# GRADUATION PORTFOLIO

YOON HAE CHOI GSAPP MSAAD 2024~2025

#### **Reconfiguring the Hidden: Sustainability Through Design**

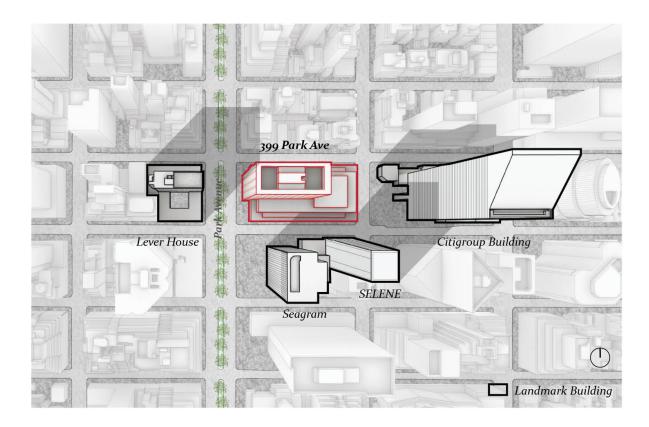
Exploring hidden values and reconfiguring them into sustainable relationships is essential for creating spaces that serve as platforms for interaction between place, environment, and users. This process involves uncovering underlying elements—historical contexts, ecological characteristics, and social structures—that shape a space, and reinterpreting them through a contemporary design language to expand the meaning and function of that space. These hidden values are not merely preserved or recorded; they gain true significance when integrated into new spatial relationships and programs.

Bringing nature into the concealed surfaces of the city to redefine the relationship between humans and ecosystems, documenting and repurposing plastic waste to reveal the severity of pollution and explore sustainability, and exposing hidden infrastructures to reawaken the sensory experience of everyday life. Through these approaches, spaces are reconfigured as intersections of past and present, local and universal, providing users with meaningful and sustainable experiences.

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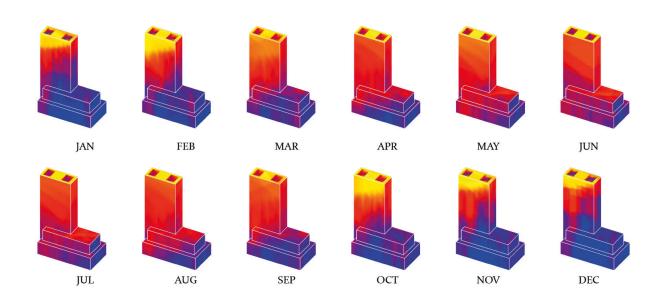
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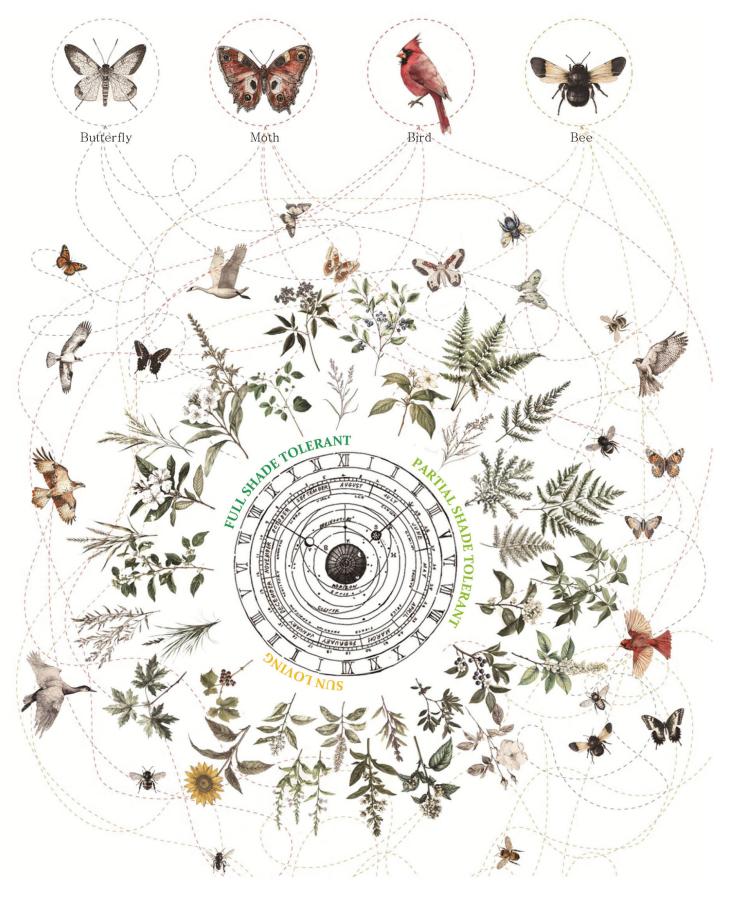
#### Stable Environmental Conditions by Landmark

Since the building is surrounded by landmarks such as Lever House, Seagram, SELENE, Citigroup Building that are unlikely to change in the future, these landmarks are considered permanent factors. Therefore, the shadow patterns created by these landmarks are unlikely to change in the future.



#### Annual Sunlight Analysis of 399 Park Avenue

Using Ladybug, a year-round sunlight analysis of 399 Park Avenue was conducted. As shown, the upper tower receives consistent sunlight throughout the year, while the lower podium area remains mostly shaded except during the summer months.



#### **Ecological Network Integration**

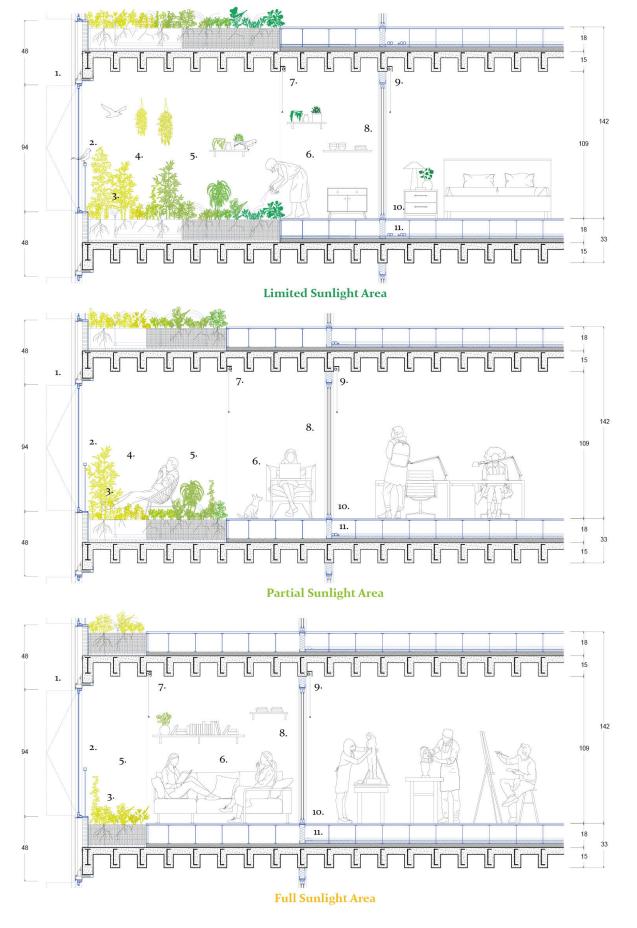
Plants, birds, and insects native to New York State were studied to understand their ecological relationships and sunlight needs. Plants were classified by sun tolerance and linked to supporting pollinators and birds. This framework informed the architectural strategy, bringing natural systems into the tower.



#### **Sunlight Parameter Design**

Based on sunlight analyses, the original repetitive office floor plans were transformed into a dynamic system that varies across different floors. Light green areas receive more than 6 hours of sunlight per day, dark green areas receive 3-6 hours, and gray areas receive less than 3 hours which are designated as balconies for interaction between non-human elements and humans. And by altering the shape of the podium, the surface area was increased, and outdoor terraces were created.

And in the detailed sections, the curtain wall between interior and exterior was expanded into thicker layers. The enclosed facade became folding windows to regulate microclimates, and the elevated floor system matched the height of the soil, ensuring horizontal continuity.



Folding Window
 Wood Railing

3. Water Pipe

- 4. Direct Sun Garden 7. Mosquito Net
- 5. Indirect Sun Garden 8. Sliding Window
- 6. Indoor Terrace

9. Window Blind

- 10. Raised Floor
- 11. Water pipe and Electrical Wire

Section Detail scale 1/70



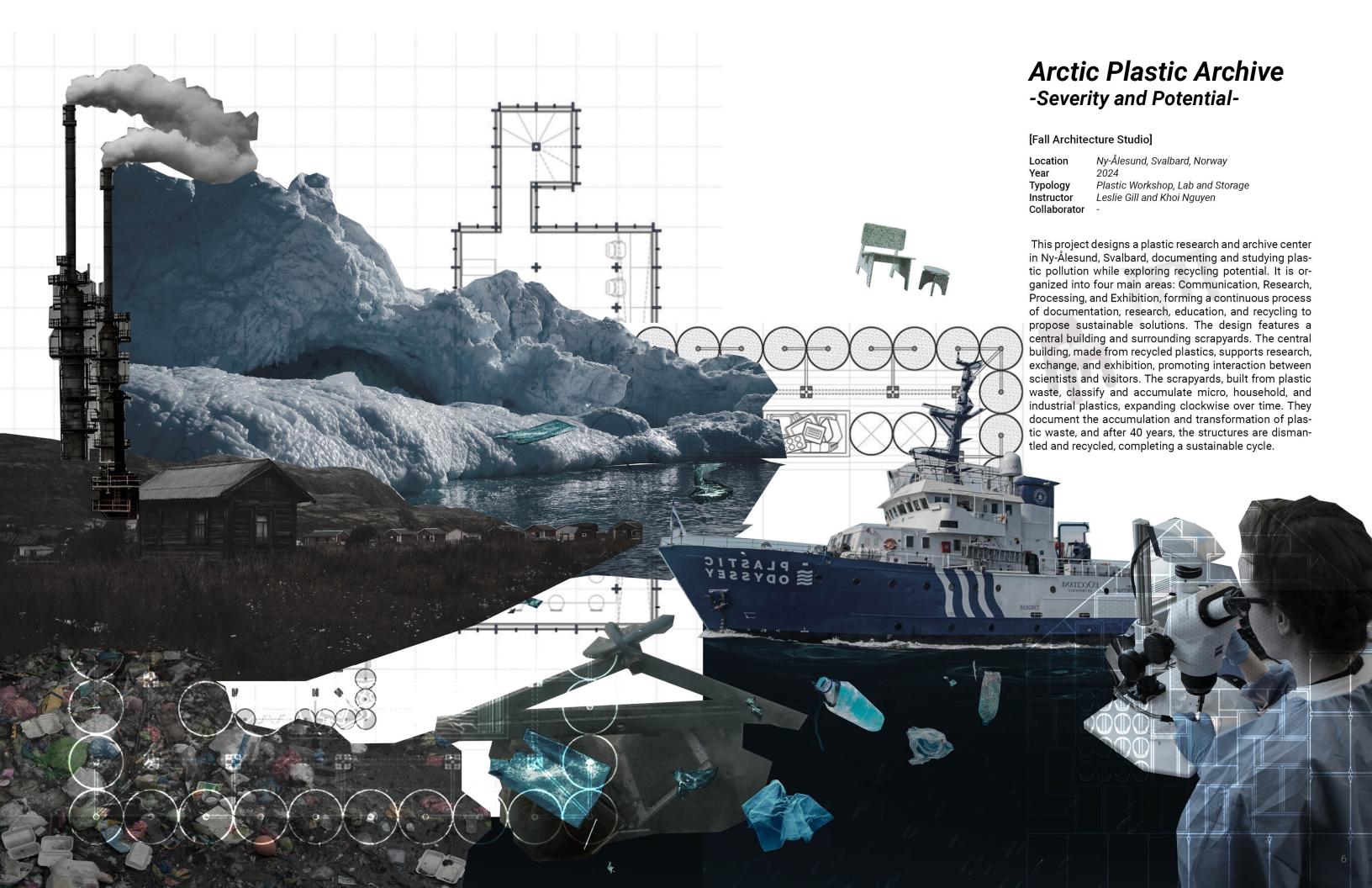
#### Flexible Boundaries

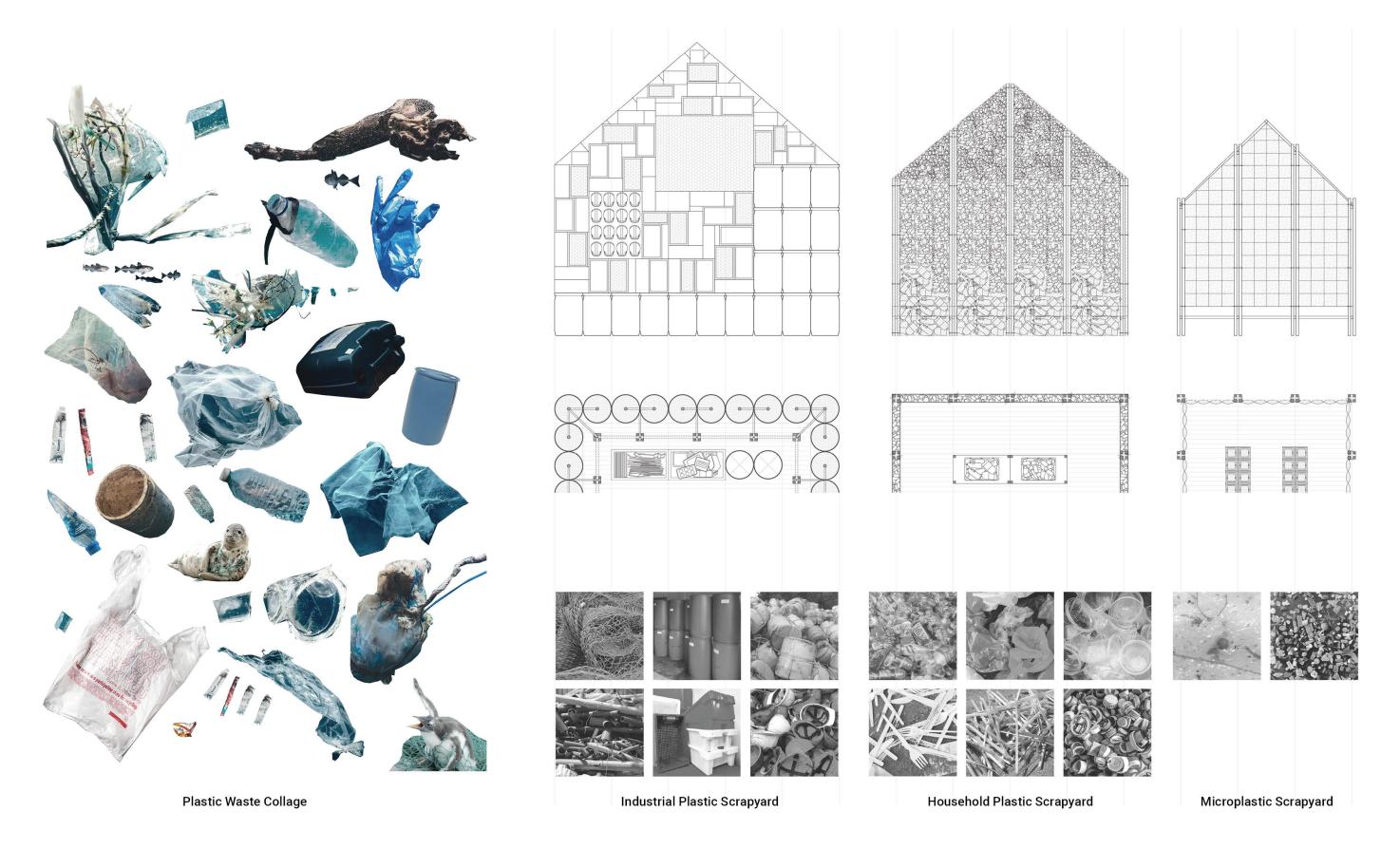
The parameters shaped by external conditions form a flexible relationship with the building's interior. Depending on the program, the building's interior may actively occupy and internalize the parameter zones formed along the exterior, connect them through mutual exchange between inside and outside, or distance itself and leave them as external spaces.



#### **Bridging Nature and Daily Life**

For example, a lush and diverse garden composed of native New York City plants can extend along the exterior of the building and flow into the interior. This garden would support biodiversity, providing a habitat where various plant species thrive, and butterflies and birds freely coexist, effectively inviting a natural ecosystem into the urban environment. Meanwhile, the interior space can be designed for everyday activities, such as a shared kitchen. Residents could grow and harvest plants directly here, creating opportunities to interact with nature up close.





#### Documentation and Experiential Classification

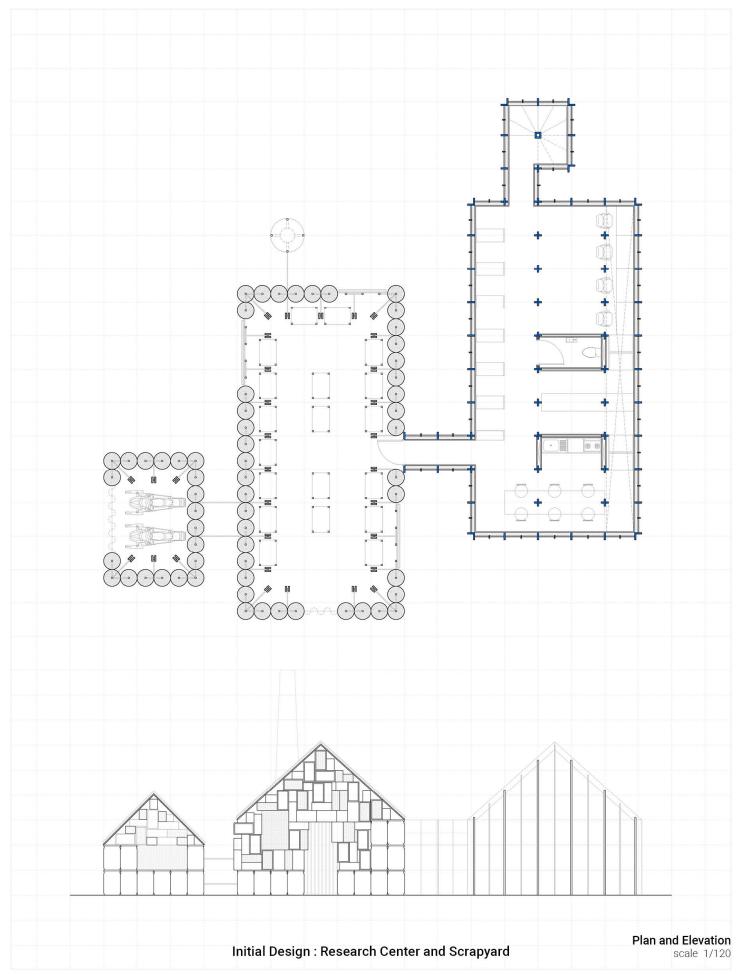
Plastic entering the Arctic ranges from microplastics to large debris, originating from various sources such as cities, factories, and agriculture. These plastics travel through rivers and ocean currents, eventually reaching the Arctic. Scientists collect and systematically document plastic in four categories: water, sediment, shoreline, and seabirds. The collected plastic is then classified into three types—Micro, Household, and Industrial—and stored in scrapyard buildings designed to reflect the characteristics of each type, providing visitors with an immersive, educational experience.

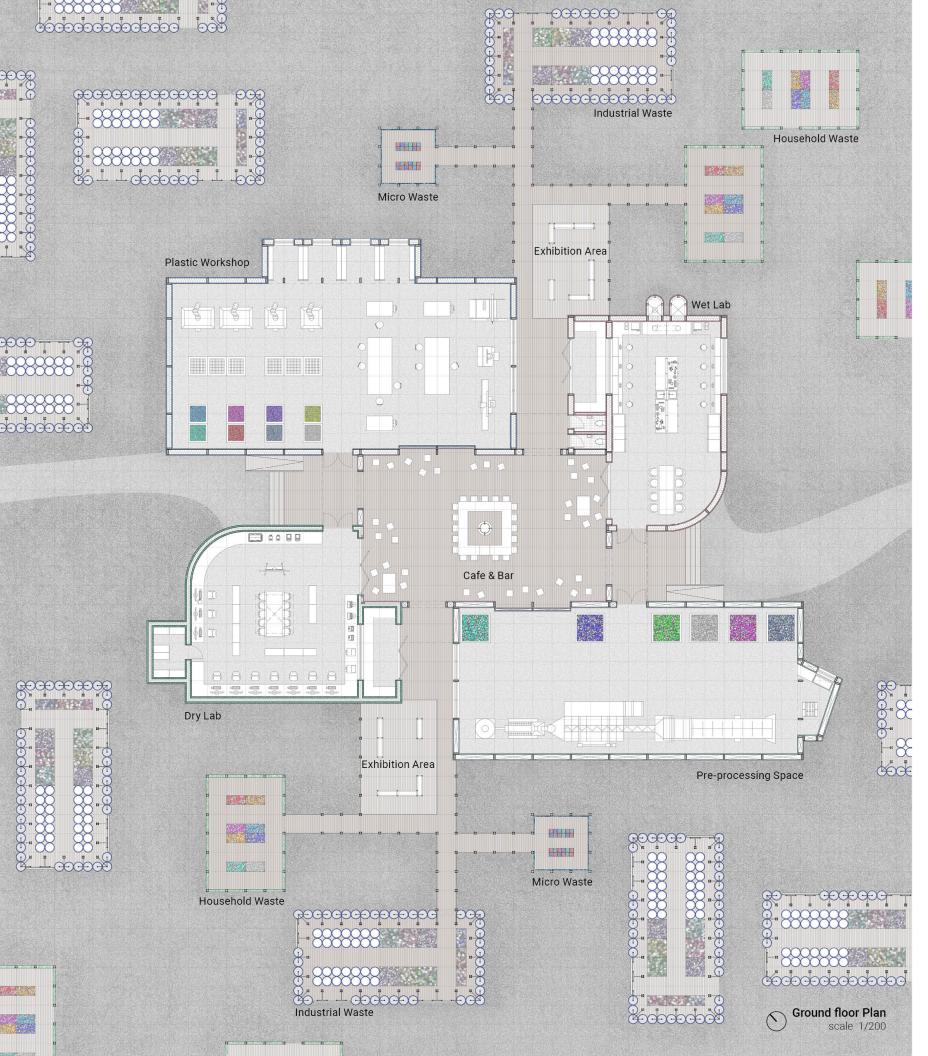




#### Collage as a Design Process

In the initial stages of the project, a collage process using various plastic objects was conducted to explore form and composition. Each piece was attached and combined, as shown in the following image, creating an abstract image. This approach extended to the architectural design, inspiring the composition and form of the building, envisioned as a structure made from plastic waste and recycled materials.



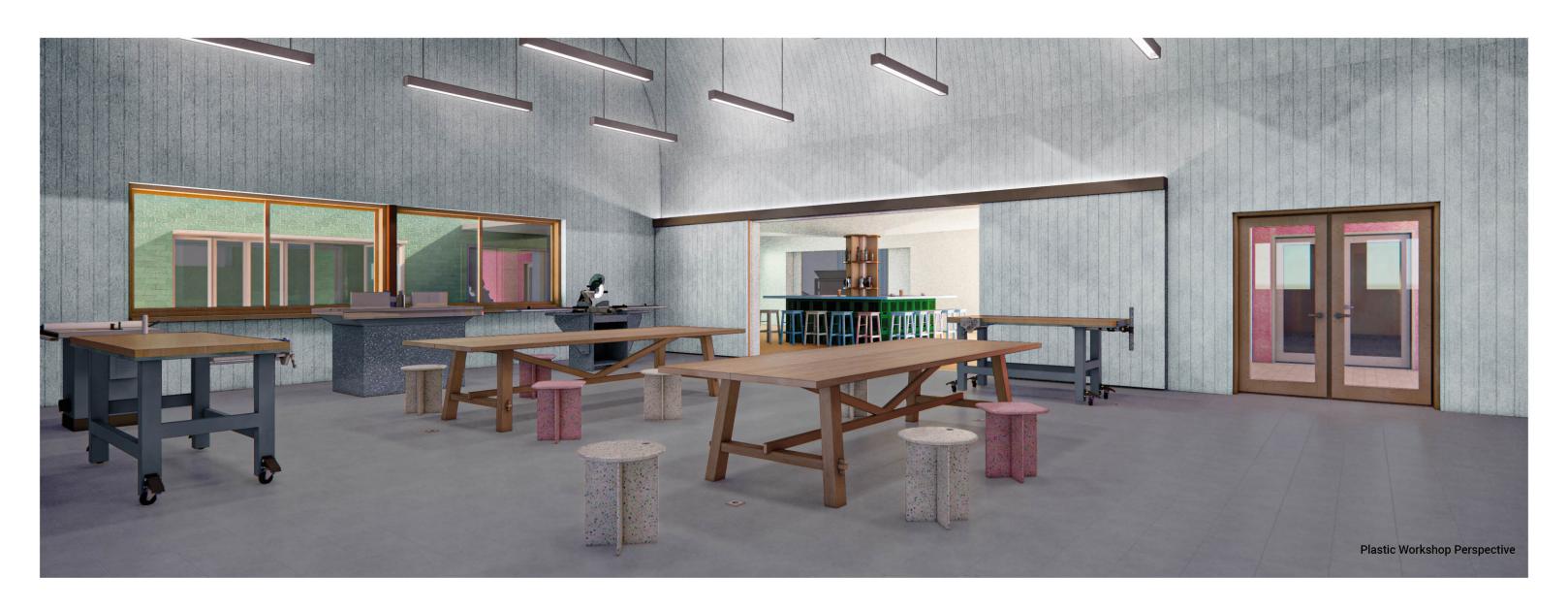


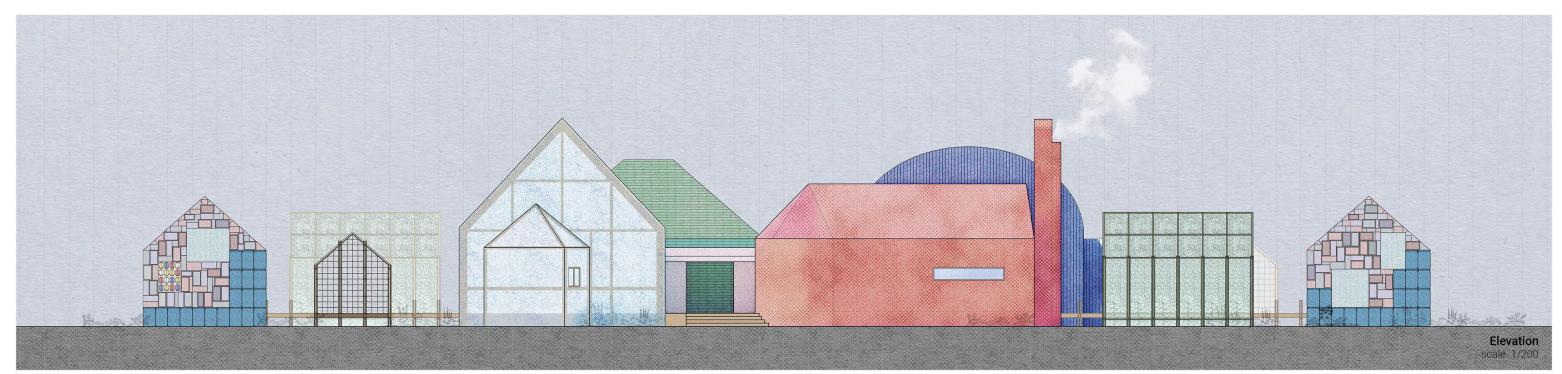


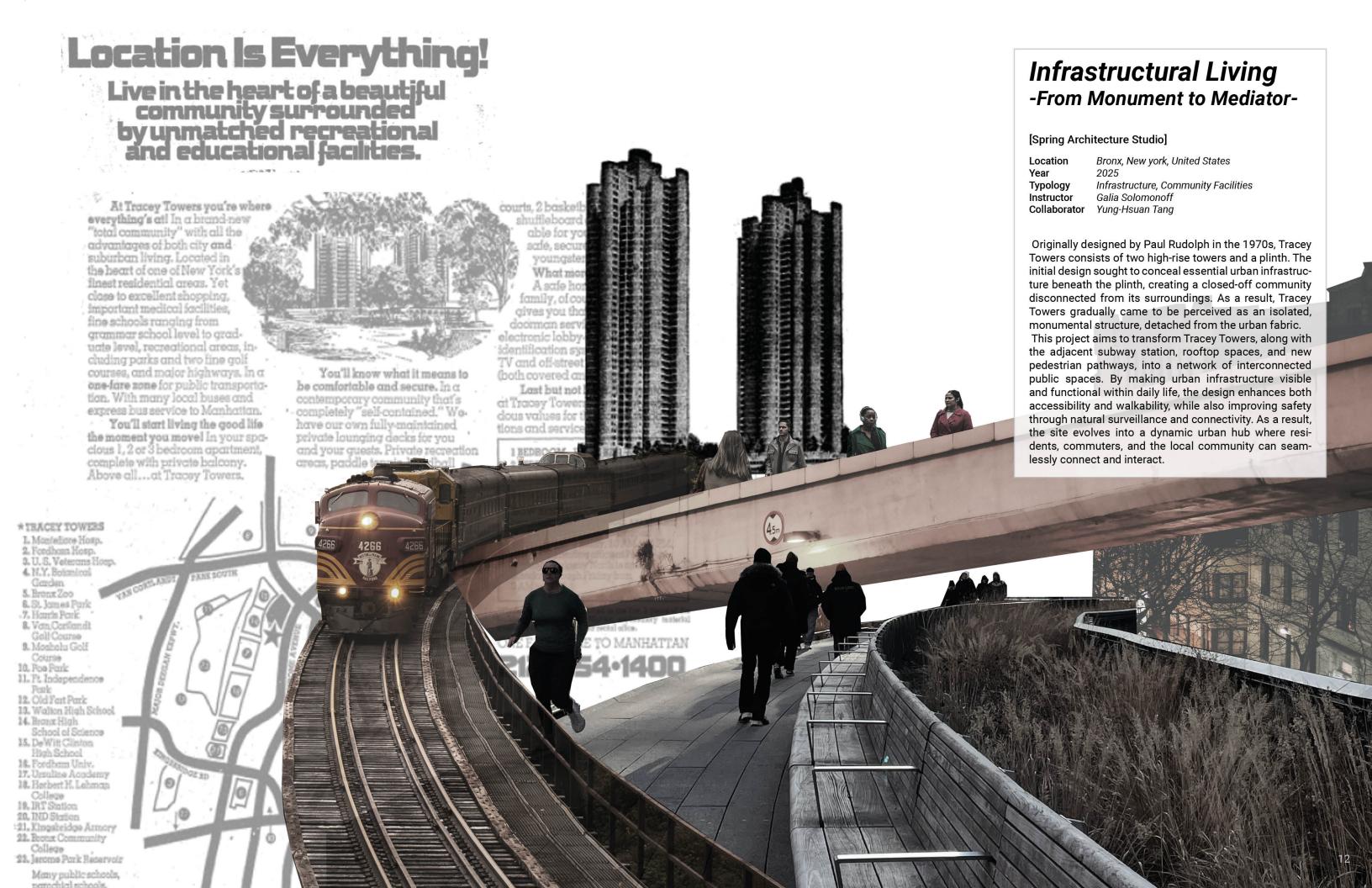
#### **Plastic Archive Over Time**

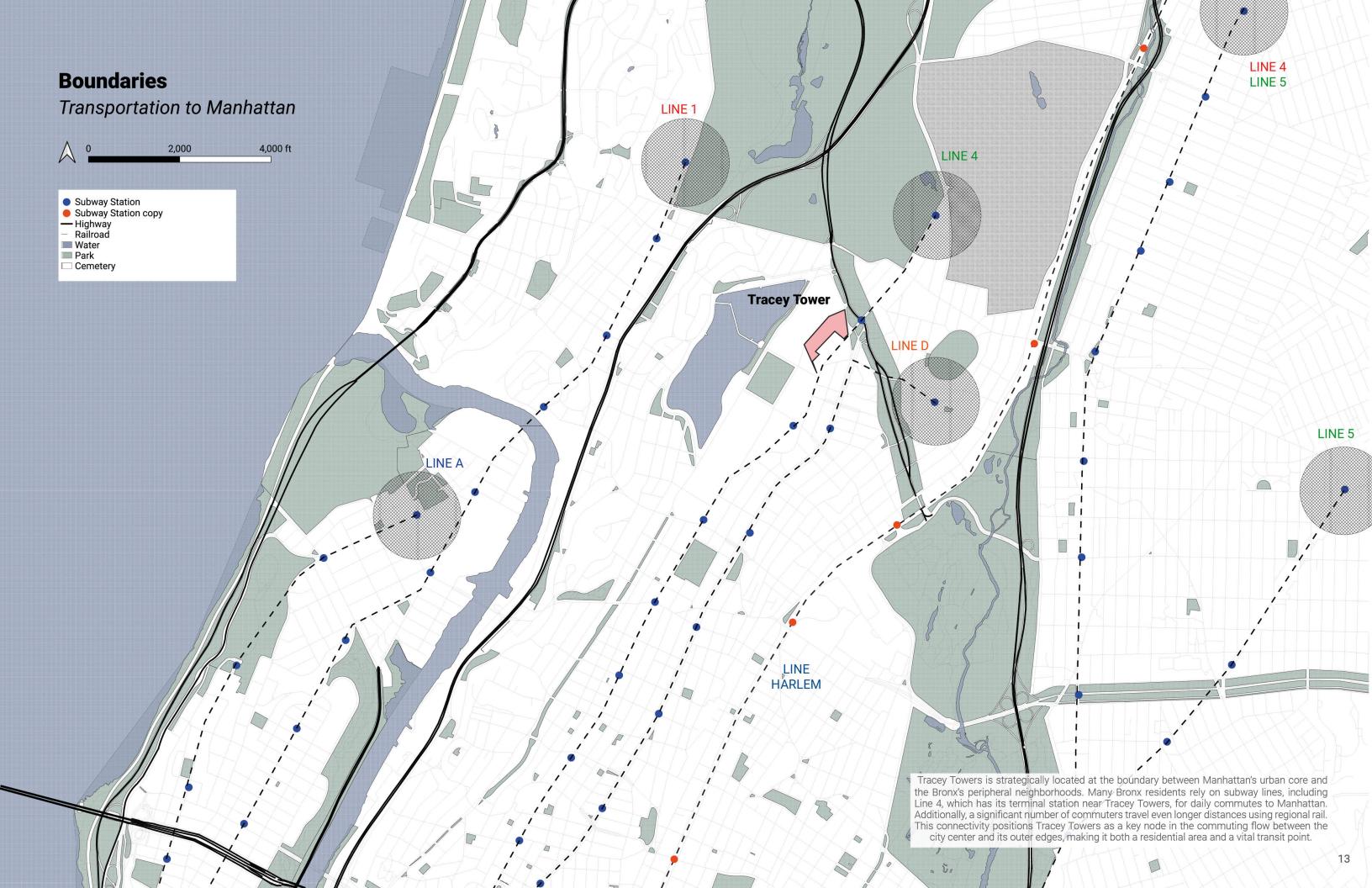
Ny-Ålesund faces challenges of limited research exchange among scientists and a disconnect between research and tourists. This project addresses these issues by integrating multidisciplinary plastic pollution research and using archive and exhibition spaces to educate visitors. It is organized around four areas: Communication, Research, Processing, and Exhibition. The site consists of a central building made from recycled plastic, showcasing the material's potential, and expanding scrapyards built from plastic waste, highlighting pollution. The scrapyards document plastic accumulation over 40 years before being dismantled and recycled. The central building features five overlapping masses, each housing different functions, including labs, a workshop, and a Bar and Café, which promote informal exchanges between scientists.



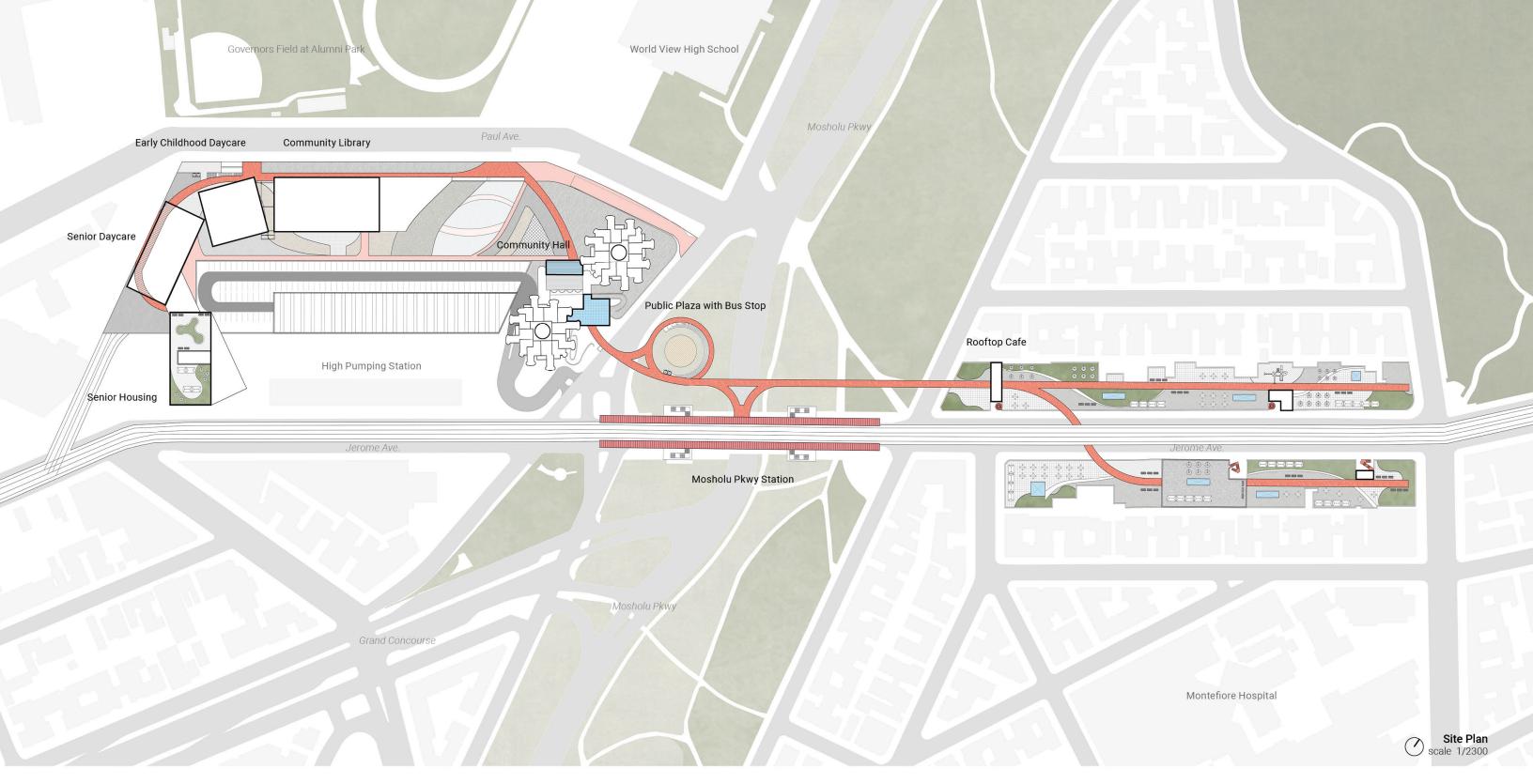








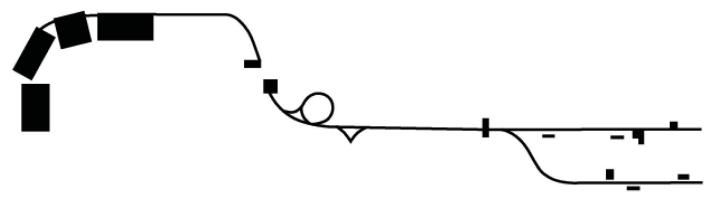




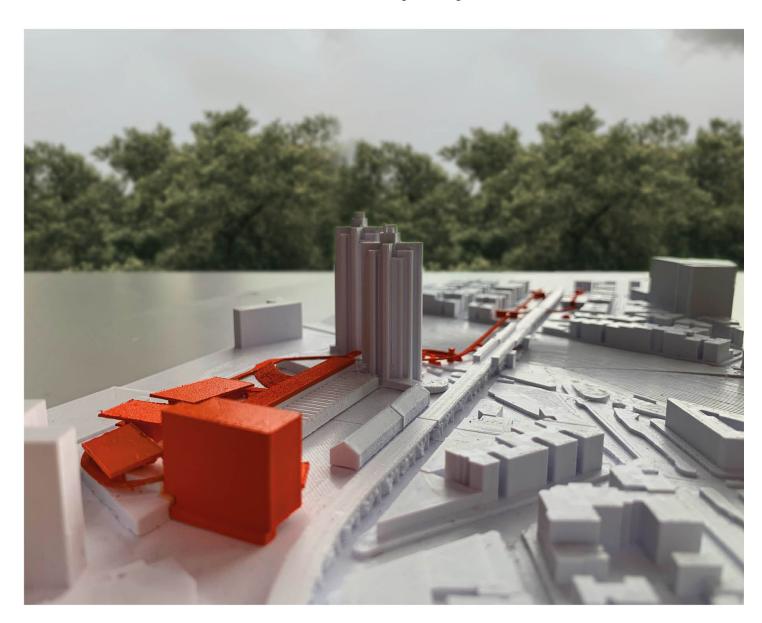
Community Wellness Park Integrated Transportation Hub Rooftop Revitalization

#### Enhancing Connectivity, Accessibility, and Safety

This design addresses the physical barrier of Mosholu Parkway, which has long separated the Norwood area and restricted pedestrian access, creating isolated and disconnected spaces. Key areas, including the Community Wellness Park, an integrated transportation hub, and revitalized rooftop spaces, are reimagined as interconnected zones that promote walkability, social interaction, and safety. Enhanced visibility, clear pedestrian routes, and active public spaces transform the previously isolated site into a vibrant, secure urban network where residents can move freely, access essential facilities, and engage with their community.

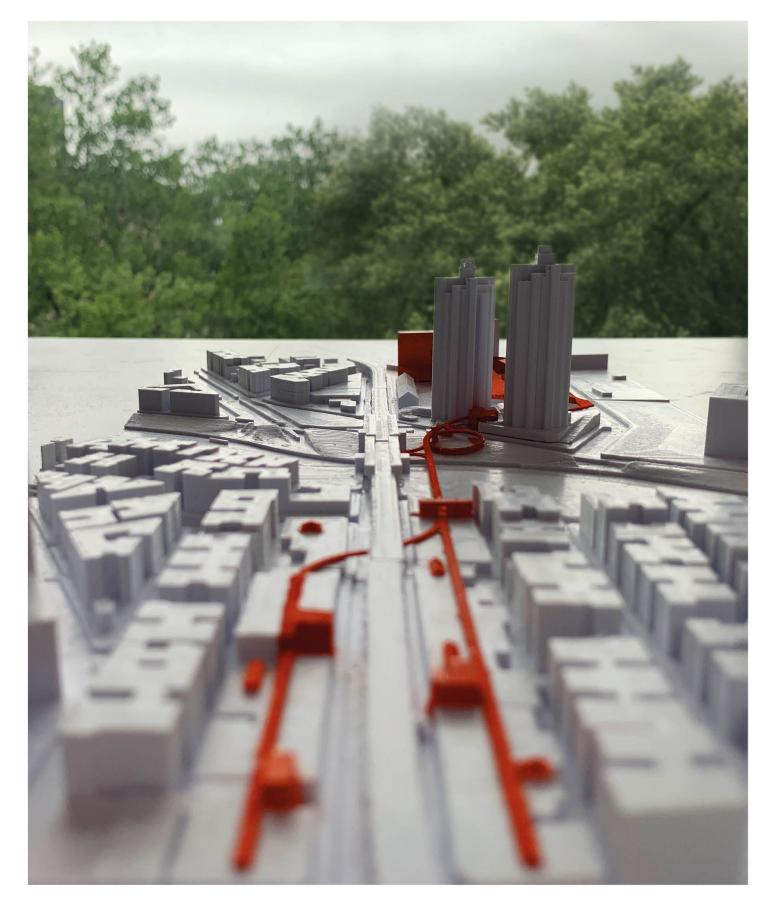


Main Route and Program Diagram



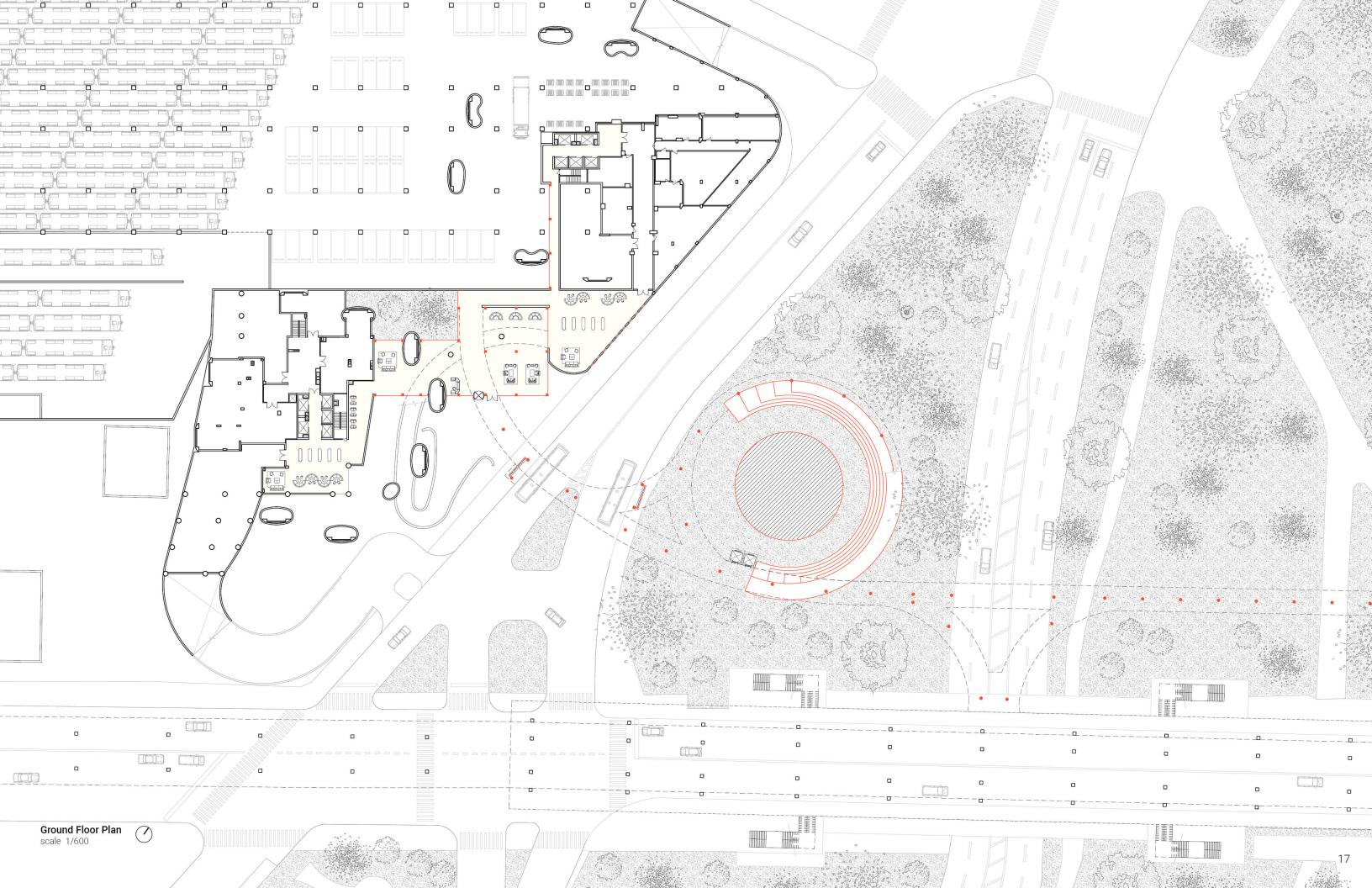
#### Community Wellness Park and Senior Housing Anchor

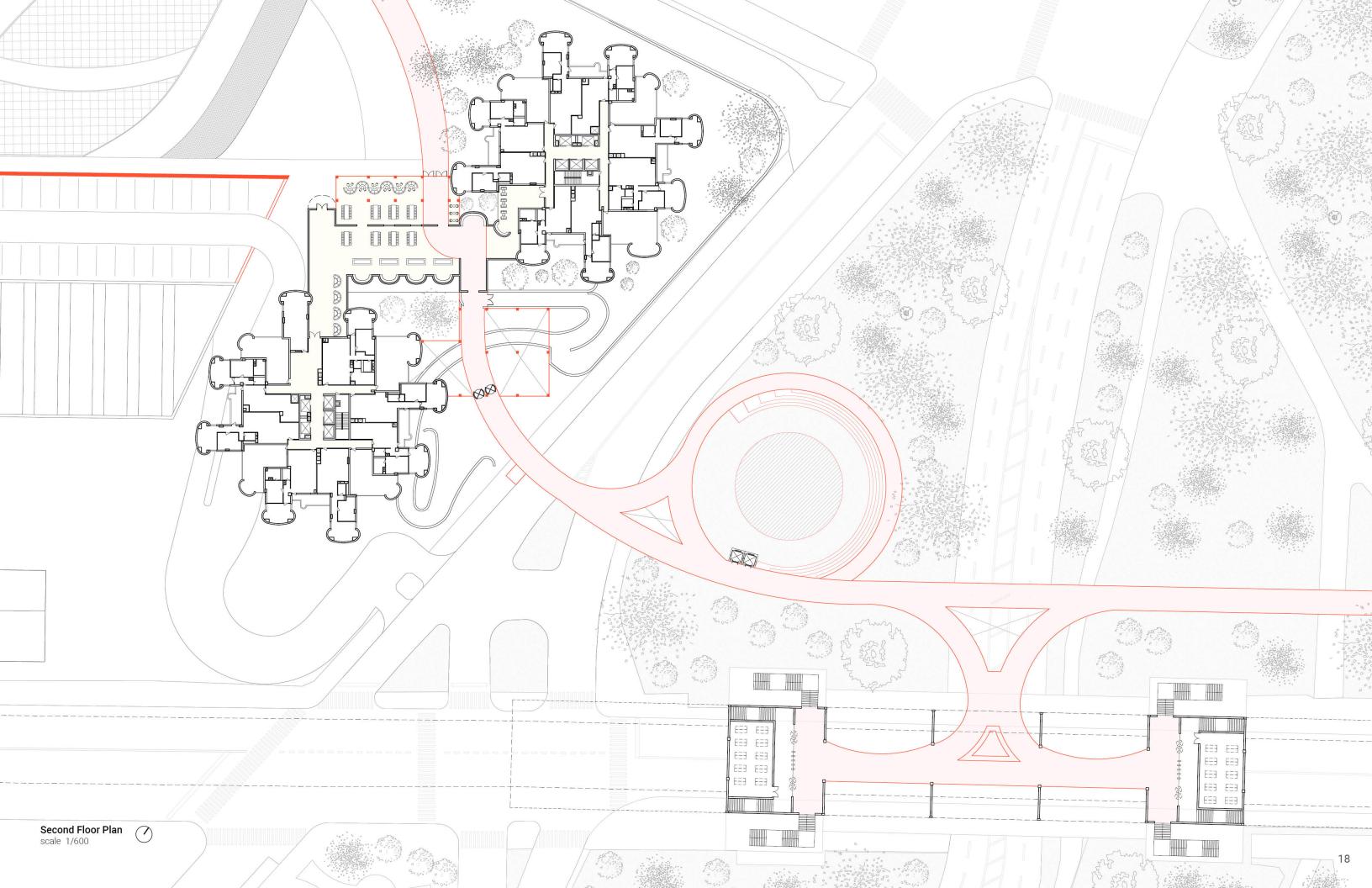
This design introduces a continuous Community Wellness Park above the train depot of Tracey Towers, creating a vibrant public space that extends across the site. The park stretches toward the southwest end, where building heights gradually increase, culminating in the Senior Housing complex, which serves as a visual and functional anchor. This gradual height transition enhances the spatial experience of the site, providing a clear sense of orientation and a defined destination.



#### Activating Rooftops with Minimal Intervention

This design introduces a continuous Community Wellness Park above the train depot of Tracey Towers, creating a vibrant public space that extends across the site. The park stretches toward the southwest end, where building heights gradually increase, culminating in the Senior Housing complex, which serves as a visual and functional anchor. This gradual height transition enhances the spatial experience of the site, providing a clear sense of orientation and a defined destination.

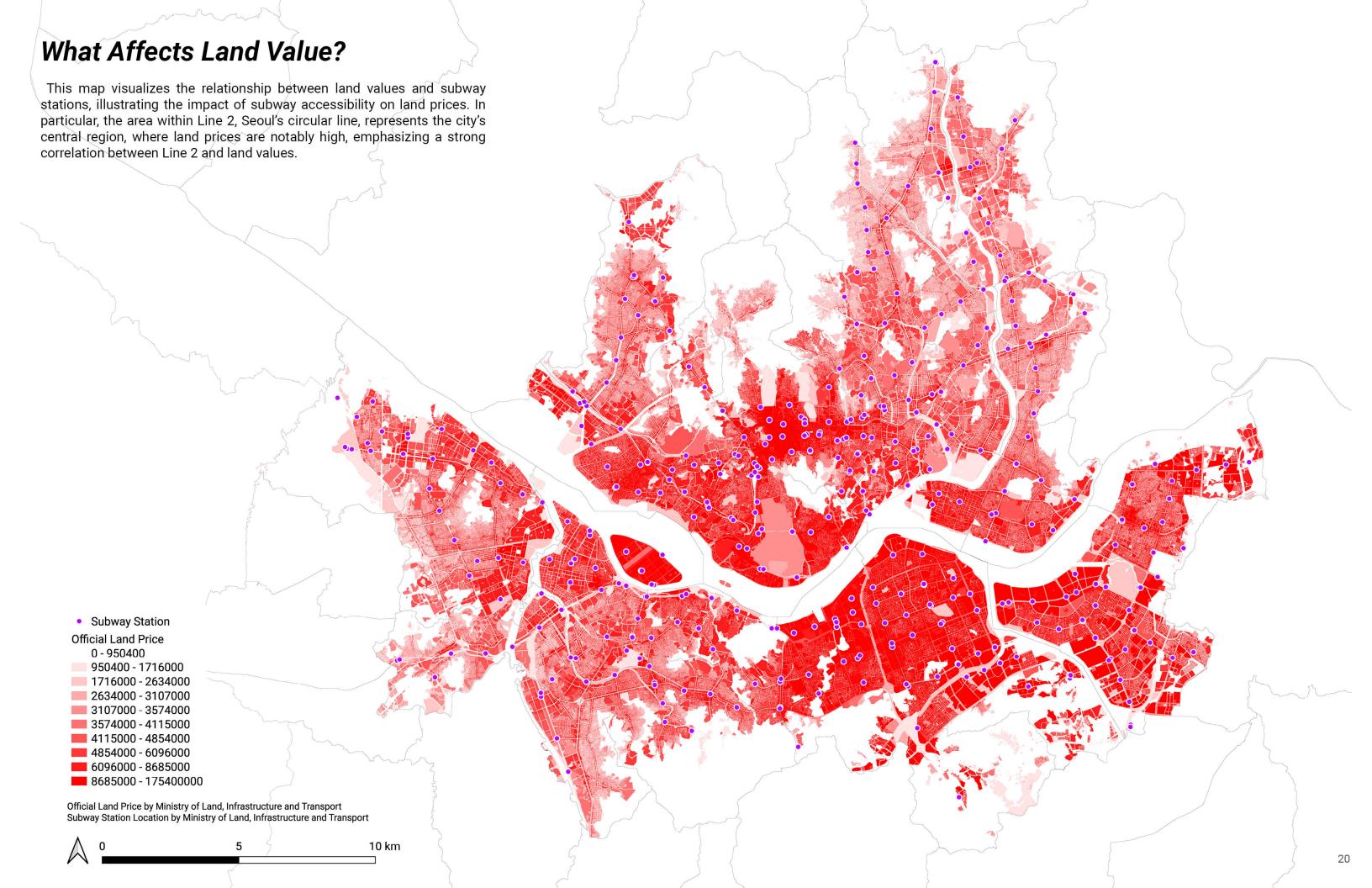






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# Map of Memory Gyeongbokgung, 1927 and Today

This map overlays the 1927 Gyeongseong city map with the present map to visually explore the changes and spatial disruptions Gyeongbokgung has undergone since the Japanese colonial period. Through the repeated construction of new buildings and demolition of old ones, Gyeongbokgung remains a site where historical traces and power dynamics intersect rather than a simple restoration.

Demolished Buildings

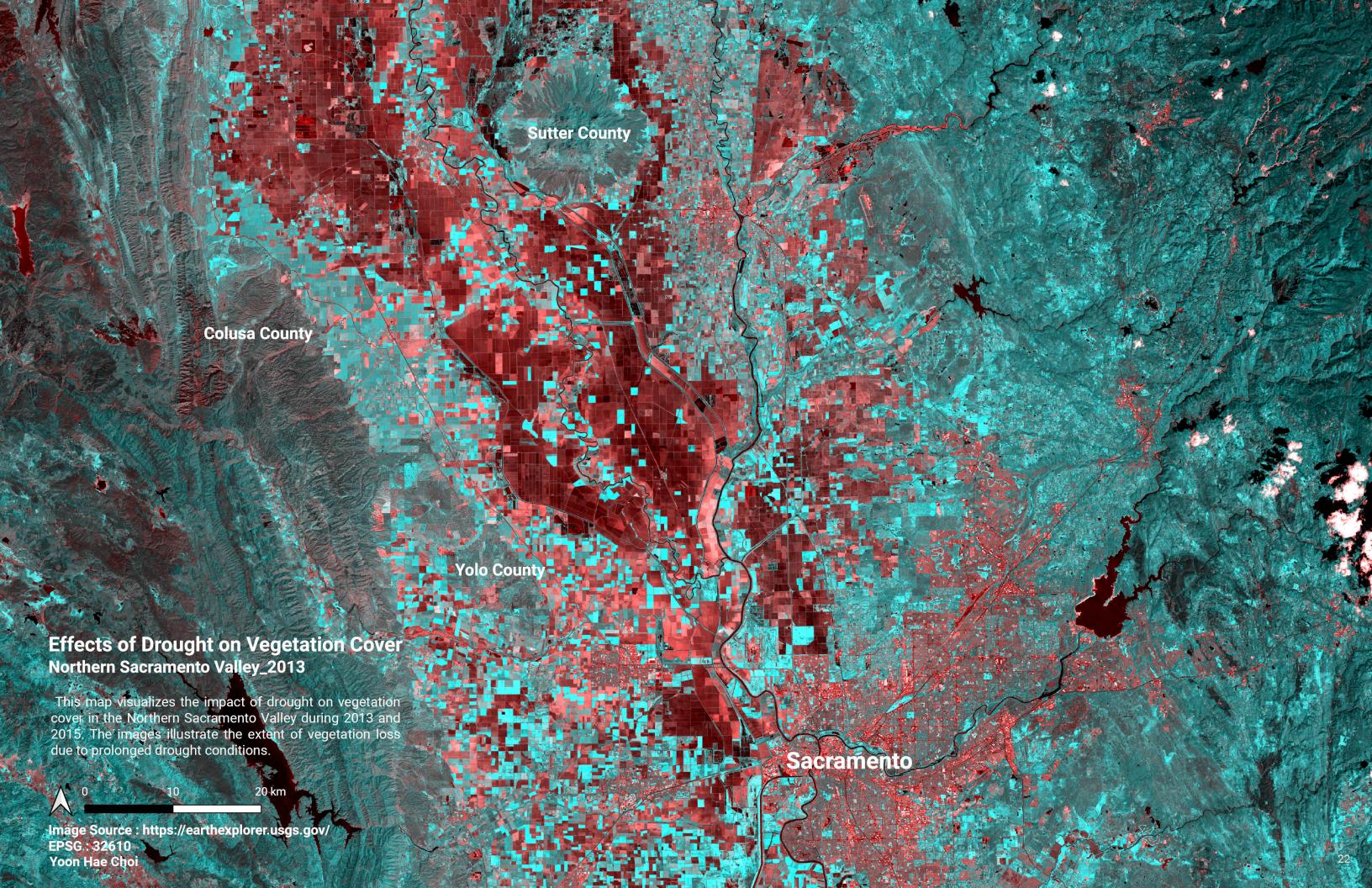
Existing Buildings

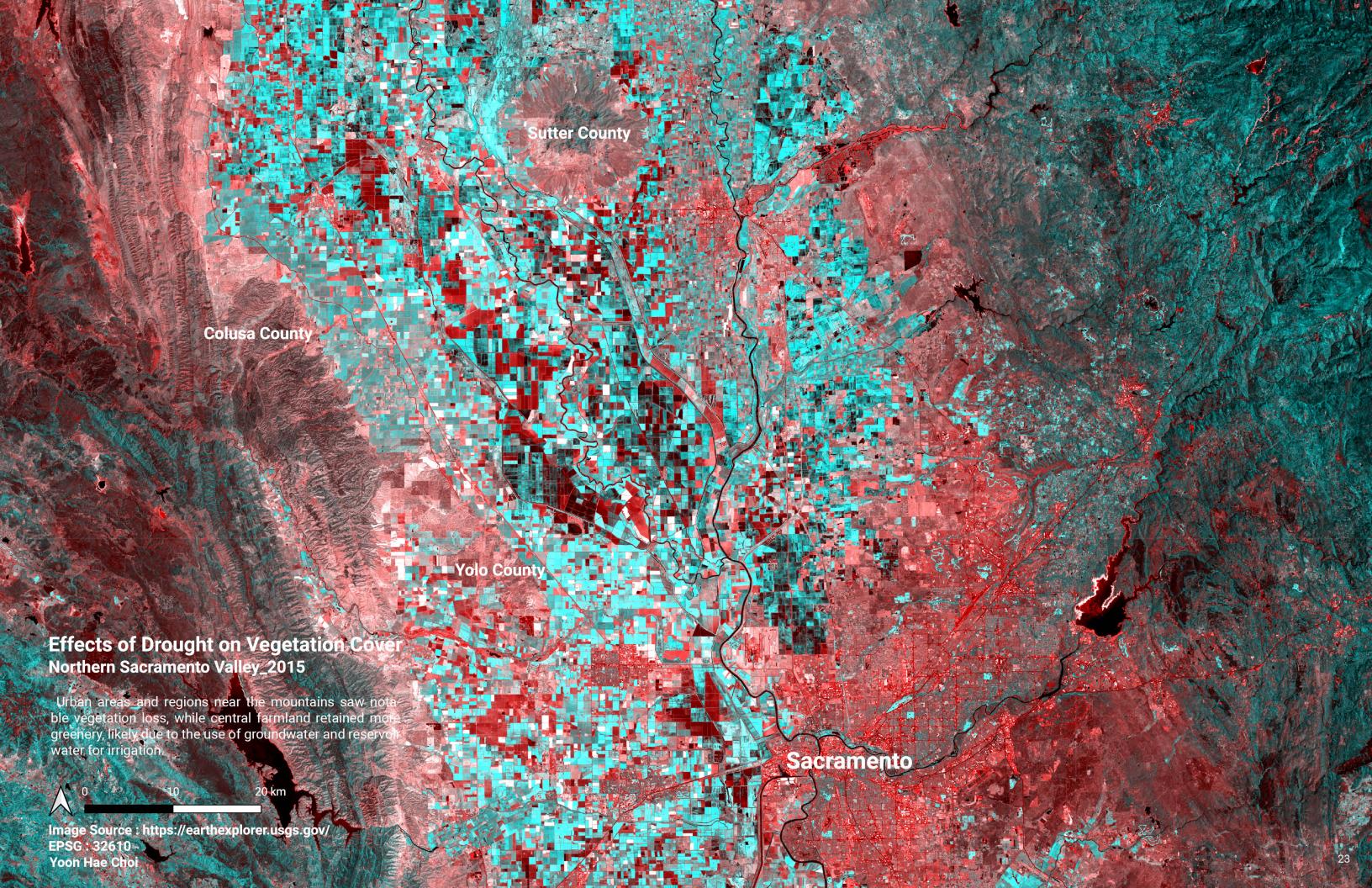
Google Satellite



Sources : "경성시가도 (1927)," Wikimedia Commons. EPSG : 3857 Made by Yoon Hae Choi







Session 3

February 9, 2025

#### **Concepts in Autonomy vs Signs**

**For:** "The Beaux Arts exhibition reminded us of the poverty of orthodox modern architecture, trapped in the narcissism of its obsession with the process of its own making, ~" (Stern, "Gray Architecture as Post-Modernism," 243p)

The Kyobo Tower in Korea stands out as a prominent landmark on Gangnam-daero through its powerful geometric form and symbolism. The brick-tiled exterior asserts a strong presence with its distinctive massiveness amid the high-rise buildings of the city. However, this intense formal expression fails to harmonize with its surroundings, isolating the building from the road and nearby structures. Despite being located at a corner of two major roads, the tower emphasizes a singular frontage toward one road rather than opening up to both.



Mario Botta, Kyobo Tower, 2003

This design approach prioritizes symbolic and sculptural imagery over an organic response to site conditions, risking the building's inability to fully fulfill its functional and social roles, ultimately leaving it as an isolated object.

**Against:** "the sign which is the building (for example, the roadside duck, first brought to fame in Peter Blake's book) and the sign which fronts the building. The first distorts the less important inside function of drawing you in. ~" (Scott Brown and Venturi, "On Ducks and Decoration," 447p)

The symbolic nature of a building itself remains relevant in contemporary architecture. This is because it does not simply dwell on symbolic forms but leaves a strong impression on the place by integrating modern functionality and spatial requirements, while also meeting practical needs effectively. For example, the Seoul Botanic Park's distinctive flower-shaped structure is not merely a representation of symbolic aesthetics but a result of functional requirements designed to maintain a large-scale greenhouse space



THE\_SYSTEM\_LAB, Seoul Botanic Park, 2019

efficiently. The design combining a steel frame structure and ETFE film supports the large space efficiently and lightly while providing optimal lighting and temperature control for plant growth. Additionally, the curved roof directs rainwater to the center, creating a sustainable system for reusing it in irrigation and wetland management.

Yoon Hae Choi

Session 4

February 16, 2025

#### **Regional Affects**

**For:** "The fundamental strategy of Critical Regionalism is to mediate the impact of universal civilization with elements derived indirectly from the peculiarities of a particular place." (Frampton, "Towards a Critical Regionalism" 21p)

Frampton's argument emphasizes the balance between universal civilization and regional identity. Critical regionalism is not about rejecting modernity but rather integrating it harmoniously with local characteristics. In contemporary architecture, where cultural uniqueness is at risk of disappearing due to globalization, this approach is essential. Architects can create meaningful spaces that resonate with local communities by reflecting materials, climate, and historical context. For example, Kengo Kuma's designs demonstrate

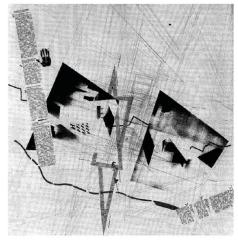


Kuma Kengo, GC Prostho Museum, 2010

that **traditional elements and modern technology can coexist**. Therefore, critical regionalism remains a valid architectural strategy that is both sustainable and context-driven.

**Against:** "The existential purpose of building (architecture) is therefore to make a site become a place, that is, to uncover the meanings potentially present in the given environment." (Noberg-schulz, "The Phenomenon of Place," 422p)

According to Christian Norberg-Schulz, architecture should enhance the meaning of a particular place, harmonize with the environment, and shape human experience. However, some architects intentionally adopt strategies that remove or obscure a sense of place, creating spaces that evoke uncertainty, disconnection, and existential anxiety. Daniel Libeskind's *Jewish Museum Berlin* is a representative example of this tendency. He deliberately designed the space to make visitors lose their sense of direction and experience unease. The building's asymmetrical corridors, tilted walls, and spaces where exits are not easily visible do not clearly reveal the meaning of the place but instead emphasize absence and instability. In particular, the 'Void', which is placed throughout the building,



Daniel Libeskind, Jewish Museum Berlin, 2001

does not convey a specific meaning but rather functions as a mechanism that allows visitors to directly experience absence itself.

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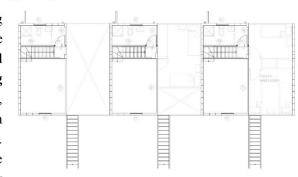
Session 5

February 23, 2025

#### **Heterogeneity Disjunctions Fragmentation**

**For:** "Deconstruction is a perpetually self-deconstructing movement that is inhabited by difference. No text is ever fully deconstructing or deconstructed." (Derrida, "Of Grammatology",78p)

Derrida's approach of analyzing and reconstructing existing structures and meaning systems remains relevant in the contemporary context, as it challenges fixed interpretations and allows for continuous reinterpretation in response to evolving cultural, social, and political conditions. In this context, Alejandro Aravena's ELEMENTAL project can be seen as an attempt to deconstruct the traditional concept of public housing. Rather than providing a fully completed architectural form, he proposed a flexible structure that allows residents to actively participate in its transformation and expansion. This approach



Alejandro Aravena, Quinta Monroy, 2003

views architecture not merely as a physical entity but as an ongoing social process, challenging conventional architectural paradigms. Additionally, by rejecting fixed spatial configurations and redefining the relationship between architecture and social elements, it introduces an unfinished structure that inherently accommodates continuous adaptation and change.

**Against:** "For all its critical acuity, much of the theoretical discourse that accompanies this work is both elitist and detached, testifying to the self-alienation of an avant-garde without a cause." (Kenneth Frampton, "Modern Architecture: A Critical History", 350p)

A Deconstructivist architecture originally emerged as a resistance against established orders but has gradually taken on an elitist tendency, transforming into a pursuit of self-indulgence by architects. The general public finds such architecture difficult to interpret and, rather than understanding its meaning, merely consumes it as a visually striking peculiarity. This detachment from social context reinforces the tendency for architecture to seek meaning solely within internal discourse rather than engaging in communication with the public. Frank Gehry's Foundation Louis Vuitton exemplifies this issue. While its extreme



Frank Gehry, Foundation Louis Vuitton, 2014

forms and complex structures attract attention, it ultimately serves as a capitalist commodity aimed at reinforcing brand identity. This demonstrates how deconstructivism, once a critical force, has been reduced to a mere aesthetic style, losing its original subversive power.

Yoon Hae Choi

Session 6

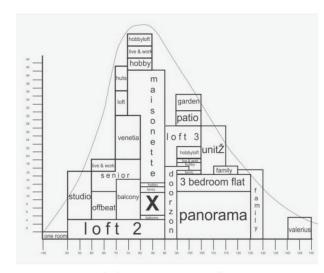
March 2, 2025

#### **Programmatic Concepts and Diagrams**

**For:** "A diagram is therefore not a thing in itself but a description of potential relationships among elements, not only an abstract model of the way things behave in the world but a map of possible worlds." (Stan Allen, "Diagrams Matter", ANY, p16)

A diagram in architecture is not merely a representation of form but a crucial tool for analyzing and reorganizing space and programs. In particular, a diagram does not define the relationship between space and programs as fixed but allows them to be continuously adjusted in response to changing environments and social contexts. The arrangement of programs in architecture is linked to economic and political discussions, and even if the spatial configuration is eventually fixed (freeze), the process remains flexible and open to multiple interpretations.

Additionally, a diagram does not directly depict the final architectural form but serves as a means of visualizing how space is organized and exploring new ways to structure it. Thus, the use of diagrams and programmatic concepts in architectural design remains relevant today and continues to serve as a significant design approach in contemporary architecture.



MVRDV, Silodam project gaussian diagram, 2003

**Against:** "I do not think of it primarily as either a message or a symbol, but as an envelope and background for life which goes on in and around it, a sensitive container for the rhythm of footsteps on the floor, for the concentration of work, for the silence of sleep." (Peter Zumthor, "Thinking Architecture", p.13)

Architecture should not merely be a physical structure that accommodates specific programs but rather a space that embodies fundamental human actions and sensory experiences. Programs such as housing, offices, and libraries are fluid, changing with time and technology, whereas human actions like lying down, walking, sitting, and gazing remain universal and constant. Therefore, architecture should not be about organizing functional diagrams but about considering how space is experienced through sensory elements such as texture, sound, light, and temperature. The reason why program-centric design is not always the definitive answer is that architecture is not just about fulfilling functional purposes; it is an essential medium that shapes how humans exist and perceive their surroundings within a space.



Junya Ishigami, KAIT Workshop, 2008

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Session 7

March 23, 2025

#### Minimalism and the Art of Construction

**For:** "Architecture is basically a container of something. I hope they will enjoy not so much the teacup, but the tea." (Yoshio Taniguchi)

Architecture is ultimately a process of organizing its relationship with nature and must exist as a harmonious whole to serve as a backdrop for life. To achieve this, the floor, columns, walls, and roof are not separate elements but are organically connected, forming a unified order. Yoshio Taniguchi's The Gallery of Horyuji Treasures exemplifies this concept to an extreme degree. In this building, the joints of the floor tiles align precisely with the columns, and this alignment extends seamlessly to the joints of the roof. Each detail is meticulously coordinated, creating an uninterrupted spatial continuity. This continuity encourages users to focus not on the building itself, but on the relationship between architecture and nature—how the landscape is framed through openings,



Yoshio Taniguchi, The Gallery of Horuji Treasures, 1999

how light shifts as it passes through louvers, and how columns define spatial boundaries. Minimalist architecture realizes this totality, functioning not as a mere visual composition but as a background that embraces human life.

Against: "Moreover, minimalism's ambition to a unified formal gestalt could be accomplished with materials that were themselves simple and uniform. Not so a building, which, however reductive its formal language, is always a complex assemblage of multiple constructive members (foundation, frame, infill, membrane) and mechanical systems (HVAC, electrical, conveyance, electronic)". (Stan Allen, "Sejima: Complexity by the Foot" in Assemblage 30, p.102)

Contemporary minimalist architecture has shifted from a philosophy of essential restraint to a tool for visual display and prestige. Spaces that appear simple are, in fact, constructed through the use of expensive materials, precise alignments, and advanced construction techniques. What looks like "emptiness" is actually achieved not through subtraction, but through concealment. Door frames are hidden, lighting is recessed, and material joints are meticulously controlled. In other words, minimalism demands complexity through concealment, turning simplicity into a carefully curated illusion. This shift weakens the original intent of focusing on essence and function, and risks reducing minimalism to a rigid stylistic formula that is detached from the diverse needs,



Renzo Piano & Richard Rogers, Centre Pompidou, 1977

contextual sensitivity, and flexibility required by contemporary life.

Yoon Hae Choi

Session 8

March 30, 2025

#### **Ideological and Ecological Envelopes**

**For:** "The eye does not see things but images of things that mean other things. ~ If a building has no signboard or figure, its very form and the position it occupies in the city's order suffice to indicate its function." (Calvino Italo, "Invisible Cities", p.13)

The building envelope is not merely a functional boundary that encloses the structure, but a medium through which cultural and political meanings can be conveyed via socially shared symbols and signs. We interpret envelopes through collective perceptions shaped by the repeated use of certain forms, materials, colors, and patterns. For example, a cross-shaped form evokes images of sanctity and sacrifice, a red color suggests political struggle or passion, and geometric symmetry easily calls to mind order and authority.

MVRDV's *Imprint* creates the impression of a "sealed envelope" being lifted like a piece of fabric, revealing a mysterious world beneath. This gesture is not a matter of form



MVRDV, The Imprint, 2018

alone, but functions as an affective device that sensorially provokes a sense of openness and reversal, and as a cultural metaphor that hints at another reality hidden beneath the surface.

**Against:** "A text's unity lies not in its origin but in its destination... the birth of the reader must be at the cost of the death of the author." (Roland Barthes, "Image-Music-Text" Chapter 6 – The Death of the Author, p.148)

The envelope of a building is often designed to convey a specific ideology or symbolism, but its meaning is never fixed. Interpretations of the envelope can vary dramatically depending on the user, the era, and the political context. The Irish Hunger Memorial envelope is a case in point. Its roof, planted with Irish soil and vegetation, carries a political message of famine and migration, but without understanding the context, it can easily be perceived as a simple landscape feature or a scenic overlook.

Ultimately, the envelope is a form of open text, whose meaning drifts depending on the context, and it is difficult for it to possess any fixed ideology on its own.



1100 Architect, Irish Hunger Memorial, 2002

Session 9

April 6, 2025

#### The Post-Critical and the Iconic

**For:** "Rather than looking back or criticizing the status quo, the Doppler projects forward alternative (not necessarily oppositional) arrangements or scenarios." (Robert Somol and Sarah Whiting, "Notes Around the Doppler Effect and Other Moods of Modernism", p.75)

Architecture that focuses on affect and everyday experience can leave a lasting impression on users, even without delivering grand political messages. In environments where utility and functionality take precedence, creating sensory spaces without a specific purpose can offer a deeper sense of liberation and emotional resonance. Rather than criticizing or exposing, such architecture functions as a form of suggestion—inviting us to see the familiar world in unfamiliar ways and delicately stimulating our senses. These spaces transcend mere functional backgrounds to become self-contained worlds and symbols that help us recover forgotten feelings and landscapes. Little Island, without serving a utilitarian need, introduces a playful new terrain within the city, and through its island-like scenery



Thomas Heatherwick, Little Island, 2021

floating above the waterfront, it evokes the sensory realization that Manhattan itself is, after all, an island.

**Against:** "Formal articulation requires a resistant material, structure, or context; without such constraint, architecture quickly becomes arbitrary or self-indulgent." (Hal Foster, "Design and Crime", p.40)

Post-critical architecture, in its emphasis on affect, visual effect, and iconic form, often neglects the existing urban context. By disregarding the spatial logic of the surrounding city, such designs disrupt established patterns of circulation and community life. Furthermore, a lack of sensitivity to historical and cultural layers risks erasing the collective memory embedded in the site. When architecture becomes a self-referential object divorced from its context, it loses its potential to engage meaningfully with place and public life. In the case of DDP, the commercial context centered on the wholesale clothing market was excessively reinterpreted as a symbol of high-end fashion, and the



Zaha Hadid, Dongdaemun Design Plaza (DDP), 2011

historical traces of the Dongdaemun Baseball Stadium were thoroughly erased.

Yoon Hae Choi

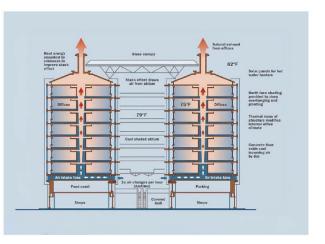
Session 10

April 13, 2025

#### 'FORM FOLLOWS CLIMATE' AND GREEN NEW DEAL OR "ELSE"

**For:** "Climate change is forcing us to rethink architecture radically, to shift our focus away from a purely visual and functional approach towards one that is more sensitive, more attentive to the invisible, climate-related aspects of space." (Philippe Rahm, "Towards a Meteorological Architecture")

The climate crisis we face today reveals that architecture can no longer be designed based on the assumption of a neutral and controllable environment. Instead, the relationship between architecture and climate can become one of the core logics of form-making, where elements such as wind flow, sunlight orientation, and ground temperature directly influence ventilation strategies, façade design, and spatial organization. This approach goes beyond technical optimization and points toward a way of building that restores a sense of living in coexistence with the climate. For example, the Eastgate Centre in Zimbabwe, inspired by termite mounds, uses chimneys to circulate air through natural convection, drastically reducing energy use without mechanical air conditioning.



Mick Pearce, Eastgate Centre, 1996

**Against:** "one that articulates a unique relationship between architecture and fantasy against a background of immanent catastrophe (Adams, 2010, p. 88). It eventually commoditizes architectural and construction performance as a selling point for a rising ethos of ecological capitalism." (Lydia Kallipoliti, "History of Ecological Design", p.35)

The intention to reflect climate in architectural form is often diluted and reduced to a visual device. Ideally, architectural responses to climate should engage with real environmental conditions—such as temperature, wind, and humidity—and adjust the form accordingly. However, in many recent projects, even these climatic elements are treated as superficial images. Instead of facilitating genuine interaction with the environment, form is often used to convey a sense of ecological sensitivity, turning climate into a language of visual expression rather than a design driver. Heatherwick Studio's 1000 Trees exemplifies this tendency: by placing hundreds of trees in planter-like structures on top of columns, the project prioritizes symbolic



Thomas Heatherwick, 1000 Trees, 2021

visual impact over a meaningful response to climatic conditions, effectively transforming nature into an aesthetic motif.

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