# PORTFOLIO


## Siying Chen

GSAPP AAD 2020

# PORTFOLIO STATEMENT

My name is Siying (Sybil) Chen, a graduate student from GSAPP AAD 2020.

This portfolio contains my works from 2019 Fall Semester to 2020 Spring Semester, including studio works, visual studies, technologies and theory essays.

The one year at  was a time of exploration about architecture. The aim of studio works changed from basic idea of forms and trasforms to abstruct program, and to more realistic building and structure. It is a proecss from conceptions to the real world.

Cultural studies courses introduce the history of architecture, from the development and change of architectural styles to specific examples from architectural precedent. The essays for general studies show my understanding toward art, forms and architecture.

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Spring 2020 Design Studio

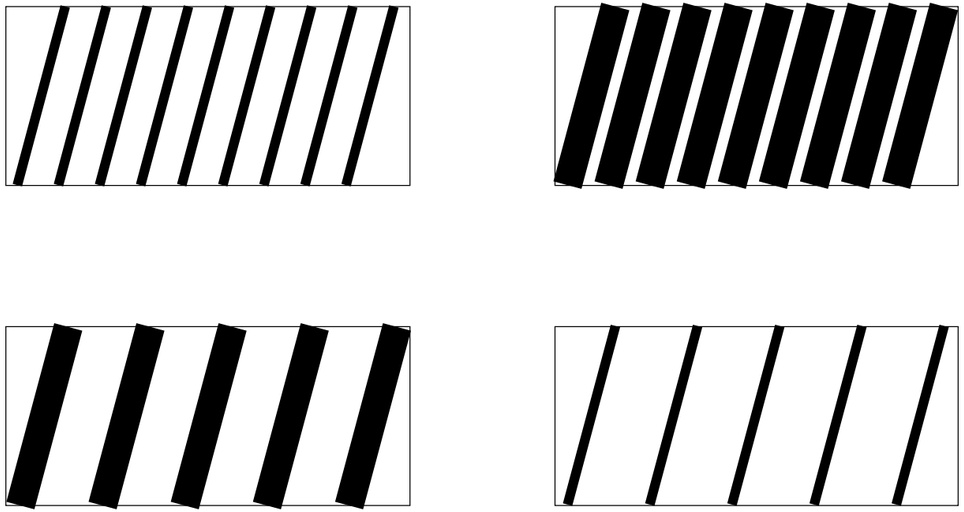
Instructor: Steven Holl
Dimitra Tsachrelia

Partner: Shuchang Zhou

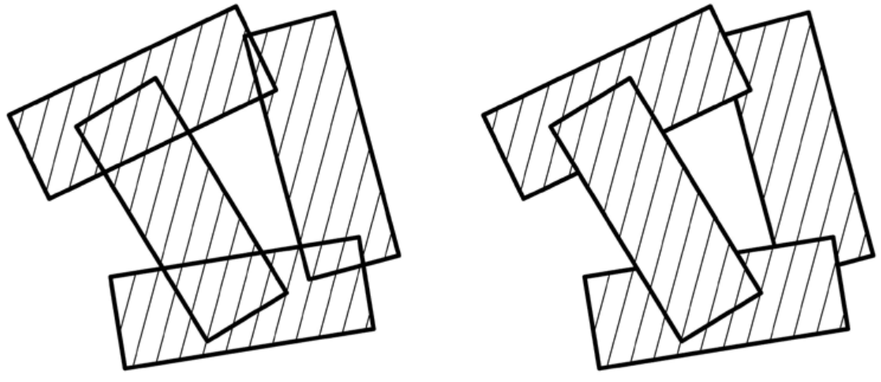
Program: Concert Hall

Location: Prague

Inspired by two music piece, Kaija Saariaho's Laterna Magica and Morton Feldman's Rothko Chapel, this project translates music as an intangible matter to represent time with different duration. Rhythm and tempo in the music are translated into lines in the space. Using different density and line weight to stretch or compress time generates texture, material, light, openings, shadow, structure, tectonics, space and massing in architecture.

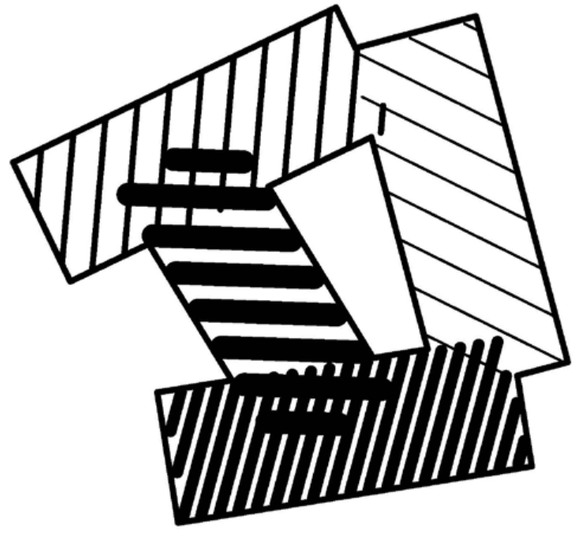


The idea of the speed and how the speed then effects the material, in my mind, it became an idea of different tempo.
--Kaija Saariaho (*Laterna Magica*)

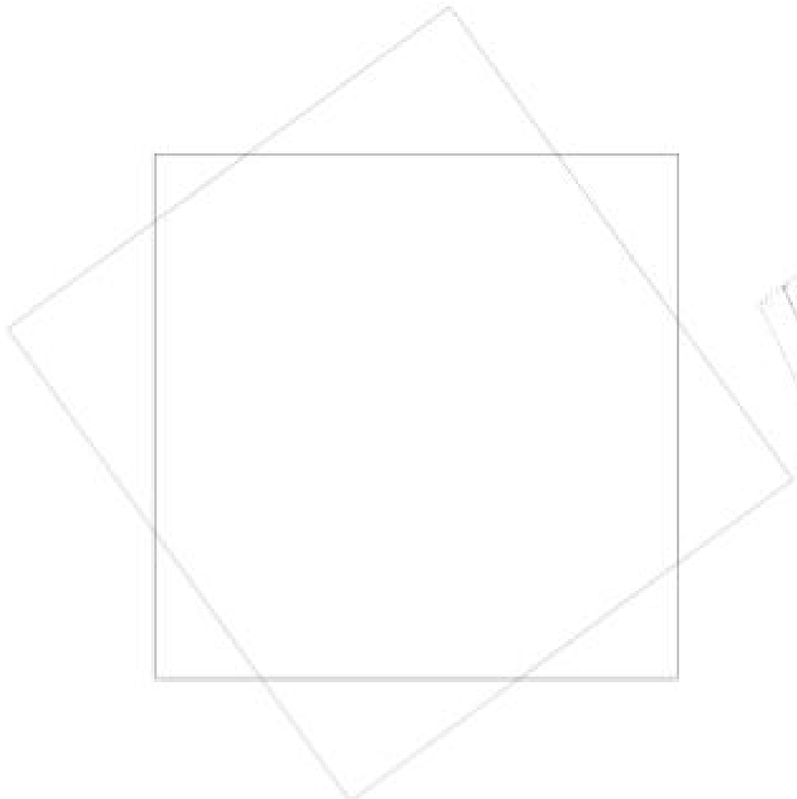


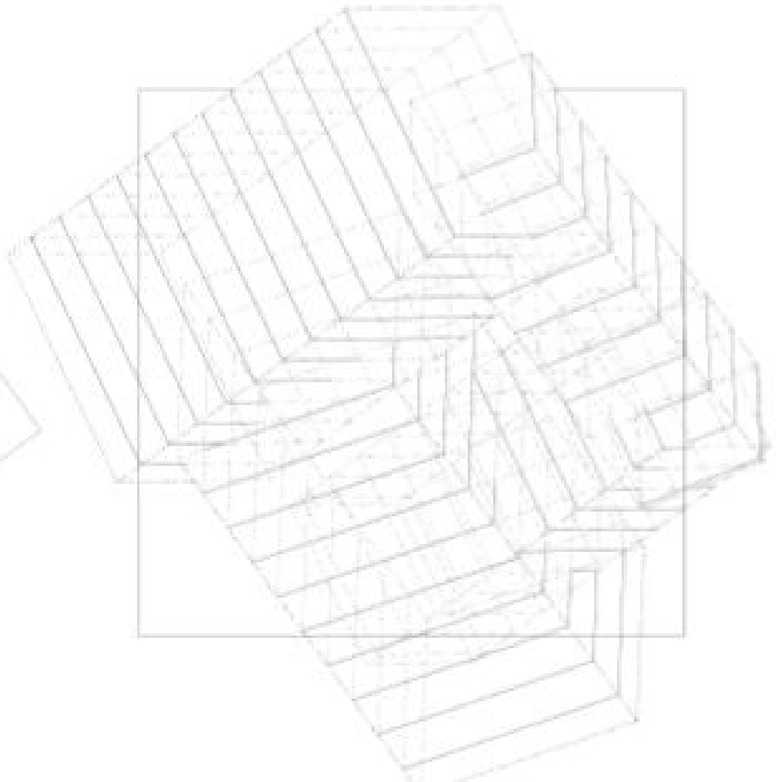
The total rhythm of the music, as Rothko arranged the paintings, created an unbroken continuity.
--Morton Feldman (*Rothko Chapel*)

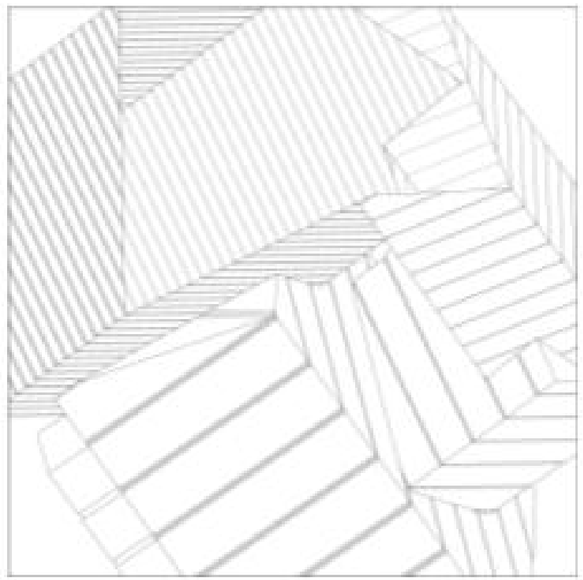




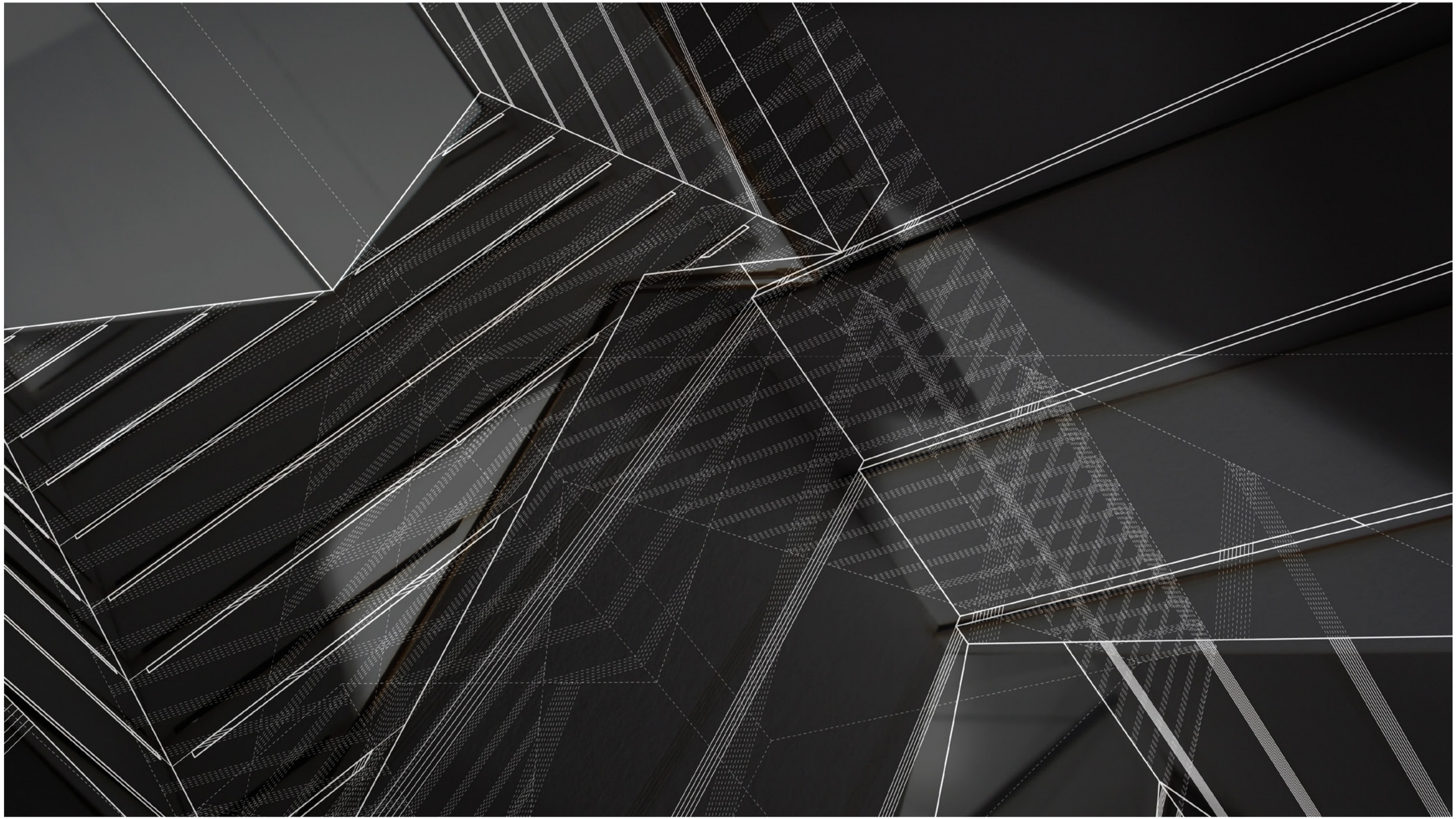
Combining Saariaho and Feldman, using consistent texture but with small fluctuation in rhythm to create a dynamic relationship.

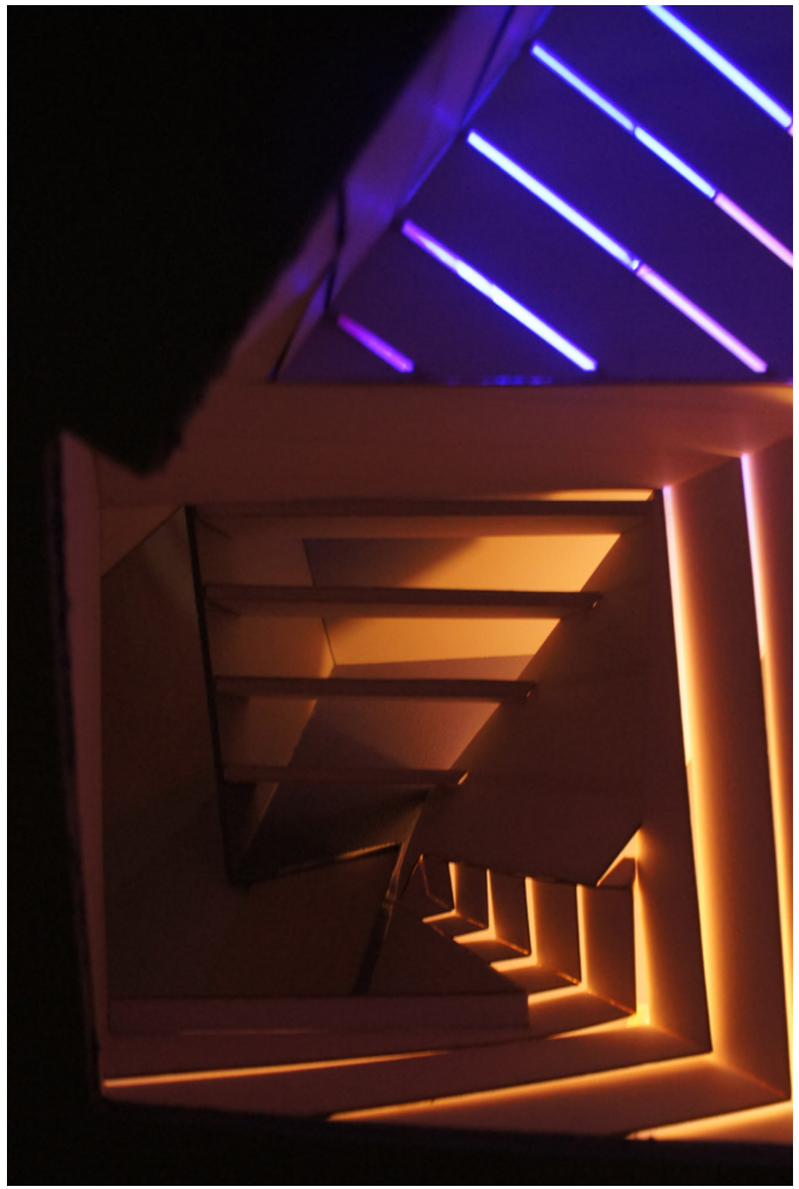




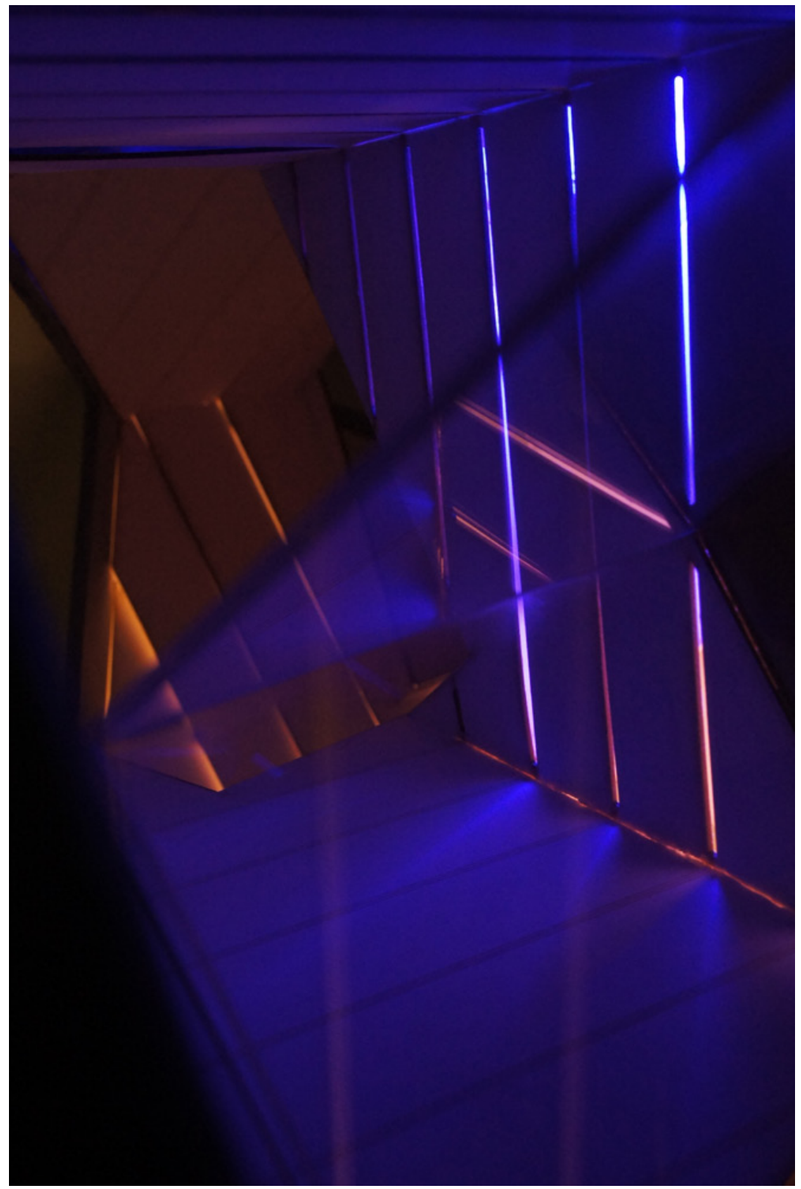


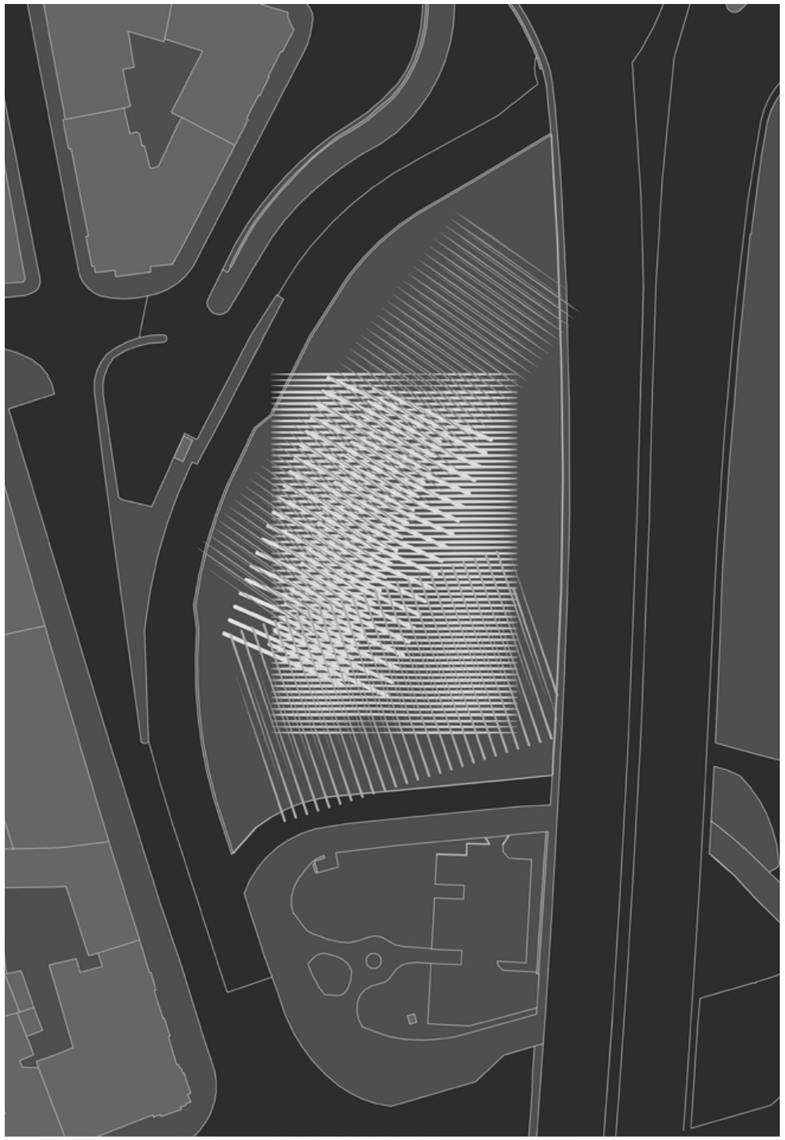
From Graphic to Tectonic

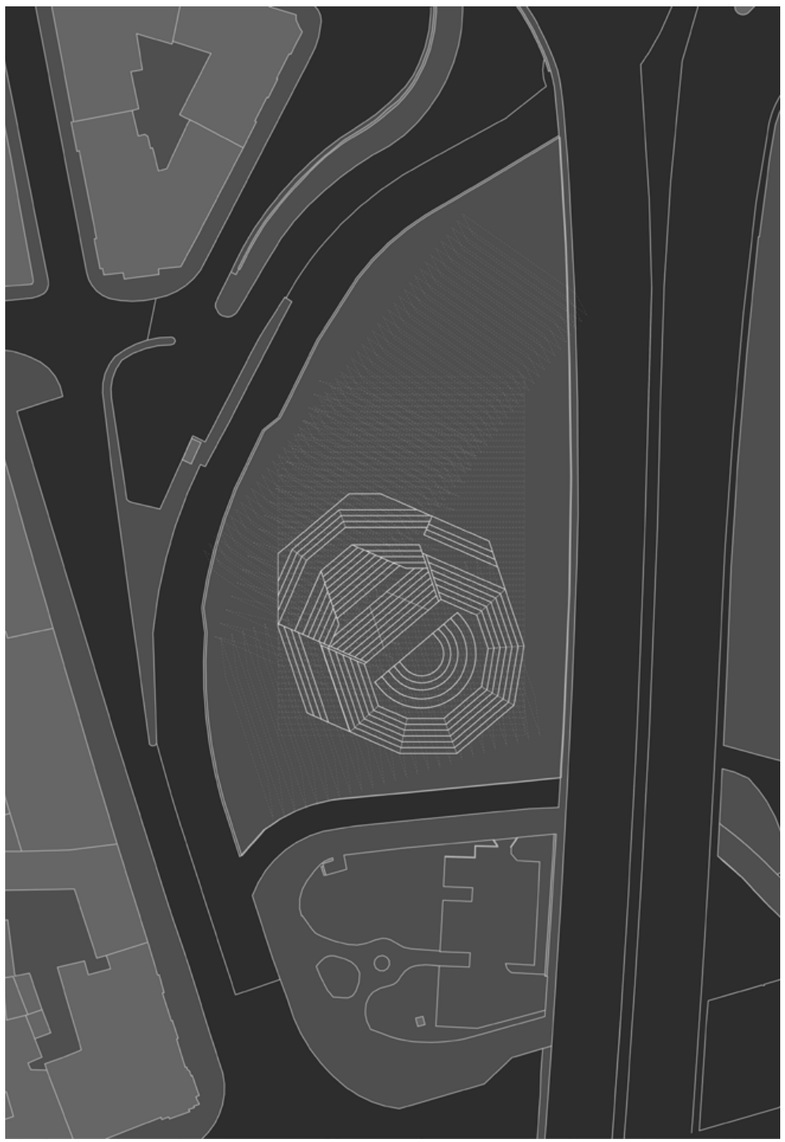




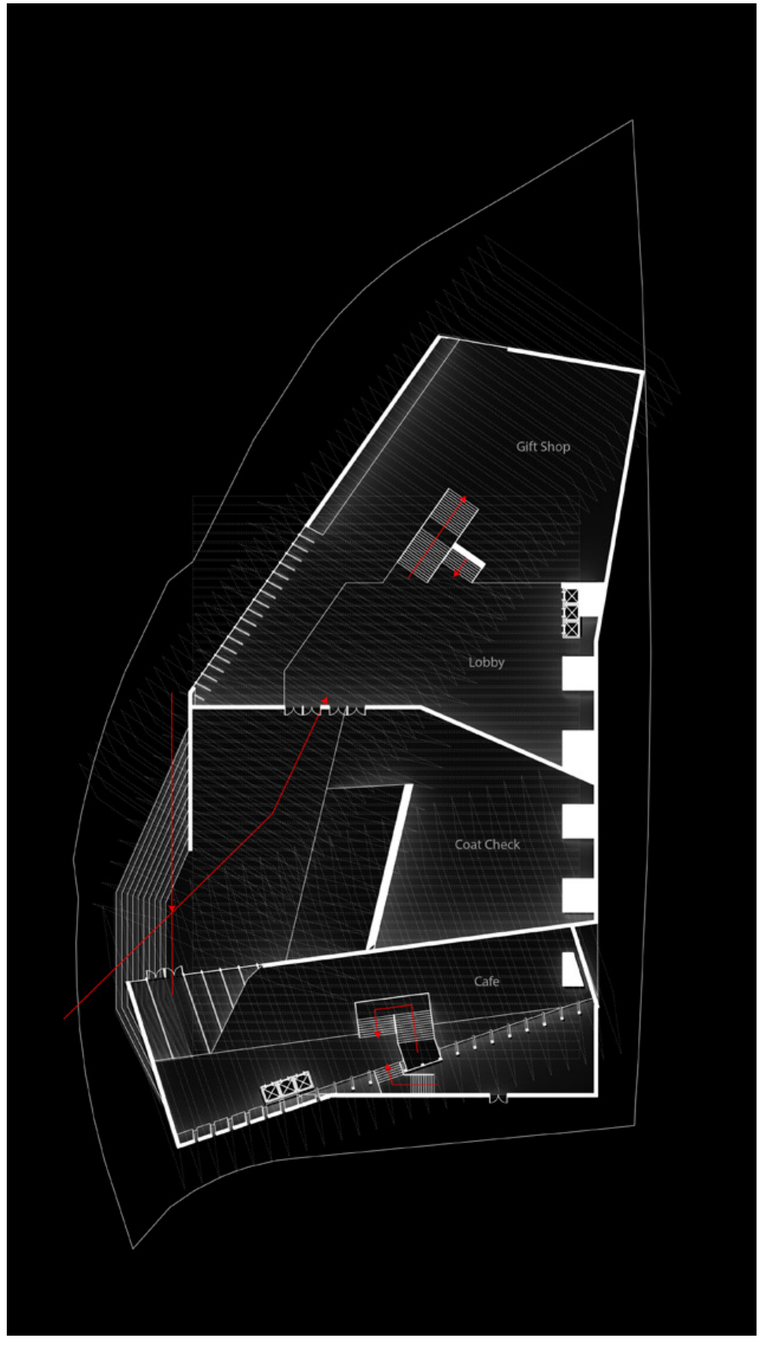


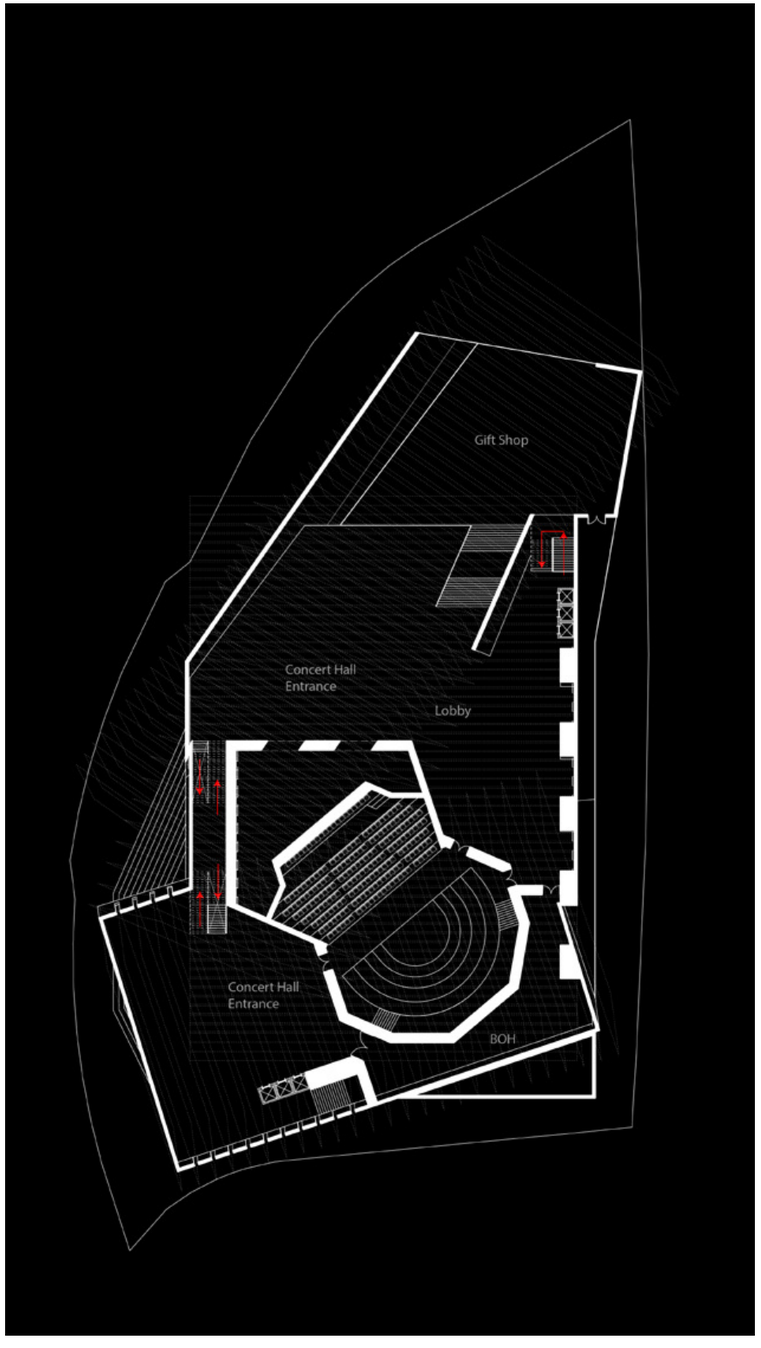


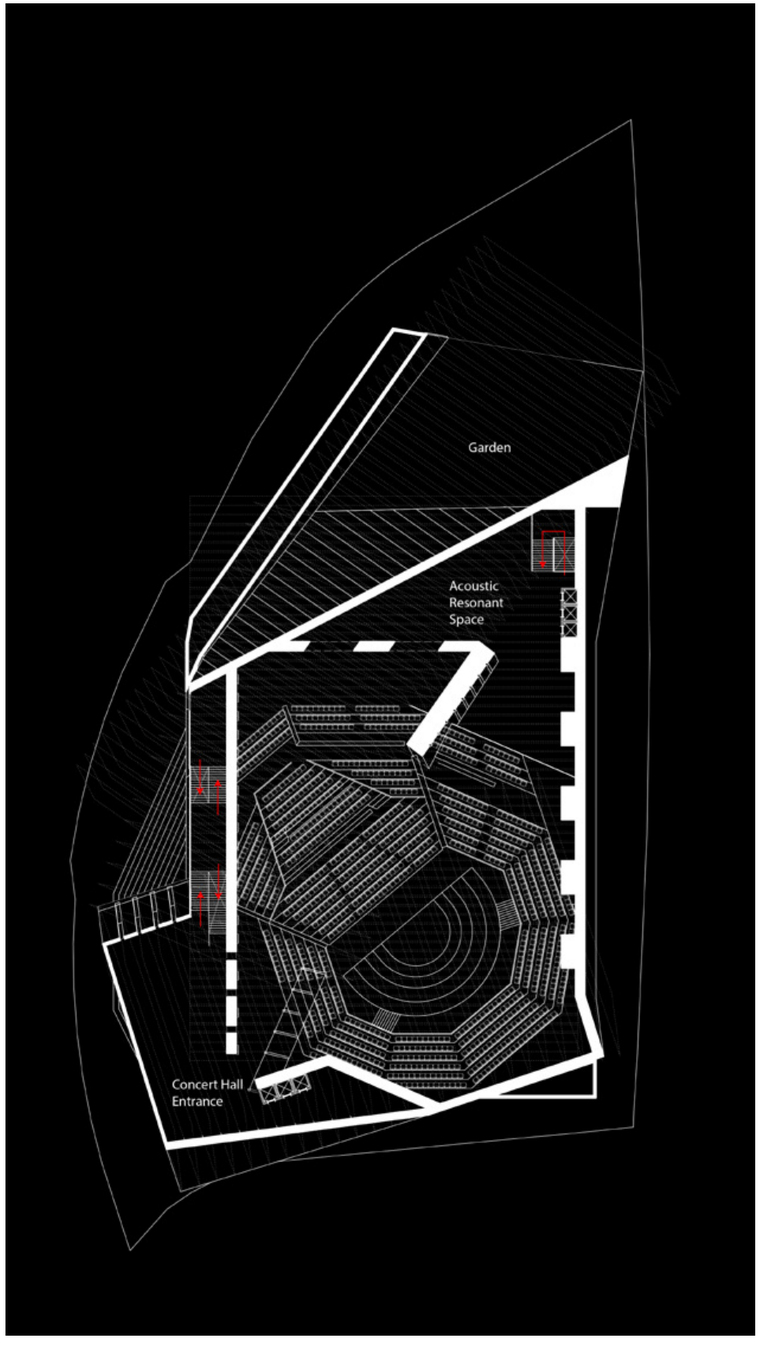




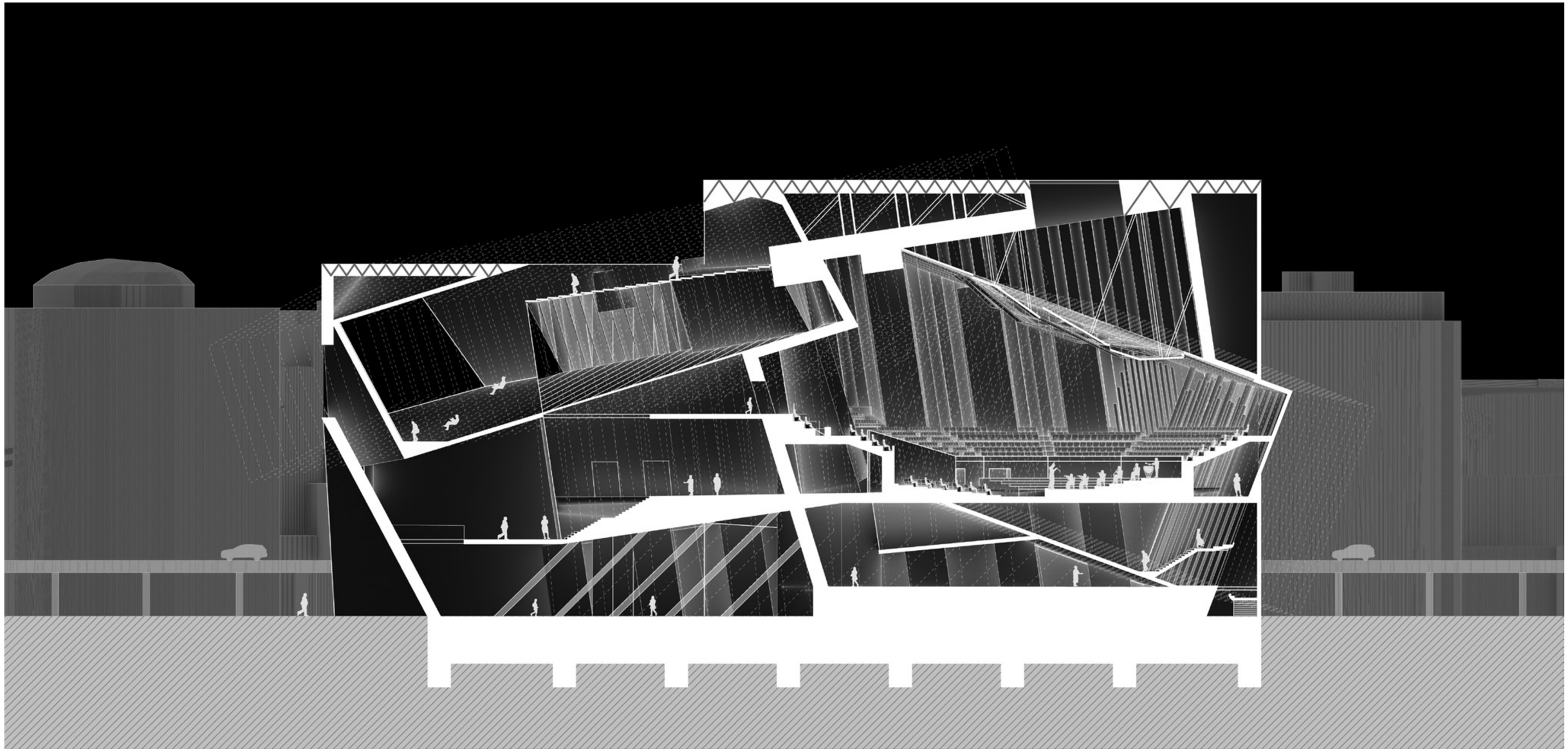
Line Arrangement on Site


Gift Shop
Lobby
Coat Check
Cafe

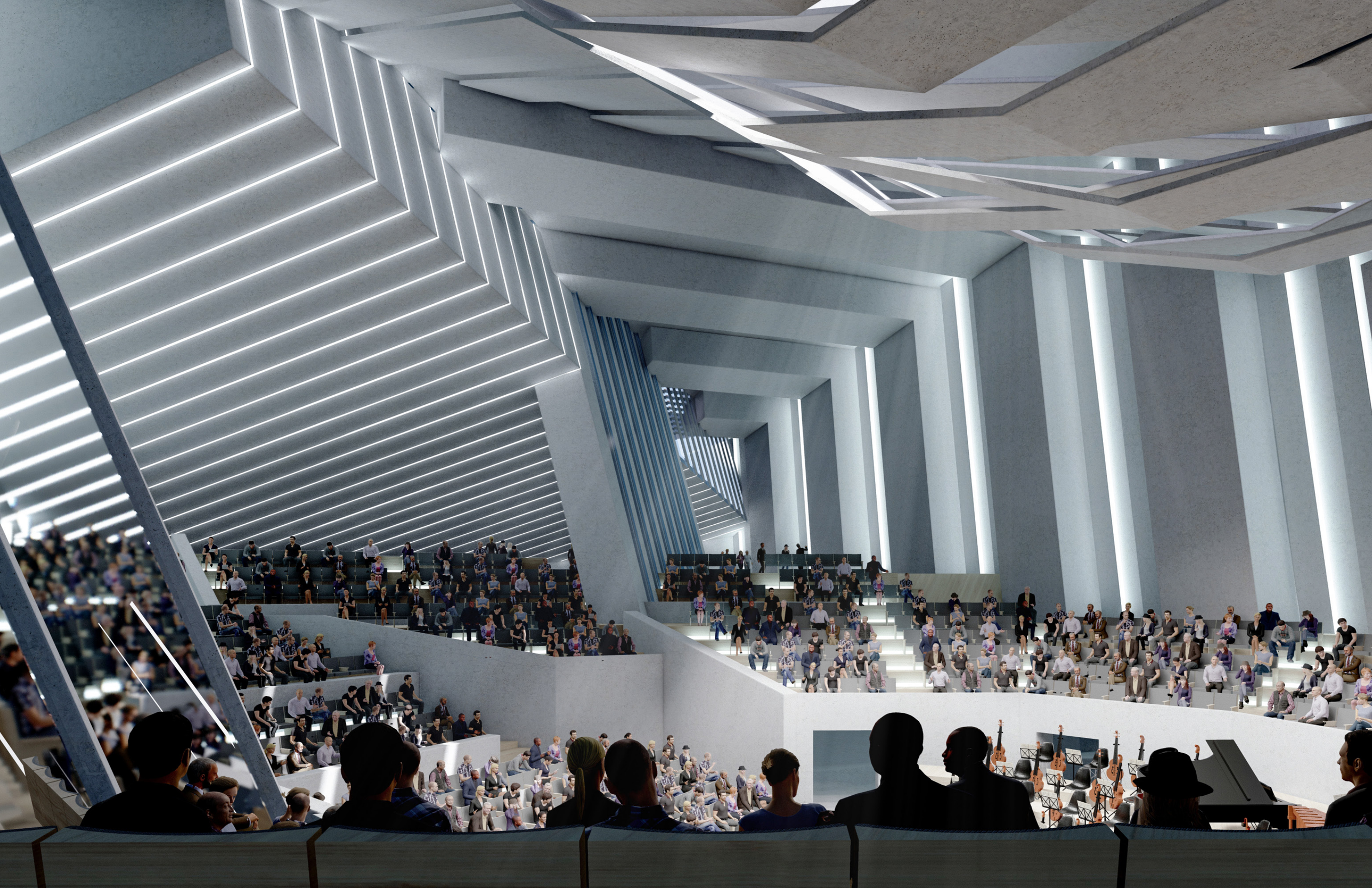

Gift Shop
Concert Hall
Entrance
Lobby
Concert Hall
Entrance
BOH

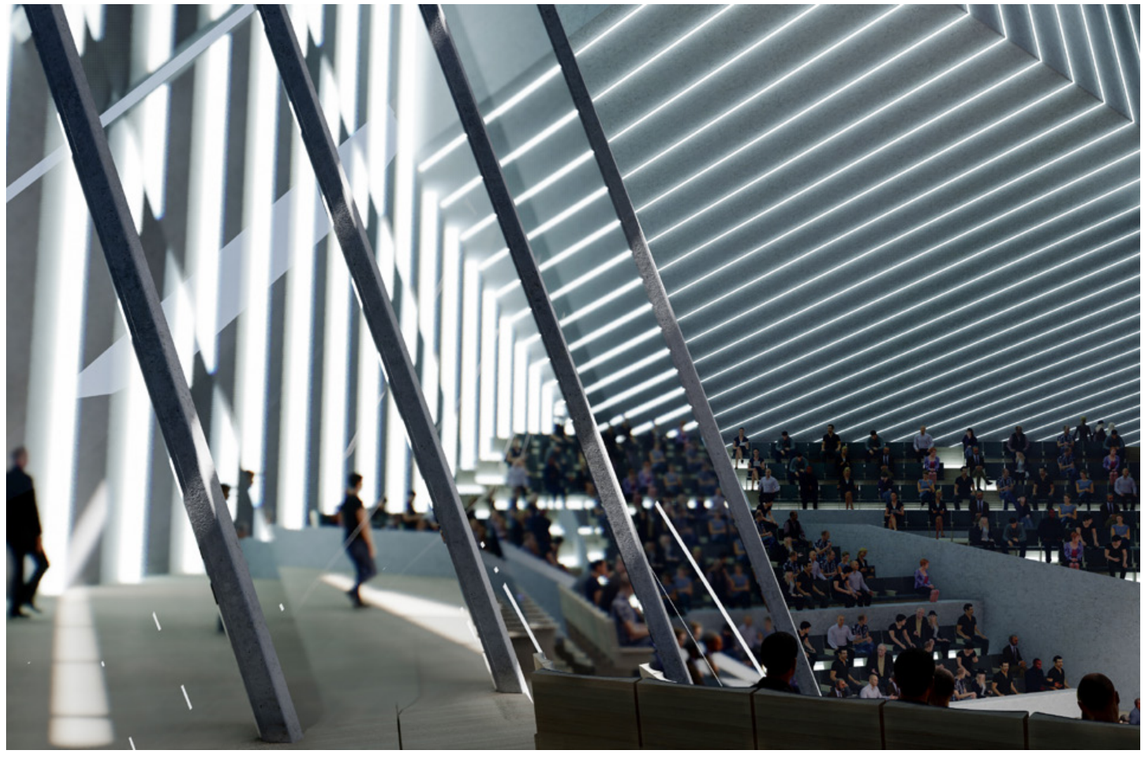

Garden
Acoustic
Resonant
Space
Concert Hall
Entrance

Plans

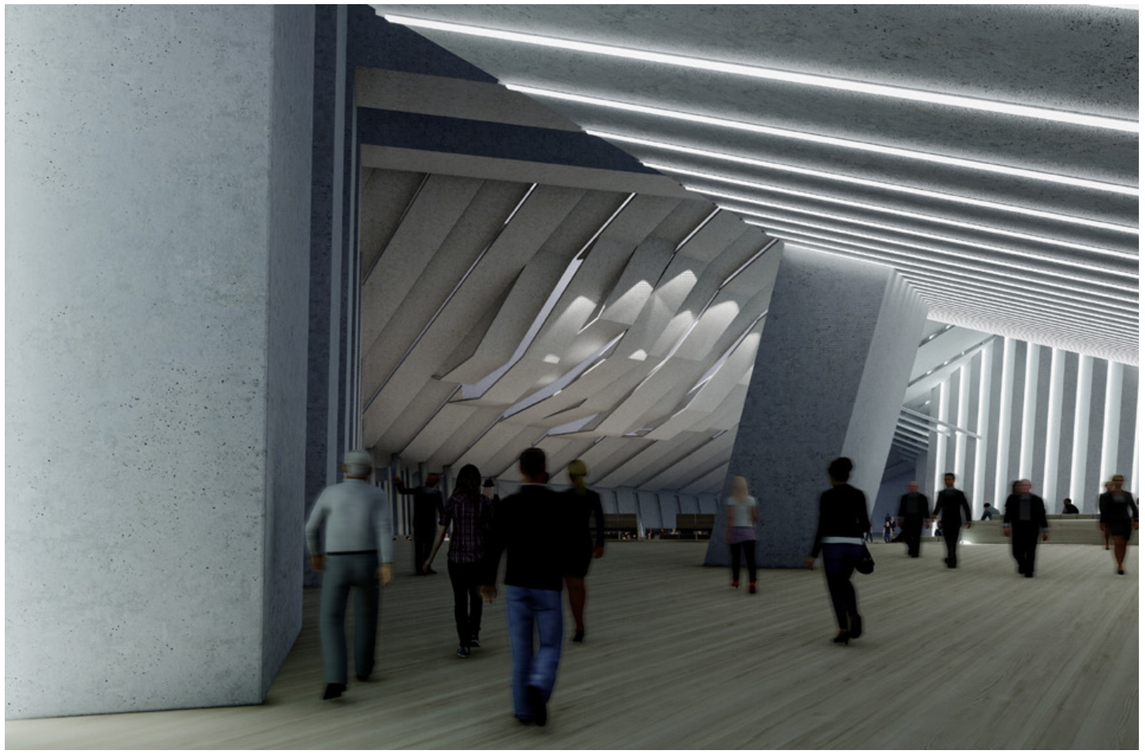


Section

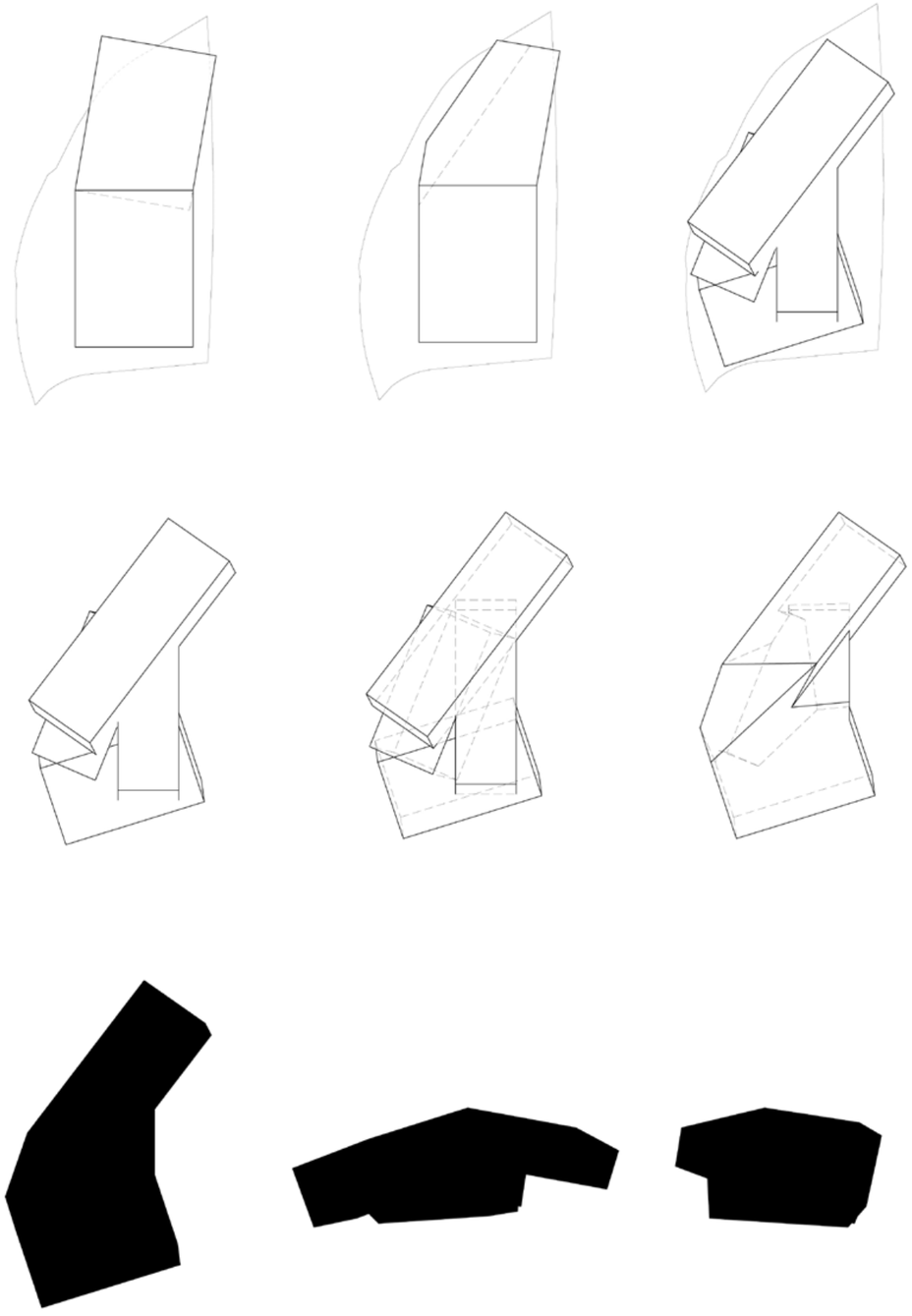




Concert Hall Entrance View

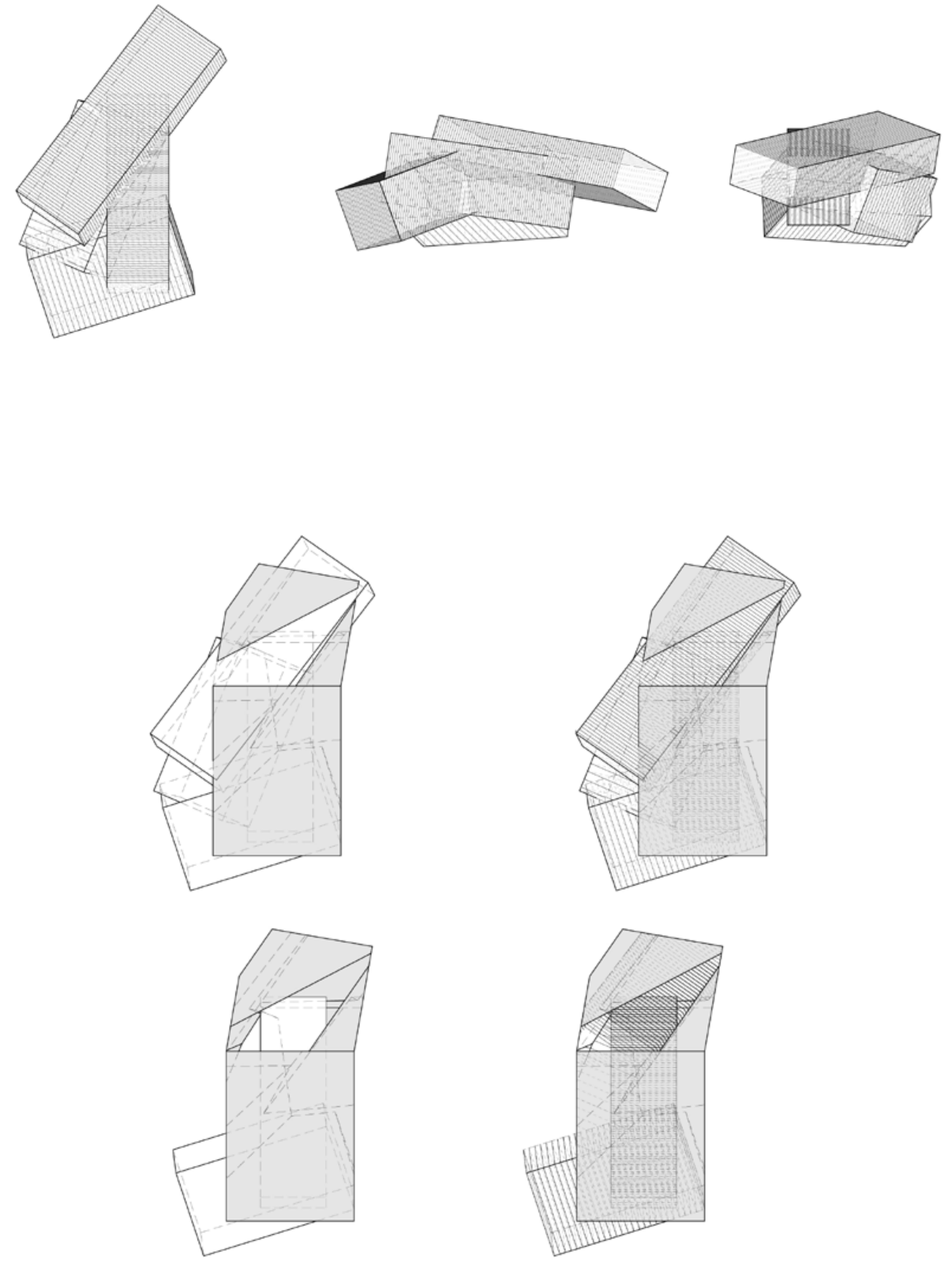


Acoustic Resonant Space

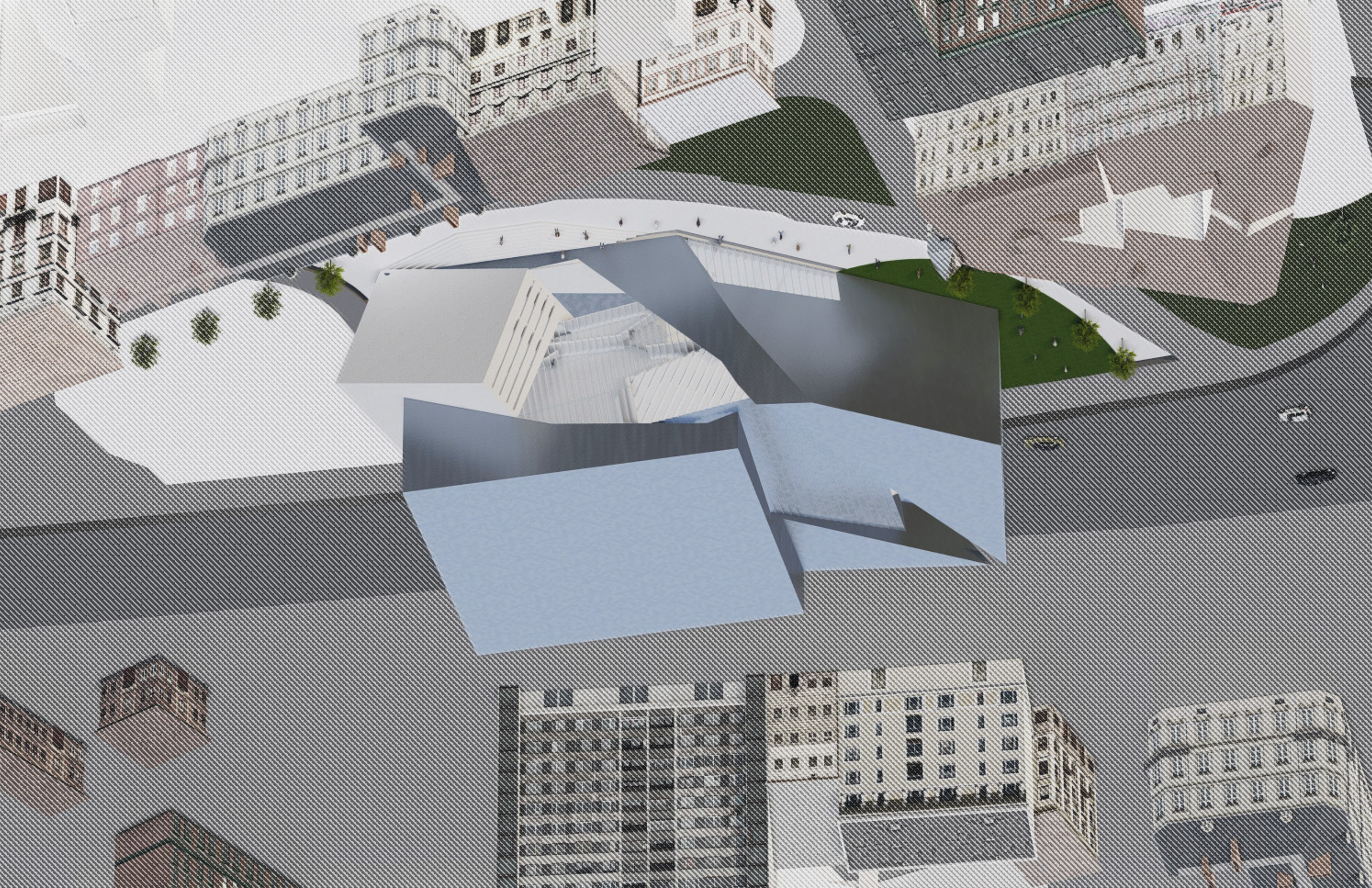


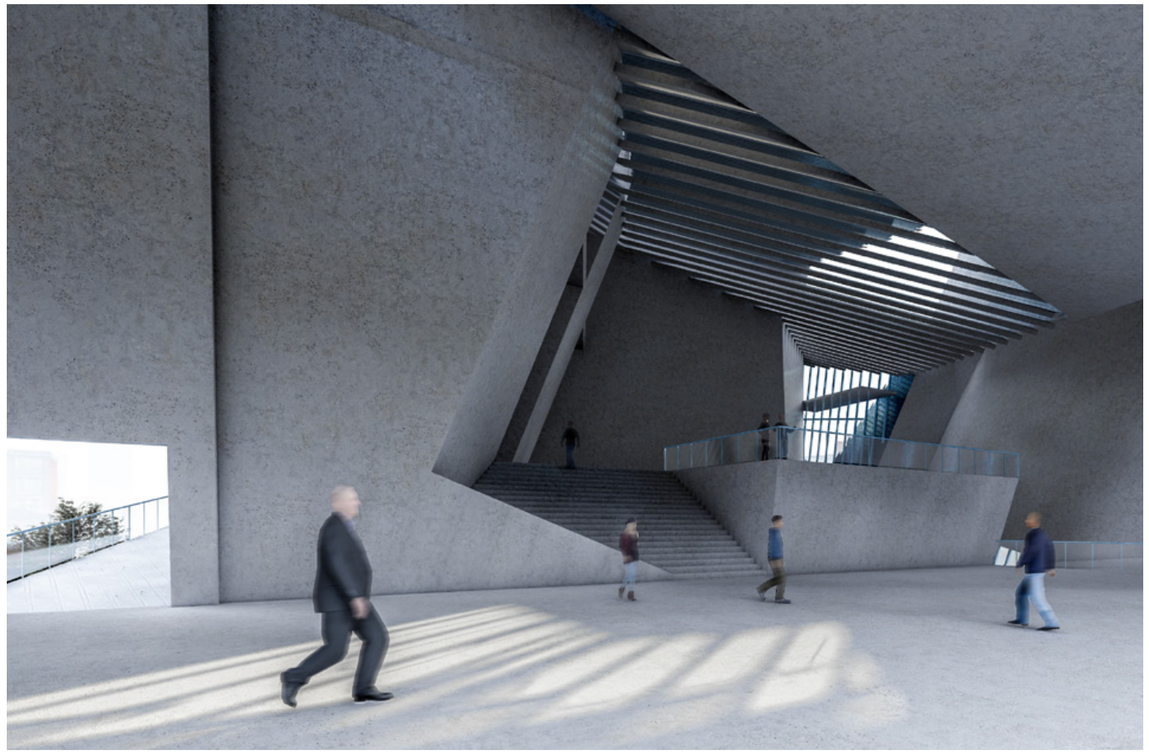
Configuration

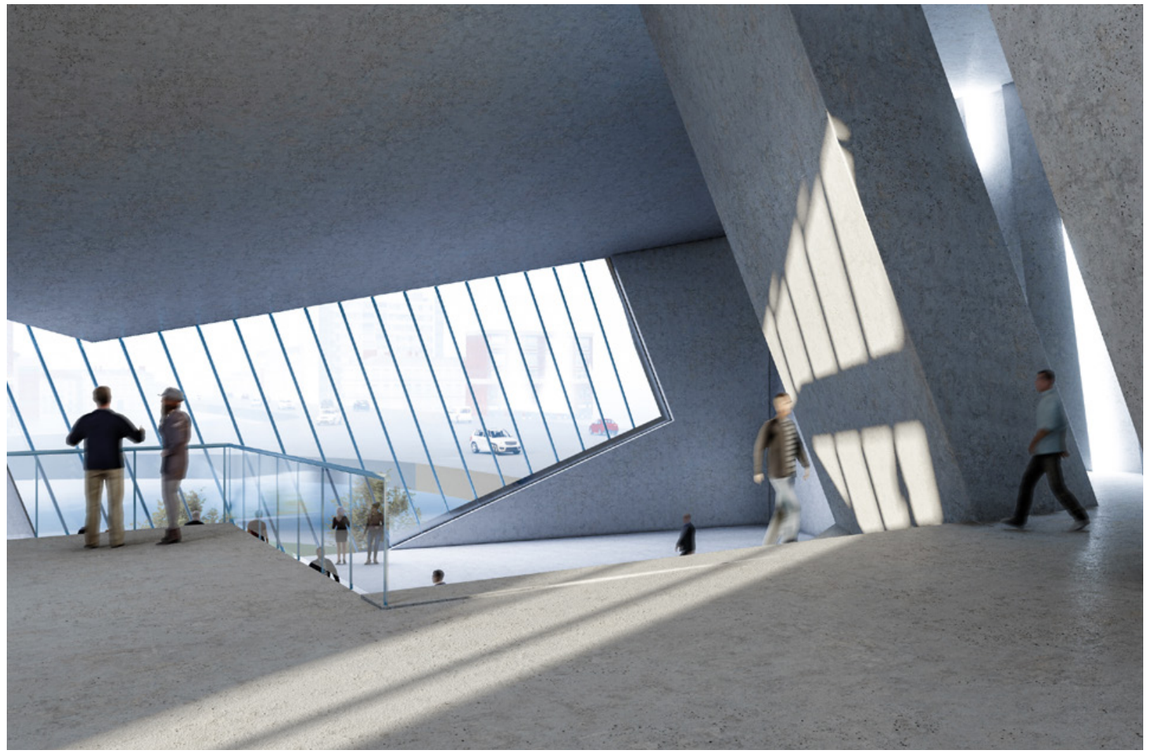




Massing Strategy







Acoustic Resonant Space

Fall 2019 Design Studio

Instructor: Bernard Tschumi

Partner: Ziyue Wang

Program: Shopping Center

Location: Manhattan, NY

Typology: Social

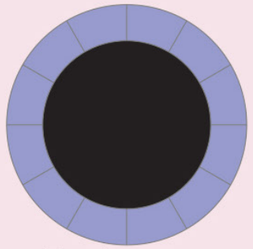
This project investigats the social typology in a typical Manhattan block. It is a shopping center for online shopping, proposing a new social typology through consumerism. Also it explores the metaphor of seven deadly sins as an alternative way to create architectural moment in the project.

The two main space, the social space and fitting space, together create a shopping center for online shopping, combing consumerism with social activities according to the different product type, social type and spatial type as the metaphor of seven deadly sins in architecture, promoting communication, sharing and socialization among customers, proposing the new social typology through consumerism.

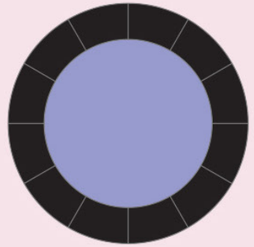
Traditional Shopping Center

Forum

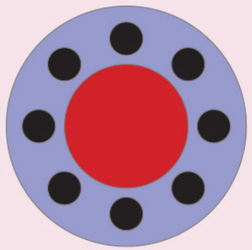
The Grand Bazaar



The Chester Rows

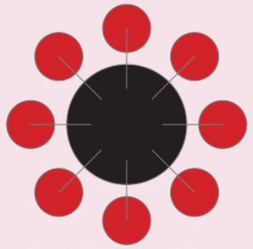


Opposite

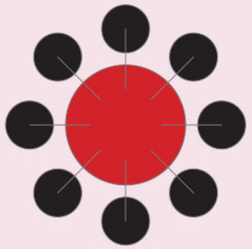


Online Shopping

E-commerce Retailer



StockX Dropoff Store



Opposite

Human Activity

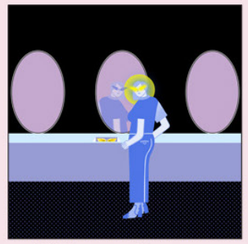
Fitting Area

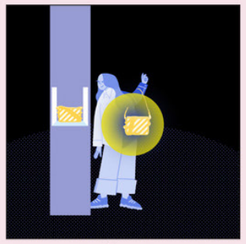
Storage

Shopping Center for Online Shopping
This project is proposing a space which allows customers to communicate with each other and share their taste and style, promoting the social activity among customers. The shopping center is mostly social area and fitting rooms with several storage space. Most merchandise are not showed in the store.

Type

Fitting

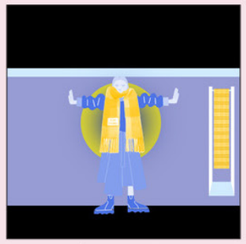

Makeup + Eyewear


Bags

Shoes

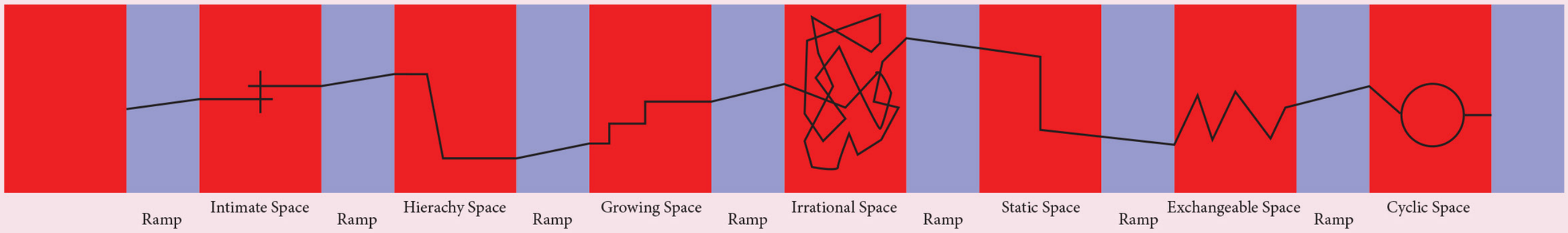
Toys

Clothes


Accessories

Checkout

Spatical Type

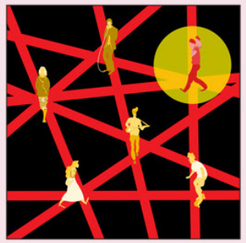



Social Type

One to One

One to Group

Group to More


Group by Chance

Gather Together

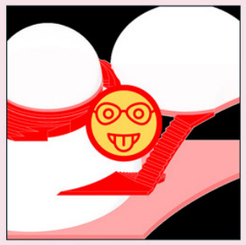
Group Exchange

Immersed Meeting

Seven Deadly Sins

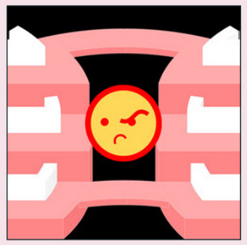
Lust

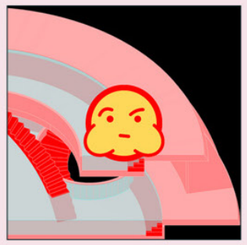
Pride


Greed

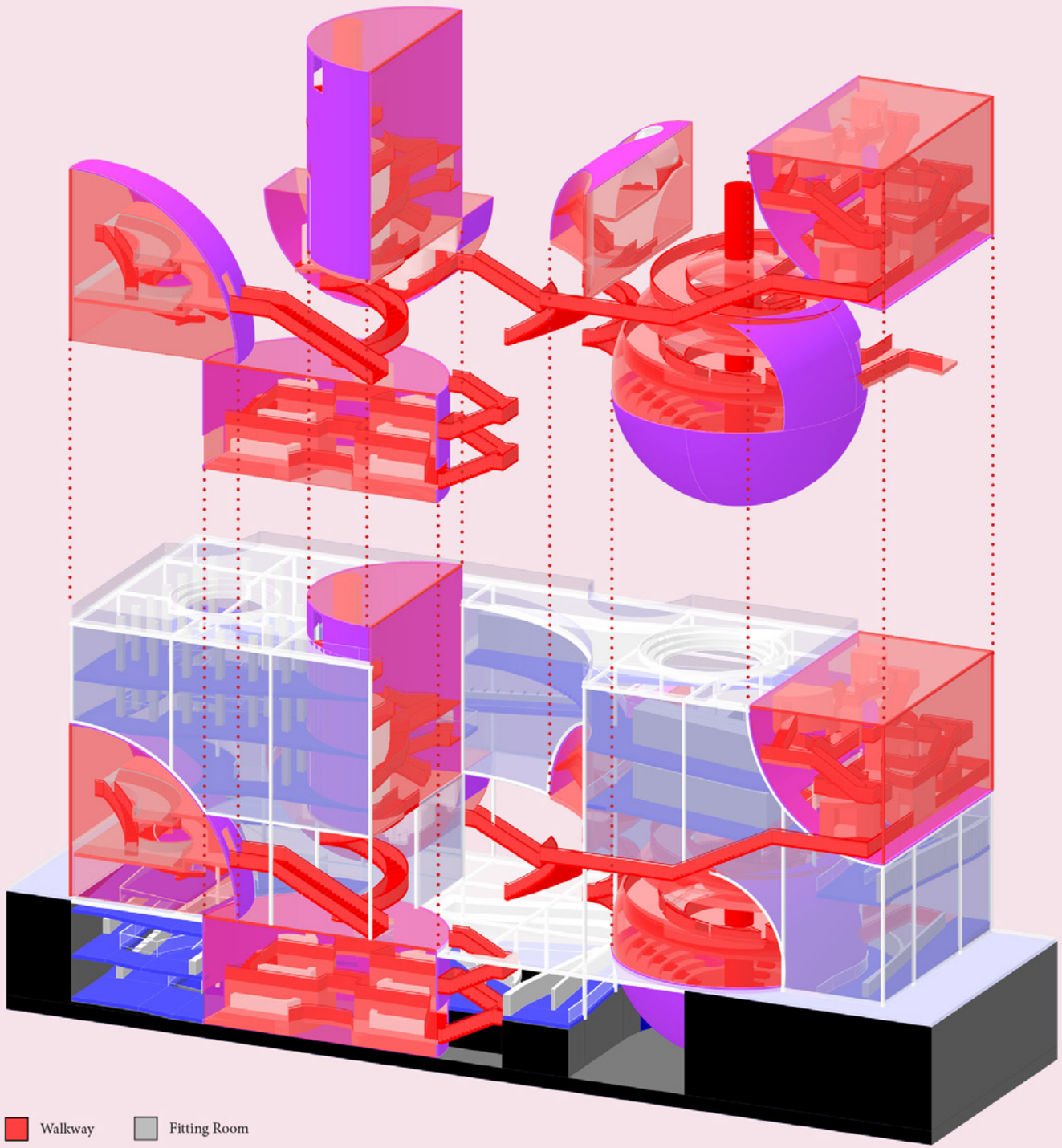
Wrath

Sloth

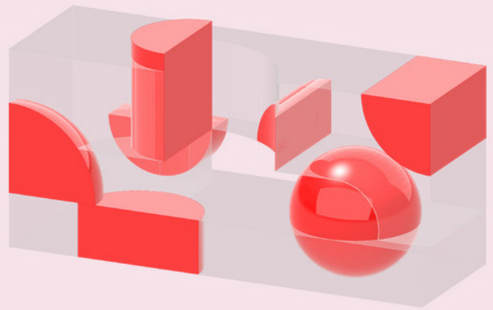

Envy


Gluttony

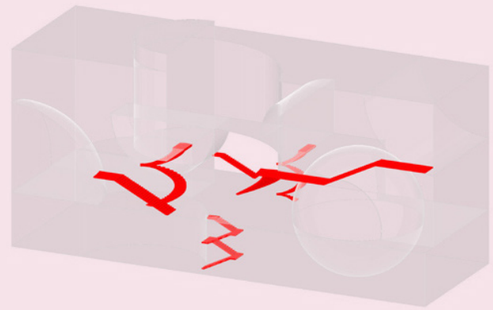
Type



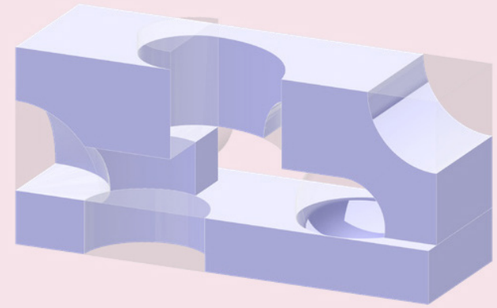

Program



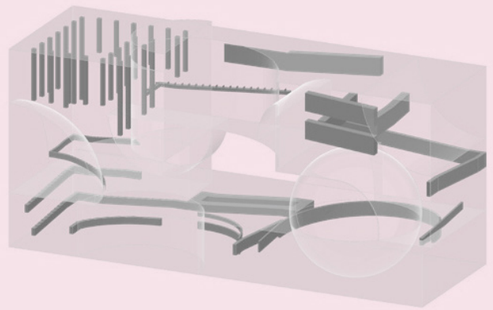
Social Area – Mirror Space



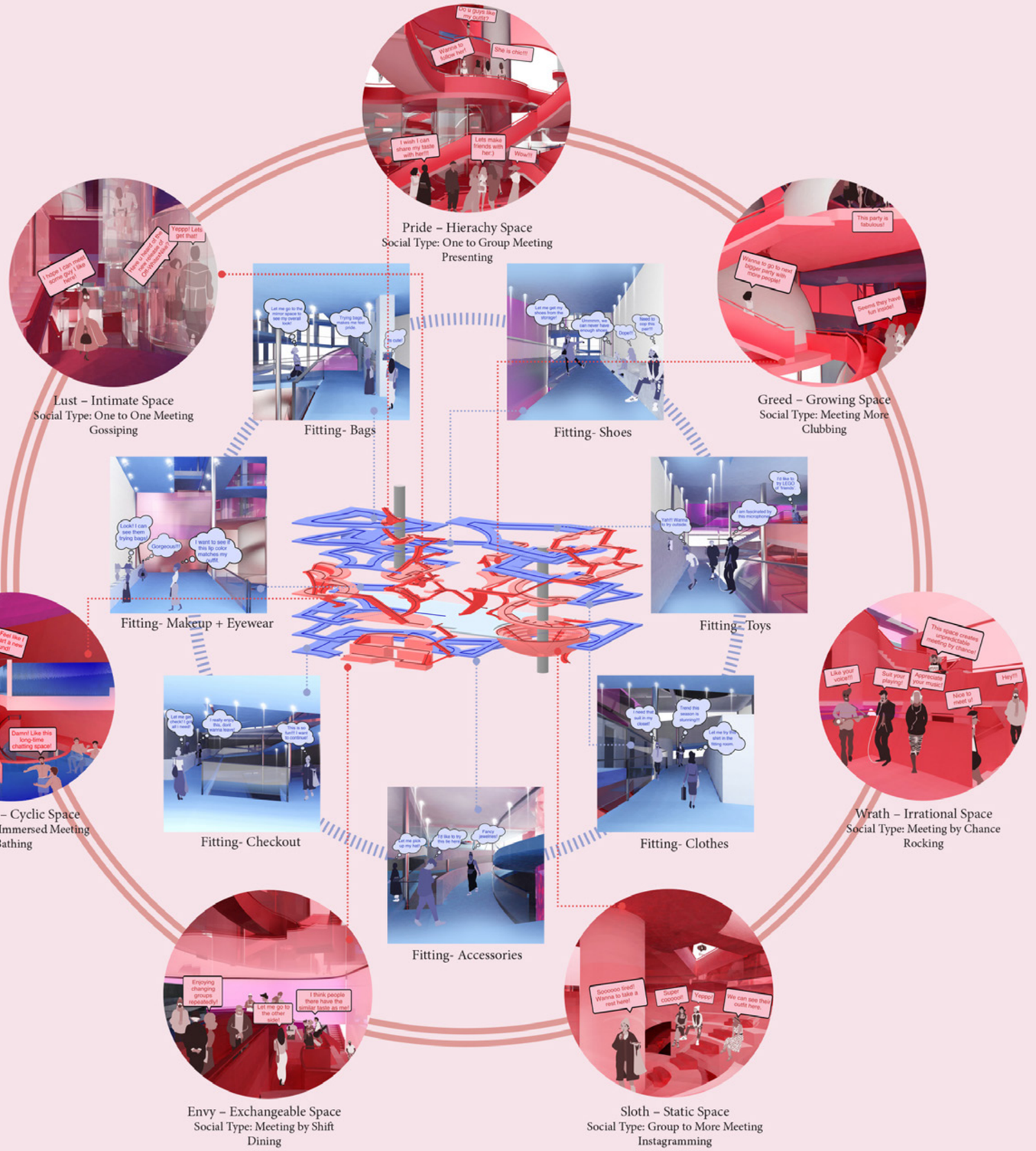
Social Area – Walkway



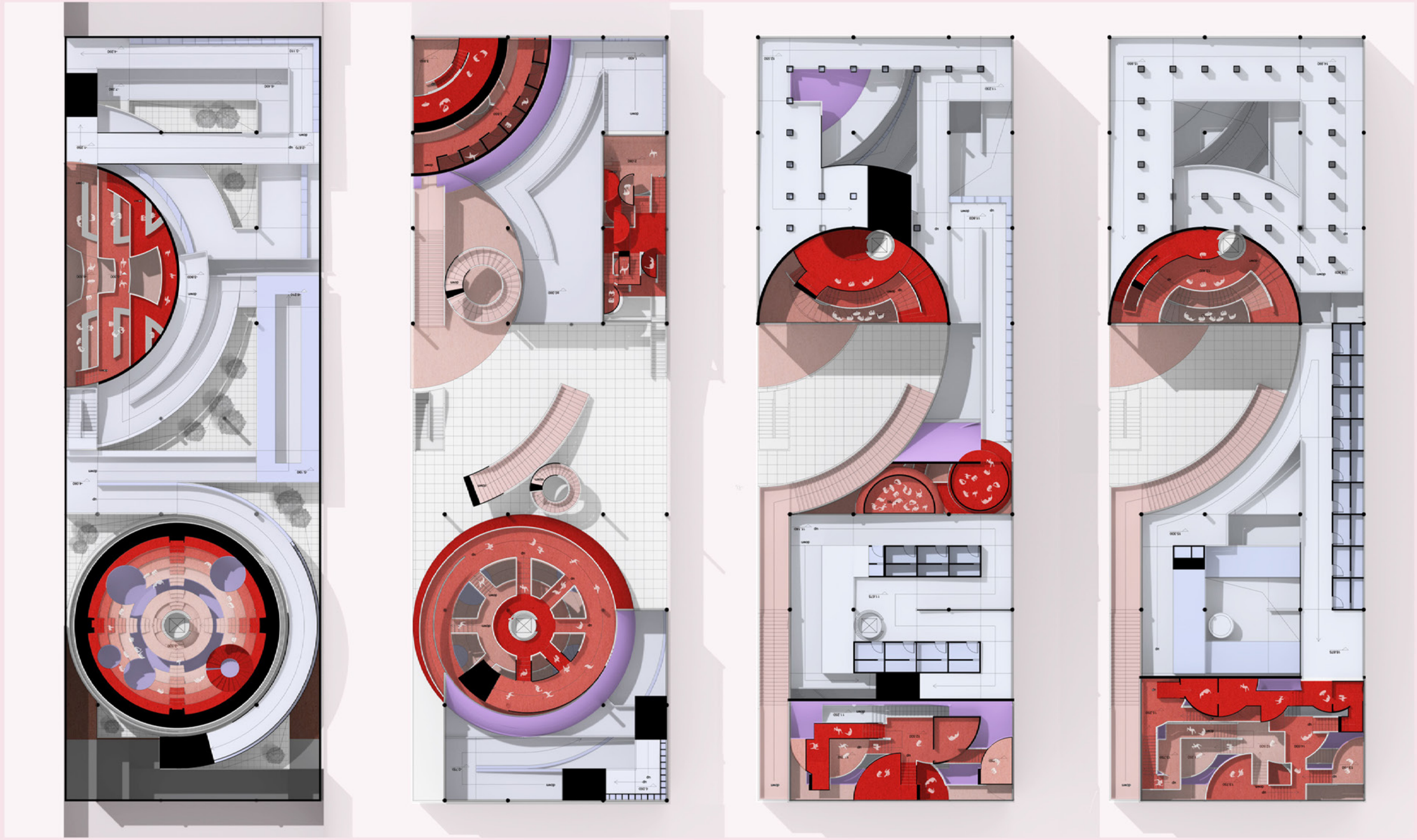
Fitting Space



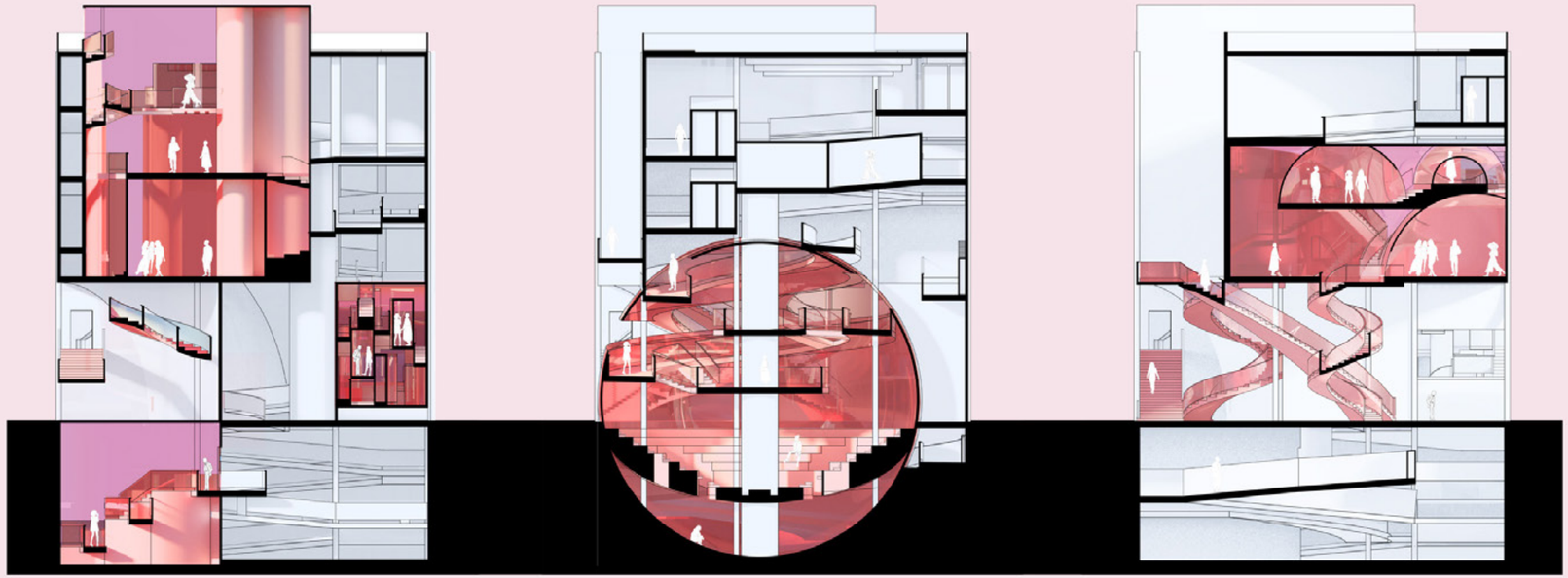
Storage


Pride – Hierachy Space
Social Type: One to Group Meeting
Presenting
Lust – Intimate Space
Social Type: One to One Meeting
Gossiping
Greed – Growing Space
Social Type: Meeting More
Clubbing
Fitting- Bags
Fitting- Shoes
Fitting- Makeup + Eyewear
Fitting- Toys
Gluttony – Cyclic Space
Social Type: Immersed Meeting
Bathing
Fitting- Checkout
Fitting- Clothes
Wrath – Irrational Space
Social Type: Meeting by Chance
Rocking
Fitting- Accessories
Envy – Exchangeable Space
Social Type: Meeting by Shift
Dining
Sloth – Static Space
Social Type: Group to More Meeting
Instagramming

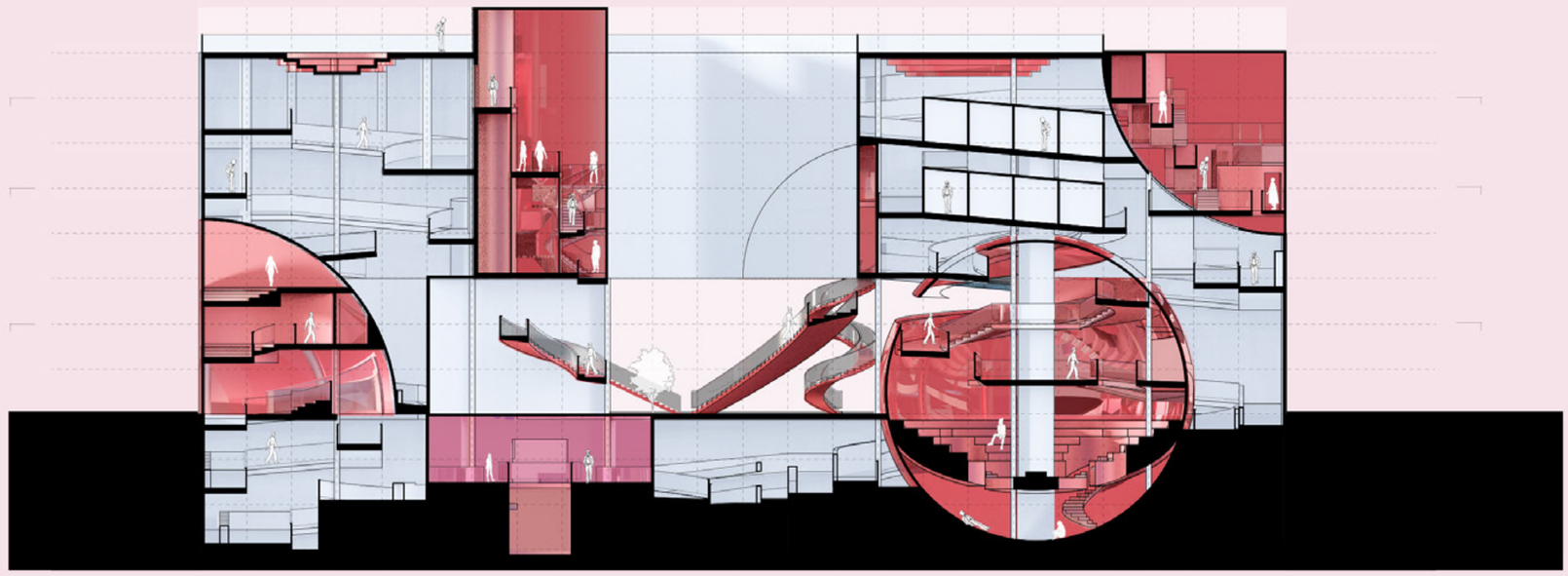
Program



Plans



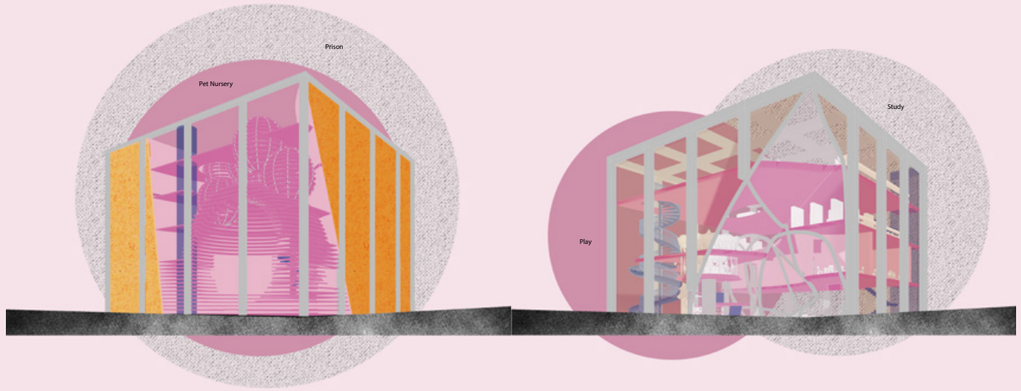
Short Sections



Long Section

Sections

# Metaphor of Seven Deadly Sins



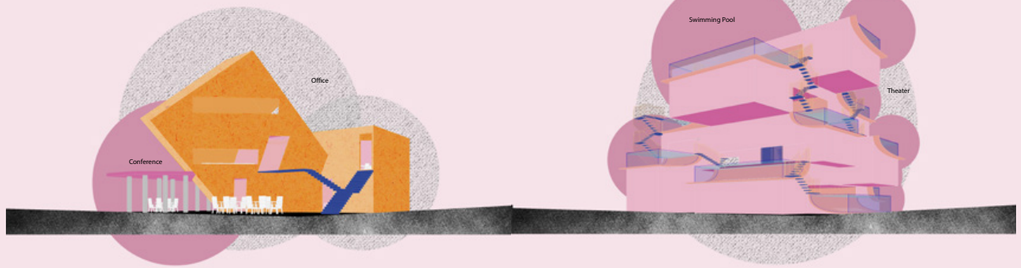

Envy + Greed: Prison + Pet Nursery

The pet nursery, as an intervention at the prison, breaks the original equality and balance in the space.




Wrath: Kids' Center

The project is divided into two space, one for study and one for play. Kids from one side can see others from the other side of the room, but the space is not connected except at the top.



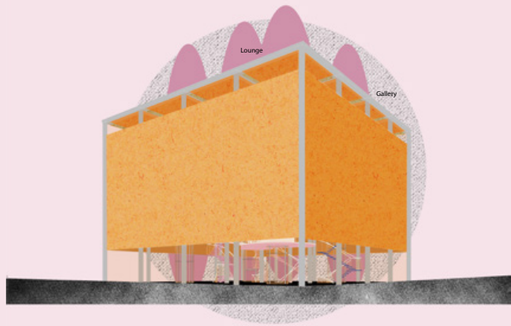

Pride: Office + Conference

Public and private program have contrast with space. Conference room is located in the middle of first floor, surrounded by glass walls. Office with separated walls are on the second floor. The third floor is the open office space.



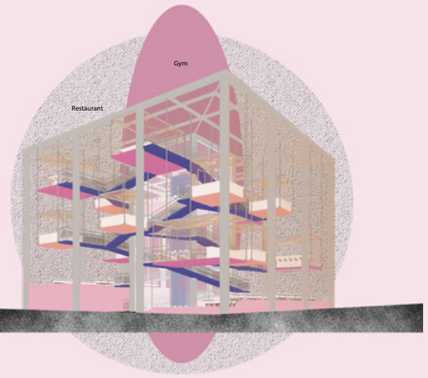

Lust: Swimming Pool + Theater

Similar to promenade theater, audience swim around in the swimming pool at their own path and peep into different thearatically designed rooms for the show.




Sloth: Gallery + Lounge

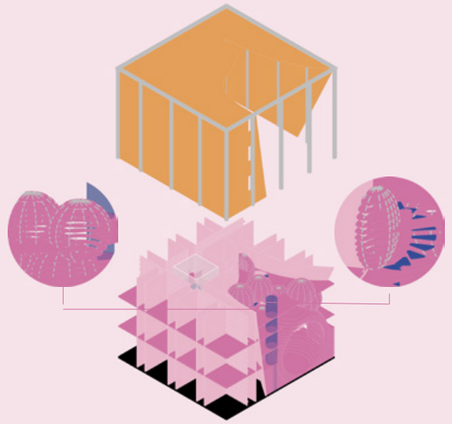
Inversing the traditional gallery in which exhibition is static and visitors are walking around, the conveyers provide a new possibility for moving exhibition.




Gluttony: Restaurant + Gym

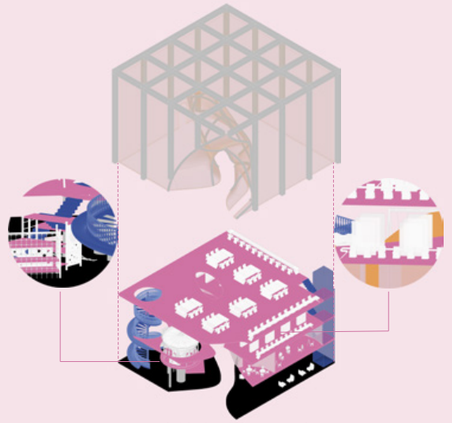
The restaurant is composed with stepped platforms for buffet. Customers are forced to walk along the path to get the food and tables while seeing people working out in the central space.

The Program



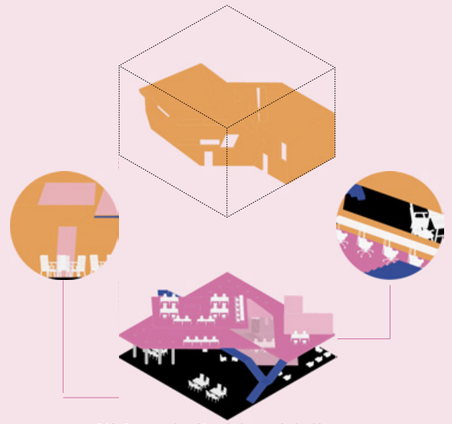
Envy + Greed: Living creatures are born with envy and greed.

The space is equally divided into rooms at the beginning. The equality and balance between the rooms are broke when the order is disturbed by the increasing wall which grows into another program finally.



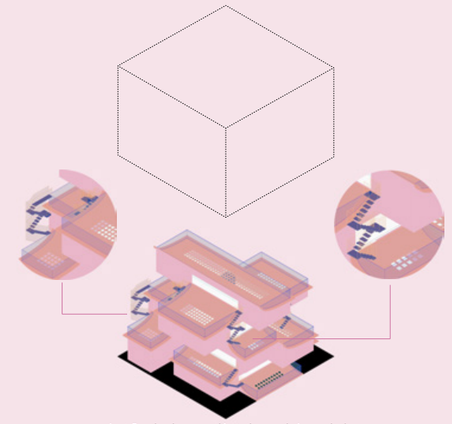
Wrath: Calm down before going to play.

The void is punched into the cube and the space is split into two. The intervention in the middle separate the project spatially but the view on both sides is connected.



Pride: Rooms can have hierarchy but people should not.

Rooms are arranged in three levels to establish the hierarchy for space. With slopped angle exterior walls and windows, views are blocked from the bottom but open at the top, with the space getting more public from bottom to top.

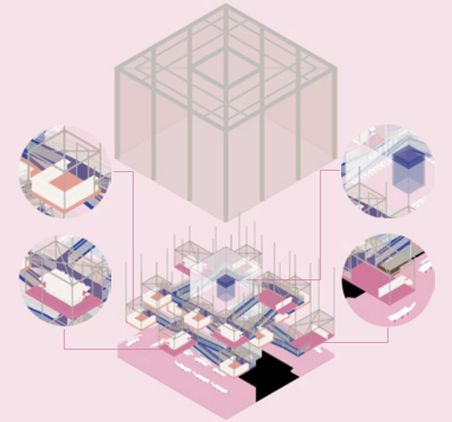


Lust: People who are peeking others are being peeked.

Challenging the scale of architecture elements, window, in the project, the perceptional connection between rooms is through the holes like peeping.

Sloth: Lazy people cannot truly appreciate art.

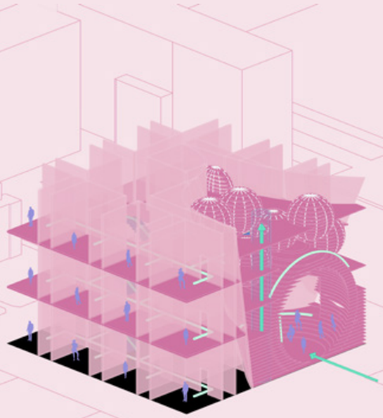
Reconsidering one of the most important architecture elements floors, the project investigates the idea of floors as only platforms without horizontal circulation from one to another.



Gluttony: No one can avoid working out if they want to eat.

The project consists of blocks as rooms inside of the larger cube. Those blocks are connected by movement such as stairs, ramps, and are hanged from the roof.

The Type

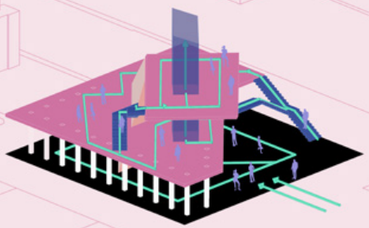


Envy + Greed

Stairs are located in the middle of the prison, providing a clear and direct view of the movement. On the contrast, the pet nursery is composed by stairs which creates spherical figuration in the space. The stairs providing movement for human at the exterior of the sphere and playing space for pets at the interior of the sphere.

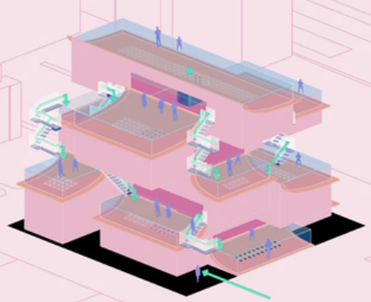
Wrath

Movement is not only enabled by stairs and elevators located at the corners. Corresponding to the program, sliders and climbing installation are combined with vertical circulation to provide an alternative way for the users.



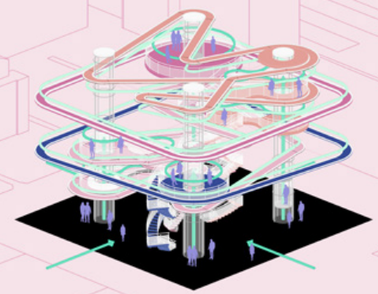
Pride

There is an elevator located in the middle of the project, connecting the three levels. Stairs are used to connect each floor from the outdoor space.



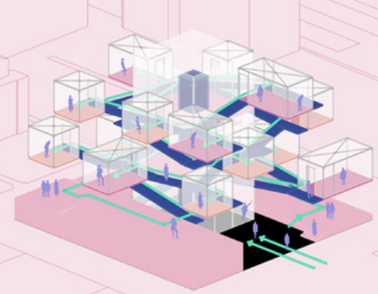
Lust

There is a clear but hidden vertical circulation between each theater for the performers. It is a free movement in the swimming pool.



Sloth

There are mainly four vertical circulations consists of elevators and stairs, connecting to the four platforms. Horizontal movement is relatively limited in the project.

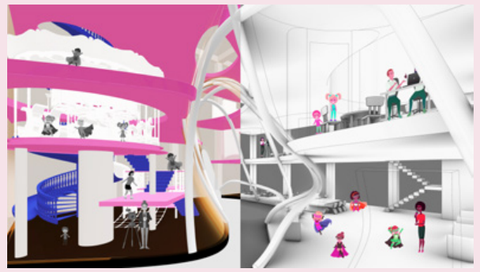


Gluttony

There is an elevator in the middle, providing vertical circulation in the gym. Stairs and ramps are used to connect each rooms in the restaurant, forcing customers to create more movement in the project.

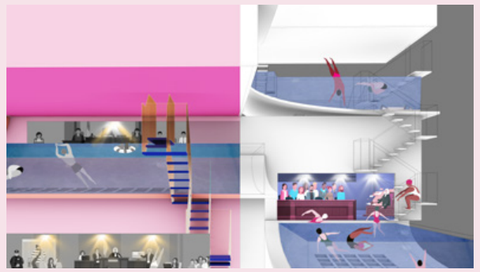
The Movement

Envy + Greed: Vagelos College of Physicians and Surgeons



Wrath: Journalism School

Pride: School of Social Network



Lust: Columbia Law School

Sloth: Columbia Business School

Gluttony: School of Engineering and Applied Studies

The Affect

Summer 2019 Design Studio

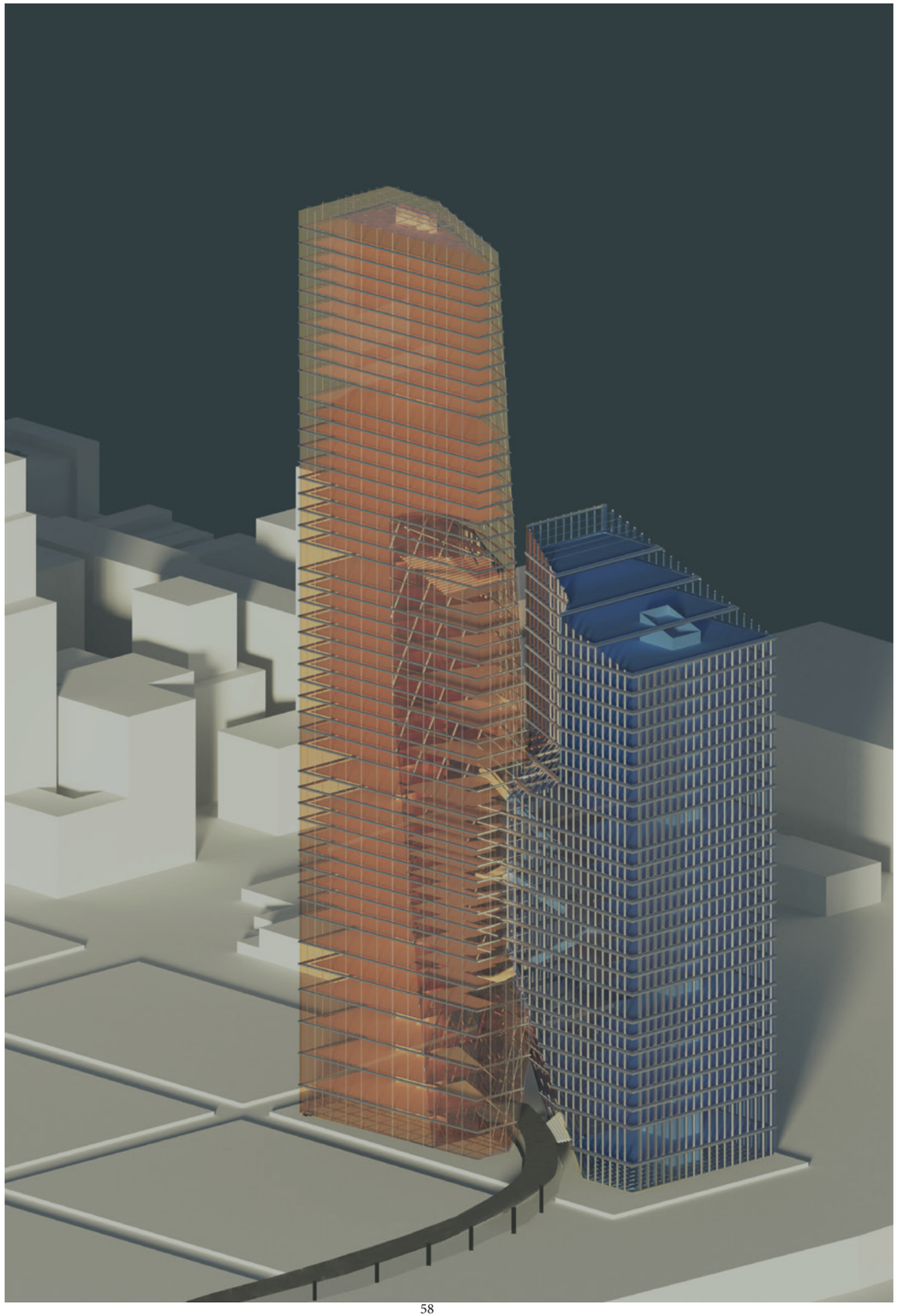
Instructor: Dan Wood

Maurizio Bianchi Mattioli

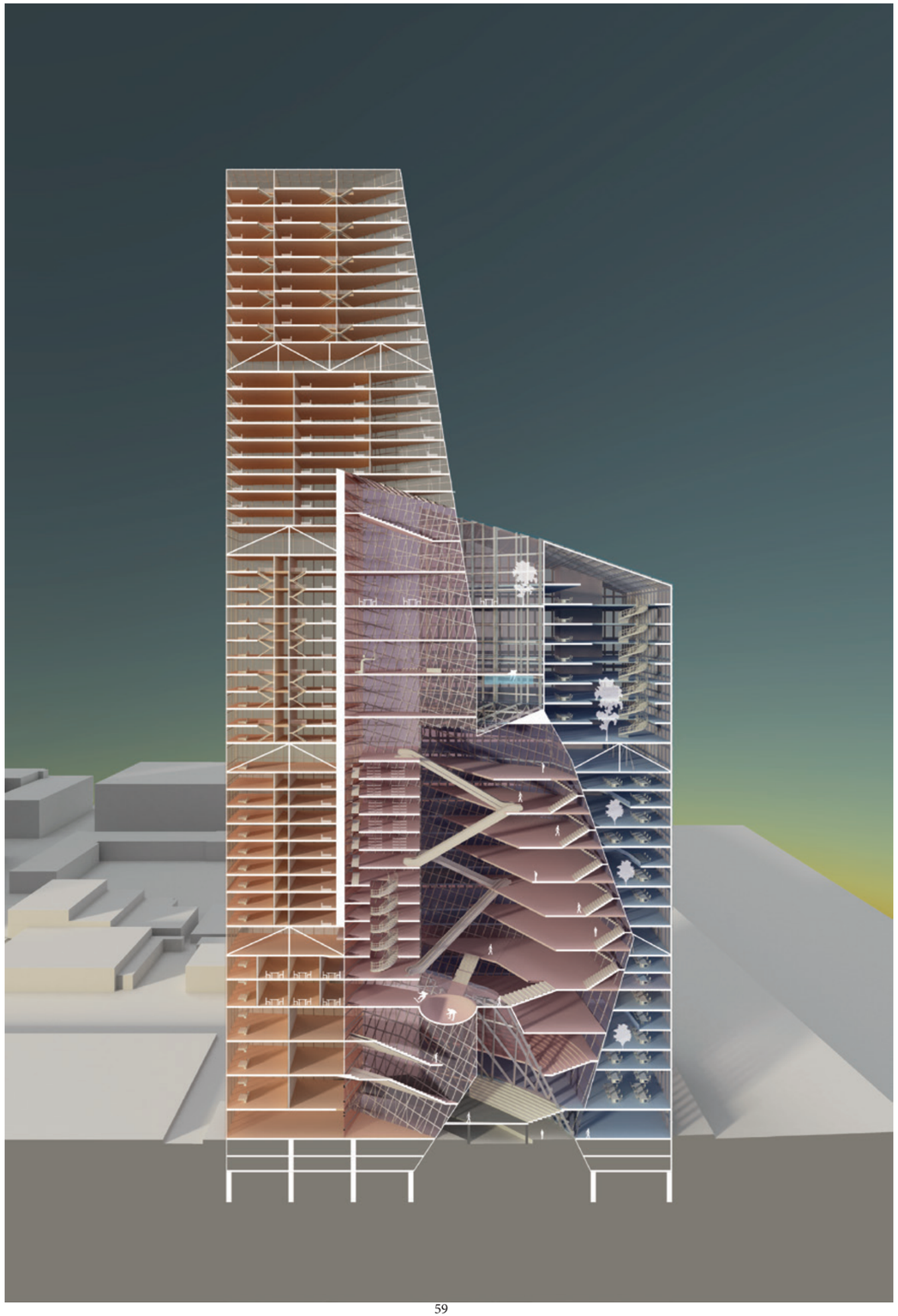
Program: Hybrid

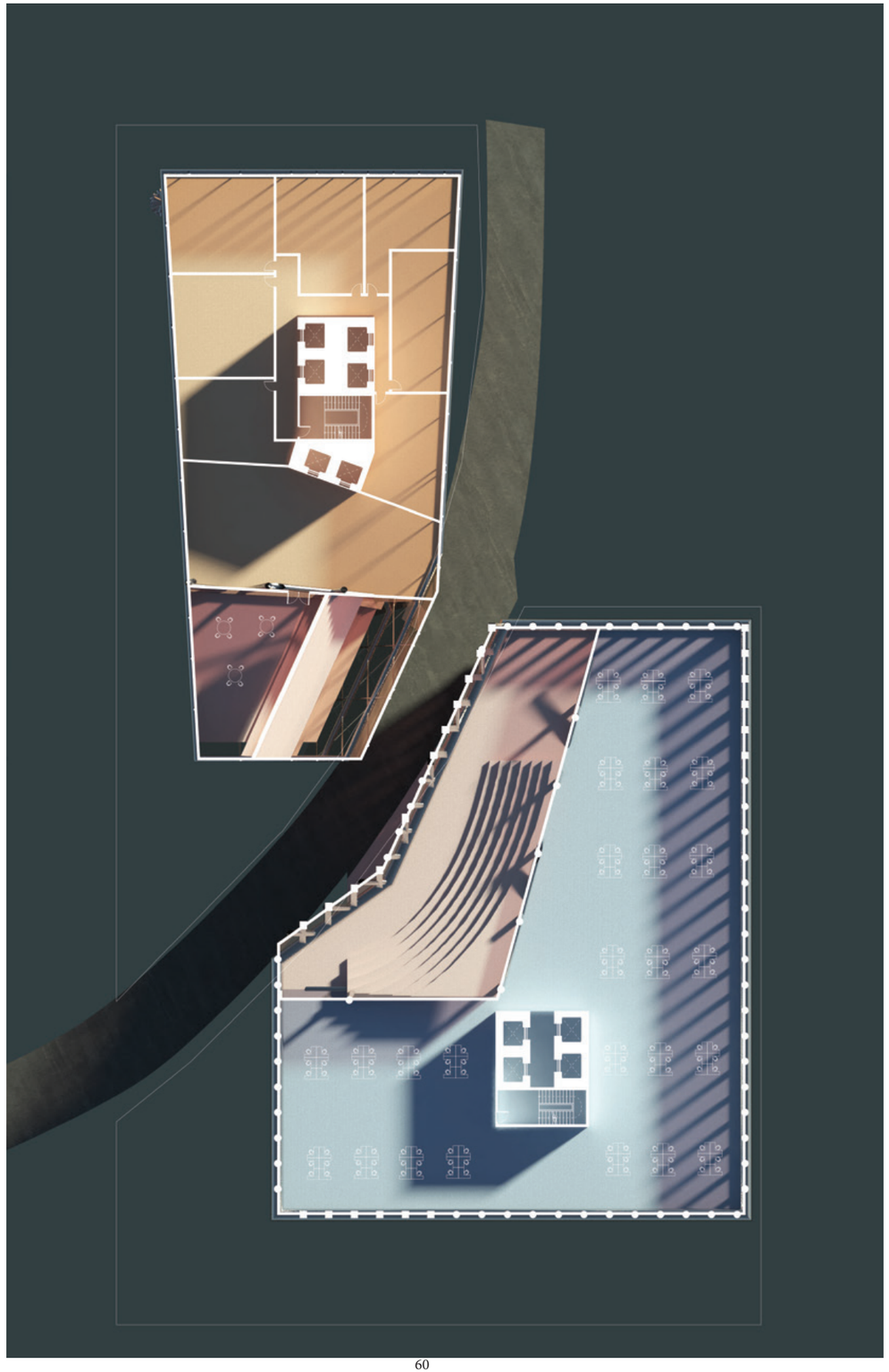
Location: Hudson Yards, NY

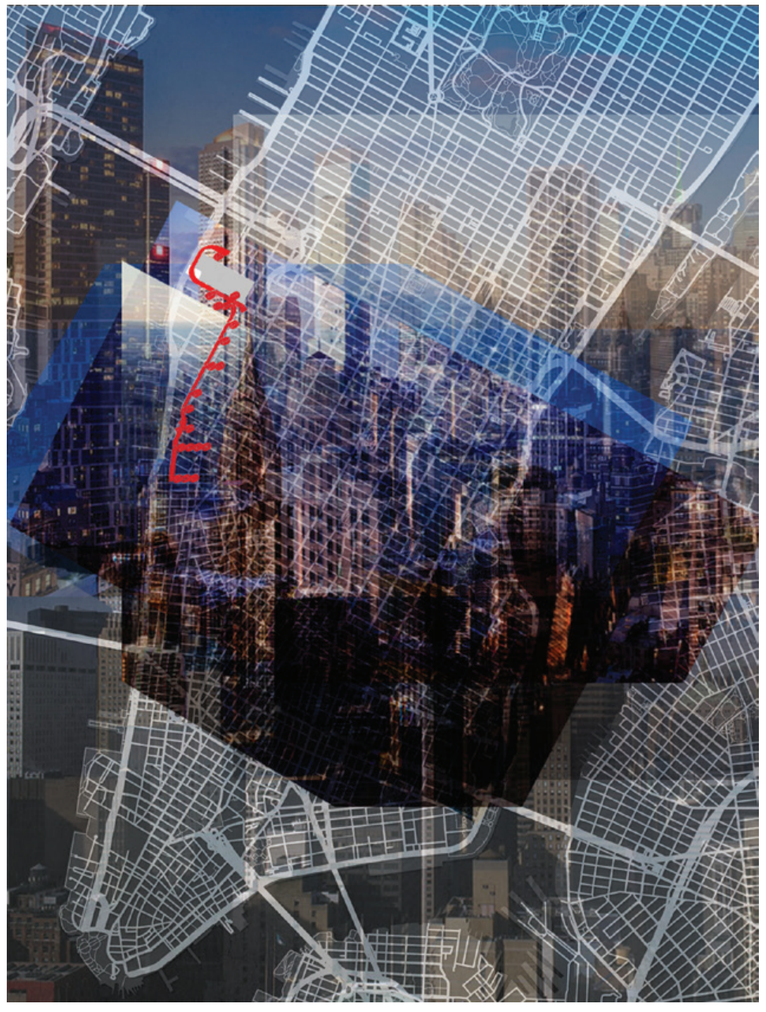
The project is located at Hudson Yards, New York. The site for the project is split into two pieces by the High Line. So basically there are two towers connected and intersected in the middle, allowing the High Line passing through underneath. Considering High Line as part of the project, this part of High Line is more than a street, but becoming the stage, engaging with the auditorium from the two towers. Atrium is introduced to the intersection part above the High Line, providing the interior and exterior space with similar experience The intersection is the main focus of the project.

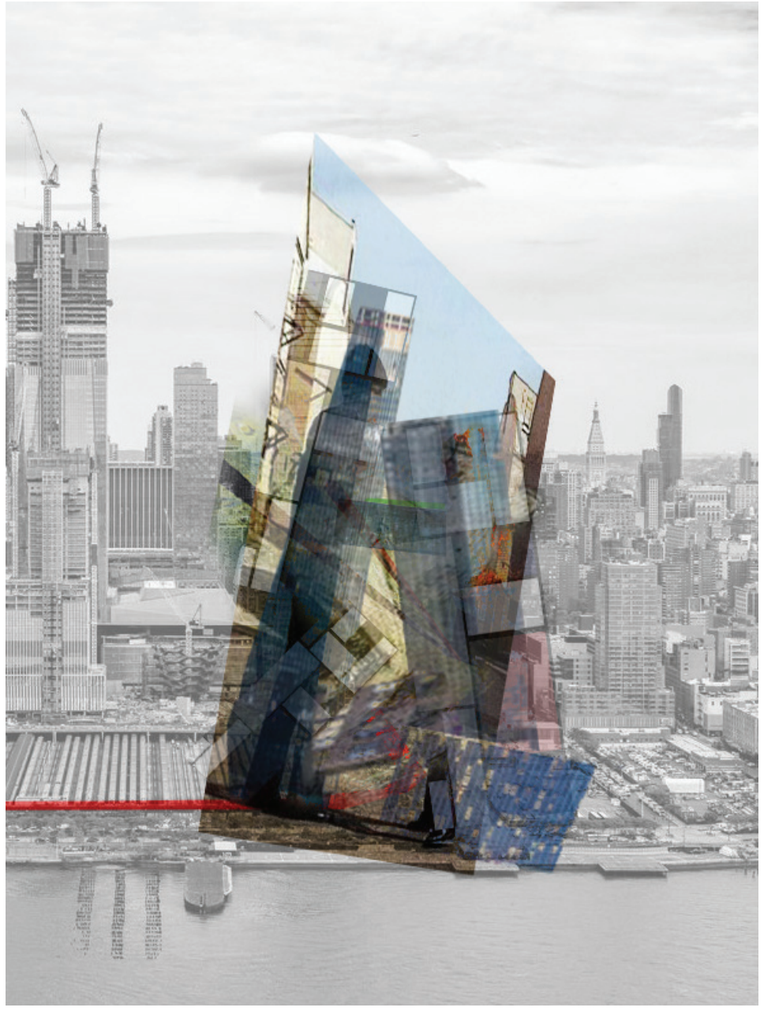


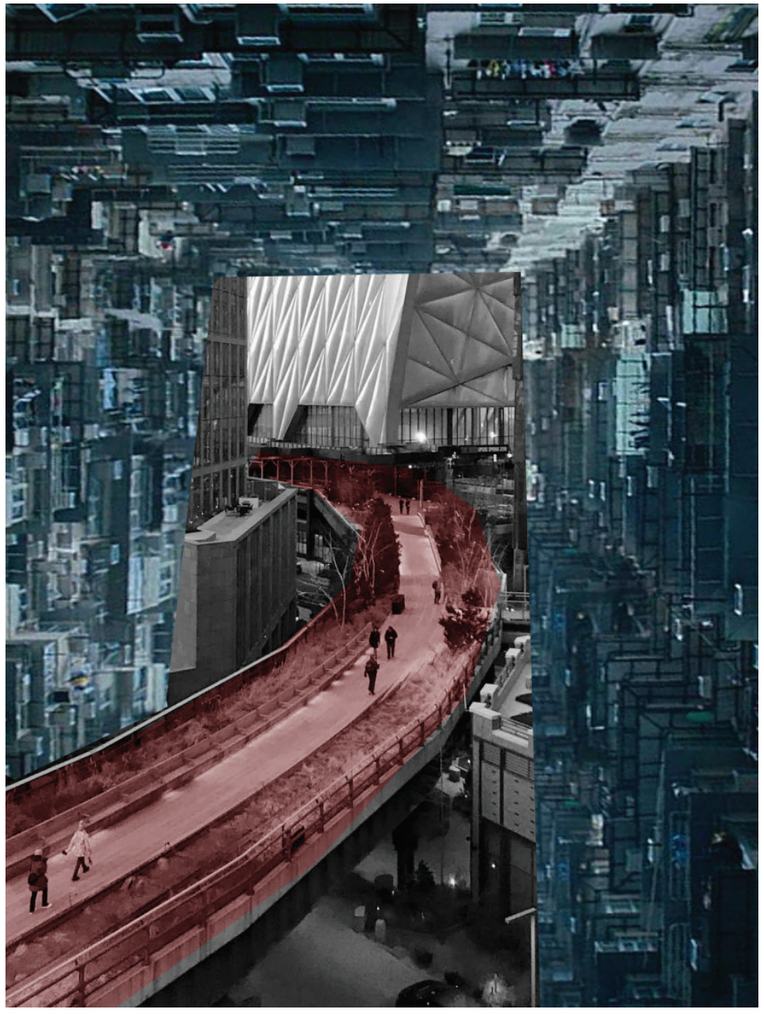






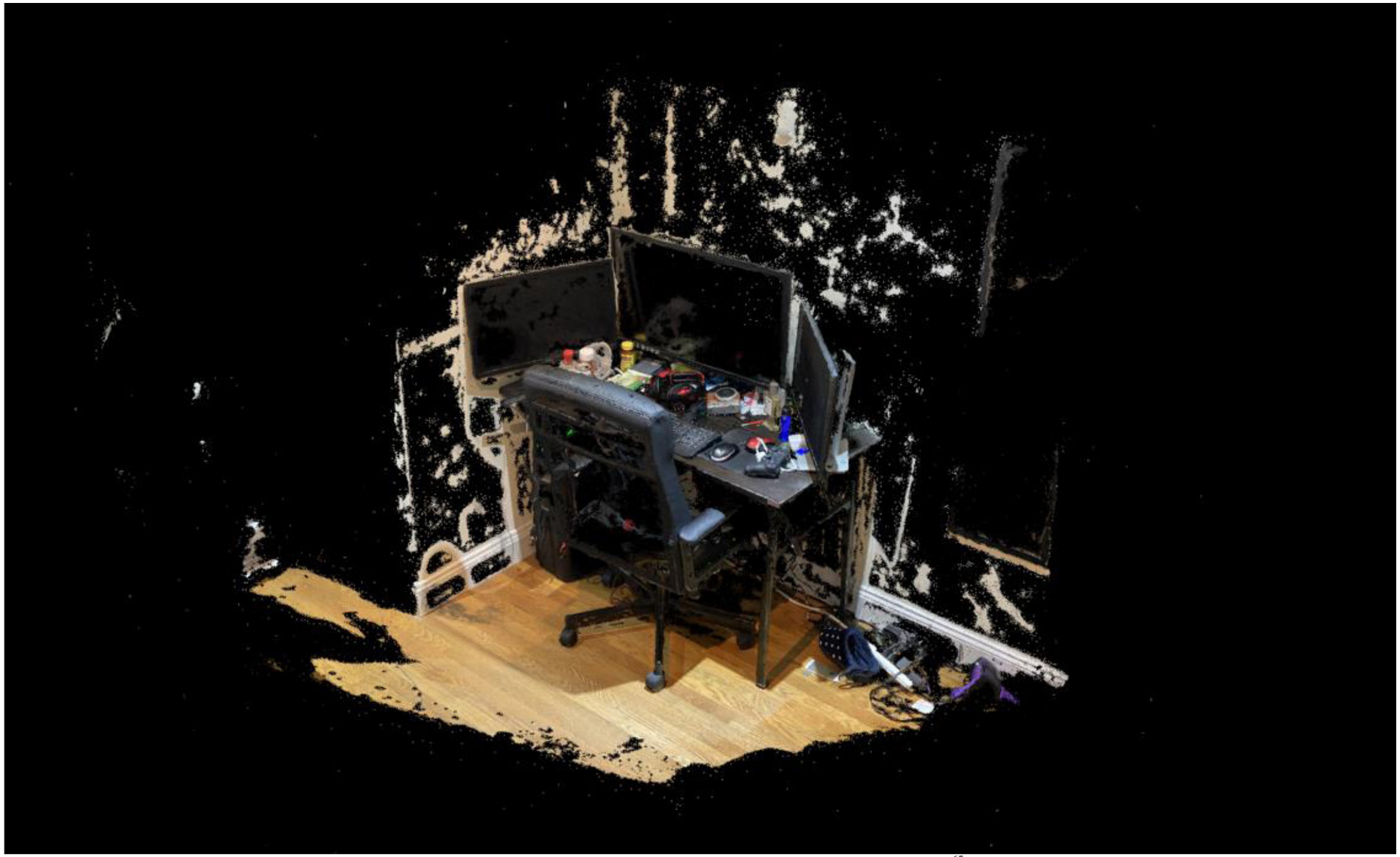






Concept Collages

Spring 2020 Visual Studies
Tools for Show
Instructor: Bika Sibila Rebek Huemer

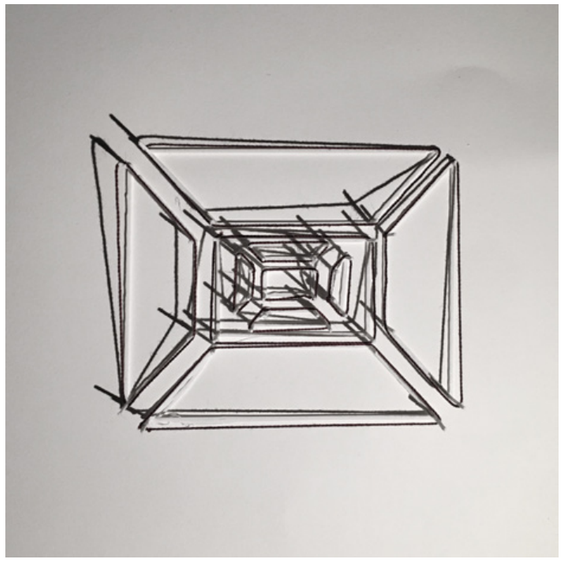


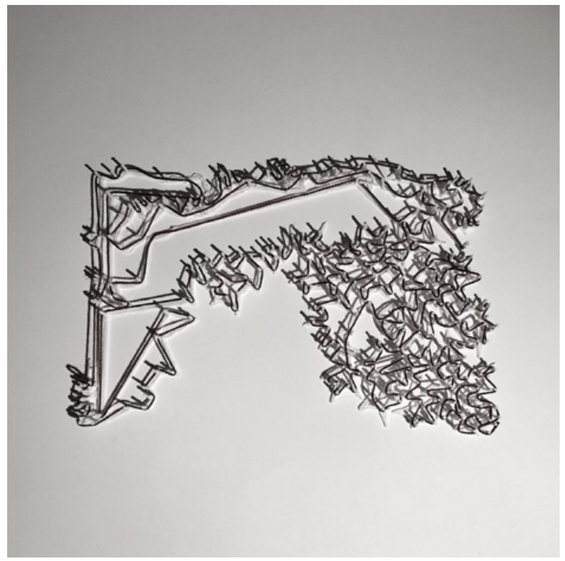
The desk is the representation of my stay home life since the quarantine. I spend my day there studying and playing. This area is set up with three monitors to fulfill my working requirement as an architecture student, to provide a space like the studio at school. Also the monitors help to enhance my experience when playing games. The quarantine changed our daily life. The new stay home life is like a new mission in the game, and we are playing the game with the controller.

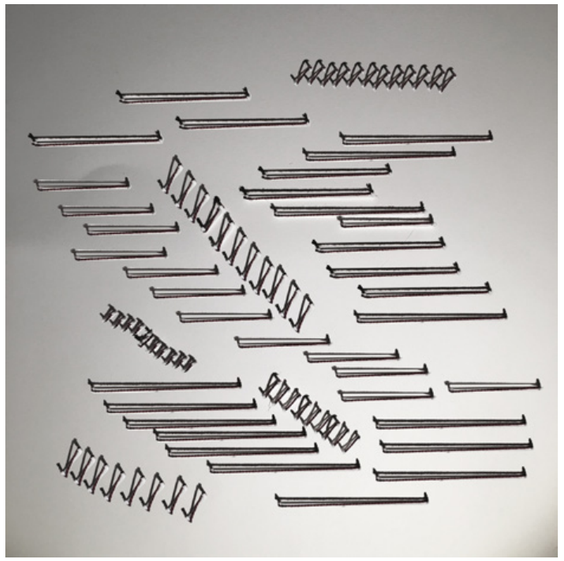
Fall 2019 Visual Studies

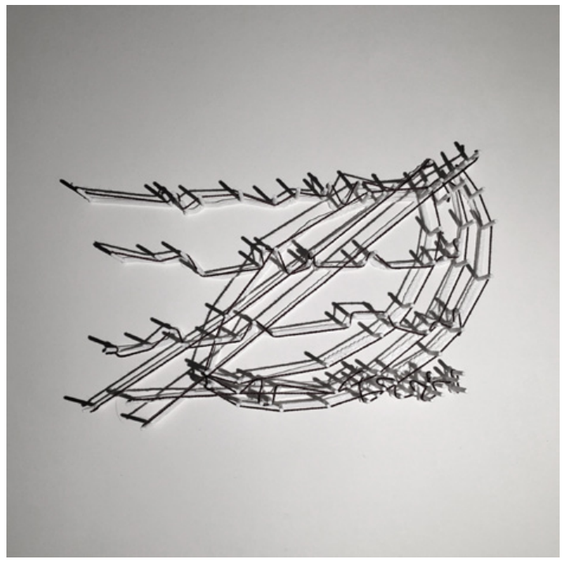
Lines not Spines

Instructor: Christoph Kumpusch

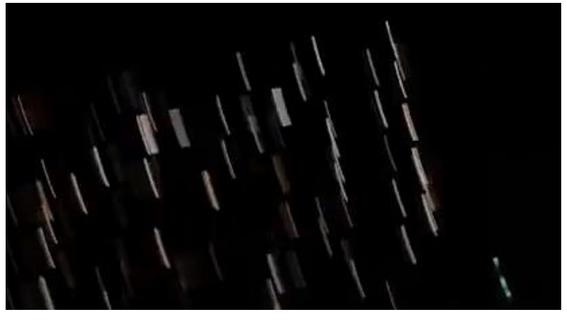






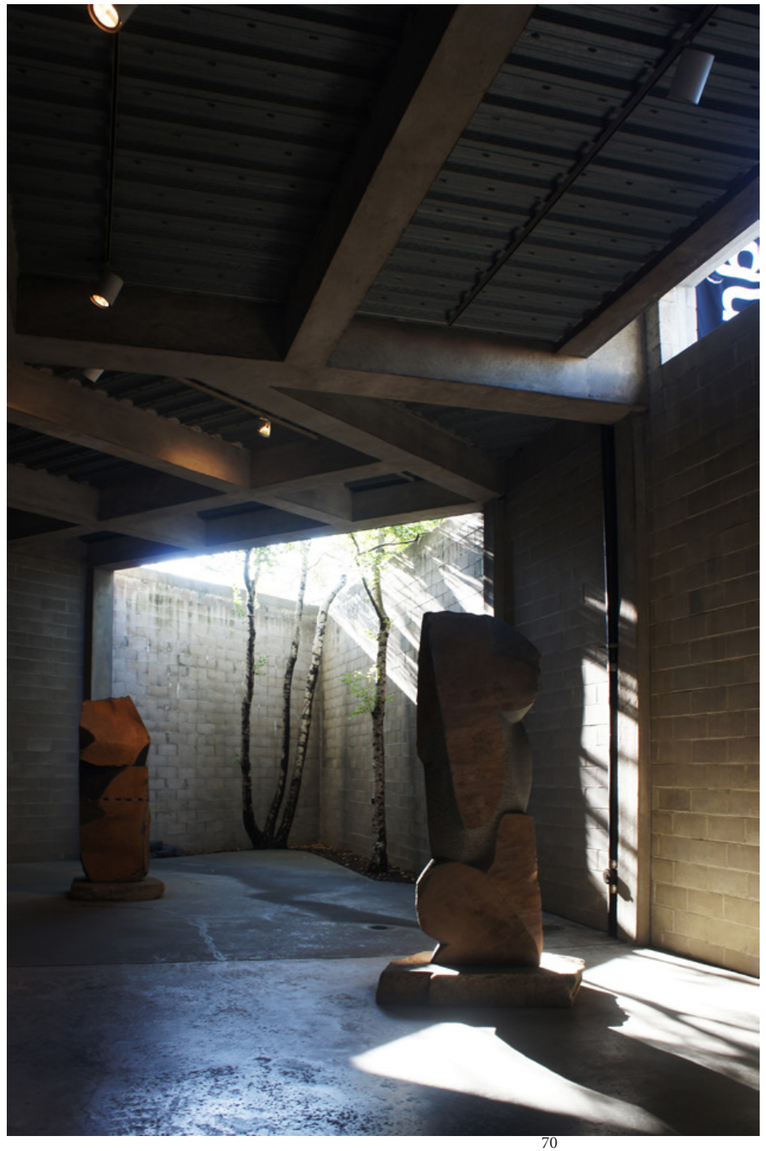


Coherence is the clear reading and understanding of a subject. Incoherence is the break of consistency in the process. When the subject becomes recognizable but not for sure, it is the moment I would like to call “nearly coherent”. The frame and column, extracted from the two-dimensional drawing, provides a three dimensional space in which the string can wrap at different height. It looks two-dimensional at the top view, but the shadow indicates the three-dimensional space. The new composition of the two dimensional frame, connection columns, three-dimensional model and the shadow shapes the distorted reality.



Night Drawing
Partner: Zifan Zhang, Jingyuan Zhang

Fall 2019 Visual Studies
Architectural Photography
Instructor: Michael Vahrenwald



ELEVATOR
IN CASE OF FIRE,
USE STAIRS
UNLESS
OTHERWISE
INSTRUCTED

ALL
PASSION
SPENT

EXIT

Fall 2019 Theories

The History of Arch Theor

Instructor: Mark Wigley

Complexity and Contradiction in Architecture

Architecture theory experiences a critical history. It is the representation and reflection of culture, social, economic and idea of a certain period. Environment, political background and social ideology promote movements in art and architecture, changing the dominant theory from one to another.

In the early twentieth century, architects such as Le Corbusier and Mies Van der Rohe proposed the idea of Functionalism, which believes that building form should follow its function, criticizing ornamental architecture. Designing from interior to the exterior, architecture presents a unification between what architecture looks like and what it does. The use of material and simple geometry emphasized the practicability in architecture. “Less in more” is what most architects insisted during their design at that period. Until 1960s after World War Two, the development of economy and society enabled architects to rethink Functionalism. Modern Architecture was being criticized as cold machines with similar forms, lack of the respect to humanity and the representation of history and society. The idea of absoluteness and definiteness in the Industrial Revolution was challenged. Society was in a more complex condition, dealing with problems came with innovations and development. Architects, at the same time, were facing more complex condition as well. Architects started to rethink about architecture in terms of building form and function, criticizing the pure functionalism. Charles A. Jencks hold the idea that architecture should be like metaphor in language, it should provide audience with illusions and different aspects of understanding instead of just a simple profile, like a shoebox.

Similar to his idea, Robert Venturi published the book Complexity and Contradiction in Architecture in 1966. As Venturi wrote in the book, “And today the wants of program, structure, mechanical equipment, and expression, even in single buildings in simple contexts, are diverse and conflicting in ways previously unimaginable. The increasing dimension and scale of architecture in urban and regional planning add to the difficulties.” there are facts and conflicts that can no longer be solved and simplified as function. He believes that architecture is composed not only by its autonomous form but also by more complex factors such as functions, tectonics, environmental systems and etc. Purity and Cleanness in the previous theory simplified elements in the building and ignored the conflicts in a real architecture project.

“Form should follow function” is proposed by Modern architects to against the Classicism by breaking the old rules and constraint. “Less” is a concept on the contrast with ornaments, symbols and form which was widely used in the 17th to 18th century. So according to Modern architects, architecture should only have necessary function and show the function directly. Farnsworth House by Mies van der Rohe further explains the idea “Less is more”. The building consists only frame and glass, introducing a conversation between the project and the surrounding nature. The house is basically a glass box with a small closed space for bathroom inside. The interior is open to the public with white columns. People from the outside can see clearly what it is inside. Farnsworth House shows Mies’ aesthetics: simple, order, purity and clearness. The building is less but the nature is more.

The problems come with the project are the expensive maintenance fee and the lack of function. “Less is more” is another kind of form architects are seeking for. To achieve this, they ignored clients’ psychological requirement for a house and the cost. The use of glass in Farnsworth House results in the absence of privacy and waste of thermal energy. It is like what Venturi says that less is achieved because architects ignored many aspects in architecture. Form in the 17th and 18th century limited architects with the ornaments and the rigid exterior and facade. Modern architects actually proposed a “formless” form to free themselves and ignore the existing conflicts, while Venturi proposed to face the conflicts by acknowledging and emphasizing the complexity and contradiction in architecture. Those conflicts are the objective existence. Architects should decide how to solve and balance the conflicts but not decide what to solve and balance.

On the contrast with “less is more”, less is bore because of its absoluteness and straightforwardness. Venturi states that “I like complexity and contradiction in architecture. I do not like the incoherence or arbitrariness of incompetent architecture nor the precious intricacies of picturesqueness or expressionism. Instead, I speak of a complex and contradictory architecture based on the richness and ambiguity of modern experience, including that experience which is inherent in art.” I think “Less” should be understood as succinct to promote the overall complexity and contradiction in architecture. The increasing scale of urban and dimension in projects forces architects to acknowledge the uncertainty, diversity and ambiguity. The relationship between form and function is no longer simply “form follows function” but juxtaposed. A specific function is not that important in the post-modern architecture. Society is changing rapidly, encouraging architects to seek architectural values more than a simple function in a building. Modern architects abolished tradition and took innovation as their goals. Venturi is not against the “new”, but stresses the importance of regulation. He opposes the idea of abolishing tradition and proposes to use tradition architectural elements or methods in an untraditional way. Also inspired by Pop Art, Venturi starts to think about architectural language and architectural symbolism to the public to enhance the relationship between architectural scale and the urban environment.

Ambiguity is the core and representation of the complexity and contradiction in architecture. “Ambiguity and tension are everywhere in an architecture of complexity and contradiction. Architecture is form and substance--abstract and concrete-and its meaning derives from its interior characteristics and its particular context. An architectural element is perceived as form and structure, texture and material. These oscilating relationships, complex and contradictory, are the source of the ambiguity and tension characteristic to the medium of architecture. The conjunction “or” with a question mark can usually describe ambiguous relationships.” Ambiguity can be expressed in form and geometry. Like Venturi mentioned in the book, the plan of Le Corbusier’s Villa Savoye gives people with the illusion of square or not, and Luigi Moretti’s apartments on the Via Parioli in Rome makes people question that if there is one building with a split or two buildings join to get a whole. Ambiguity is what I find most intriguing in architecture personally. It provides people with a second reading and understanding, leaving people to imagine and to get their own answers. The illusion that ambiguity creates blurs the boundary of certainty, positing the audience at a nearly balance position where they think they have the answer but are not sure. It reminds me of the elephant and hat story in the Little Prince, the ambiguous figure can be understood as a hat or a snake swallowing an elephant. Instead of presenting the society and public with a building that people know what it is when they first see it, ambiguity involves people more within architecture, to have their own definition which can be various from individual to individual.

Venturi proposed the idea of "both-and" to further explain ambiguity in architecture. The "both-and" relationship shows the contradiction which two or more conditions and circumstances are presented in the same project, interacting with one another, leaving the conflicts but create the overall harmony. Venturi explains that "If the source of the both-and phenomenon is contradiction, its basis is hierarchy, which yields several levels of meanings among elements with varying values. It can include elements that are both good and awkward, big and little, closed and open, continuous and articulated, round and square, structural and spatial. An architecture which includes varying levels of meaning breeds ambiguity and tension." With Venturi's early working experience with Louis Kahn, they shared the similar idea of this contradiction. As Kahn points out the concept of good spaces and bad spaces in architecture, irrational design can be understood in a project. Sometimes architects even need to yield to the irrational space and keep the specialty for the overall effect. Venturi took Hawksmoor's St. George-in-the-East as an example that "exaggerated keystones over the aisle windows are wrong in relation to the part: when seen close-up they are too big in relation to the opening they span." But looking at the whole project, the scale and dimension is correct. Architects should not only focus on a specific point but also have a sense of part to whole relationship. "Zooming in" and "zooming out" is a continuous process during the design, allowing the existence of seemingly irrational and unreasonable details to provide the whole project with more reading and dimensions. In Louis Kahn's Exeter Library, the large circular opening with contrast with the square profile is iconic. The opening is exaggerated comparing to the repeat and relatively small shelves behind, giving the space a grandeur atmosphere. Audience's perceptual scale and understanding of the space is influenced and suggested by this specific and seemingly irrational large opening, presenting a contradiction between small and large, between human and nature, between figure and architecture, which is the overall effect Kahn intended to achieve.

Ambiguity can be also expressed in function. The building needs to serve as not only program but as a hybrid use with the development of society. The Convent of La Tourette, designed by Le Corbusier, is a hybrid of church and dormitory with a convent, a conference center, classroom, library, kitchen and bedrooms. It is not only a public space for the convent, but also private space for living, keeping the divine atmosphere while shorten the distance between individuals. There is no definite and absolute definition about the function and program to limit the use of the space. Especially nowadays, society is facing a problem of shortage of land and efficiency of space. A building should be able to fit in different programs and situations. For example, most restaurants are empty when it is not time for meal. If architects design the space to make it become a church at other time with simple changes to the arrangement of furniture, the space is more ambiguous and can be used more efficiently comparing to just a restaurant.

It is the flexibility that Venturi talked about in the book "The multifunctioning room is a possibly truer answer to the Modern architect's concern with flexibility. The room with a generic rather than a specific purpose, and with movable furniture rather than movable partitions, promotes a perceptual flexibility rather than a physical flexibility, and permits the toughness and permanence still necessary in our building. Valid ambiguity promotes useful flexibility." Flexibility is the ambiguity in space. It does not assign people with specific movements or activities. Taking classrooms as example, it regulates people's behavior inside the space that students cannot have meal while study or talk on phone in the classroom. That is the reason why there are always other ambiguous space in a school, allowing the conversation between students since being in a class is not the only purpose of school. Cafe or lounge space is such a public space with chairs and tables. So a clear division and category of program decrease the usage rate, resulting in the waste of space. It is always more interesting and exciting to see people create their own space according to their needs and movement than following the activities that the space limits.

The same idea of "flexibility" can also be expressed as the function of architectural elements. In Frank Lloyd Wright's Guggenheim Museum, the large spiral ramp in the center functions as both circulation and exhibition space. It is directional and unidirectional at the same time, suggesting viewers with a clear movement in the museum while leaving them the free movement to appreciate art in a way they want. Comparing to traditional museum where artwork is located in the rooms, the circulation provides the gallery with flexibility to arrange art pieces and with imagination of large installation and new media exhibition.

Modern Architecture was against tradition, against ornament, against order. It wanted to create the new and seek innovation. Venturi points out that tradition, ornament and order are meaningful in architecture. Order has accommodation and limitation, which means that order is exited before it is abolished but it is variable and changeable with the uncertainty in the society. He proposed that "A valid order accommodates the circumstantial contradictions of a complex reality. It accommodates as well as imposes. It thereby admits "control and spontaneity," "correctness and improvisation within the whole. It tolerates qualifications and compromise. There are no fixed laws in architecture, but not everything will work in a building or a city. The architect must decide, and these subtle evaluations are among his principal functions. He must determine what must be made to work and what it is possible to compromise with, what will give in, and where and how. He does not ignore or exclude inconsistencies of program and structure within the order." Le Corbusier's Villa Savoye has the overall order, the well-organized geometry and exterior, which accommodate and acknowledged the contradiction and conflicts, breaking the order in the project. Traditional and conventional elements can be seen as another order in architecture. Those elements or conventional methods should be used in an unconventional way instead of being ignored or abolished. With the popularity of Pop Art, architects should think about the value and importance of pop culture and commercial building to the public. It is like slang in language, architects need to know the architectural language to communicate not only with architecture but with the public. Venturi acknowledge the existence of honky-tonk in an urban scale. Architects is negotiating with the public and their interest.

In his another book Learn from Las Vegas, Venturi thinks that Las Vegas is a good example of practical architecture in the real world, considering infrastructure, transportation. The used of billboards is eclecticism. The narrowed street, lighting, billboards and the commercial environment are the result of market choice, reflecting public's preference. Architects should communicate with the public, understanding and acknowledging their preference and value. The public does not understand the "architectural language", but they have their own preference which should be taken as an important factor in design. It has a commercial order which is seemly against the architectural order. The development of this city is mainly the result of profits and client.

1. Complexity and Contradiction in Architecture, Robert Venturi, Chapter 1 "Nonstraightforward Architecture: A Gentle Manifesto"

2. Complexity and Contradiction in Architecture, Robert Venturi, Chapter 1 "Nonstraightforward Architecture: A Gentle Manifesto"

3. Complexity and Contradiction in Architecture, Robert Venturi, Chapter 3 "Ambiguity"



4. Complexity and Contradiction in Architecture, Robert Venturi, Chapter 4 "Contradictory Levels: the Phenomenon of "Both-And" in Architecture"

5. Complexity and Contradiction in Architecture, Robert Venturi, Chapter 4 "Contradictory Levels: the Phenomenon of "Both-And" in Architecture"

6. Complexity and Contradiction in Architecture, Robert Venturi, Chapter 5 "Contradictory Levels Continued: The Double-Functioning Element"

So public's preference may be ornamental. It is reasonable to design a building as a sculpture to fulfill such a demand instead of abandoning form. The Pilgrimage Chapel of Notre Dame du Haut at Ronchamp by Le Corbusier is more like a sculpture from the exterior. It challenges the traditional church by the curved walls. Le Corbusier used windows with different sizes to introduce natural light and created various light and shadow effects for the interior. Its ornamental and sculptural form provides mysterious and ambiguous interior space, which is against "less is more", but enables viewers and audiences having different understanding and their own unique experience inside the space.

Conventional elements are symbolic in a way that the contrast between the conventions in a new environment would create a rich and powerful reading of architecture. Venturi used conventional elements on the elevation to show the door and window, but he changed the scale which contradicted with the traditional sense of scale of those elements, creating a "both-and" ambiguity in the project. Decoration and ornament are important factor for building facade, which is against with the idea of "less is more". Sometimes building facade even should be like the billboards for the commercial purpose. Facade should not only be the form following function but also have more meaning and be contradictory. Venturi thinks that "In the first facade contradiction is adapted by accommodating and compromising its elements- in the second facade contradiction is juxtaposed by using contrasting superimposed or adjacent elements. Contradiction adapted is tolerant and pliable. It admits improvisation. It involves the disintegration of a prototypeand it ends in approximation and qualification. On the other hand, contradiction juxtaposed is unbending. It contains violent contrasts and uncompromising oppositions. Contradiction adapted ends in a whole which is perhaps impure. Contradiction juxtaposed ends in a whole which is perhaps unresolved."

Another contradiction in architecture is between inside and outside. Modern architects proposed a solution to this contradiction by combining and integrating inside with outside. "Kahn has said: 'A building is a harboring thing.'" Venturi agrees that the relationship between building and site and context and the relationship within the building itself should have two different system regarding the two relationships. Space should have a clear boundary to enclose the inside and differentiate the outside. Architects should design a building from the outside to the inside, on the contrast with the idea of "form follows function", proposing a space within a space. Building with layers not only create complexity because of the contradiction between each layer, but also accommodate the outside environment better. Although the space between layers may create redundant area, the specialty, comparison and contradiction is what Louis Kahn proposed "bad space and good space". Again taking Villa Savoye as an example, the plan indicated that within the simple and organized exterior, Le Corbusier put complex and disordered space inside. The clear outside and interacted inside show the complexity and contradiction in architecture.

Villa Savoye is a building that Venturi takes as examples at almost every chapter in the book Complexity and Contradiction in Architecture. It is interesting and ironically that Villa Savoye is widely regarded as Modern Architecture which focus more on the function instead of the conflicts. Indeed, Le Corbusier designed the Villa Savoye as a machine according to the five points of architecture he proposed in 1929: the pilotis elevating the mass off the ground, the free plan achieved through the separation of the load-bearing columns from the walls subdividing the space, the free facade, the long horizontal sliding window and roof garden. Those five points combine architectural elements with function and create a "code" in Modern Architecture, but at the same time indicate the complexity and contradiction in architecture, which lead Le Corbusier switched from Modernism to Post-Modernism later. The "free" Corbusier proposed gives architects the opportunity to challenge Functionalism. Free plan enables irregular shaped room, redundant space and the conflicts between interior and exterior. Elevating the mass off the ground provides a diverse possibilities of relationships between the building and the site. Free facade means that the building's exterior does not need to follow and show what it is inside. The long horizontal sliding window may function not as or more than a glass panel, but something ornamental. And the roof garden requires architects to think not only the relationship between the building and ground but also between the building and the above.

Complexity and contradiction is inevitable in architecture because of the existing objective conflicts regarding to the relationship between interior and exterior, between building and context, between the space and the user, between materials and energy and etc. The conflicts promote evolution and improvement in architecture and reflect social background. Architecture is to solve the conflicts in the society by proposing different concepts and space and fulfilling people's need. Originally building is to solve the conflicts between environment and human by providing the shelter. And then the use of dome and columns fulfills people's demand for larger space and heavier structure. With the development of technology, glass and concrete creates the conflicts between new materials and old architecture form, resulting in the Modern Architecture. As Eric Owen Moss said, "Architecture needs an enemy", conflicts is a way and a start point to rethink architecture and find the beauty in the complexity and contradiction. When a building element has multiple functions and meanings, there is normally complexity and contradiction created.

"I like elements which are hybrid rather than 'pure,' compromising rather than 'clean,' distorted rather than 'straightforward,' ambiguous rather than 'articulated,' perverse as well as impersonal, boring as well as 'interesting,' conventional rather than 'designed,' accommodating rather than excluding, redundant rather than simple, vestigial as well as innovating, inconsistent and equivocal rather than direct and clear. I am for messy vitality over obvious unity. I include the non sequitur and proclaim the duality" , says Robert Venturi at the beginning of the book Complexity and Contradiction in Architecture. Architects should be responsible for the overall difficulty in the design, from the ambiguous figure, to the double function, from the coexistence of conflicts to the accommodation of contradiction, from the reuse of conventional elements to the public preference, from the interior space to the relationship with the site and context. Architecture is more than space and function. It deals with complex and contradictory aspects including humanity, society, political, environment, climate, aesthetics, religion and etc. The uncertainty of those aspects requires architects to rethink architecture from different perspectives, which create the complexity and contradiction in architecture.

7. Complexity and Contradiction in Architecture, Robert Venturi, Chapter 6 "Accommodation and Limitations of Order: The Conventional Element"

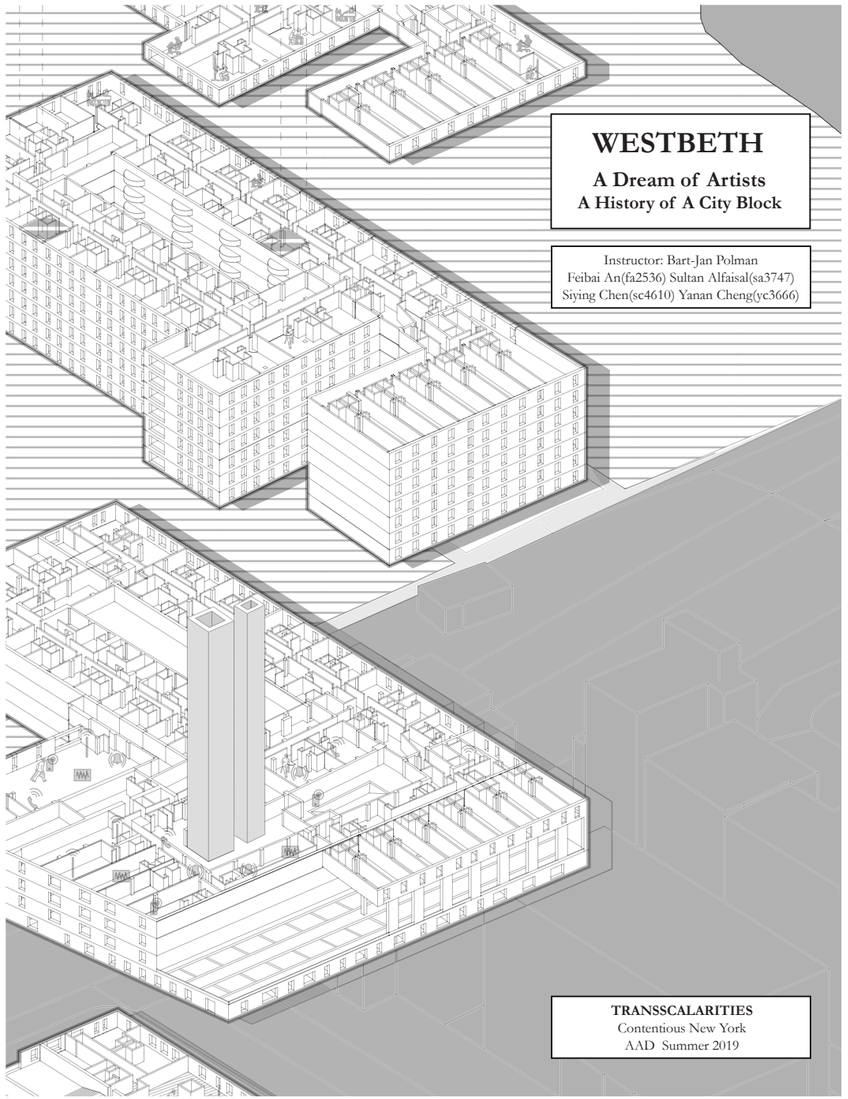
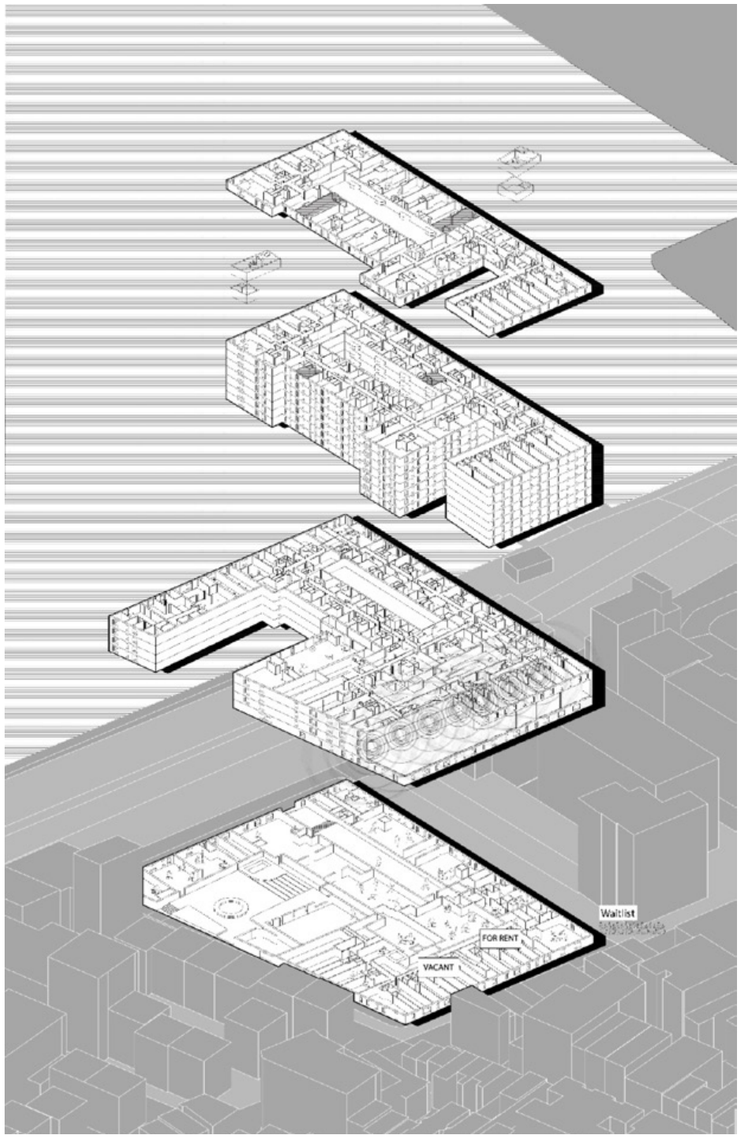
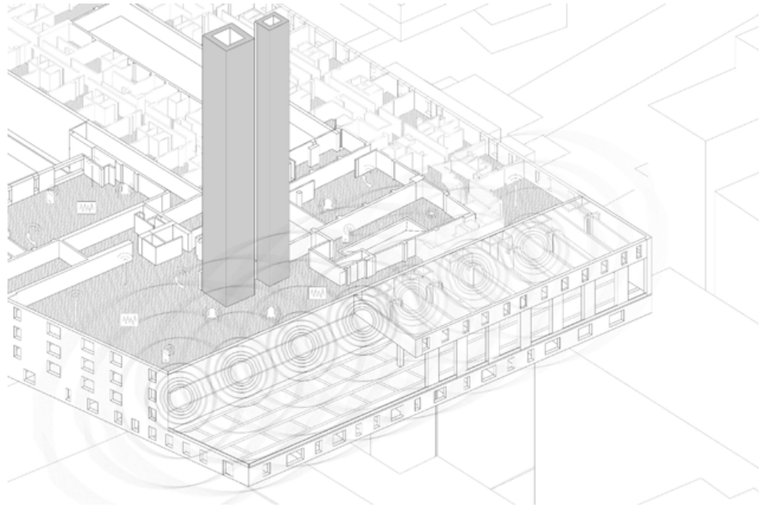
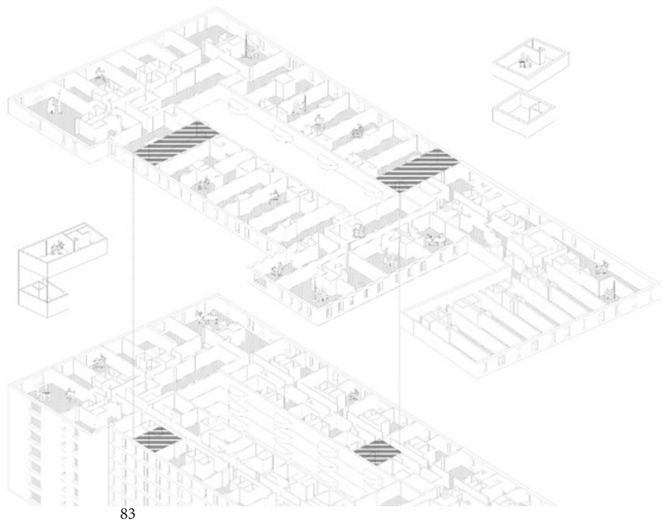
8. Complexity and Contradiction in Architecture, Robert Venturi, Chapter 7 "Contradiction Adapted"

9. Complexity and Contradiction in Architecture, Robert Venturi, Chapter 9 "Inside and Outside"

10. Complexity and Contradiction in Architecture, Robert Venturi, Chapter 1 "Nonstraightforward Architecture: A Gentle Manifesto"

Summer 2019 Technology

Transscalarities

Instructor: Andres Jaque
Bart-Jan Polman

Partner: Feibai An, Yanan Cheng,
Sultan Alfaisal