Shuchang Zhou

GSAPP

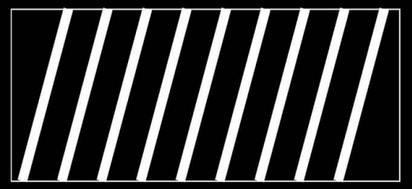
Portfolio

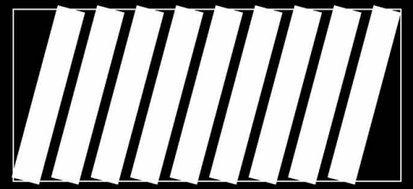
Present? Presents!

Prague Concert Hall
M.S AAD Design Studio
Spring 2020
Instructor:
Steven Holl, Dimitra Tsachrelia
Partner: Siying Chen

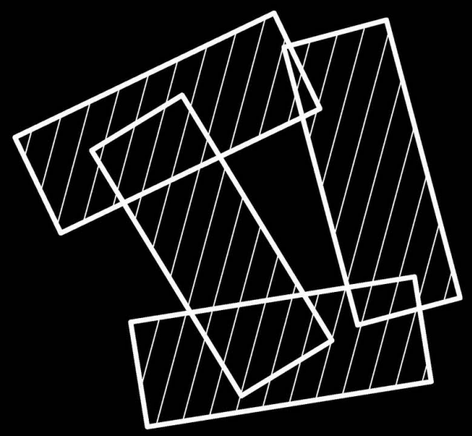
Inspired by two music piece, Kaija Saariaho's Laterna Magica and Morton Feldman's Rothko Chapel, this project translates music as an intangible matter to represent time with different duration.
Rhythm and tempo in the music are translated into lines in the space. Using different density and line weight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

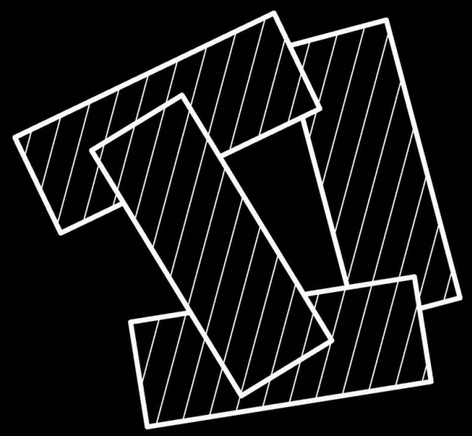
The idea of the **speed** and how the speed then **effects the material**, in my mind, it became an idea of **different tempo**.
--Kaija Saariaho (Laterna Magica)

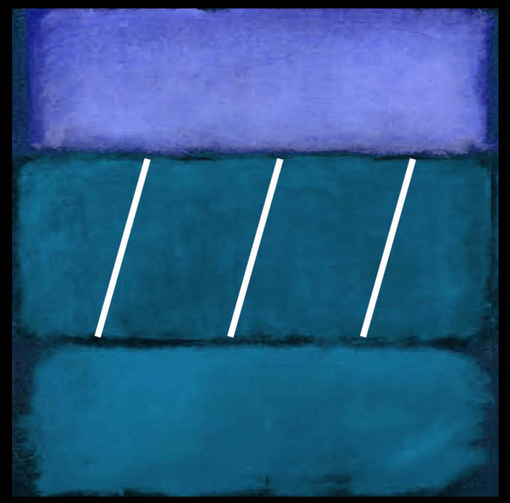




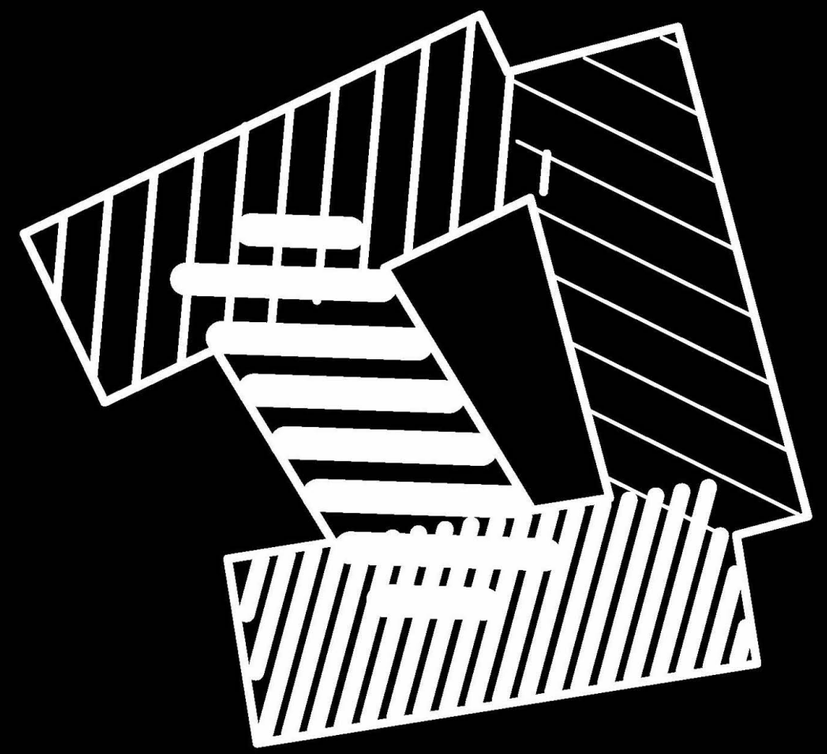
The total **rhythm of the music**, as **Rothko** arranged the **paintings**, created an unbroken **continuity**.
--Morton Feldman (Rothko Chapel)

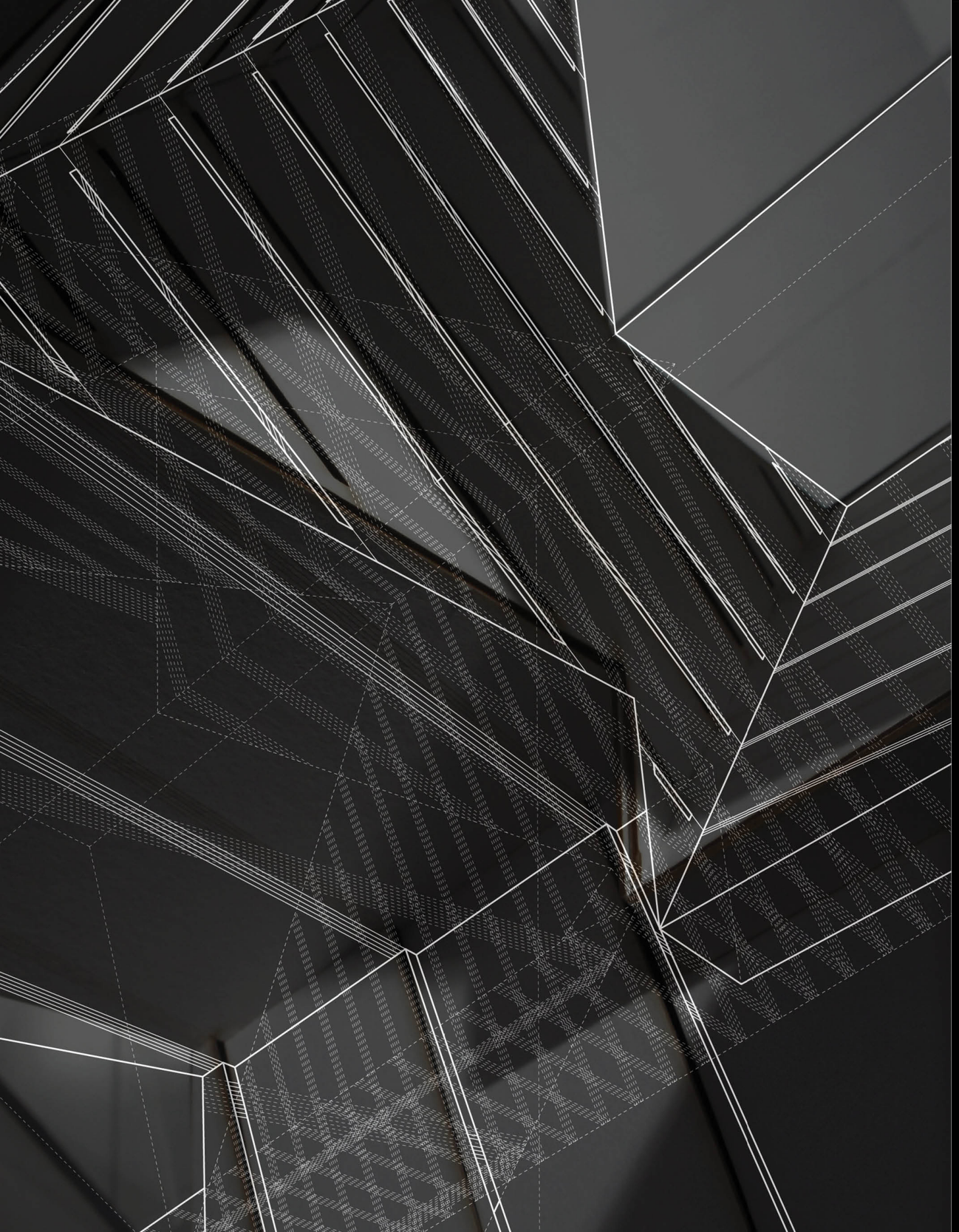


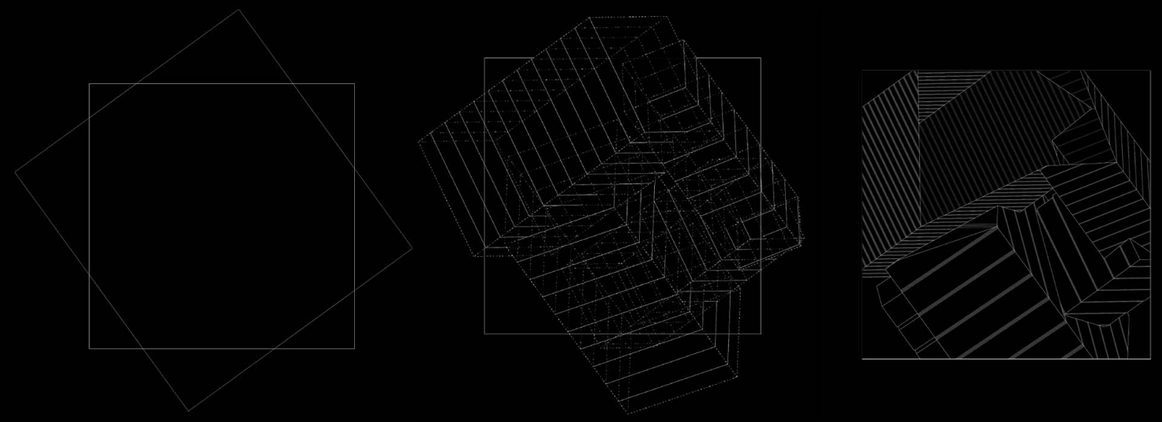


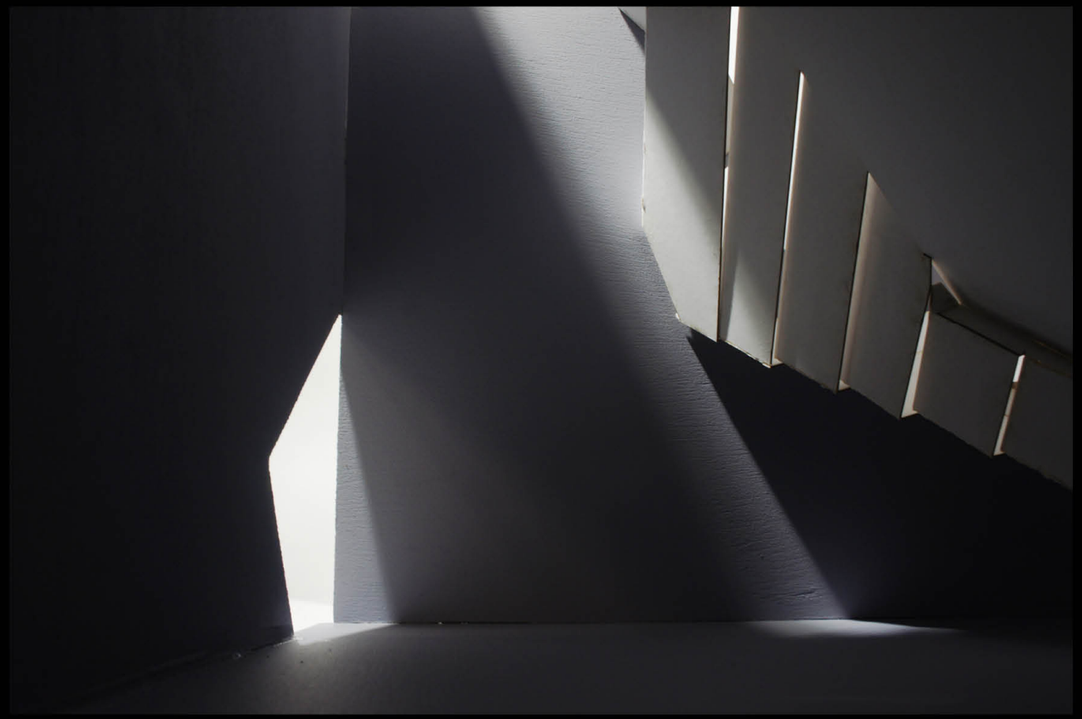


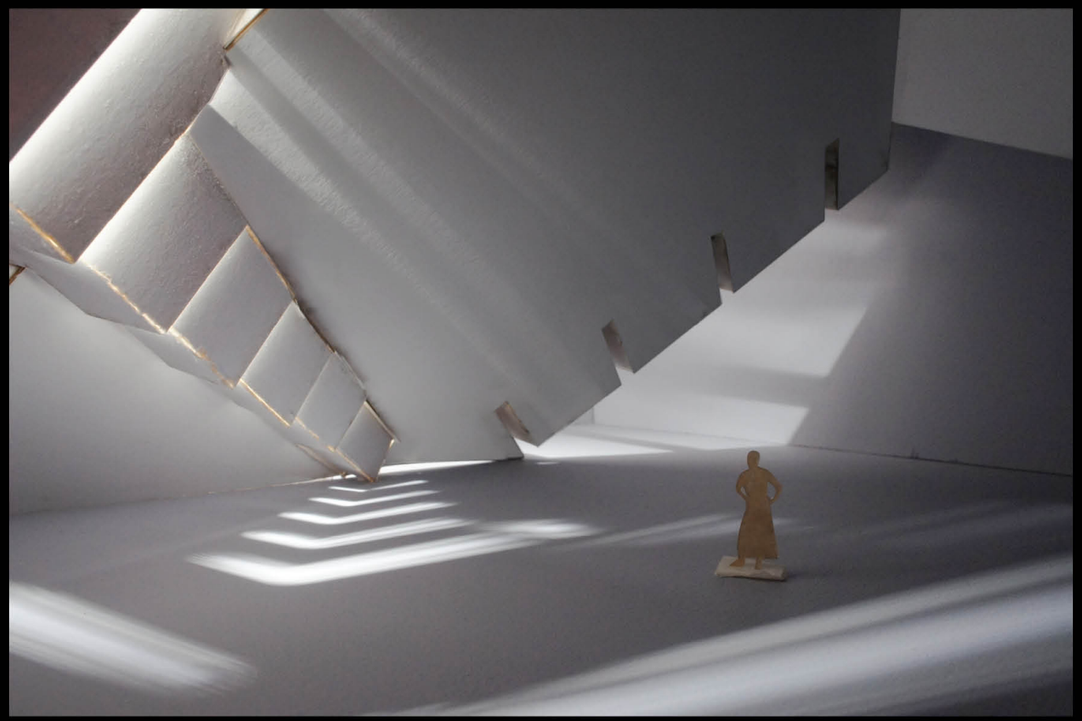
Fledman's nearly inert music resembles the Rothko who had discovered that a surface did not have to be activated by the rhythmic vitality of Pollock to be kept alive, could exist as a strange, vast, monolithic sundial. As he claimed: ""Rothko's imagery goes right to the edge of his canvas, and I wanted the same effect with the music."

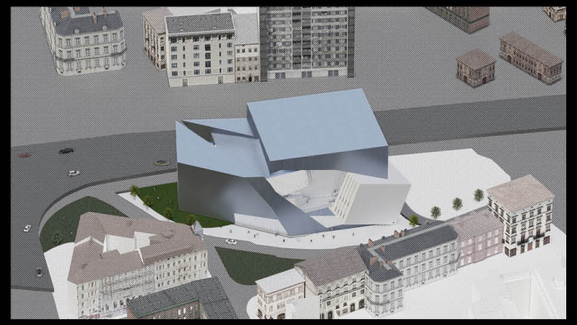




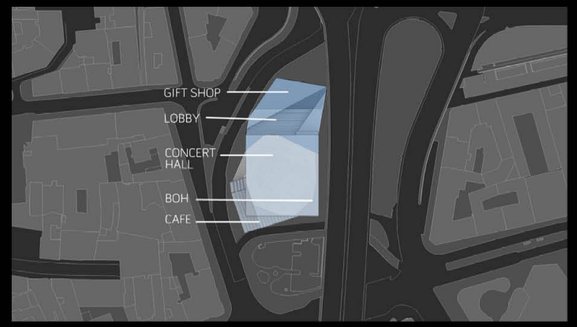


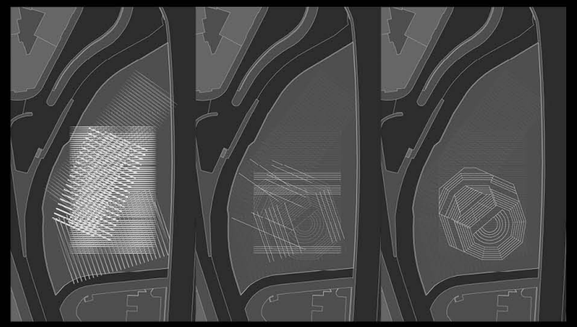




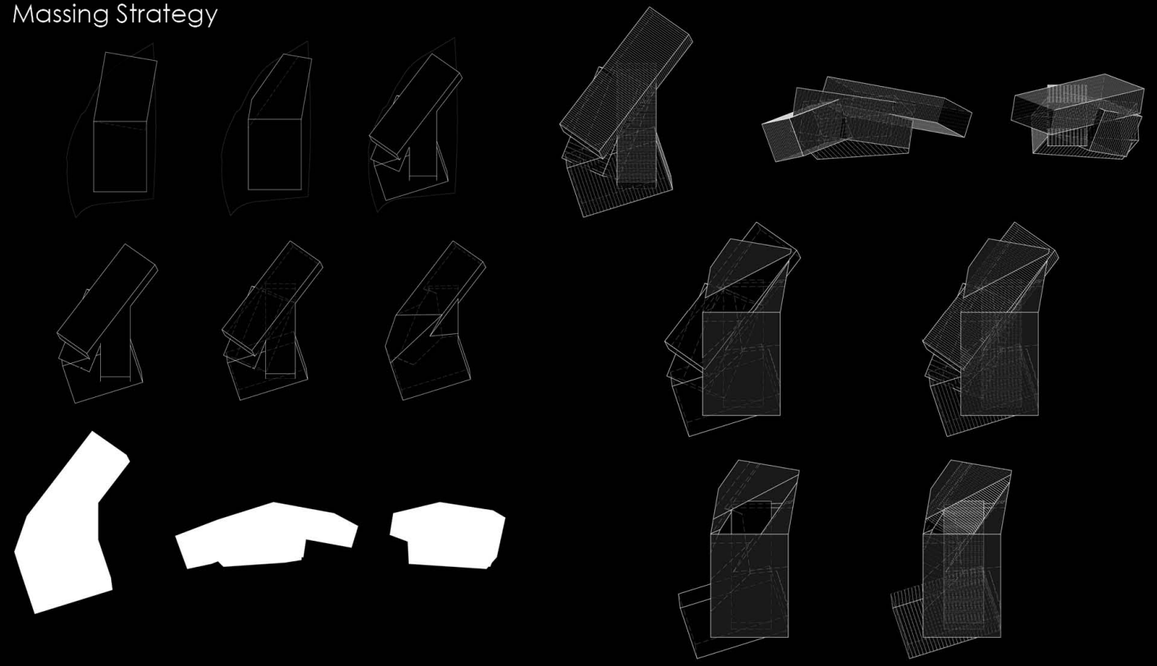


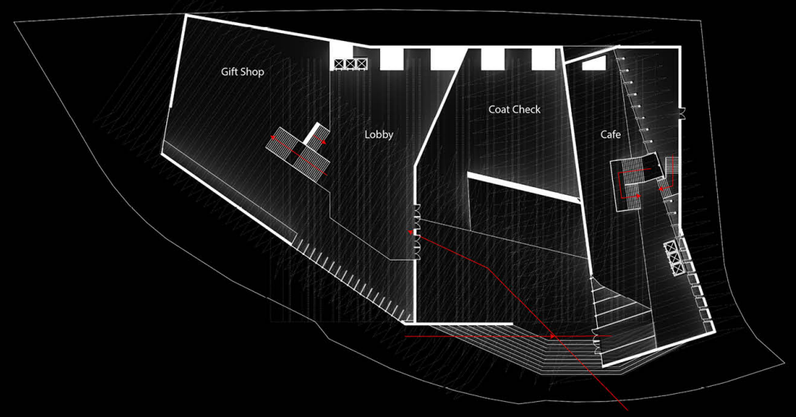
The site is located in Těšnov, Prague, Czech Republic.

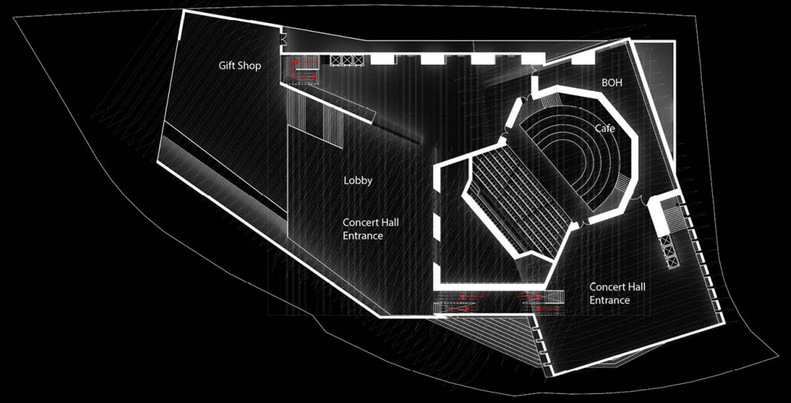


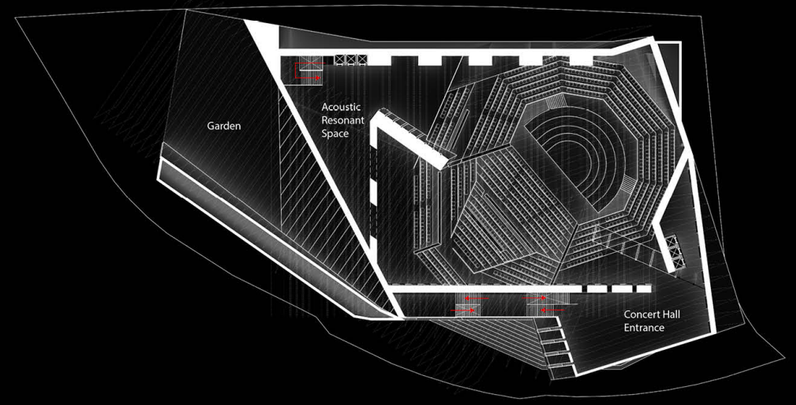


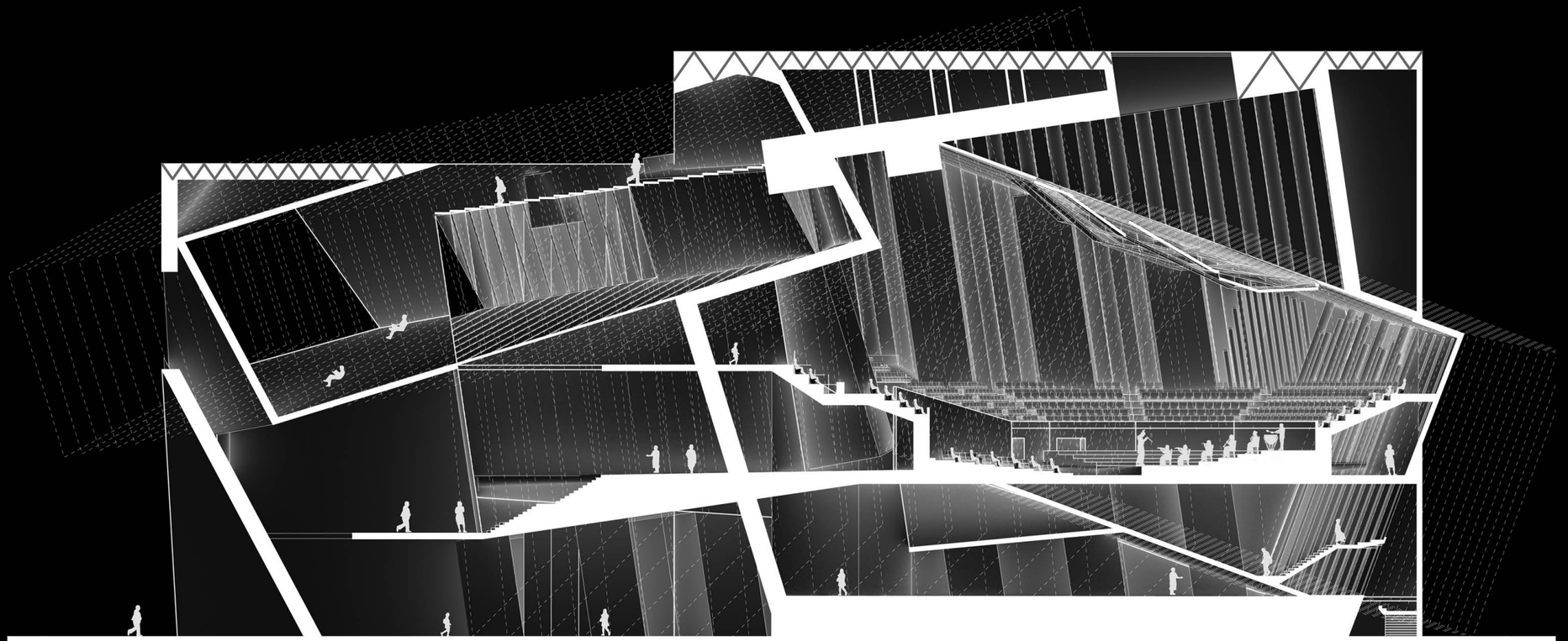
Massing Strategy







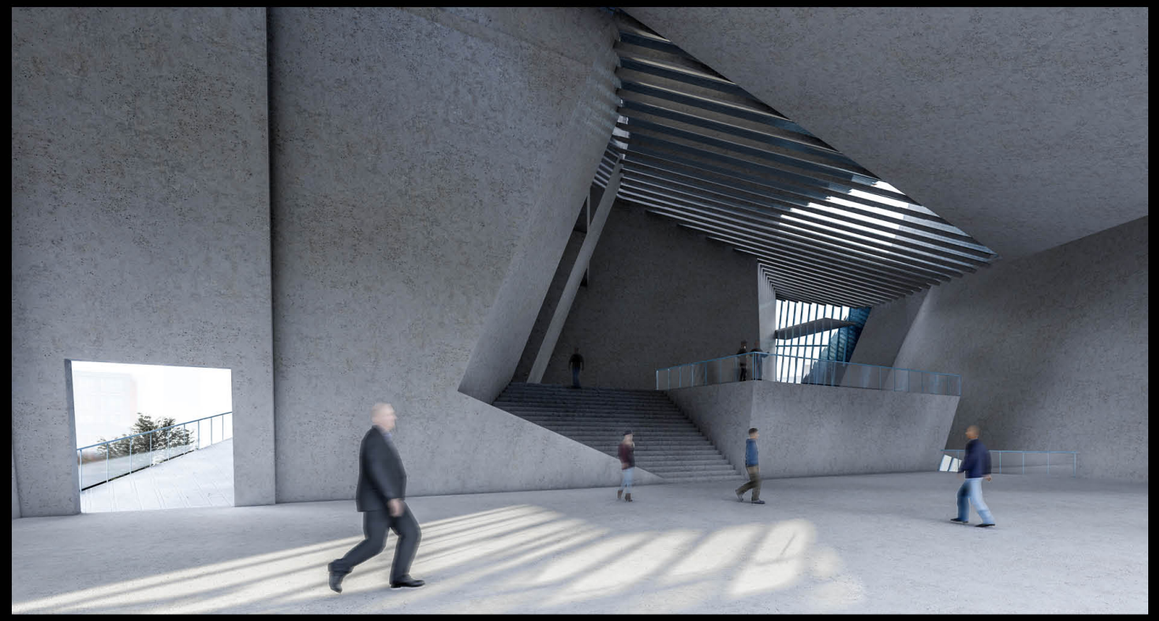


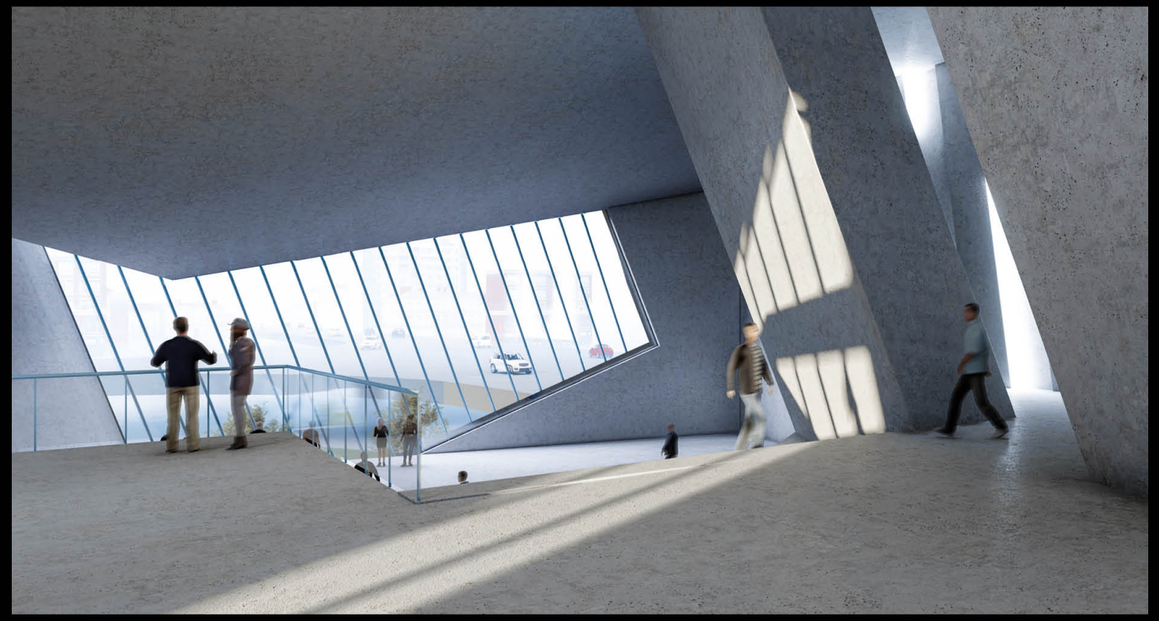


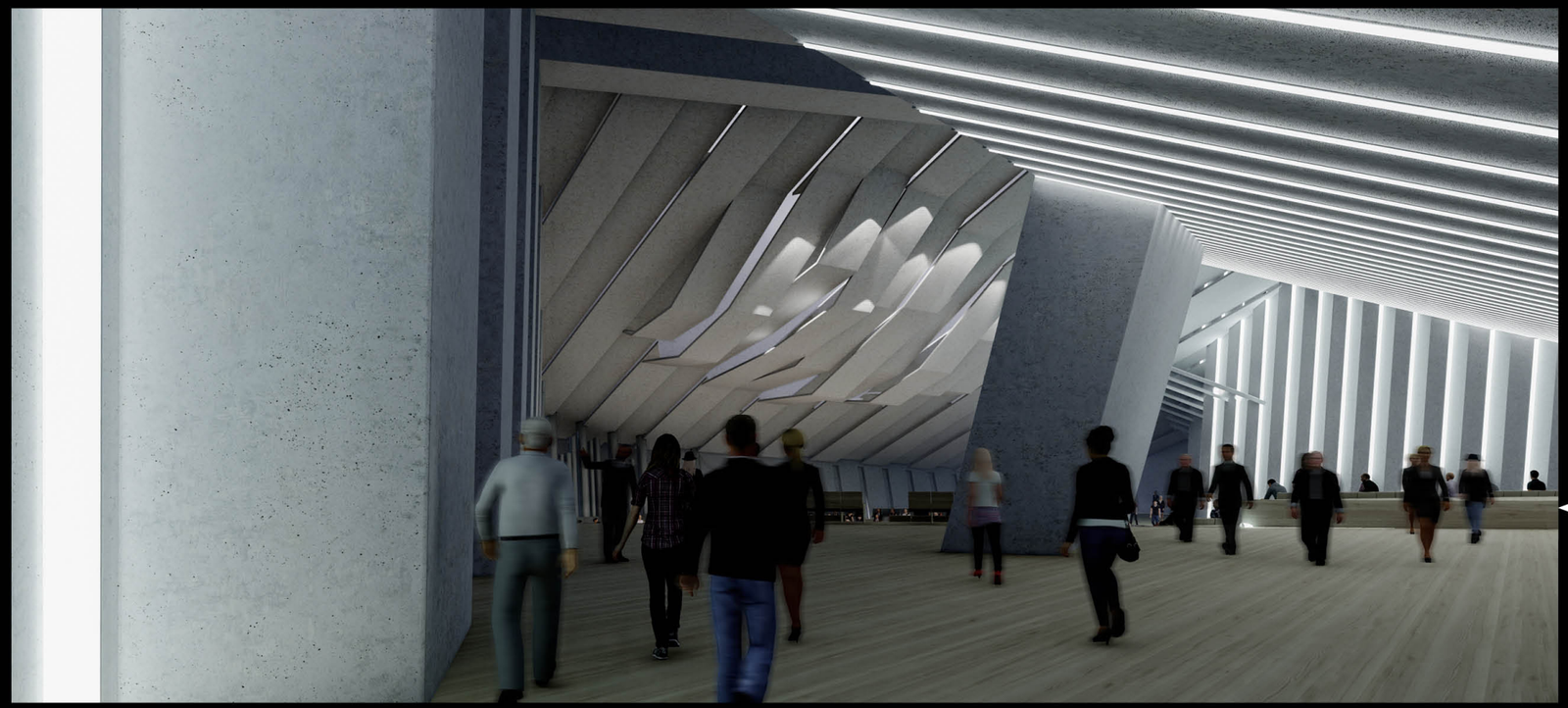
After developing the experience of the concert hall, we are trying to introduce it to the city.

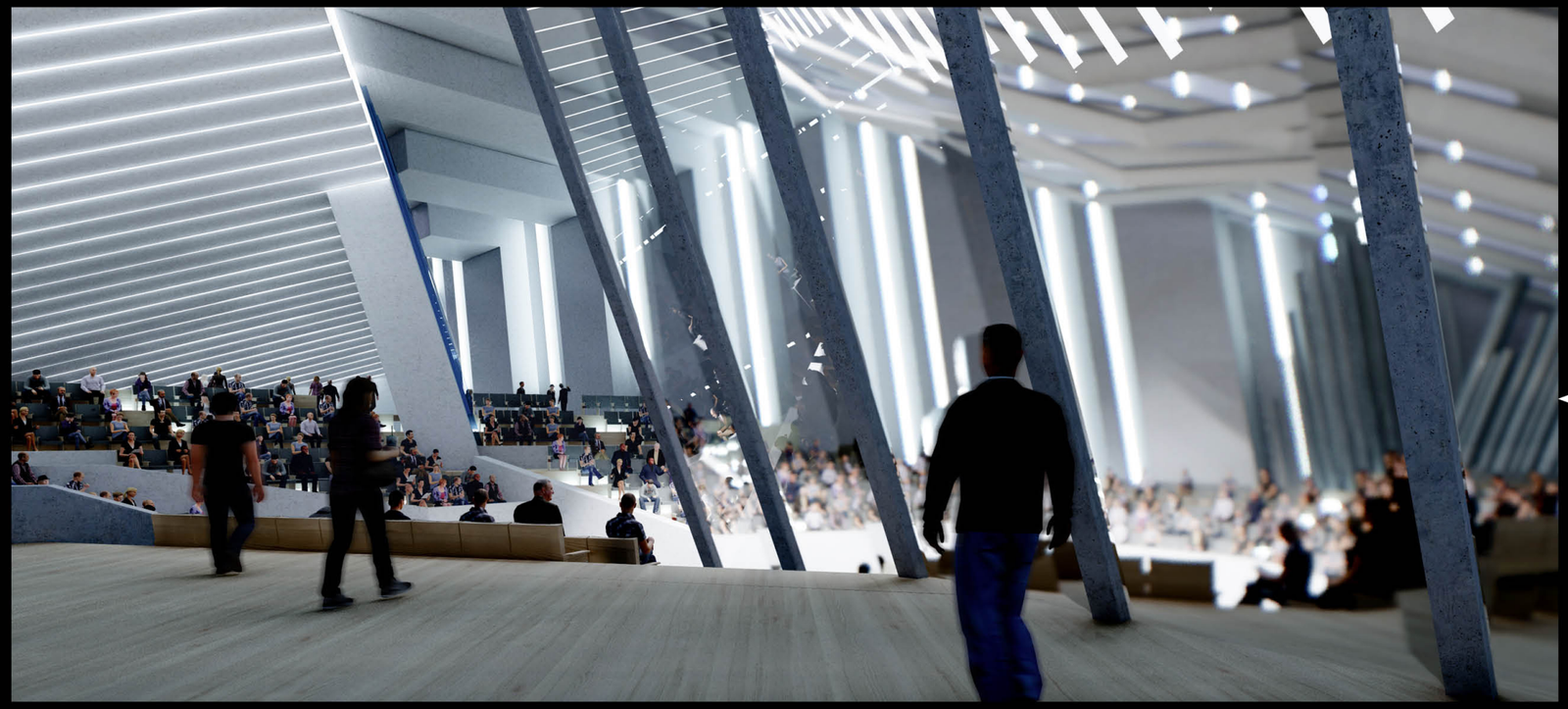
Through using the similar strategy as previous study model, the manipulation of bars and mass give us this kind of void that allows a glimpse of sunlight come into the space. And the angle could be parallel to the geometry to emphasize the massing strategy. And the big glass in the lobby could build the connection between the city and the music.

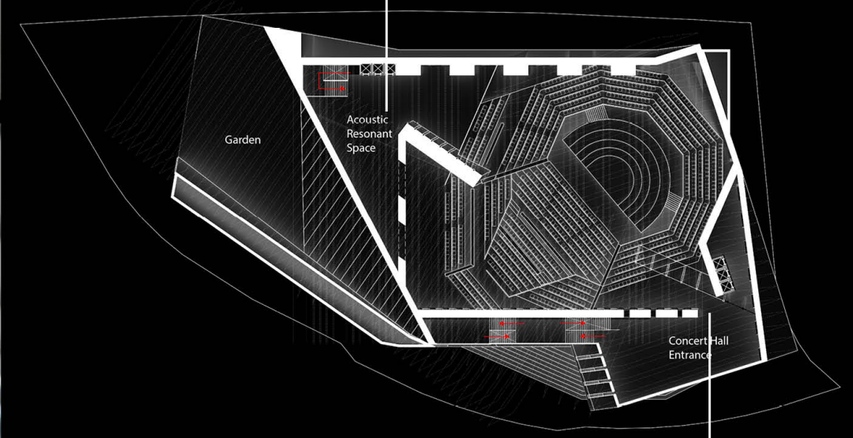
We aim to develop the rhythm of architecture function as a filter to introduce different experience to the interior. With apertures and light, unexpected experience happens just like Feldman's ethereal tone. With the repetition of grid lines happen in lights, columns, ceiling, we introduce a glimpse of skylight to the acoustic resonant space.

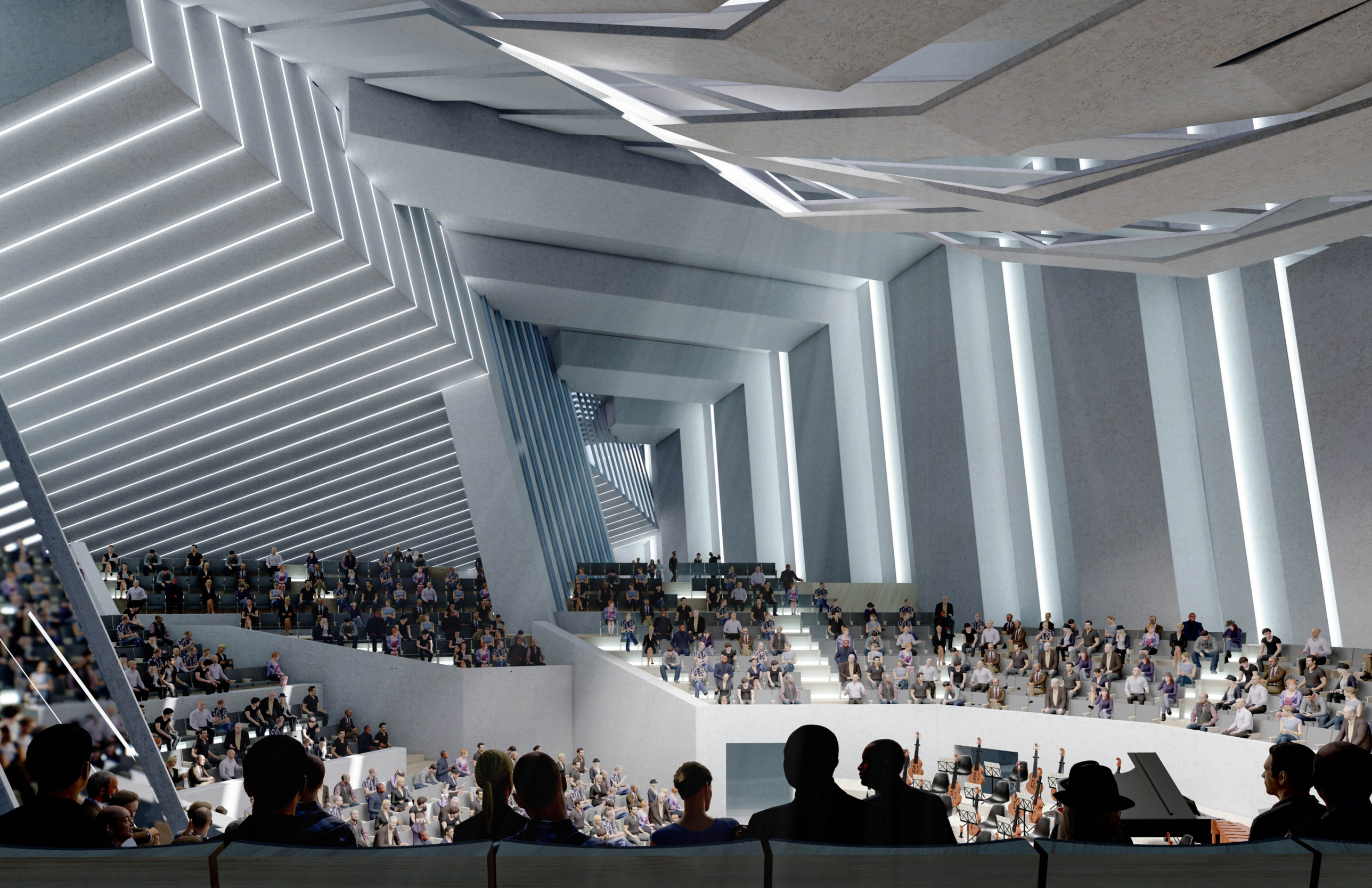









Garden
Acoustic
Resonant
Space
Concert Hall
Entrance

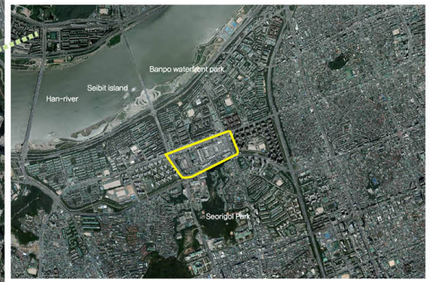


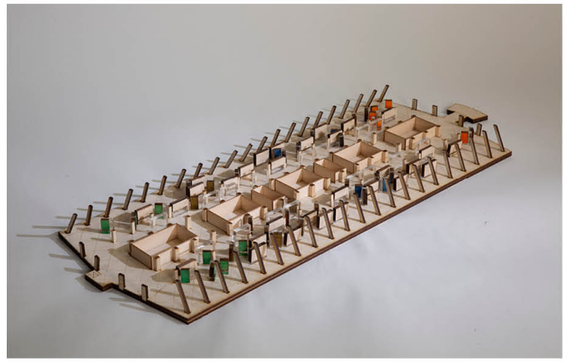
Crashing Adjunction

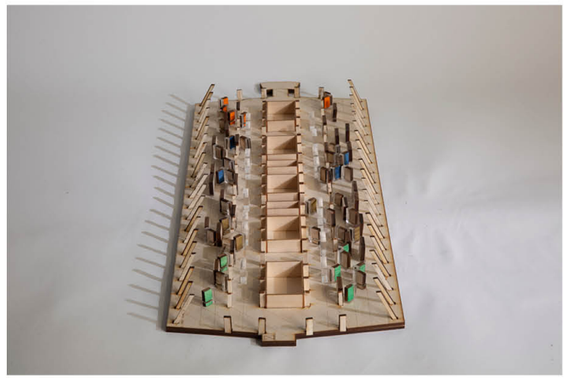
Seoul Express Bus Terminal

Fall 2019
Instructor:
Richard Plunz, Hyon Chung
Patrner:
Neuy Buranasiri

Through a new spatial system of inserting and extending from the existing, our goal is to reactivate parts of the site that is currently underutilized and create a better circulation flow. Our proposal, including the program, scale, and spatial quality, was derived from mapping the users' movements throughout the site by categorizing users according to their ages, intentions and the use of a specific type of transportation. The point of intersections between different users becomes a crash between architectural spaces, materials, programs, and users, creating the adjacent spaces of different spatial quality.

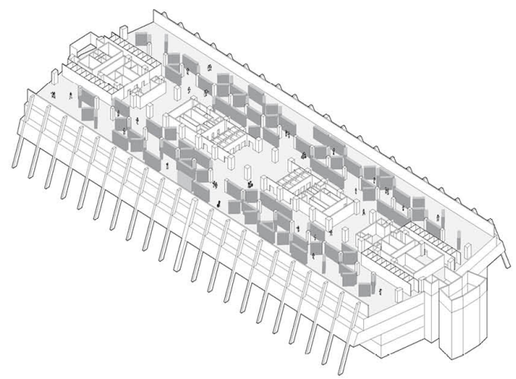


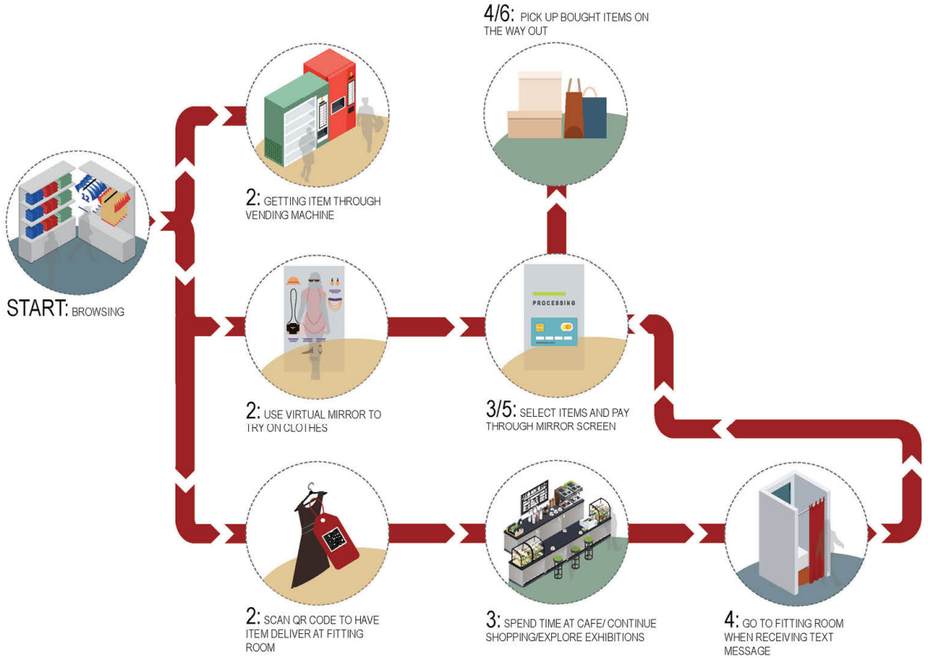




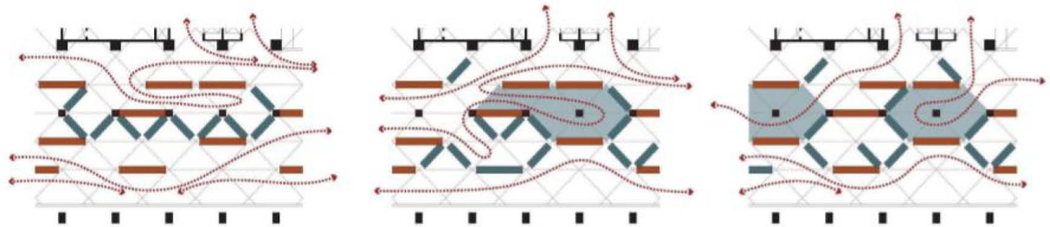
The Gangnam Express Bus Terminal, which serves as one of Seoul's transportation nexus, has the functionality and scale to become something more than just a pass by station. Leveraging the existing infrastructure, the terminal can be transformed into a destination where people can spend their time on spontaneous activities, while also fulfilling the original purpose of travel. However, due to the lack of programs and disruptions in pedestrian circulation around the site, certain transformation needs to be implemented to accommodate additional functions.

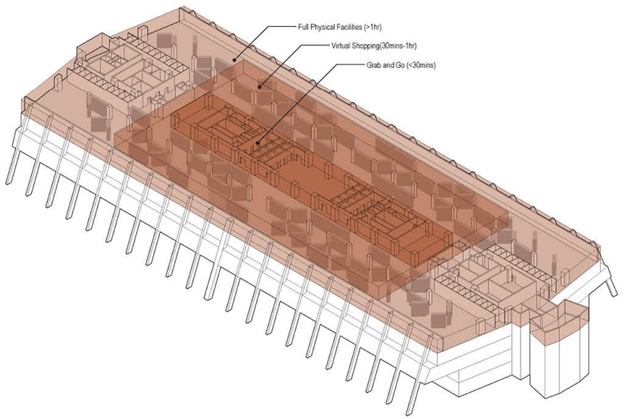
To avoid disturbance from circulations of vehicles, we are proposing to reorganize and create distinct zones between pedestrians and vehicles. Categorizing potential users into groups of different needs, the user-centered circulations intervened activities on the site. After considering programs as points of interest, some circulations that share similar routes could interlock with each other and lead to new programs while some circulations are totally irrelevant due to users' needs. With the manipulation of interlocking and isolation, the circulation leads to program and massing that shapes users' experience.

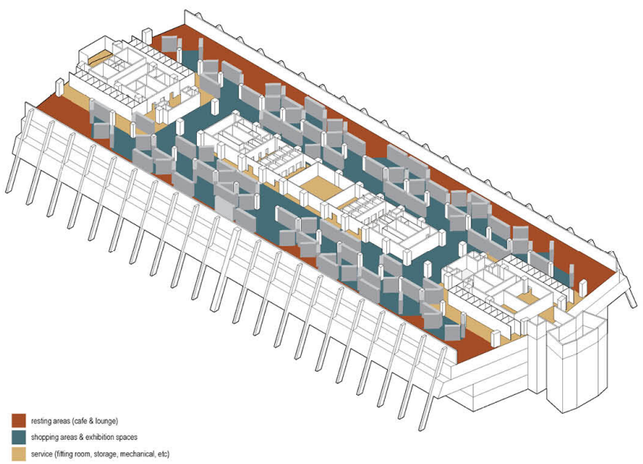


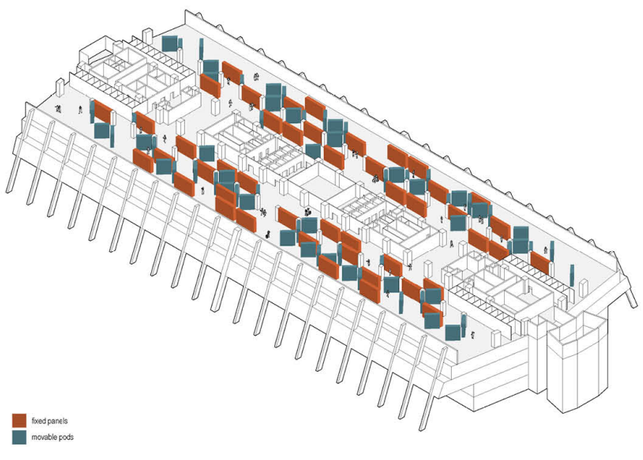


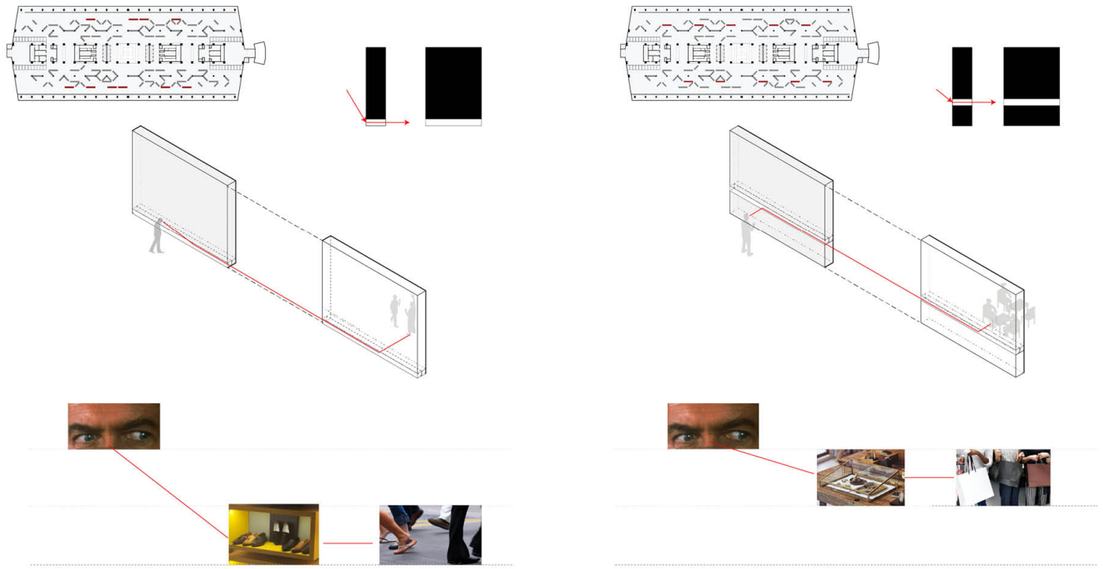
Spatial System

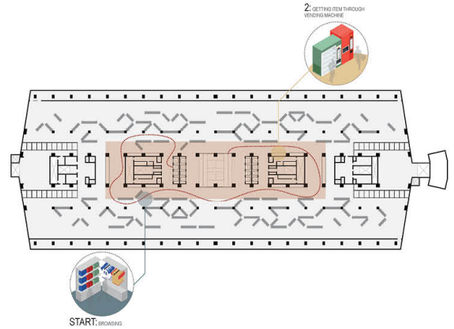




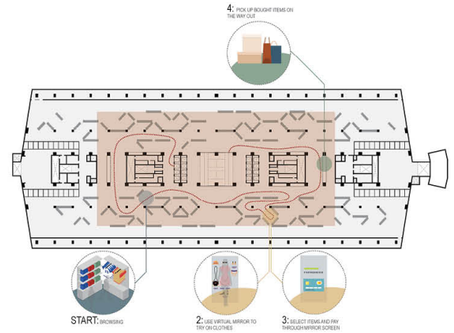


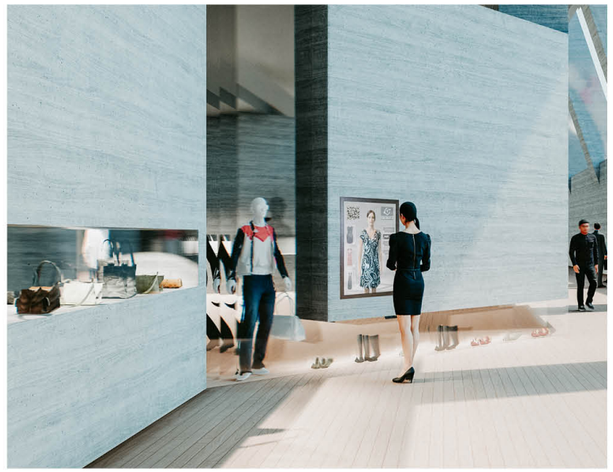


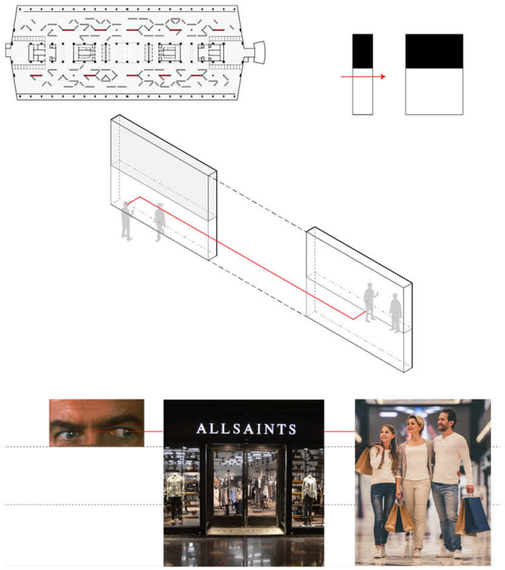


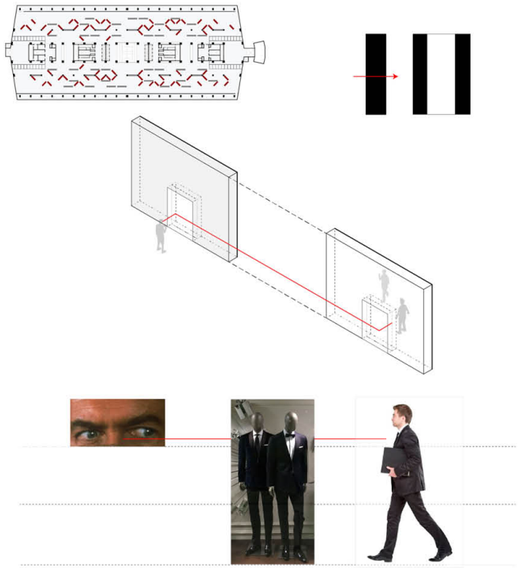

2: GETTING ITEM THROUGH VENDING MACHINE
START: BROWSING

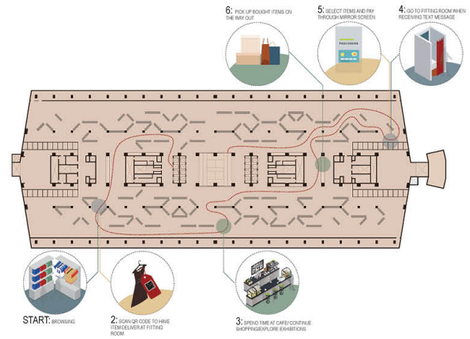
取货口

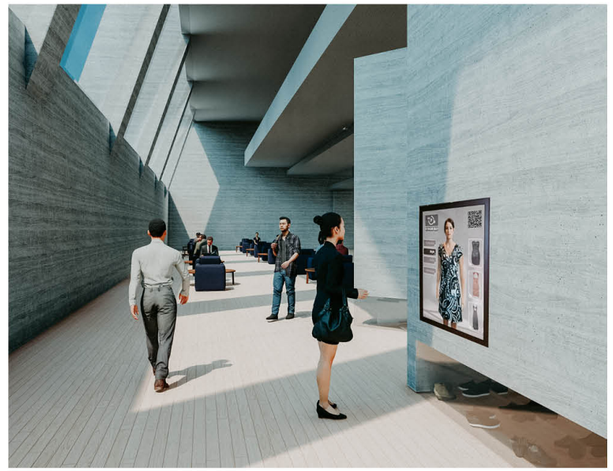

4: PICK UP BOUGHT ITEMS ON THE WAY OUT
START: BROWSING
2: USE VIRTUAL MIRROR TO TRY ON CLOTHES
3: SELECT ITEMS AND PAY THROUGH MIRROR SCREEN

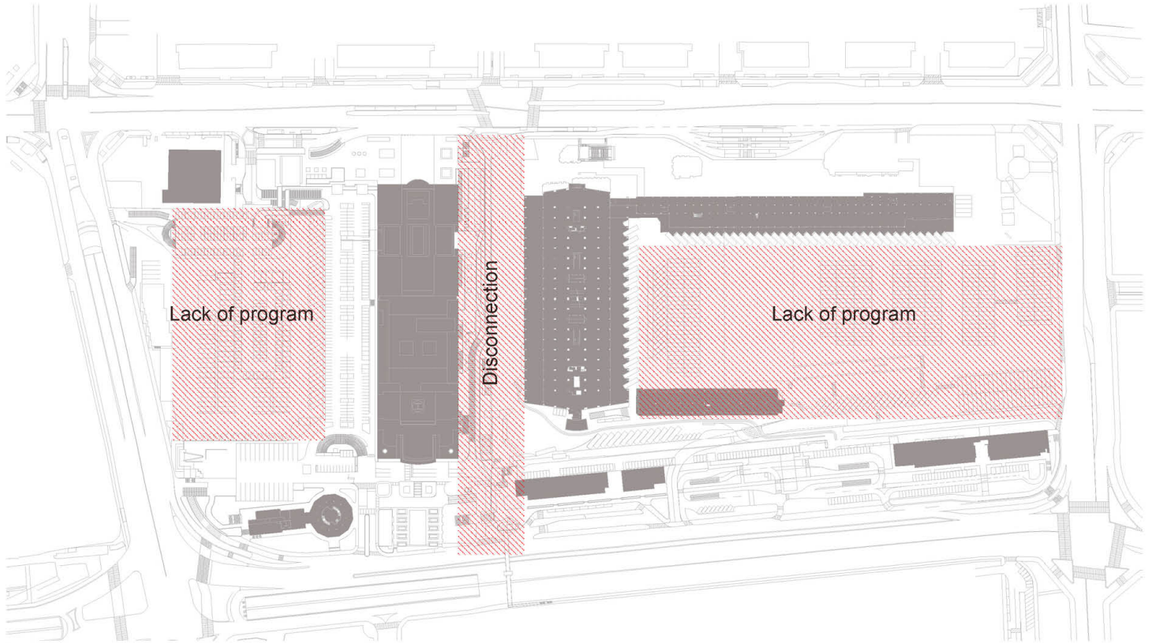


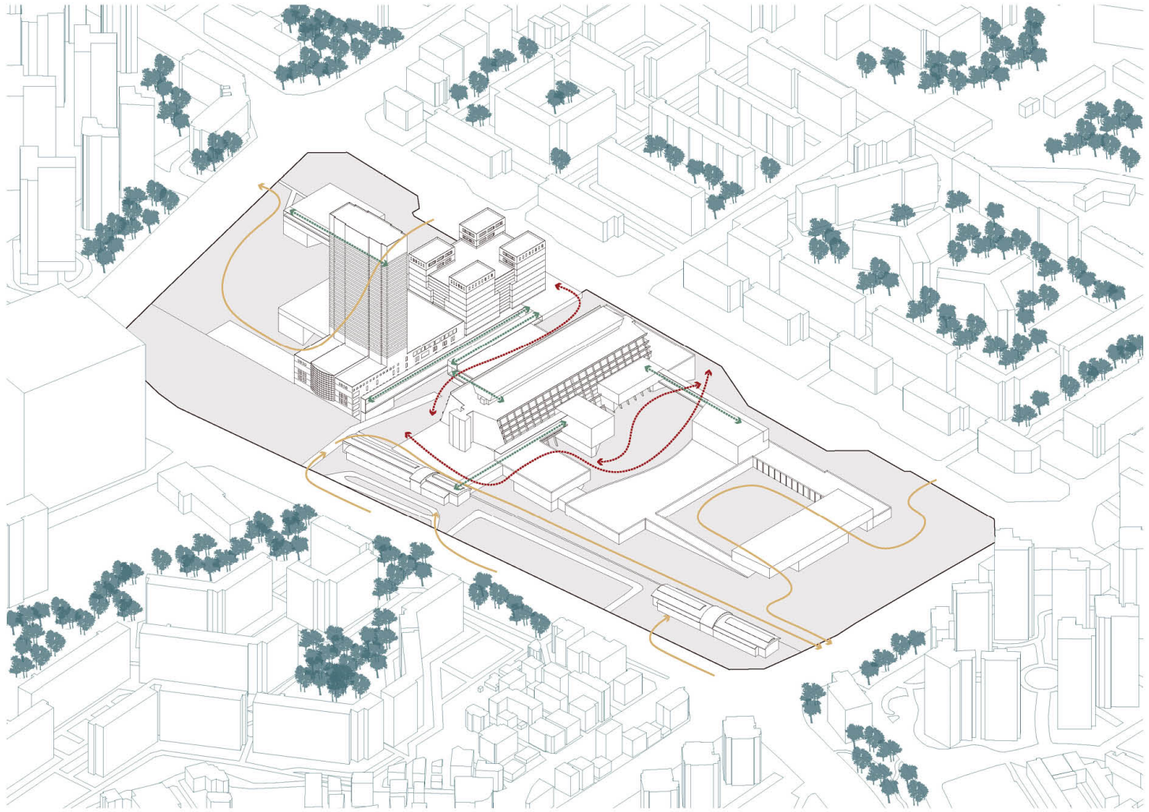

ALLSAINTS

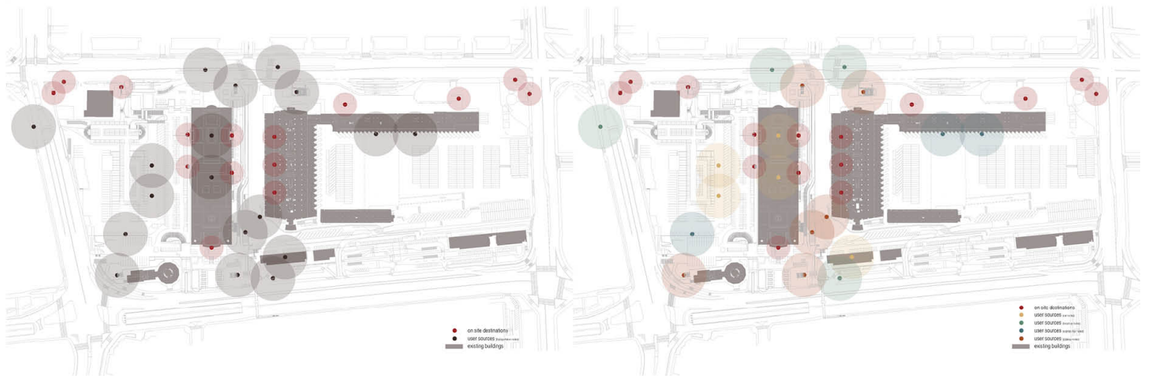



6: PICK UP BOUGHT ITEMS ON THE WAY OUT
5: SELECT ITEMS AND PAY THROUGH MIRROR SCREEN
4: GO TO FITTING ROOM WHEN RECEIVING TEXT MESSAGE
START: BROWSING
2: SCAN QR CODE TO HAVE ITEM DELIVER AT FITTING ROOM
3: SPEND TIME AT CAFE/ CONTINUE SHOPPING/EXPLORE EXHIBITIONS

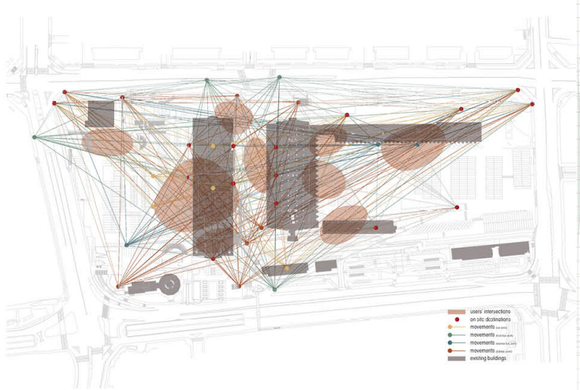


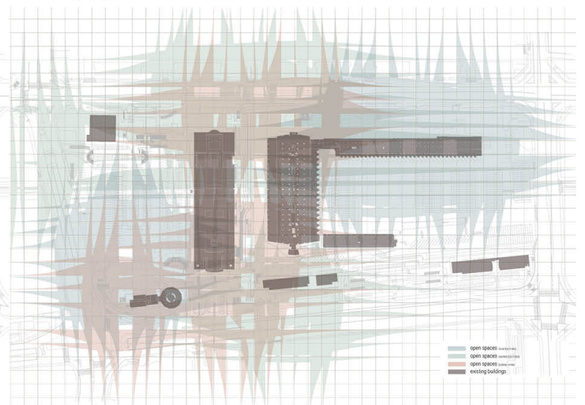

Lack of program
Disconnection
Lack of program

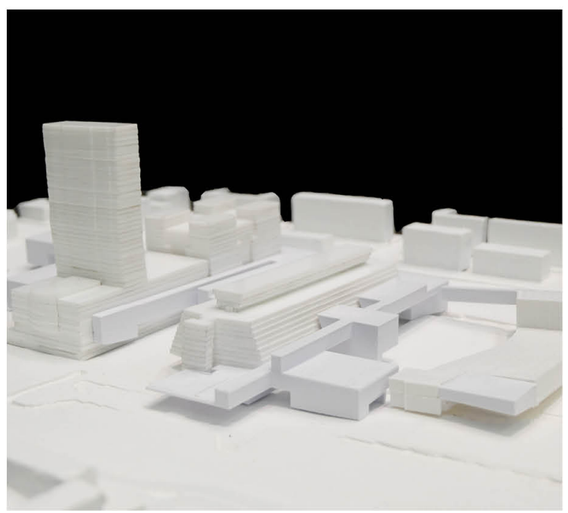


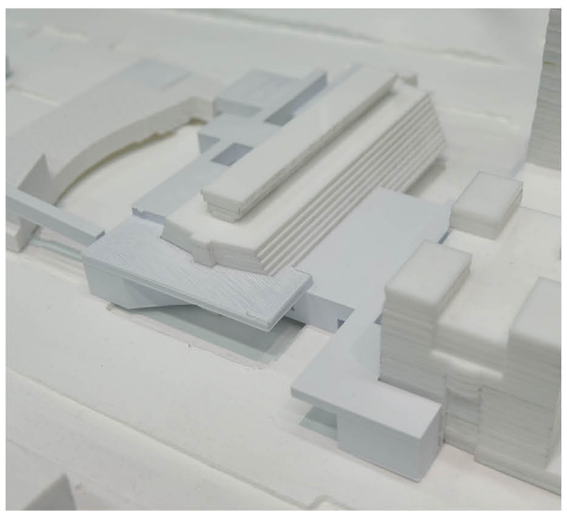

on site destinations
user sources
existing buildings

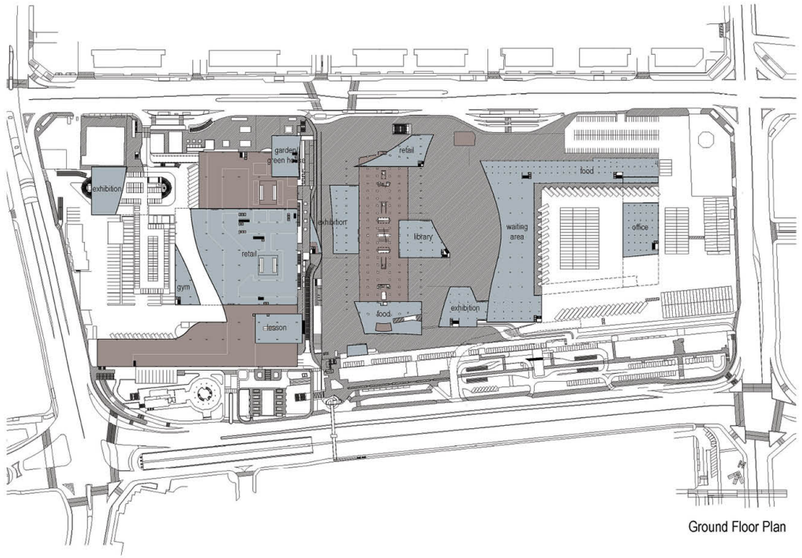
on site destinations
user sources
existing buildings


users' intersections
on site destinations
movements
movements
movements
movements
existing buildings

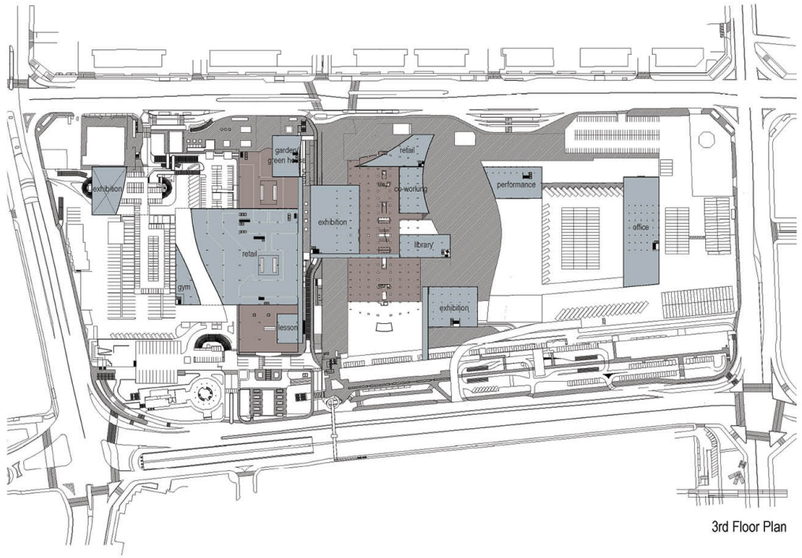

open spaces
open spaces
open spaces
existing buildings



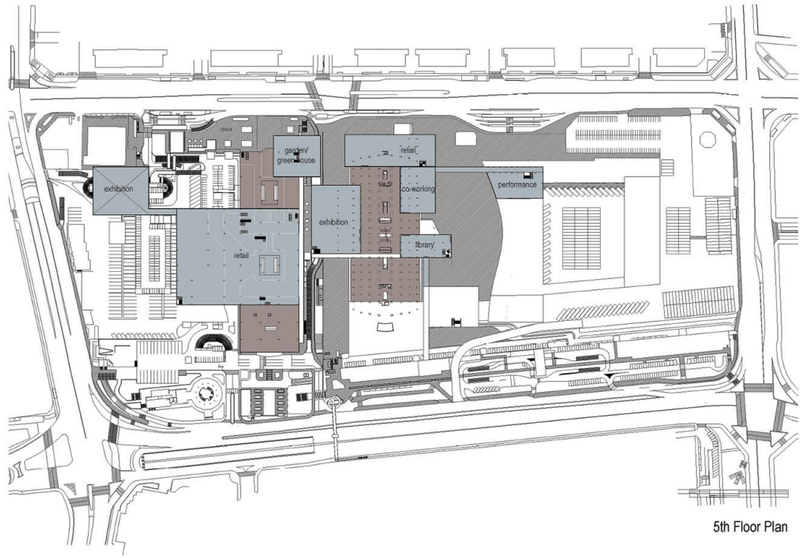




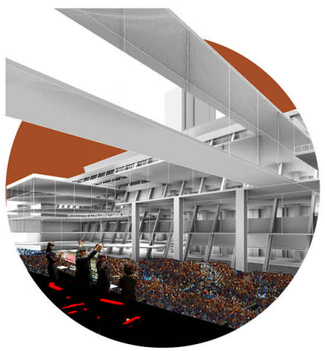
Ground Floor Plan

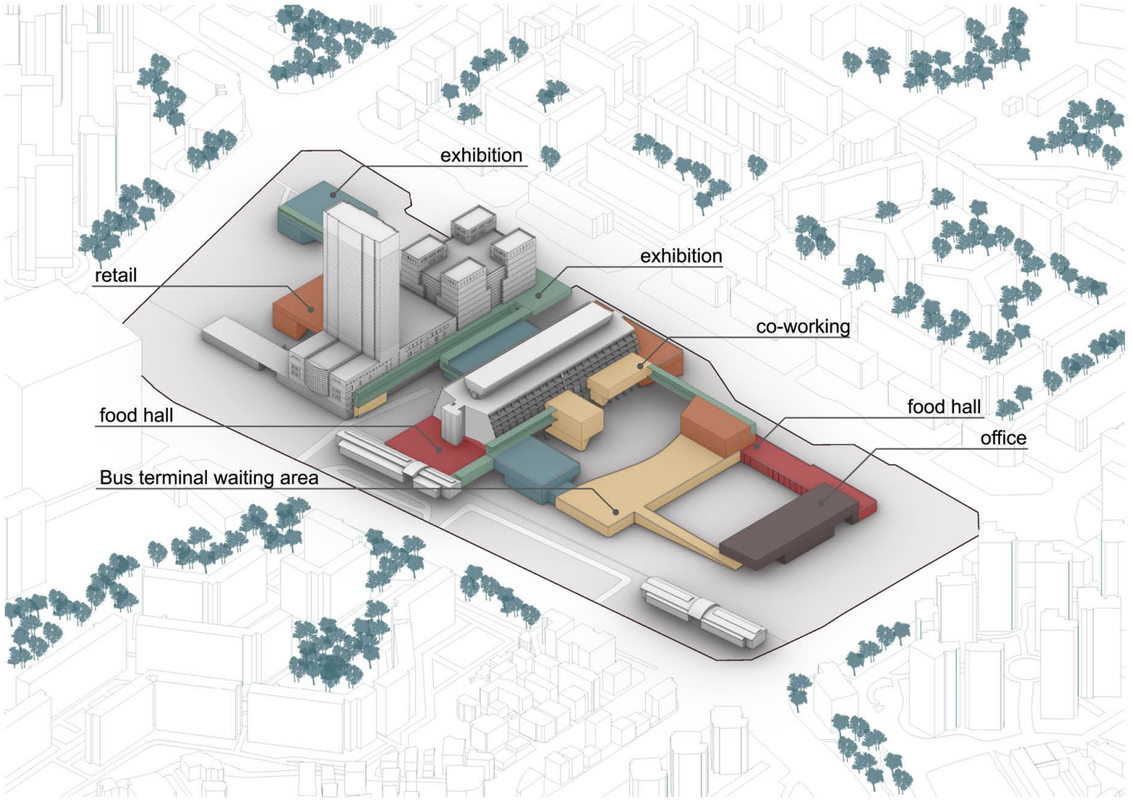


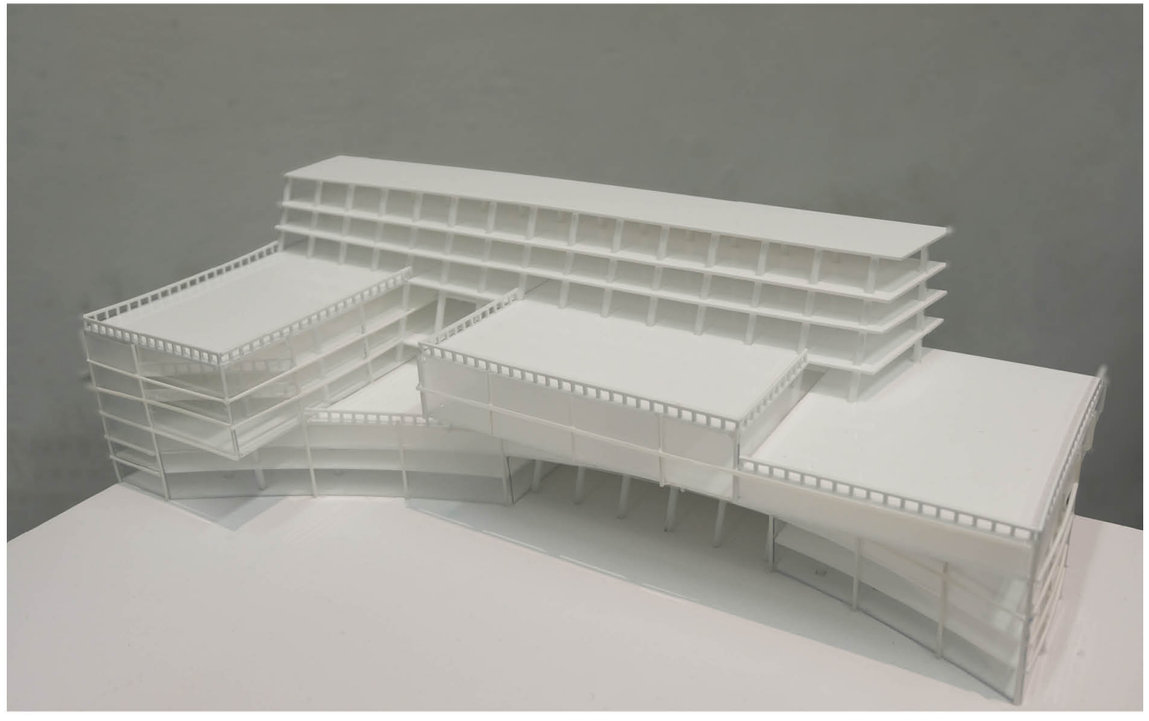
3rd Floor Plan

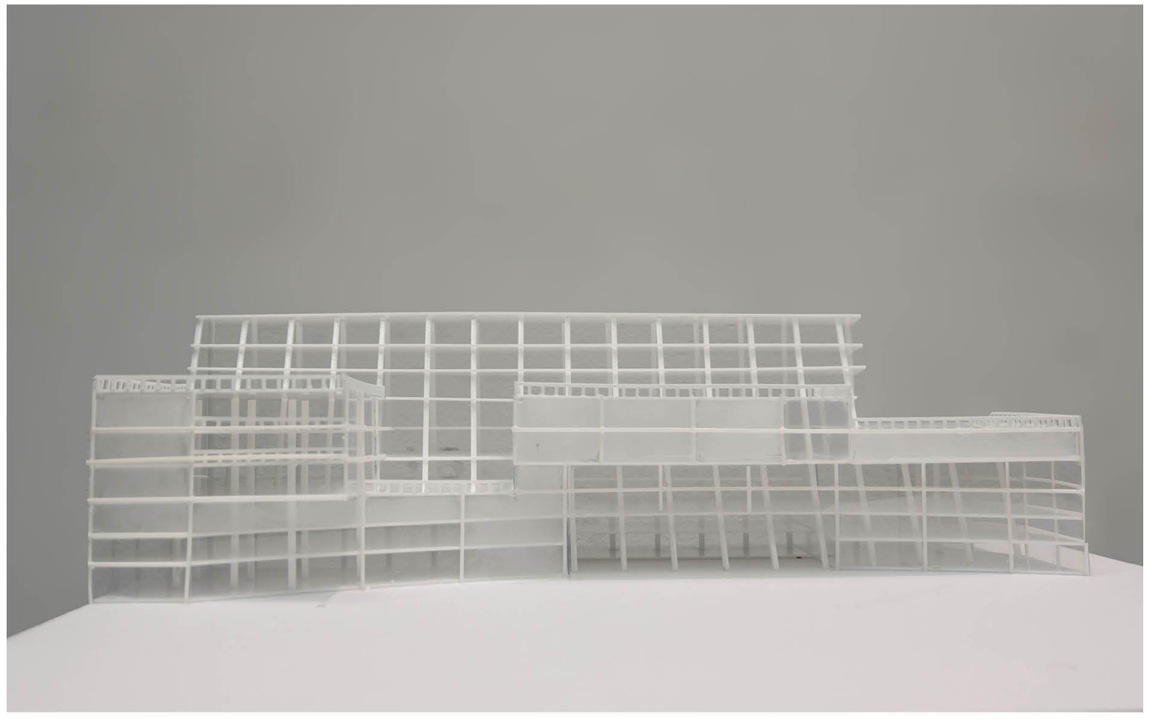


5th Floor Plan



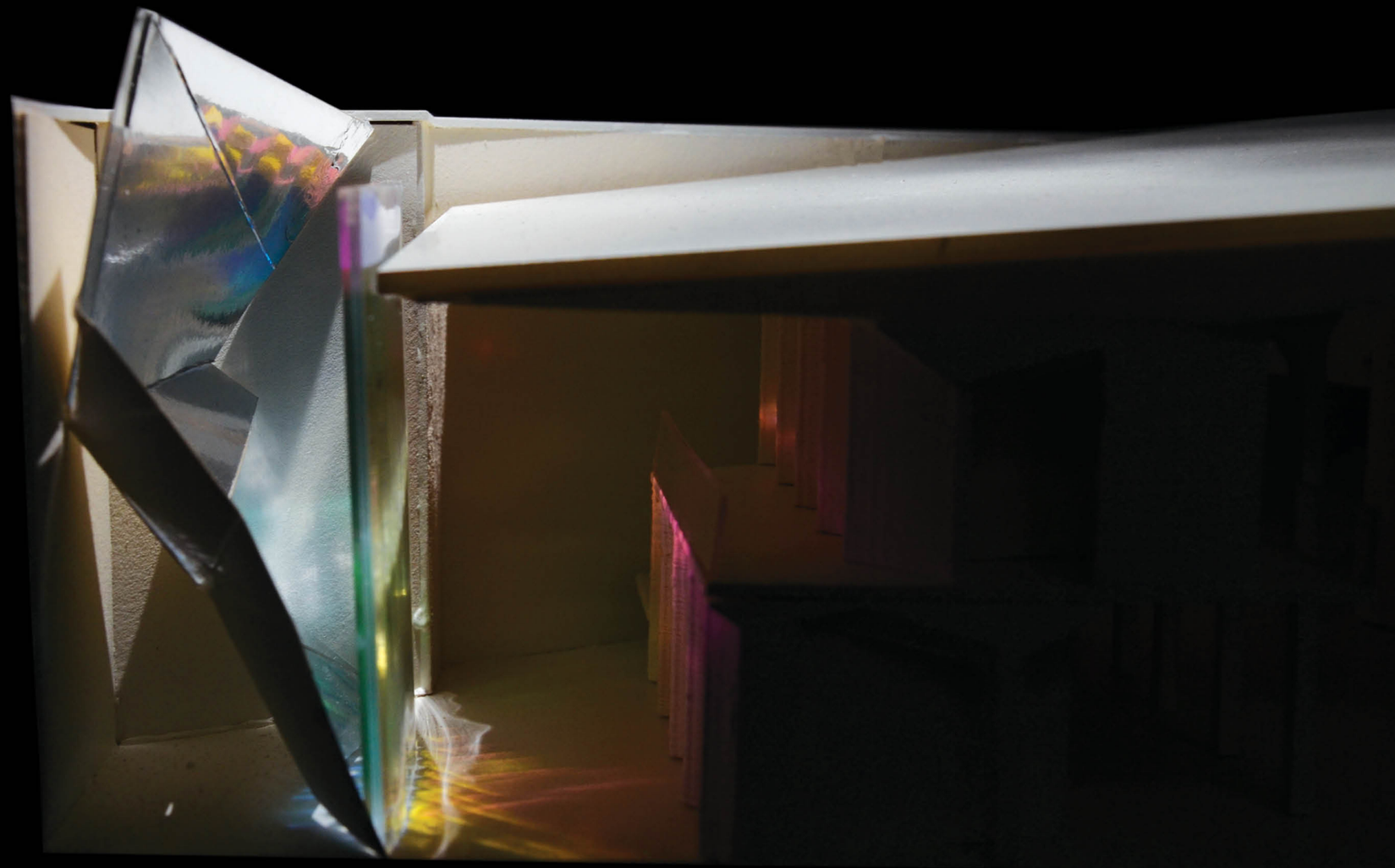


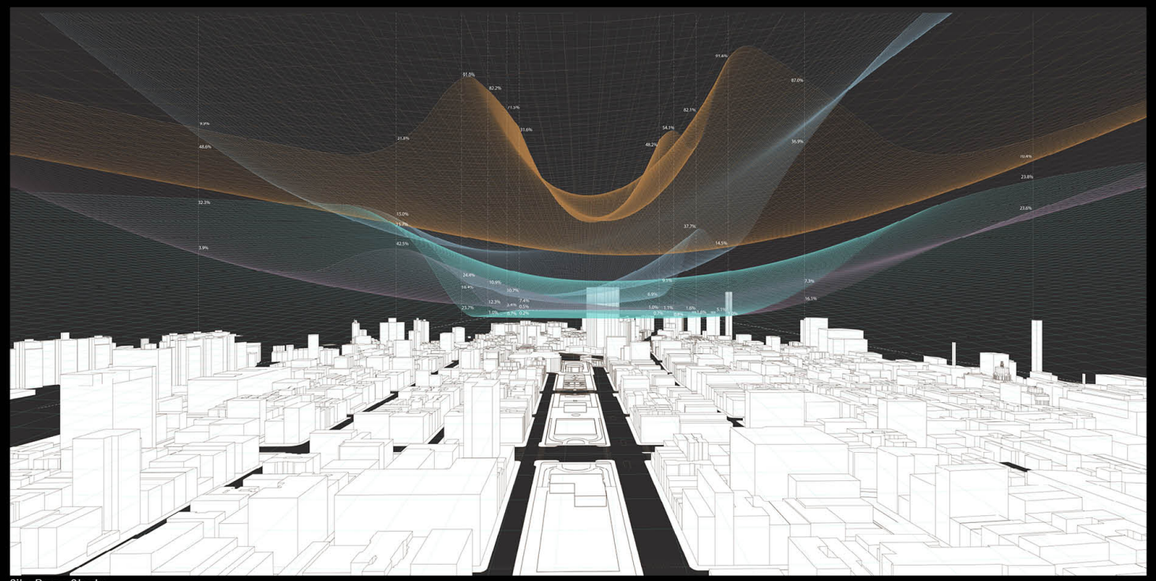




Urban Dispersion

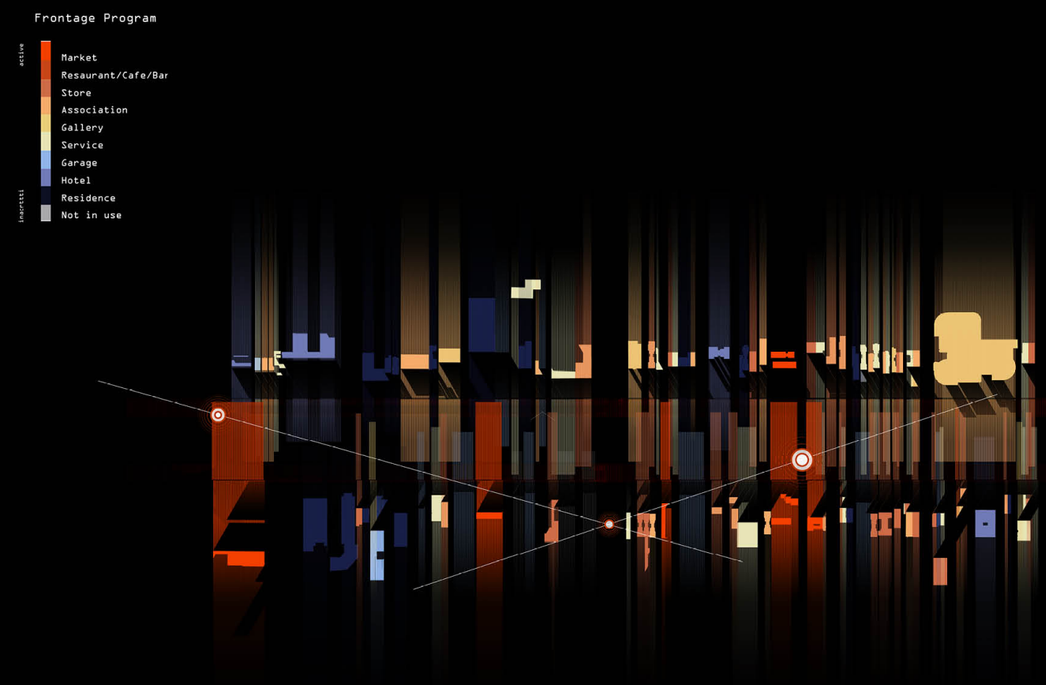
Sara Roosevelt Park Memorial
M.S AAD Design Studio
Summer 2019
Instructor: Karla Rothstein
Partner: Jingyuan Zhang





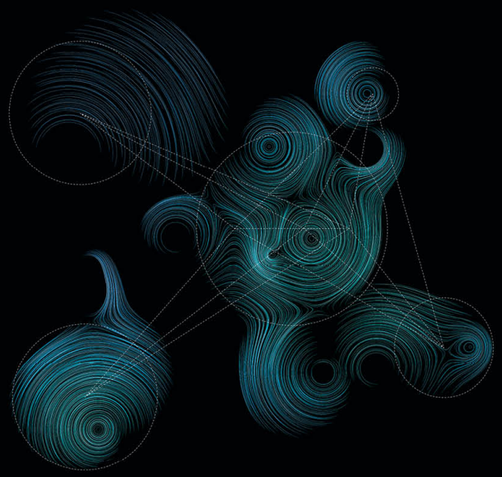
Site Race Study

Site Program Study



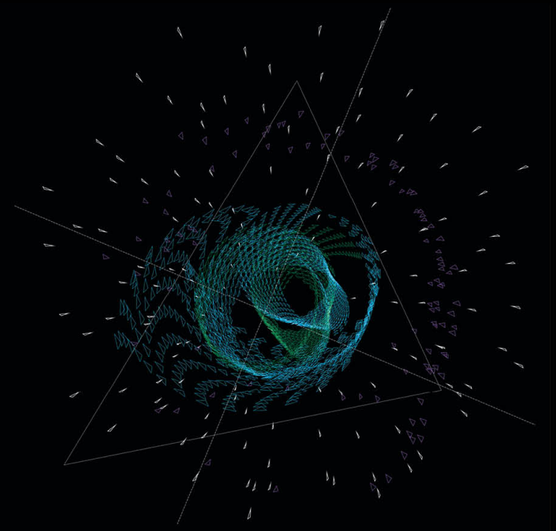
Site Program Collage

We catalogue the programs regarding to their public and private relationship. More public program has warmer color tone while more private programs have colder tone. Through the intersection of the projection of programs, we translate the intersection of the projection of programs into relationships between active and inactive, public and private. Through the calibration of both natural light and light from the energy of the deceased, subtleties of spatial experience are created above and below ground, framing serene ceremonies, daily activities, obscurity and vividness. Light dispersion is arranged temporally, and through memorial and meditation, we celebrate the gifts of life.



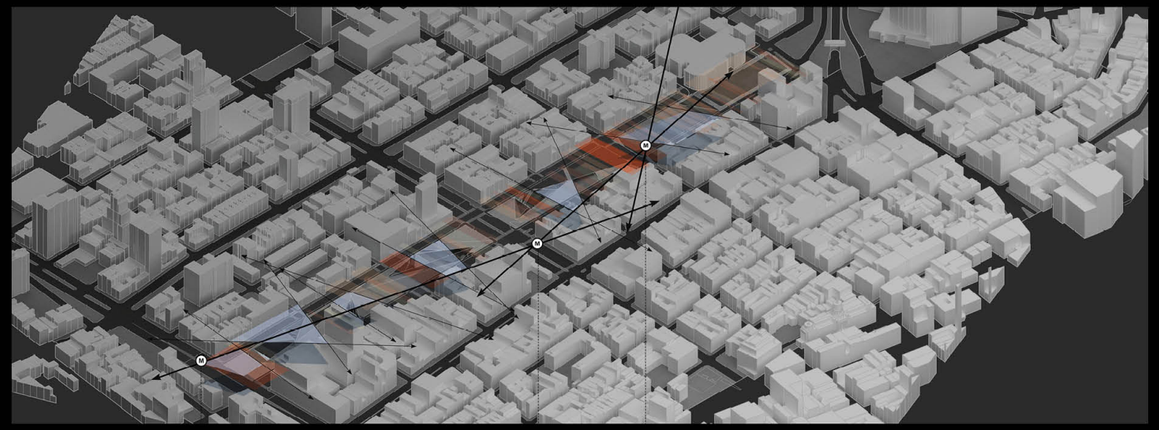
Datascape 1

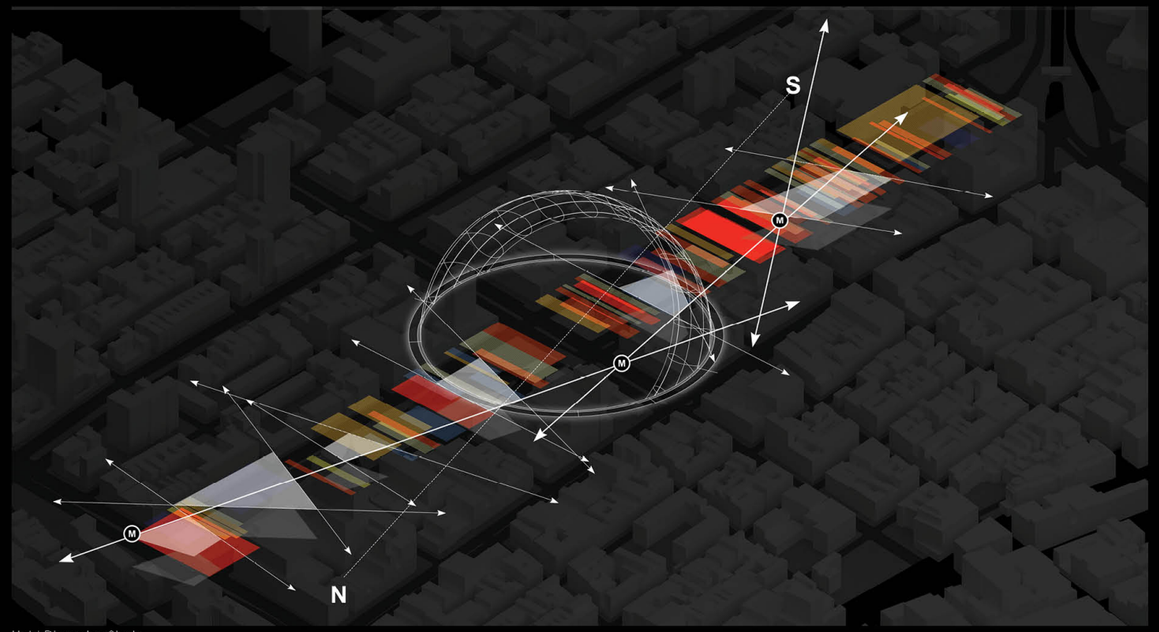
In the datascape 1, we analyze the relationship between city parks and metro system, as well as the stability of three adjacent blocks with regard to the annual move-in & out rate.



Datascape 2

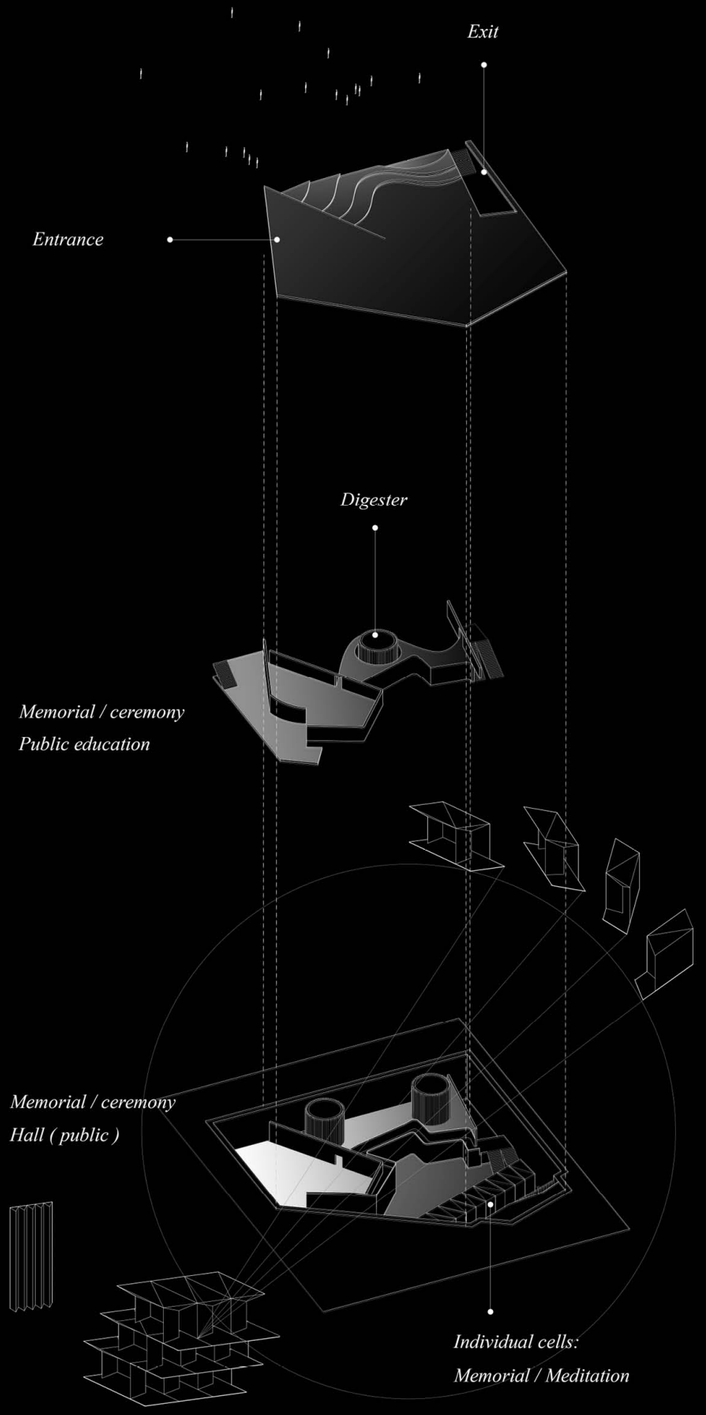
The area includes three neighborhoods: east village, lower east side, and China town, where our site located. The circle sequence and size of the primitives is separated according to sequence of time.





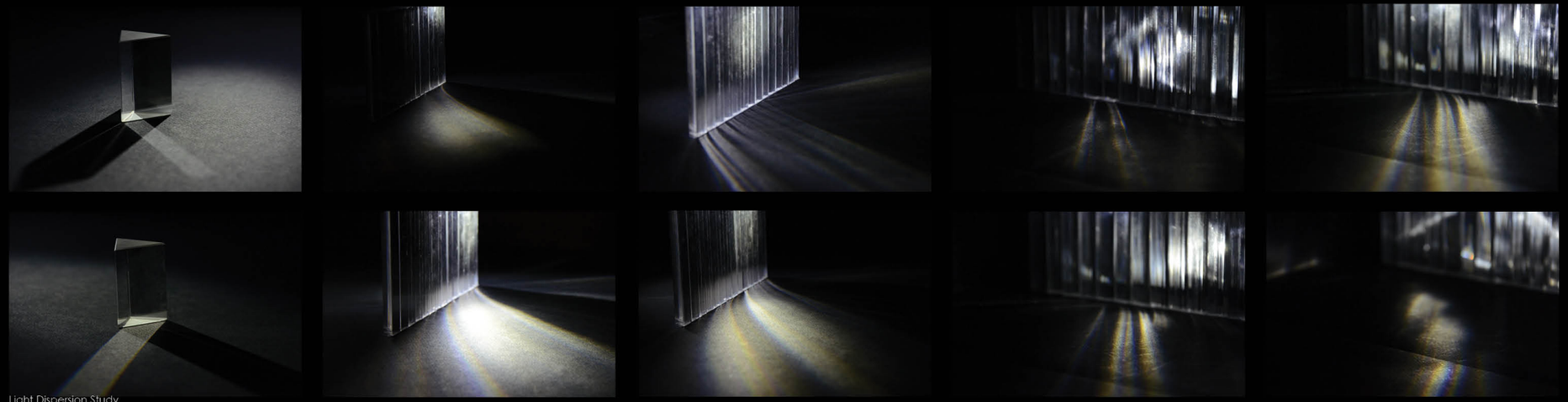
Light Dispersion Study

Plan

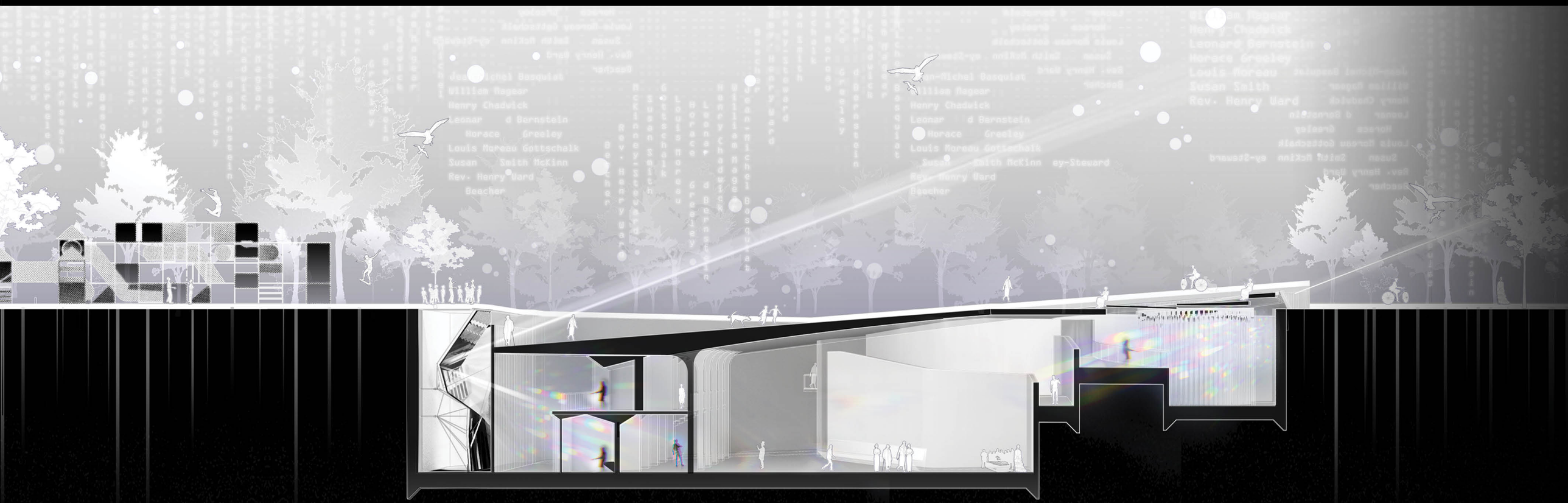


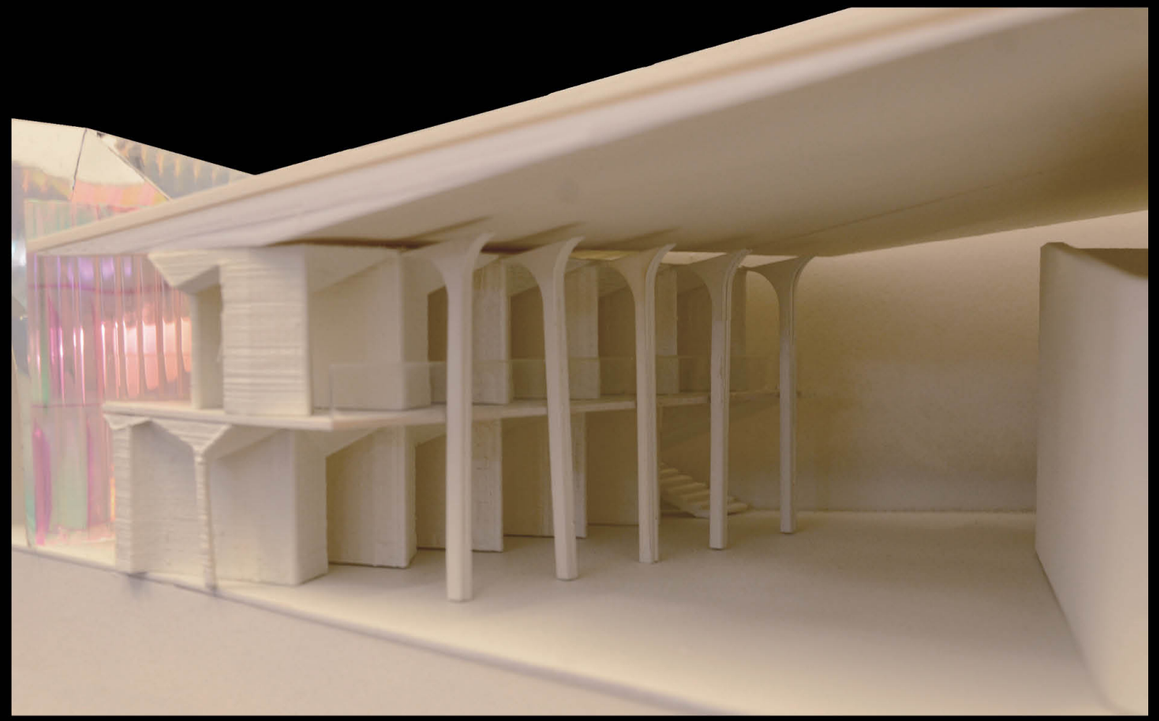
Prototype

Mixed and fragmented as the urban context of Sara Roosevelt Park is, the site embodies great richness of diversity. This project explores the properties of betweenness, mitigating historical segregation and celebrating the collective memory we share from birth to death. The Light dispersion is arranged temporally and with the change of the sun angle, spectrums of rainbow magically appears in the space. Individual cells functions as the façade where the projected light is diffused and into the public space. A series of light investigation is carried out to test the real spatial effect of the space. Different sizes of prisms are used and the angle of the aluminum panel is adjusted.

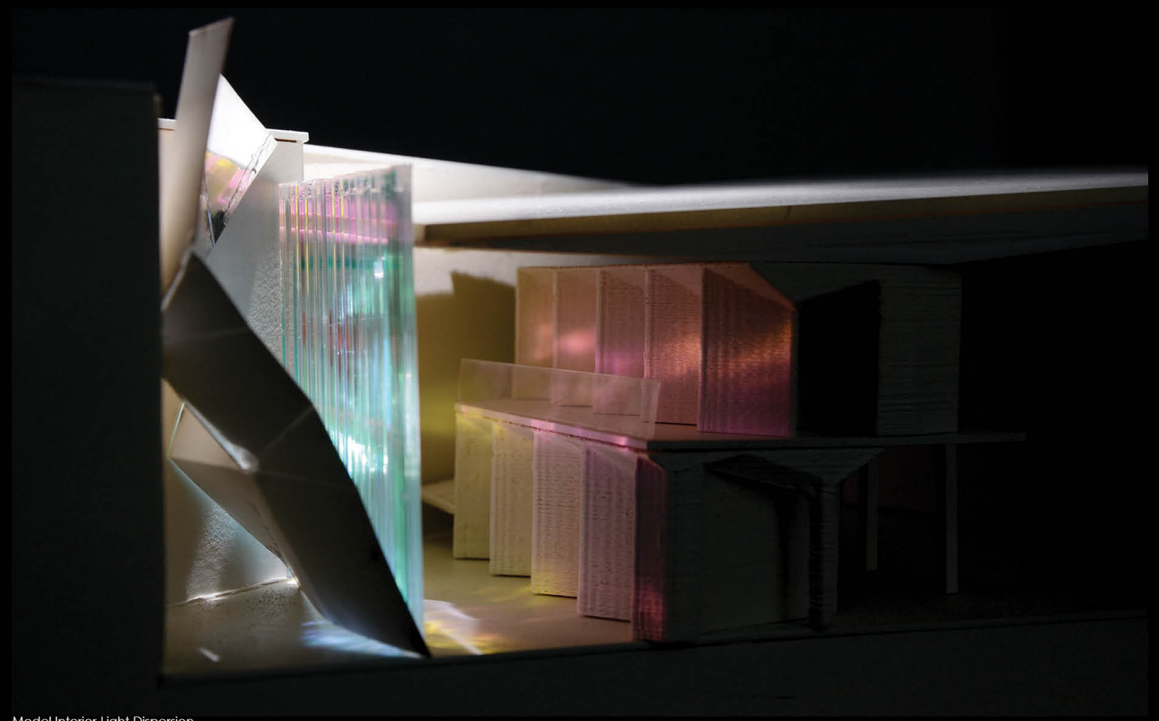


Light Dispersion Study





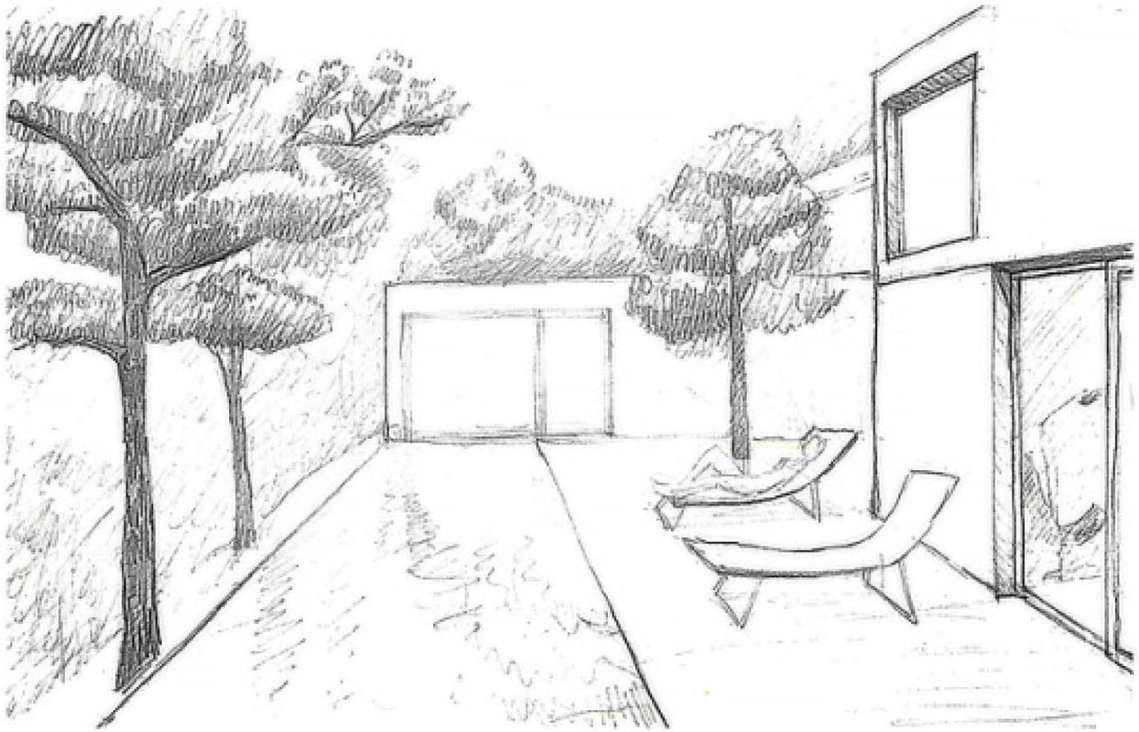
Model Interior-Light Dispersion



Model Interior-Light Dispersion

The Techniques of Ultra Real

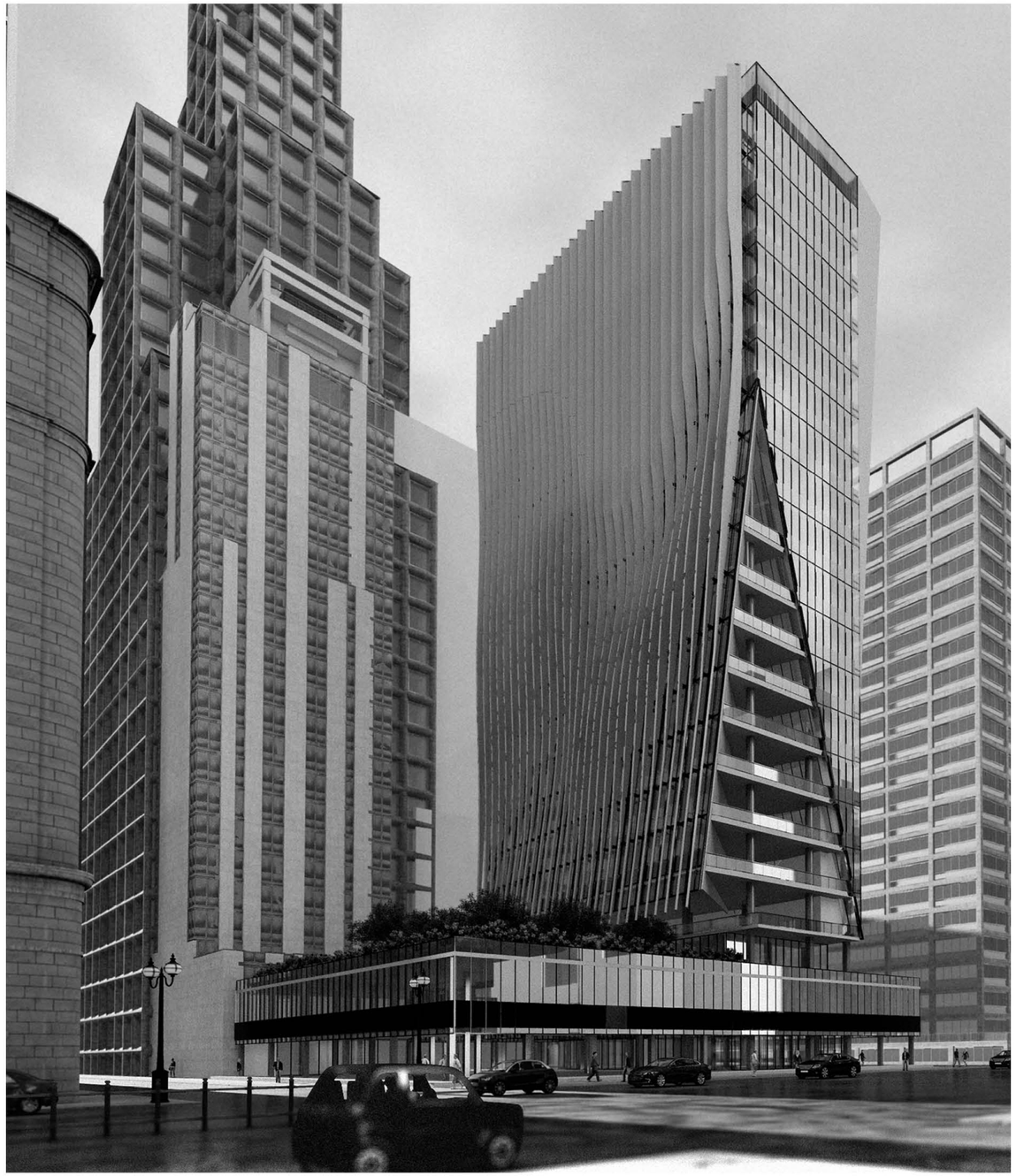
Fall 2019
Instructor:
Phillip Crupi, Joseph Brennan
Patrner:
Jingjing Wu, Yu kon Kim, Kyu



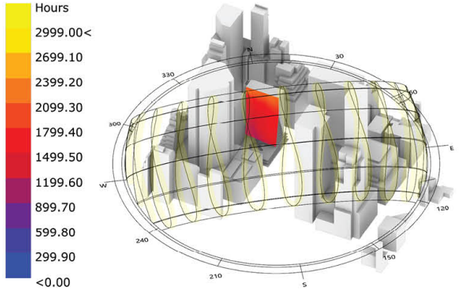
V-Ray Edu 4.20.01.00001 | file: hill side house with the pool.max | frame:000000 | primitives: 2247112 | render time: 3h 47m 30.6s

Rethinking Bim

Spring 2020
Instructor: Jared B. Friedman
Patrner: Xinning Hua



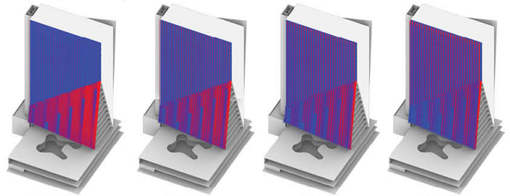
Existing Facade
Sunlight Hours Analysis



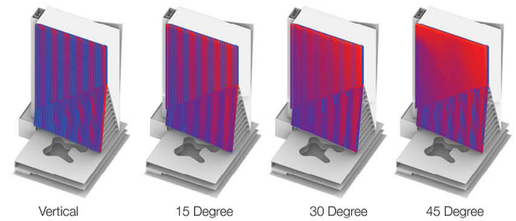
Due to the existing glass facade with minimalistic aesthtics brings direct sunlight to the interior, Lever House has problems of human comfort and sustainability of the building.This project proposes a new facade to bring comfort and interior shading to the occupants. Also, it provides a brand new view to the city.
The fins on the proposing facade with appropiate depth brings more interior shading. Responding to the urban context and lifted envelope, the fins twist in calculated angle to provide a balance between interior shading and sunlight.

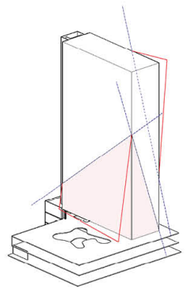
Proposing Facade
Sunlight Hours Analysis

Fins Depth Study

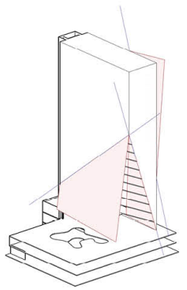


Fins Angle Study



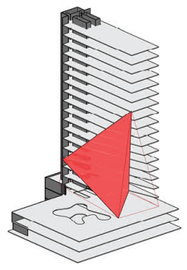


1. folding line and existing facade to get rid of

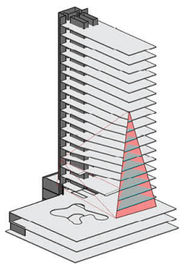


2. lifted facade and new envelope

13:00 pm Interior Shading Study
(Existing Exterior Facade)



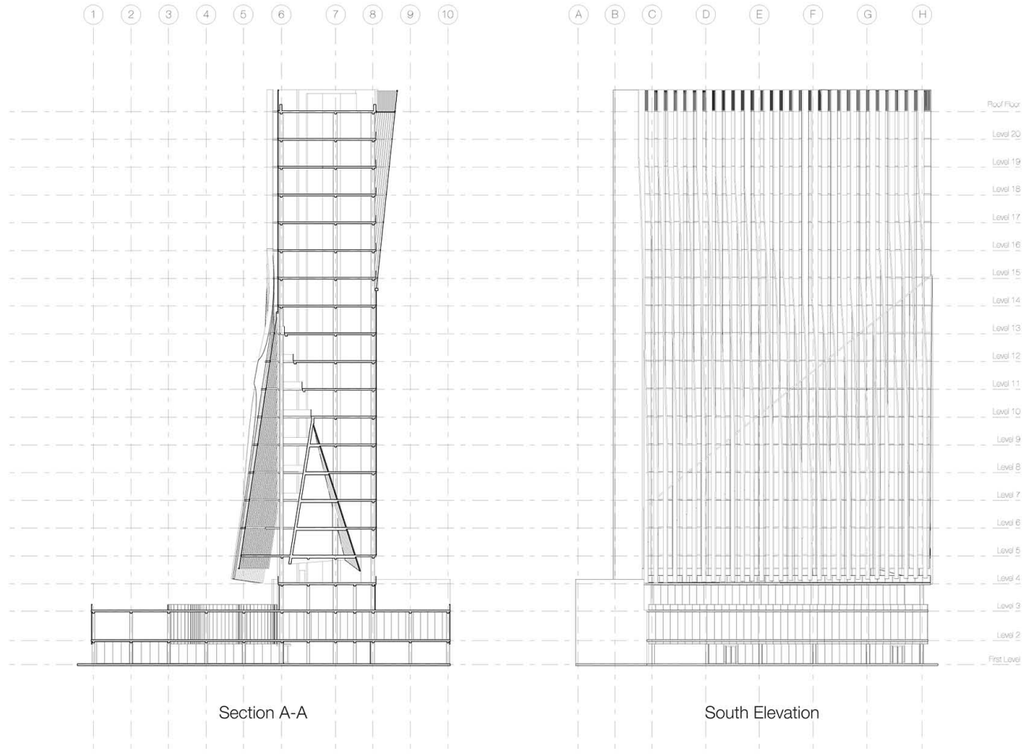
3. new atrium shaped by the new facade



4. exterior terrace and vertical garden

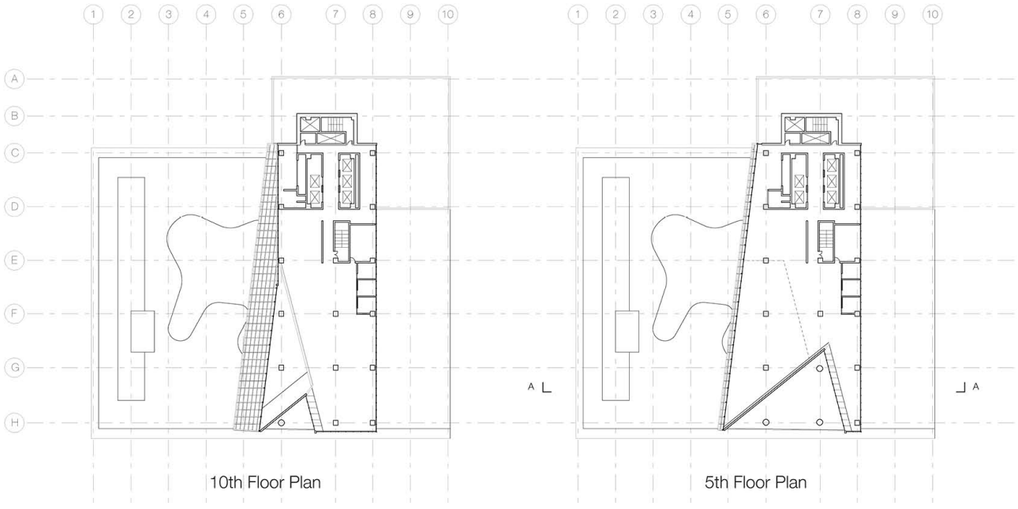
13:00 pm Interior Shading Study
(Proposing Exterior Shading Facade)

Technical Drawings



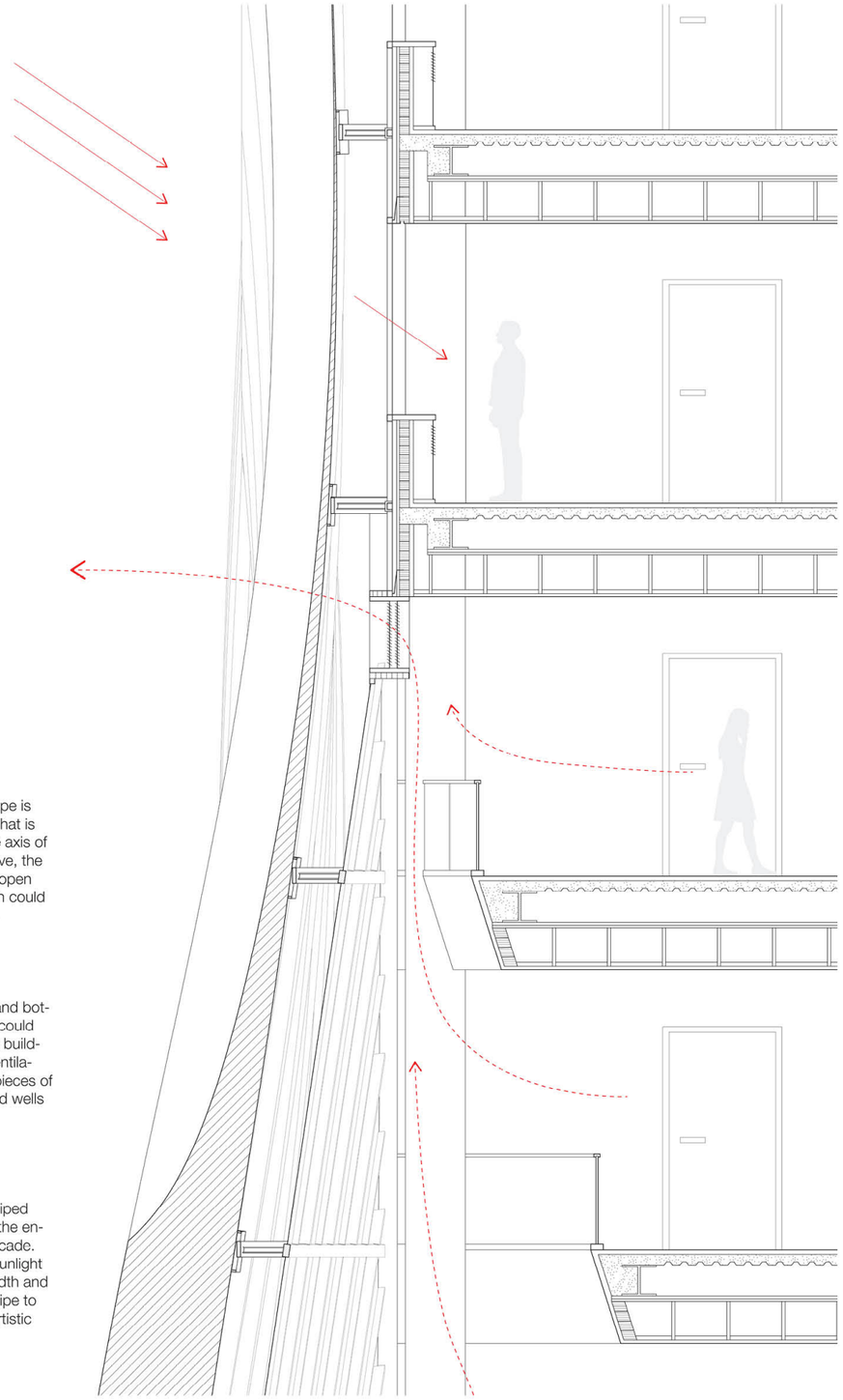
Section A-A

South Elevation



10th Floor Plan

5th Floor Plan



Envelope

Part of the existing envelope is replaced by a new piece that is folded upward around the axis of the folding line. In this move, the new envelope shapes an open atrium for the office, which could also be a ventilation shaft.

Ventilation

The exhaust port on top and bottom of the new envelope could make a stack effect in the building, to enhance natural ventilation. There are two lifted pieces of facade here, with two wind wells that cover all the floors.

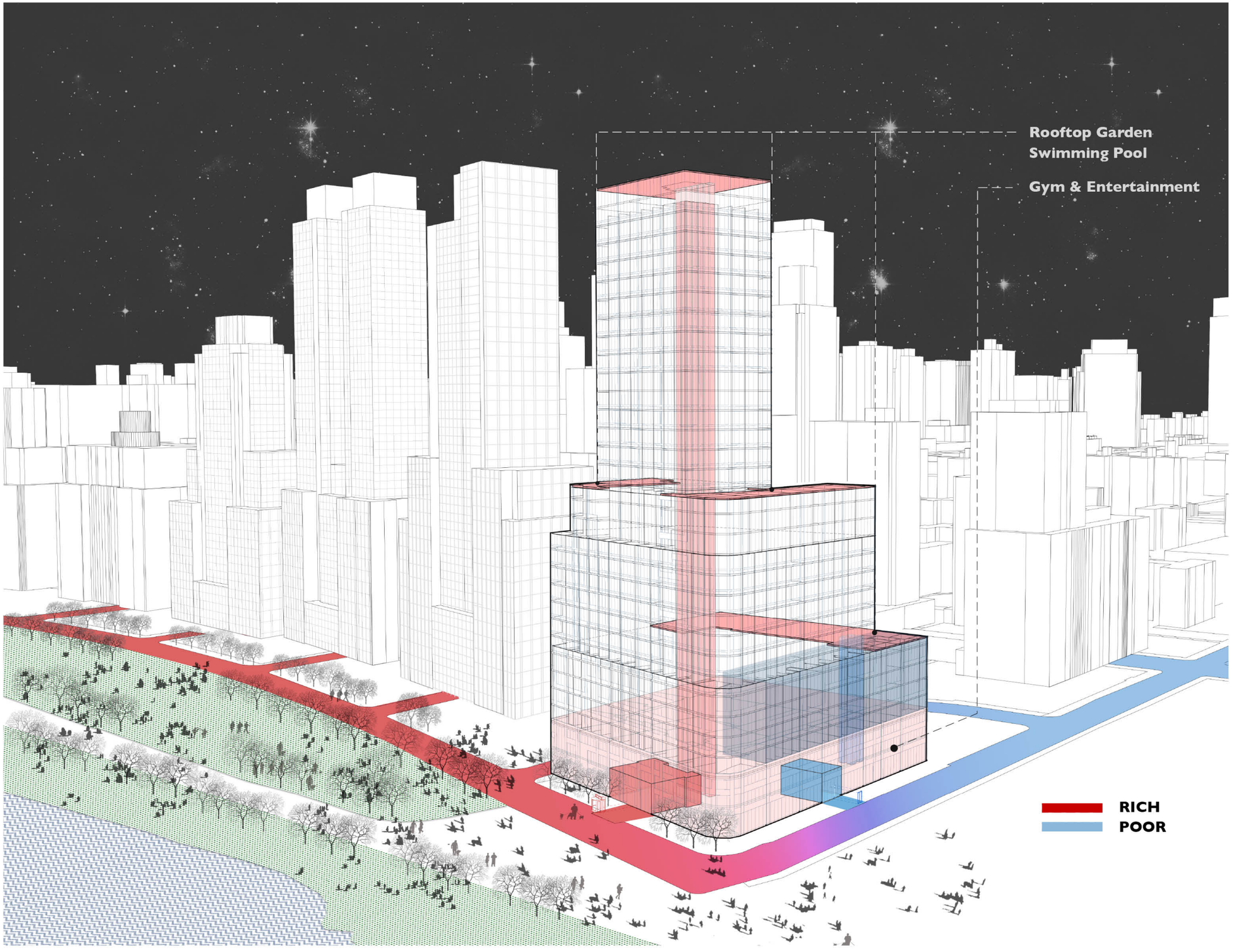
Shading

A shading system with striped brise soleil is attached to the envelope on the southern facade. According to the annual sunlight test, we apply different width and twisted angles to each stripe to make a reasonable and artistic shape.

Transscalarities

Contentious New York
One Riverside Park

Fall 2019
Instructor:
Andres Jaque Ovejero
Patrner:
Xinglu Zhu, Kabir Sahni



Door to Policy:

Scales of Architectural Politics

In 2015, promising to build and/or preserve 200,000 affordable housing units over 10 years , Bill de Blasio renewed the 421-a Tax Abatement Law, giving abatements up to 35 years to real estate developers on including 20-30 percent units for affordable housing. The same year, private developers at Extell, erected a 33-storey heterogeneous residential tower with 219 market-value condominiums starting at $25 million, and 55 [20 percent] affordable housing units starting at $813 rent per month for a studio. Complying with development regulations, this led to "separate entrances that are now almost ubiquitously labeled "poor doors"."

Started in 1971, 421-a gave tax exemptions to private real estate developers for building multi-unit residential property in abandoned and underutilized land. In 1980, understanding the inadequacy of financial capabilities, the Department of Housing Preservation and Development introduced the Inclusionary Zoning Program, compelling private stakeholders to "engage in otherwise economically irrational behavior" - develop affordable housing. Establishing the Geographic Exclusion Zone [GEA], 421-a refocused on affordable housing through mandatory inclusion of 20 percent affordable units by giving tax benefits up to 25 years.

Capitalizing on 421-a was the first nail in multi-scalar design politics and segregation. Upon compliance, Extell Development received tax abatements and lawfully superfluous buildable area that they intended to utilize in future projects. The program does not specify the zoning relationship between market-rate and affordable units in the larger development. Consequently and manipulatively, Extell chose to starkly segregate them. As market-rate units with the best views and amenities can draw top dollar, not only do these units rest on affordable entitlements [including low cost of construction], they physically sit on a podium of affordable units, manifesting discrete zoning and receiving views of the Hudson. This, so intended, established spatial political power – the poor underbelly and the rich capitol.

Such split zoning compels the need for separate doors "to make it easier for the units to be separately managed by a nonprofit in the future. " What is prominent in these dual points of ingress and egress is the introduction of the aesthetical politics, solidifying the 'real' dwellers of One Riverside Park. Condo owners enter through a glass revolving door with a concierge from river-facing Riverside Drive, while renters access from a modest 'poor' door, commensurate with any New York entrance, from the perpendicular 61st Street. Their size, mechanics and kinetics, physical locations and materiality strengthen trans-scalar elitism and architectural apartheid – the front and back doors, the main and service entrances. Additionally, if non-profit management is the rationale behind housing byelaws, what happens if the developer builds healthy residential heterogeneity in good faith? Doesn't that threaten the rationale, excluding the need for a law-abiding separate entrance?

Scaling up, the transition of material opacity to transparency maintains politics of aesthetics. The façade translates from modestly sized fenestrations for renters with views of 61st street, to full-height curtain walls viewing the Hudson for condo owners. Glass becomes a marker of the rich, while opaque materials apparently reek of the affordable. Additionally, this variance in materiality and the expression of main and service doors strengthen the duality of 'permanent' owners and the 'temporary' renters.

And finally, architectural titles and politics even define the intangible. Renters are addressed at 475 West 61 Street, while the rich, despite living in the same building, receive the 'Riverside' title and 50 Riverside Boulevard as their address. Two zones, two doors, two addresses, but one building.

Designed in accordance with the Far West Side's residential ethos, One Riverside Park focuses on mirroring Extell's real estate and economic motivations. By the end of 2015, anticlimactically, the 55 affordable units received a whopping 88,000 applications, demonstrating that the need for affordable housing and the privilege of quality localities trumps the want for egalitarian access. There is no establishment of a 'rich door' but of a 'poor door', and renters were oxymoronically willing to be economic minorities in rich neighborhoods at affordable rents.

It is interesting, rather humorous, to see affordable housing responsibilities left to capitalist housing developers. The lack of delineating design constraints of such composite real estate allows private developers to manipulate design and sequence multi-scalar segregation to maintain real estate values. In addition, with applicants having to make 60% of area median income [which is $51,540 a month for a family of four], the program again renders futile by excluding the lower income groups, threatening the 'Inclusionary' title.

The poor door stands as testament to the naïveté of policy and policy makers, and the economic motivation of private developers. Ranging from isolation in rich neighborhoods to intra-building zoning, material and address differentiation, and finally to the architectural object, the doors, One Riverside Park, like others, is a display of micro and macro politics in architectural design. The public outcry has remained provincial by only painting a 'poor door' problem. The conflict must oscillate between inclusionary entrance doors, inadequacy of policy in architectural delineation, and trans-scalar design manipulation. Perhaps a disassociation of affordable housing from market-value real estate through 'affordable only' tax exemption is a start, because a 1600:1 ratio [88,000 applicants for 55 units] is a city crying for homes.

-x-

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History of Architecture theory

Fall 2019
Instructor: Mark Wigley
Individual Work

Review to Philosophy of Symbiosis

The "Philosophy of Symbiosis" proposed by Kisho Kurokawa is more than a reaction or manifesto. Valuing symbiosis of plurality, it is an ideology based on the mixture of historical environment, traditional Japanese culture and philosophy of Buddhism. As a member of Movement of Metabolism in his earlier years, Kurokawa published this book "The Philosophy of Symbiosis" at the age of 60 in 1994. It clearly has a lot of ideas in common with the Metabolism, but as a theory, Philosophy of Symbiosis is more than a movement. Originated from Japanese traditional culture, Philosophy of Symbiosis goes against Dualism as a progression from "the age of the machine" to "the age of life ." To pursue Kurokawa's final vision "a symbiosis of nature and human beings, of environment and architecture.", the development of this theory has these phases: "Metabolism, Coexistence, Symbiosis ." Kurokawa summarized this theory in those fundamental components: the symbiosis of cultural plurality; the reconciliation of human and technology; the unify of part and whole; the interaction of interior and exterior; the coexistence of history and presence; the continuity of nature and architecture.

He tried to use this philosophy to change the western-centered culture and Rationalism. Starting from the Metabolism movement in 1960s, this theory is his reaction to the historical background and cultural context: to transcend the Modernism and to find a way out from the Age of Machine to the Age of Life. Through more than thirty years of development, Kurokawa established this theory on the conditions of Intermediary Space and Sacred Zones; aimed for a coexistence mode in the information age; proposed against the dualism of western culture, not only in architecture but also in everything.

Even though the ambition of Kurokawa is to provoke thought and discussion in all people by interpreting the upcoming world order of a new era with his philosophy, the "Philosophy of Symbiosis" is still deeply rooted in the subject of architecture and urban planning. With its wide influence in many areas, "including government, business, science, art and culture, and philosophy," "Philosophy of Symbiosis" first emerged during the movement of Metabolism.

Metabuddhism: Infinite transformation

Known as "the first non-western avant-garde movement in architecture" , Metabolism, which was proposed during World Design Conference held in 1960 in Tokyo, had tremendous impact on not only architecture, but also social ideology, culture and philosophy. A group of architects brought up the manifesto Metabolism: The Proposals for New Urbanism, a 90 pages book including Kikutake's "Ocean City", Kurokawa's "Space City", Maki and Otaka's "Towards the Group Form" and Kawazoe's "Material and Man". Given the background of the Post-war Japan was eager to recover and return to international stage, and the World Design Conference was an opportunity for designers and architects to communicate with outside world. These architects gathered as a group force to propose a modernism utopia of urban design. To some extent, Metabolism is more a plotted event than a manifesto.

"Every one of us has his own separate ambitions and desires, but when something needs to be done, we all work together to make it happen. And at times like that, somebody needs to fill the role of a conductor in an orchestra." According to the memory of those architects, Metabolism is not a complete systematic theory but a label, with a group under a manifesto. Differences did exist between group members. Among the architects of Metabolism movement, Kurokawa's attitude towards new technology followed traditional natural and cultural code. He developed his theory from Metabolism to Symbiosis because of his very own perception and cultural influence.

Metabolism was active in the 1960s to 1970s, a period when Avant-Garde architectural movements happened everywhere in the world including Archigram and Team Ten. It was a period perfect for the prosperity of ideology and thought. One of the main reasons is the war. It is very important for us to take a little step back to look at Kurokawa's childhood, in order to understand the differences between him and other architects in the Metabolism group. He used to live in the downtown of Nagoyo. However, he moved to the suburban area when he almost finished elementary school. According to his conversation with Rem Koolhaas, there was one night; hundreds of bombs were projected to the city. Nagoya, the city with 230 years of history was destroyed in one night. "We have to rebuild the city in the wound now." Said his father. However, he kept doubt, the war wound told him that the buildings, just like the city, could be gone to ashes in one night.

"War helped me discover Japanese culture. As I stood amidst the ruins of Nagoya, the third largest city in Japan, there was nothing but scorched earth for as far as I could see. In contrast to the desolate surroundings, the blue of the mountain range on the horizon was dazzling to the eyes."

Those traumatic images of events were the point of origin of architects in Kurokawa's generation. The defeat in the war, which leads to the city deconstruction, affects them in different ways. However, Kurokawa took it as ephemerality versus eternity. This small personal take under a big picture is crucial in his development of theory. Unlike the most of the cities in the west that was built of brick and stone, most of Japanese building were built of wood. As a result, deconstruction usually leads Japanese cities to the ground. However, the cities "persisted as vivid images in the minds and imaginations of people." Along with this first contact of the core of Japanese culture, his family and education background of Buddhism is also an important fact in the cultural context of his Symbiosis theory. The belief of Buddhism gave him the idea of reincarnation, one could be a plant this time, and become a Buddha in the next cycle. It is relatively a different take of eternality. Life does not die; it just exists in another form in a fashion of cycle and reaches a perfect balance through interchange.

"Individuality belongs to certain systems, but they must also be equal. I, me, you, tree, Buddha are equal because they have identity, jiga, and the same "cycle". We don't kill an animal in Buddhism. You will be me after I die - or a tree. A tree is father, or Buddha. This is the opposite of Christianity where things are each different - that is not interchangeable. I can be Buddha, but you can't be Christ."

The context that gives birth to the Symbiosis theory consists two parts: historical environment and cultural background. The postwar environment gave Kurokawa the desire to rebuild his city. The Japanese traditional culture and philosophy of Buddhism helped him make the utopia rebirth in an interchangeable and cycling fashion. In addition, the cultural context provides him with a different perspective from Western theorists like Robert

Venturi.

"But architecture is necessarily complex and contradictory in its very inclusion of the traditional Vitruvian elements of commodity, firmness, and delight. 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. I welcome the problems and exploit the uncertainties. By embracing contradiction as well as complexity, I aim for vitality as well as validity. "

Against "less is more" from Mies Van Der Rohe, Venturi suggests architects should not be intimidated by the language of Modern Architecture: pure, clean, straightforward and articulated. The way he proposed is to use the complexity and contradiction to create more multiple depth in architecture.

Although they both express similar disapproval to modernism, Kurokawa's theory focuses more on plurality instead of complexity, intermediary instead of contradiction. The best example is his proposal of "Intermediary Space". As he discussed the different role of wall in Western space and Japanese space, he claims "Japan is a culture of wood, and the West is culture of stone. But in addition, in Japan there was a conscious effort to integrate the inside and the outside. " Both having similar ideas of ambiguity in architecture, Kurokawa's theory is different from Venturi's in the way of trying to make the complexity and the contradiction integrated and continues.

Intermediary space and Sacred zones

There are two necessary conditions to establish the philosophy of symbiosis: the intermediate space and sacred zones. Deeply influenced by traditional Japanese culture and Buddhist philosophy, Kurokawa's own version of Metabolism should really be called "Metabuddhism". The idea that the city and architecture are a process of metabolism instead of something static, has some clues and ideas that form his philosophy of symbiosis at last. During the development of his theory, what he takes from Metabolism is the cycle of infinite transformation. He tries to apply this into architectural structure: He designed the Nakagin Capsule Tower and published the essay "Capsule Declaration". The use of small modular units which is designed to be prefabricated, be replaceable and easy to be plug in, intends to acquire the ability of infinite growth. The inspiration from Soviet aircraft leads to a futurism style and still has a machine age character. The factor that results the Kurokawa's shift from age of machine to age of life is traditional Japanese philosophy and architecture, which has "an aesthetic of death, whereas the western culture has an aesthetic of eternity." The Ise shrines have a cycle of rebuild process in about every twenty years due to the wood structure. Just like the cities under deconstruction still exist vividly in people's memory and imagination, the Ise shrines were rebuilt in the same form or spirit.

In addition to this traditional aesthetic, Kurokawa took clues from the Katsura Detached Palace in Kyoto, which has asymmetrical plan. This asymmetrical plan reached its current stage after expansion process of 150 years, taking the part from the original, the in-progress and the last. People appreciate every phase of Katsura Palace and consider all of those phases are perfect. The aesthetic of death generates the appreciation of infinite transformation which was embodied in Metabolism. However, how does the transformation happen in a perfect stage when the new and old collide? In other words, how does the coexistence of every phase become harmonious symbiosis?

Kurokawa found his answer in Katsura palace with a Buddhism perspective. Considering each pavilion at Katsura is a "jiga" (a Buddhist word for self and identity), the Engawa, which means the pace between two pavillions, connects all "jiga' together in an overlapping manner. In this way, the Engawa functions as the third type of space other than interior or exterior, the intermediary space: "In that it is beneath the eaves, the engawa is interior space; but in that it is open, it is part of the exterior space, the garden." In comparison with the picture window in the west: the window as a frame with nature as the painting, the traditional Japanese house doesn't have this indication of something out there. It features house and garden are one with Engawa as connection of interior and exterior.

A variety of architectural details could define the space: "the space beneath the eaves, the engawa, corridors, and lattice doors among them, as intermediating elements ." The intermediary space creates relations between opposites which could results a discontinuous continuum. Those intermediating elements gives Japanses homes this kind of "unobstructed interpenetration" and symbiosis of inside and outside. Kurokawa proposes the concepts of intermediating space and intermediating elements in the Philosophy of Symbiosis to design a space that allows a communication among people by the role of the guest, blurs the dualistic division between interior and exterior, frees the space from the divisions of walls.

When considering the idea of intermediary space in a larger context, not only in architecture but also in culture and humanity, Kurokawa proposes the concept of the sacred zones to differentiate symbiosis from "harmony, compromise, amalgamation, or eclecticism". The sacred zone exists between different cultures, the opposite sides, and different elements. It accepts and respects the extreme oppositions of dualism, and discovers the positive factors in them by mutual exchange. As Kurokawa identify himself as the one of the fourth generation of Japanese architects since modern age, the second generation of Japanese architects failed in exporting ultra-nationalistic Japanese architectural styles. Scared zones could be considered as his introspection to the failed attempt of ultra-nationalistic. Considering all aspects of people's lives and cultures are an "inviolable sacred zone", Symbiosis denies any types of "nationalism or a closed regionalism".

"A hundred years ago, when we first began importing European civilization, people wore kimonos; to these they later added shoes. This was not a harmonious combination but it was a very good way even so. The Japanese way is to mix everything, not as a synthesis but as a situation. Situation is reality to us because our whole tradition is a tradition of flexibility and change. There is no real opposition to progress here because we do not decide what is right and what is wrong, or what is good and what is bad-that is a very European kind of thinking. What we do is to separate them but accept both."

This concept that in between space connects different identities, and sacred space interchanges different culture, to Kurokawa's eyes, is very valuable as it somehow transcends the dualism of the west. Learned from the lessons of previous generation of architects: from copying Western style of architecture to developing ultra-nationalistic, Kurokawa brilliantly developed from a traditional but brand-new perspective to embrace the differences. In this sense, the Philosophy of Symbiosis finished the evolution from Metabolism.

Transcending Modernism

As an architect, it is important for Kurokawa to find the intermediate space between solid and void. Not only because he considers dualism as alien to his Buddhism philosophy

background, but also, he believes dualism is a "sickness that has taken root in all areas of modern thought and methodology " His point of view that Dualism is problematic might also relates to the historical background we mentioned. As one of the fourth generation of modern Japanese architects, he reviewed Japanese architecture from blindly copying western styles without any change to the defeat of ultra-nationalism. Thus, the mission of his theory is to find a new architectural interpretation of traditional Japanese culture in the context of the downfall of Modernism.

Similar to rationalism that has been the inner core of the industrialization and modernization of society, the modernism design is also based on dualism, "giving us such contrasting pairs of terms as beauty and utility, form and function, architecture and the city, human scale and urban (superhuman) scale." The representing strategy of architecture and art in the Age of Machine is generated from analysis, structuring, organization, and universal synthesis. It similar to the process of composing components into workable machine which does not allow the existence of intimacy, alien elements, odds and multiplicity.

Considered as the momentum of Europeanism, Le Corbusier's architecture in the Age of Machine is as pure as his drawings, with a character of simplicity and precision. Functionalism proclaimed that "form follows function." However, humanity, sensitivity, and aesthetic richness is hard to produce through function. "Functionalism compromises humanity, represents the defeat of humanity." Regarding to this concern, Kurokawa introduces the concept of harmony when resolving problems with dualistic methods. He used the human and the other superhuman scale as example.

"In urban space, there are two scales, one human and the other superhuman. They are regarded as antithetical. To bridge the gap between them, a hierarchy of several graded scales leading from the human to the superhuman is created, and that is how these extremes are harmonized. If these two scales are really antithetical, there will always remain an unbridgeable gap between them, no matter how many intermediary steps are constructed. Conversely, if the gap can be bridged, that means that the two scales were never actually antithetical."

By recognizing the contradiction of dualism, Kurokawa suggest dualism could only be perceived when it is either compromised or escaped. Considering dualism as a creative logic, the task towards the age of life is to move from dualism to pluralism, and evolves towards coexistence to harmonize the extremes. According to Charles Jencks in his The Language of Post-Modern Architecture in 1977, he gave several definition of Post-modern architecture: Firstly, it is architecture that speaks to us on at least two levels; Secondly, it is hybrid architecture; thirdly, it is intentionally schizophrenic; fourthly, it is an architecture with a language; fifthly, it is "rich in metaphor, new and embracing rather than exclusive"; sixthly, it is "an architecture that responds to the multiplicity of the city" .

In addition to the theoretical description, according to his critical thinking regarding to Dualism, Kurokawa considers his Philosophy of Symbiosis as Postmodernism to transcend Modernism. Another aspect he separates himself from other Postmodernism theorists is his theory has broader range.

"In architecture there is a group who subscribe to Postmodernism. In America they are represented by Robert Venturi and Michael Graves, and in Japan Arata Isozaki is often called a Postmodern architect. But to me, they are Postmodern only in the narrowest sense of the term. Their method is to incorporate the architectural styles of the past, and predominately the European past, into contemporary architecture. The do not subscribe to the broader Postmodernism I speak of, which seeks to eliminate the domination of the West and transcend Modernism. Postmodernism not as a narrowly defined architectural tactic but as the philosophy of symbiosis will be an important intellectual weapon to aid us in the challenge of conceiving of and living in the truly Postmodern age."

From Kurokawa's point of view, if Post-Modernism architecture stays in incorporating the past architectural styles, it loses the chance to reflect the tremendous shift of history and would fail. In that sense, his Philosophy of Symbiosis which has broader range, would be essential in order to break the limit of Modernism.

Encompassing all fields

This process of harmonizing extremes is the task of moving from dualism to pluralism. Because the informational society is the background the Age of Life, as industrial society is the background of the Age of Machine. If the architecture in the Age of the Machine is the representation of function, the architecture in the Age of Life is the representation of meaning. The manifesto of the Philosophy of Symbiosis is: In the Age of Life, Dualism is going to shift into pluralism and symbiosis. The concept of intermediary space and the Sacred Zone are the essential conditions but also examples that embodies the ambiguity of the in between area.

To be more specific in architecture, unordinary spaces like magnificent entrances or grand halls usually bring monumental visual perception to people, because this kind of extreme shift through scale provides people something more than function can explain. Streets, plazas, parks, rivers, landmarks and infrastructures compose the intermediary space of city, which function as a media of the mutation from single building to city scale. Despite its intention to change design methodology, the Philosophy of Symbiosis works as prediction of ideological direction in a new age. It suggests principle of order in general, not only in architecture.

The Philosophy of Symbiosis with broader range of fields is the advantage that Kurokawa brings to the table. The path he proposed from dualism to pluralism, then from coexistence to symbiosis states the vision of his philosophy, which defines it as a theory. However, it is very interesting that the way Kurokawa developed his theory goes against Modernism even though he claimed:

"I do not totally reject Modern Architecture, by any means. My own work always makes use of what I regard as the positive aspects of Modern Architecture."

He still states Modernism reached its end as he blames the limit of Modernism to the inner core of Dualism. He created two opposite sides as Dualism and Symbiosis. In some sense, as he states: "Japan is a culture of wood, and the West is culture of stone ", the roots of these two opposite sides are the Western ideology versus Japanese ideology. He uses a dualism way to dialectically draw the conclusion of pluralism. In my point of view, it is understandable since the movement of Metabolism happened because Japanese architecture needs an own identity from western architecture ideology. This motivation still exists in his Philosophy of Symbiosis. When the identity is defined, the boundaries between west and Japan have to become distinct. In other words, the effort he is trying to broader the range of his theory makes it contractionary. But encompassing all fields is also what the Philosophy of Symbiosis is so charming and rich of social value. It is an intellectual weapon during the huge shift of eras as the informational society developed into internet society, the boundaries between nations, races, cultures become less distinct.

Shuchang Zhou

Portfolio