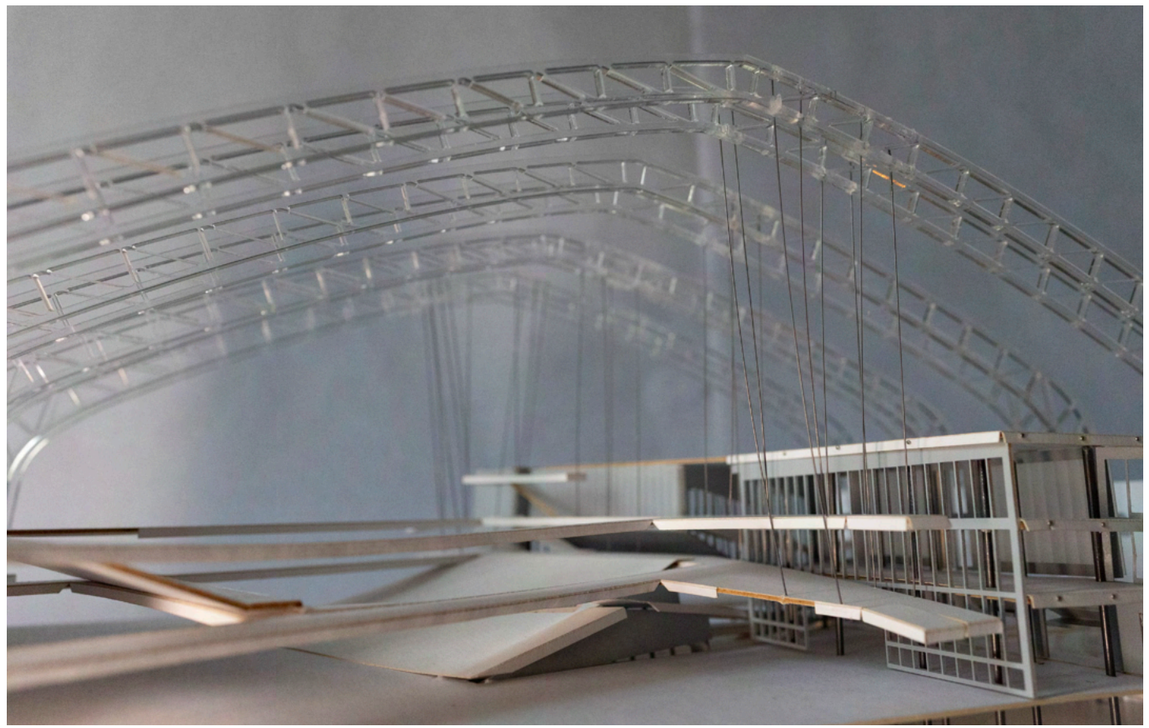








All Images Physical Model - 1/16



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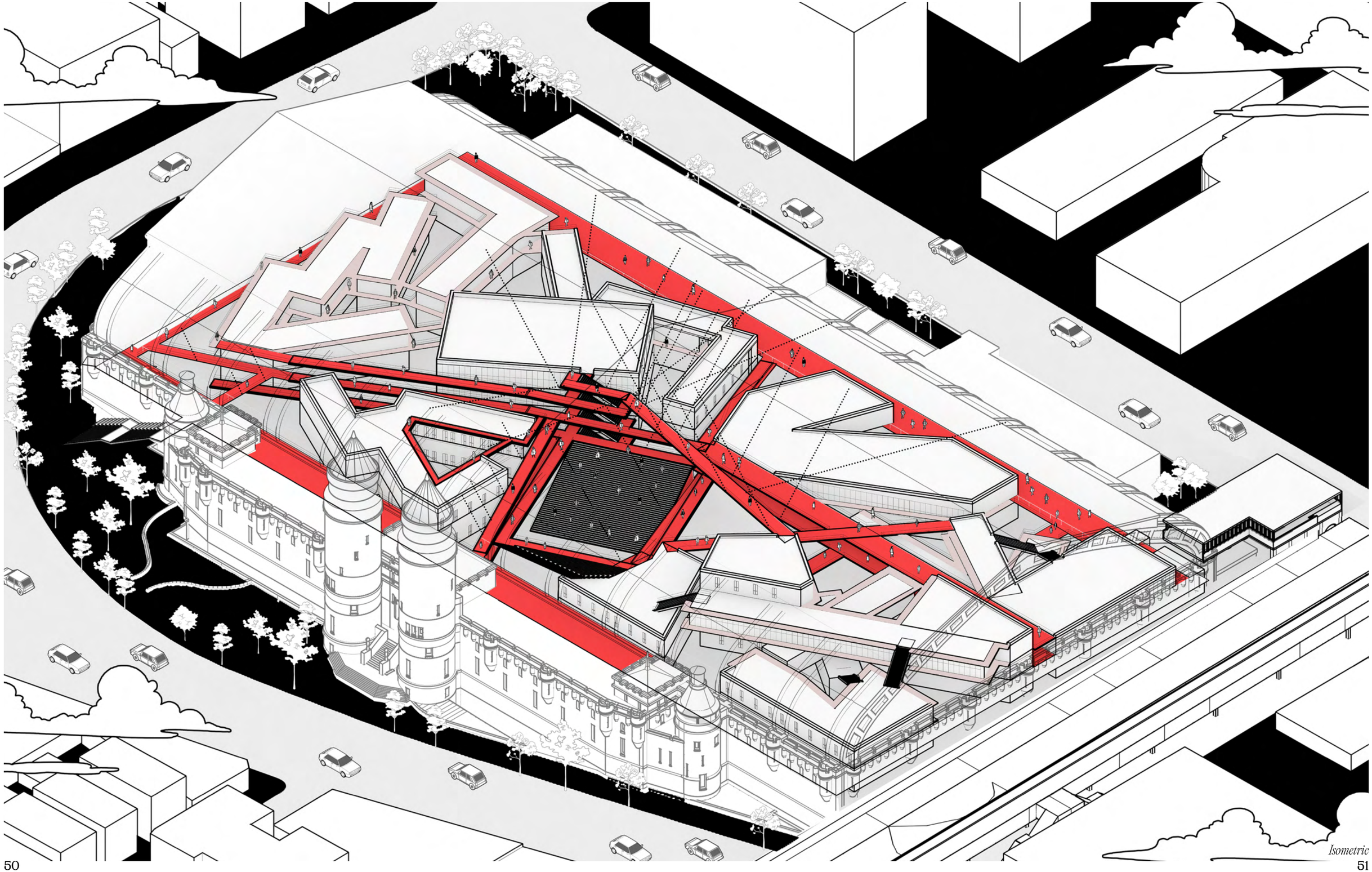


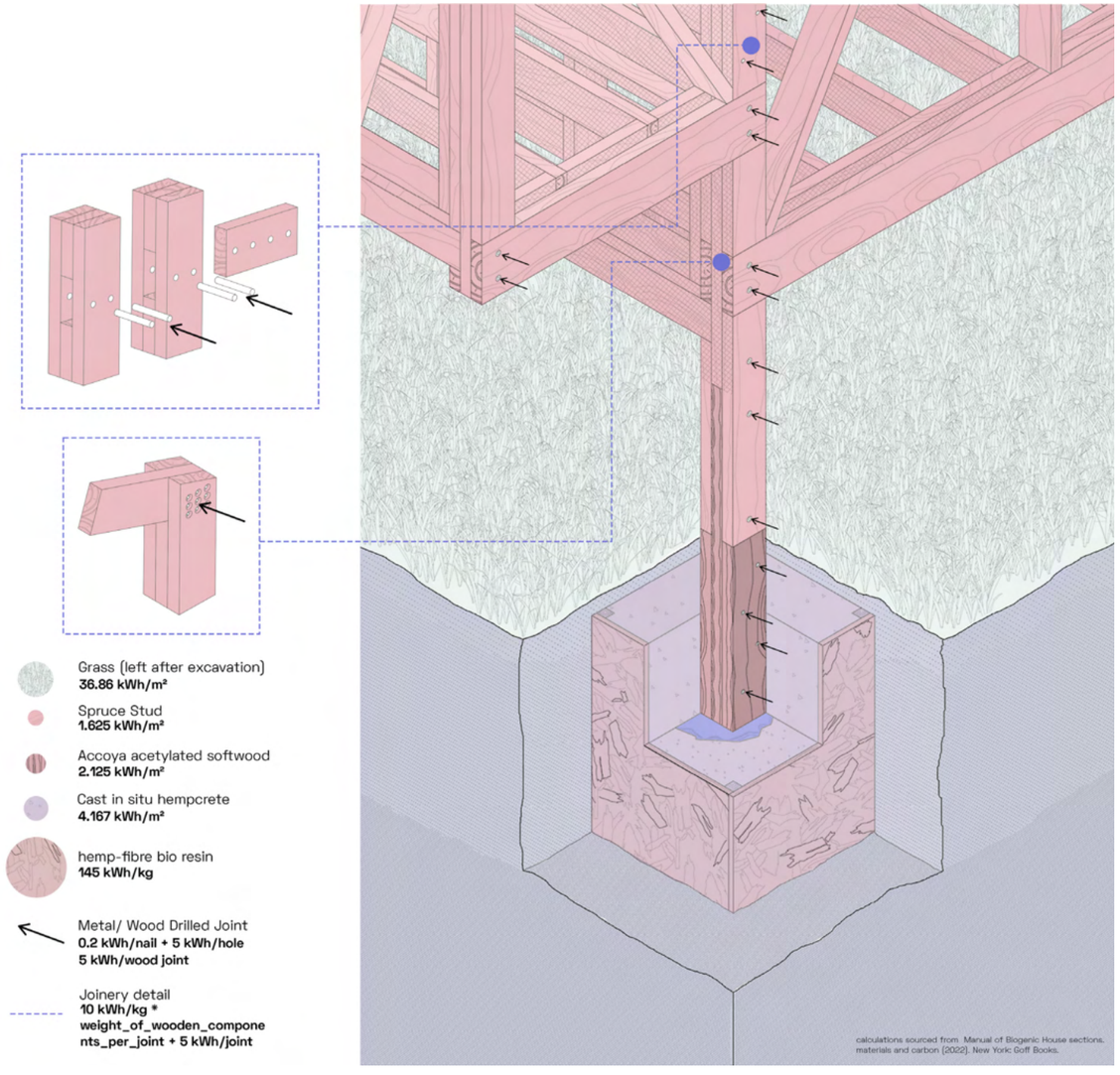
Isometric

Interlude

Footprint: Carbon & Design

A4861-1 / Spring 2024
Critic -David Benjamin

Social Footprint



Embodied Carbon Analysis of foundation of a carbon negative building

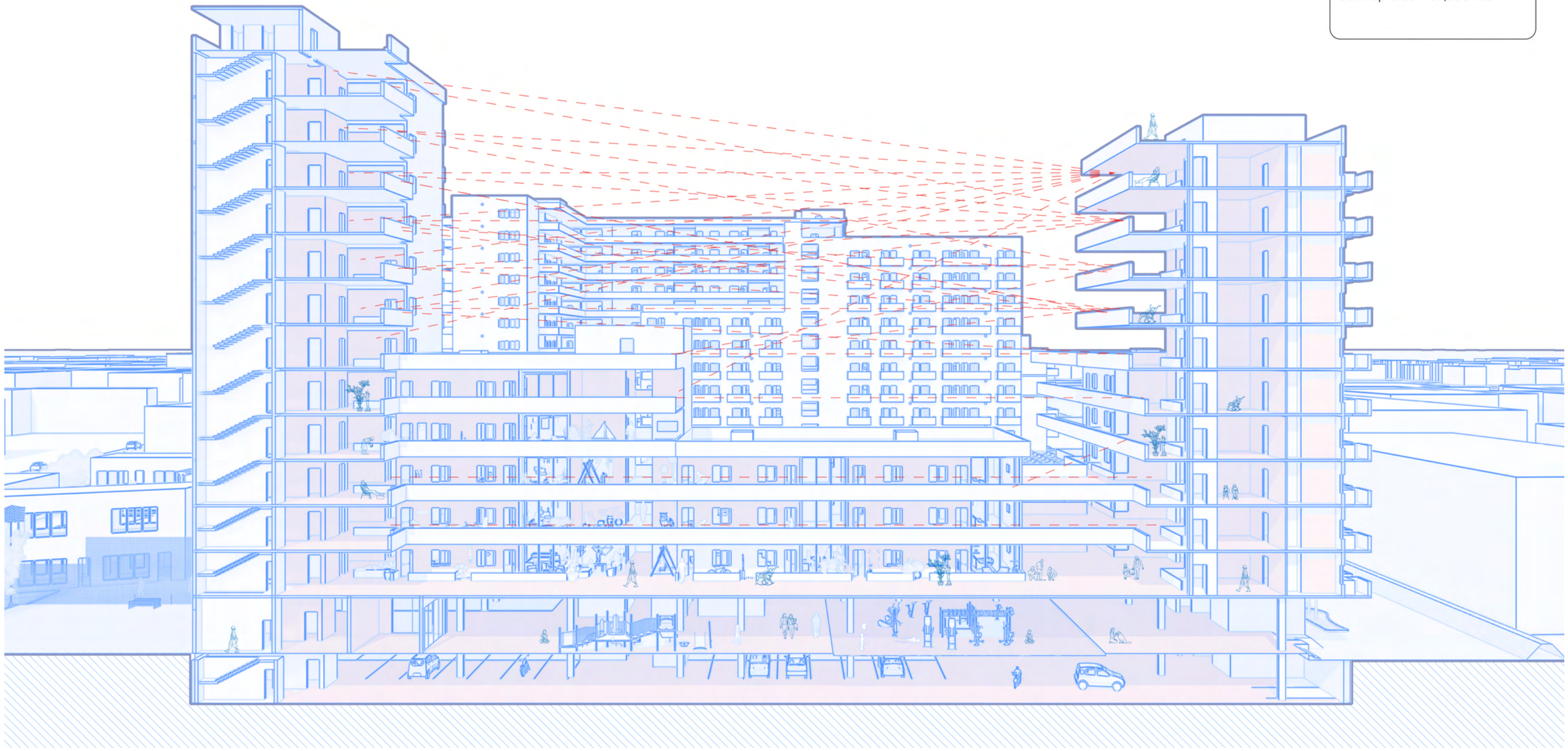
Social Footprint Analysis
Viewpoints
Surat Housing Complex

Area of social interaction

Interlaced viewing angles

Total occupants - 1520
Total no. of units - 376
Population Density - 217.14

Total site area - 28,796 m2
Built up area - 57,590 m2



traditional houses face the street, replicating that the corriddors act as the street, where circulation becomes a meeting place

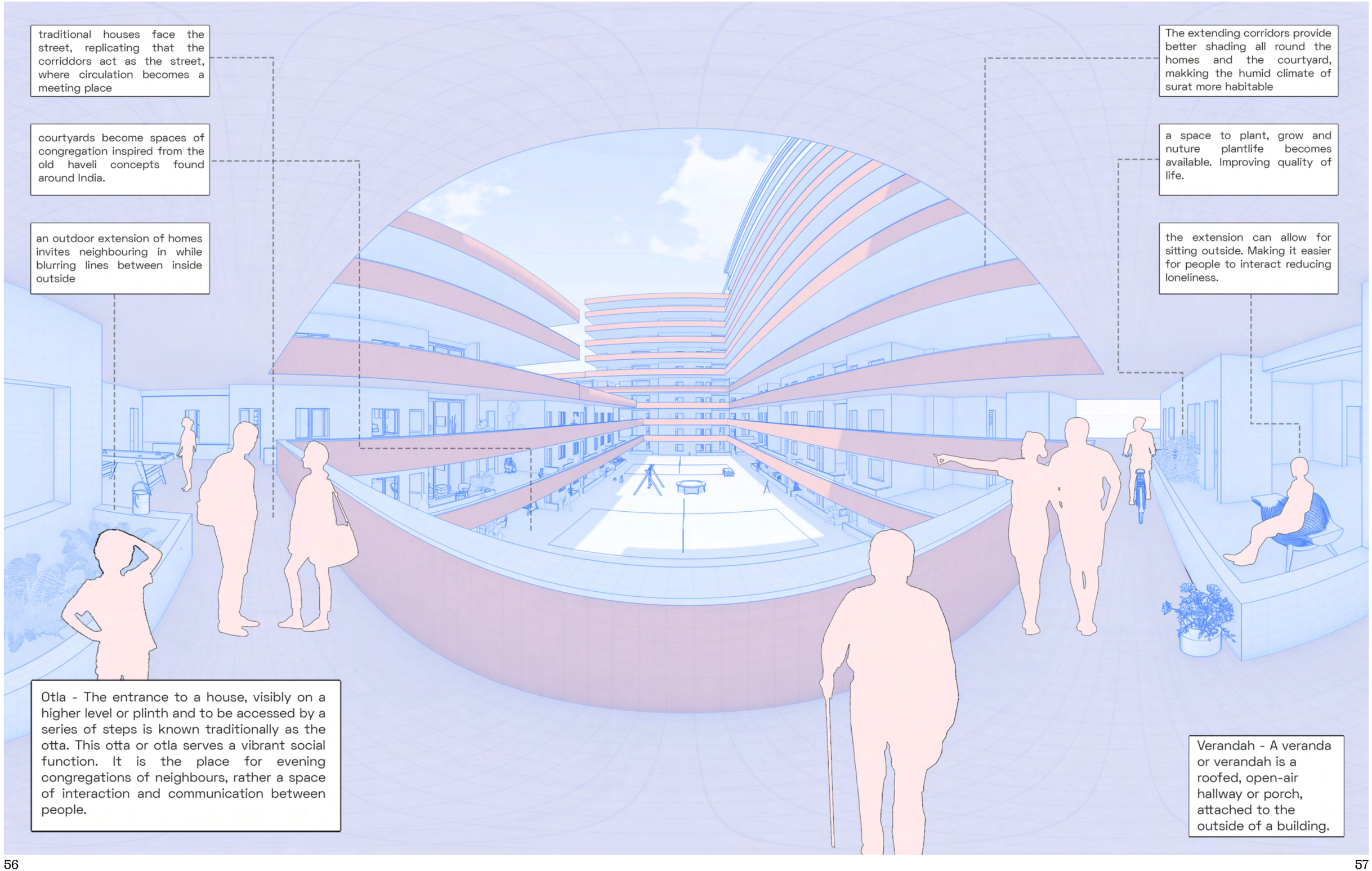
courtyards become spaces of congregation inspired from the old haveli concepts found around India.

an outdoor extension of homes invites neighbouring in while blurring lines between inside outside

The extending corridors provide better shading all round the homes and the courtyard, makking the humid climate of surat more habitable

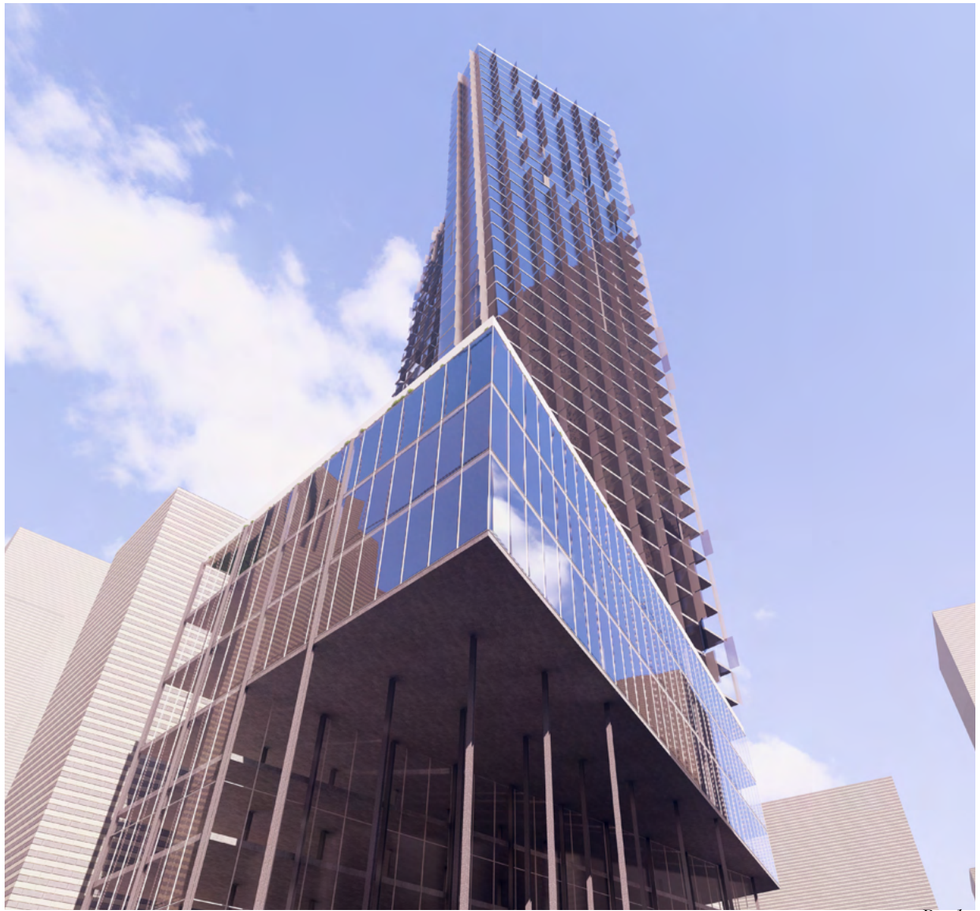
a space to plant, grow and nuture plantlife becomes available. Improving quality of life.

the extension can allow for sitting outside. Making it easier for people to interact reducing loneliness.



Otla - The entrance to a house, visibly on a higher level or plinth and to be accessed by a series of steps is known traditionally as the otta. This otta or otla serves a vibrant social function. It is the place for evening congregations of neighbours, rather a space of interaction and communication between people.

Verandah - A veranda or verandah is a roofed, open-air hallway or porch, attached to the outside of a building.



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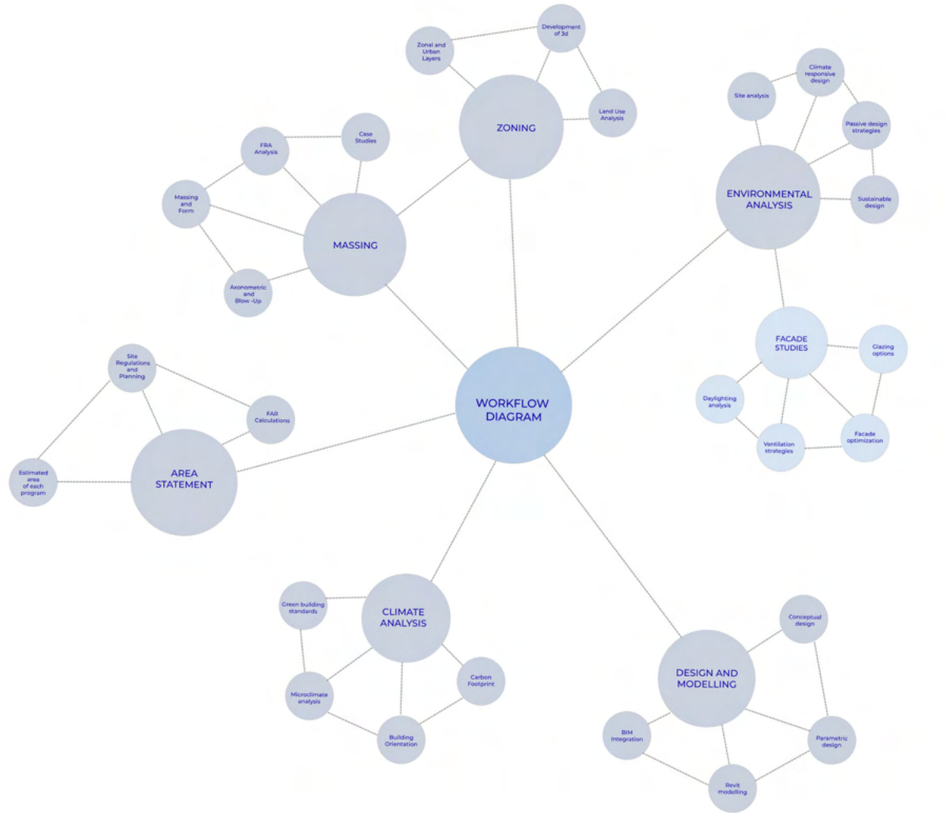
reThinking BIM

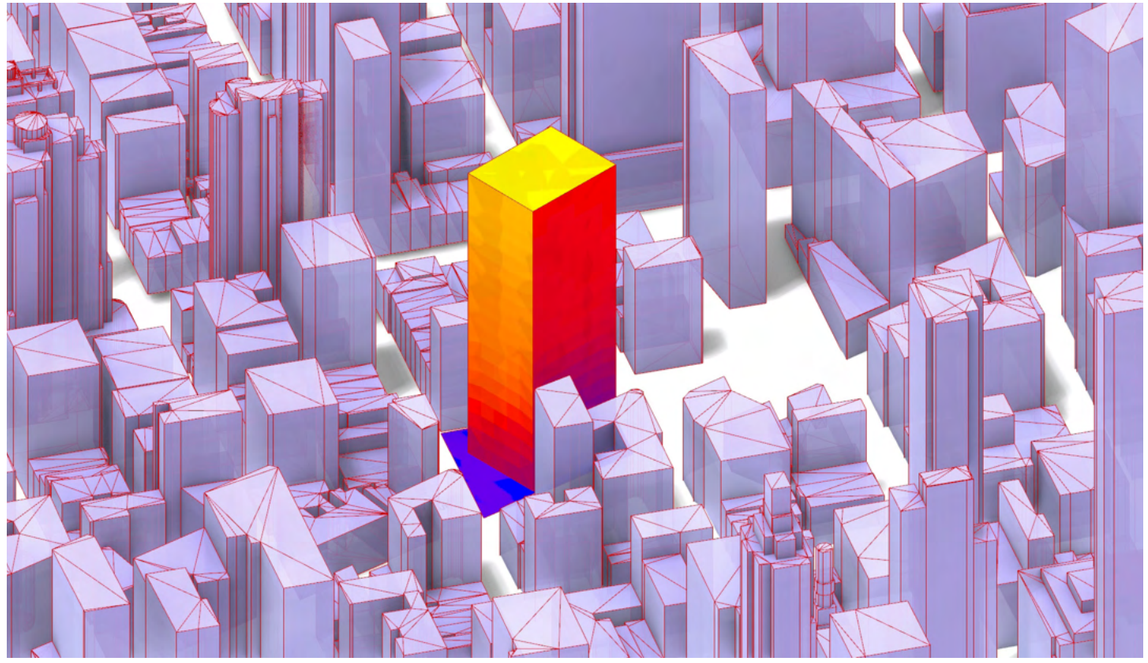
A4715-1 / Fall 2024
Critic - Joseph Brennan
Collaborators - Simar Kaur Kochhar, Shivani Golatkar, Harshil Shah, Shaoyu Lu

Mixed-used Tower NOMAD - Computational design from Rhino to Revit

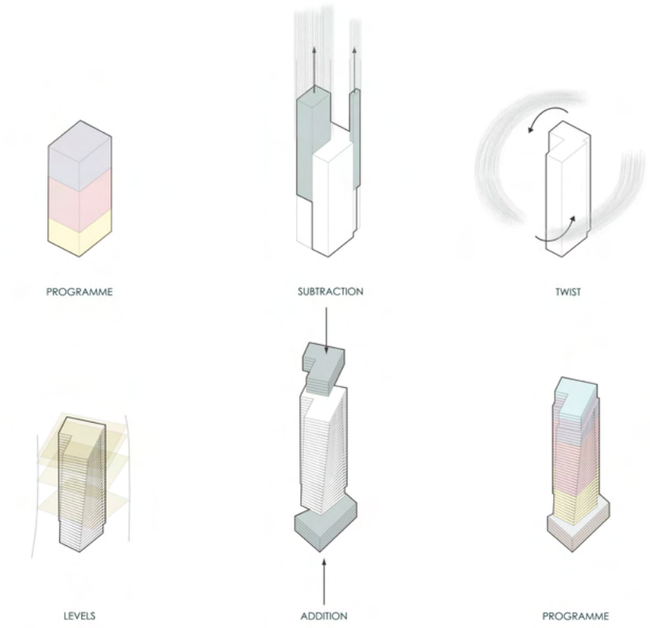


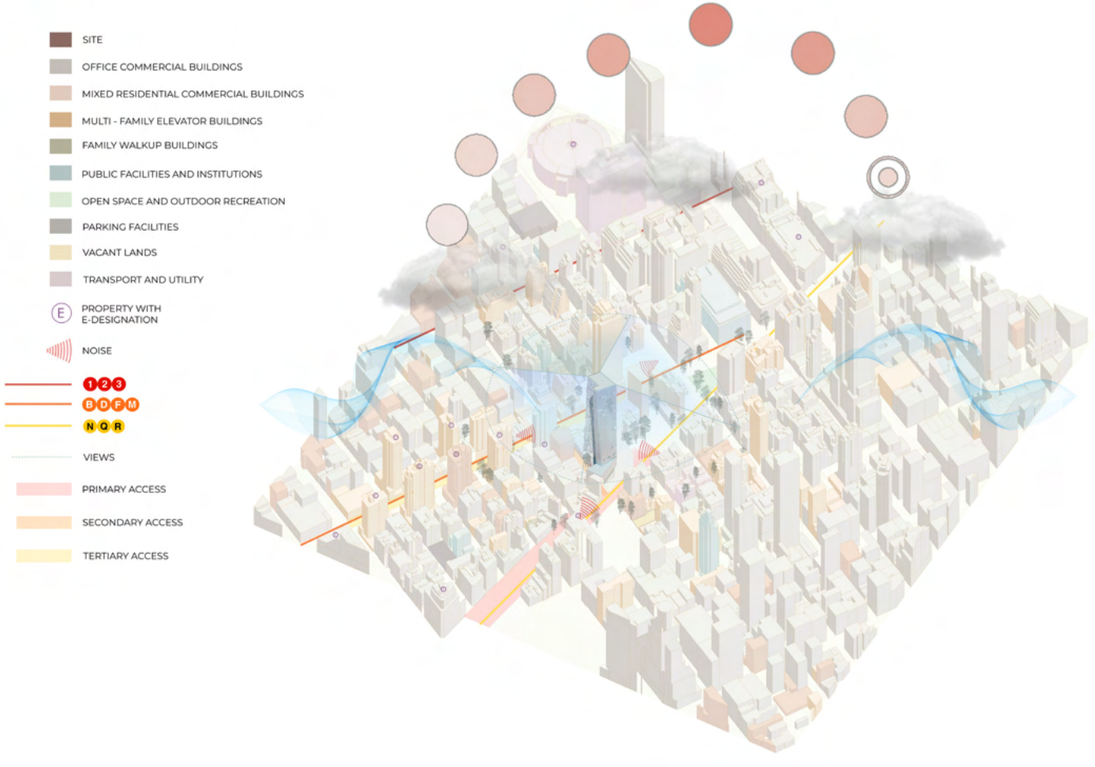
Workflow diagram

Rethinking Bim is an elective tought at GSAPP by Joseph Brennan(KPF). The elective explores the intersection of computational and parametic design with BIM. The project is a mixed used tower in NOMAD, NYC. The challenge was not to design the tower itself but to look at how we as architects can integrate BIM software such as Revit into our workflow with Rhino and Grasshopper.

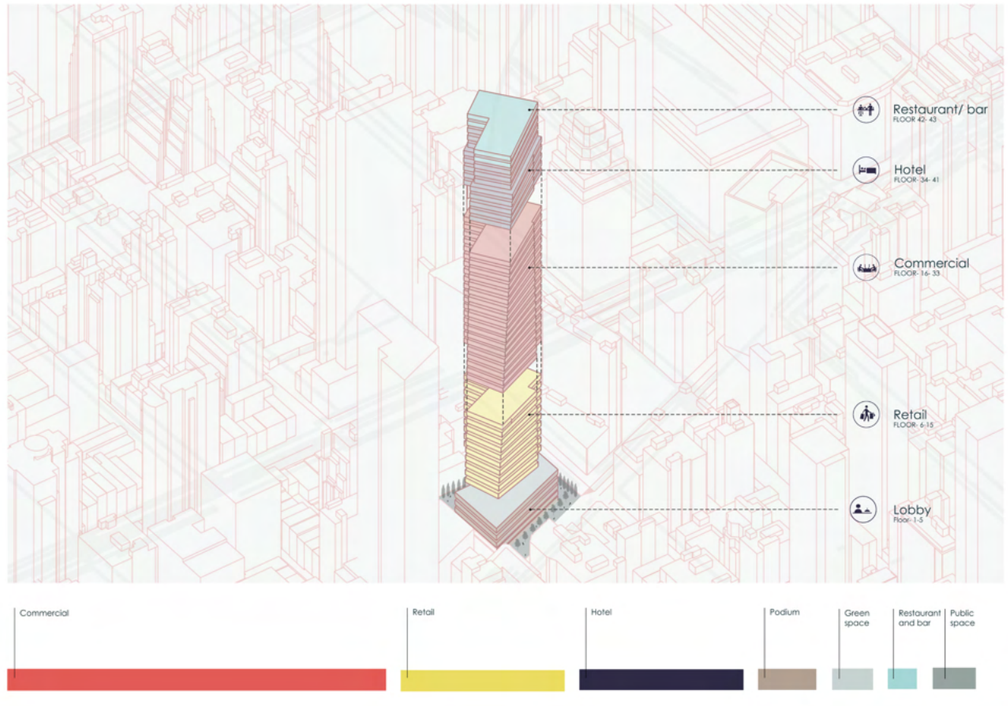


Radiation Analysis



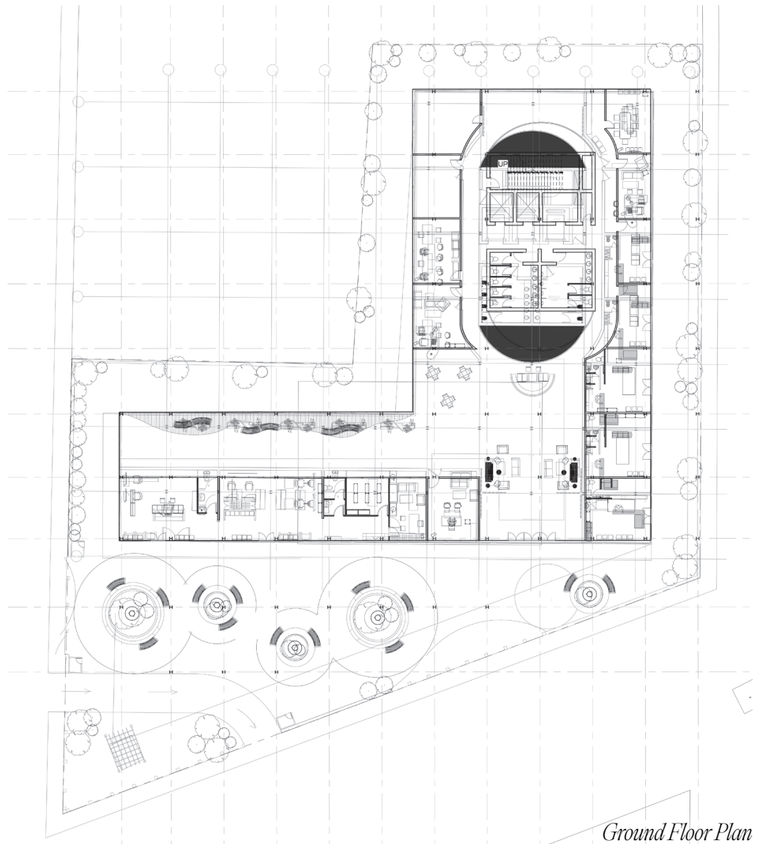


Site Analysis

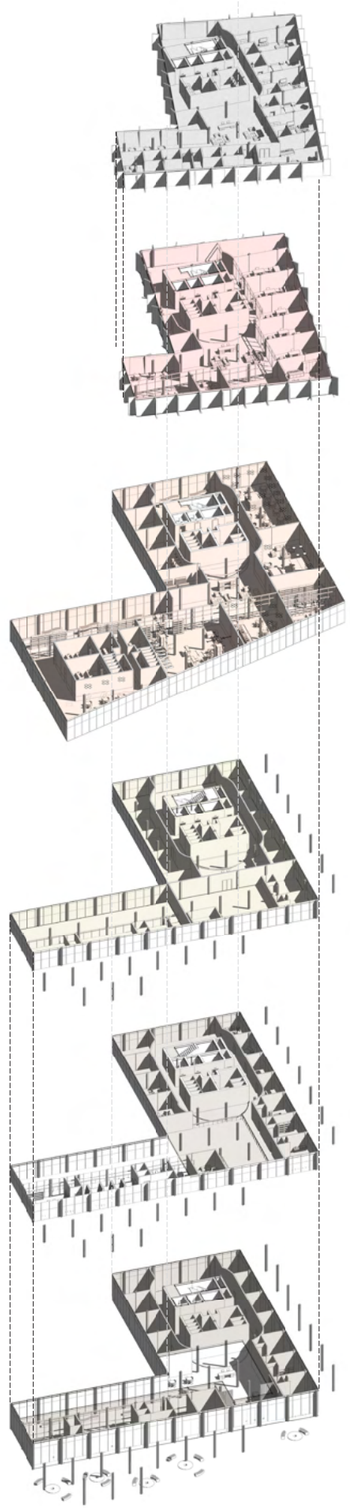


Program Breakdown

Site Plan



Ground Floor Plan



LEVEL 036

034 - 041

HOTEL

LEVEL 025

016- 033

COMMERCIAL

LEVEL 06

05- 07

RECREATIONAL AMENITIES

LEVEL 02

02- 04

SERVICES

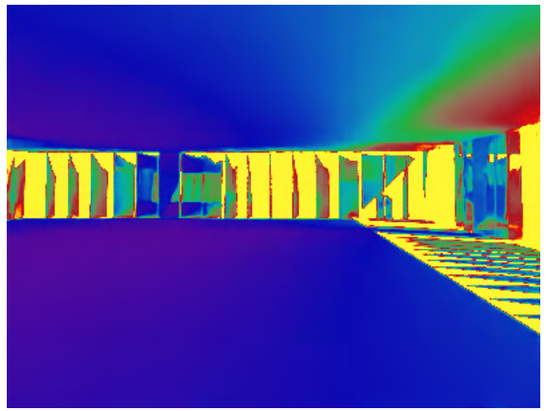
MEZZANINE

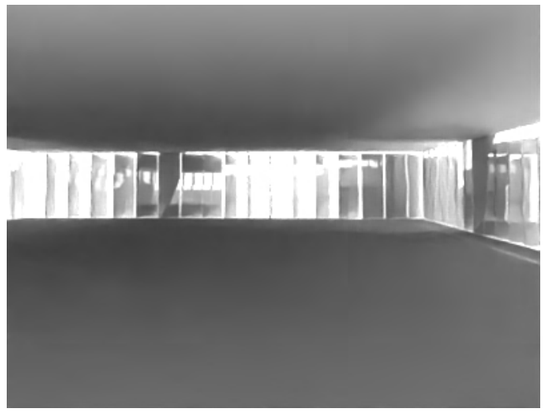
RETAIL

LEVEL 01

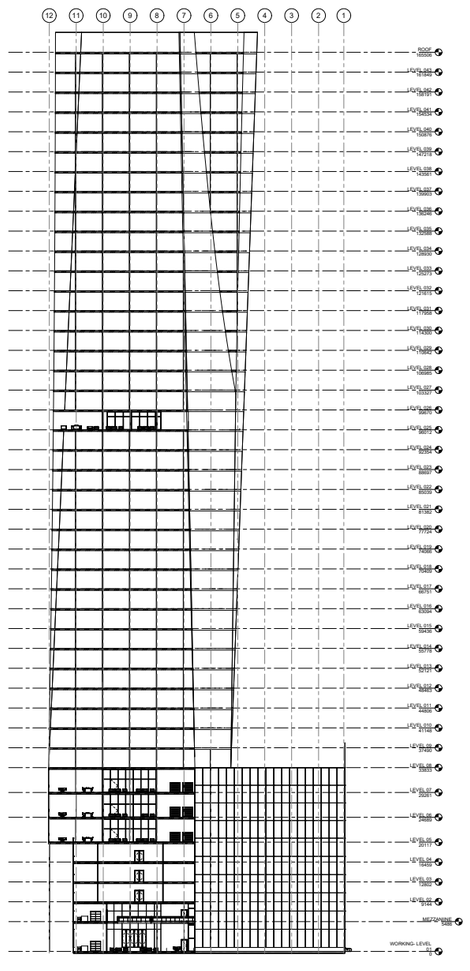
LOBBY AND RETAIL

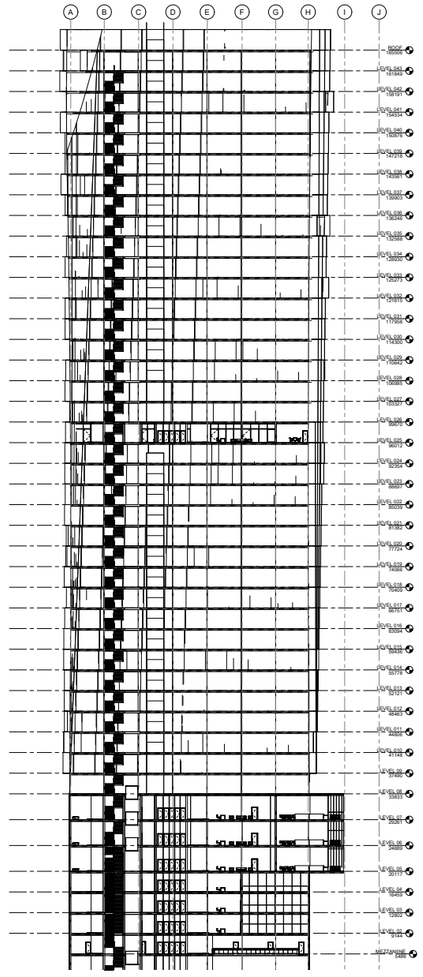
Exploded Axonometric



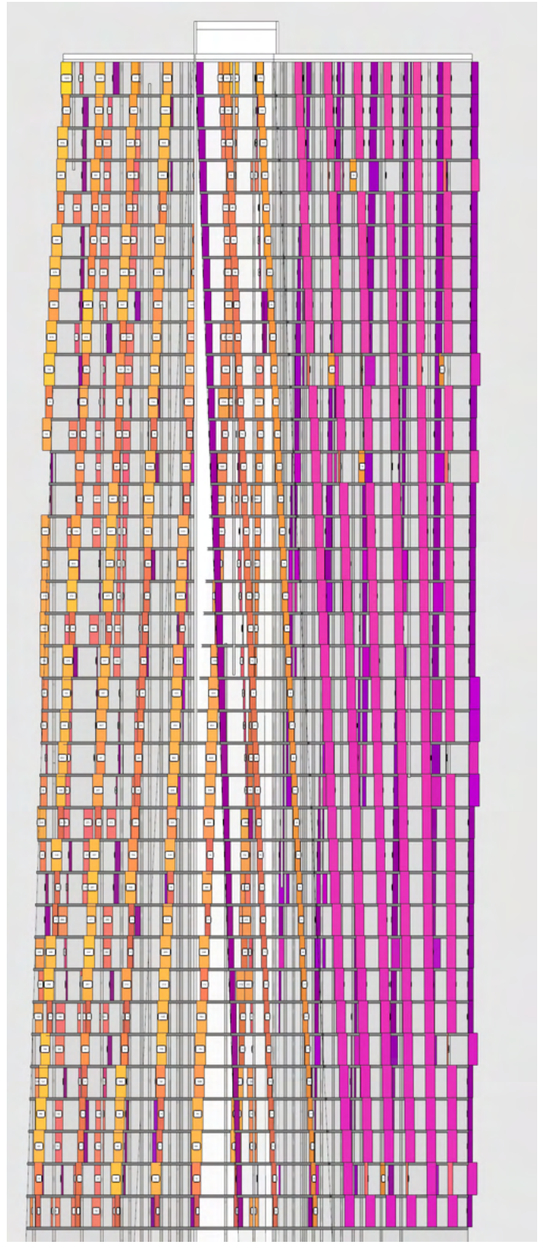


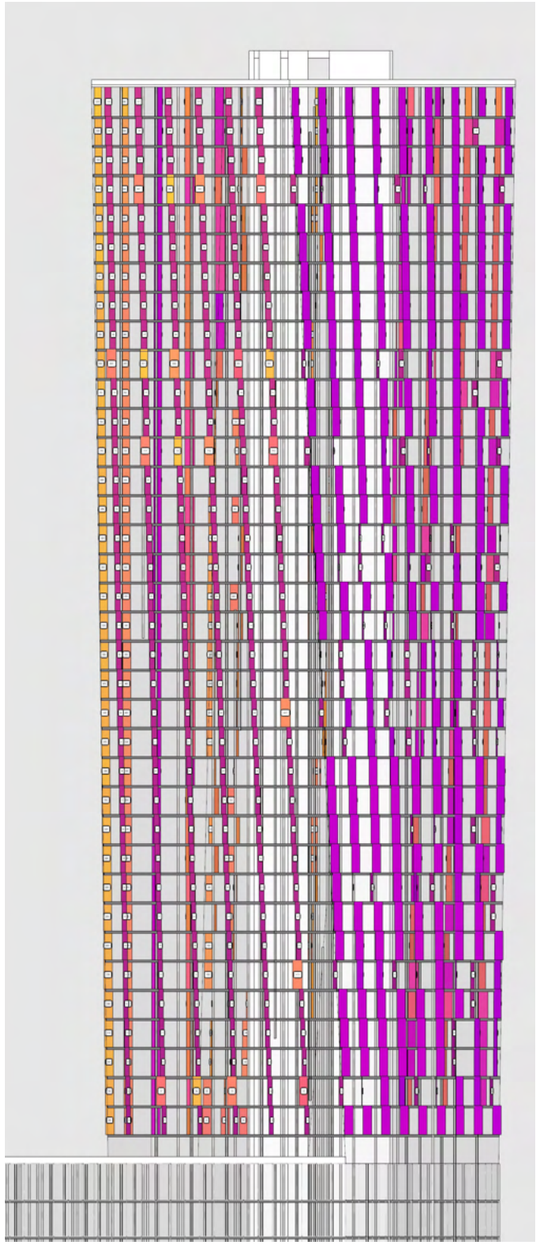
Facade Heat Gain Anlaysis Interior

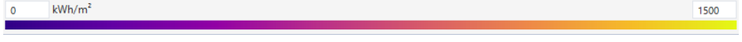




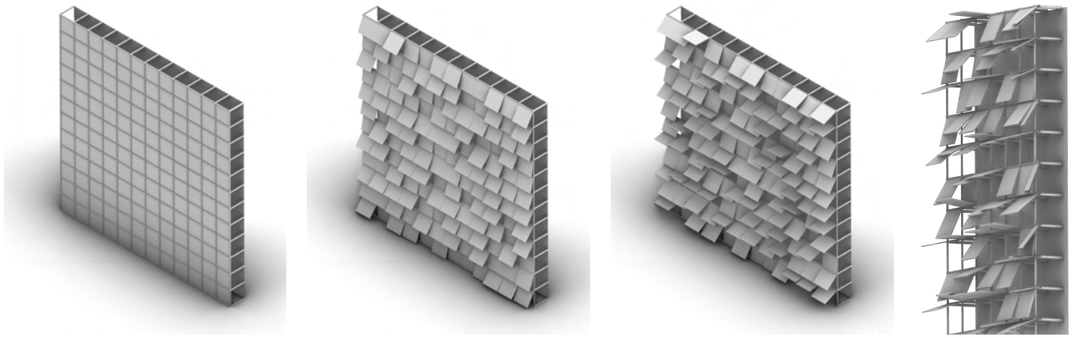
Sections



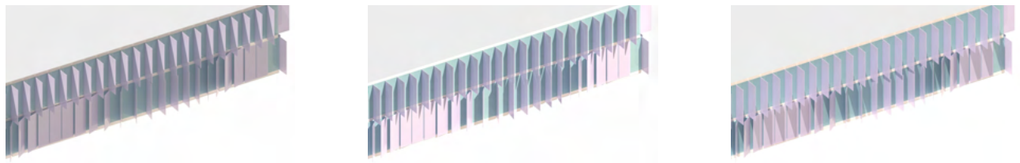




Facade Radiation Analysi

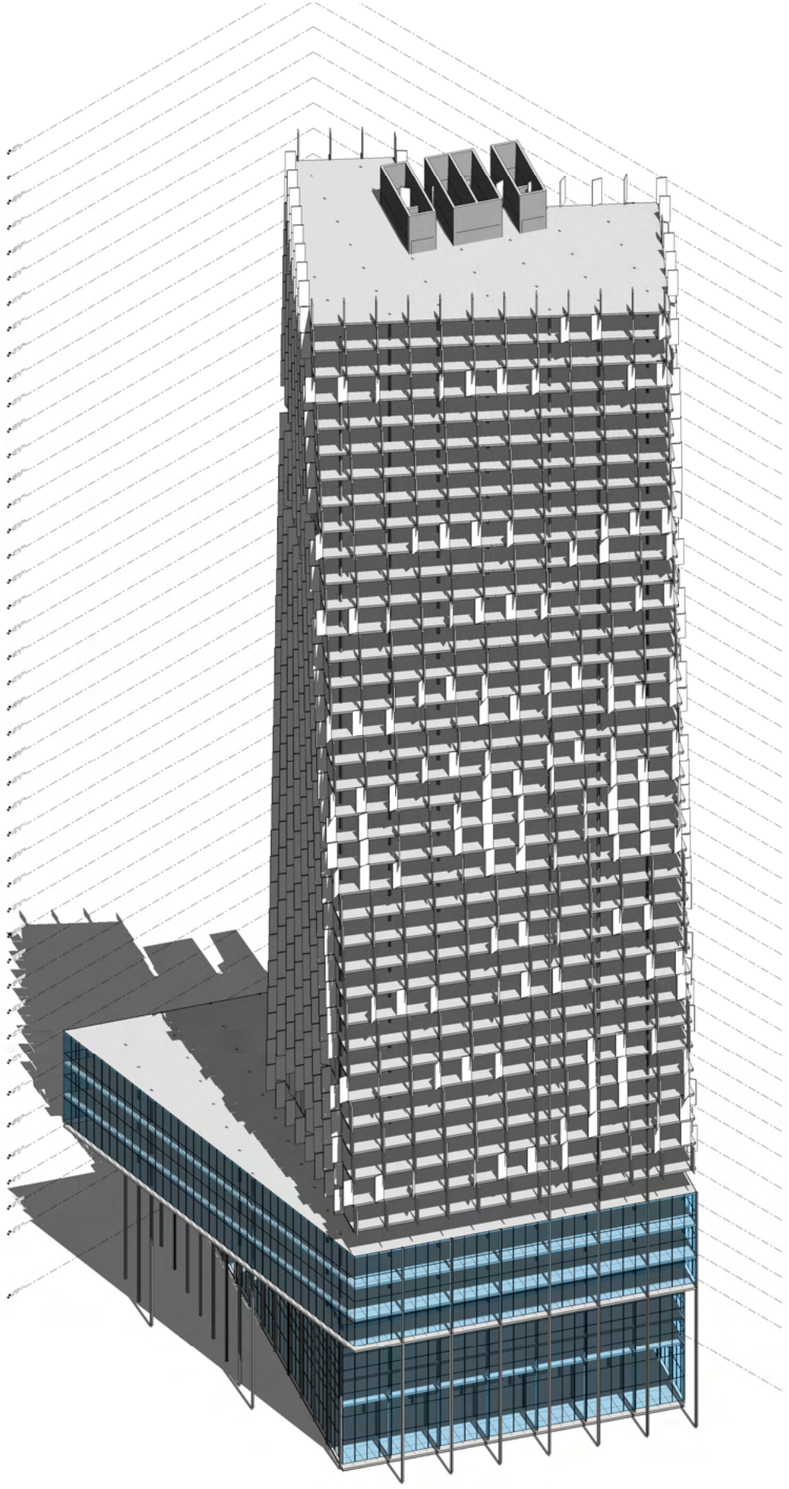


Facade Movement



Facade Shading Analysis

Interior Render



Axonometric

Collective Assemblies

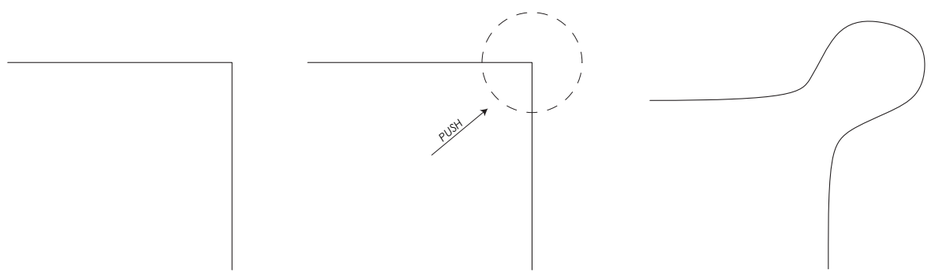
A6903-1 / Spring 2024
Critic - Danniely Staback Rodríguez
Collaborators - Jordan Mcnamara, Phoebe Lee, Zitao Yang

CMU Masonry + Wood Masonry

Material 1 - CMU Block

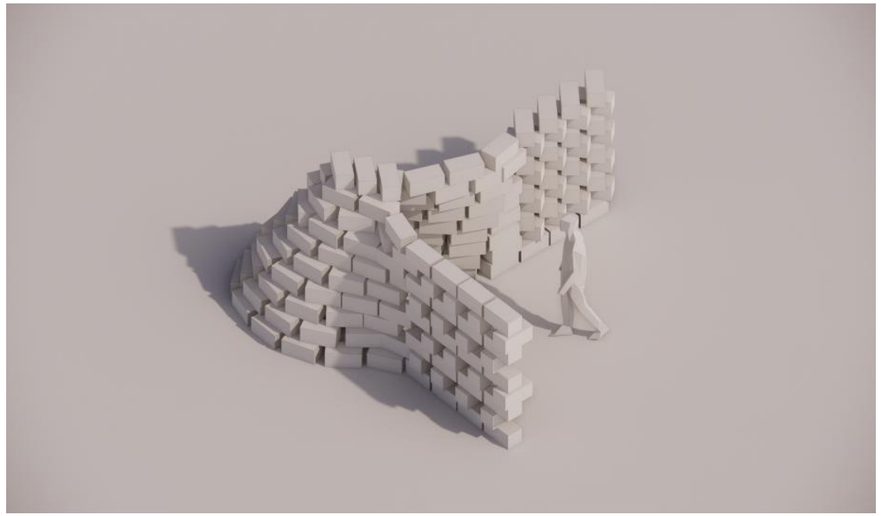
Material 2 - Wood

Combination of the two

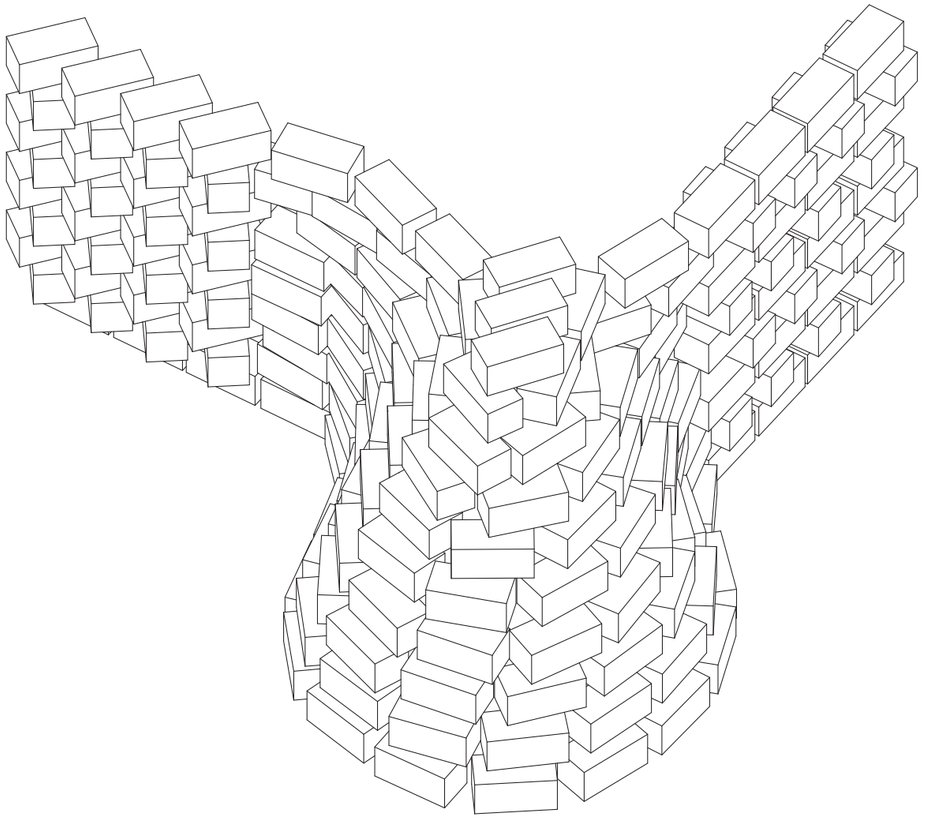


CMU concept

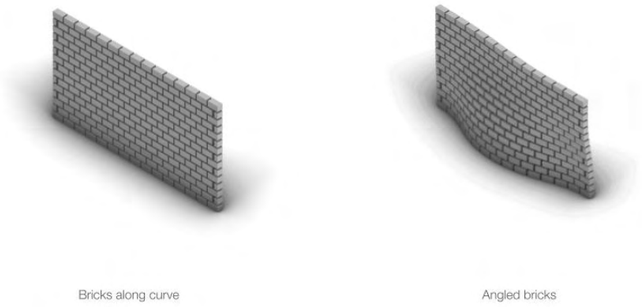
Physical Model



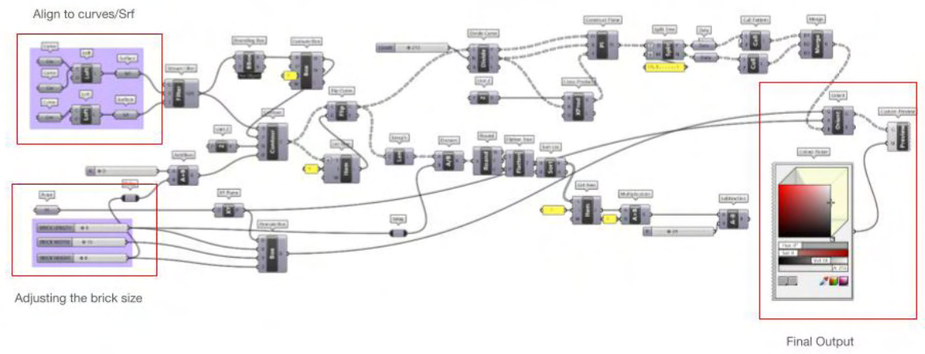
3d Ideation



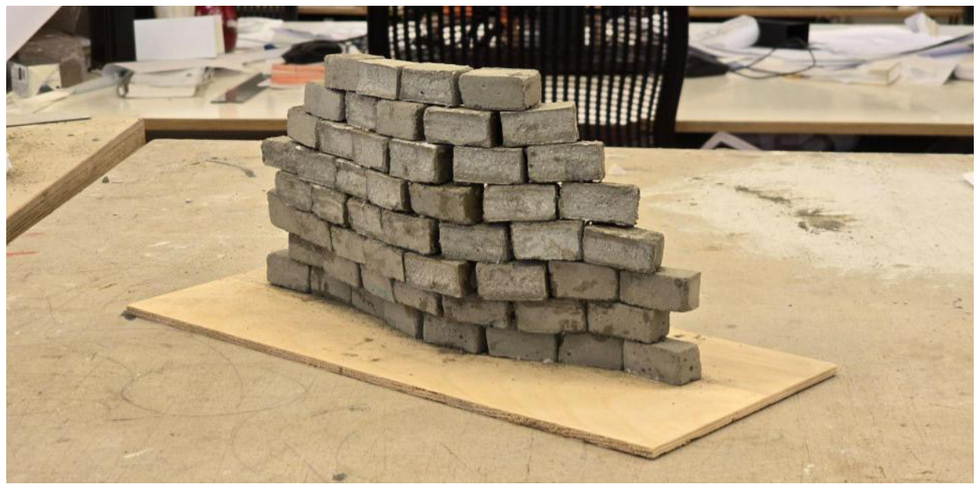
Diagram



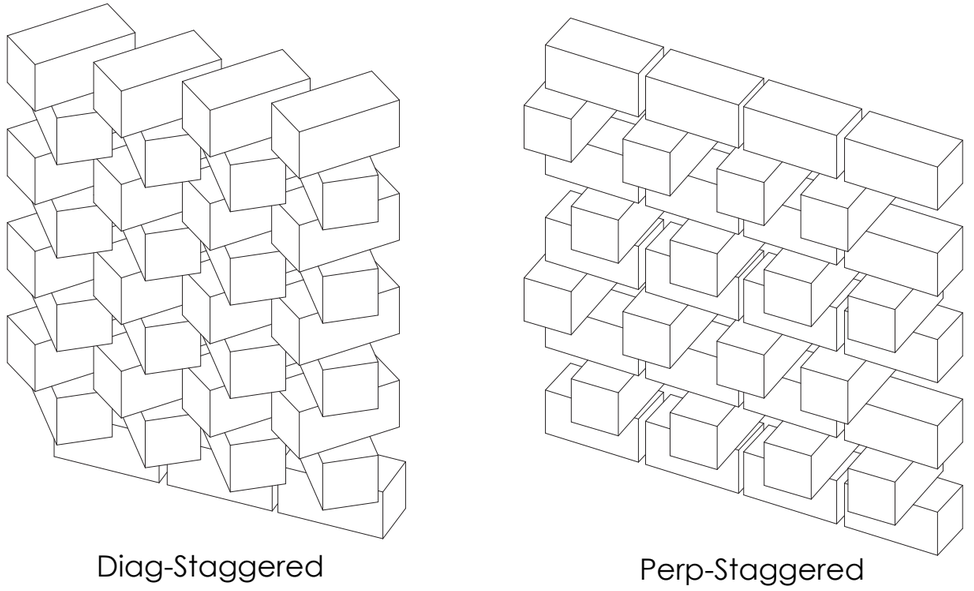
CMU concept



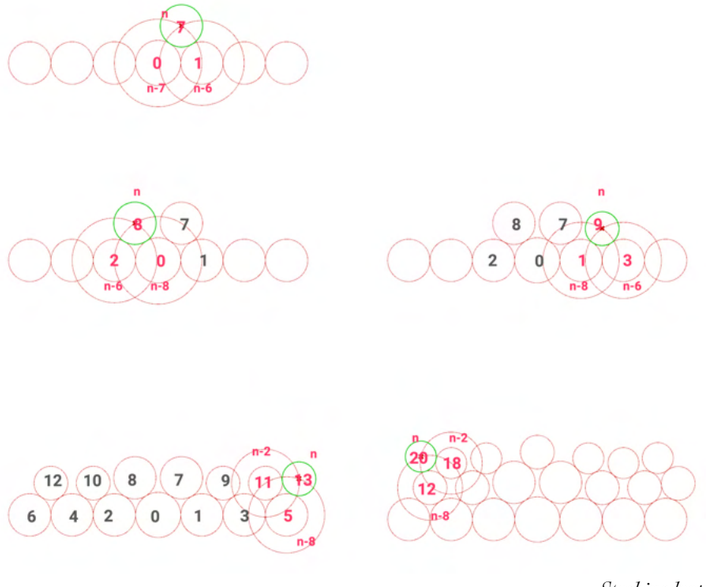
Computational Input



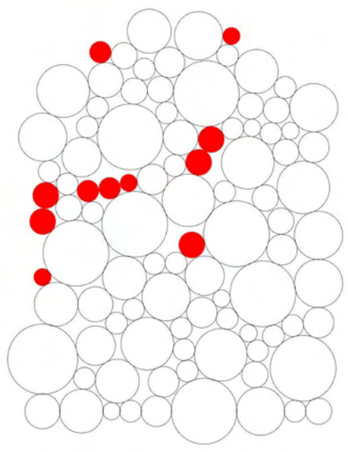
Physical Model



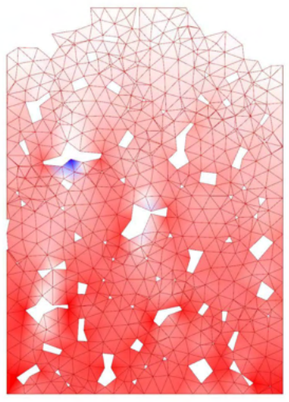
Diagram



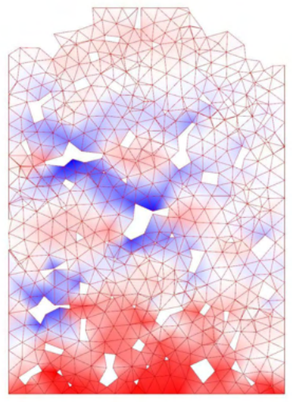
Stacking loop



Assembly example with removable logs

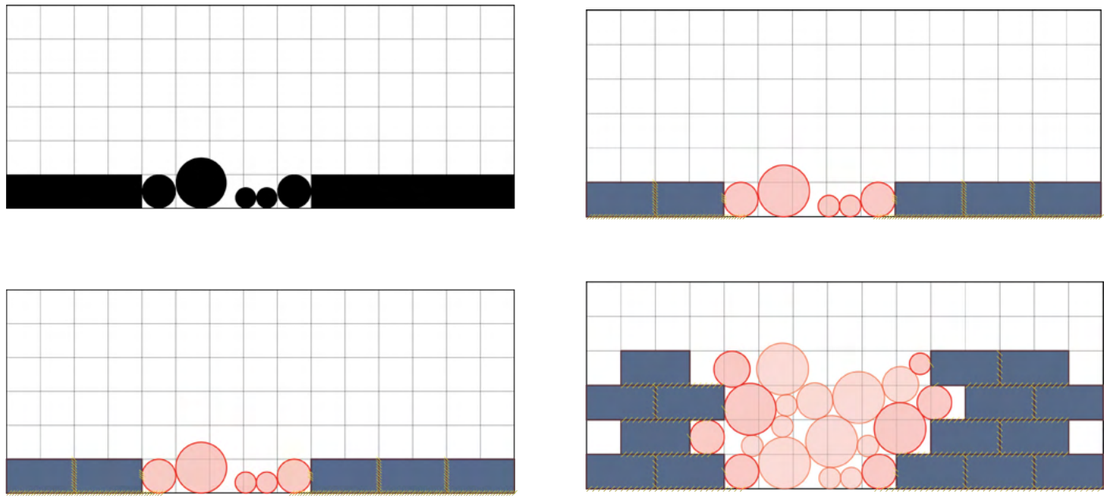


Utilization

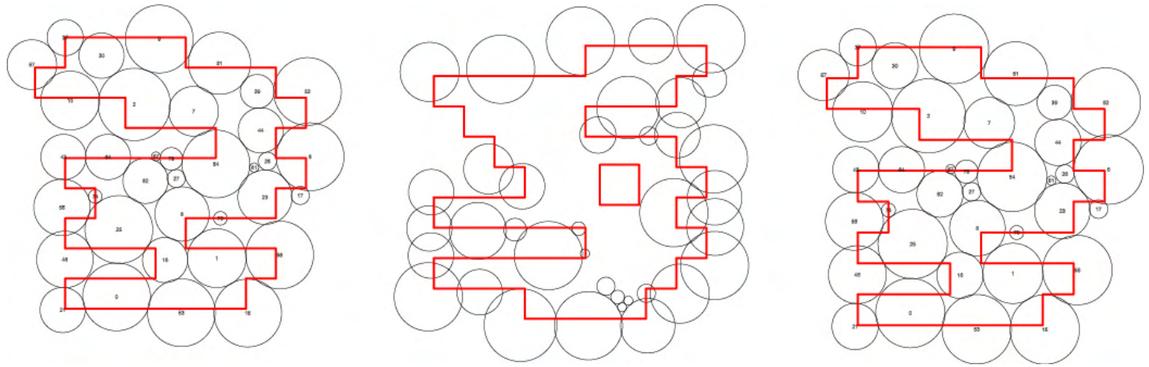


Principal Stress

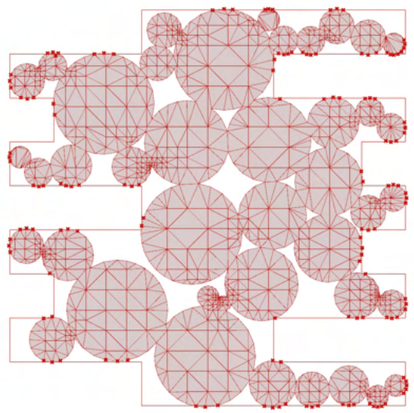
Construction Process



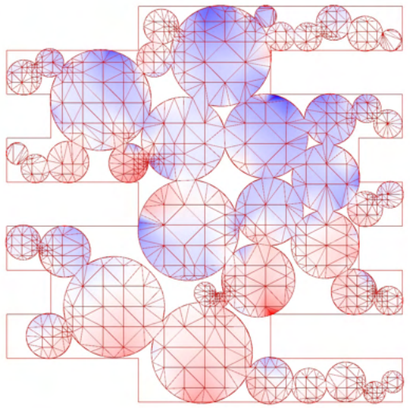
Various Iterations



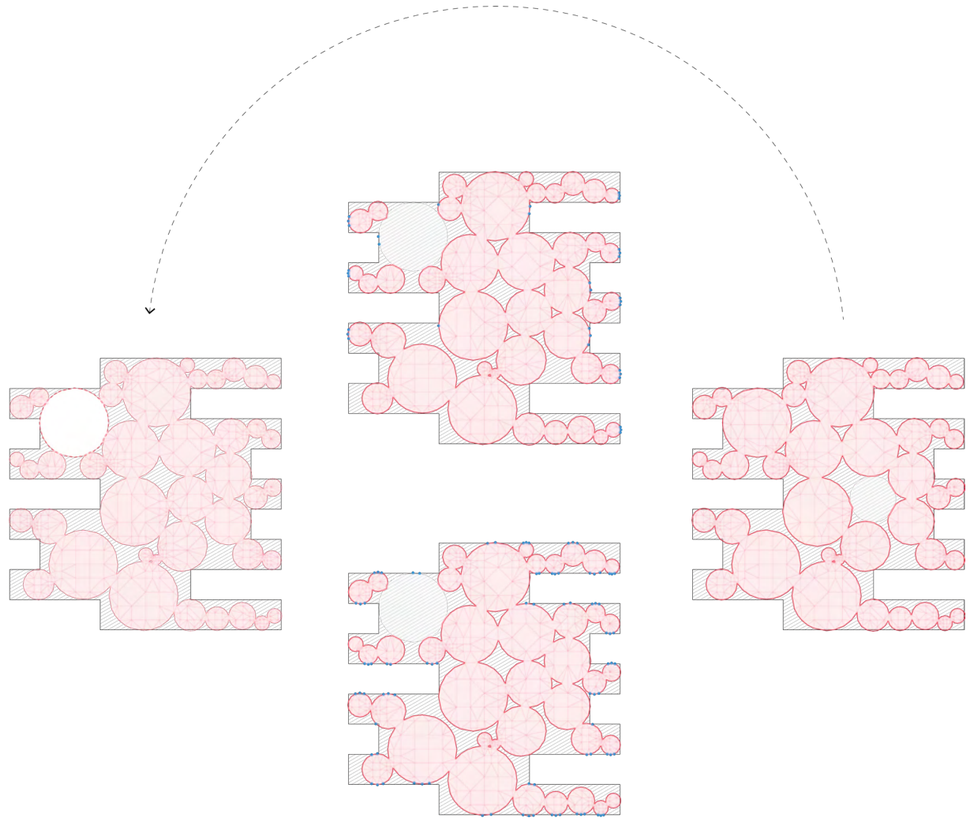
Final Iterations



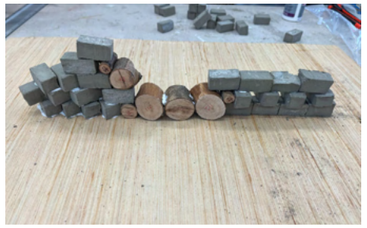
Support

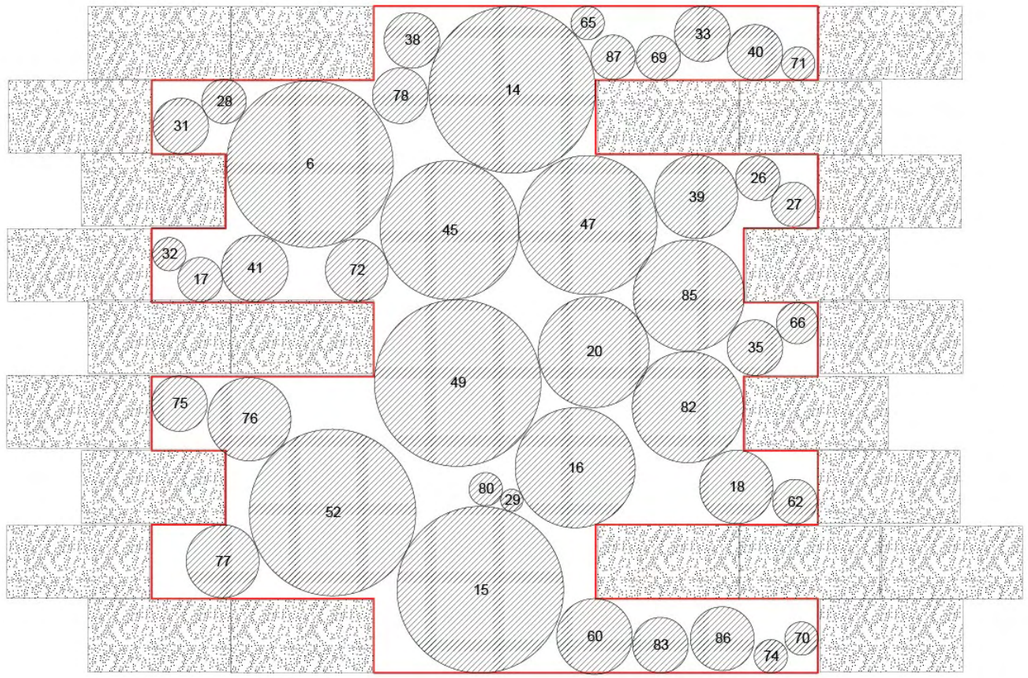


Utilization



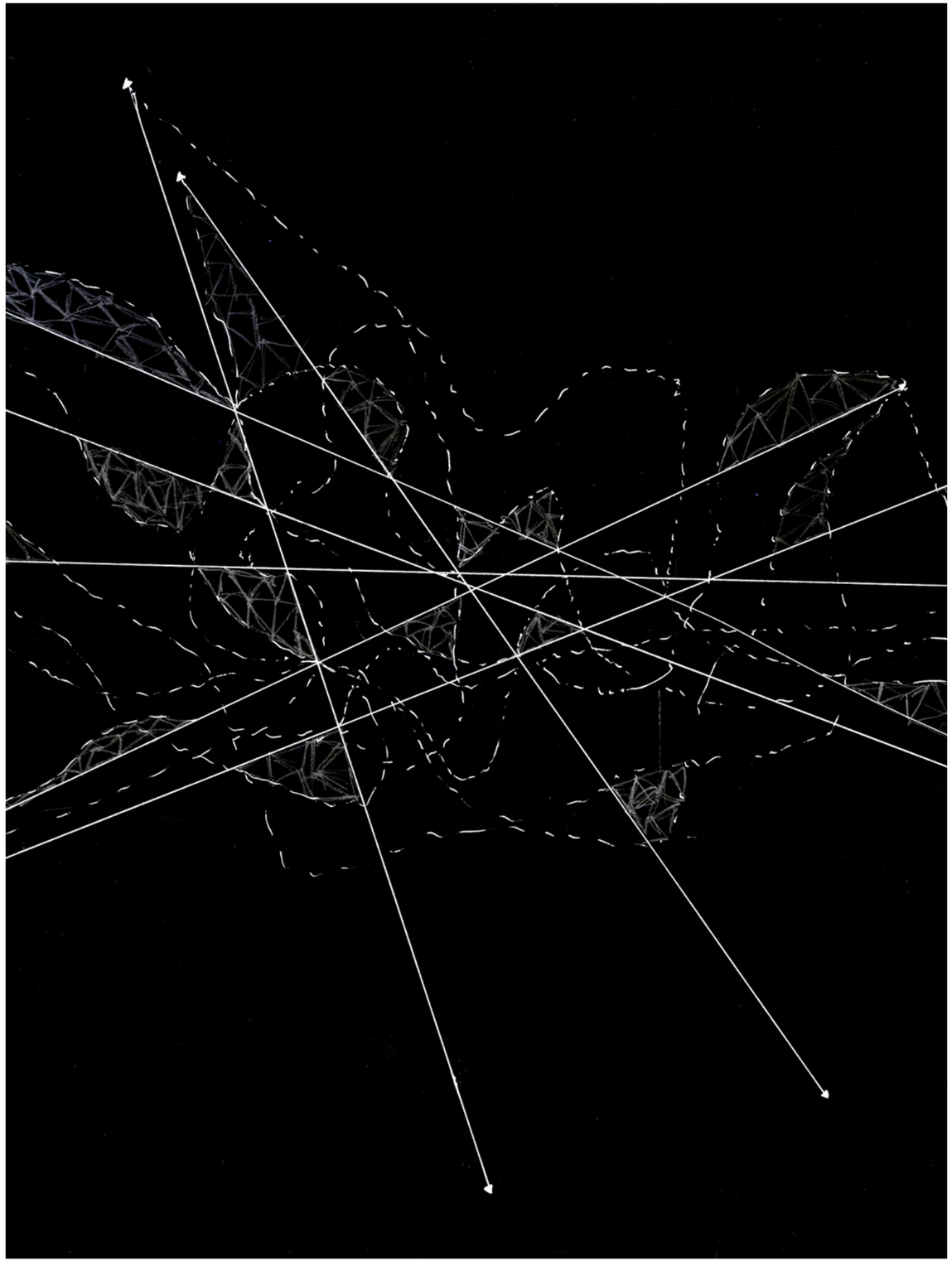
Jenga Removal of Wood





FINAL ITERATION

Physical Models



ACT III

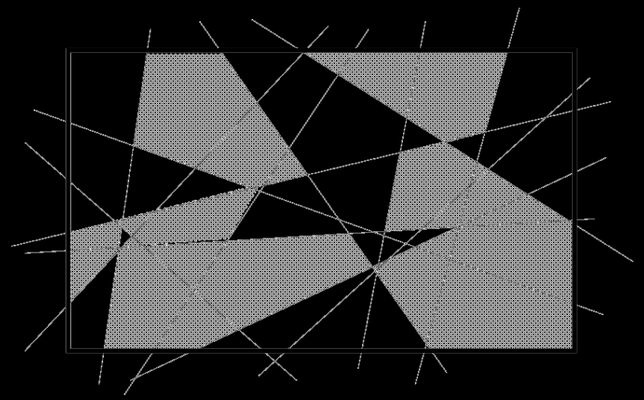
Spring 2024 Design Studio - Architectonics of Music
Critics - Steven Holl, Dimitra Tsachrelia
Collaborators - Jordan McNamara

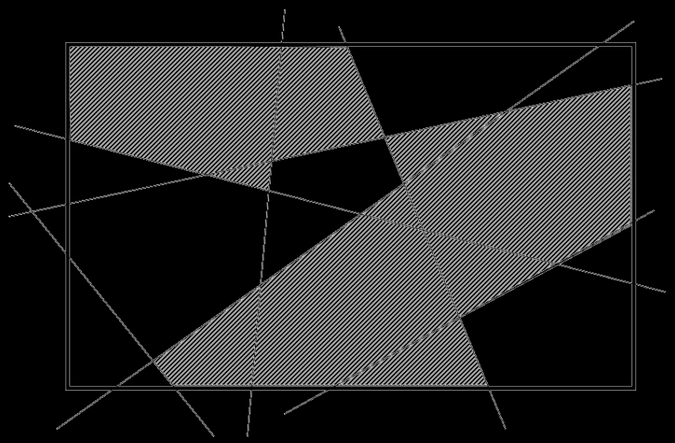
For my spring semester project, I am excited to delve into experiments in the language of architecture inspired by music. This studio will focus on the interplay of light, structure, scale, and ecology, with particular attention to the spatial energy of daylight and its fusion with human scale. Working in teams of two, we will select a fragment of music by composers such as Olivier Messiaen, John Luther Adams, Tomás Marco, and Kaija Saariaho to serve as the foundation for our design explorations.

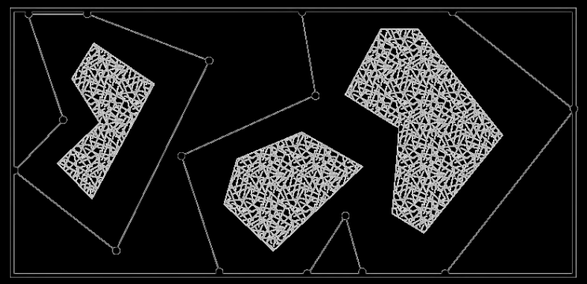
One of the key projects within this semester is the design of a non-denominational chapel for chamber music, seating 250 people with exceptional acoustics, to be located in Granada. This project is deeply inspired by Messiaen's connection to Utah's Bryce Canyon and birdsong, drawing attention to ecological themes. We will also explore the works of these composers and environmental scientist E.O. Wilson, particularly his concept of dedicating half of the planet's surface to nature for biodiversity preservation.

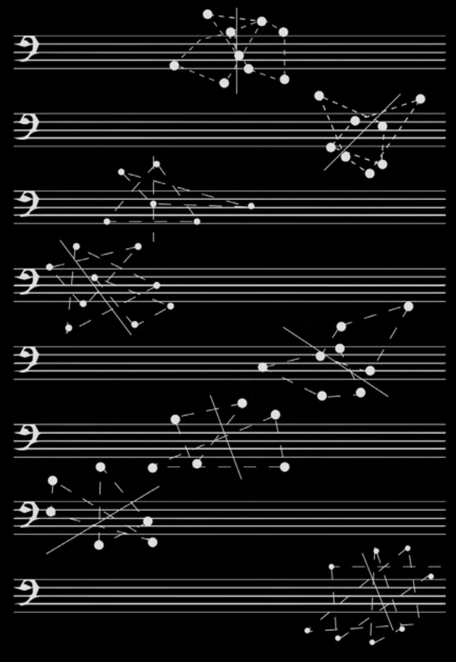
I am particularly looking forward to our Kinne Trip to Granada, Spain, where we will immerse ourselves in the city's cultural and architectural richness, guided by local expert Alejandro Muñoz Miranda. This project promises to be a holistic exploration of the intersection of music, painting, sculpture, and architecture, fostering a deep understanding of how these disciplines can inform and enrich each other.

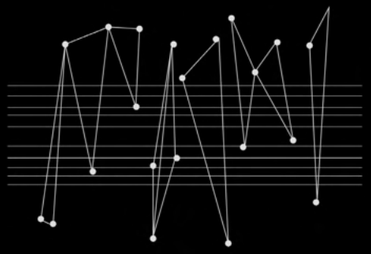
QR for Final Video



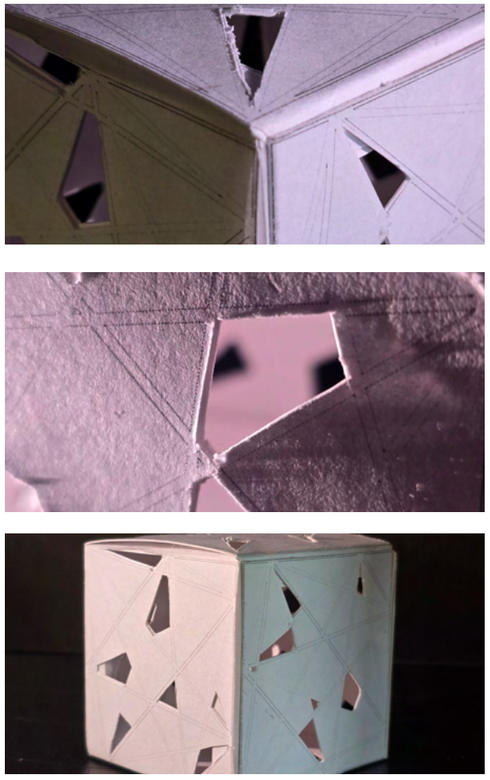


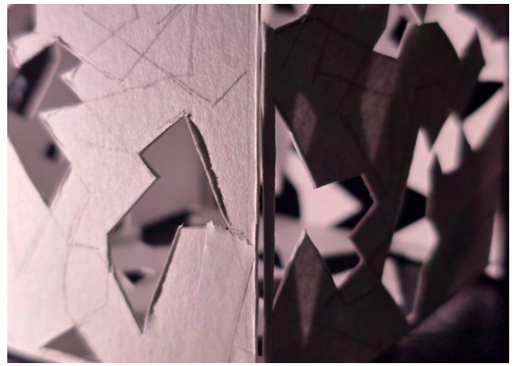






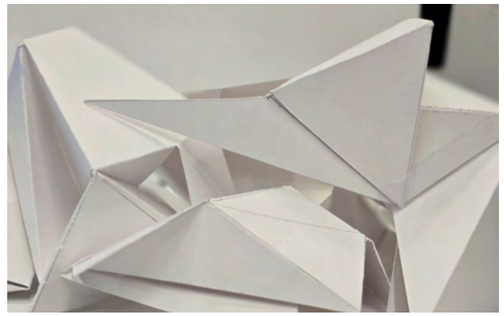
Kaija Saariaho's two musical compositions, "Petals" & "Sept Papillons", written for Cello and electronics, inform the language of our design. Our project attempts to translate emotions, feelings, sound, and music into architectural space and volume. Both songs respectively have their distinct attitudes and atmospheres. Petals: sounding sharp, ominous, reverberated (as through the electronic modulation), and has high highs and low lows. Sept Papillons: has indicative movement, floating sound, and a more rejuvenated feel in comparison.

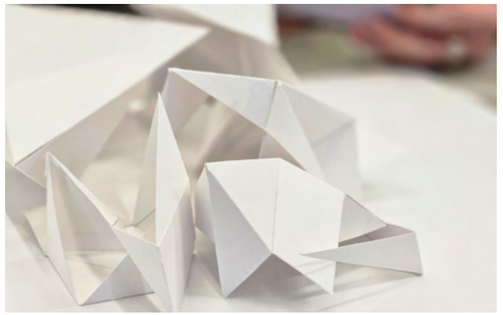


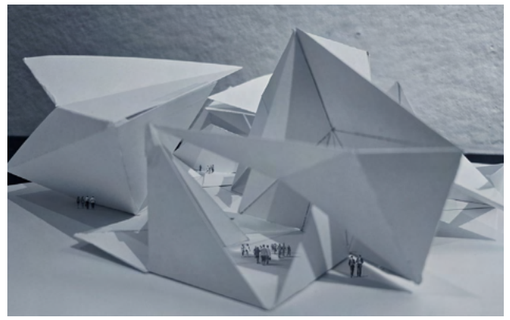


Early Study Models

Using both songs, our project has devised a set of keywords that we have used to fuel our design language and analysis of the compositions: sharpness, vectors, movement, vibration, spectral, and entropy. These keywords have allowed us to derive the language seen in our early study models, all the way to our midterm model. Using entropy for the apertures in the faces of our models has allowed for the “spectralness” of light and shadow interplay. Movement is indicative of both the highs and lows (in section), derived from Petals, as well as the planar movement through the cocooned interior spaces, of Sept Papillons.

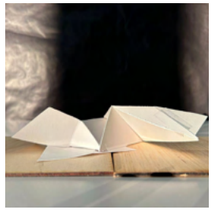




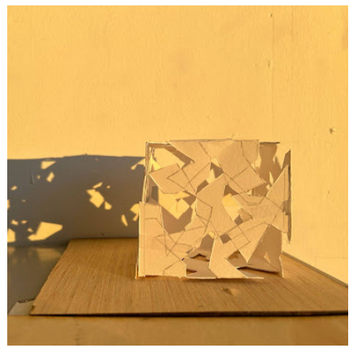


Early Study Models

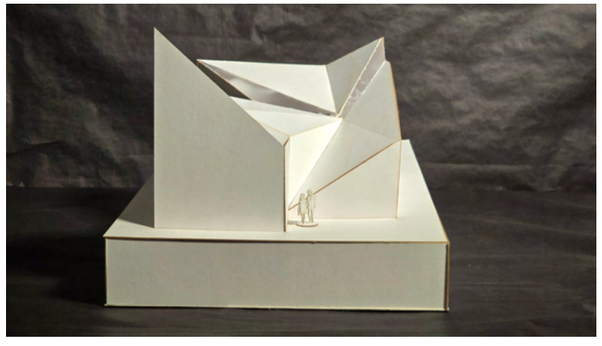
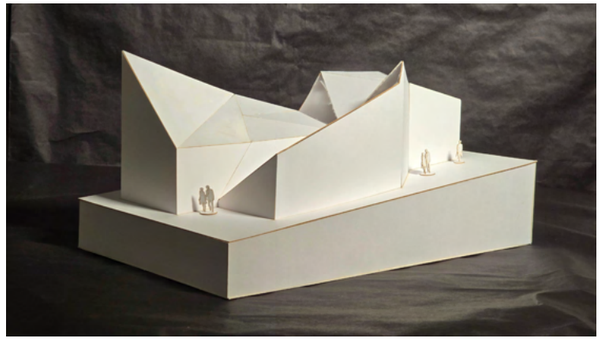
Saariaho’s description of the song states “From the metaphors of the opera which all have an eternal quality - love, yearning, and death she moved now to a metaphor of the ephemeral butterfly. An ephemeral movement that has no beginning nor end.” This never-ending motion of the butterfly inspires dynamic movement within the spaces. The sun creates shadow and light that transforms the interior to show the range of the butterfly’s nuances.



Initial Studies - Triangles - Volume

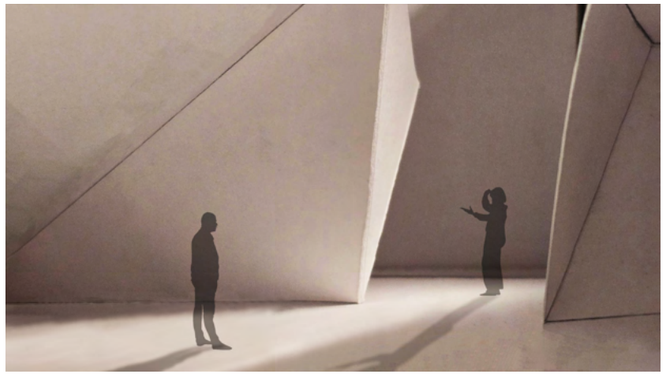


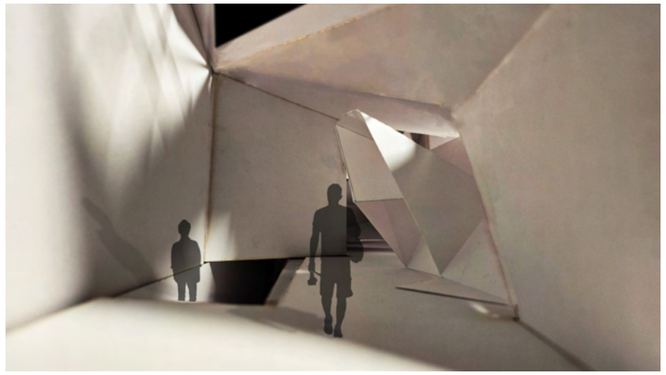
Initial Studies - Boxes - Apertures

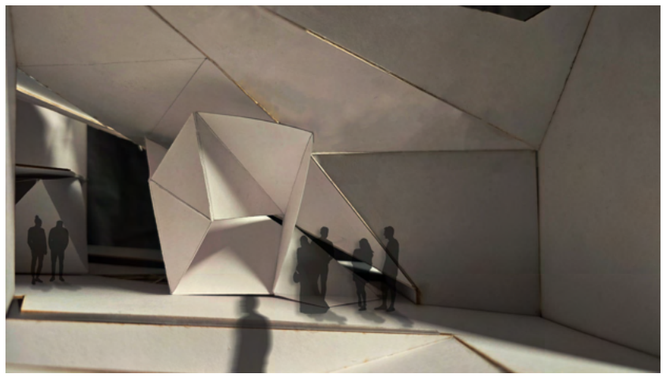



Mid Term Model

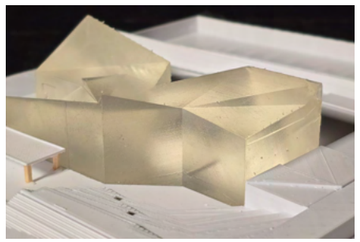
Our project has culminated in a form that has been informed by the interior spaces. Similar to a vacuum mold, we designed our spaces from the inside out and then wrapped our exterior around the interior volume. The design integrates the exterior envelope seamlessly with the interior, creating a relationship between the two. The outer shell, housing the internal spaces, serves as a poignant metaphor for the transformative journey of a butterfly and its cocoon. Much like the mystery shrouding a butterfly's metamorphosis within its cocoon, the exterior conceals the essence of the interior - its memories, characteristics, and movements. However, upon entering, one is greeted by a liberated space where the butterflies, representing life and vitality, dance freely, visible to all who behold.

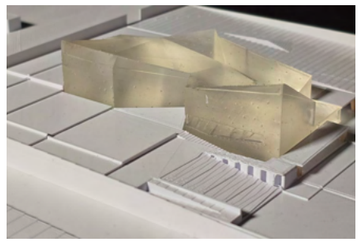


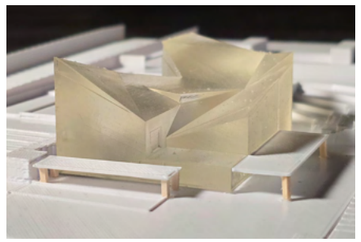


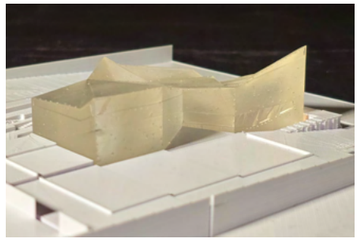


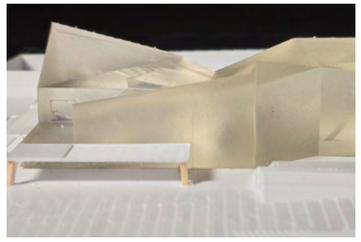
As we move forward, we plan to use the exterior edges, vertices, and faces, and pull them inwards into the interior. This will then create and diverge walls, and spaces, and create slits and openings for light, as opposed to our current "random" hand-made folded models that have been inserted into the shell to resemble the potential. We hope to replicate the feeling the music provides. The sense of calm and alarm within our architecture.

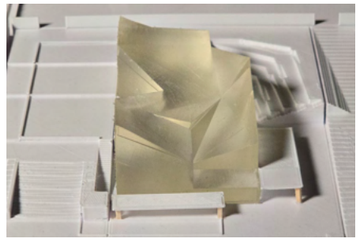


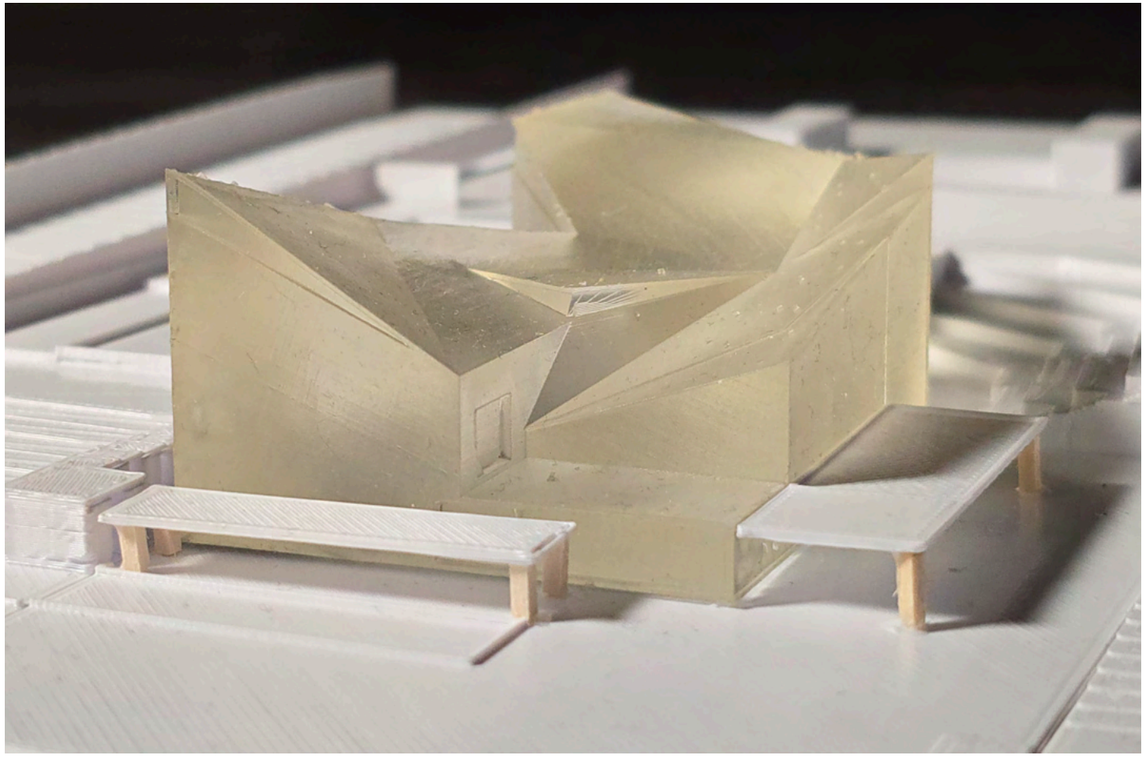




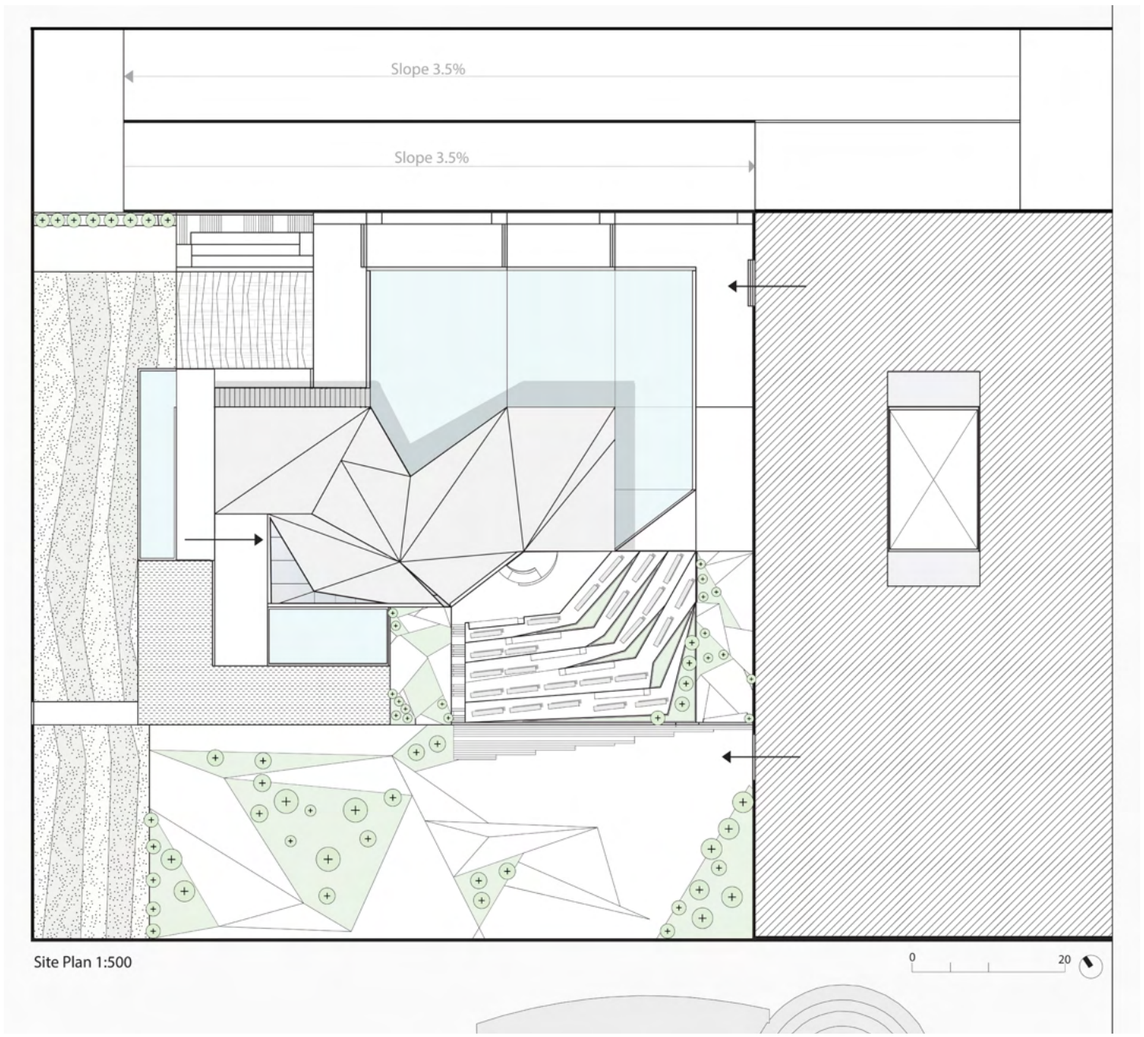




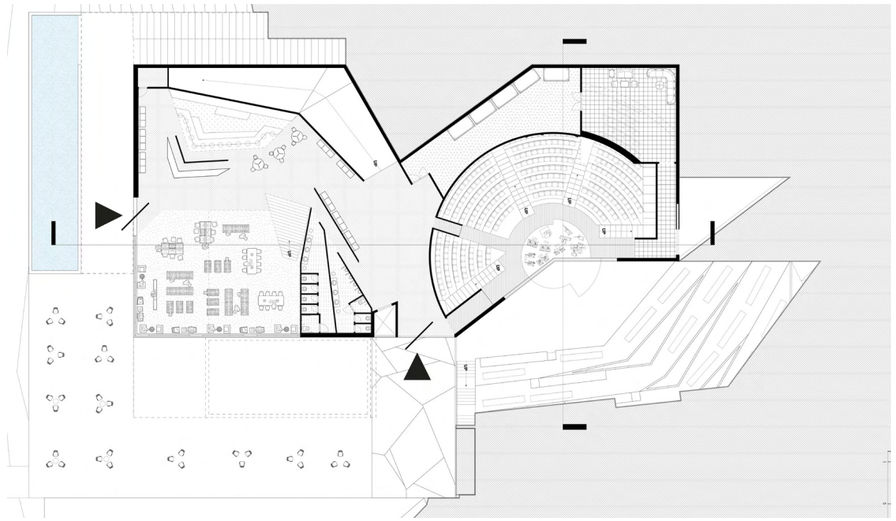




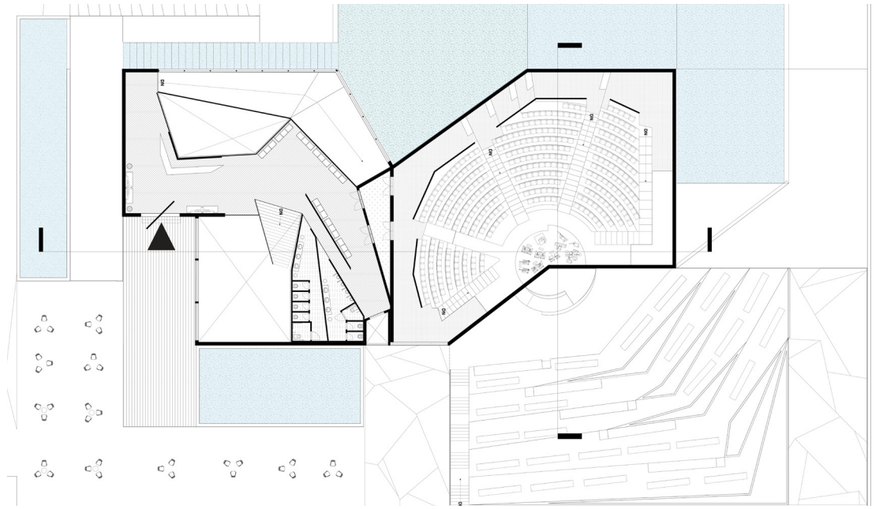
Site Model 1:500



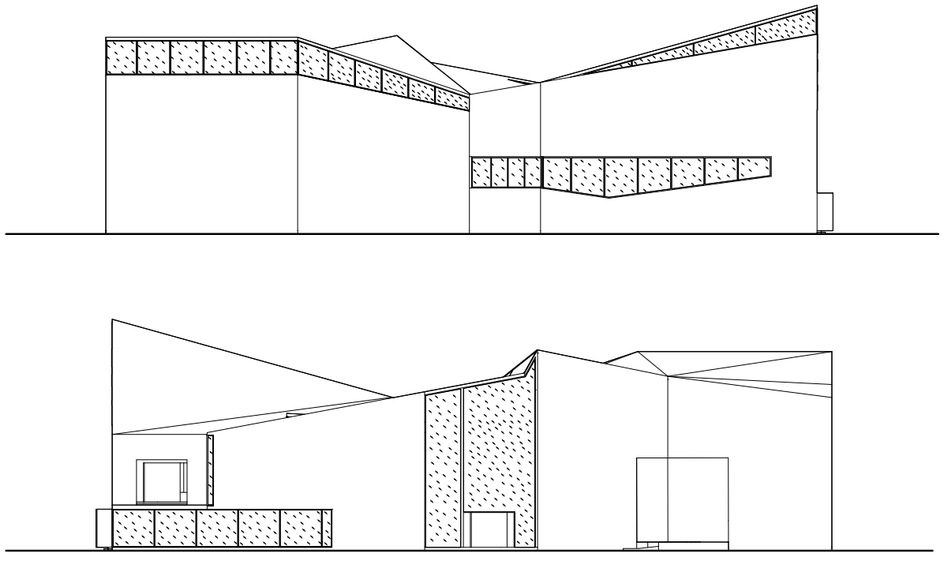
Kaija Saariaho's "Sept Papillons" (7 Butterflies) for cello served as our inspiration. Saariaho's unique use of electronic modulation, sharp, entropic, & sporadic notes, as well as reverberation in her music fueled our formal design language. Much like a butterfly unfurling from its chrysalis, our aspiration was for the theater to extend outward, facilitating open-air showcases. The site becomes a canvas for this movement, a sharp vector-like flow that spreads its wings. This creates a spectral dance, evoking the sensation of visitors and music enthusiasts gracefully navigating like butterflies amid the foliage.

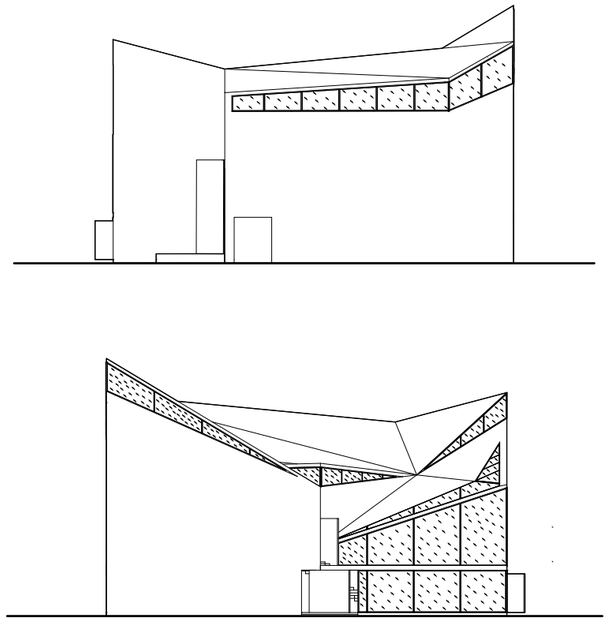


Floor Plan - 01

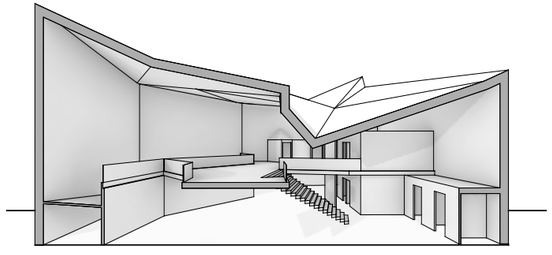


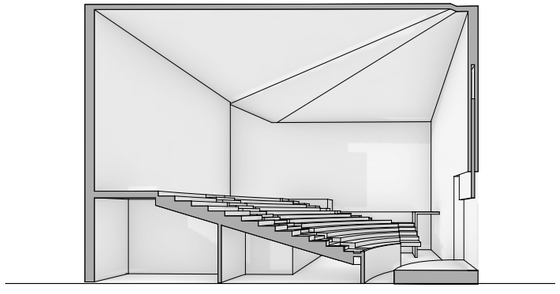
Floor Plan - 02

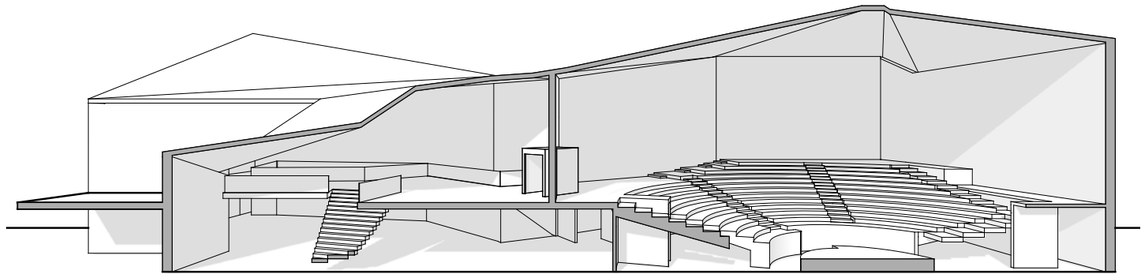




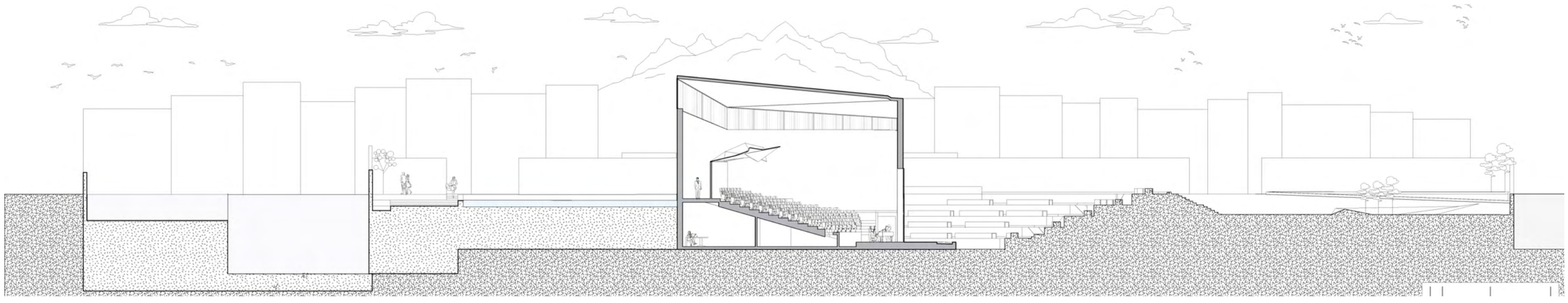
Elevations



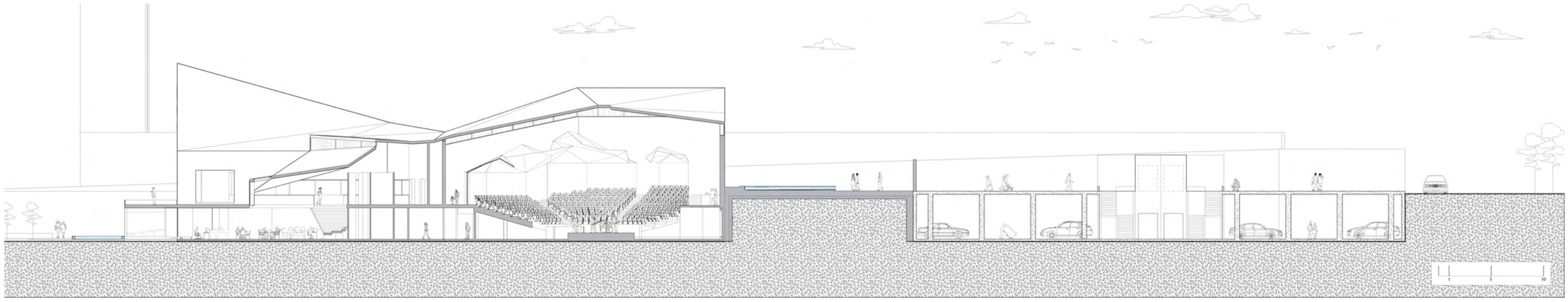




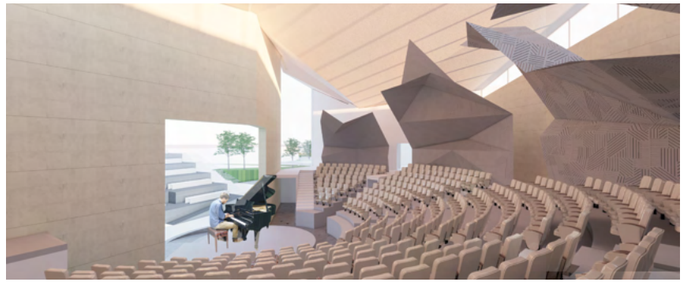
Perspective Sections



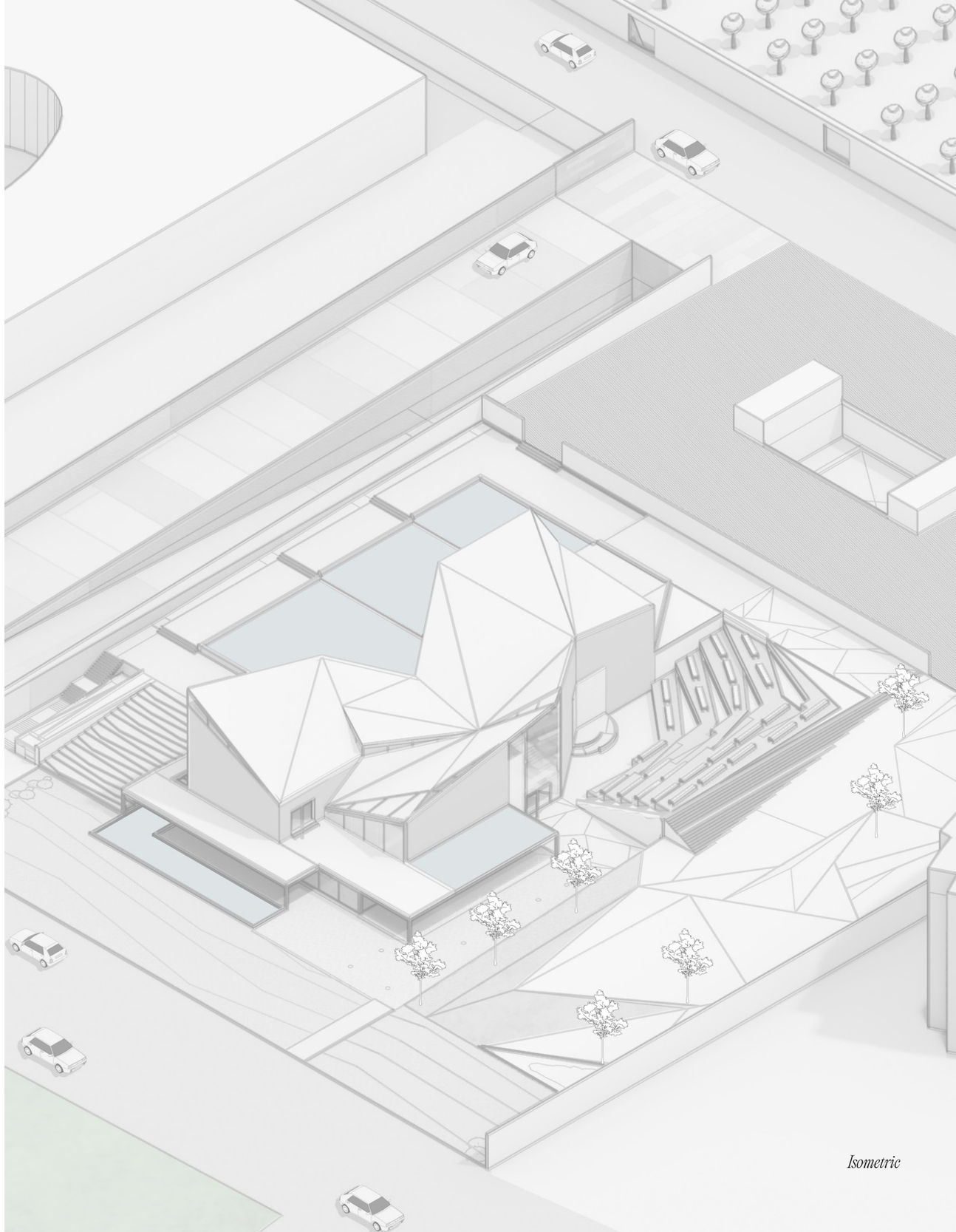
Site Section 01



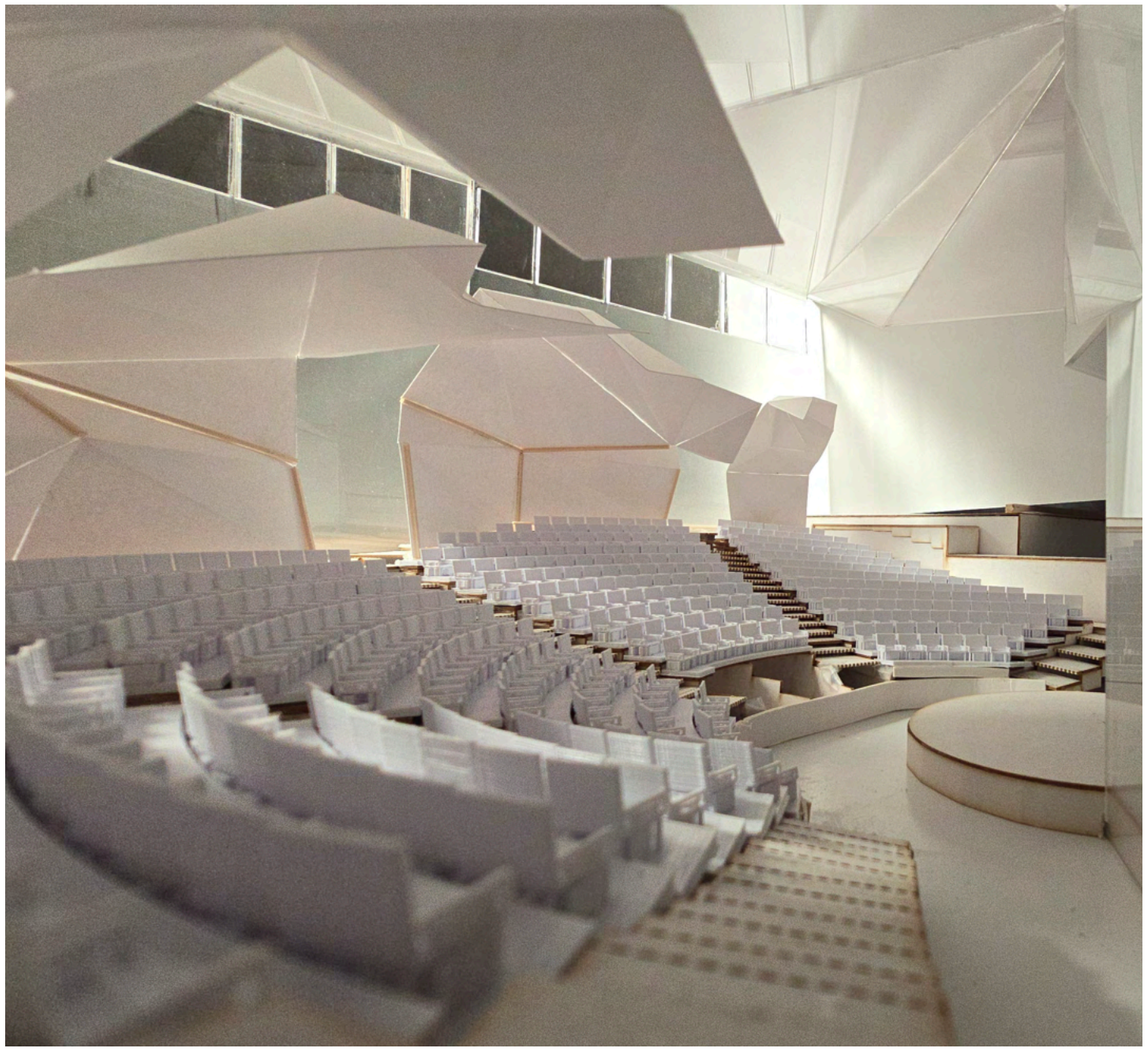
Site Section 02



Renedered Views

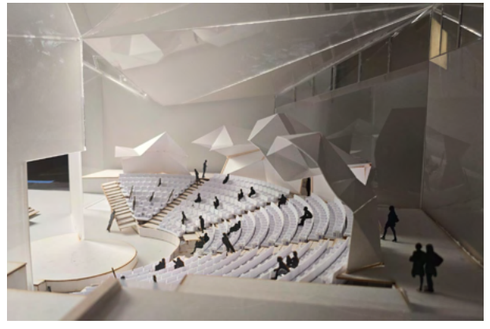


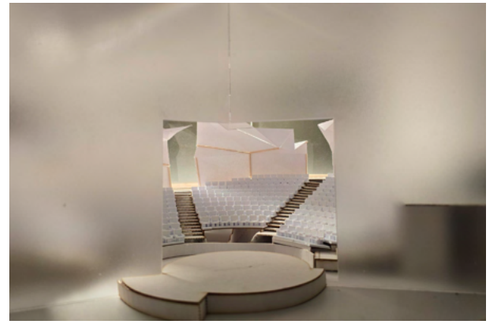
Isometric

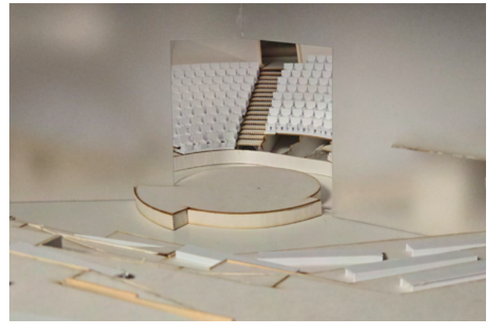


Model 1:50

Model 1:50







Epilogue

As I conclude my journey through “Peregrinating Narratives,” I am filled with a profound sense of growth and discovery. Each project, from the initial ambiguity of designing for new concepts such as data pollutiom, adressing social concerns in The Bronx with the armory and to finally rethinking how music can inform design in an experiential way.

Through the Kingsbridge Armory project, I learned to approach design challenges with sensitivity to history and context, balancing the monumental scale of the building with the intricate needs of the community. The concept of ‘bigness’ became more than just a physical attribute; it became a lens through which I viewed the complexity of architectural design.

The chapel for chamber music project pushed me to explore the ecological implications of architecture, drawing inspiration from Saariaho’s connection to nature. This project taught me the importance of considering the experiential impact of design and the potential for architecture to harmonize with its surroundings.

As I look back on my time at Columbia GSAPP, I am grateful for the knowledge and experiences that have shaped me into the architect I am today. “Peregrinating Narratives” is not just a portfolio book; it is a testament to my journey through architecture, a journey that has enriched my understanding of the built environment and my role within it.

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