GSAPP PORTFOLIO

Nan Wei

selected works from 2022-2023

- The Expected Unexpected 3
- Programs 4
- Typology 6
- Movement 8
- Materiality 9

- Data Landscape 11
- Invisible Order 12
- Streaming Machine 13
- Threshold of Online and Offline 15

- Fluctuating: the Living Market 17
- Soft & Sharp Edge 17
- Connecting site 18
- Fluctuating Roof 19

- ARCHITECTURE CONCEPTS FROM 1968 TO THE PRESENT 20
- AI Generated Drawing 21

- THE HISTORY OF ARCH THEORY 22

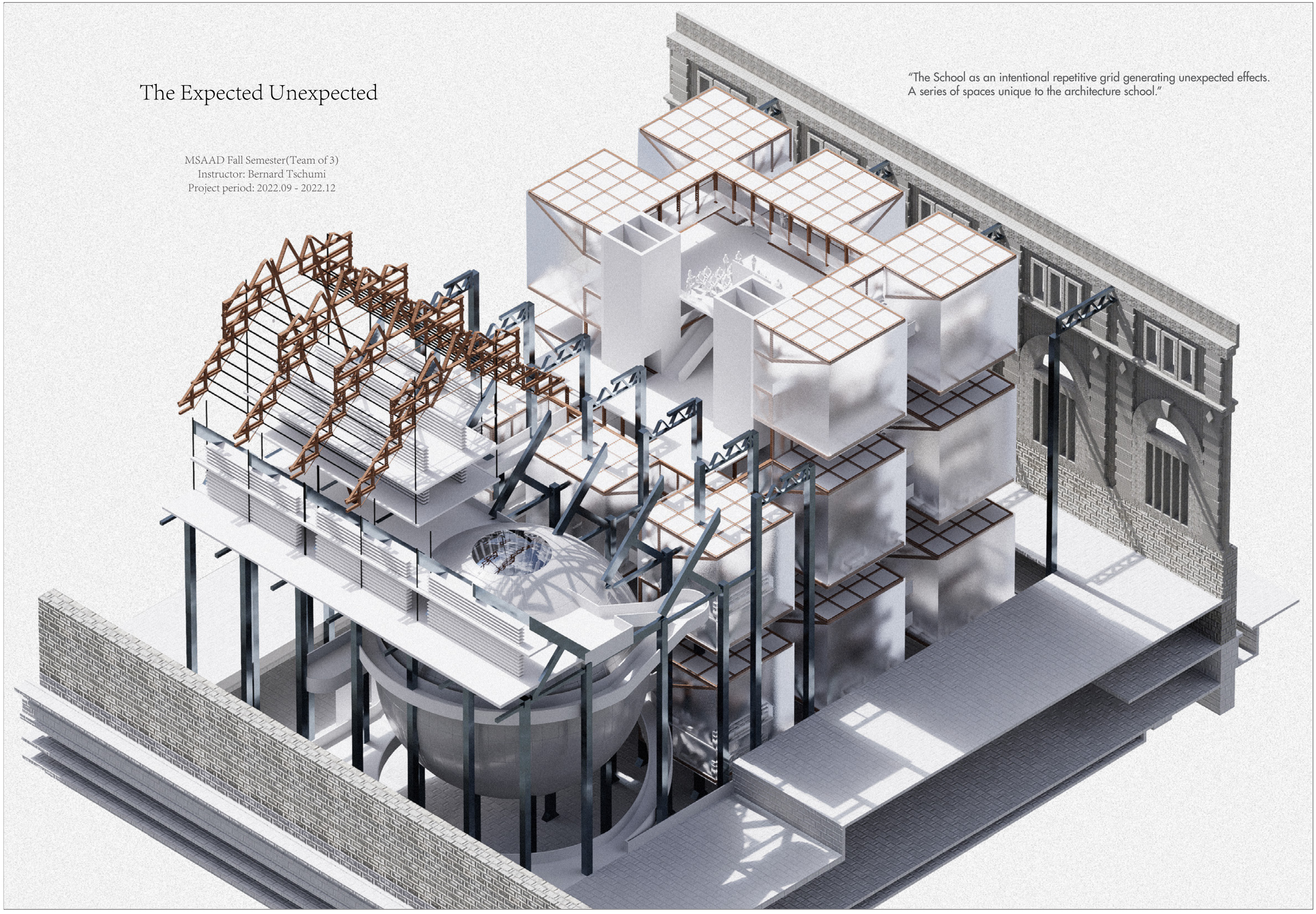
- Re-thinking BIM 23

- Tensile/Comression Surfaces 28

The Expected Unexpected

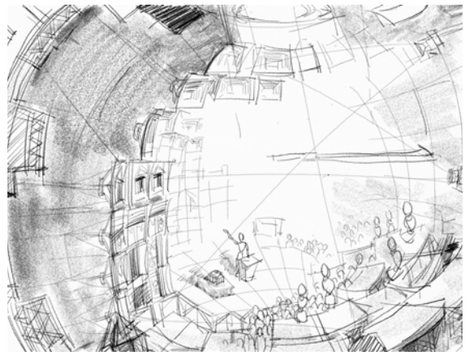
MSAAD Fall Semester(Team of 3)
Instructor: Bernard Tschumi
Project period: 2022.09 - 2022.12

"The School as an intentional repetitive grid generating unexpected effects.
A series of spaces unique to the architecture school."



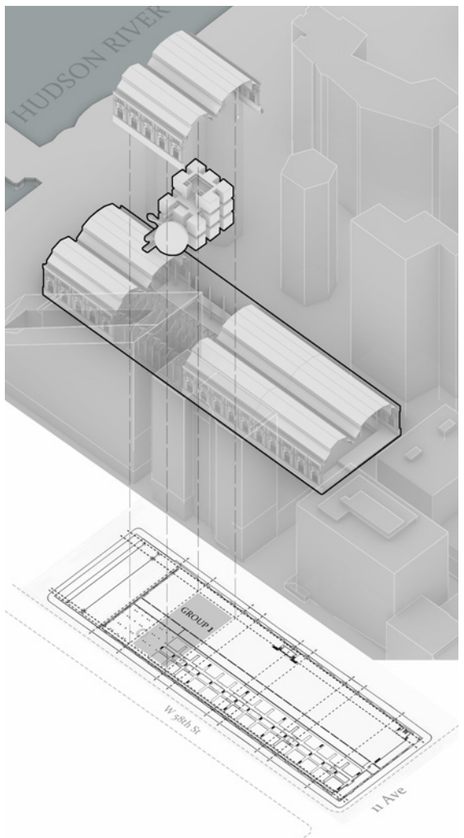
Unexpected Mix of Typical Programs

The programs are mixed unexpectedly, therefore different combinations of program can activate diversity of student's ideas.



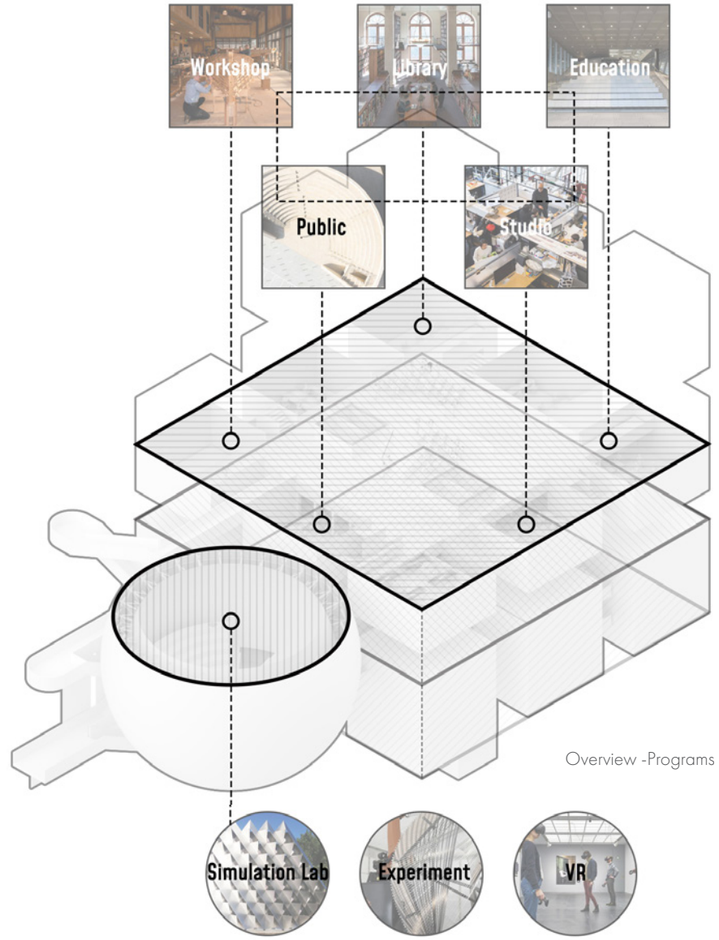
Adaptability

A flexible and sizeable experimental lab bring the proportion and perspective of the human body back to architectural education. Students will therefore gain understanding and enlightenment by seeing and touching directly.



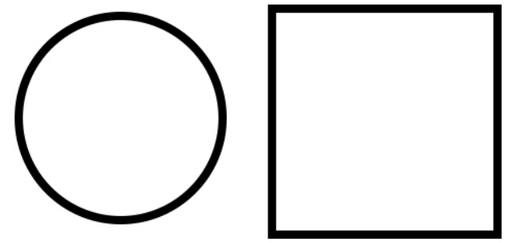
Preservation and Insertion

The site is located in the IRT powerhouse, a history building occupying a typical NYC block.



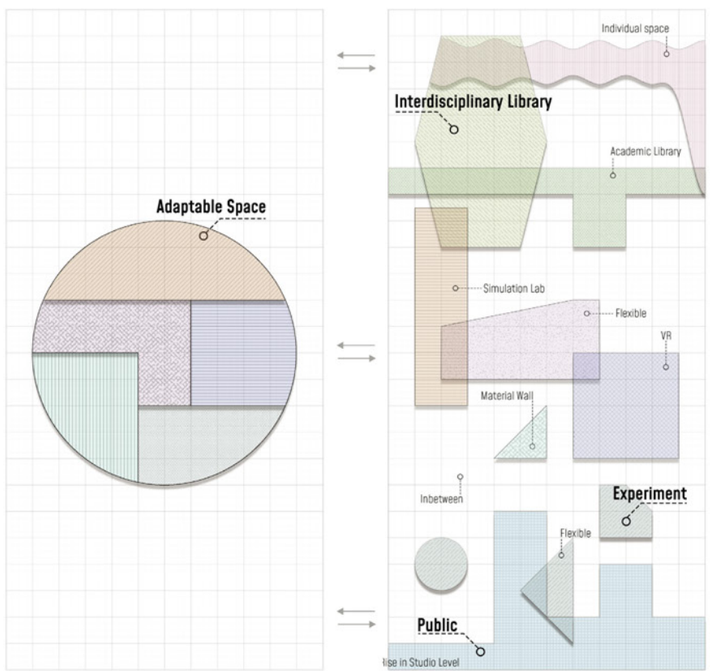
Overview -Programs

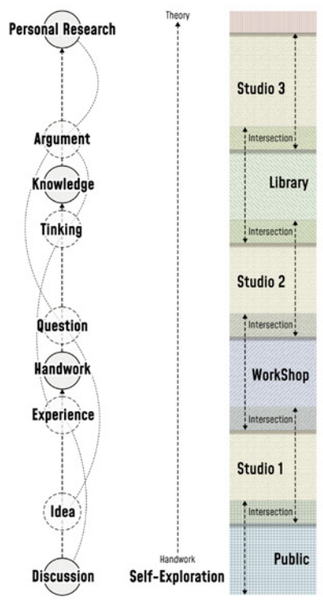
In aspect of creating unique experience of architecture school. we conceived a series strategy of the expected to activate unexpected movement and activities of education. We rethink how typical programs can have unexpected mix, and how a adaptive space can meet the changing needs of the future.

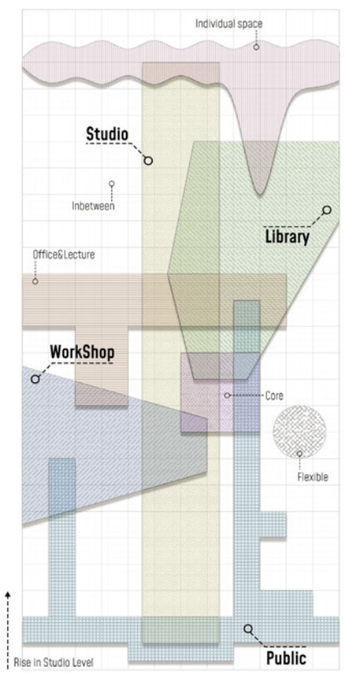


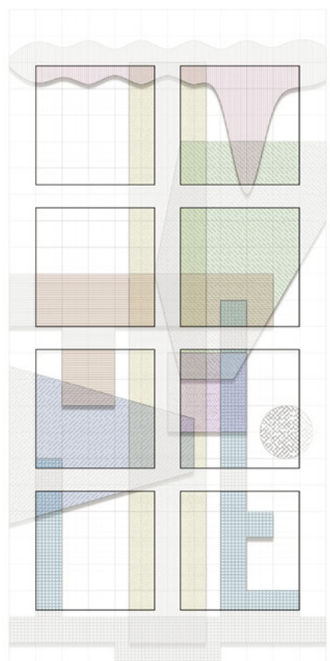
Self-exploration

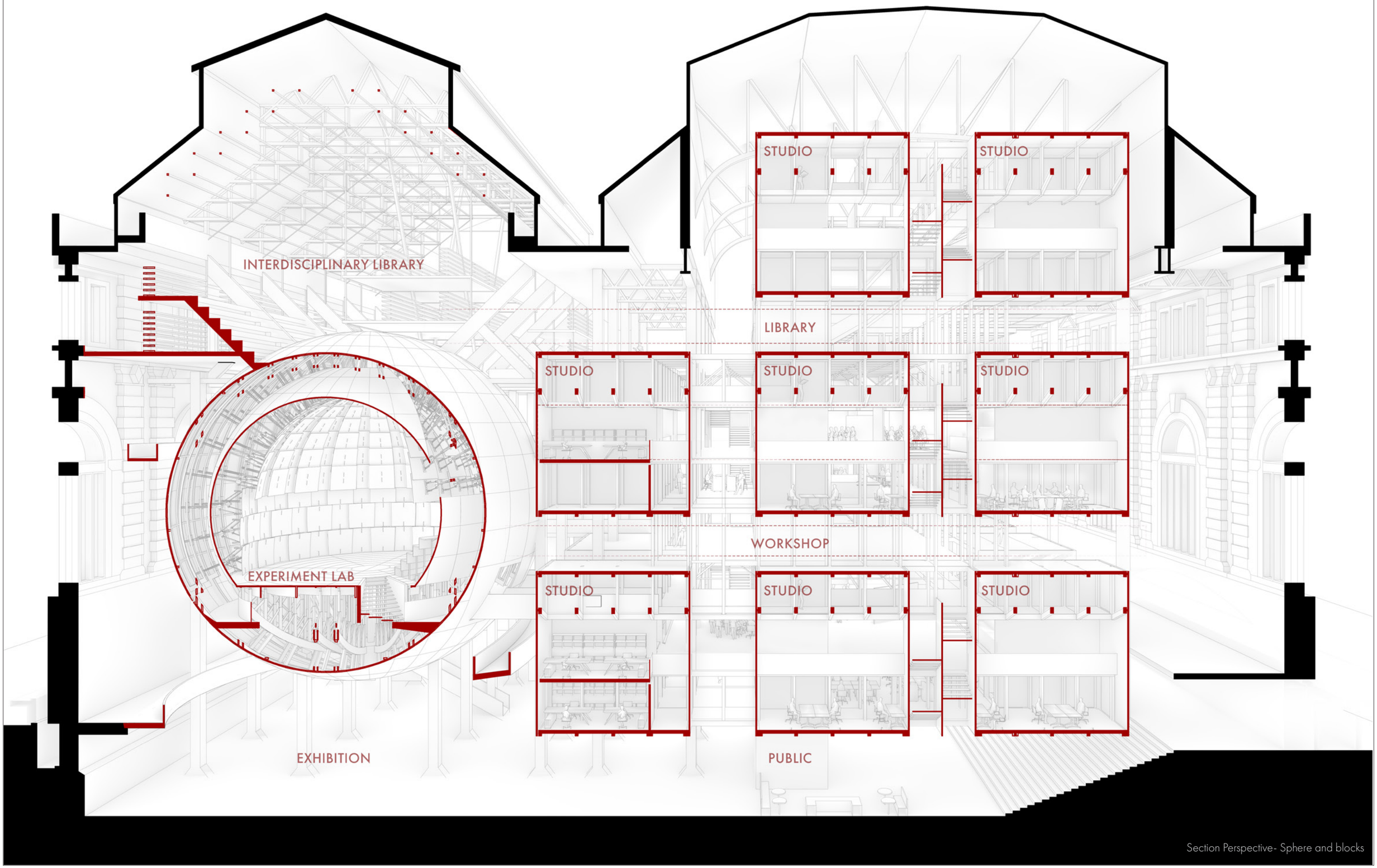
The architectural education relies on self-exploration. Every student will have unexpected development in this procedure.
Therefore, the studios are interspersed with typical programs, and arranged to meet the different needs in self-exploration procedures.







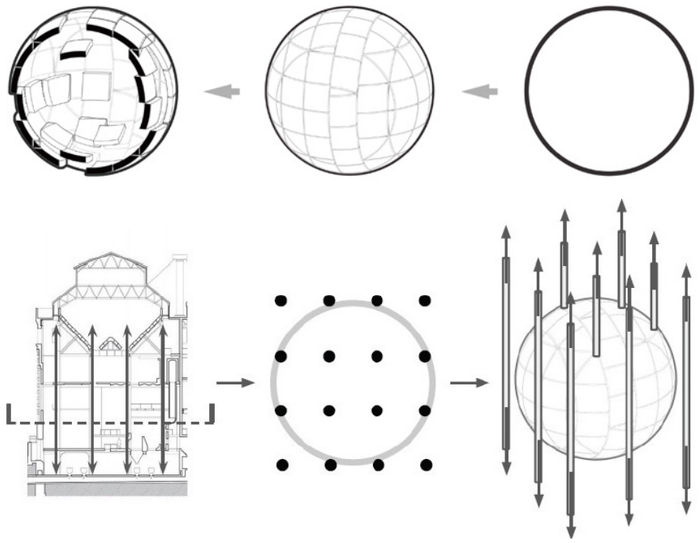


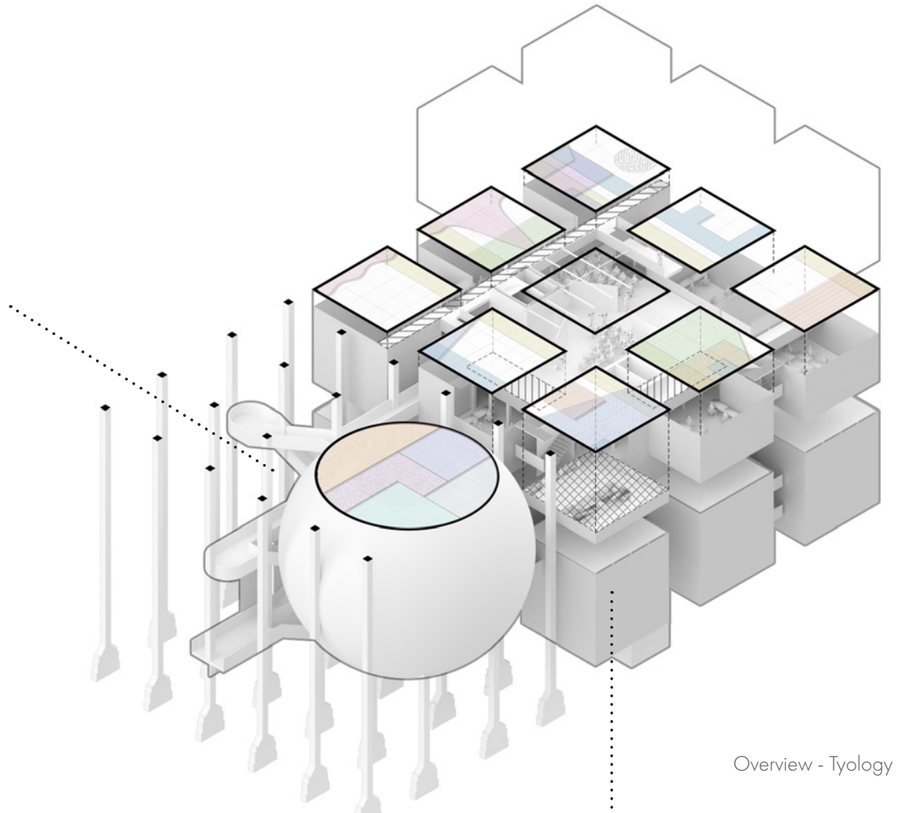


Section Perspective- Sphere and blocks

Tyology - Sphere

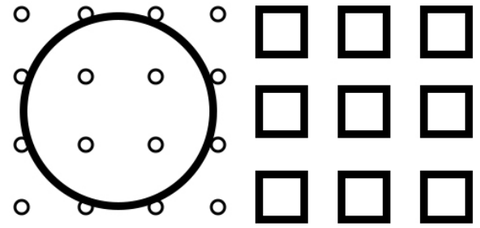
The expected rules of grid divided the sphere into movable pieces for Experiment Lab to adapt diverse activities in future.



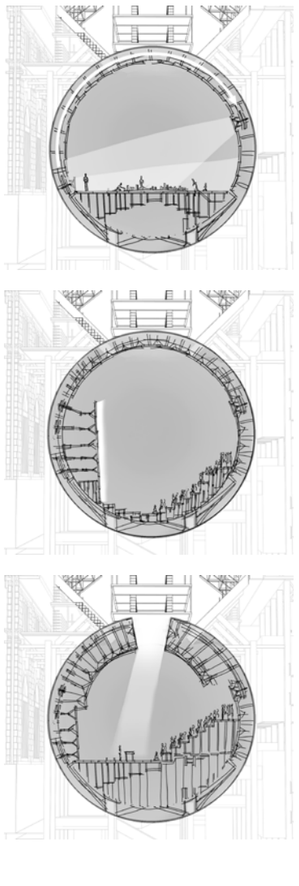


Overview - Tyology

There are two different typologies applied: The expected rules are constituted by a series of grids, arranged the studios as a 3D matrix. The adaptive space is a sphere splited into serials of movable pieces.

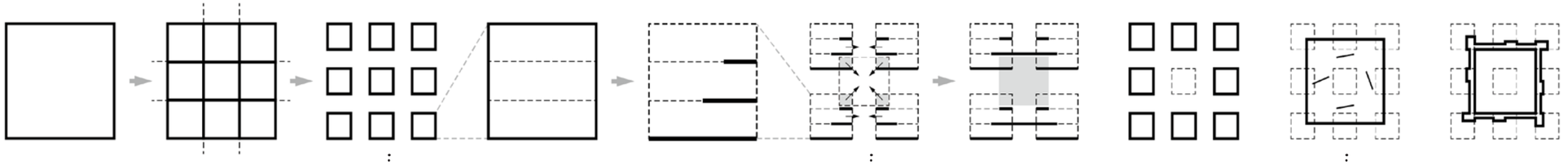


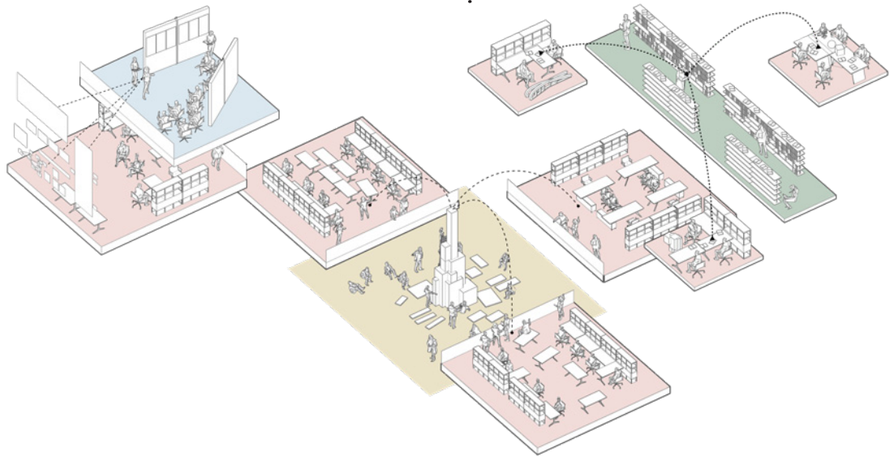
The expected rules are constitutes by a series of grids. Besides, aparting from general layer, we bring the grids from 2D into a 3D matrix.

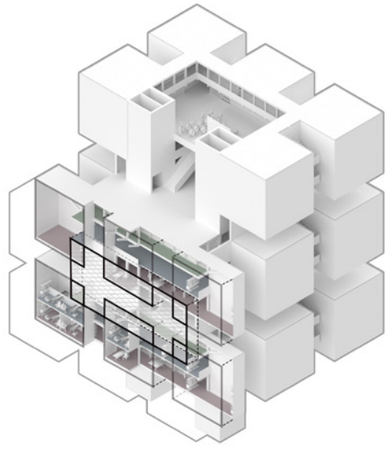


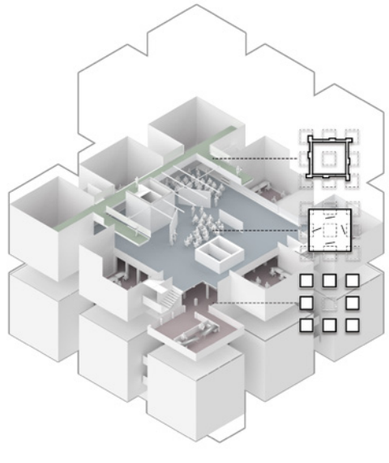
Tyology - Blocks

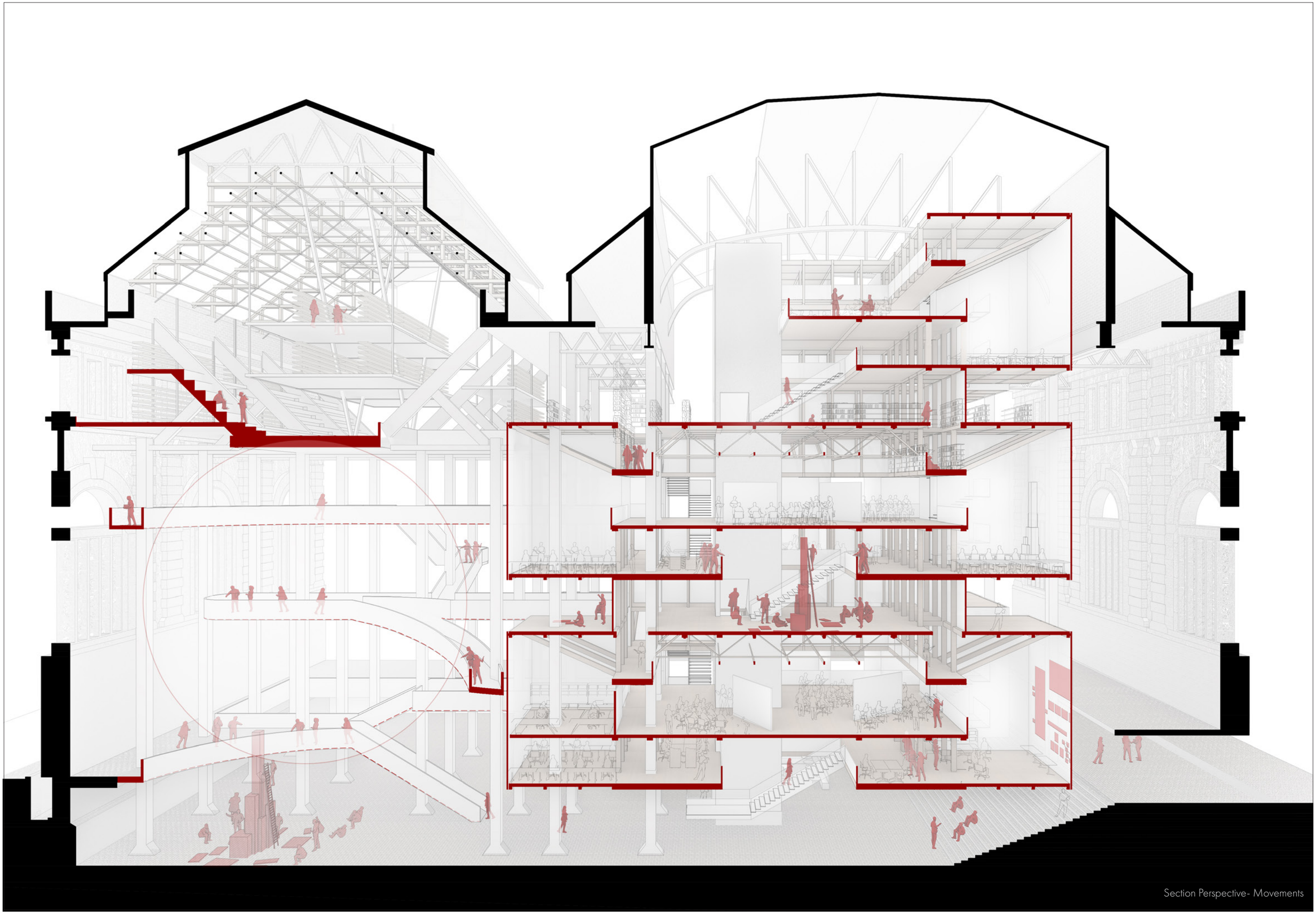
In every blocks, the stepping typology allow programs to share the same space and interact directly with the studio and the education. The way how students will use it are diverse.



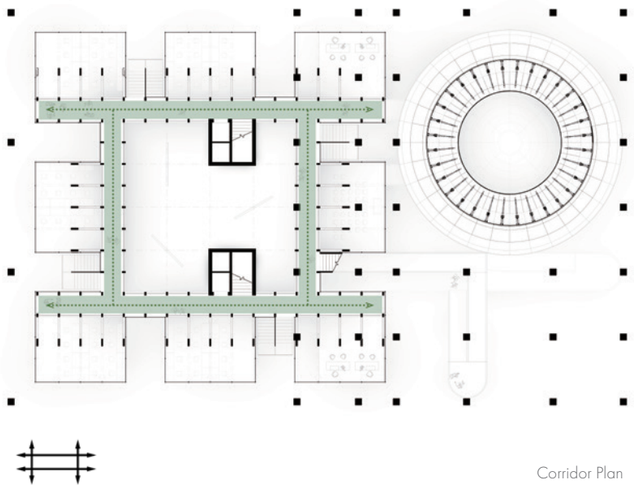




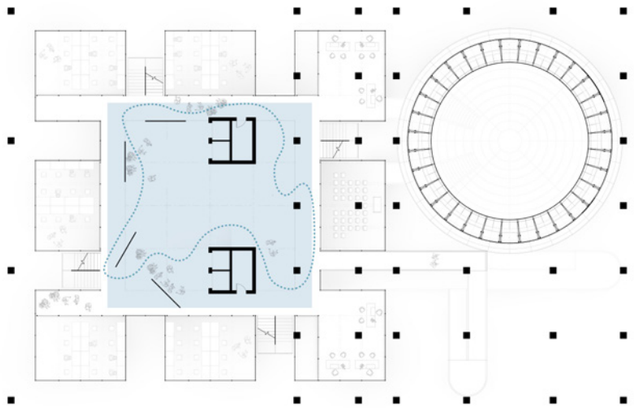




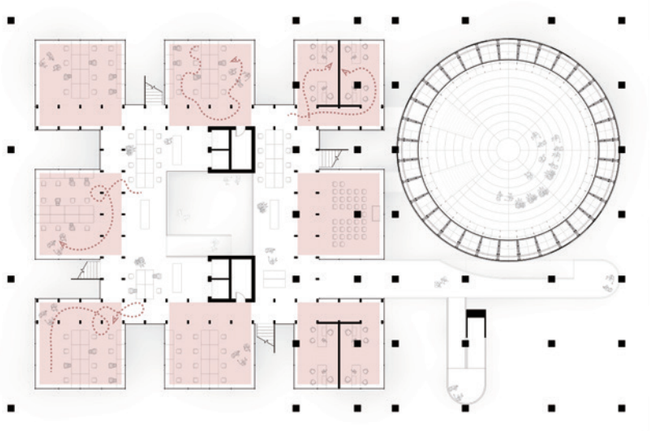
Section Perspective- Movements



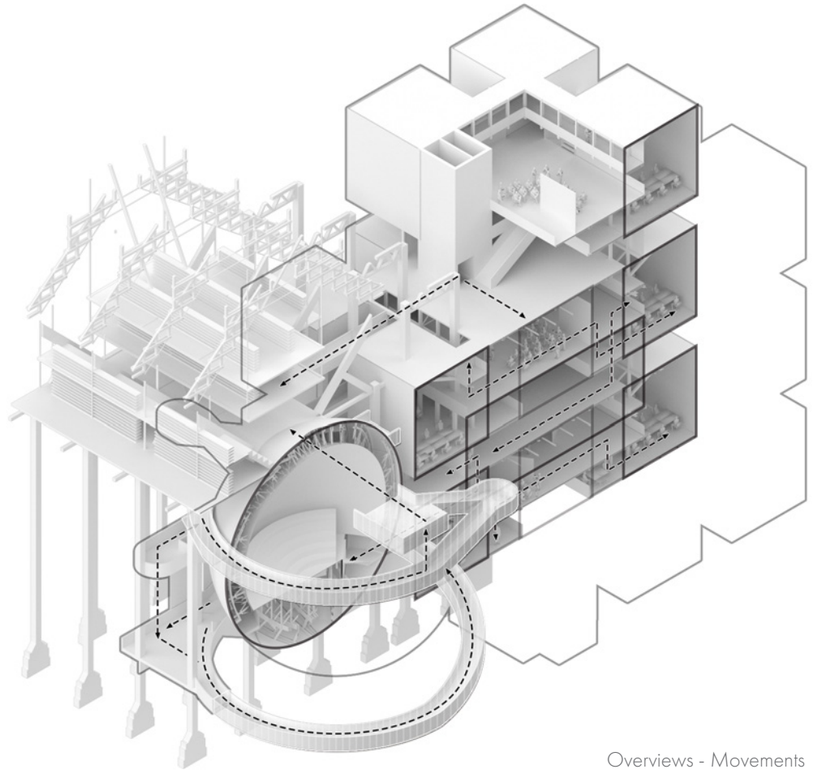
Corridor Plan



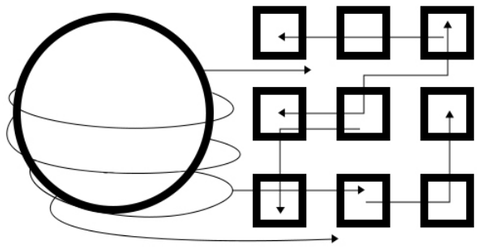
Platform Plan



Rooms Plan



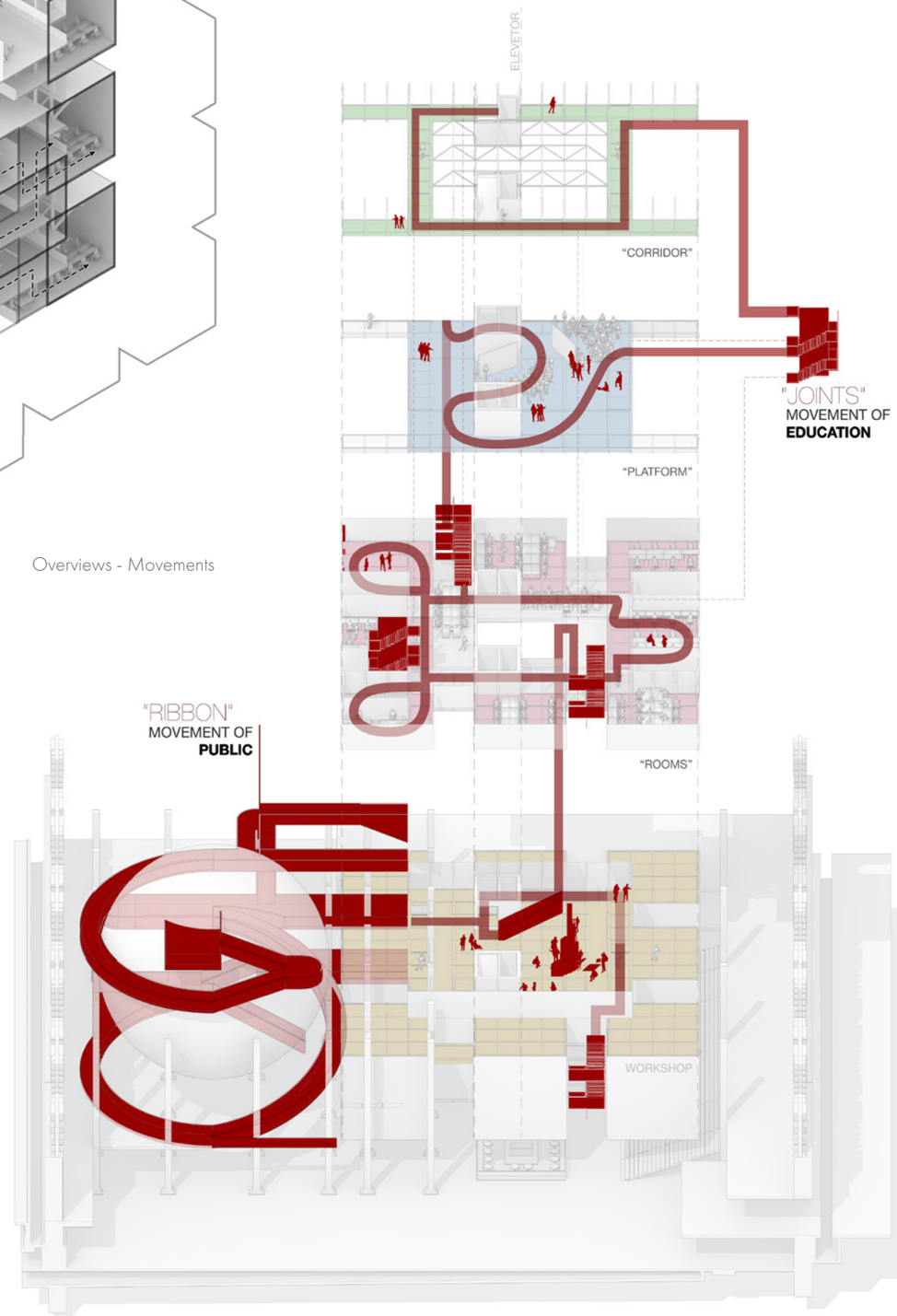
Overviews - Movements



The movements are primary consituted by 2 elements:
A series of Joints between blocks to engage the grids to be a inseparable whole. A Ribbon connects the sphere to the in-between space of the matrix, guiding publics to the school.

Creating unexpected interactions within expected storylines makes movement complex and fun while still being convenient and

Responding to the contacts between floors in a typical block, we simply distributes multiple stairs between every two blocks for a easy vertical connections.

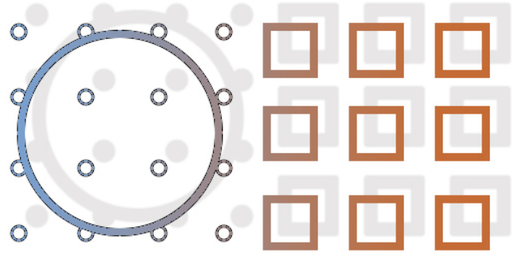


Movement strategy - Ribbon and Joints

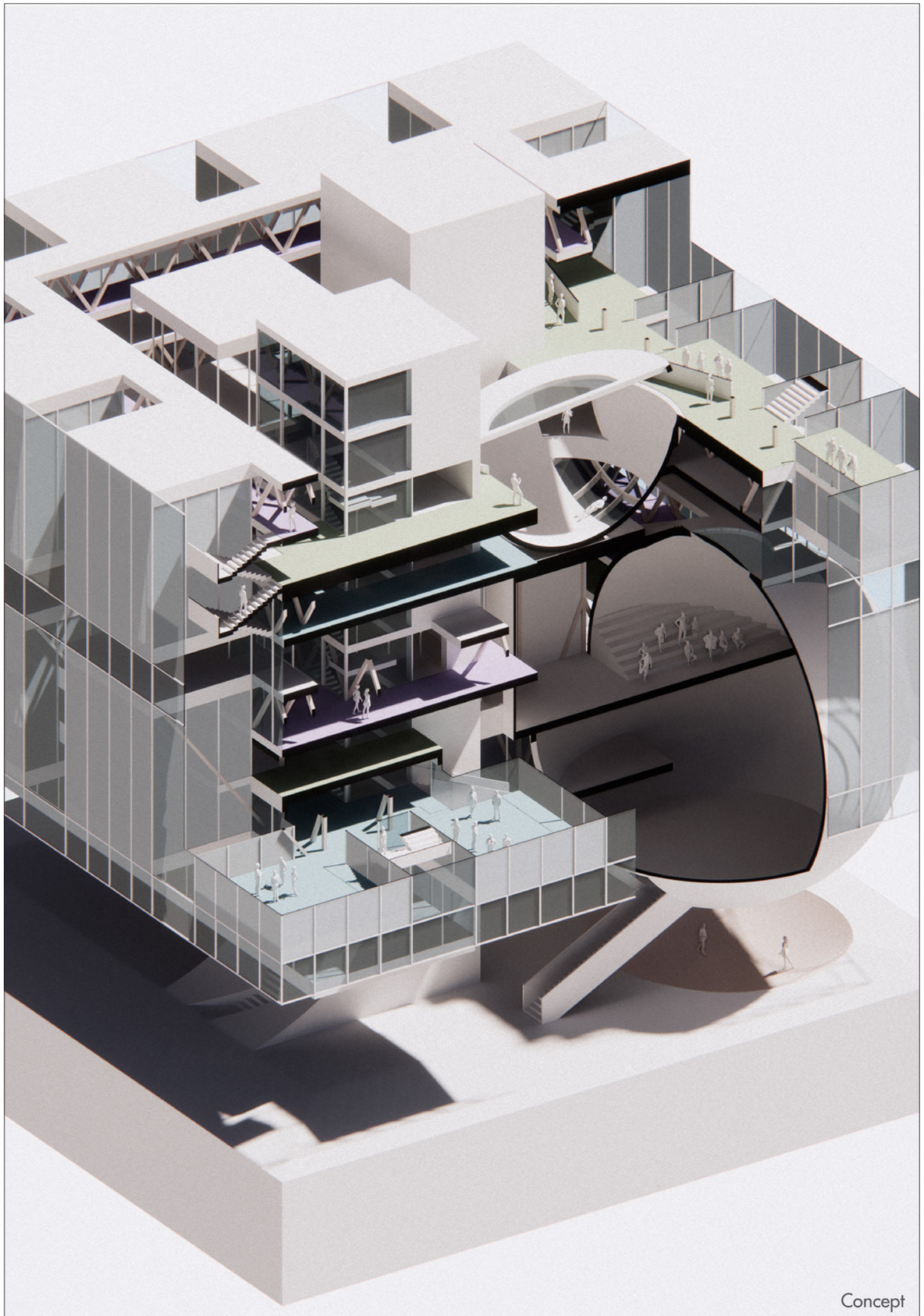
Interior render of sphere: Imitation of Pantheon

Interior render of the inbetween space

Interior render of blocks: Transparency

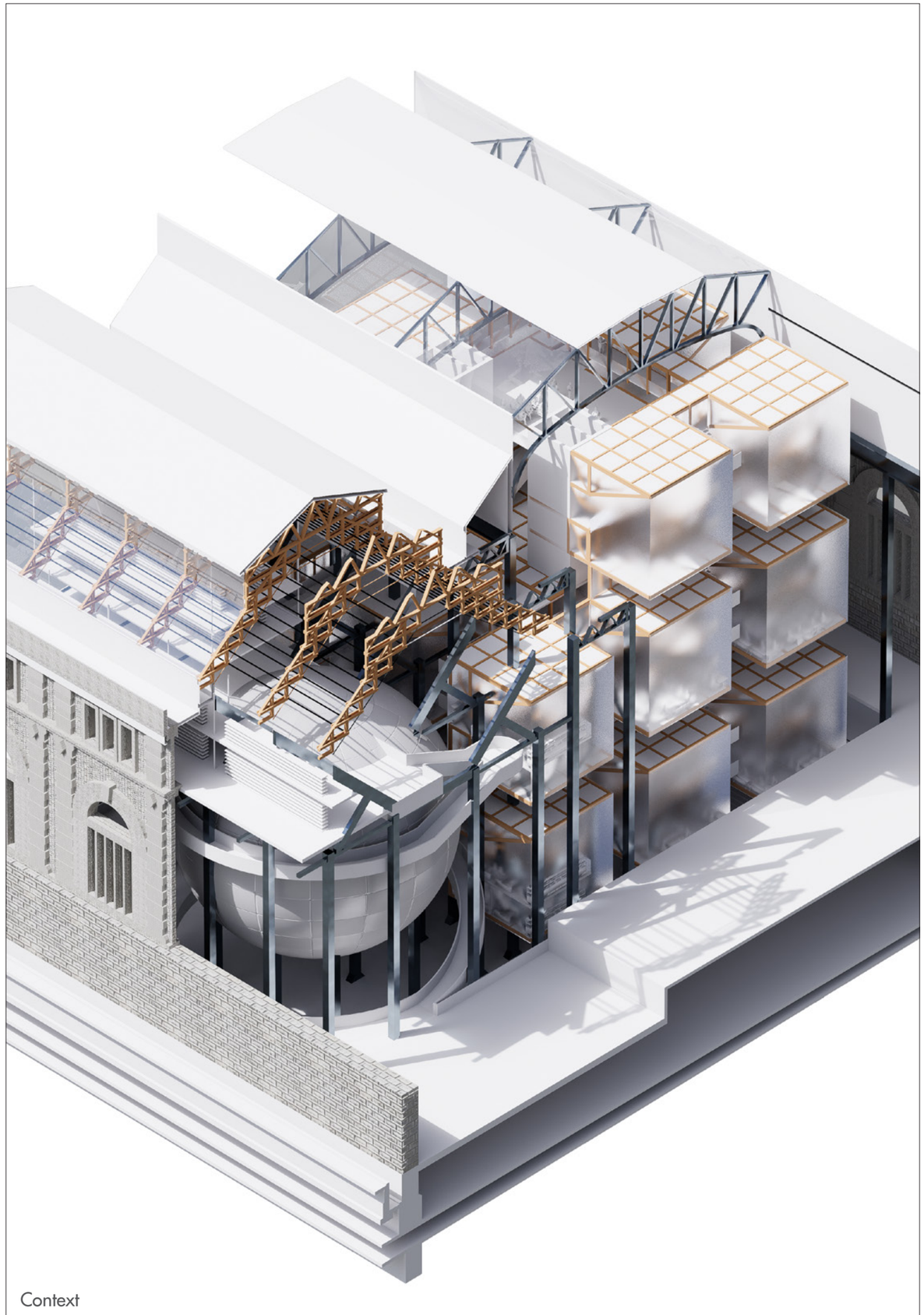


The challenge of preservation is how to revitalize the historical building without overly change it. We therefore encourage the school having a mutual relationship with the existing facade and the structure.

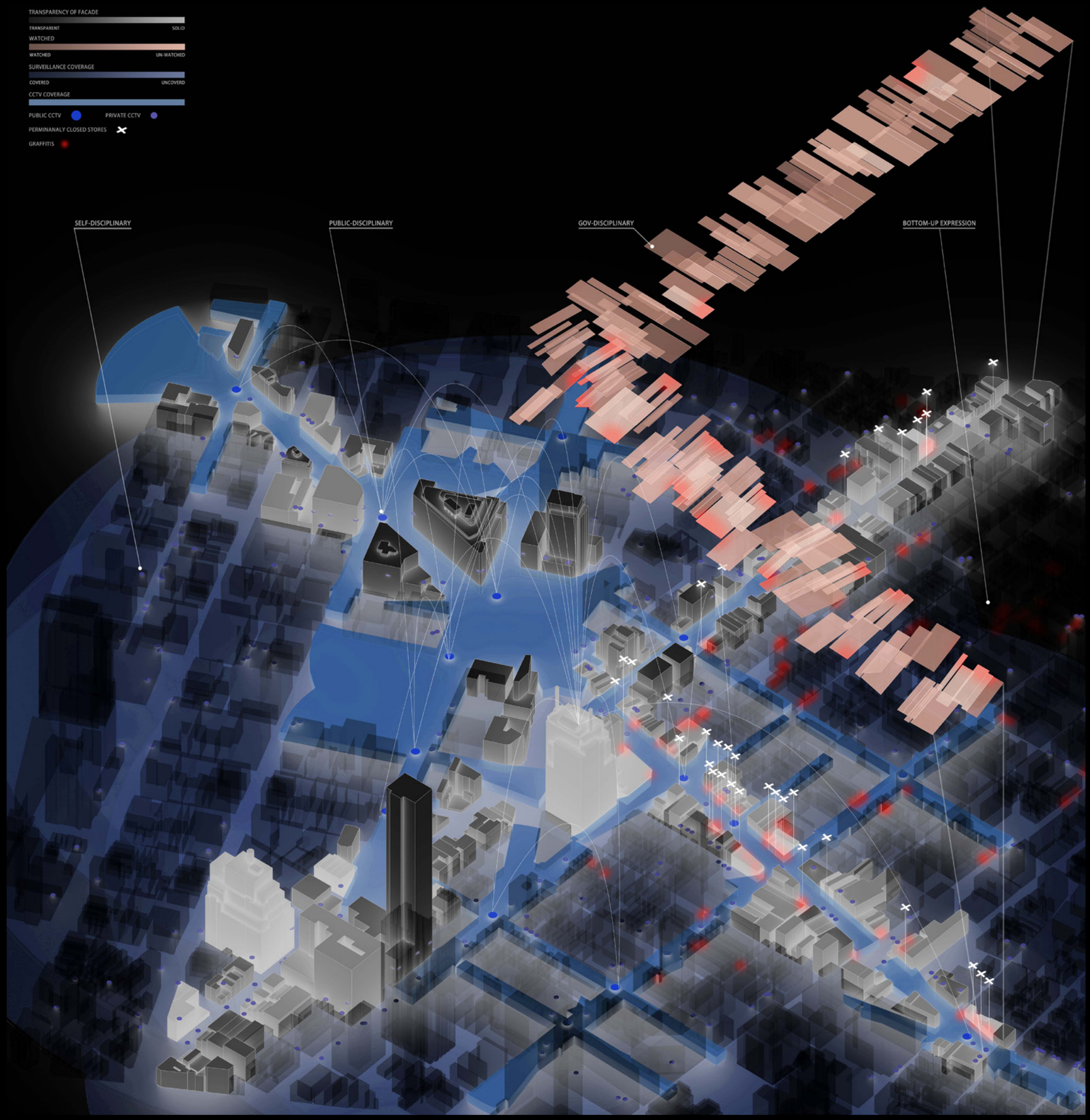


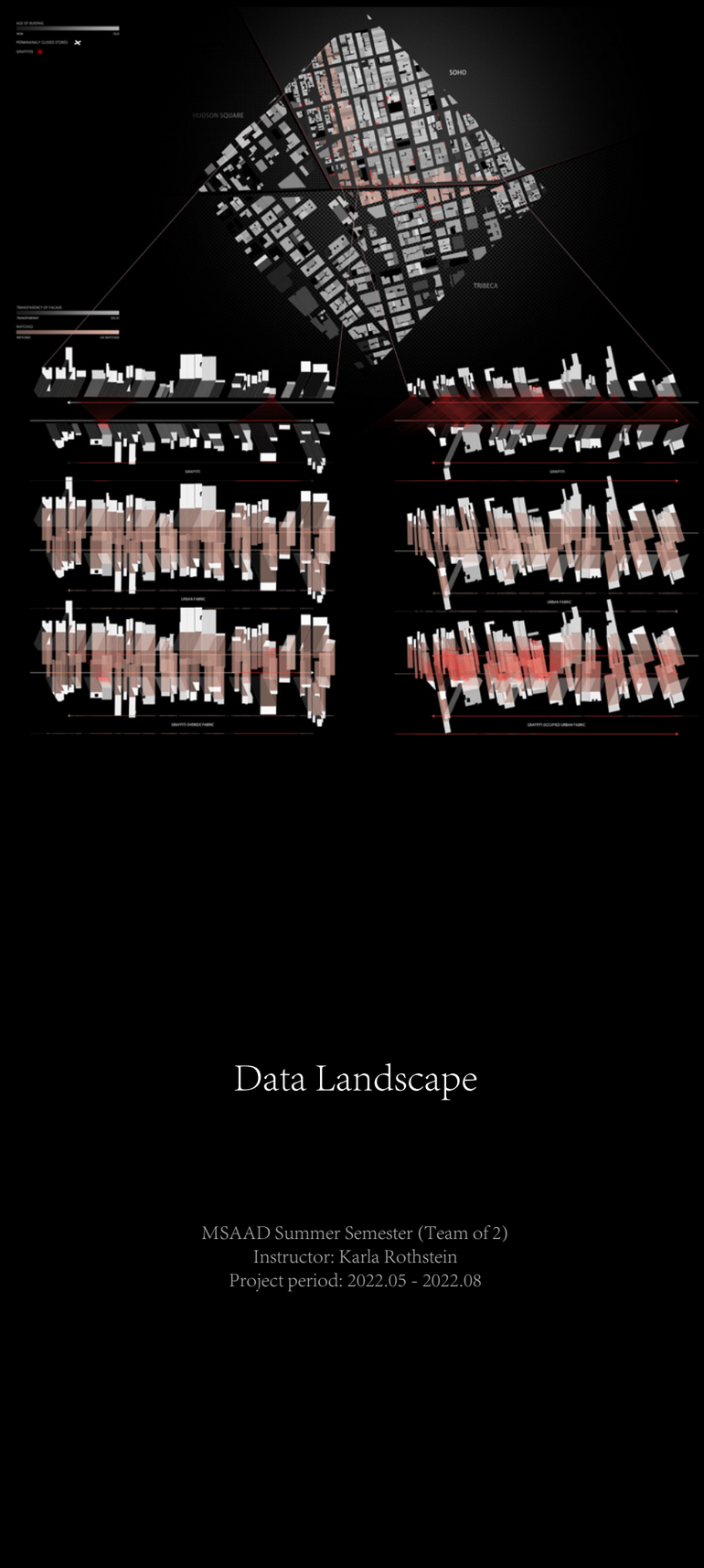
Concept

vs



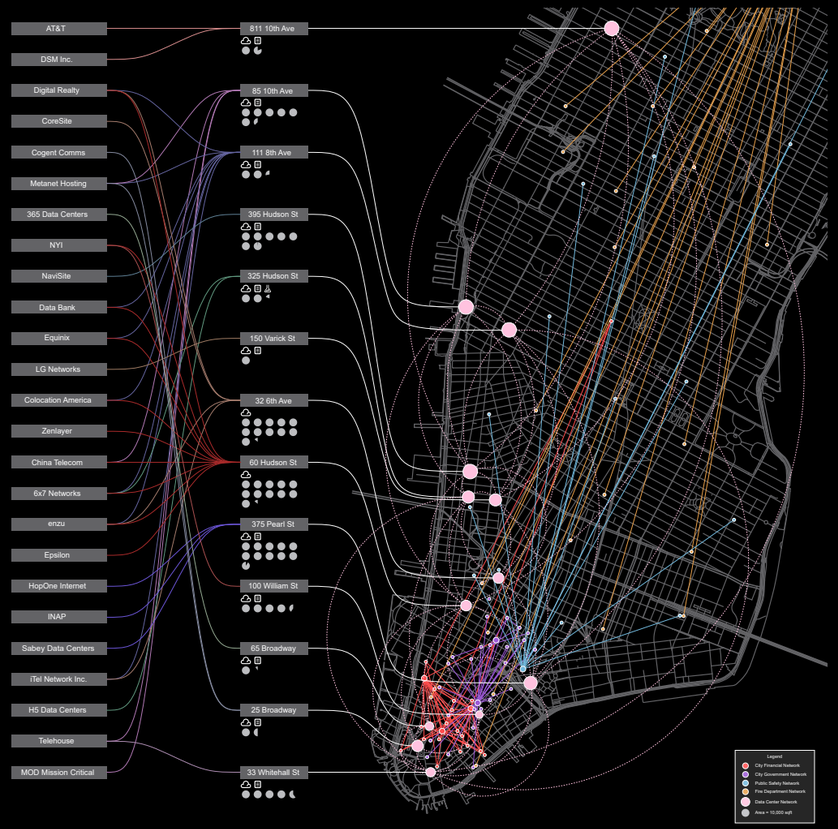
Context

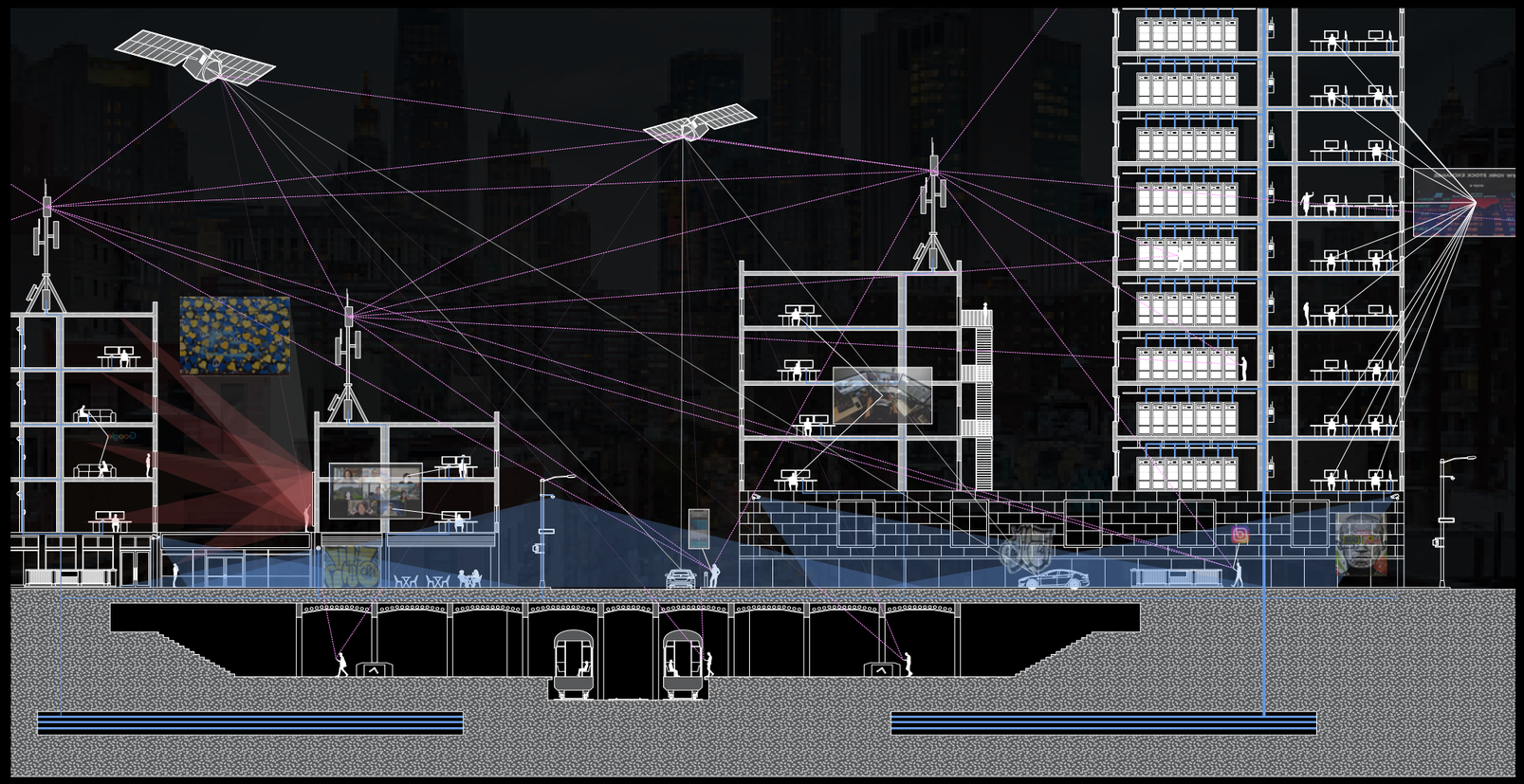




Data Landscape

MSAAD Summer Semester (Team of 2)
Instructor: Karla Rothstein
Project period: 2022.05 - 2022.08





Invisible Order

The heart and engine of the megacity is the data center, hiding in buildings where windows are covered, light is blocked, and human access is limited. The data center network is shown in this map where most of the data centers are in lower Manhattan where they’re closer the coast with undersea cables entering New York City.

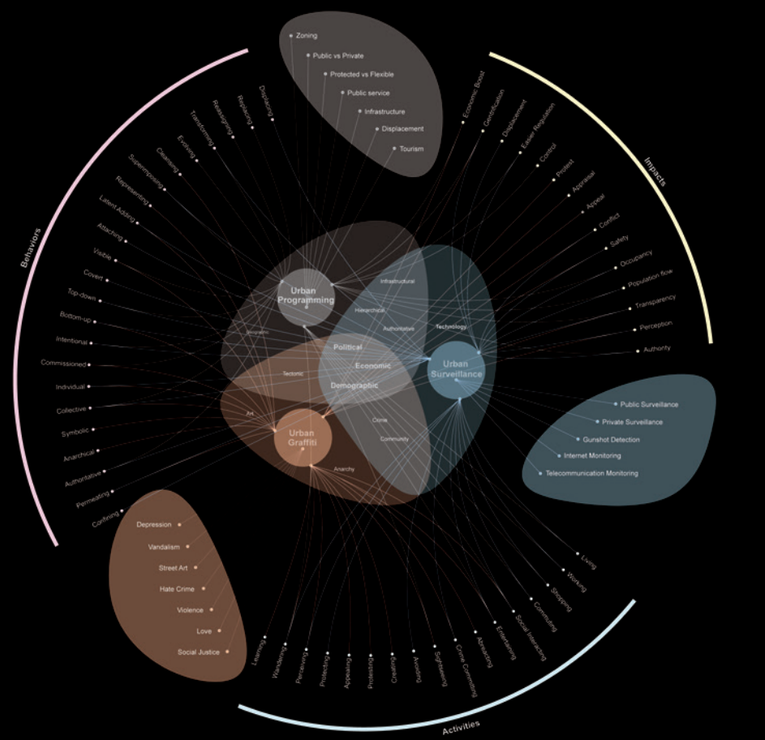
To understand data transmission and transformation in the city, we investigate three urban orders that act as the front-end interfaces between human and data centers: urban programming, urban graffiti, and urban surveillance.

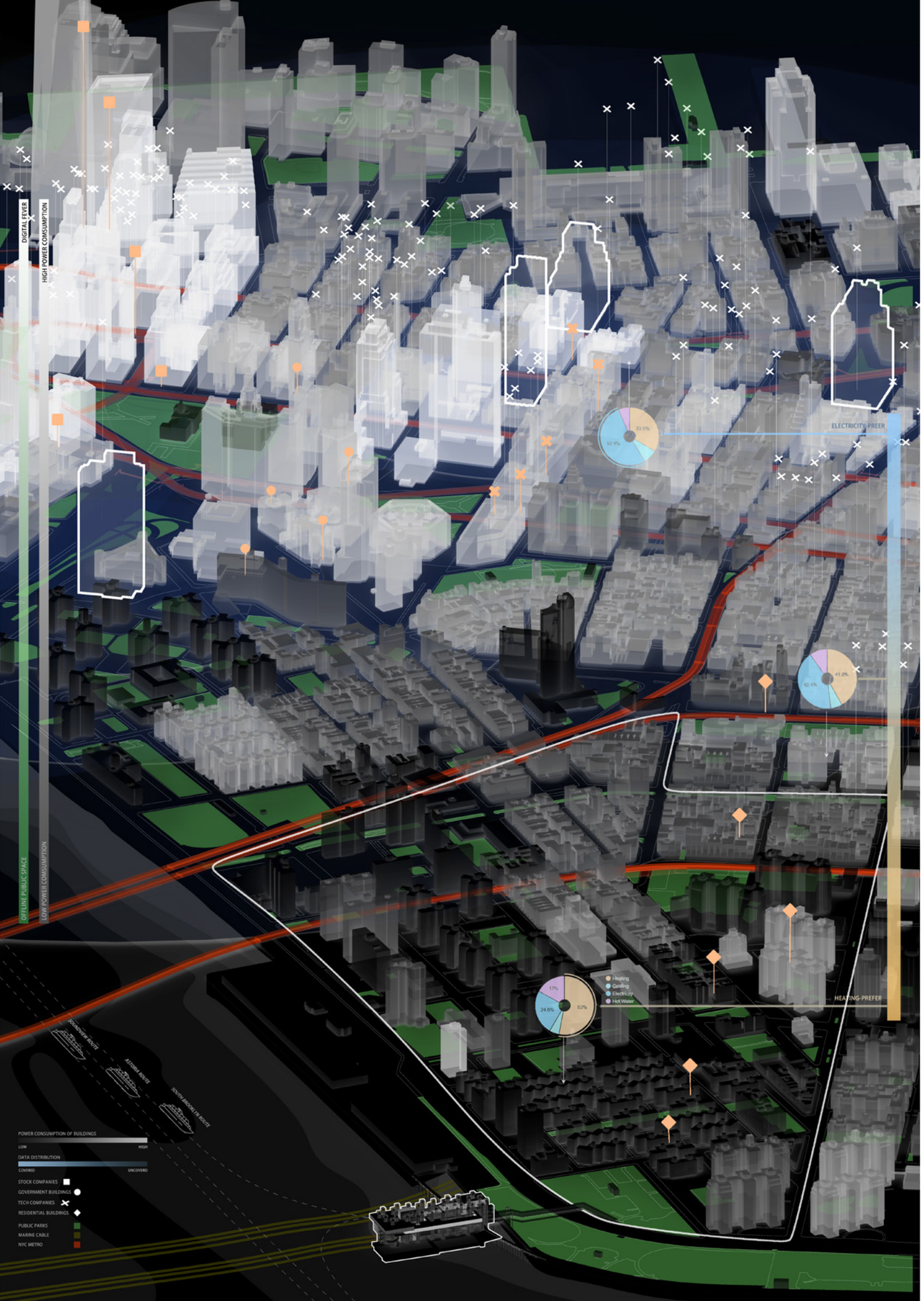
These orders closely influence our physical experiences in the city. While we carry out activities in the city and experience the physical world mostly through our vision, these orders express themselves in ways that are visually accessible to the human body. We think that their meaning and functions are achieved by visually perceived by human eyes.

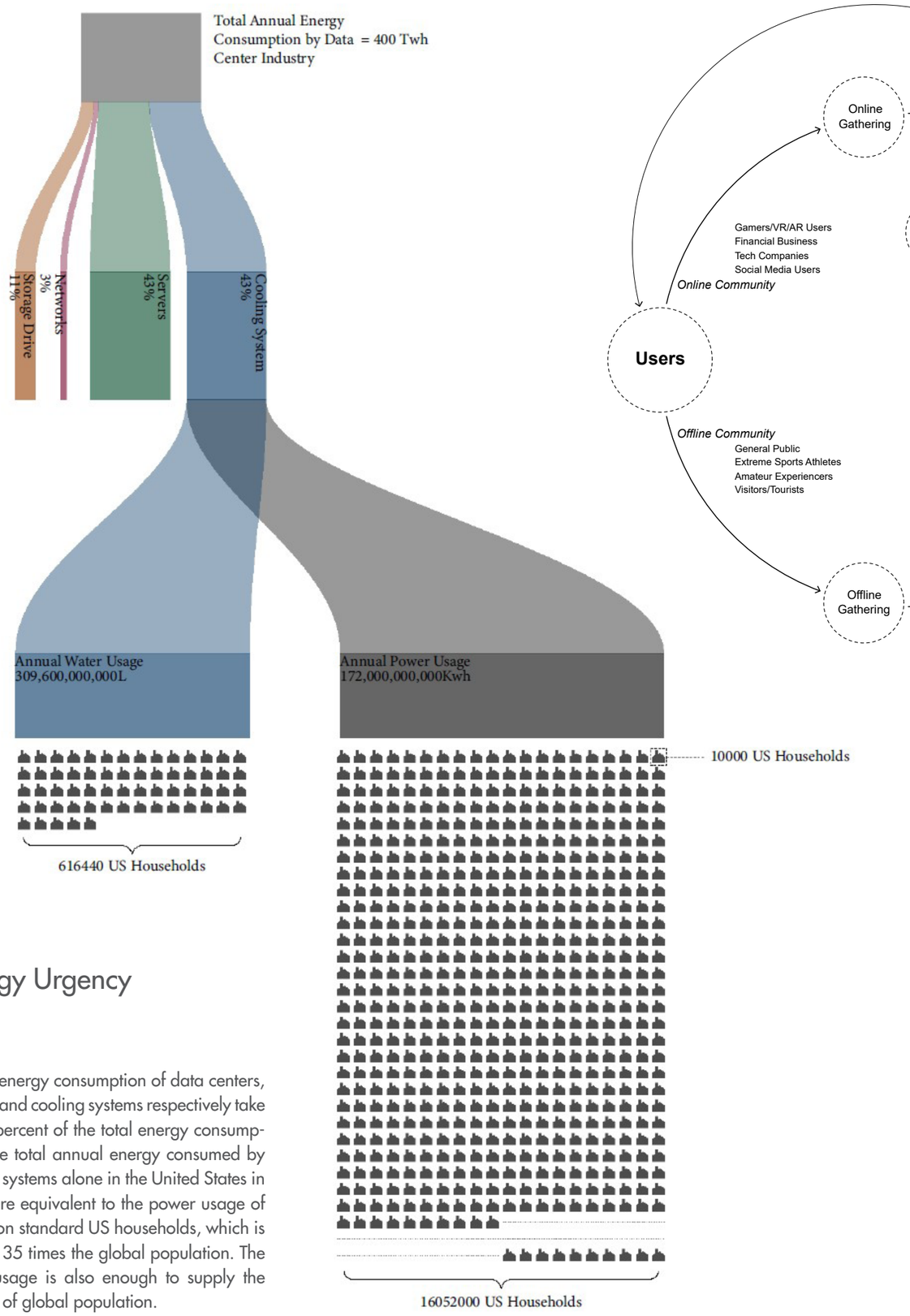
Post-digital Public Space

We propose a new typology of data center acting as a post-digital public space that embraces human interactions and public activities. Data centers have long been the engine and backstage of the city. With the increasing use of internet, data storing and processing, the significance of the physical location of human bodies are challenged by the multi-dislocation of our virtual selves.

Data centers become the space that is most populated with our existence in virtuality while is also most absent of our existence in reality. Data technologies change the way we perceive information from using biological senses to machine-aid senses through all kinds of projection interfaces.

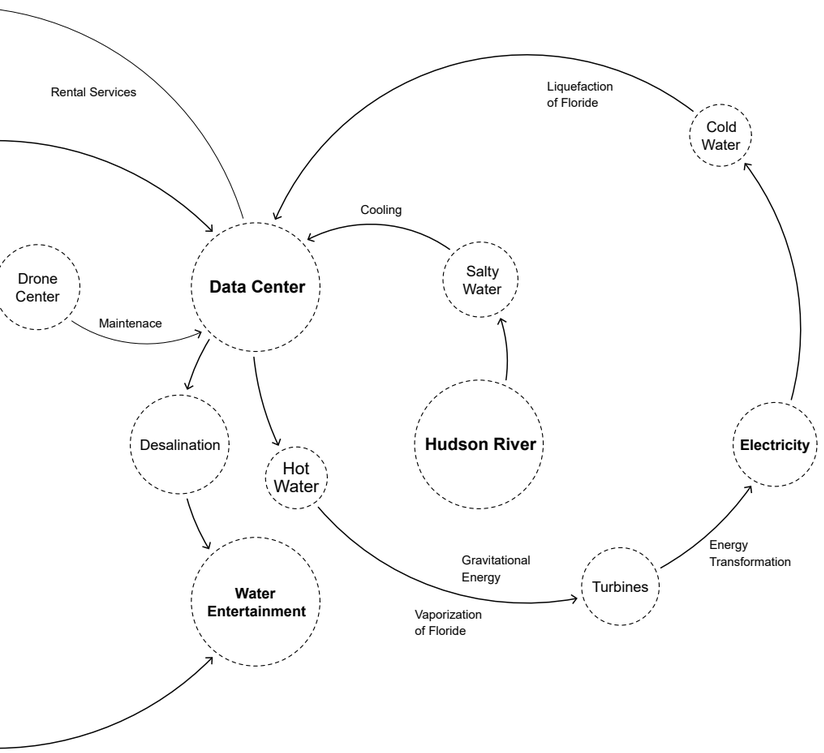


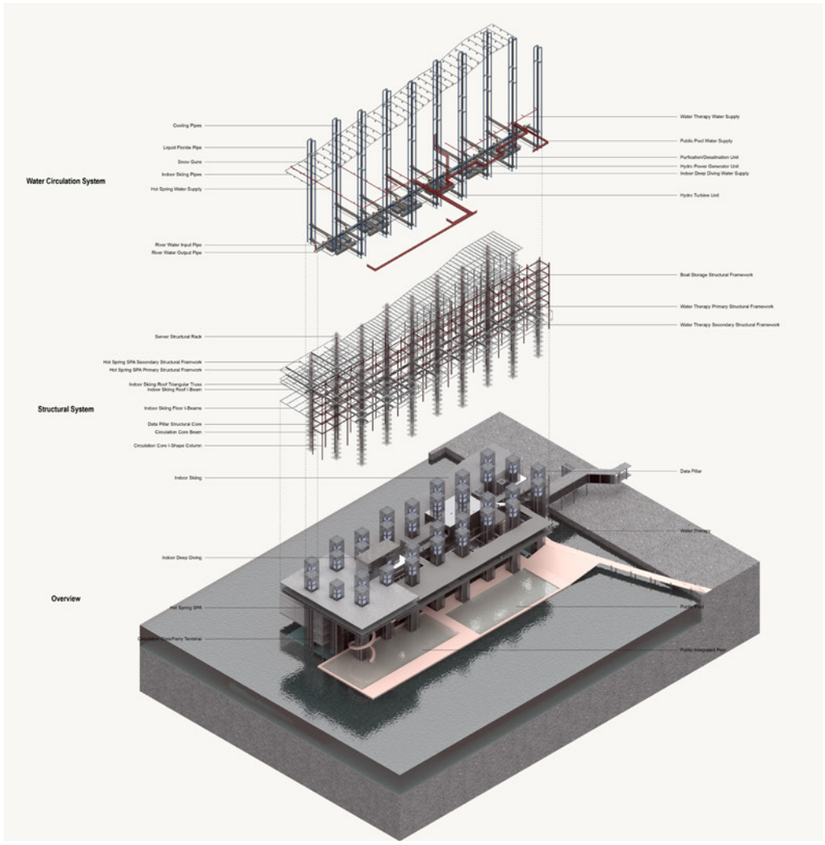


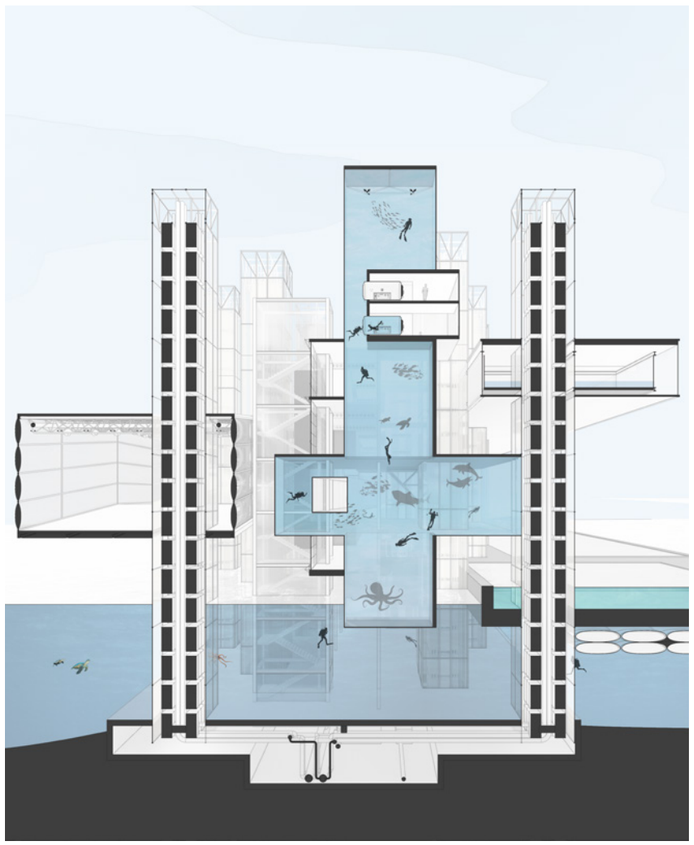


Energy Urgency

In total energy consumption of data centers, servers and cooling systems respectively take up 43 percent of the total energy consumption. The total annual energy consumed by cooling systems alone in the United States in 2020 are equivalent to the power usage of 70 billion standard US households, which is around 35 times the global population. The water usage is also enough to supply the entirety of global population.





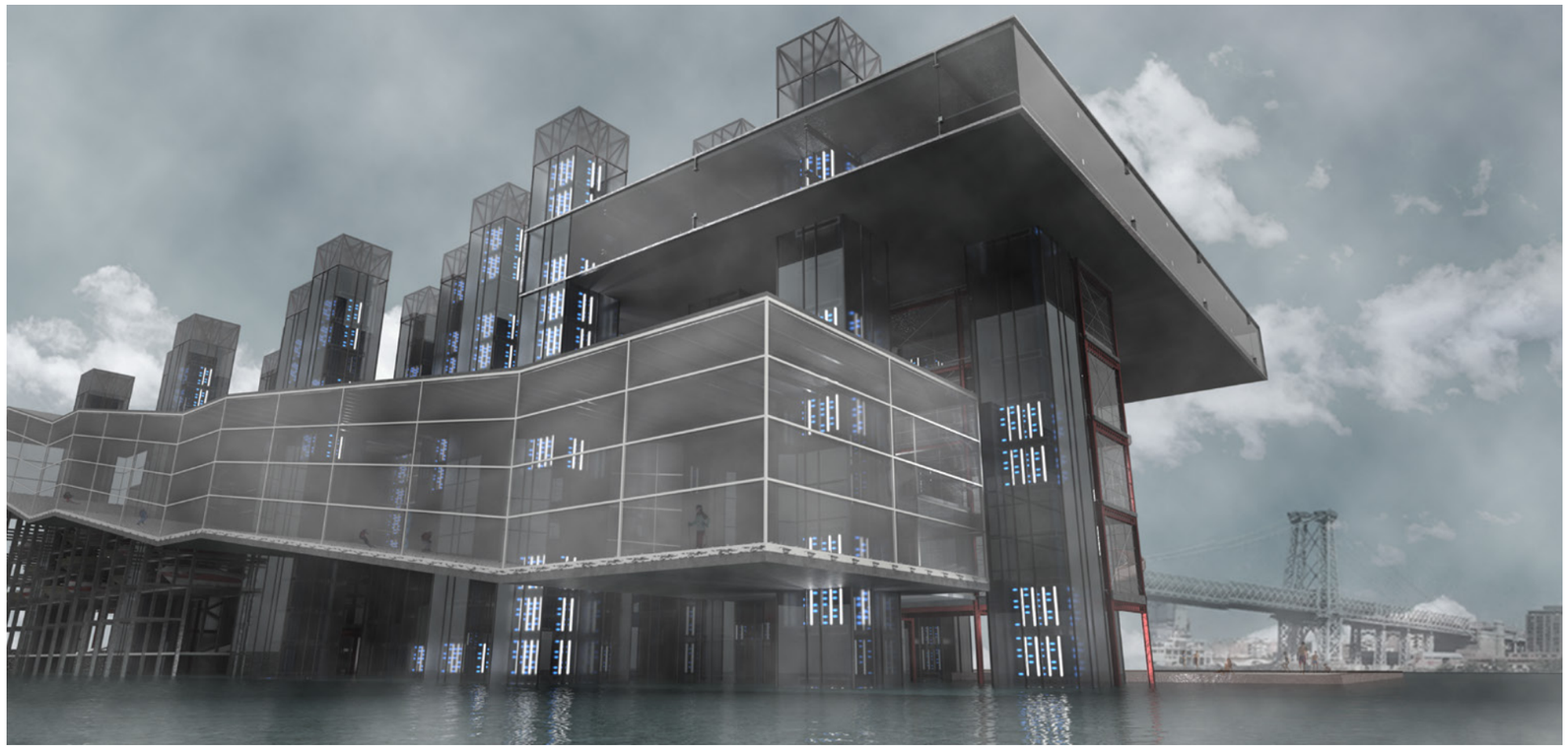


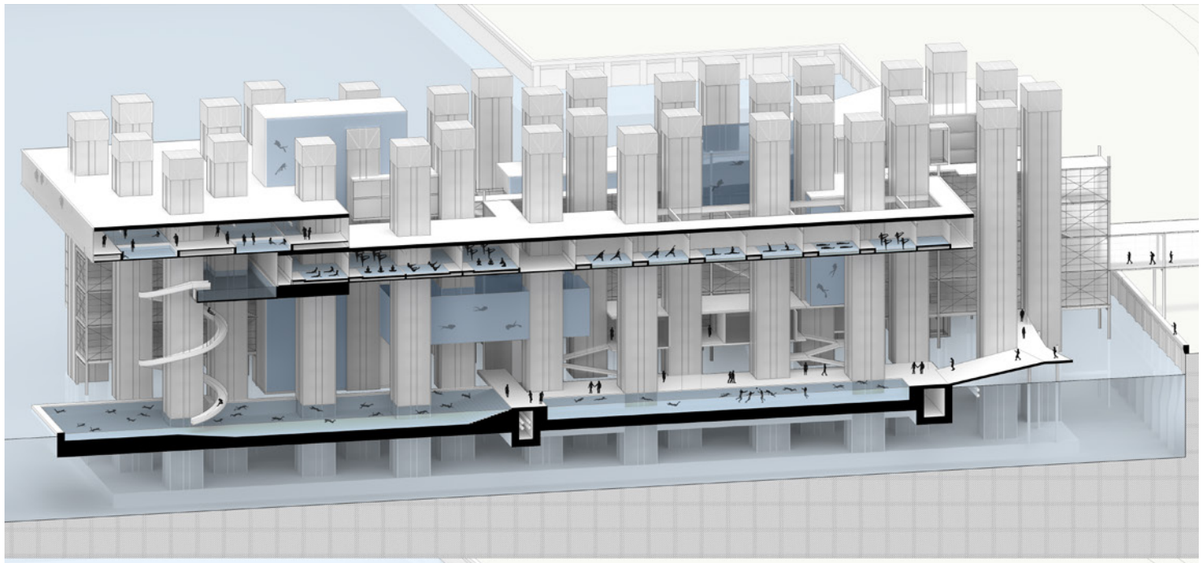
Prototype: Streaming Machine

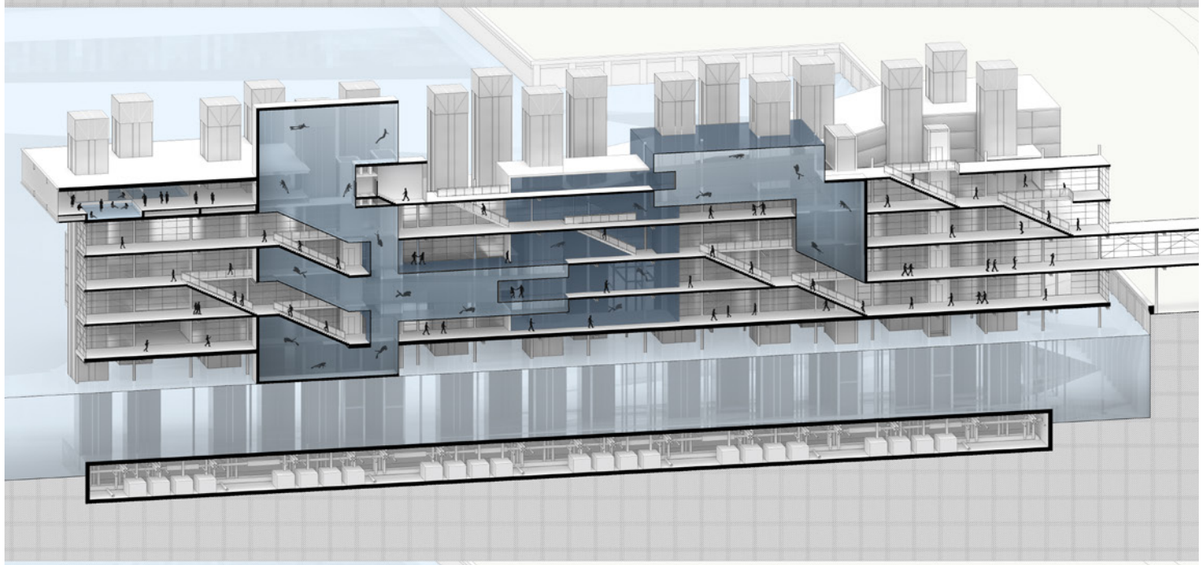
Thus, we're proposing a new data center prototype called the Streaming Machine to redirect and reuse the water running through the data center's cooling systems to serve public activities and entertainment/ sports programs. On the City scale, the streaming machine is collecting the waste heat generated inside the data spines by different users crossing the city to serve varied programs in our building.

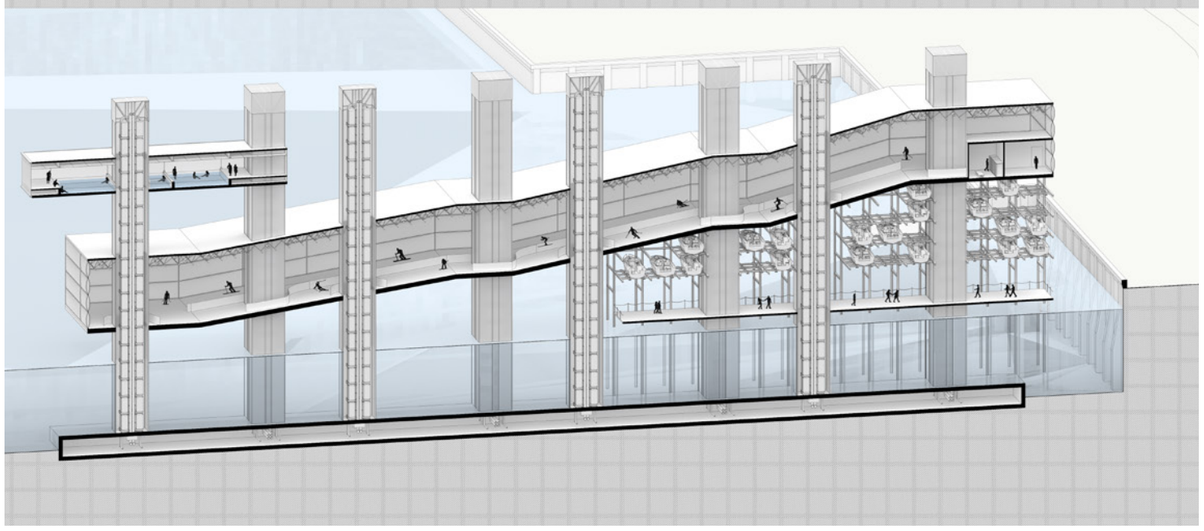
By utilizing the gravitational momentum of the water and the heat of the water, the building generates power of its own to reduce the urban energy burden, while processing the water for diverse municipal programs, public pools, deep diving, indoor skiing, hot springs, and water therapy. Water conditions and properties vary from program to program, creating different physiological effects to human bodies and setting up an intimate relationship between humans (bodies) and machines (servers) through water.

From the offline scale, Streaming Machine is situated on the Hudson River bank in south-east corner of Manhattan. From the online perspective, Streaming Machine is site-less and cohabited by the countless online communities in New York City.





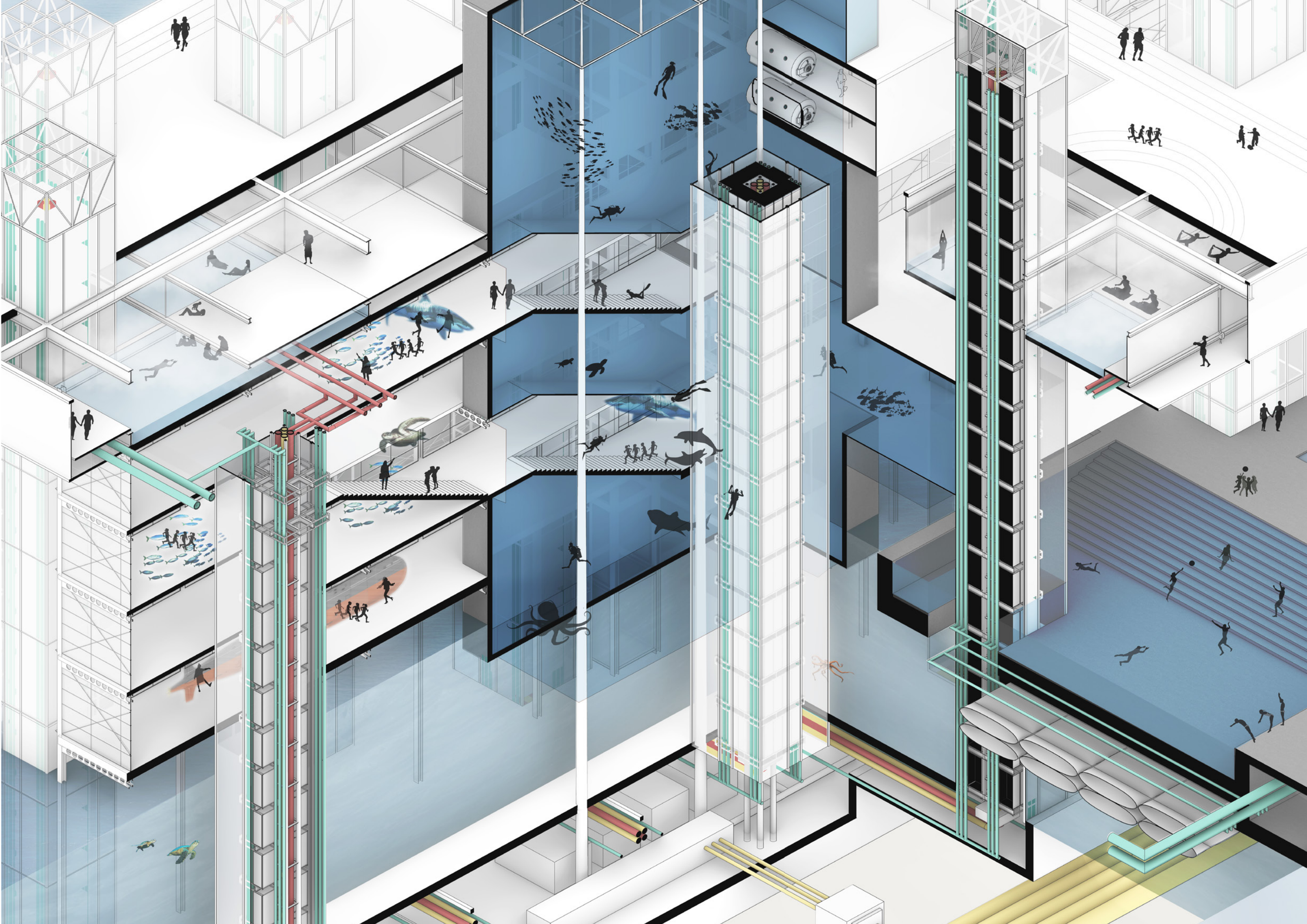




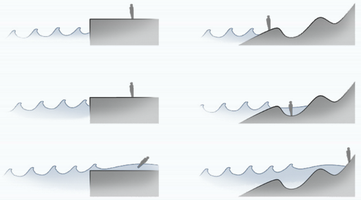
Threshold between Online and Offline

Simultaneously the online users in the city and the on-site visitors are posing their effects on transforming the water landscape and live experience in the architecture. Here, water becomes the threshold and interface among online/digital activities happening in data servers and offline/public entertainment in urban environments.

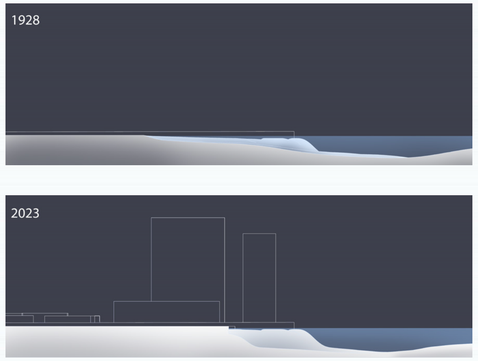
Encouraging this symbiosis between online activities and in-persgatheringsing, the streaming machine allows people to become the creators of energy to revitalize offline gatherings after the pandemic and during the post-digital era. The more digital activities online, the more energy can serve the public space and the surrounding communities. Overall, the streaming machine performs as a constantly fluctuating environment that autonomously responds to the intensity level of online activities across the city and acts as the interface and threshold between online and offline.

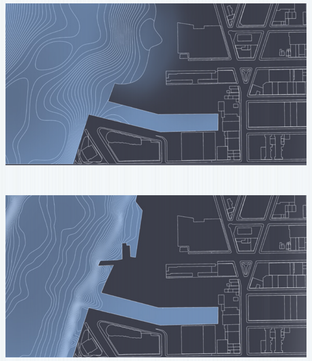


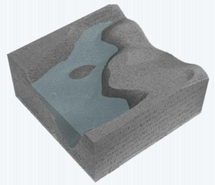
From 1928 to 2023, the edge between Hudson river and the Queens is becoming sharper and sharper. The ecosystem of shoreline and the water front activities are disapearing. And the sharp edge is hiding publics from aknowledging the coming crisis of climate change.



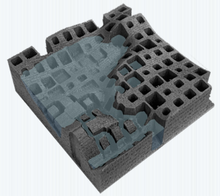
To revitalize a resilience and productive shoreline, we want to bring markets and fish farm to the site and gathering people and other living spieces to the edge of city by creating a soft egde.



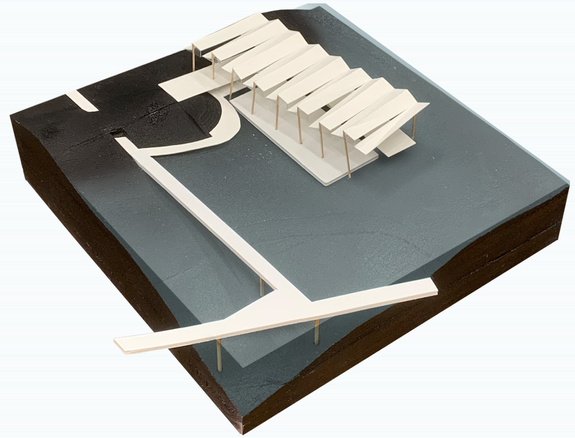




The foam models are exploring the relationship between terrain and water.



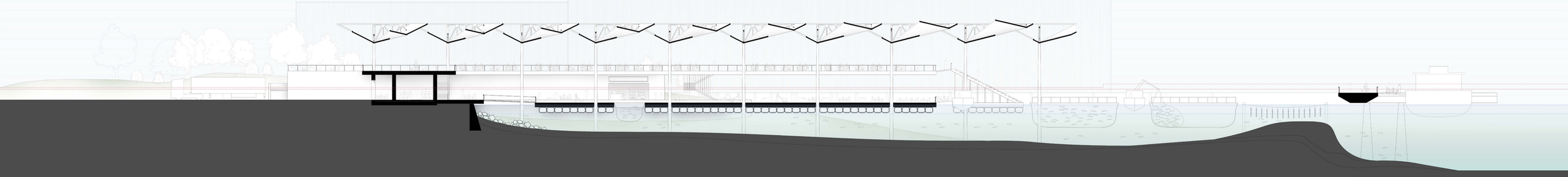
How water is flowing through the terrain and how they will remain staying in the ground.



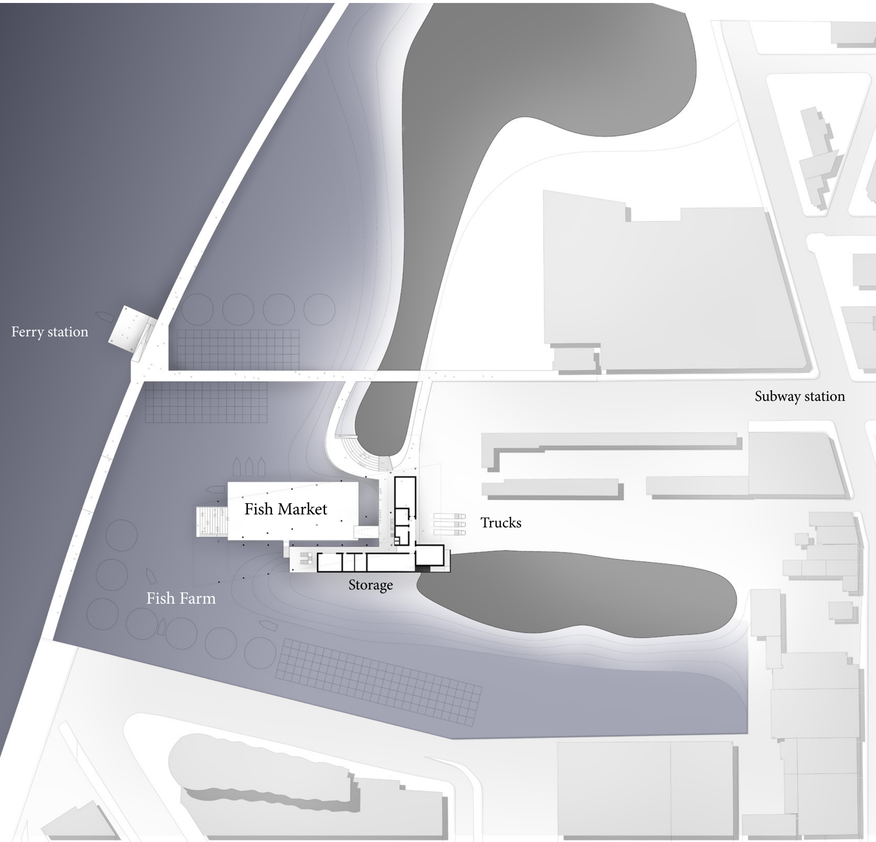
Fluctuating: the Living Market

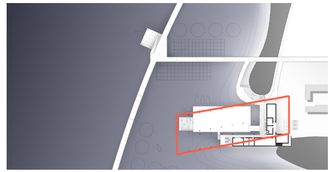
Resilience & Productive Shoreline

MSAAD Spring Semester (Individual)
Instructor: Laurie Hawkinson
Project period: 2023.01 - 2023.04



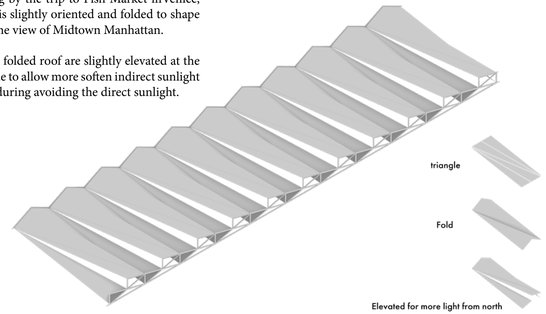
The Fish Market is locating in the connecting point of subway and the ferry systems, trucks routes and the fish vessels.

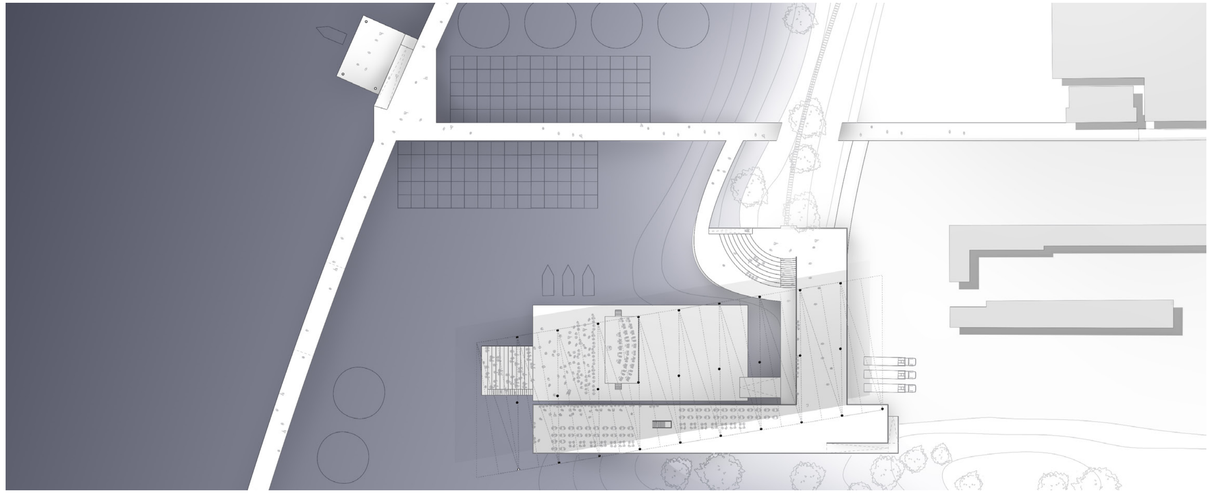


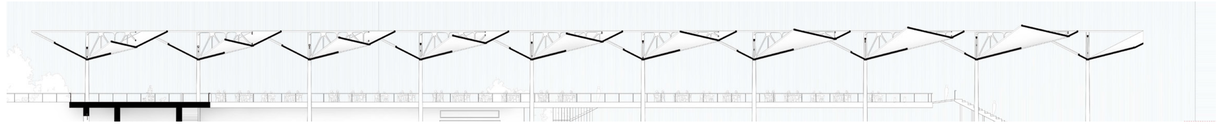


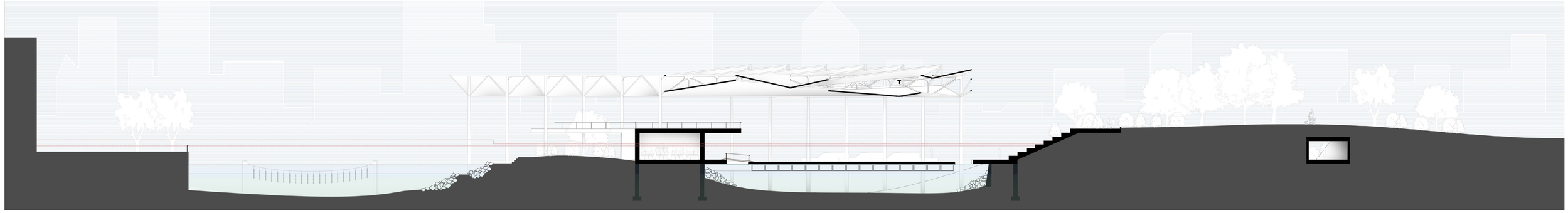
Insipiring by the trip to Fish Market inVenice, the roof is slightly oriented and folded to shape the skyline view of Midtown Manhattan.

Also, the folded roof are slightly elevated at the north side to allow more soften indirect sunlight coming during avoiding the direct sunlight.









ARCHITECTURE CONCEPTS FROM 1968 TO THE PRESENT

Instructor: Bernard Tschumi

Critical Regionalism—Thermal Vals by Peter Zumthor

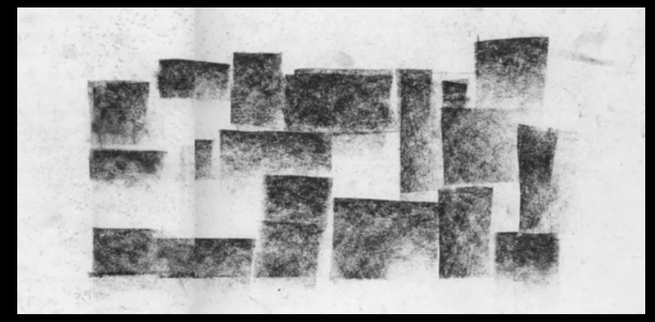
“Critical Regionalism seeks to complement our normative visual experience by readdressing the tactile range of human perceptions. In so doing, it endeavors to balance the priority according to the image and to counter the Western tendency to interpret the environment in exclusively perspectival terms.”

-Kenneth Frampton

“...jagged mountains and the heading: "The Vals Valley 80 Million Years Ago." The ad hung on the wall of my studio for a long time…"Boulders standing in the water": as I recall, that was my remark about the first sketch for the baths, reproduced below. It became a driving force: stone and water.”

“The work on this space - we call it a meander - played a substantial role in shaping the blocks. But the blocks owe their shape not only to the spatial wishes that the meander had to fulfill. The bath is also conceived in terms of the blocks. Above all, as a construction. But also as a composition.”

- Peter Zumthor (peter zumthor therme vals)



80 million years ago, the Valley was submerged underwater, creating a strong relationship between the rocks and water. This image served as the starting point for the design of Therme Vals, where rocks stand in water to create a unique and compelling bathing experience.

The design context for Therme Vals encompasses not only specific landscapes, materials, and historical backgrounds but also the memory of the intense pressure between water flow and rocks 80 million years ago. The relationship between water and rocks becomes the core concept of Therme Vals, recalling the pressure and penetration. The plan includes a group of scattered rocks that disperse from the side of the mountain based on different bathing programs. The top rock plates touch each other with tiny gaps, articulating a hidden grid system that builds a rhythm. The dense and tight structures between rock units vibrate with the penetration of water as it meanders through the rocks and flows out of the mountain, converging into the central pools.

Since the rock units are organized dispersedly, the circulations of Therme Vals are interwoven and multi-path, and the structure of this space is like fabric. The meandering space is a large, communal space for bath guests to walk around in. In this process, the elements of space gradually increase from one to four: starting with the mountain rocks, then moving on to the integration of water and rocks, followed by the entrance of natural light into the space, leading people outside, and finally, the distant mountain scenery comes into view.

Interestingly, the design of this space doesn’t seem like created for man, but people walk through a cave-like, meandering space formed over thousands of years of erosion. The path people traverse was once carved by water, and the scenery they see has also been witnessed by the water. In the process walking from one space to another, visitors are not isolated but accompanied by water. For example, to enter the central pool, guests go through a narrow staircase into the pool, and they gradually sink into the water. In this process, the viewpoint of the visitors approaches the ground level as the pool deepens, and the space is experienced in a totally different way. After turning the corner, the scenes suddenly open up: the mountains, clouds, water, and rocks come into view, all while visitors are submerged in the water, looking up at the scenes of the entire valley.

Water in Therme Vals guides visitors through the experience of recalling memories of 80 million years ago when the water had been. The tension between the pressure of the mountain and the penetration of water is depicted throughout the journey, dissipating pressure constantly. From the mountain to the outside, from narrow to open, from the cave to the pool, from darkness to light, from modern times to ancient.

ARCHITECTURE CONCEPTS FROM 1968 TO THE PRESENT

AI Generated Drawing:

The space gradually reveals elements of rocks, water, light, and the valley. The tension between rocks and water dissipates as visitors are guided through the experience of recalling memories of the past.

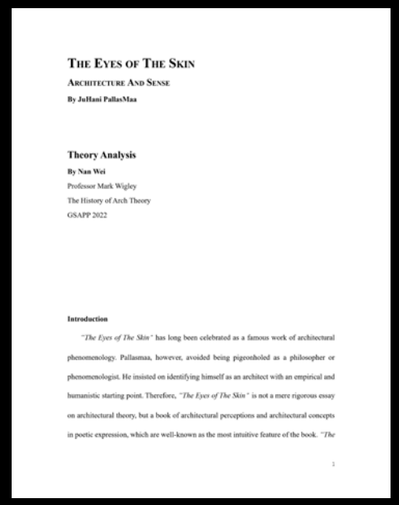
DALL · E 2

THE HISTORY OF ARCH THEORY

Instructor: Mark Wigley

Theory Analysis

THE EYES OF THE SKIN
ARCHITECTURE AND SENSE
By JuHani PallasMaa



THE EYES OF THE SKIN
ARCHITECTURE AND SENSE
By JuHani PallasMaa

Theory Analysis
By Nan Wei
Professor Mark Wigley
The History of Arch Theory
GSAPP 2022

Introduction

"The Eyes of The Skin" has long been celebrated as a famous work of architectural phenomenology. Pallasmaa, however, avoided being pigeonholed as a philosopher or phenomenologist. He insisted on identifying himself as an architect with an empirical and humanistic starting point. Therefore, *"The Eyes of The Skin"* is not a mere rigorous essay on architectural theory, but a book of architectural perceptions and architectural concepts in poetic expression, which are well-known as the most intuitive feature of the book. *"The*

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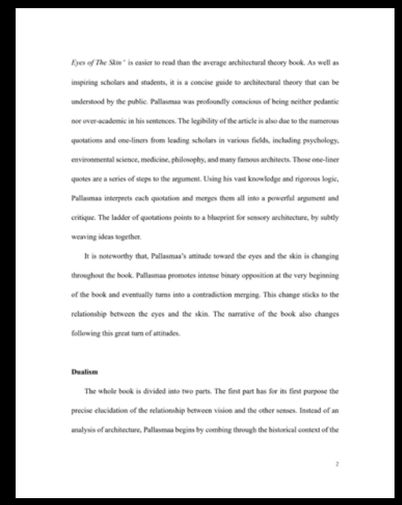

Eyes of The Skin" is easier to read than the average architectural theory book. As well as inspiring scholars and students, it is a concise guide to architectural theory that can be understood by the public. Pallasmaa was profoundly conscious of being neither pedantic nor over-academic in his sentences. The legibility of the article is also due to the numerous quotations and one-liners from leading scholars in various fields, including psychology, environmental science, medicine, philosophy, and many famous architects. Those one-liner quotes are a series of steps to the argument. Using his vast knowledge and rigorous logic, Pallasmaa interprets each quotation and merges them all into a powerful argument and critique. The ladder of quotations points to a blueprint for sensory architecture, by subtly weaving ideas together.

It is noteworthy that, Pallasmaa's attitude toward the eyes and the skin is changing throughout the book. Pallasmaa promotes intense binary opposition at the very beginning of the book and eventually turns into a contradiction merging. This change sticks to the relationship between the eyes and the skin. The narrative of the book also changes following this great turn of attitudes.

Dualism

The whole book is divided into two parts. The first part has for its first purpose the precise elucidation of the relationship between vision and the other senses. Instead of an analysis of architecture, Pallasmaa begins by combing through the historical context of the

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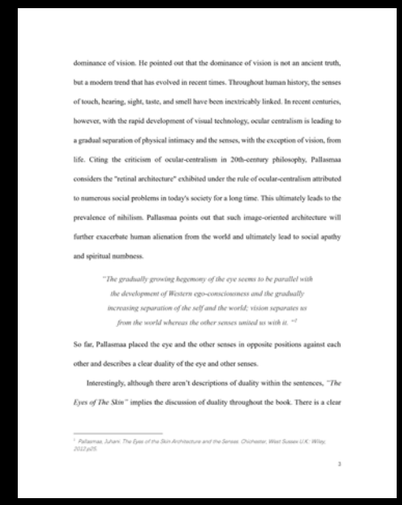

dominance of vision. He pointed out that the dominance of vision is not an ancient truth, but a modern trend that has evolved in recent times. Throughout human history, the senses of touch, hearing, sight, taste, and smell have been inextricably linked. In recent centuries, however, with the rapid development of visual technology, ocular centralism is leading to a gradual separation of physical intimacy and the senses, with the exception of vision, from life. Citing the criticism of ocular-centralism in 20th-century philosophy, Pallasmaa considers the "retinal architecture" exhibited under the rule of ocular-centralism attributed to numerous social problems in today's society for a long time. This ultimately leads to the prevalence of nihilism. Pallasmaa points out that such image-oriented architecture will further exacerbate human alienation from the world and ultimately lead to social apathy and spiritual numbness.

> *"The gradually growing hegemony of the eye seems to be parallel with the development of Western ego-consciousness and the gradually increasing separation of the self and the world; vision separates us from the world whereas the other senses united us with it. "* [1]

So far, Pallasmaa placed the eye and the other senses in opposite positions against each other and describes a clear duality of the eye and other senses.

Interestingly, although there aren't descriptions of duality within the sentences, *"The Eyes of The Skin"* implies the discussion of duality throughout the book. There is a clear

[1] Pallasmaa, Juhani. *The Eyes of the Skin Architecture and the Senses*. Chichester, West Sussex U.K.: Wiley, 2012.pp35.

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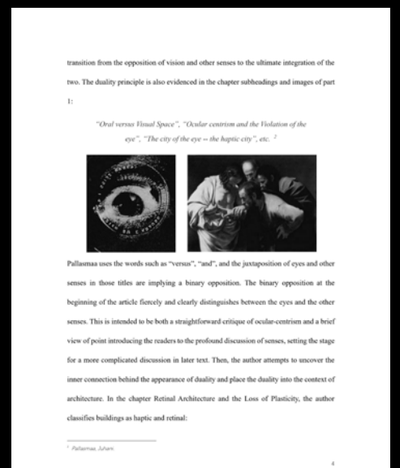

transition from the opposition of vision and other senses to the ultimate integration of the two. The duality principle is also evidenced in the chapter subheadings and images of part 1:

> *"Oral versus Visual Space", "Ocular centrism and the Violation of the eye", "The city of the eye = the haptic city", etc.* [2]

Pallasmaa uses the words such as "versus", "and", and the juxtaposition of eyes and other senses in those titles are implying a binary opposition. The binary opposition at the beginning of the article fiercely and clearly distinguishes between the eyes and the other senses. This is intended to be both a straightforward critique of ocular-centrism and a brief view of point introducing the readers to the profound discussion of senses, setting the stage for a more complicated discussion in later text. Then, the author attempts to uncover the inner connection behind the appearance of duality and place the duality into the context of architecture. In the chapter Retinal Architecture and the Loss of Plasticity, the author classifies buildings as haptic and retinal:

[2] Pallasmaa, Juhani.

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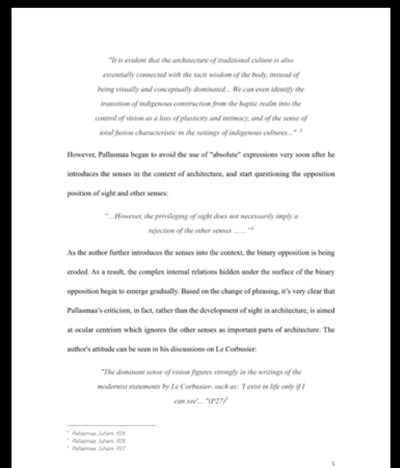

> *"It is evident that the architecture of traditional culture is also essentially connected with the tacit wisdom of the body, instead of being visually and conceptually dominated... We can even identify the transition of indigenous construction from the haptic realm into the control of vision as a loss of plasticity and intimacy, and of the sense of total fusion characteristic in the settings of indigenous cultures..."* [3]

However, Pallasmaa began to avoid the use of "absolute" expressions very soon after he introduces the senses in the context of architecture, and start questioning the opposition position of sight and other senses:

> *"…However, the privileging of sight does not necessarily imply a rejection of the other senses ……"* [4]

As the author further introduces the senses into the context, the binary opposition is being eroded. As a result, the complex internal relations hidden under the surface of the binary opposition begin to emerge gradually. Based on the change of phrasing, it's very clear that Pallasmaa's criticism, in fact, rather than the development of sight in architecture, is aimed at ocular centrism which ignores the other senses as important parts of architecture. The author's attitude can be seen in his discussions on Le Corbusier:

> *"The dominant sense of vision figures strongly in the writings of the modernist statements by Le Corbusier- such as: 'I exist in life only if I can see'... "(P27)* [5]

[3] Pallasmaa, Juhani. P26
[4] Pallasmaa, Juhani. P26
[5] Pallasmaa, Juhani. P27

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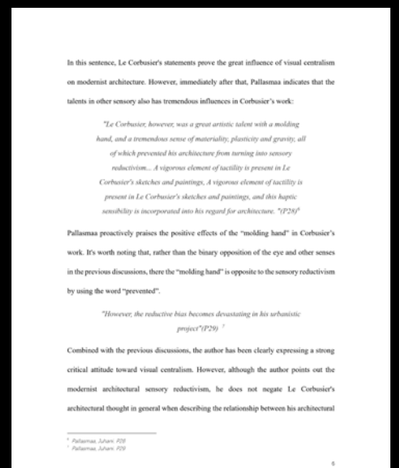

In this sentence, Le Corbusier's statements prove the great influence of visual centralism on modernist architecture. However, immediately after that, Pallasmaa indicates that the talents in other sensory also has tremendous influences in Corbusier's work:

> *"Le Corbusier, however, was a great artistic talent with a molding hand, and a tremendous sense of materiality, plasticity and gravity, all of which prevented his architecture from turning into sensory reductivism… A vigorous element of tactility is present in Le Corbusier's sketches and paintings, A vigorous element of tactility is present in Le Corbusier's sketches and paintings, and this haptic sensibility is incorporated into his regard for architecture. "(P28)*[6]

Pallasmaa proactively praises the positive effects of the "molding hand" in Corbusier's work. It's worth noting that, rather than the binary opposition of the eye and other senses in the previous discussions, there the "molding hand" is opposite to the sensory reductivism by using the word "prevented".

> *"However, the reductive bias becomes devastating in his urbanistic project"(P29)* [7]

Combined with the previous discussions, the author has been clearly expressing a strong critical attitude toward visual centralism. However, although the author points out the modernist architectural sensory reductivism, he does not negate Le Corbusier's architectural thought in general when describing the relationship between his architectural

[6] Pallasmaa, Juhani. P28
[7] Pallasmaa, Juhani. P29

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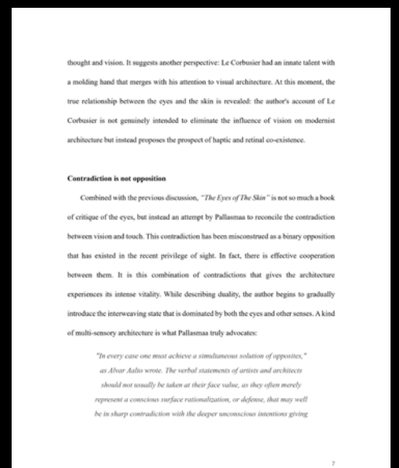

thought and vision. It suggests another perspective: Le Corbusier had an innate talent with a molding hand that merges with his attention to visual architecture. At this moment, the true relationship between the eyes and the skin is revealed: the author's account of Le Corbusier is not genuinely intended to eliminate the influence of vision on modernist architecture but instead proposes the prospect of haptic and retinal co-existence.

Contradiction is not opposition

Combined with the previous discussion, *"The Eyes of The Skin"* is not so much a book of critique of the eyes, but instead an attempt by Pallasmaa to reconcile the contradiction between vision and touch. This contradiction has been misconstrued as a binary opposition that has existed in the recent privilege of sight. In fact, there is effective cooperation between them. It is this combination of contradictions that gives the architecture experiences its intense vitality. While describing duality, the author begins to gradually introduce the interweaving state that is dominated by both the eyes and other senses. A kind of multi-sensory architecture is what Pallasmaa truly advocates:

> *"In every case one must achieve a simultaneous solution of opposites," as Alvar Aalto wrote. The verbal statements of artists and architects should not usually be taken at their face value, as they often merely represent a conscious surface rationalization, or defense, that may well be in sharp contradiction with the deeper unconscious intentions giving*

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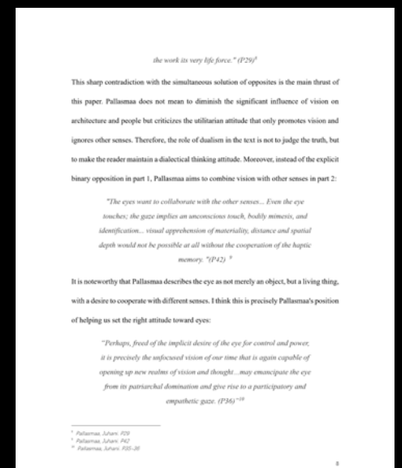

> *the work its very life force." (P29)*[8]

This sharp contradiction with the simultaneous solution of opposites is the main thrust of this paper. Pallasmaa does not mean to diminish the significant influence of vision on architecture and people but criticizes the utilitarian attitude that only promotes vision and ignores other senses. Therefore, the role of dualism in the text is not to judge the truth, but to make the reader maintain a dialectical thinking attitude. Moreover, instead of the explicit binary opposition in part 1, Pallasmaa aims to combine vision with other senses in part 2:

> *"The eyes want to collaborate with the other senses... Even the eye touches; the gaze implies an unconscious touch, bodily mimesis, and identification... visual apprehension of materiality, distance and spatial depth would not be possible at all without the cooperation of the haptic memory. "(P42)* [9]

It is noteworthy that Pallasmaa describes the eye as not merely an object, but a living thing, with a desire to cooperate with different senses. I think this is precisely Pallasmaa's position of helping us set the right attitude toward eyes:

> *"Perhaps, freed of the implicit desire of the eye for control and power, it is precisely the unfocused vision of our time that is again capable of opening up new realms of vision and thought…may emancipate the eye from its patriarchal domination and give rise to a participatory and empathetic gaze. (P38)"*[10]

[8] Pallasmaa, Juhani. P29
[9] Pallasmaa, Juhani. P42
[10] Pallasmaa, Juhani. P35-36

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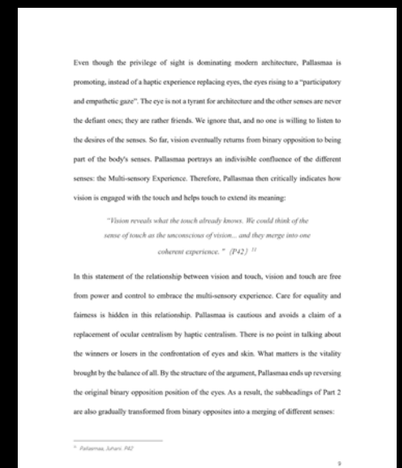

Even though the privilege of sight is dominating modern architecture, Pallasmaa is promoting, instead of a haptic experience replacing eyes, the eyes rising to a "participatory and empathetic gaze". The eye is not a tyrant for architecture and the other senses are never the defiant ones; they are rather friends. We ignore that, and no one is willing to listen to the desires of the senses. So far, vision eventually returns from binary opposition to being part of the body's senses. Pallasmaa portrays an indivisible confluence of the different senses: the Multi-sensory Experience. Therefore, Pallasmaa then critically indicates how vision is engaged with the touch and helps touch to extend its meaning:

> *"Vision reveals what the touch already knows. We could think of the sense of touch as the unconscious of vision... and they merge into one coherent experience. "* [P42] [11]

In this statement of the relationship between vision and touch, vision and touch are free from power and control to embrace the multi-sensory experience. Care for equality and fairness is hidden in this relationship. Pallasmaa is cautious and avoids a claim of a replacement of ocular centralism by haptic centralism. There is no point in talking about the winners or losers in the confrontation of eyes and skin. What matters is the vitality brought by the balance of all. By the structure of the argument, Pallasmaa ends up reversing the original binary opposition position of the eyes. As a result, the subheadings of Part 2 are also gradually transformed from binary opposites into a merging of different senses:

[11] Pallasmaa, Juhani. P42

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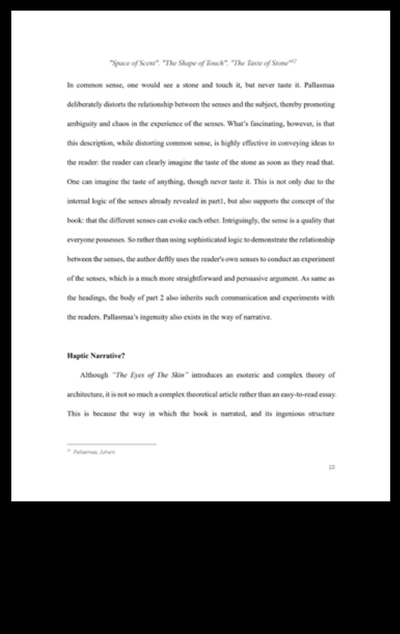

> *"Space of Scent". "The Shape of Touch". "The Taste of Stone"*[12]

In common sense, one would see a stone and touch it, but never taste it. Pallasmaa deliberately distorts the relationship between the senses and the subject, thereby promoting ambiguity and chaos in the experience of the senses. What's fascinating, however, is that this description, while distorting common sense, is highly effective in conveying ideas to the reader: the reader can clearly imagine the taste of the stone as soon as they read that. One can imagine the taste of anything, though never taste it. This is not only due to the internal logic of the senses already revealed in part1, but also supports the concept of the book: that the different senses can evoke each other. Intriguingly, the sense is a quality that everyone possesses. So rather than using sophisticated logic to demonstrate the relationship between the senses, the author deftly uses the reader's own senses to conduct an experiment of the senses, which is a much more straightforward and persuasive argument. As same as the headings, the body of part 2 also inherits such communication and experiments with the readers. Pallasmaa's ingenuity also exists in the way of narrative.

Haptic Narrative?

Although *"The Eyes of The Skin"* introduces an esoteric and complex theory of architecture, it is not so much a complex theoretical article rather than an easy-to-read essay. This is because the way in which the book is narrated, and its ingenious structure

[12] Pallasmaa, Juhani.

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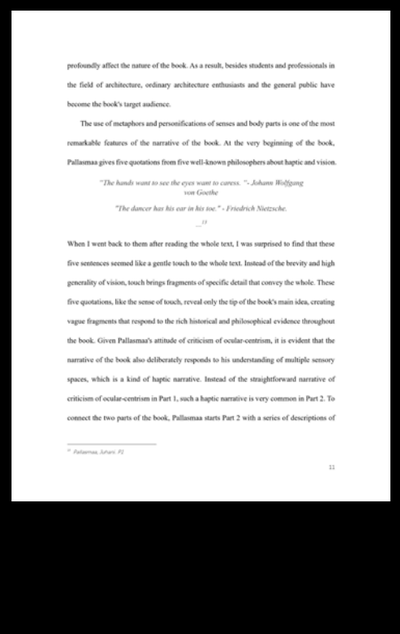

profoundly affect the nature of the book. As a result, besides students and professionals in the field of architecture, ordinary architecture enthusiasts and the general public have become the book's target audience.

The use of metaphors and personifications of senses and body parts is one of the most remarkable features of the narrative of the book. At the very beginning of the book, Pallasmaa gives five quotations from five well-known philosophers about haptic and vision.

> *"The hands want to see the eyes want to caress. "- Johann Wolfgang von Goethe*
>
> *"The dancer has his ear in his toe. " - Friedrich Nietzsche.*
>
> *…*[13]

When I went back to them after reading the whole text, I was surprised to find that these five sentences seemed like a gentle touch to the whole text. Instead of the brevity and high generality of vision, touch brings fragments of specific detail that convey the whole. These five quotations, like the sense of touch, reveal only the tip of the book's main idea, creating vague fragments that respond to the rich historical and philosophical evidence throughout the book. Given Pallasmaa's attitude of criticism of ocular-centrism, it is evident that the narrative of the book also deliberately responds to his understanding of multiple sensory spaces, which is a kind of haptic narrative. Instead of the straightforward narrative of criticism of ocular-centrism in Part 1, such a haptic narrative is very common in Part 2. To connect the two parts of the book, Pallasmaa starts Part 2 with a series of descriptions of

[13] Pallasmaa, Juhani. P1

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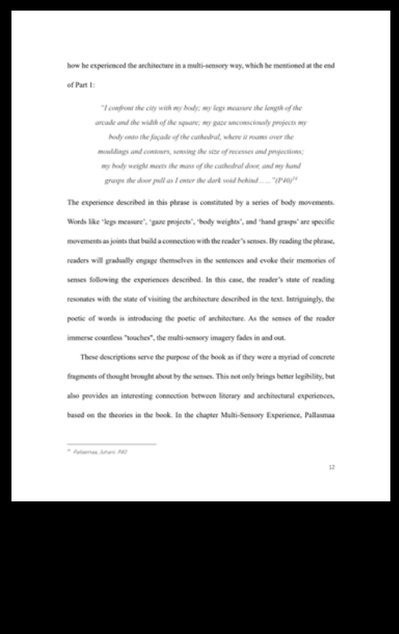

how he experienced the architecture in a multi-sensory way, which he mentioned at the end of Part 1:

> *"I confront the city with my body; my legs measure the length of the arcade and the width of the square; my gaze unconsciously projects my body onto the façade of the cathedral, where it roams over the mouldings and contours, sensing the size of recesses and projections; my body weight meets the mass of the cathedral door, and my hand grasps the door pull as I enter the dark void behind……"(P40)*[14]

The experience described in this phrase is constituted by a series of body movements. Words like 'legs measure', 'gaze projects', 'body weights', and 'hand grasps' are specific movements as joints that build a connection with the reader's senses. By reading the phrase, readers will gradually engage themselves in the sentences and evoke their memories of senses following the experiences described. In this case, the reader's state of reading resonates with the state of visiting the architecture described in the text. Intriguingly, the poetic of words is introducing the poetic of architecture. As the senses of the reader immerse countless "touches", the multi-sensory imagery fades in and out.

These descriptions serve the purpose of the book as if they were a myriad of concrete fragments of thought brought about by the senses. This not only brings better legibility, but also provides an interesting connection between literary and architectural experiences, based on the theories in the book. In the chapter Multi-Sensory Experience, Pallasmaa

[14] Pallasmaa, Juhani. P40

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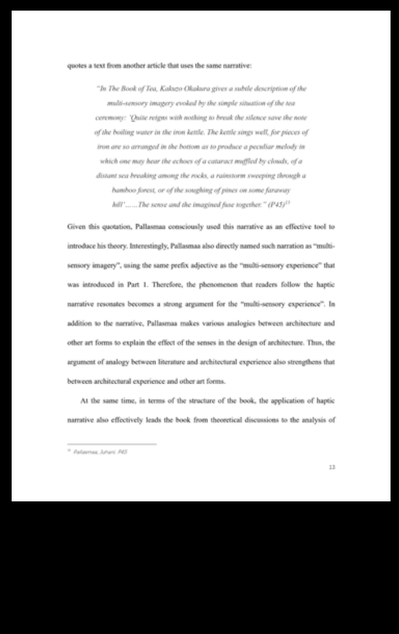

quotes a text from another article that uses the same narrative:

> *"In The Book of Tea, Kakuzo Okakura gives a subtle description of the multi-sensory imagery evoked by the simple situation of the tea ceremony: 'Quite reigns with nothing to break the silence save the note of the boiling water in the iron kettle. The kettle sings well, for pieces of iron are so arranged in the bottom as to produce a peculiar melody in which one may hear the echoes of a cataract muffled by clouds, of a distant sea breaking among the rocks, a rainstorm sweeping through a bamboo forest, or of the soughing of pines on some faraway hill'……The sense and the imagined fuse together." (P45)*[15]

Given this quotation, Pallasmaa consciously used this narrative as an effective tool to introduce his theory. Interestingly, Pallasmaa also directly named such narration as "multi-sensory imagery", using the same prefix adjective as the "multi-sensory experience" that was introduced in Part 1. Therefore, the phenomenon that readers follow the haptic narrative resonates becomes a strong argument for the "multi-sensory experience". In addition to the narrative, Pallasmaa makes various analogies between architecture and other art forms to explain the effect of the senses in the design of architecture. Thus, the argument of analogy between literature and architectural experience also strengthens that between architectural experience and other art forms.

At the same time, in terms of the structure of the book, the application of haptic narrative also effectively leads the book from theoretical discussions to the analysis of

[15] Pallasmaa, Juhani. P45

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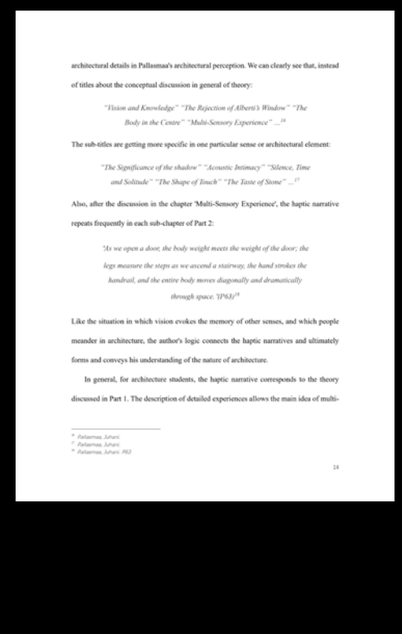

architectural details in Pallasmaa's architectural perception. We can clearly see that, instead of titles about the conceptual discussion in general of theory:

> *"Vision and Knowledge" "The Rejection of Alberti's Window" "The Body in the Centre" "Multi-Sensory Experience" …*[16]

The sub-titles are getting more specific in one particular sense or architectural element:

> *"The Significance of the shadow" "Acoustic Intimacy" "Silence, Time and Solitude" "The Shape of Touch" "The Taste of Stone" …*[17]

Also, after the discussion in the chapter 'Multi-Sensory Experience', the haptic narrative repeats frequently in each sub-chapter of Part 2:

> *"As we open a door, the body weight meets the weight of the door; the legs measure the steps as we ascend a stairway, the hand strokes the handrail, and the entire body moves diagonally and dramatically through space. 'P63)'*[18]

Like the situation in which vision evokes the memory of other senses, and which people meander in architecture, the author's logic connects the haptic narratives and ultimately forms and conveys his understanding of the nature of architecture.

In general, for architecture students, the haptic narrative corresponds to the theory discussed in Part 1. The description of detailed experiences allows the main idea of multi-

[16] Pallasmaa, Juhani.
[17] Pallasmaa, Juhani.
[18] Pallasmaa, Juhani. P63

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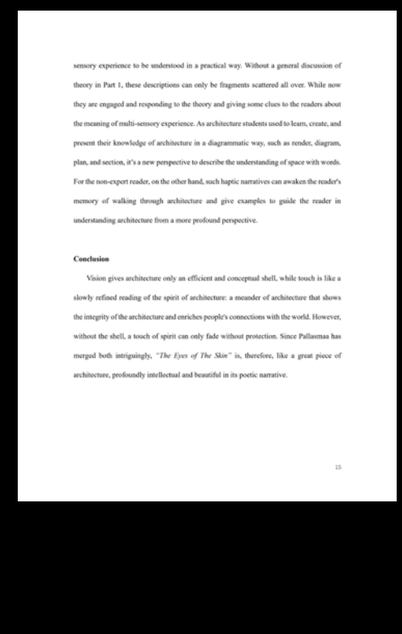


sensory experience to be understood in a practical way. Without a general discussion of theory in Part 1, these descriptions can only be fragments scattered all over. While now they are engaged and responding to the theory and giving some clues to the readers about the meaning of multi-sensory experience. As architecture students used to learn, create, and present their knowledge of architecture in a diagrammatic way, such as render, diagram, plan, and section, it's a new perspective to describe the understanding of space with words. For the non-expert reader, on the other hand, such haptic narratives can awaken the reader's memory of walking through architecture and give examples to guide the reader in understanding architecture from a more profound perspective.

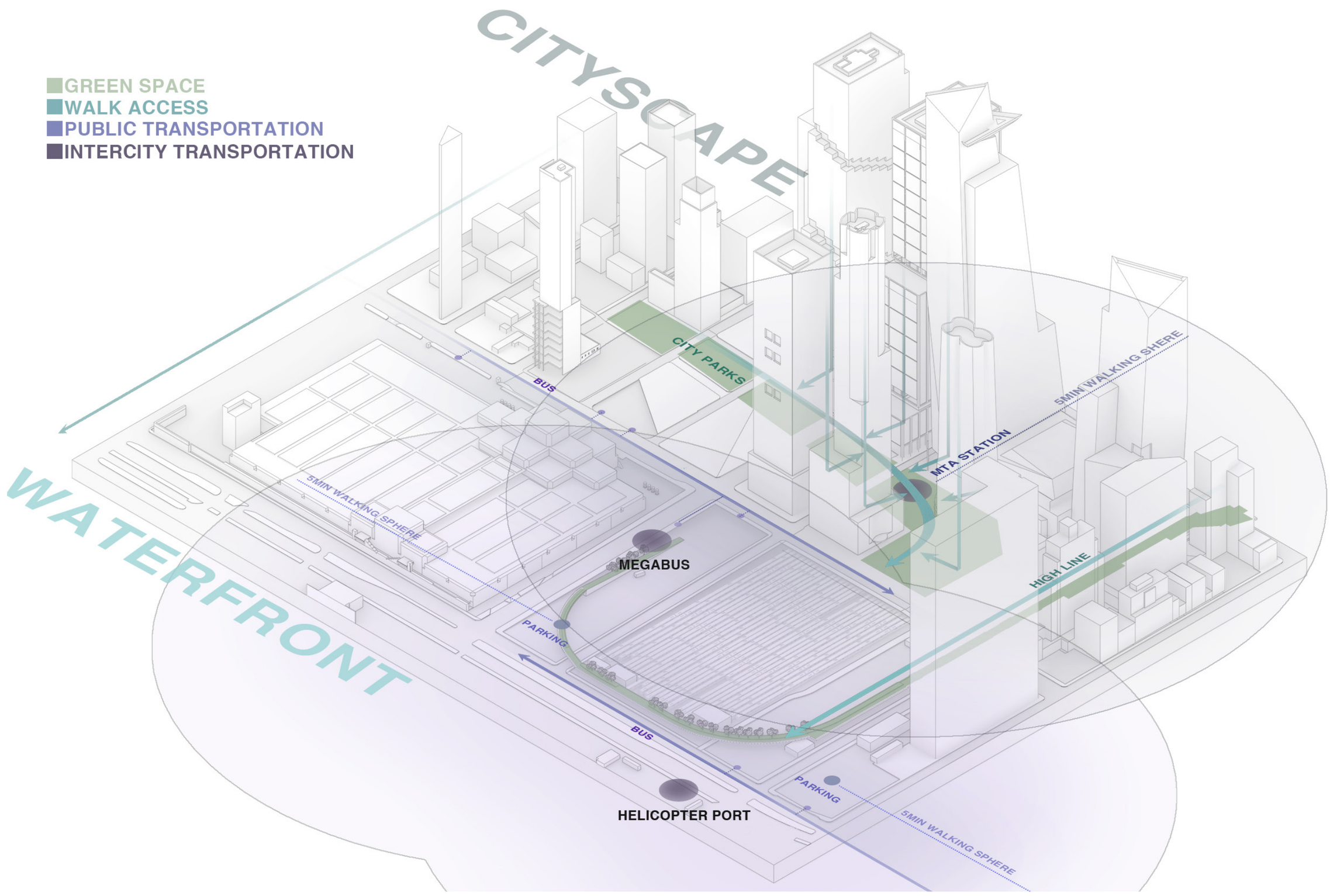
Conclusion

Vision gives architecture only an efficient and conceptual shell, while touch is like a slowly refined reading of the spirit of architecture: a meander of architecture that shows the integrity of the architecture and enriches people's connections with the world. However, without the shell, a touch of spirit can only fade without protection. Since Pallasmaa has merged both intriguingly, *"The Eyes of The Skin"* is, therefore, like a great piece of architecture, profoundly intellectual and beautiful in its poetic narrative.

15

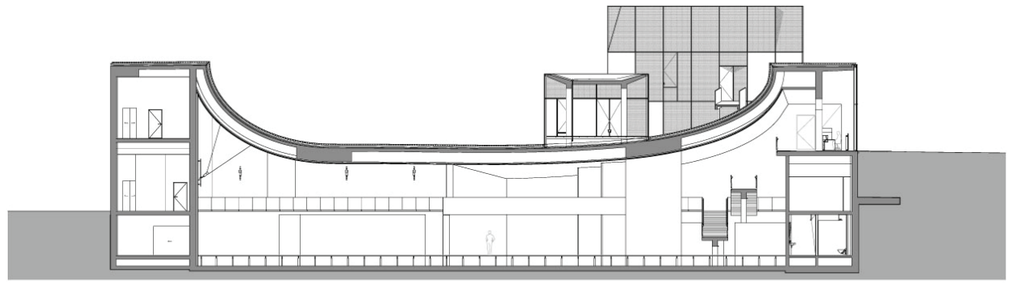
RE-THINKING BIM

Instructor: Joseph Brennan



Steven Holl's City of the Ocean

Steven Holl's City of the Ocean project is a good reference for Hudson Yards because of its innovative spatial form and use of public space. The development is located in the French port city of Biarritz and is designed to be a sustainable mixed-use development that prioritizes public space and community engagement.
In addition to its use of public space, the City of the Ocean project is also notable for its innovative spatial form. The development is designed to be navigable, with clear axes and sightlines that make it easy for people to move through the space. This makes the development more inviting and welcoming to visitors, and it also helps to create a sense of community and engagement.
Hudson Yards is a large-scale mixed-use development that includes a variety of commercial and public spaces. By prioritizing public space and creating a navigable, welcoming environment,



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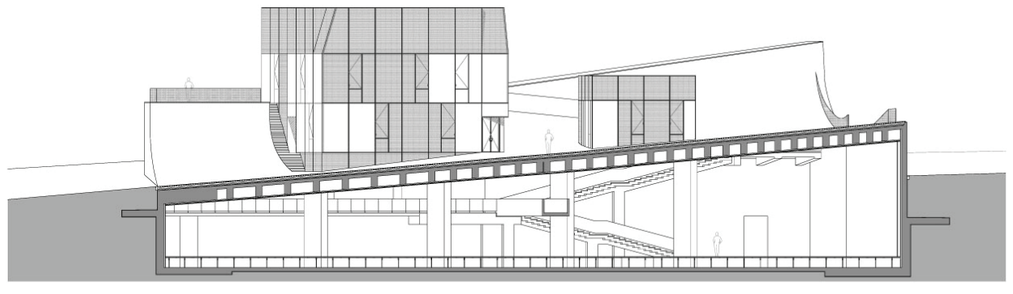

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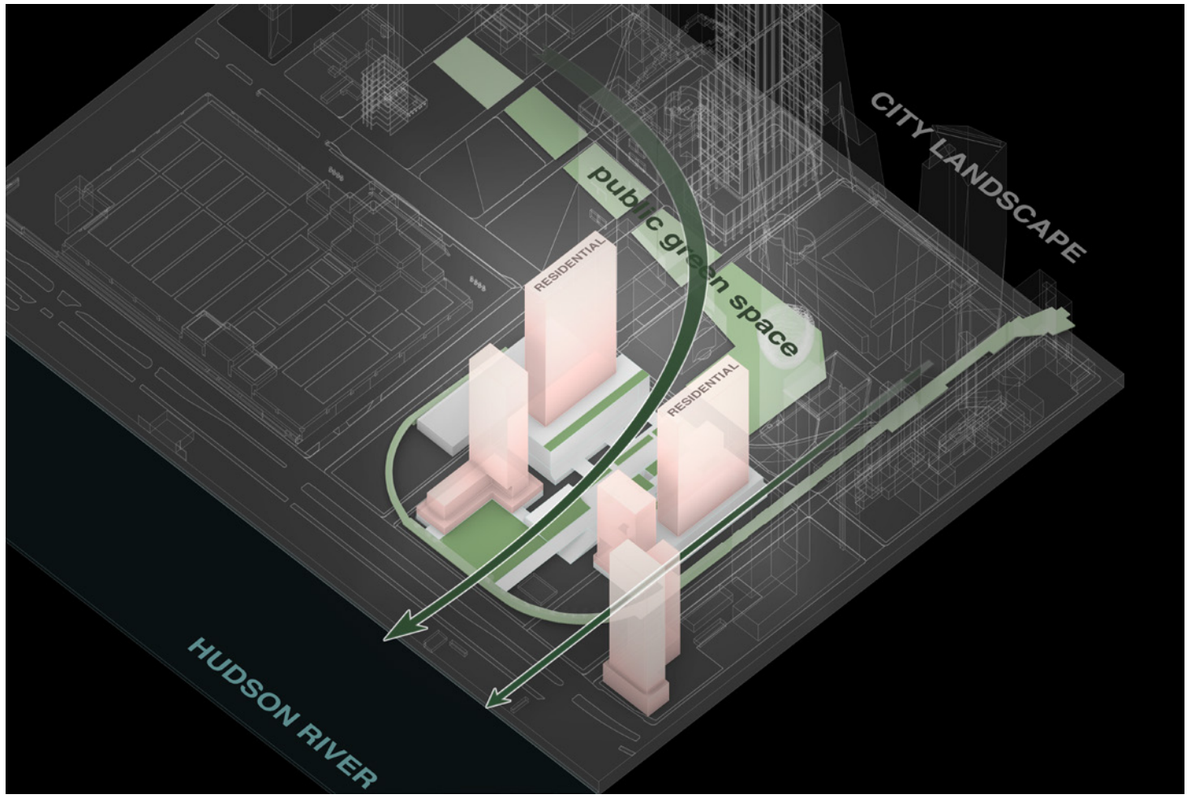

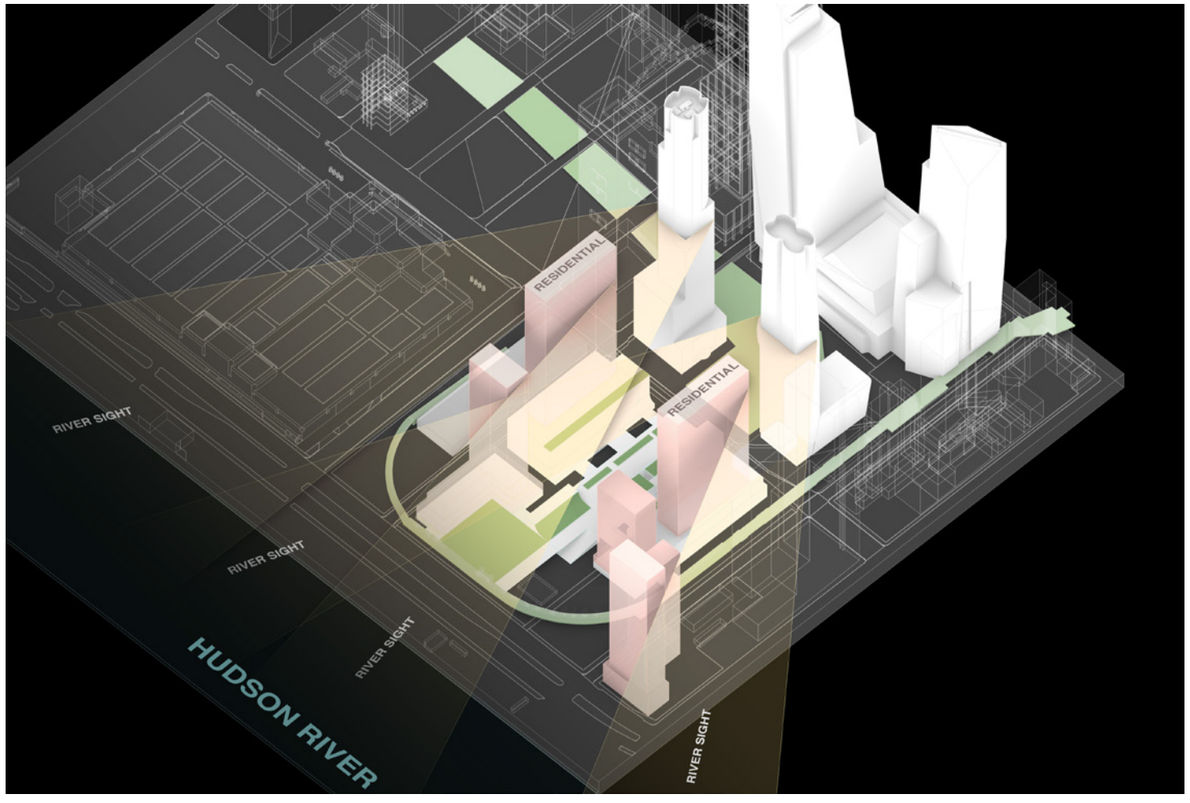

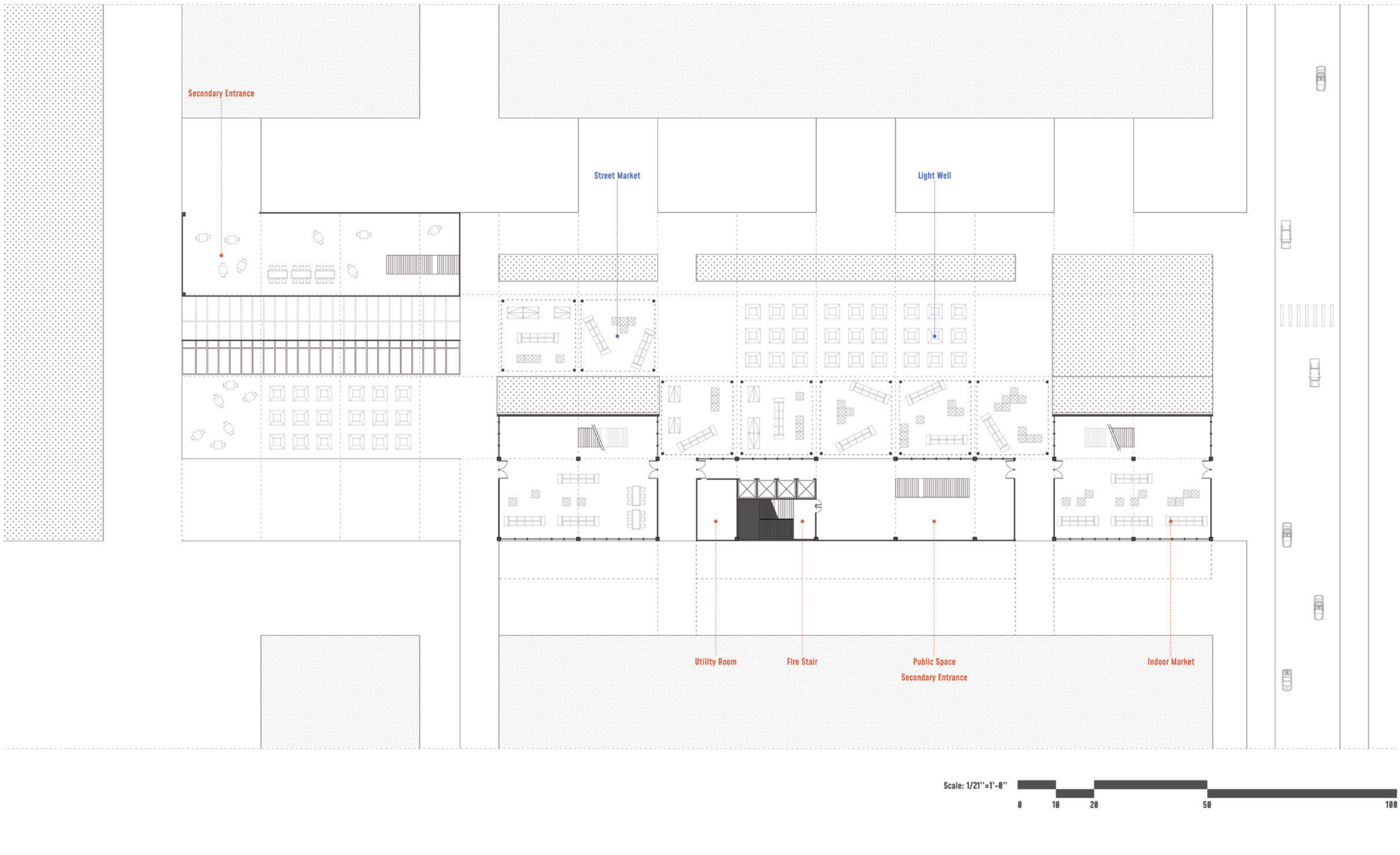

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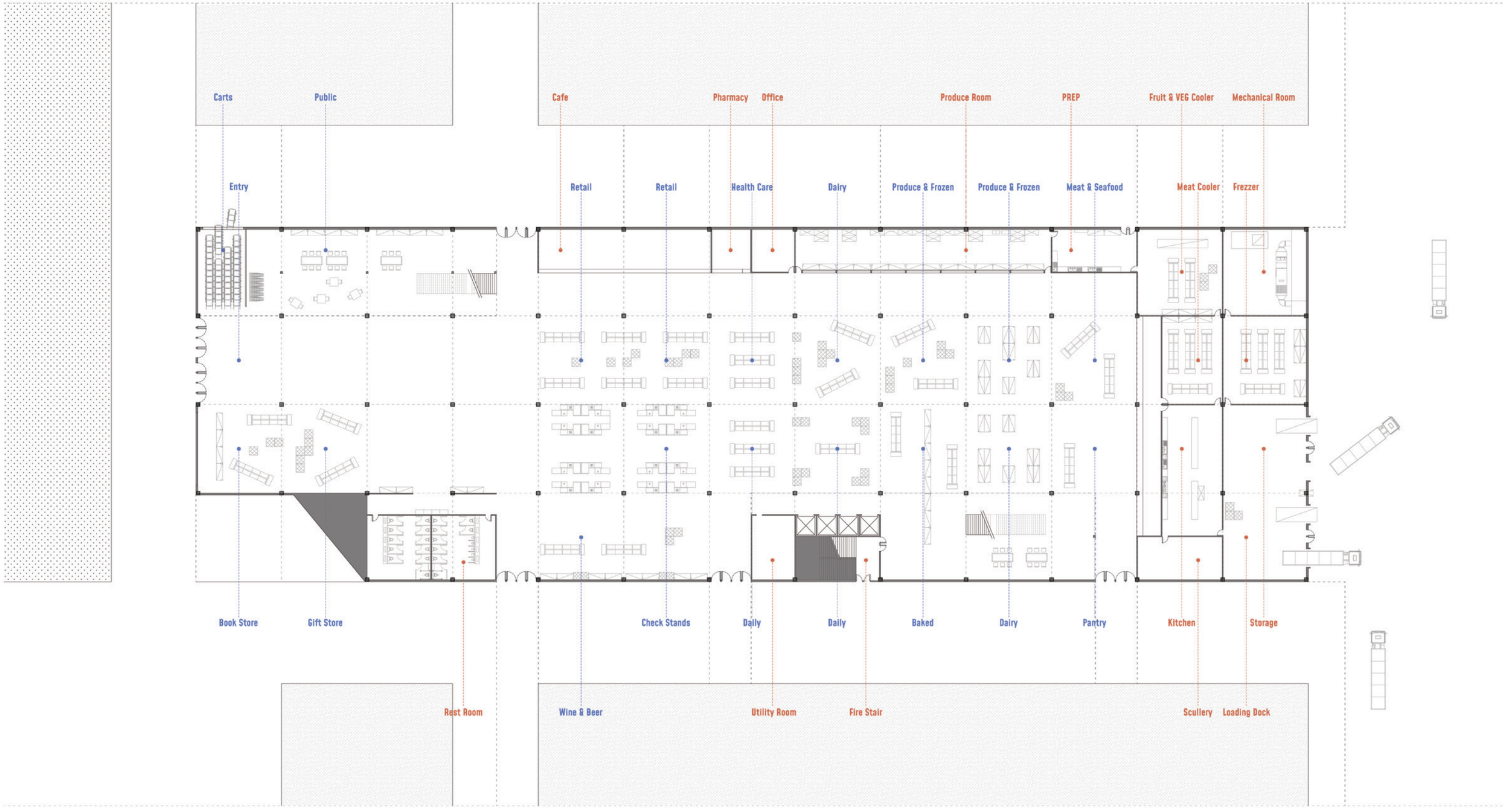
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Produce & Frozen
Meat & Seafood
Meat Cooler
Frezzer
Book Store
Gift Store
Check Stands
Daily
Daily
Baked
Dairy
Pantry
Kitchen
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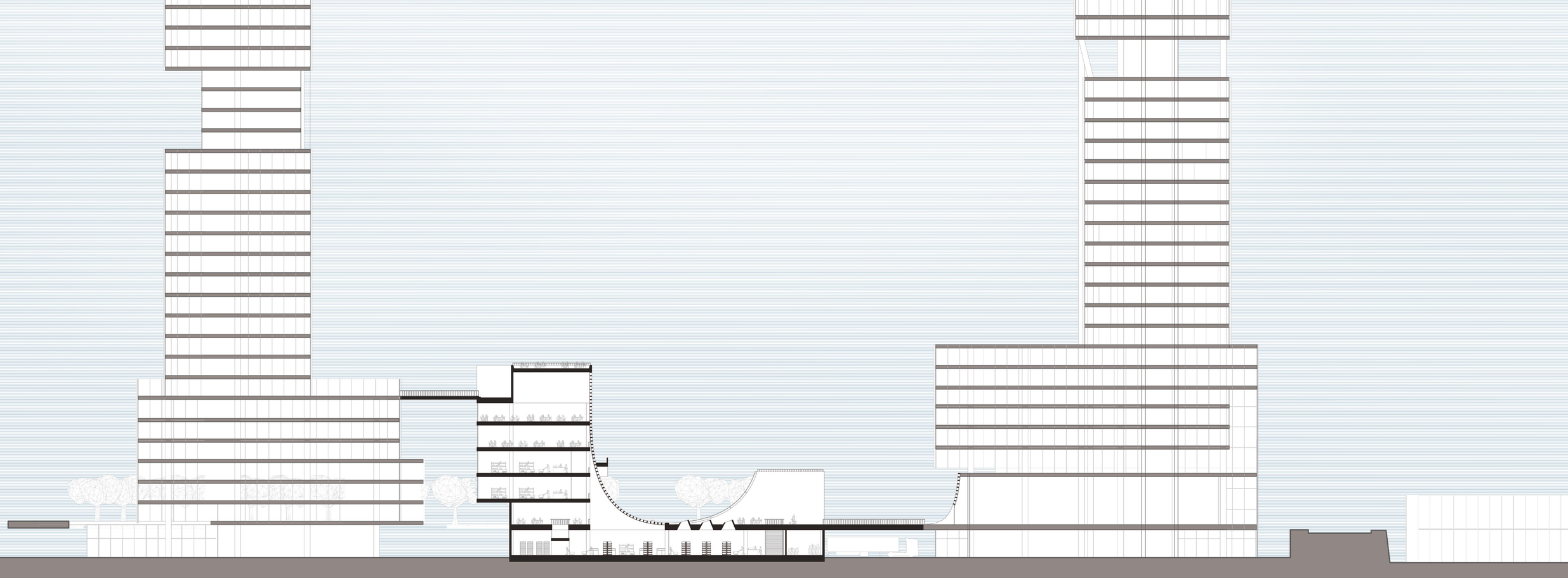

TENSILE/COMPRESSION SURFACES

Instructor: Robert Marino

Rotation Revolution